Second Edition

COUNTDOWN TO A New Library

MANAGING THE BUILDING PROJECT

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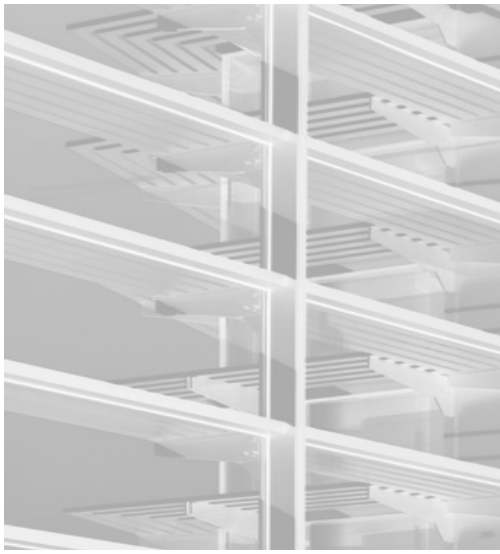
Preface to the Second Edition

In the decade following the publication of the first edition of *Countdown to a New Library,* some extraordinary changes have occurred both in society and in building design and construction. For example, the cost of heating fuels has risen far more rapidly than in the past, and it is now widely understood that petroleum and other fossil fuels are scarce commodities being rapidly depleted. Although conserving energy has been a concern among librarians for many years and was dealt with at some length in the first edition, it has now become a top priority in the design of a new or expanded library facility. Some alternative energy sources that were considered too expensive or too experimental are now practical options. Recycled materials once considered suitable only for "far-out" tree huggers are used in building construction every day.

Another major change that has occurred is the economic crisis crippling many libraries at this writing. The Chief Officers of State Library Agencies reported that 40 percent of existing library buildings are in fair or poor condition. The passage of an economic stimulus bill has raised hopes that some of these needs will be met, and plans are in place for about 16 million square feet of new library space and about 9 million square feet of renovated library space. Many libraries have health and safety issues that urgently need to be addressed. Within this challenging environment, I hope this book will provide support, encouragement, and sound advice to librarians coping with these issues. The world needs libraries, perhaps now more than ever.



Introduction

I began the first edition of this book with the wonderful quote from Elizabeth McCracken's *The Giant's House* that so resonated with librarians everywhere. "Do not trust an architect: he will always try to talk you into an atrium." Perhaps I am mellowing with age, but somehow an atrium doesn't seem quite as bad as it once did, and on cold winter days, I really enjoy a library atrium. Building professionals have learned how to prevent at least some of the leaks. But it's certainly true that library buildings seem to have more problems than they should. Again and again, brand-new buildings costing a king's ransom turn out to be terminally flawed. Before continuing, perhaps it's only fair that I bring my own prejudices out into the open and hazard some guesses as to how those flaws occurred.

For the most part, the fault does not lie with librarians. As researchers, we seek out information before launching into a building or remodeling project, and a substantial body of well-written, informative literature is available to help us. Most of this literature is concerned with those functions that are clearly the responsibility of librarians. For example, many sources provide excellent guidance for determining how many seats are needed or how much space should be allocated to book stacks. To a greater or lesser extent, the literature assumes that building professionals involved in the project, including architects, contractors, engineers, and designers, will translate the library's needs, as communicated to them by librarians, into successful, functional buildings. Such is not always the case.

THE LIBRARIAN'S PERSPECTIVE

The basic assumption that underlies this book is that the traditional division of responsibility between building professionals and librarians is no longer adequate. The modern library building has become so complex that it tends to grow of its own accord, figuratively reaching out in every direction without clear or consistent guidance from any single individual. If the library building is to serve the needs for which it was designed, there must be a key individual who monitors

progress at every stage to be certain that the project has not taken an unexpected turn. Although at least one building professional is officially entrusted with this responsibility, most of your fellow librarians and archivists will testify that something always seems to go wrong.

