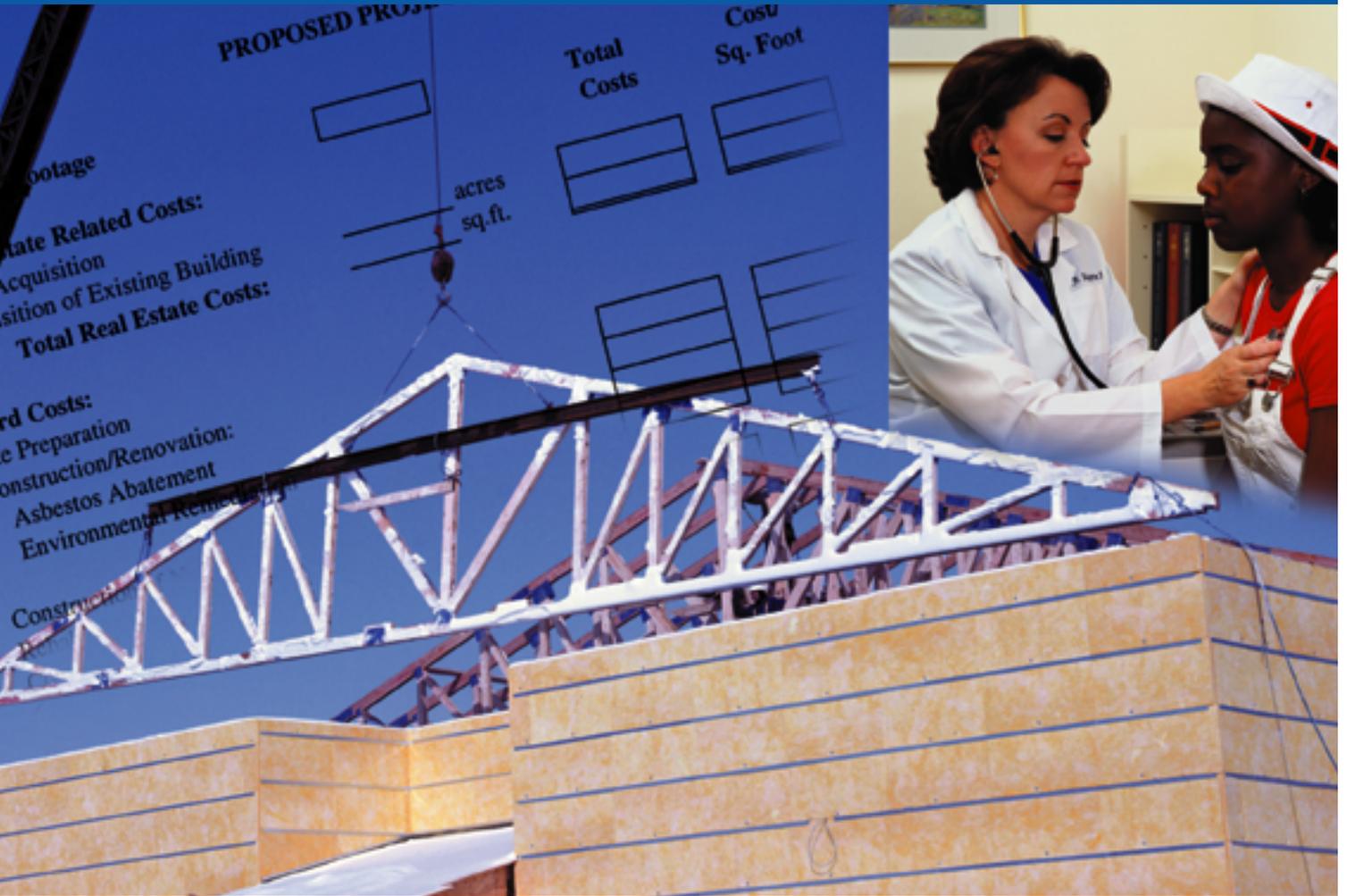
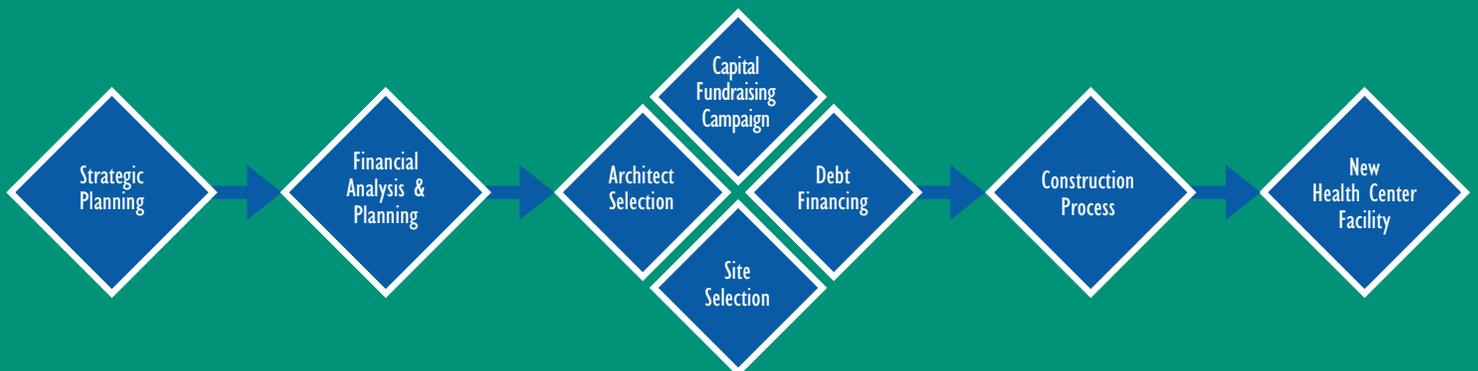


# Developing a Health Center

**A GUIDE FOR HEALTH CENTER STAFF AND BOARDS  
ON MANAGING THE DESIGN AND CONSTRUCTION PROCESS**



*Prepared by Primary Care Development Corporation and Capital Link*



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*Prepared by*  
Primary Care Development Corporation  
*and*  
Capital Link

Boston, Massachusetts  
November 2001

**Primary Care Development Corporation** (PCDC) was established to preserve and expand critically needed primary care services in underserved communities in New York City. Since 1994, it has provided financial and technical assistance to health care providers to enable them to enhance their facilities and improve their operations.

**Capital Link** is a nonprofit organization that assists health centers in planning and obtaining financing for capital projects. Working nationally out of its offices in Massachusetts, California, Louisiana, Maryland, Missouri, Washington, Washington D.C., and West Virginia, Capital Link has assisted 123 health centers in securing over \$416 million in equity and financing!

Capital Link was founded as a collaborative effort of the Primary Care Associations in Massachusetts, Illinois, North Carolina and Texas, the Community Health Center Capital Fund and the National Association of Community Health Centers. Capital Link is governed by a Board appointed by the Massachusetts League of Community Health Centers and the National Association of Community Health Centers and receives support from the Bureau of Primary Health Care.

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## ACKNOWLEDGEMENTS

CAPITAL LINK AND PRIMARY CARE DEVELOPMENT CORPORATION have each worked with numerous health centers in recent years on a variety of capital projects. Through this experience, each organization concluded that health centers seeking to renovate or build new facilities could benefit greatly from a “primer” on facility development. Accordingly, the two organizations combined forces to produce this manual.

Maggi Landau prepared the first draft. Maggi has a track record as a very successful project manager on a number of health facility projects in New York City, as well as a background as a real estate lawyer for a healthcare law firm. PCDC and Capital Link staff each contributed heavily to subsequent drafts, and industry professionals as well as health center staff advised on various sections. PCDC and Capital Link wish to extend their thanks to all who helped in this process.

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# INTRODUCTION

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## A NOTE TO HEALTH CENTER BOARDS AND STAFF

**F**acility development is a complex endeavor that relies on many different professions: architects, lawyers, contractors, and a host of others you will learn about in this manual. It can be intimidating to realize that you must depend on all these people—and pay them a lot of money—and yet you may know little about their professions or how to manage them.

While the people you have to assist you with your project will certainly have an interest in its success, the philosophy behind this manual is that you—the health center leadership—must put yourself in control of your project from the beginning. No one knows as much about your organization as you do and no one cares about the project as much as you do. This manual will help you understand the process of developing a facility project, and will help you formulate a management approach for success.

**Take a look ahead.** Give yourself a basic education about the development process and learn the basic vocabulary. Learn what job each professional is supposed to do, so you will know what to expect from them. This manual is designed to give you that information, one chapter at a time. Just like touring a foreign country, read a guidebook before you go, learn a bit of the language, and you'll have a better trip.

**Prepare to make good decisions.** The development process can be seen as a series of decisions you will make, from selecting a site to deciding how many chairs to put in the waiting area. This manual walks you through a planning process that will enable you to make good decisions. Further, it shows you how to methodically approach some of the big decisions, such as hiring your architect and builder, to assure the best outcome.

**Build a strong project team.** Be sure you hire a team with all the skills and expertise you need. The manual shows you how to select and hire the players you will need to carry out the project

**Invest in project management.** The project will not manage itself, and you cannot do it in your spare time. Money and time spent managing the project will be repaid in considerable savings down the road. This manual gives you the tools to help you select a project manager and outlines what he or she should do. It also explains how to set up the systems that will keep you on top of your project until it's done.

**Build a strong partnership of Board and staff to carry out the project.** The manual points out how both the board and the health center staff have a role to play in assuring the success of the project, and that it is critical that each support the other in performing their respective roles.

A final note. Don't expect to be able to take in this entire manual in one sitting. We recommend that you begin by reading Chapters 1 through 4 and skim the rest. Then, focus in on the later chapters one at a time when you are ready for them.

Good luck with your project—we look forward to news of your ribbon cutting!

## CHAPTER I

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# PROJECT OWNERSHIP

**W**HETHER OR NOT your health center owns the building it will occupy, your center is the “owner” of its renovation or construction project. This Chapter discusses the importance of this idea, and what this means for the roles of the executive director and Board of Directors.

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### THE OWNER OF THE PROJECT

**Y**OUR HEALTH CENTER will need to hire various professionals to help it carry out its project: lawyers, architects, and so forth. These professionals can provide information, identify options, and carry out various aspects of the project, but they cannot substitute for the owner as the ultimate decision maker. Consider the center’s unique perspective on the project:

- The center will pay for the project.
- The center’s future success is likely to depend on the project’s success, and the center has the most to lose if the project is not completed, is delayed, or comes in over budget.
- The center’s ability to serve its community, the personal and professional reputations of Board and staff, and the livelihood of staff members may depend on the success of the project.
- The center is the only participant in the development process with a global view of all activities that have to come together: planning, design, site selection, regulatory and corporate approvals, and financing and legal work.
- The center’s Board and staff are the only participants in the development process who are not limited by a narrow professional perspective. The architect views the process from the design perspective, the builder from the construction perspective, lawyers from a legal perspective, etc.

The success of the project will depend on how effectively the health center plays its role as owner. This success, in turn, will depend on how effectively the Board and executive director (ED) play their respective roles in the process.

---

### THE ROLE OF THE EXECUTIVE DIRECTOR

**S**UCCESSFUL PROJECTS typically require a unified management structure where one person—usually the ED—is given the authority to manage the project and is held accountable for its success.

Well-intentioned Boards may perceive that the ED “has too many things on his or her plate” or “doesn’t have much experience in facility development” and conclude that the Board should directly oversee some aspects of a project. This approach often leads to a lack of accountability in the process, as responsibility for decision-making becomes diffuse. One specific individual should be responsible for assuring that all the pieces fit together. Otherwise the architect, the builder, and other members of the project team may pick up mixed signals regarding decision-making. If this happens, the project team can lose focus and not work together for the best interest of the project. It also becomes difficult to hold project team members accountable for completing their individual tasks. Lack of clear decision-making authority may cause the project development process to become political, with various team members courting different factions of the Board and staff to get their way. This inevitably leads to delays, increased costs, and a finished product that is less than optimal for the organization.

For all these reasons, the Board should delegate full responsibility to the ED to carry out the project, and hold the ED fully accountable for certain core functions:

- Managing the project directly or delegating management responsibilities to a project manager or other staff members as necessary
- Establishing an orderly process within the organization for reviewing and exchanging project-related information among staff, consultants, and outside parties
- Making decisions about day-to-day project issues
- Overseeing the progress of the project
- Making presentations and recommendations to the Board about significant project issues.

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## THE ROLE OF THE BOARD OF DIRECTORS

**T**HE BOARD OF DIRECTORS has a unique role in assuring the success of a health center project. As the overall stewards of the organization, the Board should ask several questions throughout the development phase:

- **Is this project the best way to accomplish our mission?** The Board must ask the fundamental questions that can lead to a major shift in strategy, such as abandoning or fundamentally reshaping a project.
- **Is this project fiscally prudent?** The Board must consider not only whether the project is within the budget but also how it will affect future revenues and expenses.
- **Is the ED leading the project effectively?** The Board should establish a flexible framework for expectations at the beginning of the project and review it regularly over the life of the project.
- **How can the Board be more helpful to the executive director?** Health center projects are extraordinarily difficult and complex. A critical and judgmental Board will create a negative environment that can slow a project’s progress. The Board must understand the project and remain engaged through regular communications, while supporting the ED in managing the project. The Board should not, however, abandon its fiduciary responsibility to the organization, and should challenge the ED if any aspects of the project are unclear.

For the project to succeed, the executive director and Board will need to have a partnership that embodies **good communication, responsiveness, and trust.**

**Good Communication.** The ED must give the Board the information it needs to make decisions affecting the project, and to track its progress.

**Responsiveness.** The ED must be responsive to the concerns of Board members, by providing information and finding answers to questions they raise.

**Trust.** The Board must trust the ED to do his or her job. No ED can do the job well if the Board members micro-manage the project or have a suspicious attitude. If the Board and the ED do not trust each other, stop the project and find a way to re-establish trust before proceeding.

Throughout the planning and construction of the project, the ED will need to think, “How can I help the Board fulfill its responsibility to assure that the project is carried out in the best interests of this organization?” Accomplishing this task will mean facilitating effective Board oversight of the project’s development, and involving the Board in the significant decisions affecting the project. A “significant” project issue is one that defines the project and provides overall direction for all project team members. Examples are:

- Project scope (building size, services to be provided, numbers served, etc.)
- Project budget
- Project schedule
- Selection of major project consultants (typically the architect and builder)
- Site selection
- Site acquisition or lease terms
- Final design option
- Project funding and the terms of any loans.

It is often useful for a Board to establish a project committee to which the ED can report frequently and from which he or she can find support during meetings of the full Board. If a particular Board member has relevant knowledge or skills to offer, he or she may be designated to work closely and regularly with the ED.

**TIP:** Many resources are available, beyond the scope of this manual, to help not-for-profits succeed. The National Association of Community Health Centers (NACHC) has developed many programs targeted specifically towards health center boards. The National Center for Nonprofit Boards (NCNB) is another resource.

## CHAPTER 2

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# PLANNING YOUR PROJECT

**T**HIS CHAPTER WILL DISCUSS five essential tools to help you plan your project and end up with what you set out to achieve.

Before you select a site, and before your architect can begin designing your project, you need to be able to answer some fundamental questions about your project:

- What services will you offer? This is answered in a **Program Plan**.
- How much and what kinds of space will be required? This is answered in a **Space Plan**.
- How much can you afford to spend? This is outlined in a **Project Budget**.

Before you launch the design stage, you will need to answer two more questions:

- What are all the things you will need to do to get the project done? This is outlined in a **Project Workplan**.
- How long will it take to complete the project? This is outlined in a **Project Schedule**.

Each of these fundamental tools for project planning and management is discussed in detail below.

---

### THE PROGRAM PLAN

**W**HETHER YOU'RE OPERATING an existing health center or planning a new one, the fundamental questions you must answer are what you expect to do in the center and who are the constituencies you intend to serve. In preparing business or strategic plans for the center, you will have tackled some or all of the issues you must address to answer these questions. While you may use your organizational mission as a basis for decisions on services and client groups, that mission should also be grounded in satisfying community need. How will you attract patients if no one needs the services you intend to offer?

The following questions will provide you with a set of issues to consider in planning your program. These questions have a chicken-and-egg nature; you cannot consider them strictly sequentially, so they are not presented that way. In answering them, you should err on the side of caution—a center that is too big can pose as many difficulties as a center that is too small.

- **Who do you expect to serve?** You can categorize your intended patients in several ways, perhaps by geography, gender, age or special needs.

- **What services will you offer?** What is your model of care? What specialty and ancillary services will be offered on site, and which services will be referred elsewhere?
- **How many patients do you expect to serve?** The number of patients you expect to serve will be driven by the demand for health care in your market, the services you will provide, the hours you will be open, the size of the facility, and the number of provider and support staff. To answer this question, start with assumptions about annual numbers of patients, numbers of visits per patient, and daily volume of patient activity for the center overall and for each service.
- **What kinds and how many staff will you need?** Consider the types of services you expect to provide and the number of patients you expect to serve. What are the typical productivity levels for each specialty and each type of provider? What is the model of care and the level of support staff you'll provide? For non-provider staff, which services will you provide on-site through direct staff, and which will you obtain through purchased services from affiliates or outside vendors.

Since what you'd like to offer must always be balanced by what you can afford to offer, program planning must be closely tied to business planning. You need to ensure that your program plan can realistically be supported by your ability to generate operating revenues.

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## THE SPACE PLAN

**Y**OUR ARCHITECT CANNOT BEGIN designing the facility until you can describe what you want. Based on the program plan you developed outlining services you intend to offer and staff to provide those services, you next need to create a space plan by **listing spaces, estimating square footages, and calculating a total building size.**

**List every room or space that you need for your program.** Also describe how these rooms will be grouped (e.g., in service or departmental clusters) and what services should be near each other.

**Estimate the square footage for each individual space.** This depends on such factors as the number of people likely to be in the space and the equipment to be housed there, as well as code requirements.

**Calculate the total expected square footage of the facility.** You base this calculation on the program area and the space needed for hallways, mechanical rooms, and so forth. An experienced health care space planner will know how to use standard multipliers to determine the size of these non-program areas.

Architects are often hired to prepare space plans, although a space planner need not be an architect and space planning happens before the standard package of an architect's design services begins. Space planning can be a separate contract—even a different architect—from the one for project design. It is important to note that an architect who is skilled at space planning for health centers may not be the best one to carry out the design, prepare construction drawings, or monitor construction. Thus, it may help to think of space planning as separate from other architectural services and select the best space planner regardless of a firm's other strengths.

**TIP:** The space plan is an essential part of the checks and balances built into the management process. By listing every single service and activity (and you do want to list everything!) you can ensure you have a space for each and avoid the problem of “orphans”—areas you forget to include in the initial facility design. Orphaned spaces are often discovered too late in the design process to be incorporated into the design. By noting the size of every area, you can be sure to create the correct space—by room, function, and department. This too can save you from having to make expensive corrections later.

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## THE PROJECT BUDGET

**T**HE PROJECT BUDGET identifies all the costs you will have to incur to build and start operating your center. Your project budget sets the financial parameters of the project, and is a vital tool to ensure that you have accounted for all of the funds you need to complete the project. In the planning stage, the budget is a set of “informed guesstimates.” As you progress through the development process, you and your team should continually refer to and refine the budget, to make it more detailed and accurate. To be an effective tool, the budget must be both comprehensive and honest. A comprehensive budget includes a separate line item for every cost you will likely incur. An honest budget includes a realistic amount for each.

If you haven't done this before, you may be shocked and dismayed at what it will cost to plan, develop, and build your project. In response to this initial shock, some people seem to resist the process of working to identify every possible cost, believing that if they don't find out about a cost, it won't hit them later on. Your goal should be to have all the shock in the beginning, and no surprises later on when you have limited options for addressing them. To succeed, you must foresee what it will cost to carry out the project and assure that you obtain adequate funds for the full project cost.

Do not assume that your architect, your attorney, or some other advisor will think of everything for you. Ultimately, it is your wallet that will be affected, not theirs, and it is up to you to ask your advisors all the questions you need to guarantee an accurate budget. If you discover late in the process that you left something out, you can face undesirable cuts to other parts of the project, or delays while you find additional money.

**TIP:** Don't fall prey to under-budgeting. A comprehensive and honest project budget may rival or exceed your annual operating budget. As unsettling as this discovery can be, you must understand that you have to spend money to ensure the project's success. While there are appropriate ways to save money on a project, under-budgeting is not one of them.

Project budgets have five basic components: **site acquisition**, **hard costs**, **soft costs**, **furniture, fixtures and equipment**, and **contingencies**. A list of project budget categories is attached as Appendix A.

**Site Acquisition Costs.** These are the costs of acquiring the property. Obviously, you incur these costs only when you buy your site outright and not when you rent or lease the property. Costs associated with the acquisition, such as real estate brokers' fees, attorneys' fees, and repayment of taxes and utility costs, are typically included in this category.

**Hard Costs.** Sometimes called “brick and mortar” costs, these are the costs for improving the property and constructing the center. Before construction, hard costs are generally lumped together in one category as construction costs. During construction, the specific items that constitute construction costs—such as demolition, excavation, electrical, plumbing, and fixed equipment costs—are individually listed and monitored. Traditionally, the contractor's fee is included in hard costs.

**Soft Costs.** These include professional and consulting fees, environmental assessments, surveys and permits, services related to titling, inspecting and appraising the property, financing and closing costs, and other costs related to temporary utilities, moving or rent. Since most of these costs are expended during design, soft costs are generally itemized to control expenditures.

**Furniture, Fixtures and Equipment (FF&E).** These are the costs for all the new/additional furniture and equipment that must be purchased in order for the health center to provide services. FF&E costs are different from hard costs in that they are not permanent fixtures of the building

**Contingencies.** These are funds budgeted for potential additional hard, soft, or FF&E costs to cover unexpected events. A contingency helps you “save for a rainy day,” an occurrence that is more likely to happen than not. You approach the project with the hope that your budget is sufficient, but you never actually know whether it will be until the project is complete. It is important to remember that having contingencies does not let you off the planning hook; you must still work diligently to assure that nothing is left out of your budget. Contingencies are not a solution for a poorly planned, poorly budgeted, or mismanaged project. They can, however, help you avoid an extended project delay while you search for funds to pay for unanticipated but necessary expenses. These costs are described in more detail on the following pages.

**TIP:** You must assume you will spend the amounts you have budgeted, including the contingency amounts. Do not plan on having funds available for extra items or enhancements not included in the original budget. In the event that the project comes in under budget, the unspent money may be available for project enhancements. Develop a list of project additions or enhancements and be ready with an implementation plan. Be sure to discuss this with your funders/lenders so they will be prepared if the opportunity arises.

---

## ABOUT BUDGETING FOR CONTINGENCIES

**C**ONTINGENCIES MAY BE needed for various reasons:

- Construction bids can come in higher than you expect.
- Construction costs can rise due to increases in wage rates, material costs, or the need to work during the winter instead of the summer (requiring heat and other incidentals).
- Renovation costs can rise as builders discover unexpected conditions while work is in progress.
- You may need redesign or other professional fees to resolve one of the situations above.

Contingencies may be incorporated into budgets in various ways. You may use separate lines, or “hide” contingencies within lines by making the lines larger than you expect to need. Generally, it is best to try to be as accurate as possible with each budget line and then explicitly include contingency lines. This makes for very transparent management of the project. However, if circumstances make it impossible for you to raise your stated contingency lines to levels that you consider adequate, you may need to use the “hidden” contingency strategy.

Depending on the source of the contingency—**construction, design, soft costs, or FF&E**—you will use different rules of thumb.

**Construction contingency.** This is for use after construction has started and some unexpected condition or event increases construction costs. These contingencies are budgeted from a low of 5% of the construction budget for the most straightforward of new construction projects to up to 20% of the construction budget for gut rehabilitations of buildings likely to have unforeseen problems.

**Bidding or “design” contingency.** This is to give you some room to move in case the contractors’ bids come in higher than your budget. This often happens when a project is delayed because of problems obtaining financing and inflation raises construction costs in the mean time. A bidding contingency will give you some measure of protection against that situation. One way to achieve this contingency is to ask the architect to design a project that can be built for a sum that is 90% to 95% of the project construction budget. In case bids come in a little higher than expected, you may be able to move ahead without redesigning or cutting things out of the project. Alternately, some people budget 5% to 10% of the construction budget amount as an explicit bidding contingency.

**Soft cost contingency.** This is to cover additional architectural, legal, or other professional or incidental costs that arise. There are few rules of thumb for such costs, but 10% to 20% of the soft cost budget is frequently set aside as a soft cost contingency.

**TIP:** Discuss contingency line items with your lender, but do not reveal the existence or amount of contingencies to your builder, architect, or other project consultants. If they know you have built a cushion into the budget, they may not be as vigilant at keeping their costs within their respective budgeted amounts.

**Furniture and Equipment Contingency.** This contingency gives you a cushion for items that may have been overlooked in the program planning process, or increases in pricing due to delays in the project. Typically, these contingencies are budgeted at 5% to 10% of the total FF&E budget.

## THE PROJECT WORKPLAN

**T**HE PROJECT WORKPLAN guides you through all of the activities and key decisions needed during all the phases of project development. Some form of project task outline or workplan is invaluable. It forces you, the project manager, and your team to think through each step of project development and makes it less likely that some important step will be forgotten.

As shown in Table 1, typical work plans track **project definition, team selection, site issues and acquisition, third-party permits and approvals, design and construction phasing, legal work, and financing.**

**Table 1: Elements of a Work Plan**

Project Workplan Component	Purpose	Timing
Project Definition	<ul style="list-style-type: none"> <li>• Defines scope of project</li> <li>• Outlines planning steps required to prepare strategic plan</li> </ul>	<ul style="list-style-type: none"> <li>• Develop during strategic planning</li> <li>• Incorporate into business plan</li> <li>• Refine as necessary during entire life of project</li> </ul>
Team Selection	<ul style="list-style-type: none"> <li>• Identifies all necessary team members, both internal and external</li> <li>• Defines roles for all team members</li> <li>• Outlines process/criteria for consultant selection</li> </ul>	<ul style="list-style-type: none"> <li>• Identify team members during project planning phase</li> <li>• Identify cost of consultants during budgeting phase</li> </ul>
Site Issues/Site Acquisition	<ul style="list-style-type: none"> <li>• Details site selection process</li> </ul>	<ul style="list-style-type: none"> <li>• Identify site selection criteria during business planning phase</li> <li>• Identify potential sites during business planning phase</li> <li>• Define site costs during budgeting phase</li> <li>• Purchase and prepare site before construction</li> </ul>
Third-Party Permits and Approvals	<ul style="list-style-type: none"> <li>• Outlines steps and time frames for any required regulatory, governmental, or third-party approvals</li> </ul>	<ul style="list-style-type: none"> <li>• Identify all necessary approvals during budgeting phase</li> <li>• Incorporate permit and approval schedule into project timeline</li> <li>• Update and adjust as necessary</li> </ul>
Design and Construction Phasing	<ul style="list-style-type: none"> <li>• Describes all required tasks and actions</li> </ul>	<ul style="list-style-type: none"> <li>• Create as part of schedule</li> <li>• Update and adjust as necessary</li> </ul>
Legal Work	<ul style="list-style-type: none"> <li>• Describes legal work required at various stages during life of project</li> </ul>	<ul style="list-style-type: none"> <li>• Engage attorney at start of project</li> <li>• Utilize attorney as necessary throughout life of the project: prepare/review site acquisition documents, contracts with architects and builders, necessary lease documents, etc.</li> </ul>
Financing	<ul style="list-style-type: none"> <li>• Outlines steps to secure financing for the project</li> <li>• Determines levels of debt vs. grant/gift financing</li> <li>• Defines fundraising process if necessary</li> </ul>	<ul style="list-style-type: none"> <li>• Define during project planning</li> <li>• Refine as necessary during budgeting fundraising, and building process</li> </ul>

The project manager should use the workplan to focus on upcoming tasks and plan for them, and should continually update it. You can also use the workplan to remind yourself of work products that are due from your consultants, information that your staff needs to provide, or actions with specific deadlines.

---

## THE PROJECT SCHEDULE

**T**HE PROJECT SCHEDULE provides a chronological timeline for beginning and ending the significant tasks and activities that must be undertaken during your project's development. It lets all of the team members know what's expected of them. To be an effective control tool, the project schedule must be both comprehensive and honest. A comprehensive schedule shows the deadlines for all significant project tasks. An honest schedule shows the realistic amount of time it takes to complete each task.

The project manager should use the schedule to monitor performance by project consultants and participants and to make sure all parties are planning and coordinating their activities. Used properly, the project schedule should alert the project manager and the team to areas of potential delay or schedule conflicts. The project manager should continually refer to the schedule, update it, and circulate it to team members.

Through preparing your program plan, space plan, budget, workplan, and schedule, you will define your project. You will also create five important tools for assuring that you end up with the project you need, at the cost you planned on, and in the time frame you expected. At the end of the planning phase, you'll be ready to select the best site and manage your team through the design process.

## CHAPTER 3

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# PROJECT MANAGEMENT

**A**S OWNER, YOU MANAGE the project by setting up a system to watch and control what happens. To be effective, the project management system must be based on an approach that encourages awareness, coordination, and vigilance.

**Awareness.** Someone must be aware of every aspect of the project, to assure that nothing gets left out and that all aspects of the project are considered in making decisions.

**Coordination.** Someone must coordinate actions and information to make sure that decisions, deadlines, and requirements in each area of the project mesh with those of other areas, and that all parties get the information they need from one another.

**Vigilance.** Someone needs to monitor the three key parameters that define the project: the project scope (or program), the budget, and the schedule. It is easy to put these project elements in a drawer after they are settled and forget about them, but that is the opposite of management. Throughout the life of the project it will be important to acknowledge the impact that various decisions have on the project scope, budget, or schedule. Any decision to allow changes in these areas must be made carefully, as it could have broad ramifications for the project.

You need to take three steps to set up your project management system:

1. **Appoint the project manager.**
2. **Organize the flow of information.**
3. **Manage the flow of information.**

This chapter will discuss this process.

---

### APPOINTING THE PROJECT MANAGER

**S**UCCESSFUL PROJECT MANAGEMENT starts with designating a project manager: the one person who will be aware and vigilant, and will coordinate the process on behalf of the owner. It is important to designate the project manager (PM) as early as possible in the facility development process. You want the PM to have a global understanding of the project and be involved in as much of the up-front planning as possible.

The project manager reports directly to the executive director (ED), and facilitates the ED's participation in the project, much as the ED facilitates the Board's involvement in the project. Generally the ED should not take on the additional role of PM as it takes so much time.

**TIP:** Project management is not the place to cut corners. The money and effort you invest in a good manager and good management systems will be repaid—sometimes many times over—in a project that better meets your needs, is completed sooner, and costs less.

Six criteria are key in selecting a person to act as the project manager: **availability**, **inquisitiveness**, **assertiveness**, **detail orientation**, **people skills**, and **decision-making skills**.

**Availability.** The PM must have enough time to devote to the project. Often it can be a full-time commitment. The PM is the “traffic cop” on behalf of the health center, the one who sees the big picture and knows which staff member or consultant is handling each aspect of the project and the status of that person’s work. With this wide perspective, the PM knows what task needs to slow down and what task needs to speed up to coordinate the work of the project team. The PM keeps the project flowing.

**Inquisitiveness.** The project manager must be self-confident and assured. A good PM is a firm decision-maker and unyielding in pursuit of answers to questions that arise. The PM should stay in touch with all project constituents, listen for information that may relate to the project, ask questions about how that information affects every task that is underway or scheduled, and take the appropriate action.

**Assertiveness.** The project manager should not be afraid of appearing aggressive or pushy. Given the tremendous responsibility to ensure that the project proceeds on time and within budget, the PM should not let things happen, but must be a dynamic player driving decisions during the entire planning and building process.

**Detail Orientation.** For a project to proceed successfully, the PM must track many small details, and attend to the status of the various activities in process or anticipated. This crucial work safeguards the project from potentially costly errors.

**People Skills.** The project manager must be adept at handling all types of people, with a range of egos and personalities. The PM must be able to see project team members as equal colleagues—each with a specific and necessary function—and give each member the freedom to perform his or her job, but within the approved program, schedule and budget.

**Decision-making Skills.** The project manager must also have the ability to recognize when a decision is needed, decide who must make the decision, and ensure the decision is made in a timely fashion. This ability is one hallmark of a successful PM.

**TIP:** An effective project manager cannot have too many non-project responsibilities that detract from managing the project. A common mistake is to designate as PM an employee who already has other full-time responsibilities at the health center. You may see good reasons for choosing such a person, but people with competing responsibilities often find that they are following a project rather than leading it, with the result that no one is really watching out for your interests.

In addition to thinking about the skills your project manager needs, you will also want to consider whether that person should be drawn from your staff or hired from outside the organization. Whichever choice you make, remember that the person who performs the job will be less important than ensuring that the job is being performed. Table 2 outlines the pros and cons of several different options for selecting a project manager.

**Table 2: Options for Selecting a Project Manager**

<b>PM Options</b>	<b>Description</b>	<b>Pros</b>	<b>Cons</b>
Executive Director	The ED is actively involved in the project's day-to-day operations.	<ul style="list-style-type: none"> <li>• The ED has first-hand knowledge of all aspects of the project.</li> <li>• Decisions are made quickly, with very little red tape.</li> </ul>	<ul style="list-style-type: none"> <li>• The ED does not have adequate time for other aspects of his or her job.</li> </ul>
Existing Employee	The ED designates a staff member to act as PM. This person might be the facilities manager or another trusted staff member.	<ul style="list-style-type: none"> <li>• The ED knows and trusts this staff person.</li> <li>• The staff person knows the health center and the shortcomings of the current facility.</li> <li>• The staff person understands the center's strategic direction.</li> <li>• The staff person knows the personalities of the internal players.</li> </ul>	<ul style="list-style-type: none"> <li>• Project management is time consuming and will take the staff member away from other duties.</li> <li>• The staff member may not be familiar with project management or design and construction.</li> </ul>
Newly-Hired Employee	The ED budgets for and hires a PM specifically to manage the building project.	<ul style="list-style-type: none"> <li>• The ED can hire someone with specific project management experience.</li> <li>• The PM job can be structured with only project management responsibilities.</li> </ul>	<ul style="list-style-type: none"> <li>• The job may only be temporary and the ED will have to let the person go when the project is complete.</li> <li>• The new PM does not know the organization and may have a sharp learning curve.</li> </ul>
Consultant	The ED budgets for and hires a project management professional.	<ul style="list-style-type: none"> <li>• The ED can hire someone with specific project management experience.</li> <li>• The PM is not a permanent employee, and is only engaged for the length of the project.</li> </ul>	<ul style="list-style-type: none"> <li>• A consultant is not familiar with the health center.</li> </ul>

In this process, do pay attention to titles, as they can be confusing. Someone may be called a “project manager” but not be the owner’s project manager. Three titles that cause confusion are the **architect’s project manager**, the **owner’s representative**, and the **clerk of the works**.