We librarians are, of course, rank amateurs when it comes to building technologies, but we do know about libraries. With a little effort, we can acquire a bird's-eye view of the entire project, allowing us to see interrelationships and areas of potential misunderstanding. As you will discover from the comments of librarians included in the Tips and Tales sections, some vital piece of information may not be communicated. For example, the floor in the stack area is not built to withstand the weight of book stacks; the integrity of the vault is violated by punctures and cutouts; the complex security system allows thieves to leave the building unobserved; or the roof leaks on the library's most valuable collection. Such problems may require a degree in engineering to solve, but if someone had established effective channels of communication in the very beginning, they might never have occurred at all.

Naturally, it is impossible for the information professional to acquire the expertise of an architect or engineer, a plumber or electrician. It is possible, however, to understand how the components of a construction project knit together to create a completed building. No one knows better than members of our profession that the absence of information is at the root of many problems. Therefore, this book will outline the kinds of information needed to embark upon a building project. Reading *Countdown to a New Library* will not magically transform you into a building professional, but it will provide an overview of the entire process, not merely of the librarian's traditional role. Just as a classification schedule helps you see where a particular volume fits into the bibliographic universe, this book is intended to help you see how various specialties fit into the building project, where and when people are not making contact with each other, and where gaps in communication can be most damaging.

TIPS AND TALES FROM THE TRENCHES

Throughout the book you'll find Tips and Tales sections; that is, advice and stories from many of your fellow librarians and archivists who are veterans of a variety of building projects. In the past, an author could hope for input from only a relatively small number of colleagues; today's electronic discussion lists have made it possible to get input from many more. These tips or tales are a vital part of this book. Veterans of library building projects were extremely frank in their comments; therefore, I have tried to protect their privacy by changing small details in their stories if that seemed wise. However, I have not changed the tone of the comments. You'll discover that some librarians remain battle-scarred from their experiences, and it would be less than truthful to pretend that all stories have happy endings.

As I received each tale of triumph, woe, or something in between, I mentally applauded. Building a library is one of the most difficult construction projects.

Its extraordinary demands, which range from ultrasophisticated networking to environmental controls for archival materials, would challenge any builder or architect. Yet the information professionals, whose expertise lies in entirely different directions, put on their hard hats and taught themselves the basics of architecture, electrical engineering, disaster preparedness, and a dozen arcane specialties. Please think of them as members of your project team and take their advice to heart.

DECISIONS AREN'T EASY

Throughout the book, you will encounter seeming conflicts of opinion. One of the librarians in the Tips section may make a recommendation that another librarian contradicts. This is because today's library is expected to fill so many roles, some of them at odds with one another. Today's library is the community meeting place, the computer center, the book repository, the video store, the copy center, and even the theater and the children's day camp.

In addition, libraries have a historic tradition much cherished by librarians, older faculty members, and many community users. For example, my own mental image of the perfect library is the old Free Public Library of Madison, New Jersey, where I held my very first professional position. Though small, it was one of the oldest and most beautiful buildings in the area. Visitors first thought it was a miniature cathedral until they discovered that the subject matter of the Tiffany windows was the love of books and learning. Those gorgeous windows shed a soft, many-hued light that is impossible to describe. One really couldn't read by their mysterious glow, and the lovely chandeliers cast an equally misty light that was effective mainly for catching the gleam of the hand-stenciled, gold-leaf fleurs-de-lis covering the walls. It was, therefore, necessary to illuminate the long trestle tables with hand-tooled brass lamps. The painful memory of the treacherous metal stairs winding through stack levels floored with glass blocks has faded, but the glow of the Tiffany windows remains. There will always be a part of me that believes this is what a real library looks like.

The cost of renovating such libraries is often prohibitive. Not many communities can afford to restore their historic jewel boxes while providing for the vastly expanded needs of a modern library. Invariably, something has to go. Adequate funding to support the library depends on the support of a large segment of the taxpaying public or university community. Historic libraries may be too small and too limited in the services they can provide to attract this support, and no one understands this better than a librarian. In general, we library building planners usually come down on the side of common sense, but that does not mean that we have souls of Formica and polyurethane.

BEYOND THIS BOOK

A book of this length cannot cover everything you will need to know before embarking upon a building project. It cannot anticipate the needs of every type

of library, the disaster potential of every working relationship, or the unique constraints of every situation. Therefore, you may want to refer to the lists of professional associations, organizations, and supplemental reading at the end of the chapters for helpful sources of additional information.

In general, *Countdown to a New Library* is more of a "hard hat" book than some others, occasionally emphasizing building technologies over library functions. This emphasis was chosen because of the numerous difficulties librarians in every type of library are currently experiencing with their new, high-tech buildings. Of course, in a book of this length, it is not possible to cover every aspect of construction from foundation to rooftop, so the emphasis is on those areas in which a library may differ from other building projects. For example, plumbing is given short shrift because it is not unique to a library setting, and telecommunications is emphasized because it is so integral to modern libraries. Roofs have been allotted a generous section because library horror stories about leaky ones destroying valuable collections are legion. Furthermore, depending on the library, climate control can be much more than simply a matter of heating and cooling, and security means more than a burglar alarm and a good book-detection system.

Libraries are changing rapidly, and designing spaces to meet the needs of tomorrow's library users can be quite a challenge. For excellent, on-target advice on specific library functions, I strongly recommend that you obtain a copy of the *Checklist of Library Building Design Considerations*.[1] You may find that by the end of your project, you've memorized substantial sections of it. In fact, you will discover that educating yourself for the work ahead is really a full-time job and will mean consuming a library of literature before your building is complete. I often wonder how those poor underprivileged souls in other professions, who don't have the resources of a library at their fingertips, can possibly survive a building ordeal.

WHO NEEDS THIS BOOK?

Although this book will be useful for many types of projects, it will be of greatest assistance to those of you who are designing a building from scratch or who are adding a wing or two to an existing structure. Renovation projects that involve no new construction are also covered. In addition, the book will be helpful for archivists and rare book librarians who manage collections housed within library buildings. However, although some special consideration has been given to archival collections, this book will be inadequate to meet the needs of those who are designing buildings intended specifically to house special collections.

WHEN YOU GET THE GREEN LIGHT

No two institutions share precisely the same set of priorities, personalities, and extenuating circumstances. The length of time from the first glimmerings of

interest in a new library until its dedication varies from a year or two to as long as twenty years. A new building or addition is sometimes planned amid furious activity, and then the plans are put aside after a negative response from the legislature or city council. Years later, when the political climate is more favorable, the project may be resuscitated or shelved a second time.

Just to have a starting point, we'll suppose that the first semi-serious discussion of the new building, addition, or major renovation occurs about five years before the dedication ceremony. Your central administration, governing body, architects, and contractors will all have their own ideas about the order in which decisions and commitments are made, so the sequence is also somewhat arbitrary. Although this book is structured around the sequence of a typical library building project, in the real world, you may want to jump ahead to chapter 5 and come back later to chapter 3. However, every step is essential to the planning and construction of a new building, and most are necessary for an addition or renovation.

Countdown begins by discussing ways you can prepare yourself and your library staff to function effectively in the midst of a building project. In chapter 2 you will become familiar with the dramatis personae of a project: the architects, contractors, and engineers who will soon be your constant companions. The chapter also explains various project delivery systems and delves into contract and liability considerations.

Discussions of recent library developments and future prospects introduce chapter 3. The chapter also covers the important tasks of identifying a site and determining space needs. In addition, it examines the unique planning considerations of a renovation or remodeling project.

Chapter 4 gets into the "nuts and bolts" of a major construction project focusing on both functionality and sustainability. Although the topic of sustainable buildings was included in the first edition of this book, it has taken on a considerably larger role in the present volume as the true picture of the earth's limited resources has grown ever sharper.

Similarly, the topic of energy efficiency now occupies a larger part of chapter 5. Other sections in this chapter include the ways humans interact with their buildings and the conditions under which people are most comfortable and most productive. Technology gets a chapter of its very own since in some ways, it is possibly the most crucial and problem-riddled aspect of designing a twenty-first-century library.

TALE

Building a library is exciting, enervating, nerve-racking, and the best and the worst of everything.