**The Architect’s “Project Manager.”** Your architect is not the project manager. Your architect may assign a “project manager” to the job but this person manages only the architect’s responsibilities and consultants. The architect and its project manager do not manage you or any other consultants or professionals hired by you. It is possible to hire your architect to act as your project manager, which will involve services beyond the usual architect’s scope of services and therefore additional costs. This arrangement diminishes your ability to manage the architect, who may then have too much control over the entire project.

**Owner’s Representative.** An owner or lender will often hire someone to oversee the project during the construction phase and will sometimes do so during the design phase. An owner’s representative typically has a background in architecture, engineering, or construction and focuses on those aspects of the project. In contrast, a project manager is involved in the project from its inception and must pay attention to all aspects of the project. If your project manager is inexperienced with construction and no one on your staff has a construction background, you may want to consider hiring an owner’s rep with construction experience during the design phase. A knowledgeable construction professional can work with you and your architect to find ways to reduce costs.

**Clerk of the Works.** The owner may hire someone to monitor the progress and status of construction. A clerk of the works can have a broad role, like an owner’s representative, or a narrow role, such as maintaining construction records for the owner. This role is typically not needed in health center projects.

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## ORGANIZING THE FLOW OF INFORMATION

**Y**OU CANNOT CONTROL your project unless you control the flow of information. A successful project requires a system to organize and share information—from the beginning—and a person to manage this flow.

Four documents will help you to organize your project information:

- The Program Plan
- The Project Budget
- The Project Workplan
- The Project Schedule.

These four documents contain significant information about your project; used together they are a powerful way to monitor and direct its development. You should prepare these documents during the preliminary planning phase of the project and refer to them every day until the project is complete. They remind you to focus on the tasks that must be performed and the goals that must be met.

Each of these documents is briefly defined again here in Table 3 (p. 15).

**Table 3: Key Project Documents**

Document Type	Purpose	When to Create
The Program Plan	<ul style="list-style-type: none"><li>• Outlines precise goals for the building</li><li>• Provides narrative description of planned services and model of care</li><li>• Provides demographic and volume detail</li><li>• Provides necessary information to develop detailed space plan</li></ul>	<ul style="list-style-type: none"><li>• As part of the business plan</li><li>• After defining the market and population the HC will serve</li><li>• After determining the demand for services in the marketplace</li></ul>
The Project Budget	<ul style="list-style-type: none"><li>• Sets financial parameters for the project</li><li>• Helps track and control costs before and during construction</li><li>• Itemizes all project costs</li><li>• Includes contingencies for unexpected costs</li></ul>	<ul style="list-style-type: none"><li>• Preliminary budget: as part of business plan</li><li>• Finalized budget: after completion of detailed construction bid documents</li><li>• The budget will become more detailed at each stage of project development</li></ul>
The Project Work Plan	<ul style="list-style-type: none"><li>• As a project guide, outlines all significant decisions/actions and relevant dates</li><li>• As a project status summary, records when each milestone is reached</li></ul>	<ul style="list-style-type: none"><li>• After project has been approved by board of directors</li><li>• Updates continue throughout life of project</li></ul>
The Project Schedule	<ul style="list-style-type: none"><li>• Shows all significant tasks and activities in chronological order</li><li>• Details timing and duration of each activity or task</li><li>• Helps keep all parties on schedule</li><li>• Presents project timeline graphically (see Appendix B)</li></ul>	<ul style="list-style-type: none"><li>• As part of the business plan</li><li>• Updates continue throughout life of project</li></ul>

### MANAGING THE FLOW OF INFORMATION

**A** KEY TASK FOR THE OWNER is to assure that information is distributed effectively among all the project participants. Project team members need access to all the necessary information on a timely basis, so they can avoid mistakes and delays.

The project program plan, budget, workplan, and schedule are useful ways to organize details about the project that might otherwise be lost or forgotten. Updates to these documents are also useful for sharing information with your staff and other project team members as the project progresses.

Two effective ways to manage the flow of information are regular project meetings, and regular written communication.

#### Regular Project Meetings

Because project development requires so much information exchange, coordination, and follow up, regular project meetings are essential to communicate well and prevent problems. Ideally, project meetings should occur at least weekly throughout the entire project.

**TIP:** Mandatory attendance at weekly project meetings may cause some grumbling among your participants, but require it. It is the single most effective way to exchange information and make sure the project is on track. If you take the meetings seriously, so will the other participants.

At the beginning of the development process, the project manager has several tasks:

- Establish a standing schedule for project team meetings
- Establish a list of mandatory attendees (project manager, architect, construction manager, if applicable)
- Invite relevant consultants, other professionals, and representatives from the owner's staff, as necessary
- Prepare and circulate a written agenda
- Establish who takes meeting minutes (generally the architect during the design phase and the builder during the construction phase), and distribute the minutes to the team members, and others as necessary, in a timely manner.

To keep the executive director informed about the status of the project, the project manager should regularly summarize the weekly project meetings. Or, the ED may wish to attend the project team meetings. In either case, the PM should alert the ED to any issues as soon as they arise so they can be resolved quickly. It is the ED's responsibility to use the information the PM provides to inform the Board of the project status.

Other meetings will be necessary in addition to the weekly project meeting, and the PM should have the option of attending.

## Regular Written Communications

Written communications are just as important as meetings. Written meeting minutes and all the other tools discussed in this section are essential in the design and construction business, where many facts must be communicated accurately and quickly, and misunderstandings result in costs that someone must bear. Almost always, they cost the owner, in one way or another.

Written communications are also essential for accountability. It is easier to hold someone accountable if the relevant task was agreed to in writing. Finally, disputes—common and costly in facility development—are easily resolved when you can refer to written communications confirming agreements or information.

Useful written tools include a **directory of project team members, agendas, minutes, and records of messages sent.**

**Project Team Directory.** At the beginning of the development process the project manager should prepare a master project directory including name, street and email addresses, and telephone and fax numbers for the owner and all members of the project team. This list should be given to each team member. The directory should indicate who receives every piece of correspondence and who receives only certain pieces.

**Meeting Agendas.** A standard agenda, used consistently at all meetings, will show participants what to expect, and help meetings go smoothly. To keep the project on track, always review the four key documents: program plan (or a summary of it), budget, workplan, and schedule.

**Meeting Minutes.** The project manager should assure that someone records (very concisely) the decisions reached in the meeting and then distributes these minutes to participants within a day or two of the meeting. Each time, the transmittal should state that the minutes will stand as the record of the meeting unless corrections are received within some reasonable period, say three days. While the architect, builder or other member of the project team may provide this service, this arrangement does not relieve the PM of taking careful notes and communicating the need for corrections to the minutes if necessary.

**Letters, Faxes and Transmittals.** Every communication should include a “cc” list showing clearly to whom the communication was sent. Furthermore, any item sent from one party to another should be accompanied by a transmittal form, stating who sent what to whom and when. The project manager should get a copy of every communication among project participants and use it to verify that the correct parties are receiving information.

**TIP:** The workplan, budget, schedule, meeting agenda, meeting minutes, and project directory are some of the standardized ways the project manager should manage and share information. Other team members will also have information that needs to be communicated. Early in the project, the PM should meet with the team to decide what other kinds of standardized information should be prepared and circulated and to assign responsibility for doing so.

## CHAPTER 4

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# ORGANIZING YOUR TEAM

**E**VEN A MODEST facility development project is likely to involve dozens of people—even before the construction phase. You will work with some of them almost daily, like your architect, staff, or key Board members. Others, such as the engineer who designs your building foundation, you may never meet, but their work will affect the success of your project. The key to getting what you want out of the process is assuring that the efforts of all these people are coordinated, and kept focused on your goals.

The participants in the development process can be divided into two categories: **primary players**, and **supplementary players**.

Together, these players make up your project team. This chapter will introduce the players on the team, and discuss the roles you should expect them to play. Then you can decide how to structure your team to be most productive.

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### THE PRIMARY PLAYERS

**T**HE THREE PRIMARY members of the project development team are the **owner**, the **architect**, and the **builder**.

The owner's role was described in Chapter 1. This chapter addresses the other two primary members and answers five vital questions about them:

- Who are they?
- What do they do?
- When do they do it?
- What should you expect of them?
- How much should you pay?

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### THE ARCHITECT

#### Who Is the Architect?

The architect is your design expert. The architect is hired by the owner and reports to the owner. The exception to this is the “design/build” approach in which the architect and the builder work in a single firm hired by the owner. The design/build firm will have a lead project person who will manage the

work of both the architect and the builder. This lead person will report directly to the owner. Be aware that you lose a certain level of control if you choose the design/build approach.

Regardless of the type of approach you choose, it is important that the architect or architectural firm have experience in designing ambulatory health care facilities. Otherwise, you run the risk of poorly designed space and time delays related to the project design phase which translate into higher than projected costs

## What Does the Architect Do?

The architect has several responsibilities during the development process:

- Translate your program requirements and space plan into a schematic design and develop that design until it becomes a blueprint for construction
- Hire and manage design consultants to assist in designing specialized aspects of the space (such as mechanical, electrical, and plumbing)
- Lead the team through the design process.

## When Does the Architect Get Involved?

The timing of architectural services can vary based on the size and scope of your project, as well as the background and experience of your architect. For example, you might be able to successfully renovate a few rooms without input from an architect, but as the complexity of the project increases, so does the need for architectural expertise.

If you decide to use an architect, it is important to bring this professional into the project at the earliest possible stage that makes sense. Depending on their expertise, an architect can be engaged as early as the planning phase, but no later than the design phase.

During the space programming and planning phase you are assessing the needs of your health center and planning the number and types of spaces your facility requires. An architect who has experience providing functional space planning services to health centers can assist you with this process.

If the architect does not participate during the space planning stage, he or she should join the process at the beginning of the design stage.

## What Services Should You Expect from the Architect?

To ensure a productive working relationship, you and your architect need to agree on the architect's **scope of work**.

The scope of work is a written definition of the services the architect intends to perform for you. It defines what you can and cannot expect from your architect as part of the basic services included in the fee. You must clearly describe all the services you expect the architect to provide, to avoid additional fees for work outside the scope of services.

This agreement is essential. Many design tasks are required to complete a project. If the parties are unclear about who is performing each task, some tasks may be overlooked. Moreover, you may not have enough funds or time to perform tasks you mistakenly thought the architect would perform. Never assume that the architect is responsible for a particular task or activity. Clarify these responsibilities at the beginning of the relationship and put them in writing. You will appreciate the peace of mind this brings you.

Architects often use a standardized form contract created by the American Institute of Architects (AIA). The AIA standardized contract has stood the test of time as being the most equitable to all parties, the owner, the architect and the builder. Even so, it is the responsibility of the owner to understand the content of the contract and to ensure that the contract protects the owner's interests.

To help you determine which services you want from your architect, consider the following 12 points.

**Consultants.** What consultants will your architect hire and what consultants does the architect assume you or someone else will hire? Review with your architect a comprehensive list of consultants likely to be needed for the project and verify who they plan to hire. Ask if they will manage any consultants they do not hire. For instance, if you hire a telecommunications consultant to provide equipment or systems for your center, will you have to remember to coordinate their work with that of the architect or will the architect work directly with them?

**TIP:** It is important to understand that it is not the architect's role to manage or supervise the work of the owner's other consultants. This is the owner's job. Nonetheless, it is best to have your architect coordinate the services of any consultants you hire. You should arrange--and attend--an initial meeting between each consultant and the architect, and make it clear to all that the architect will coordinate the consultant's work. You should also make it clear that you—and not the architect—control the consultants' fees and the scope of their services.

**Design and Redesign.** How many preliminary design schemes will the architect present to you before you approve one? Sometimes it takes a few attempts to find the right mix of space and function. What level of design changes will they make during the process? Sometimes the project must change in response to factors outside your control. Your architect needs to be flexible and accommodating, especially at the early design stage (when you are trying to find a workable design), at the end of each subsequent design stage (when you are testing the design's cost against the budget), and periodically if you are undergoing regulatory, governmental, or lender reviews.

Negotiate a contract with your architect that eliminates payment for reworking the design. Remember that your building design will evolve based on user input, site restrictions, budgetary restraints, and timing; having to pay for changes as the project evolves can become costly. In addition, most architectural firms now use computer-aided design (CAD) programs. CAD programs make design changes easy and allow the architect to print working plans before the final blue printing. Do not pay extra for CAD. CAD is now standard in the industry and should be included in the base architectural fee.

**Budget.** Review the construction budget with the architect. Is he or she confident about designing a project that meets your specific program within the amount of the construction budget? A good architect should tell you at the outset whether your program is too ambitious for your budget.

**Schedule.** Review the development schedule with the architect and agree on milestone dates and deadlines. Clarify whether their services are time-based and will therefore cost more if the schedule is delayed. For example, do they assume one year worth of services before construction and one year for the construction itself? What if the pre-construction phase takes longer due to third-party approvals? Specify the time frame for each design and development phase to avoid misunderstandings later on. Your architect must allow some schedule flexibility to account for unavoidable or typical delays.

**Meetings.** Does the architect limit the number of meetings he or she will attend with the project team? How many will he or she attend with you, including your Board, owner committees, user groups, and lender? With governmental or regulatory agencies? You may need zoning or building department review, or approval of a certificate of need or other state use. Does he or she have any other meeting limitations? You need your architect to be available to present and collect information from many sources. Negotiate meeting time as part of the overall fee and not an extra cost.

**Third-Party Approvals.** What role does the architect assume in the regulatory or governmental approvals process? Does he or she assume responsibility for coordinating the entire review process or just the design aspects?

**TIP:** You should require that the architect assume coordination responsibility for all government and third-party approvals. As the owner, you will be involved to some degree with all necessary approvals, but the architect should alert you when an approval is needed and then work with you to complete the process.

**Cost Estimating.** What kind of cost estimates does the architect provide as part of the base services? Does the architect use in-house cost estimators or an independent consultant? If in-house, what database is used? A good estimate is based on comparables: recent health center projects of similar scope that reflect the labor rates, material costs, and work requirements in your geographic area.

**“Not in Contract” Work.** What work does the architect consider to be “not in contract” (NIC) or “Owner NIC”? Architects and other consultants use these terms to identify work that they assume you will provide—and therefore they often do not tell you about it until late in the process. You may not learn about NIC items until you see a finished set of plans or a contractor’s bid. That late in the game,

**TIP:** Architects design space and provide budget estimates. Contractors and builders bid the project and provide a more accurate cost for construction. You can hire a construction consultant or cost estimating service to work with you and your architect to test the cost of the design. However, it is important to understand that numerous factors affect a contractor’s bid, cost of material and labor, availability, inflation, market fluctuations, etc. It is difficult to predict these forces, so to protect the organization, a project contingency should be built into the budget.

it may be hard to find money to pay for NIC items or to plan, design, or purchase them. Clarify NIC items and work in the beginning and periodically during the development process.

**“As Built” Drawings.** No building is ever built exactly as designed. You should have an accurate set of drawings to work from when you operate your facility. “As built” drawings are the design drawings that are “marked up” during construction by the various construction tradesmen to show what they actually built. Ask if the architect provides a set of record drawings (cleaned up “as built”) or whether you will need to get the builder to provide the as-built drawings.

**Errors and Omissions.** If the drawings and specifications contain errors or omissions, what will the architect do to correct them? Will he or she redesign without extra fees? If you incur professional fees or construction costs to fix the problem, will the architect pay these costs or contribute some portion? What kind of liability insurance does he or she carry to protect you from such a situation?

**Compliance With Laws.** Be certain that your architect will certify that the project as designed complies with all applicable laws, codes, rules, and regulations pertaining to design and construction. You are relying on the architect as your design expert to be up to date on legal requirements for design. Furthermore, your lender may require this certification.

**TIP:** If your architect will not or cannot agree to certify compliance with all applicable laws, reconsider your choice of architects.

**Construction Services.** Clarify how your architect sees his or her role during construction. How often will the architect be on site to observe the work? Will he or she attend weekly job meetings? Bring his or her engineers or other consulting professionals to the job site?

**The bottom line is:** if you expect your architect to take responsibility for services, spell out these services carefully in the scope of work.

**TIP:** The architect should play an oversight role during the construction phase, visiting the job site frequently and meeting with the contractor or site supervisor regularly to ensure that the project is being built to specifications. If the contractor must vary from the design specifications, the architect should understand why and both the contractor and the architect should present the problem and solution to you for final sign-off. Remember, you are paying the bills.

## How Much Should You Pay the Architect?

Architect's fees are typically set in one of two ways: **lump-sum fixed fee** based on a percentage of some cost (often the total construction budget), or a fee based on **hours worked and billable items**. In any methodology, out-of-pocket costs are frequently billed on top of the fee as "reimbursables." When using percentage of cost methodology, the percentage used can vary depending on the size, complexity and duration of the project. It is very important that you, the owner, understand exactly what you are paying the architect and what is included in the fee. Read the architectural contract carefully and do not accept the standard AIA agreement "as is" without fully comprehending its contents.

**TIP:** To maintain the most control over the fee, you want it to be based on a lump sum fixed fee.

When your architect calculates the lump sum fee, be sure he or she uses your construction budget or your total project budget (excluding any fees to the builder), not on the actual project costs. This formula removes the incentive for the architect to design a more expensive project than you budgeted. You can encourage the architect to design a plan that can be built within the budget if you agree to share any overall savings at project completion should it come in under budget.