In chapter 7 we consider all those ominous "what ifs" that could threaten the building as well as library users and staff. Such threats could come from a variety of sources such as vandals, fires, toxic fumes, and floods and other natural disasters. Next, chapter 8 looks at creating the kind of environment in which customers can feel both comfortable and productive. The considerations involved in selecting the floor materials, wall coverings, and furnishings are all discussed, as are cleaning and maintenance, custom furniture, ergonomics, computer workstations, and shelving issues. The chief task that remains is more difficult than it might seem: that all-important job of surviving and even prospering while everything around you is in chaos. Chapter 9 addresses these concerns and

some issues that are unique to libraries coping with a building renovation. In this "betwixt and between" period, you will be planning your signage system, using your old library as a laboratory to determine what information users need and where, and scheduling walk-throughs of the new building. Finally, in chapter 10, you're ready to bring order to the logistical nightmare of moving the staff, the network, the collection, and the library program. Is that all? 'Fraid not. You will be spending most of your first year on a "crisis-a-day" shakedown cruise.

NOTE

1. William Sannwald, ed., *Checklist of Library Building Design Considerations,* 5th ed. (Chicago: American Library Association, 2008).

1 Off to a Good Start

Many librarians, describing their first experience with "begetting" a new building, complain bitterly about their naïveté at the start of the project. If only they had known. . . . If only they had been prepared. . . . This book will provide some of that advance preparation. In a sense, however, you will always be playing the role of Columbus or Balboa, exploring uncharted seas. There is no way to anticipate all the crises that may await you. Nevertheless, you can have a game plan that will prepare you for the most frequently encountered possibilities. If you have a good, clear idea of your goals and how other librarians have achieved similar objectives, you're infinitely better off than if you approach the project unprepared.

PREPARING YOURSELF FOR WHAT'S AHEAD

At last, it's finally happened! You've received a tentative go-ahead to begin planning a new library or addition. You've been given permission to dream and to work harder than perhaps you've ever worked before. The wheels will soon be set in motion, but suddenly you've got cold feet. Where do you begin? What do you do first? What do you, a librarian, know about bricks and concrete and load-bearing walls? It may sound a bit simplistic, but you begin with yourself. Assuming that you're the library director or a member of the team that will be shepherding the project to completion, you've got an awesome job ahead. It will require all your intelligence, patience, humor, flexibility, interpersonal skills, strength of character, and intestinal fortitude to emerge triumphant from the experience with a functional building and most of your nerves intact.

You're the Expert

You will be spending the next few years with dozens of specialists in building design and construction. At times you will feel overwhelmed, even "cowed" by their technical knowledge, and you will cringe at your own inexperience. No matter what their specialty or however varied their skills and experience, you will find one subject on which most building professionals are ignorant: they will be as newborn babes when it comes to the nature and function of a library. Here, you alone are the expert. Perhaps you never thought of yourself that way, but now is the time to start. Without your expert guidance, the building that emerges from the rubble might be suitable for a factory, an office building, or a department store, but it won't work as a library.

Over the years, you've acquired an extraordinary amount of information about libraries from your library school classes and your work experiences. For example, you know roughly the number of staff members who will be working in the new building and the areas to which they will be assigned. One librarian in the Midwest could not convince her architect that a building of 80,000 square feet would be staffed by just a dozen people. Additional offices and service desks kept appearing mysteriously on floor plans because the architect was convinced the librarian must be mistaken about staff size. Libraries are indeed very different from other large buildings, and only you know precisely how they differ.

Libraries are not well understood by building professionals. Only infrequently does a contractor or architect arrive on the scene equipped with an intimate understanding of book stacks, learning commons, collaborative studies, teen gaming, or library traffic patterns. Look around. How many libraries do you see? Over the course of their careers, architects may design hundreds of apartment buildings, office complexes, and strip malls, but only rarely do architects ever plan a library. You're the one who must take responsibility for this part of their education. Don't allow an architect or contractor to make unilateral decisions that will determine how the library functions.

Your Sphere of Authority

It is your responsibility to encourage functional design and strenuously oppose design features that interfere with the library's effectiveness. This means clearly delineating the architect and contractor's sphere of authority and your own: the details best left to the judgment of a building professional, those on which you should at least be consulted, and those that you must approve. The items in the latter two categories are far more numerous than most building professionals believe, and you may have some heavy weather ahead until everyone settles down to a comfortable working relationship. Just remember that library considerations affect diverse issues such as hardware on the panic doors, wiring details, lighting requirements, and the desirability of design elements like balconies and atria.