You need to understand what the fee covers in order to assess whether the price is reasonable. The following five sets of questions, on **services**, **fees**, and **expenses**, will help you decide about your architect.

**Services Included.** What services are included in the fee? Excluded from the fee? Refer to the discussion above about the scope of work you expect.

**Engineering Services.** What type of engineers (e.g. structural, civil, mechanical, electrical, plumbing, geotechnical) does your architect think will be required for the project? How much of the fee is he or she allocating for these services? What percentage of the fee is for the architectural staff's design services, and what percentage for the engineers' services?

**Additional Services.** What services does the architectural firm offer that are outside the basic services and the fee but that you might need for the project? How much do these services cost? Examples of such additional services are interior design, graphic design/way-finding/signage, and project management.

**TIP:** Health center projects by their nature tend to have many plumbing, electrical, and mechanical requirements. They may also require structural or geotechnical engineering. The architectural firm pays for these consultants out of its fee. As a general rule, around 60% of the fees for a health center building are for architectural design work and 40% are for engineering work. Ask your architect about the fee arrangements, so you can understand how your money is being spent and what professional services you can expect to receive.

**Fees for Redesign.** How much redesign work will the firm do within its fee? When the price of building is calculated, owners often find that the architect has exceeded the construction budget. The architect should redesign the project as necessary to meet the budget unless the excesses were caused by program changes the owner requested.

**Reimbursable Expenses.** What does the architectural firm consider to be reimbursable expenses? Since you have to budget funds for all of your project costs, you need the architect to specify all reimbursable expenses and agree to a cap or maximum amount if possible.

**TIP:** Include the cost of printing the drawings and specifications throughout the project in the overall fee. Most architects use CAD programs, which allow them to produce and print design changes quickly. As a negotiating point, you can agree to pay for reprints of the blueprints as necessary.

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## THE BUILDER

### Who Is the Builder?

The builder executes the construction plans as designed by the architect. Unlike the architect who looks at ways to use space, the builder looks at ways to construct space—the “means and methods” to translate a design on paper into a three-dimensional physical form. The builder is hired by and reports to the owner. However, it is common to include a construction oversight provision in architectural contracts requiring the architect to monitor construction to assess progress and to determine if work is being done in accordance with the plans.

### What Does the Builder Do?

The most typical builder is known as a general contractor or GC. The GC joins the project team at the end of the design phase and constructs the project from the architect’s drawings and specifications.

Three other types of builders are less widely used: a construction manager or CM, a design/build firm, and a turnkey developer. Each has a slightly different role and set of responsibilities from a GC.

Table 4 (p. 25) shows the key differences between these four types of builders.

Each type of builder presents advantages and disadvantages, the most important being the degree of control you keep over the design, cost, and timing of your project. For a more in-depth discussion regarding these builder options, please refer to The Builder Guide, Appendix C (page 62).

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**Table 4: Four Types of Builders**

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Type of Builder	Services Provided
<b>General Contractor</b>	<ul style="list-style-type: none"><li>• Joins the project after design is completed</li><li>• Provides construction services only</li><li>• Constructs the building using sub-contractors and vendors to provide labor, material, and equipment to be installed at the project site</li><li>• Is typically paid a lump sum price for the job, regardless of actual costs incurred</li></ul>
<b>Construction Manager</b>	<ul style="list-style-type: none"><li>• Joins the project team during the design phase</li><li>• Gives construction-related input into the design as it progresses</li><li>• Can continue during construction, typically in one of two ways: by assuming responsibility for building the project for a guaranteed maximum price, or by supervising construction for the owner while the owner hires the subcontractors directly</li></ul>
<b>Design/Build Firm</b>	<ul style="list-style-type: none"><li>• Provides design and construction services together for one price</li><li>• Joins the team during design as the architect and continues during construction as the builder</li></ul>
<b>Turnkey Developer</b>	<ul style="list-style-type: none"><li>• Provides all design and construction services necessary to complete a project at a fixed sum based on your program requirements</li><li>• Functions independently from a team</li><li>• Often provides project financing as part of contract</li></ul>

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### When Does the Builder Provide Services?

If you are using a GC, the builder will provide services after the architect has finished the drawings and specifications. When the design is complete, you and the architect should send the drawings and specifications out to several general contractors for bids. After receiving the contractors' bids you and your architect should work together to evaluate the bids, considering their completeness, accuracy, and price. Then you select your contractor. For more on contractor selection, refer to Chapter 6, "Hiring Your Architect and Builder."

### What Services Should You Expect from the Builder?

When you are using a GC the builder's basic **scope of work** is fairly clear: The GC is responsible for constructing everything shown on the drawings and specifications—these are the base for the legal agreement between the GC and the health center—and things one could reasonably infer from them, except for those items designated NIC or reserved for someone else. The GC is also responsible for hiring and supervising the sub-contractors and other work personnel, and for maintaining construction books and records, including accounting and payment records.

Some aspects of the scope of work are less clear. For example, are demolition services included if necessary? Does the GC provide controlled tests and inspections if required in your jurisdiction? What about asbestos removal or work required to remediate other environmental conditions? Will the GC provide security and clean-up services? Who pays for power and water to the site during construction? After reviewing the drawings and specifications will the GC suggest ways to save on costs or time?

You cannot assume that every activity that occurs during the construction period is handled by or is under the auspices of your builder. As a precaution, before you sign a contract, talk to your builder about the job and the nature of all the services needed. Make sure you and the builder clearly

understand who is responsible for performing and paying for each service. The old adage about an ounce of prevention certainly applies here.

### How Much Should You Pay the Builder?

Generally you pay the GC a **lump sum**. This fee pays for every service included in the GC's scope of work. The GC does not get a specific fee, but instead keeps the difference between the lump sum and what it costs to actually build the project. Given this payment structure, it is in the GC's interest to complete the job as quickly and inexpensively as possible.

Beware of lump sum bids that seem too low or too good to be true. If the GC underestimates the cost or duration of the project, the lump sum amount may be insufficient to generate a profit or complete the work—leaving you with a potential disaster. If you decide to accept a lump sum bid, it is important to clarify in your contract that the builder is responsible to deliver your project at the agreed-upon price unless he encounters unforeseen problems such as asbestos, hazardous materials, or survey issues. You should also require the builder to be sufficiently bonded and insured so you can recover your investment in the event that he cannot complete your project.

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## THE SUPPLEMENTARY PLAYERS

**I**N ADDITION TO THE OWNER, architect, and builder, many other consultants and professionals can play an important role in the development process. Some of these participants are hired by the owner and others by the architect.

### Owner-Hired Team Members

These individuals or firms are under contract to the owner and provide information that other members of the project team need to complete some part of the process. Your project budget must include funds to pay for their services, and you must remember to bring them into the design and/or construction process at the appropriate time so they can integrate their work with the architect and the builder. Table 5 (page 27) provides details on the various roles of owner-hired team members.

**Table 5: Owner-Hired Team Members**

Owner-Hired Team Member	Function	Expertise	When Needed
<b>Attorney</b>	<ul style="list-style-type: none"> <li>• Prepare and review contracts for architects, builders, and other team members as necessary</li> <li>• Prepare and review financing documents</li> <li>• Prepare and/or update corporate documents</li> </ul>	<ul style="list-style-type: none"> <li>• Prior real estate transactional experience</li> <li>• Should have project development experience to understand the relationships between the project players</li> </ul>	<ul style="list-style-type: none"> <li>• Involve at the end of the business planning phase</li> <li>• Keep involved throughout the project as necessary</li> </ul>
<b>Environmental Review Firm</b>	<ul style="list-style-type: none"> <li>• Evaluate the presence of environmental hazards such as asbestos, lead, oil tanks</li> <li>• Recommend procedures for removing environmental hazards</li> <li>• Perform environmental audits for the lender</li> </ul>	<ul style="list-style-type: none"> <li>• Prior experience evaluating environmental hazards</li> </ul>	<ul style="list-style-type: none"> <li>• Involve during site selection</li> <li>• Request services as needed throughout project if environmental issues present</li> </ul>
<b>Equipment Planner</b> (See TIP Below)	<ul style="list-style-type: none"> <li>• Identify and lay out medical equipment</li> <li>• Specify power, lighting, plumbing, structural, and mechanical requirements</li> </ul>	<ul style="list-style-type: none"> <li>• Prior experience with health care facility design</li> <li>• In-depth knowledge of their product</li> <li>• Knowledge of code and third-party approval requirements</li> </ul>	<ul style="list-style-type: none"> <li>• Involve during design phase</li> </ul>
<b>IT/ Communications Consultant</b>	<ul style="list-style-type: none"> <li>• Identify and lay out voice and data systems and equipment</li> <li>• Specify requirements for mechanical and electrical systems</li> <li>• Specify placement of outlets and data lines</li> </ul>	<ul style="list-style-type: none"> <li>• Prior experience with health care facility design</li> <li>• In-depth knowledge of their product</li> <li>• Knowledge of code and third-party approval requirements</li> </ul>	<ul style="list-style-type: none"> <li>• Involve during design phase</li> </ul>
<b>Interior Design Firm</b>	<ul style="list-style-type: none"> <li>• Select and specify furniture, finishes, and art</li> </ul>	<ul style="list-style-type: none"> <li>• Prior experience with health care facility design</li> <li>• Understanding of job functions within a health care facility</li> <li>• Prior experience with interior design</li> </ul>	<ul style="list-style-type: none"> <li>• Involve after space plan is complete and before the building design is sent out to bid</li> </ul>

**TIP:** Many medical equipment planners do not charge for their services if you are purchasing equipment from them. They can provide detailed architectural and mechanical drawings related to room layout, and requirements for power, lighting, plumbing, structural, and mechanical systems. Negotiate with your architect to reduce his or her fee if the equipment planners provide this level of information.

### Architect-Hired Team Members

Many kinds of specialized design experts may assist the architect in designing the building. These experts report to the architect, who hires and supervises them. Your project may only require the services of traditional engineers, but large or complicated projects can require other design expertise. Among them could be mechanical, electrical, plumbing, structural, or geotechnical engineers, including site planners and drainage engineers. Owners rarely hire the architect’s design professionals

directly. On the other hand, the architect may actually hire some of the experts listed in Table 5 as owner-hired personnel—such as the interior design firm or the equipment planning firm. Whether you or the architect hires these firms depends on your relationship with the architect, the architect’s relationship and experience with these firms, and how many players you want to supervise directly. Architects will generally add a percentage of the consultant fee to his or her fee to cover the time required to manage their work.

For a more comprehensive list of the kinds of consultants you could need depending on the size and scope of your project, refer to the List of Potential Project Team Players, Appendix D (page 65).

**TIP:** Develop a comprehensive list of all possible consultants and professionals at the beginning of the project, identify who will hire them, and include their cost in your project budget. Review this list with your lender, as well as your architect, engineer, and builder. Ask them what information or services they expect you to provide that are not included in their services. Show them your list of consultants/professionals and ask them whether anyone is missing and which parties they plan to hire, if any. Request the names of consultants they have worked with on other jobs so you can develop your own bid list. When you finally sign a contract with your architect and builder, include a provision specifying who you will hire and who they will hire and have them confirm that no other design or construction services are needed to give you a complete and fully functioning health center.

## CHAPTER 5

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# SELECTING YOUR SITE

**S**ELECTING YOUR SITE—or deciding to remain in your present site—is one of the most important decisions you will face. The site you choose will determine what constraints or freedom you will have in translating your program into a design and then into physical space. It will also affect how much your project will cost and how long it will take to design and build it.

Ideally, you should finish your program and space plans for the project before you select a site (see Chapter 7). These plans will show precisely how much space you will need for your programs and how activities need to be clustered in spaces for efficient workflow. For example, if you need 10,000 square feet, this will help you know whether a four-story building would be acceptable, or whether your space should all be on one floor. Sometimes opportunities present themselves and you have to act on them, but without the information from the planning stage, you will be guessing as to the appropriateness of a site.

You should try to generate as many options as possible for consideration. Even if you are considering staying in your existing space, you should reach out to several brokers and all your contacts within the community to identify potential sites. You may be surprised at the unexpected opportunities that may emerge.

You should understand the benefits and drawbacks of any site, including your present location, before you commit to the site for your project. This chapter outlines criteria to use in evaluating sites, and concludes with a few tips about the process.

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### How Do You Evaluate a Site?

**I**T IS IMPORTANT to be systematic in comparing sites. You should consider many variables as you look at each site. A useful evaluation tool to help you do this is a **site matrix**. To prepare one, list all the relevant criteria down the side of a page, or pages, and then create a column (or page) for each site you are considering. Below are lists of criteria that are likely to be important for you. Your situation may include unique factors that you need to add to the list. Also, you will have to determine which factors are most important. Even if a site seems like an obvious choice, be sure you have checked out everything on the list, so you know all the implications of your choice.

You will note that some of the criteria will require an expert's advice. Plan on having an architect help you at this stage. Many architects will provide site evaluation services for free, in the hope that you will hire them for the design work. But when you select your architect to design the building, consider qualifications, not the free site evaluation services!

## Geographic Criteria

- Is the site accessible to the population you serve or plan to serve?
- Is it accessible for your staff?
- Is it accessible to public transportation and other services your staff and clients will need (restaurants, pharmacy, etc.)?
- Does the site afford safety and security for its users?
- Is the site near compatible uses like a housing development, supermarket, or day care center, or incompatible uses like a garbage dump or betting parlor? Obviously the measure of compatibility will change based on your program and the population you are trying to reach.

## Property Criteria

- Is the size of the lot or structure adequate for your program, including parking? If you have completed your space plan and are looking at an existing building, your architect can do a “test fit” to see how your program might fit in the space.
- Does the site require renovation or new construction?
- Is the existing structure relatively easy or difficult to expand or renovate?
- Does the site have any physical or environmental limitations or constraints?
- Does the site have any land use limitations or constraints such as easements, zoning, and legal issues?
- What are the comparative costs (design, construction, operational) of the various sites under consideration?
- Is the site in a good location for your business?
- Does the site have any aesthetic considerations that are favorable or unfavorable?

## Ownership Criteria

- Is the site for sale or for lease, and on what terms?
- What are the implications of owning versus leasing for your organization?
- Can you obtain an exemption on real estate taxes for the site? If not, what are the taxes?
- What are the other costs or expenses to maintain the site?

Once you understand the strengths and weaknesses of the various sites you can objectively weigh which is best for your project.

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## BUILD A NEW BUILDING OR RENOVATE?

ONE DECISION CAN arouse considerable passion: whether to build a new building or renovate an existing one. While a new building may give you the most flexibility of design, consider that a good architect can work wonders with an existing building. It is important to spend the time to evaluate the costs of all options. You may be surprised to discover that the plan you thought was the most cost efficient actually turns out to be the most expensive.

This question cannot be resolved in the abstract; it will depend on the actual sites available to you. An architect's advice, plus the site matrix and the criteria above, should give you the information you need to make this choice.

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## THREE TIPS ON CHOOSING A SITE

1. Watch for the architect's bias. Some architects may design a project based on his or her own criteria, not yours. Others may lean toward either a renovation or new construction because of individual professional goals or personal preferences. One enamored of a building's historic architectural details may push the renovation option, while another may want to build a new or "signature" building to enhance his or her own new construction/design portfolio. Be wary of the architect who tries to play off the emotions or vanities of your Board.
2. Whether you plan to lease or buy a site, make sure you coordinate the terms of your lease or contract to purchase with the timing of your project and with your lender. If you purchase or lease a site too early in the planning stage of the project, you may discover it is the wrong site for your program or budget. You may also be holding onto an unimproved and potentially unusable site for many months while incurring expenses. However, you still need the security of knowing that the site is "yours" so you can proceed with planning and design. Try to negotiate either an option to purchase or lease, or a contract to purchase or lease with a flexible closing date and an escape clause.
3. Even if you plan to expand your existing facility, it is usually prudent to assess your options before you proceed. Given the tradeoffs between renovating your existing site and starting fresh, you may find that you get more "bang for your buck" with new construction.

## CHAPTER 6

# HIRING YOUR ARCHITECT AND BUILDER

**T**HE SUCCESS OF your project will depend on a small group of professionals and firms that you must select. Architects, builders, and other real estate professionals vary enormously in their competence, working style, and integrity. The quality of the team's work will endure for many years, either as attractive, well-functioning space, or as debts resulting from cost overruns that could potentially destroy your entire organization. To make these crucial hiring decisions, you should establish a committee including, at a minimum, your executive director and a Board representative. It could also include the medical director, the CFO, a representative from your engineering/maintenance department, or any other appropriate staff member who can provide valuable insights during the process.

Contrary to popular notions, the solution is not necessarily to hire someone you already know and trust. While you may ultimately select such a person or firm, you must be wary of limiting your options early in the process. Three specific actions will help you achieve the best outcome:

- Network with as many people as possible to identify a good list of potential candidates.
- Use this manual to help you identify the hiring criteria—the factors that should drive your decision.
- Carry out a transparent process. Give several well-qualified firms a fair chance to present themselves, and select one based on a full consideration of how well each one fits the criteria.

This chapter focuses on why and how to use a methodical process in selecting your architect and builder. You can apply these principles, however, to every decision you make in assembling your team.

### REASONS FOR A CAREFUL HIRING PROCESS

**A** HIRING PROCESS is valuable for at least four reasons.

**A process provides the basis for qualifying candidates.** You can determine whether a firm or individual has relevant experience and credentials before you hire them, instead of discovering that they are not well suited to your needs when it's too late.

**A process provides the basis for comparing candidates.** You can determine and evaluate the package of services each candidate proposes to furnish and at what cost. Different consultants may propose different scopes of services. A process will help assure that you are not “comparing apples and oranges.”

**A process promotes objectivity over subjectivity.** Too often politics, favoritism, or familiarity with a particular candidate plays the deciding role in the selection process. And choices made on this basis alone are all too often wrong. An impartial hiring process gives you an objective way to screen candidates in light of all the objective and subjective factors that may be important.

**A process protects the health center, the executive director, and the Board.** The center needs the most qualified team it can afford, and a hiring process provides the mechanism for meeting that objective. The ED and Board will need to justify these hiring decisions to third parties, and an objective and fair process assures that the decision will withstand scrutiny from third parties.

**TIP:** Hiring creates the potential for an awkward situation. Suppose your Board Chairperson or some other powerful person in your organization wants to hire a particular architect or builder. This person or firm, whatever their reputation, may be less qualified than other potential candidates for the specific project you plan to undertake. Hiring them can leave you and the organization with an inferior result, cost overruns, or great delays. A hiring process makes it more difficult to select that less qualified applicant. Ultimately, you may still have to hire them, but at least you and your Board will make that decision after discussing the strengths and weaknesses of all candidates. Moreover, if the winning candidate eventually pulls out of the project, you will have other pre-screened candidates ready as a back up.

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## SIX STEPS TO FOLLOW

**A** HIRING PROCESS does not have to be formal or complex, but it should be consistent so you can measure one candidate fairly against another.

A typical hiring process consists of six steps:

1. Request proposals or bids
2. Hold a bid conference
3. Evaluate proposals
4. Interview candidates
5. Check references
6. Make your selection.

**Request Proposals.** One of the best ways to solicit interest is to prepare a **request for proposals (RFP)**. The RFP can be simple but should be in writing. It should describe the proposed project, the services required, any unusual contract provisions, and directions for submitting a proposal. It should also include any site plans or other useful program or graphic data you have. By using an RFP you give all potential applicants the same information at the same time so they can compete equally and you can evaluate them on the basis of the same level of information.

You can also ask each bidder to submit using identical formats, making it easier for you to compare the information from the different proposals you get. Many firms, however, have a standard format for proposals and will not use yours.

It is difficult to prepare a scope of work for an RFP because you must know what services you need. Organizations rarely know this, unless they have experience in real estate or a technically experienced staff member. Do not let your lack of expertise in this area discourage you from using an RFP. You can work with an experienced real estate lawyer or professional project management firm to prepare an RFP, and can also turn to appropriate consultants with whom you are already working. For instance, your architect might help define the scope of work for a construction manager.

Before you distribute the RFP, compile the list of candidates. You want them all to get the RFP simultaneously so they all have the same amount of time to respond. To solicit names of architects, builders, and other consultants, you can turn to other health centers, your lender, your lawyer, and professional associations (like the American Institute of Architects). Some state and local agencies or organizations like the Primary Care Development Corporation in New York City, or national organizations like Capital Link have resources for generating referral lists. Architects and builders who work in your region can also be a good source for referrals.

A sample RFP format is included in Appendix E as a guide.

**Hold a Bid Conference.** Depending on the type of bidder being solicited, you may want to conduct a bid conference once the RFP is distributed. For architects and contractors, for example, a bid conference gives you the opportunity to walk all the potential bidders around the site at the same time. You can describe the work you propose to do and the potential bidders can observe actual site conditions and ask questions.

**Evaluate Proposals.** The RFP should have a proposal submission date. Once the deadline passes, you can evaluate the proposals. In reviewing them, consider several points. Do they comply with your submission requirements? Are they complete? Is the firm offering the type of services you want? Do you see exceptions or omissions? Is the firm's history and experience relevant to your project? Look at the qualifications of the staff they propose to use. Compare their compensation proposals. Make sure you understand what you are paying for and what is excluded or costs extra. Have your insurance advisor review and comment on the type and amount of insurance coverage each bidder carries. Making notes on all these points prepares you to interview the candidates.

**Interview Candidates.** Select at least two qualified firms to interview. Be sure you interview the people who will actually be working with you. Ask each interviewee to make a brief presentation about their firm and the project. Do they understand the project? Your goals as a health center? Do they care? You will spend a lot of time working closely with an architect and a builder. You want them to share your vision and enthusiasm for the project. You also want to ask about any questions that arose as you evaluated their proposals.

**Check References.** Always check references. Prepare a list of questions before you get the reference on the phone. Ask the reference to describe what the firm did well and less well. Remember that no firm or person is perfect. You want an honest reference, so you hear about strengths and weaknesses.

Would they use the firm again? Some RFPs ask for a negative reference. If the firm refuses to furnish one, ask them to describe a project that did not work out and to explain why.

**Make your Selection.** Before making a selection, review all the information you have accumulated on the qualified candidates. Make a chart to compare the candidates so you can evaluate them on the same criteria. Review your evaluations with your Board and make a recommendation. Make sure you can explain why you believe this is the best candidate for the project. Make your selection and notify the successful firm. Thank all the other bidders and inform them they were not selected.

You may choose to modify this process. If so, be sure to stay true to the concept of fairness and consistency:

- Identify a good group of bidders
- Give a fair chance to each bidder
- Make the selection based on pre-determined criteria, consistently applied
- Document your process so that others can see that you evaluated each firm based on all of the criteria.

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## GENERAL CRITERIA FOR HIRING

AS YOU EVALUATE prospective candidates for your project team, keep three general criteria in mind.

**Appropriate experience.** Have they done the kind of work you need on your project?

**Rapport.** Are you comfortable with the candidate? Can you ask questions and be sure this person will listen to you and respond appropriately?

**Scale of the project.** Are they appropriate to the scale of your project? The larger your project, the more important their previous relevant experience is.

You can use these criteria to screen anyone, whether an architect, builder, lawyer, or any of the many consultants or professionals you may hire.

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## HIRING THE ARCHITECT

**YOU WANT TO WORK** with an architect who has the **appropriate experience** for a health center project like yours. He or she needs to be familiar with your local building and healthcare codes, and needs to have designed facilities of the scale and general type that you are building. He or she also needs to be familiar with the materials, mechanical systems and other issues related to primary care facilities. The terrific local architect who does only housing work in the community is not qualified. The architect who designs supermarkets and schools, is friendly with your Board Chair, and will give you a “good deal” is not qualified. If the architect does not have the right experience, he or she will be learning on your job, and will not necessarily understand how to translate your space program into a functional, affordable design for a community health center.

**TIP:** The ideal candidate is an architect who has experience designing community health centers as well as insight or appreciation for your organizational mission. Often the ideal does not exist. If you cannot find a firm with health center experience, look for a firm with experience designing some kind of healthcare facility that understands the function of a community health center. A community health center is neither a hospital nor a traditional clinic and the design approach needs to reflect this.

**Good rapport** between you and your architect, and your architect and the project team, is essential for your project. More than anyone else, your architect will be involved with you and the project for anywhere from six months to two or more years, depending on the scope of the work you are contemplating. During that time, your architect will also work closely with many other members of the project team. If you suspect that the architect or firm cannot maintain harmonious relations with its own consultants, or with you and your staff, the builder, or other parties (including government and regulatory agencies and lenders), then select a different architect.

**TIP:** Be sure that you are comfortable with the lead architect assigned to the project. Like other firms, architectural firms will sometimes introduce you to a person who sells you on the firm but will have little or nothing to do with your project. Make sure you meet the architect in charge of your job as well as the day-to-day job captain or project manager if that is a different person. The person with day-to-day responsibility will set a tone that influences the way everyone works—and that will have a major impact, positive or negative, on the way the work progresses.

Cooperation among your team members is also essential. You will have thousands of decisions to make and countless details to track as the job progresses. Mistakes are always made, crises always erupt and tensions always surface but a cooperative, respectful team will overcome these problems and remain focused on the goal: completing your project.

The **scale** of your project will also influence the level of expertise you seek from an architect. If you are making a small renovation to an existing space the architect needs less healthcare-specific experience than if you are adding a new wing and must address issues of patient flow, good working layouts for medical and administrative staff, and equipment placement.

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## HIRING THE BUILDER

**T**HE SAME THREE criteria apply to hiring a builder. A builder must have **appropriate experience**. If you are working with a general contractor (GC), you want an experienced builder. If you are working with a construction manager (CM), you want a company that has provided construction management services before. In either instance, you want a knowledgeable, reputable company that has worked with health centers. A builder with experience in health center construction can save you time, money and aggravation by anticipating problems before they occur and by advising you about omissions, errors, mistakes or potential areas of confusion.

Whether you hire a CM to work with you and your architect during construction, or hire a GC who joins the team only for construction, you, your architect and your builder must work closely together to solve problems and keep the project moving. Because the architect and builder must respect each other's contributions to the process, be alert to any history of animosity between the two firms. The builder's ability to have **good rapport** with the architect will prevent their relationship from becoming adversarial—which would put you in the unwanted role of mediator.

The **scale** of your project can also influence how you evaluate your builder. You do not need a builder with extensive health care experience to renovate or build a low-tech or non-medical type of space like a reception area, storage space or parking lot. But you do want relevant experience for any project involving mechanical spaces or patient care areas—even a small project. A builder unfamiliar with the types of spaces you require will be less able to anticipate construction-related problems and issues, and you may then miss opportunities to save money or time.

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## CONTRACTS

ONCE YOU SELECT your team, you need contracts with each team member to spell out the agreed-upon terms.

Contracts describe the relationships between parties—their rights and responsibilities. No one contract is right for everyone or every situation. Notwithstanding this, architects and GCs widely and routinely use form contracts such as those published by the AIA (American Institute of Architects). Though such standardized contracts are handy and have proven to be the most equitable to all parties, they can be biased toward the architect or builder in ways that are not always apparent. Be sure you understand what each line means and how the contract terms affect you before you sign.

**TIP:** Have an experienced construction attorney review all contracts before you sign them to ensure that you are getting everything you bargained for. Contracts are binding on all parties. Unless they accurately reflect your expectations, they will not be useful to you if a problem arises.

## CHAPTER 7

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# DESIGNING THE FACILITY

**A**FTER ALL THE PLANNING and preparation, you are finally ready to have the project team start turning your vision and ideas into the detailed drawings and specifications from which a builder can build. This is called the design process, and by managing it carefully you can ensure that your team produces a project that meets your needs.

This chapter discusses what to expect and how to keep the project moving smoothly throughout the process of designing your facility and selecting a contractor.

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### ESTABLISHING YOUR GOALS

**S**TART BY REVIEWING your goals. They will probably fall into categories something like the six below.

**Program goals.** From your program plan, you know what services must fit into the building and how they need to flow.

**Budgetary goals.** From your business plan, you should know what you can afford to spend.

**Timing goals.** From your business plan, you know when you want to have the facility up and running.

**Organizational goals.** You want your staff to cooperate enthusiastically in the development of the project, contribute their best thinking and buy into the design for the new center.

**Aesthetic goals.** From your knowledge of your clients, Board, employees, funders, and other important constituencies, you probably have a vision of how you want the project to look and feel.

**Political goals.** You know, or should identify, the parties who must be involved in the design process or must be satisfied with the outcome.

**Whatever your goals are, your team will never achieve them unless they know them and have a plan for achieving them.** Don't assume anything. Kick off their work at this stage by reviewing all your goals and having the project team work with you to assure that they are met.

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## STAGES OF THE DESIGN PROCESS

**T**HE PROCESS OF developing plans and specifications has four commonly recognized phases, which create natural checkpoints for pausing to be sure that your goals are being met. The four phases are:

- 1. Pre-schematic Design**
- 2. Schematic Design**
- 3. Design Development**
- 4. Construction Documents.**

In each phase your team will gather increasingly complex information and incorporate it into the design. Thus, at the end of each phase, you will have increasingly detailed drawings and specifications describing your project.

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## MANAGING COSTS AT EACH DESIGN STAGE

**Y**OU EXPECT TO construct your project for the amount that you budgeted. Unfortunately, for a variety of reasons, this often does not happen. All too often, the owner faces a rude shock when the construction bids come in. At that late stage, you may have to pay more for architectural services and compromise on the design in order to solve the problem.

You can avoid such outcomes by using cost estimating to carefully monitor the project's costs before you move from one design stage to the next. At the end of each design stage, you should schedule time to have a cost estimate prepared based on the plans as they stand, and to review it with your architect. This way, you will be able to identify and make changes at the earliest possible point

Cost estimating is a discipline distinct from design or construction. The construction industry relies on individuals who specialize in estimating, and there are firms that do nothing but cost estimating for contractors, architects and others. In particular, you will want someone that has experience estimating from incomplete plans and specifications. Your architect can provide these cost estimating services, but it is generally better to hire an independent third party. By doing so, you will create a system of checks and balances, which will give you more confidence in the numbers. Work with your architect to develop a plan for obtaining independent estimates from a qualified estimator who is up-to-date on costs in your local area. You can contract directly with the estimator, but you may prefer to have the architect manage this relationship as part of the services in his contract.

Table 6 (p. 40) illustrates the kind and level of information you should expect during each phase of the design process.

**Table 6: What to Expect In Each Phase of the Design Process**

Phase	Drawings	Specifications	Cost Estimate
<b>Pre-schematic</b>	<ul style="list-style-type: none"> <li>Bubble or block drawings</li> <li>Show general location of each service or activity area in relation to others, but no actual rooms</li> <li>Used to establish flow patterns and to verify that all program requirements fit</li> <li>Drawn from the space plan</li> <li>Simplest level of drawings; no details</li> <li>Easiest drawings to change</li> </ul>	<ul style="list-style-type: none"> <li>None at this stage</li> </ul>	<ul style="list-style-type: none"> <li>“Guesstimate” or “conceptual” costs based on square foot estimates (no subcontractor input)</li> <li>Includes large contingency amounts because design is not specific</li> <li>Used to confirm that preliminary design choices are within budget</li> </ul>
<b>Schematic</b>	<ul style="list-style-type: none"> <li>Single-line drawings</li> <li>Typically 1/16th scale (1 inch = 16 feet)</li> <li>Show space floor by floor and room by room</li> <li>Include every room listed on the space plan and all other spaces and areas (e.g. mechanical and storage)</li> <li>Relatively easy to change</li> </ul>	<ul style="list-style-type: none"> <li>Outline specification</li> <li>Describe type and quality level of materials</li> <li>Describe the proposed building systems and features not otherwise shown on the drawings (e.g. type and level of interior finishes, foundation walls, site work, stairs, roofs, doors, hardware, casework, plumbing, electrical and HVAC system)</li> </ul>	<ul style="list-style-type: none"> <li>Refined conceptual estimate</li> <li>Includes assumptions for the estimates based on specification descriptions (e.g. quantities, quality, and types of materials)</li> <li>Includes a construction schedule</li> <li>Identifies known or possible construction issues (e.g. logistics, phasing, or long lead time)</li> </ul>
<b>Design Development</b>	<ul style="list-style-type: none"> <li>Dimensional drawings</li> <li>Typically 1/8th scale (1 inch=8 feet)</li> <li>Show exact sizes and measurements of rooms, walls, doors, hallways; building and floor heights; mechanical, electrical and plumbing systems; and structural systems</li> <li>Detail building finishes</li> <li>Show location of elevators and stairs, lighting plans, medical systems (air, medical gases, nurse call, etc.)</li> <li>Owner-furnished information incorporated into drawings (e.g. type and location of major movable and fixed equipment, data and telecommunication system, security system, interior design and graphic design requirements)</li> <li>Harder to change drawings; last realistic opportunity to make discretionary changes</li> </ul>	<ul style="list-style-type: none"> <li>Outline specification revised to reflect level of detail in drawings</li> </ul>	<ul style="list-style-type: none"> <li>Highly detailed estimate based, ideally, on subcontractor input and data from actual, comparable jobs</li> <li>Realistic costs, not conceptual costs</li> <li>First look at what it may actually cost to build the project</li> </ul>

**Table 6 (continued)**

Phase	Drawings	Specifications	Cost Estimate
<b>Construction Documents</b>	<ul style="list-style-type: none"><li>• Final and complete drawings (together with final specifications known as contract documents or bid set)</li><li>• Highly detailed</li><li>• Show all work to be done on the project, including references to owner work (“NIC” or not in contract work)</li><li>• Blueprints from which the building is built</li><li>• Expensive and time-consuming to change drawings given detailed and interrelated nature of different drawings; one change can affect several drawings. Only budgetary, not discretionary, changes expected</li><li>• Include optional design alternatives for pricing</li></ul>	<ul style="list-style-type: none"><li>• Final and complete specifications</li><li>• Specifications include all work to be done on the project, including work by builder and by others</li></ul>	<ul style="list-style-type: none"><li>• Actual construction costs based on sub-contractor bids</li><li>• Includes separate bids from builder (Guaranteed Maximum Price (GMP) or Lump-sum—see below), and others (for owner NIC work such as equipment purchase and installation, data and telecommunications purchase and installation, interior design, graphics, etc.)</li></ul>

As you work through the stages, you should keep in mind **value engineering** and **design alternatives**.

**Value Engineering.** This is a useful analysis to perform at the end of the schematic design phase and early into design development. By analyzing the design and systems, you can obtain the most functional use at the lowest cost. A construction consultant or cost estimator leads this exercise, identifies components of the project that are expensive relative to their use, and suggests alternatives. They weigh the relative value of using a certain building or engineering system, or a particular material or piece of equipment against an alternate, and may discover alternatives that can serve the same function but at lower cost (either a construction cost or a lifecycle or maintenance cost).

**Design Alternatives.** When the value engineering process is finished, you may have a list of design alternatives to consider. Some of these alternatives are developed because the project as designed is too expensive and you agreed to change some system or feature to a less expensive solution, keeping the original system or feature as an alternate you might include during construction if funds become available. For instance, suppose you can afford to build but not finish a second level for the facility; an alternate would specify how to build out the second level so you can bid the work and proceed with it during construction if you have saved enough on costs in the rest of the job.

## BIDDING THE WORK

**YOU MAY BID** the work in several ways. Two of the more common bid structures are **Lump Sum Fee** and **Guaranteed Maximum Price**.

## Lump-Sum Fee

If you are planning to hire a GC, you and your architect should work together to obtain bids from general contractors to build the project.

As discussed in Chapter 4, the GC provides a lump-sum bid, a fixed price to build exactly what is shown on or reasonably inferable from the drawings—no more and no less. The GC firm makes its fee from the spread between the bid it gives you and the GC's actual cost of construction. You are not privy to what the sub-contractors are charging the GC.

A typical sequence for bidding the job is as follows:

1. Develop a list of qualified contractors. Use the RFP process to pre-qualify bidders. Make sure that financially sound, reliable, and experienced builders are competing—to avoid having to review a bid from or potentially hire an unqualified contractor.
2. Have your architect prepare and circulate the final drawings and specifications to the firms on the bid list.
3. Review the bids with your architect. Evaluate them for completeness and compare their scope and cost. Ask your architect to call the bidders if you need further clarification.
4. Select a bidder. You should establish your selection criteria early in the process. Be sure you are aware of any requirements that may affect your selection process from your funders, regulators or others. In some cases you may be required to accept the lowest qualified bid; in others, you may be able to take into account other criteria.

## Guaranteed Maximum Price (GMP)

If you are working with a construction manager, he will use the final plans and specifications to prepare the guaranteed maximum price or GMP. Unlike the lump-sum bid, the GMP is based on the information and knowledge the CM gained from participating with you and the architect during the design process, as well as from the final plans and specifications. While the GMP sets a ceiling on what you will pay for construction, you could pay less if some of the sub-contractor work costs less. You know what sub-contractors the CM is using and what they are charging the CM.

The CM uses the final plans and specifications to obtain bids on the work from sub-contractors in all required trades. (This work is sometimes referred to as the “direct work.”) The CM reviews the sub-contractor bids with you and the architect and explains the reasons for choosing a particular bidder.

**TIP:** Bidding rules and requirements can differ based on the source of your funding and other considerations. Check with your funder.

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## YOUR ROLE AS OWNER DURING THE DESIGN PROCESS

**D**O NOT THINK for a minute that the architect and cost estimator are doing all the work during the design process. The owner has two sets of tasks during this phase: **managing the team** and **moving other (non-design) project issues forward**.

### Managing the Team

You should keep meeting with the team and motivating them to do the best possible job. Here are some ways you can help them stay on track.

- Get the team to tell you what they need from you or from others outside the team's control, and help ensure these needs are met.
- Work with the team to identify each significant task and to develop a schedule of when each should occur, then stay on top of it.
- Determine who will be responsible for getting each task finished on time (it may be you!) and identify who else needs to be involved in each task. Be sure each person has the time to carry out their responsibilities.
- Keep everyone in the loop with timely and accurate information.
- Review the drawings and specifications at each phase with the appropriate members of your organization and provide timely feedback and comments to the architect.

### Moving Other Project Issues Forward

Here are some other issues that will require the owner's attention while the design is moving forward. Additional issues you will need to think about are discussed in Chapter 8.

- Identify the administrative and support systems you want in the new facility and the design requirements for these systems. These are sometimes called the "Owner Systems" and include telephones, security, computers, televisions, cable, and paging.
- Identify all your furniture and medical equipment needs. Identify any design requirements for this equipment.
- Plan the interior design, graphics, and signs for the new facility.
- Hire any consultants or vendors you need to accomplish the above tasks.
- Coordinate the work of your staff and all consultants or vendors so it is completed at the right time.
- Plan for and/or design any Not-in-Contract (NIC) work, hire the relevant consultant or contractor to complete this work, and make sure it is done at the right time. This might include removal of asbestos, lead paint, or an oil tank.
- Review the drawings and specifications at each phase with the appropriate members of your organization and provide timely feedback and comments.

## TIPS FOR THE DESIGN PHASE:

**Follow the progression.** Depending on the scale of your project, and the experience of your project manager and team, the architect may collapse the first two phases (pre-schematic and schematic design) into one or may move immediately from schematic design to construction documents. This matters less for a small (say 3,000 square feet) uncomplicated project than for other larger scale projects. But it can cause problems later on. You have fewer opportunities to understand the design before the final documents are created or before construction begins. Check your contract with the architect to see whether you agreed to an abbreviated design schedule. If you did not, insist on following the progression. It protects you.

**Review drawings and specifications carefully.** The programmatic content and gross area of the pre-schematics should match the space plan you developed at the beginning of the project. If they don't, rework the block drawings until they do. If you proceed with an incorrect preliminary drawing then you are building failure into your project. The same is true of an inaccurate cost estimate.

**Your staff and design team should take the time to review the schematic design drawings and cost estimates to ensure that they are comprehensive and complete.** After you approve these documents (or after you let the design team proceed) they become the basis for more detailed drawings. Errors or omissions in these documents will cost you in both time and money if you have to correct them during a later design phase or during construction. They may also result in a dispute: Were the errors or omissions your fault because you let the architect proceed without catching them? Or were they the architect's fault because he or she should have known better? Problems like these can derail a project completely.

**Watch out for proprietary specifications.** These are items included in the project specifications that specify a particular product, supplier, or manufacturer. This practice eliminates your ability to obtain competitive pricing for these items and reduces your purchasing options.

**Review the cost estimates carefully.** Work with your team to ensure that the cost estimates at each phase reflect all the costs of construction. This includes all expenses for your builder, including fees and "general conditions," and the cost of all owner work (for instance, asbestos removal) and owner NIC items (whether you purchase and/or furnish and/or install them). Your construction budget is the total cost to you of building and should reflect all the costs you will incur.

**Identify and detail the NIC items for which you will be responsible.** You must plan the lead time for ordering, delivery, and installation. You should also clarify with your vendor whether they can hold items at their warehouse until you are ready for delivery. Otherwise, you may have to arrange for storage until you can install the item at the facility.

**Build time into your design schedule to prepare, review, and react to the cost estimate at the end of each phase.** Be careful not to skip an estimate or prepare it at the wrong time. A schematic design estimate is less helpful once your architect is in the middle of design development drawings.

## CHAPTER 8

# GETTING READY TO START CONSTRUCTION

CHAPTER 7 INTRODUCED some of the things that you need to do while design is under way to assure that you can start construction when the contractor is ready to go. This chapter will describe the major remaining activities that must take place before you can start construction.

Before construction starts, you will need to begin the planning process to define how you will operate in the new space. This chapter concludes with a list of things to help you be ready to start operations when construction is complete.

### REMAINING PRE-CONSTRUCTION ACTIVITIES

OUTSIDE OF THE PROCESS of preparing plans and selecting your contractor, there are typically five other activities that will need to be completed before you start construction. Some of these tasks require several months of lead time to complete, so it is crucial that you address them early enough in the design process.

- **Obtain third party approvals**
- **Complete legal documentation**
- **Acquire your site**
- **Obtain insurance**
- **Close your construction loan.**

Each of these is discussed below.

#### Third-Party Approvals

You should require the architect to assume coordination responsibility for all government and third-party approvals. As the owner, you will be involved to some degree with all necessary approvals; however, the architect should alert you when an approval is needed and work with you to ensure that the process is completed. Third-party approvals can include complying with a range of local, state, or federal governmental or regulatory requirements such as:

- Health department regulations
- Environmental quality or historic preservation laws

- Zoning or land-use laws (special use permits, variances, waivers, certifications)
- Building permit applications
- Water and sewer applications.

At the earliest planning stages you must find out whether or not these or other third-party approvals apply, and factor them into your schedule. You must also determine what it will cost to obtain these approvals and factor these costs into your budget; they may involve fees, submissions, and payment for consultants or other professionals. If you do not take these steps, you can delay the start of construction by months. So become informed early and protect yourself.

## Legal Documents

You should meet with your attorney before the design stage to discuss the kinds of legal work you need and the deadlines for completing that work. The following tasks usually require a lawyer's assistance:

- Negotiating and/or preparing contracts for all members of the project team
- Negotiating and/or preparing documents to acquire your site
- Negotiating and/or preparing documents to close the construction loan
- Conducting a “due diligence” review of existing agreements, mortgages, surveys, title policies, and other documents pertaining to your organization to determine relevance to your project
- Preparing corporate resolutions and other corporate documentation.

Plan for an attorney in your schedule and your budget, and hire them early in the process. This will help you protect yourself against inevitable issues that can delay your progress. Don't wait.

## Site Acquisition

If you do not already own or lease your site, now is the time to acquire control of your site.

You should already have a contract of sale, or an agreement to lease, and be waiting for the seller or lessor to fulfill any remaining conditions. Any delay in acquiring the site will delay the start of construction, so you must closely monitor the progress of the sellers/lessors in satisfying any remaining conditions. Never assume that obstacles to closing have been met; find out the facts.

Early in the planning stages you will need to have a title company prepare a title report for your site. This report documents who owns the property and the existence of any encumbrances (existing mortgages, liens, easements, rights of way or other restrictions). This information assures you that you are buying or leasing what you think you are, and assures your architect and construction lender that you have the legal right to use the property as you intend. Customarily you direct your attorney to order and review the title report for you. Your attorney should forward a copy of this report to the architect for their use.

You should also direct your attorney to order a survey of the property. The survey shows the property boundaries, the existence and location of utilities and easements, and the topography of the land. Your

architect uses the survey to lay out the project (unless the entire project is inside an existing structure). Your construction lender also uses it to describe the property that is subject to their mortgage.

## Insurance

The owner, the architect, and the builder should each carry insurance for the project. Their various types of coverage are intended to protect you from various risks that can occur during the design and construction process.

Be sure to consult with an experienced insurance advisor to verify that the insurance provided by your architect and builder will adequately protect you. Evaluate your own insurance coverage to ensure that it is sufficient since coverage during construction may differ from your ordinary insurance. Your construction lender will want specific insurance protection as well.

## Construction Loans

Often you will need to take out a construction loan in order to pay for the project. The loan can come from various sources: a bank, investors, or a bond sale. The entity that lends you the funds is your construction lender. Typically, the construction loan pays for all soft costs (consulting and professional fees, carrying costs for the property until you begin operation) and hard costs (construction costs, fixtures, and other “hard” assets that become part of the project).

A construction loan differs from an operating loan or a permanent loan in two key respects. First, the lender is at risk for a short period of time: while the project is being built. Second, the lender will have no tangible security other than the unimproved site, work in progress and the builder’s promise to complete the project according to the architect’s drawings and specifications.

You should find a construction lender during the early planning stages. Different lenders have different requirements about their involvement with projects so you want to introduce your lender to the project at the right time to avoid a delay.

The lender should give you a written commitment that lists the conditions to and requirements for loaning you money for the project. Typically, the lender will require documents that pertain to your organization and documents that relate directly to the project or other project team members.

Examples of these are:

- Corporate authorizations to proceed
- Contracts with your architect and GC
- Payment and/or performance bonds from your builder (as security that the builder will use loan proceeds to pay the subcontractors and perform the work)
- A guarantee of completion from your builder
- A copy of the deed or lease for your site
- A title report for your site
- A property survey

- An environmental audit or report for your site
- Copies of any permits required for construction
- Evidence of third-party approvals
- Certificates of insurance from your architect, builder, and insurer
- An “as built appraisal” completed by an independent appraiser commissioned by the lender.

**TIP:** Typically, an “as built appraisal” is used by a lender to establish the loan-to-value ratio for the total project. This loan-to-value ratio is used to determine the total amount of money the lender is willing to commit toward the project.

## PREPARING TO OPERATE YOUR FACILITY

IDEALLY, YOU WANT TO move from constructing your facility to operating it as quickly as possible. To succeed at this, you must think—before you start construction—about any items with a long lead time that you will need to have in place to open for business.

Your list could include:

- Recruitment of physician, professional and other staff
- Protocol development
- Regulatory sign-offs and licenses
- Affiliations with hospitals and other institutions
- Managed care contracts
- Patient-flow, forms and medical record system
- Facility maintenance procedures and contracts
- Contracts for other services (e.g. pharmacy, lab)
- Movers
- Telephone, MIS and security systems
- Equipment and furnishings

And do remember to plan the ribbon-cutting ceremony!

Each of these tasks takes time and planning. Your goal is to start working on each one early enough so that they all come together. Then you will be ready to hit the ground running when construction is complete.

## CHAPTER 9

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# BUILDING THE FACILITY

ONCE CONSTRUCTION BEGINS, the focus of the work shifts to the builder and away from the architect. A new party, the construction lender, arrives on the scene, and the owner, architect, and builder now take on new roles and responsibilities. Generally speaking, the roles divide along clear lines:

- **The builder builds**
- **The architect observes the work, reports, and clarifies**
- **The construction lender verifies the progress and adequacy of the work**
- **The owner manages the players and the process.**

To help you manage the construction process, this chapter introduces you to each of these roles. Then it discusses the principal tools you will need to carry out your own role, handle changes in the project during construction, and then complete and “close out” the project.

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### ROLES AND RESPONSIBILITIES DURING CONSTRUCTION

#### The Builder’s Role

Essentially, the builder builds what the architect designed. Thus, he or she is responsible for hiring and supervising the work personnel and for coordinating and implementing the work described by the drawings and specifications. The builder has other responsibilities:

- Prepare and maintain the written “history” of the job: the minutes, logs, records, reports, and schedules pertaining to the progress of the work, as well as daily activities, budget, construction schedule, construction drawings, and insurance claims.
- Monitor the cost of the work.
- Prepare payment requisitions for submission to the owner, architect, and construction lender.
- Convene the weekly project team meetings and other meetings as necessary.

The builder should always have a representative on site directing and managing the work.

## The Architect

The architect's job during construction is to make sure the builder builds what the architect designed for you. The architect performs this job by reviewing and approving materials and answering questions from the builder and by observing and reporting what he or she sees at the site to make sure the work conforms to the drawings and specifications.

Throughout construction the architect's job is to **observe**. This observation includes reviewing both **work in progress** on or off site, to insure that it conforms to the drawings and specifications and is of high quality; and **work in place**, to determine its value (that is, what percentage of it is complete).

The architect also **reviews** and **approves**:

- samples of proposed building materials and finishes (such as the color, texture and size of a brick sample)
- samples or “cuts” of fixtures and various building components (such as windows, millwork and non-movable equipment)
- substitutions (such as hardware) proposed by the builder as “equal to or better” than those specified
- “shop drawings” or detailed technical drawings prepared by a sub-contractor or manufacturer
- the builder's interpretation of the drawings and specifications, as requested
- the builder's requisitions for payment.

The architect should attend weekly project meetings with the owner and the builder to exchange information and address design-related issues.

## The Construction Lender

The construction lender verifies that the work is progressing adequately to make sure its collateral—the emerging project—is secure. Prior to construction, the lender reviews the feasibility of the project, the drawings and specifications, the architect's contract, the contractor's qualifications, and the construction contract to evaluate whether the project is a prudent investment. During construction the lender focuses on how well and how quickly you are spending construction dollars to make sure the project it invested in is the one it is actually getting.

To evaluate whether its interest in the project is at risk, your lender will engage in several activities:

- Monitor the progress of the project
- Visit the site periodically to see if the work is proceeding according to schedule
- Review the payment requisition to determine if the project is being built within the budget
- Verify that work paid for has actually been performed or provided
- Inquire if any problems at the job may cause a work slowdown or stoppage.

Some lenders will hire, at your expense, a lender's representative or project engineer to perform these functions on their behalf.

If the lender believes that the work is proceeding on time and within budget, it will continue funding the project. If the lender suspects that problems may result in schedule delays or cost overruns, it may stop or delay payment for the project. It may also actively intervene; it might replace the builder or hire a consulting contractor to “manage” your builder. Either strategy aims to ensure that the project will be completed for the balance of the loan amount.

**TIP:** The lender’s representative is not the same as the owner’s representative. The former seeks to protect the lender; the latter seeks to protect you. An owner’s representative is actively involved with the project and helps spot and resolve potential weaknesses and problems. A lender’s representative is passively involved and is there to identify problems affecting the lender’s security, not to work with you and your team to help you solve them. Most lenders will require that a lender’s representative monitor the progress of the construction project. You pay for this person’s services, so be sure to include this cost in your budget.

## The Owner

As the owner, you should assume an active and visible role during construction. These are some of the key tasks:

- Hold the architect and the builder accountable for their obligations
- Stay current with information in order to address issues and resolve problems quickly
- Make sure the work progresses according to schedule and budget
- Make sure the construction lender receives timely and complete payment requisitions
- Visit the job site often (perhaps daily, but at least once a week).

Can a project be built with a passive owner? Of course. But being passive means betting that your builder and architect care as much about your money and schedule as you do and that they will act accordingly to protect your interests.

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## KEY TOOLS FOR MANAGING YOUR PROJECT DURING CONSTRUCTION

**Y**OU CAN FULFILL your role and safeguard your interests by managing the project thoughtfully. This does not mean micro-managing the members of your project team. It does mean imposing structure and discipline on the process so that information flows, decisions are made, and all parties know and meet schedule and budget milestones.

The key tools for managing your project are:

- **The project manager**
- **Budgets**
- **Construction schedule**
- **Project meetings**
- **Written communications.**

## The Project Manager

It is extremely useful to have one person dedicated solely to looking out for your interests during construction. Some owners bring in a person with construction expertise to represent them during construction. Others continue with the same project management personnel they used during the design stages. Regardless of the option you choose, be sure someone watches the project for you. Also be sure that you, the decision-maker, are visible and available for decisions.

During construction, the project manager is sometimes referred to as the “**owner’s representative.**” The project manager or owner’s rep is your “eyes and ears” and must keep you up to date about progress, problems, and issues.

**TIP:** If you bring in a new project manager for construction, allow time for him or her to get up to speed. This person needs to become familiar with the site, the project budget, the project schedule, the drawings and specifications, and the project team and their contractual obligations.

## Budgets

During construction you have two budgets to follow, the **construction budget** and the **overall project budget**.

The **construction budget**, or “schedule of values,” is the contractor’s breakdown, by trade, of what he is charging you to build the project.

The balance of the **project budget** contains several project costs that you will incur later on. These include the remainder of the architect’s fee, hiring a project manager or owner’s rep, purchase of equipment and owner Not-in-Contract (NIC) work (for example, the alarm system).

Whether you are using your own or borrowed funds, you need to track your budget accurately so you know how much money you have spent or committed, how much you have left, and how much you will need to complete the work and open for business.

To do this, you need a monitoring system. Make sure that your project manager and, if applicable, your finance and accounting personnel, set up a system to review and track both the builder’s requests for payment (**requisitions**) and payments to the builder and others performing work during the construction period. Keep the system current. Unless you keep track of how much money is committed and spent—in an accurate and timely way—you will find it hard to spot or rectify budget errors and cost overruns. This can lead to disastrous consequences for you and the project.

## Construction Schedule

Make sure the builder provides a detailed schedule at the start of construction and updates it periodically. The schedule must identify milestones that you, the architect, the builder, and any other relevant party can use to gauge whether or not the work is on schedule. This information will help you to evaluate the builder’s statements along the way about when the job will be completed.

**TIP:** During construction the prompt flow of money is as critical as the prompt flow of information. Set up your tracking system before payment requests begin, so you can process and pay them promptly. If you delay paying your builder, you may delay the progress of the work and create a problem with the project and/or your construction lender.

## Project Meetings

You want to have three key types of meetings during construction:

- **The kickoff meeting**
- **Weekly site meetings**
- **Monthly project meetings.**

You should instruct the builder to hold a **kickoff meeting** immediately before construction begins. This is the occasion to confirm budget and schedule assumptions and to establish the operating rules and procedures for the construction period. Anyone representing the owner, the architect, and the builder during construction should attend. Key personnel associated with each team member should be introduced and the chain of command clarified. The organizational and decision-making structure should also be reviewed. Procedures and deadlines for submissions (change orders, payment requisitions, requests for information) should be defined and agreed to.

In addition to the kickoff, regular project meetings are essential for effective communication. These include weekly site meetings and monthly project meetings.

**Weekly site meetings** of the owner, builder, and architect are geared to keeping the work moving and resolving day-to-day issues. They are practical and focus on details.

**Monthly project meetings** have a more global purpose. They provide a vehicle for looking at the overall progress of the work and for sharing this information with key Board and/or staff members. You can ask your architect and builder to report on the progress of the work, the schedule, and the budget. You can also use this as an opportunity to make sure all in-house personnel with a project-related responsibility (e.g. asbestos removal, equipment purchases, MIS and security installations, pre-opening activities) are coordinating their efforts with the construction.

## Written Communications

Extensive written communication during construction is standard practice in the industry. Because mistakes can be costly, clear communication is essential. Furthermore, given the great amount of information to be communicated, all parties need to hear, agree to, and remember the same things throughout the process. Finally, written communications avoid the “he said, she said” kind of finger-pointing that can occur when things go wrong. Three of the key documents needed during construction are described below.

**Notice to Proceed.** This is a written transmittal that you should give to the builder when construction starts. The notice should clearly state the start date for construction. Often this date is tied into the contract you have with the builder and becomes critical in determining whether the builder has met certain contract milestones or conditions. Moreover, you need a clear, mutually understood start date in order to calculate any schedule delays or penalties.

**Meeting Minutes.** Written minutes of all meetings are common in the construction industry. Typically prepared by the builder or architect, minutes should detail representations and assurances made by the builder as well as decisions made during the meeting, and indicate who is responsible for implementing them.

**TIP:** Regardless of who prepares the minutes, you should show an interest in them and assure that they are accurate and distributed in a timely manner. This sends a message that you will expect parties to do what they promise to do at meetings. Furthermore, be sure to be balanced in assuring that the minutes hold everyone equally accountable. The owner and the architect have responsibilities to the builder and it is the owner's job to see that everyone carries out their responsibilities.

**Submittals.** During construction, the exchange of information between the architect and the builder is often problematic. The builder tends to think that the architect is responding too slowly to requests for information or clarification, or for submissions of shop drawings and samples. This can affect the builder's work. On the other hand, the architect may feel that the builder is asking for unreasonable responses or piling on questions that can be answered by others. To prevent such problems, develop a submittal review process and schedule that all parties agree to before construction begins. Discuss what kinds of submissions are inappropriate.

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## CHANGES TO THE WORK/CHANGE ORDERS

**C**HANGES TO THE PROJECT are common during construction. A **change order** is the document typically used to make these changes. Be sure that you understand why the change must occur and how it will impact your budget. Do not allow a change to occur without your approval.

Changes occur for several reasons:

- Unforeseen conditions can arise. For example, a subsurface rock can require blasting. This is why you build a construction contingency into your budget.
- The builder may discover that items not covered in the drawings and specifications are required to complete the work.
- The builder may generate changes, requesting to do things differently than planned.
- You may generate changes, change your mind, or get more money and decide to add something to the scope of the project.

Changes can be either necessary or optional—but they all tend to increase costs and cause delays. Approach any changes with caution and make sure you fully understand the budgetary and schedule implications before you proceed. No one can issue a change order alone: you, the builder, and your architect must agree to and approve it. Sometimes your lender or another third party also has to approve and agree to the change.

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## COMPLETING AND “CLOSING OUT” THE PROJECT

**A**S CONSTRUCTION NEARS completion, the builder will be at the site less frequently. Before the work is finished and the builder leaves the site entirely, you should make sure that specific documents are processed: the **punchlist**, certificates of **substantial completion** and **final completion**, and **close-out documents**. These documents are intended to protect you since builders are often reluctant to return once the project is complete.

**Punchlist.** The builder’s idea of completed construction may not be the same as yours. The punchlist records any difference between your two sets of opinions.

After the builder notifies you that construction is complete, you, the builder, and the architect should walk the entire project site together, along with anyone else you deem necessary. During this walkthrough, which can take hours or days depending on the size and scope of your project, you inspect the work to be sure it is complete and conforms to the contract documents. You should note in detail any unfinished, inadequate, broken, or otherwise unacceptable work. Do not consider the builder’s work complete until the punchlist work has been corrected to your satisfaction.

**TIP:** The punchlist is an important document. Use it to note everything you believe the builder should address. It may take several subsequent inspections and rounds of work to finish everything on the punchlist. It is useful to include a date for completion with each punchlist item so you can track the builder’s progress. If you neglect to include an item on the punchlist, that should not relieve the builder of responsibility for work that was not built or installed according to the drawings and specifications.

**Substantial Completion.** The architect commonly issues a certificate of substantial completion once the punchlist is issued. The date of this certificate becomes the date of substantial completion. This date typically transfers beneficial occupancy to the owner and shifts the responsibilities of occupancy from the builder to the owner. Beneficial occupancy means you have the benefits, rights, and responsibilities of occupancy so you can begin to move in and outfit the space; however, you do not have the legal right to occupy and operate the space.

**Final Completion.** This is the date that construction is finished. It occurs after the punchlist work is complete, and after you, the builder, the architect, and often the lender make a final inspection of the site. When the final inspection is successfully completed, your architect should issue a certificate for final payment. This certificate allows the builder to collect any final payment still due.

**Close-Out Documents.** You should make sure that the builder provides you with various documents before you actually make their final payment. These include:

- an affidavit that all costs incurred by the builder have been paid in full
- general releases or lien waivers from all subcontractors
- the final certificate of occupancy (or whatever certification your local building department requires)
- all operating manuals, warranties, and guarantees for work furnished or installed by the builder
- a set of “as built” drawings and specifications, reflecting how the building was actually constructed (buildings can sometimes vary substantially from the original plans)
- all spare parts and materials.

## TIPS FOR THE CONSTRUCTION PHASE

**NIC Items.** The builder is not responsible for “not-in-contract” or NIC items. You need to plan for, purchase, install, and generally coordinate them.

**Subcontractor Approval.** You are committing a lot of money to the GC and his subcontractors. Do not hesitate to voice your objections or concerns if you are uncomfortable with the GC’s choices. It is better to make changes at the beginning before work commences than to lose time and money dealing with problems later on.

**Hiring Requirements.** Talk with your builder early on about how the firm plans to comply with equal opportunity requirements or local hiring preferences that apply in your jurisdiction or are important to you.

**Information.** The builder maintains a tremendous amount of information about the job. Your project manager should find out what records the builder maintains and what reports he prepares. If you know what information is available you may have an easier time solving problems as they arise.

## APPENDIX A

# PROJECT BUDGET

This sample budget is intended as a comprehensive checklist. Don't worry! You may not need every item shown on the checklist! A detailed budget is useful, however, because it reminds you to consider services and expenses that are not necessarily apparent or anticipated but may be required. Some health centers use a detailed budget for internal planning purposes and a more consolidated budget for external presentations.

		<b>Total Costs</b>	<b>Cost/ Sq. Foot</b>
<b>Total Sq. Footage</b>	<input style="width: 80px; height: 20px;" type="text"/>		
<b>Real Estate Related Costs:</b>			
Land Acquisition	<input style="width: 80px; height: 20px;" type="text"/> acres	<input style="width: 80px; height: 20px;" type="text"/>	
Acquisition of Existing Building	<input style="width: 80px; height: 20px;" type="text"/> sq. ft.	<input style="width: 80px; height: 20px;" type="text"/>	
<b>Total Real Estate Costs:</b>		<input style="width: 80px; height: 20px;" type="text"/>	
<b>Hard Costs:</b>			
Site Preparation		<input style="width: 80px; height: 20px;" type="text"/>	<input style="width: 80px; height: 20px;" type="text"/>
Construction/Renovation:		<input style="width: 80px; height: 20px;" type="text"/>	<input style="width: 80px; height: 20px;" type="text"/>
Asbestos Abatement		<input style="width: 80px; height: 20px;" type="text"/>	<input style="width: 80px; height: 20px;" type="text"/>
Environmental Remediation		<input style="width: 80px; height: 20px;" type="text"/>	<input style="width: 80px; height: 20px;" type="text"/>
Construction of New Building	<input style="width: 80px; height: 20px;" type="text"/> sq. ft.	<input style="width: 80px; height: 20px;" type="text"/>	<input style="width: 80px; height: 20px;" type="text"/>
Rehab of Existing Building	<input style="width: 80px; height: 20px;" type="text"/> sq. ft.	<input style="width: 80px; height: 20px;" type="text"/>	<input style="width: 80px; height: 20px;" type="text"/>
Construction of Addition to Existing Building	<input style="width: 80px; height: 20px;" type="text"/> sq. ft.	<input style="width: 80px; height: 20px;" type="text"/>	<input style="width: 80px; height: 20px;" type="text"/>
Owner "Not in Contract" Items		<input style="width: 80px; height: 20px;" type="text"/>	<input style="width: 80px; height: 20px;" type="text"/>
Construction Contingency		<input style="width: 80px; height: 20px;" type="text"/>	<input style="width: 80px; height: 20px;" type="text"/>
<b>Total Hard Costs:</b>		<input style="width: 80px; height: 20px;" type="text"/>	<input style="width: 80px; height: 20px;" type="text"/>

	Total Costs	Cost/ Sq. Foot
<b>Furniture, Fixtures &amp; Equipment (FF&amp;E) Costs:</b>		
Furniture	<input type="text"/>	<input type="text"/>
Medical Equipment	<input type="text"/>	<input type="text"/>
Dental Equipment	<input type="text"/>	<input type="text"/>
Computers	<input type="text"/>	<input type="text"/>
Telephone/Data	<input type="text"/>	<input type="text"/>
Security Systems	<input type="text"/>	<input type="text"/>
Signage	<input type="text"/>	<input type="text"/>
Artwork/Plants	<input type="text"/>	<input type="text"/>
Installation Costs	<input type="text"/>	<input type="text"/>
FF&E Contingency	<input type="text"/>	<input type="text"/>
<b>Total FF&amp;E Costs:</b>	<input type="text"/>	<input type="text"/>

**Soft Costs:**

Architectural Fees	<input type="text"/>	<input type="text"/>
Reimbursables	<input type="text"/>	<input type="text"/>
Engineering Fees (Typically included in architectural fees)		
Geotechnical (Test Borings)	<input type="text"/>	<input type="text"/>
Environmental	<input type="text"/>	<input type="text"/>
Civil	<input type="text"/>	<input type="text"/>
Structural	<input type="text"/>	<input type="text"/>
Plumbing	<input type="text"/>	<input type="text"/>
Fire Protection	<input type="text"/>	<input type="text"/>
Mechanical	<input type="text"/>	<input type="text"/>
Electrical	<input type="text"/>	<input type="text"/>
Reimbursables	<input type="text"/>	<input type="text"/>

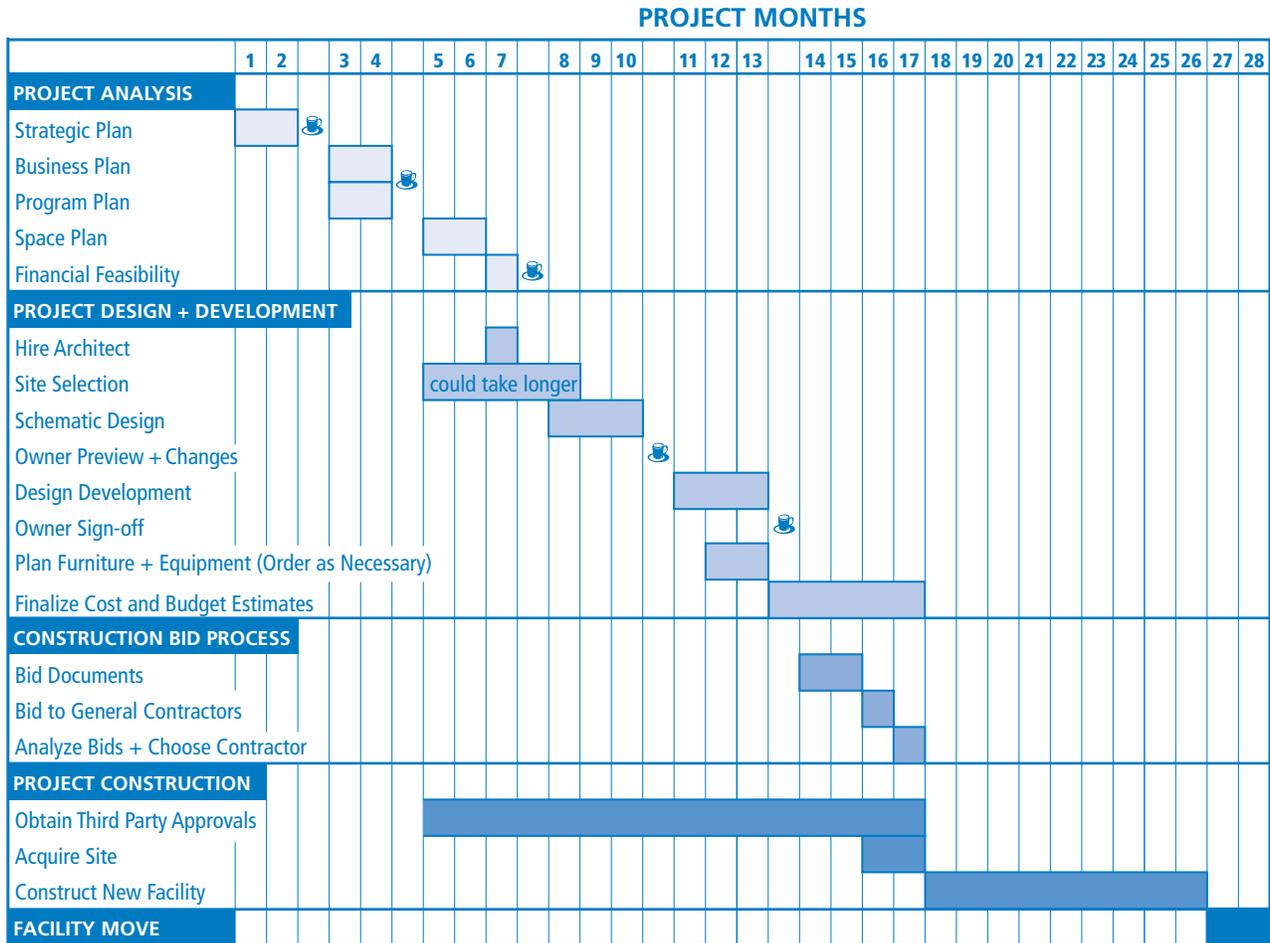
	<b>Total Costs</b>	<b>Cost/ Sq. Foot</b>
<b>Soft Costs (continued):</b>		
Environmental Assessment	<input type="text"/>	<input type="text"/>
Surveys	<input type="text"/>	<input type="text"/>
Title Reports & Title Insurance	<input type="text"/>	<input type="text"/>
Appraisal	<input type="text"/>	<input type="text"/>
Construction Testing	<input type="text"/>	<input type="text"/>
Controlled Tests & Inspections	<input type="text"/>	<input type="text"/>
Owner's Representative	<input type="text"/>	<input type="text"/>
Owner's Attorney (corporate, finance, real estate)	<input type="text"/>	<input type="text"/>
Consultants (Need for consultants is determined by expertise of project team)		
Project Management	<input type="text"/>	<input type="text"/>
Program & Space Planning	<input type="text"/>	<input type="text"/>
Financial Feasibility	<input type="text"/>	<input type="text"/>
Construction Manager (pre-construction)	<input type="text"/>	<input type="text"/>
Cost Estimator	<input type="text"/>	<input type="text"/>
Interior Designer	<input type="text"/>	<input type="text"/>
Signage/Graphic Designer	<input type="text"/>	<input type="text"/>
Telecommunications Consultant	<input type="text"/>	<input type="text"/>
MIS Consultant	<input type="text"/>	<input type="text"/>
Equipment Planner	<input type="text"/>	<input type="text"/>
Security Consultant	<input type="text"/>	<input type="text"/>
Other Consultants	<input type="text"/>	<input type="text"/>
Owner's Insurance (Builder's Risk, Liability, Property, Other)	<input type="text"/>	<input type="text"/>

	Total Costs	Cost/ Sq. Foot
<b>Soft Costs (continued):</b>		
Permits and Fees	<input type="text"/>	<input type="text"/>
Building	<input type="text"/>	<input type="text"/>
Filing	<input type="text"/>	<input type="text"/>
Regulatory	<input type="text"/>	<input type="text"/>
Other	<input type="text"/>	<input type="text"/>
Financing Costs		
Commitment/Issuance Fee	<input type="text"/>	<input type="text"/>
Development Fee	<input type="text"/>	<input type="text"/>
Lender's Attorney	<input type="text"/>	<input type="text"/>
Bond Counsel	<input type="text"/>	<input type="text"/>
Engineer/Lender's Rep. Fee	<input type="text"/>	<input type="text"/>
Closing Costs		
Mortgage Recording Tax	<input type="text"/>	<input type="text"/>
Other	<input type="text"/>	<input type="text"/>
Interest Costs during Construction	<input type="text"/>	<input type="text"/>
Payment and Performance Bonds	<input type="text"/>	<input type="text"/>
Temporary Utilities	<input type="text"/>	<input type="text"/>
Working Capital/Initial Operating Expenses	<input type="text"/>	<input type="text"/>
Moving	<input type="text"/>	<input type="text"/>
Rent	<input type="text"/>	<input type="text"/>
Soft Costs Contingency	<input type="text"/>	<input type="text"/>
<b>Total Soft Costs:</b>	<input type="text"/>	<input type="text"/>
<b>Total Project Costs:</b>	<input type="text"/>	<input type="text"/>

## APPENDIX B

# PROJECT TIMELINE

Although project time lines will vary with every project, some useful generalizations may help you plan your project. The chart below is an example of the order of major project components, and a reasonable amount of time you should expect to complete each phase.



 Indicates a 1–2 week reflection period.

## APPENDIX C

# THE BUILDER GUIDE

**T**HE BOSTON SOCIETY OF ARCHITECTS (BSA) and the Associated General Contractors of Massachusetts (AGC) have jointly authored a publication, *Client Advisor*, which offers an in-depth discussion about the different phases of a building project. One of the chapters discusses the most common “project delivery systems,” which are referred to in Chapter 4 of this manual. This appendix provides a summary of the material in the *Client Advisor*. To get a copy of the complete *Client Advisor*, contact:

Boston Society of Architects  
52 Broad Street  
Boston, MA 02109-4301  
(617) 951-1433

### GENERAL CONTRACTOR (DESIGN/BID/BUILD)



**T**HE GENERAL CONTRACTOR (GC) is an entity that takes full responsibility for managing all aspects of the actual construction process. The GC typically has no responsibility for design, and functions largely independently of the other project team members. The GC becomes involved in the project at the later end of the Design/Bid/Build process and is typically chosen through a competitive bid process to construct or renovate a building for a specific lump-sum price.

The GC assumes the lead role during the construction process, and will hire the sub-contractors necessary to complete the work. The GC is responsible for coordinating and monitoring the progress of the sub-contractors, and staging the work to avoid delays. The GC is responsible for ordering all construction related items, except those not in contract (NIC) items that the owner must provide, and is also responsible for obtaining the necessary building permits and inspections throughout the life of the project.

When using a GC, the owner plays the important role of coordinating the efforts of all project team members. It is the responsibility of the owner to ensure that there are good communications between the GC and the architect so the facility as built accurately reflects the design.

---

## CONSTRUCTION MANAGER



**A** CONSTRUCTION MANAGER (CM) is responsible to the owner for management and oversight of the project and provides pre-construction services in addition to building the facility. The CM is typically added to the project team at the beginning of the design phase, but can be engaged earlier to provide pre-design services, such as project feasibility studies, zoning and market analysis.

The CM assumes a lead role in the design phase and works closely with the architect throughout the building process. The CM is responsible for preparing all cost and schedule estimates, soliciting competitive bids from sub-contractors, and developing a Guaranteed Maximum Price (GMP) for the job.

When using a CM, the owner gives up some control by hiring a person who will be responsible for managing the project. The owner must still remain engaged in the process, but the CM is responsible for coordinating and ensuring that good communication exists among all parties, and may also be given the responsibility to select and hire team members such as the architect or the builder.

---

## DESIGN/BUILD



**A** DESIGN/BUILD FIRM is an entity comprised of one or more companies responsible for both the design and construction aspects of a building project. The design/build firm becomes involved in the early schematic design phase of the project, and manages all aspects of the project until completion.

When using a design/build firm, the owner gives up considerable control over the project. In addition, the typical “checks and balance” system that exists between architects and builders is eliminated because all parties work for the same firm. The owner must stay engaged in the process, but is not involved in the details of every decision. The owner must choose the design/build firm very carefully to ensure that the firm understands and embraces the mission, vision, and values of both the health center and the project. Since the design/build relationship operates on a high degree of trust, only an owner experienced in design and construction should use this process.

---

## TURNKEY DEVELOPER



**A** TURNKEY DEVELOPER expands on the services offered by a design/build firm and provides all the resources necessary, including financing, to deliver a finished project, typically on a fast-track schedule. Sometimes the turnkey contract extends beyond the completion of the facility to include owning and operating the facility and leasing the space back to the health center.

When using a turnkey developer, the owner gives up most of its control over the project. A turnkey developer is engaged in the early planning phase of the project and assumes the role of “owner.” Typically, the turnkey developer assumes the financial risk for the project during the design and construction phase, and potentially at completion of the project depending upon the post-construction ownership agreement. Turnkey developers may be an alternative for a health center that does not have the resources to finance a facility project, however, a turnkey developer will require a return on its investment and will evaluate its long-term risk based on the financial health of the organization.

## APPENDIX D

# LIST OF POTENTIAL PROJECT TEAM PLAYERS

USE THIS LIST at the beginning of your project to think about all the different types of professionals you may need to rely on during the course of developing the project. This exercise is very important. It helps you confirm:

- who you have to hire or what expertise you need to have
- when you have to have them on board
- whether you have included their fees in your budget.

Team Member	When to Hire	Role/Function
Architect	During program planning	Works with you to design the space.
Architect's Engineers	Hired by the architect when you hire the architect	Works with the architect and you to design the structure and systems in the space.
Asbestos Inspector	Once you select a structure to renovate or demolish	Surveys the structure for the presence of asbestos and provides a report to you describing the findings. Often includes remediation suggestions and estimated remediation costs.
Attorney(s)	After preliminary planning work is done but before you hire any members of the project team	Ensures that contracts with team players reflect the business terms you negotiate and protects you. Also negotiates and/or reviews legal documents for site acquisition and financing. May represent you in zoning matters.
Clerk of the Works	During the bid phase	Works for the owner to organize and maintain the correspondence, books, records, papers and materials generated during the construction phase.
Construction Manager (Pre-Construction)	During the schematic design phase	Meets regularly with you and the architect during the design phases to provide construction insight into the design as it develops. Also provides cost estimates. Can help save you time and money by suggesting design alternatives and giving cost feedback.
Construction Manager	Hired at the bid stage for the construction period	Can either act as your agent and manage all sub-contractors on your behalf, or act as a general contractor and hire sub-contractors directly.
Cost Estimator	During the design development phase	Provides cost estimates based on the design development drawings and specifications to confirm whether the design can be built within your budget.

<b>Team Member</b>	<b>When to Hire</b>	<b>Role/Function</b>
Environmental Audit Firm	During schematic design phase	Investigates the land and/or structures of your site and surrounding areas to ascertain whether there are any environmental risks. Often required by lenders to assess potential liability to the project for correcting environmental factors (e.g. oil spills) or other conditions (e.g. archaeological sites).
Equipment Planner	During design development phase	Works with you to identify the medical equipment you need for the project. Can inventory existing equipment as well as specify new equipment. Should work with architect to coordinate placement of equipment with design drawings and to coordinate mechanical, electrical and plumbing needs.
Expeditor	During design development phase	In some jurisdictions, helps move project through government approvals expeditiously.
Financial Feasibility Firm	During initial planning phase	Analyzes the project and your organization from a financial perspective to assess whether the project you want is viable and you can afford it.
General Contractor	During the bid phase	Builds the project according to the construction drawings and specifications.
Geotechnical Investigation/ Soil Borings	During the schematic phase	Tests and analyzes ground area under and around project for factors requiring special design attention (e.g. structural options, water runoff, etc.). Unnecessary in a rehab only project.
Graphic Designer/Signage	During the design development phase	Works with you to develop the wayfinding signs and graphics for the project. Sometimes included in the architect's or interior designer's services.
Interior Designer	During the design development phase	Works with you to select the colors, furnishings and furniture. Works with the architect to coordinate interior design requirements with design drawings and specifications.
Investment Banker	During the planning phase	Helps you obtain unconventional (e.g. other than a commercial bank) financing.
Lender's Representative	During the construction phase	Hired by the lender (paid for by the owner) to monitor the progress of the project, identify problems/issues with the lender's security and approve draws on the construction loan.
Owner's Representative	During the construction phase (Sometimes during the design phase if needed to compensate for the owner's lack of in-house construction expertise)	Monitors the contractor's performance and the progress of the work during construction. Works for and reports to the owner.
Program Planner	During the planning phase	Helps you define and detail the specific programs, services and activities that you want to provide in your new space.
Real Estate Appraiser	During the site evaluation phase	Uses standard techniques to assess the value of a property you want to purchase.
Security Systems Advisor	During the design development phase	Works with you to plan the security systems for the project. Coordinates technical specifications and requirements with the architect.

<b>Team Member</b>	<b>When to Hire</b>	<b>Role/Function</b>
Site Surveyor	During the schematic design phase	Surveys the property to show the boundaries, existing structures and encumbrances. Sometimes shows utility lines and topographical features. For use by the architect (if building a new structure) and the lender (for the mortgage).
Space Planner	During the planning phase	Helps you assign rooms and square footage to all programs, services and activities outlined in your program for services.
Telecommunication/ MIS Advisor	During the design development phase	Works with you to plan the voice and data systems for the project. Coordinates technical specifications and requirements with the architect.
Title Company	During the site evaluation phase	Issues a report describing who owns the site and any liens or encumbrances affecting the site. Issues a title policy confirming your ownership when you acquire the site. Can issue title insurance to you and your lender guaranteeing title and the priority of the lender's mortgage.
Zoning/Code Consultant	During the schematic design phase	Analyzes the zoning and building codes applicable to your site to determine whether any variances or special waivers or permits are necessary. Often an architect performs this function unless your jurisdiction has complicated zoning or code requirements.

## APPENDIX E

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# SAMPLE REQUEST FOR PROPOSALS FOR [DESCRIBE SUBJECT OF RFP]

IN CHAPTER 4, “Organizing Your Team,” there is a discussion about the kinds of services you should expect to include in the scope of work for both your architect’s and builder’s contract. This appendix lays out a generic format that you can use to create a request for proposal (RFP) to hire these professionals (and almost any other type of professional that you may need on your team). Although the format is generally more appropriate for the architectural RFP, you can use the general concept to bid the construction work by including the construction documents and specifications as a part of the scope of work you expect. Keep in mind, however, that the owner typically does not prepare the RFP for construction; that process is usually the responsibility of the architect.

When using this sample RFP, the italicized text that is inside the brackets *[TEXT]* indicates the specific information that the health center will need to include about itself and its project in the RFP.

---

### TABLE OF CONTENTS

1. General Information
2. Scope of Services
3. Contract Requirements
4. Proposal Procedure
5. Proposal Requirements
6. Contacts
7. Disclaimer

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### I. GENERAL INFORMATION

The purpose of this RFP is to seek proposals from qualified firms to provide *[describe general category of services, e.g., “architectural and engineering with interior design” or “equipment planning”, etc.]* services for a *[describe project by type (new construction, renovation, alteration, demolition), size in square feet, kind of facility (e.g. “primary care center with on-site radiology”)]*. The project site is located at *[provide*

*site address and block and lot number*]. The project is being developed by *[state name of owner or sponsor]* and financing is being provided by *[state name of lender, if known]*. Services requested by this RFP are expected to begin *[state date you want services to start]*.

---

## 2. SCOPE OF SERVICES

**WE ARE SEEKING** to hire a firm to provide all necessary services that include, but are not limited to, those described below. *[Describe in as much detail as possible the type and nature of services you expect. Start with a standard list of services and modify it to reflect your needs.]*

---

## 3. CONTRACT REQUIREMENTS

**IF YOU ARE** selected as the successful proposer, you are expected to sign a contract that includes the provisions and requirements set forth below. We may impose other conditions, as necessary. *[Describe any contract requirements that the successful proposer must accept as a condition of being selected, such as a standard form contract, limits on your liability, Affirmative Action and EEO requirements, insurance limits, bonding requirements, and other non-negotiable contract provisions. Be sure to check with your lender or applicable regulatory authority to see if they have any requirements that the proposers should be made aware of].*

---

## 4. PROPOSAL PROCEDURE

**PLEASE PREPARE** a typed proposal that addresses the subjects listed below and submit two copies to our contact person at the address set forth in Section 6 of this RFP. Your response is due by *[insert date]*. We will be conducting an optional bidders conference and site visit on *[insert date and time]* at *[insert project address]*. Please call the contact in Section 6 to indicate whether you will be attending.

---

## 5. PROPOSAL REQUIREMENTS

### Firm Qualifications

- Describe relevant jobs within the past three years, the role of your firm and the principal individuals assigned from your firm.
- Describe the other projects your firm is currently working on and how much time your firm will be able to devote to this project.
- Describe your firm's design philosophy [for architects].
- Describe your firm's size and history.
- Disclose any litigation or arbitration involving your firm, which was brought or threatened within the last three years and the status of each, if any.
- Provide a statement of your insurance coverage, including amounts and types of coverage *[if applicable]*.
- Provide a statement of your bonding capacity *[if applicable]*.
- Disclose your relationship, if any, to our organization or members of our staff or Board of Directors.

## Project Qualifications

- Describe your understanding of the project and the scope of services requested. Note any discrepancies between what services you provide and what we request. Identify any services that you believe we will need that we did not address.
- Describe your specific experience with similar projects.
- Provide a schedule that lists the tasks you will perform together with a timeframe for each task.
- Describe your proposed staff for the project, the role each will play and provide a resume for each person.
- State whether you plan to partner with another firm for this project, and any consultants or professionals that you will sub-contract with for services. Describe the roles, responsibilities and qualifications of each partner or sub-contractor.

## Proposed Compensation

- State the fee for your services. Clearly specify what services are excluded from your fee, if any, and what services you would provide for an additional fee. Indicate what portion of the fee will be paid to subcontractors and what portion will be retained by the firm.
- Estimate the amount of your reimbursable expenses if not included in your fee. Describe what items are considered reimbursable expenses.
- Provide a payment schedule.

## List of References

- Provide a list of three current references, preferably for similar projects.

Please limit your response to [x] pages.

---

## 6. CONTACTS

**F**OR FURTHER information regarding this RFP please contact *[add name, phone, fax, email and address for your contact person.]*

---

## 7. DISCLAIMER

**W**E RESERVE the right, in our sole discretion, at anytime to make changes in the project, scope of services and requirements for submission in response to this RFP. We may make these changes on a case-by-case or an overall basis. We also reserve the right to reject any proposal at our sole discretion for any or no reason. *[Disclaimers are important. They establish ground rules up front. Depending on the approach you take, they allow you to reserve the right to select the proposer you like the best—whether or not they have the cheapest or best proposal (unless your lender or other authority requires strict low bid rules). They also protect you against claims, whether or not valid, that you conducted an arbitrary or unfair bid process. Disclaimers will vary depending on local law and, possibly, your financing source. Check with your attorney on the wording and content of any disclaimer before you use it.]*

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