TALES

I would emphasize knowing what you want, being able to articulate it, paying attention to all the details, and not assuming that someone else (like the professionals) will take care of something,

I found that my suggestions were often pooh-poohed. I wish I had stood my ground more often, though it might not have done any good—my position wasn't viewed as particularly authoritative or important.

DONNING YOUR LIBRARY HARD HAT

It won't be long before you discover that you have two full-time jobs. Unless you're starting a new library from scratch, you still have the job of taking care of the day-to-day needs of an existing library. In addition, you have the second and equally time-consuming full-time job of planning a new library building or expansion. As the song puts it, "Something's gotta give!"

If your library is large enough to enjoy the luxury of an assistant director, consider delegating one job or the other. It is usually best for the director to use whatever clout she has for dealing with trustees, deans, and other decision makers. This means that it is more usual for the assistant director to take on responsibility for the existing library while the director plans and oversees progress on the new one. It may be, however, that the skills and interests of the people involved make it preferable to assign the planning role to the assistant. Even if yours is a small library with a limited staff, delegate as many responsibilities as possible.

If you've always been the kind of supervisor who tends to micromanage, break yourself of the habit now before you drive yourself bonkers. Nothing is more important now than prioritizing your time. It's all a matter of deciding what comes first, what will eventually become a glaring problem, and what can safely be swept under the carpet. Lots of good and worthy projects can be swept under the carpet, and no one will be the wiser. When you delegate routine matters, don't insist on approving every little decision. You will send the message that you distrust the person to whom you delegated the responsibility, and you will still be doing two jobs.

TIPS

Anticipate that dealing with the architect and builder will use up most of your time on the project until the library is completed. Delegate your other responsibilities.

Learn to translate architect-speak. When they say it can't be done, they mean that from their own personal perspective, the cost or sacrifice of other features would be prohibitive. When you know all the pros and cons, you may decide differently.

Stick to your guns when you're told things like "you really don't need all those outlets." The few times that I had a chance to talk to anybody, I was treated like an eejit (as my Irish friends would say).

I recommend Prozac, lots of it.

Get into a frame of mind that lets you enjoy the project and, most important, have a generous budget for chocolate.

IDENTIFYING AND COMMUNICATING WITH KEY PLAYERS

You, of course, are not the only participant in the project. If you are working in a public library environment, your library board and numerous municipal or county administrators will be active participants in the building project, as will philanthropic individuals and foundations making financial contributions. In a university environment, the stakeholders include the board of trustees, benefactors, university president or provost, and an assortment of administrative staff members. Identifying these participants and determining how they will share in the decision-making process should be placed on your "to do" list as early as possible. Occasionally, a city council member, university president, or board chairperson views the new building as his own monument. Since these people have only a limited understanding of how the library functions, they are especially vulnerable to the extravagant enthusiasms of architects. Before your boss

TALES

Reality is different from theory. The architects made the plans. The treasurer approved them. The library director had limited input.

I was involved in a library building project several years ago in a New England state. I was hired about a month before bids were opened for a long-awaited addition to a 1905 building. The director, whose vision this was, had such a hard time with the trustees that she quit six months later. The trustees (who knew everything) micromanaged the building project, drove the architect crazy, asked the staff for input on colors and then ignored it (making them furious), and refused to hire an engineer or clerk of the works who could look out for the library's best interest.

or board ever gets near an architect, they need a crash course in libraries too. Don't assume that because they've approved or disapproved your annual budget requests and listened to your tales of woe, they know what happens in a library. Their impressions of day-to-day library activities may be as vague as those of your users. In fact, they probably view the library from the standpoint of users. That is, public services are all they see, and the only important materials are the ones they need.

MAKING GOOD DECISIONS

Who decides what? When can you resolve an issue without additional input, and when must you seek approval from someone at a higher level? Work together to agree upon procedures for communicating information, obtaining input, and making decisions. Reduce the number of people who must be regularly consulted to a manageable size. If you are in a public library, ask that your board appoint a subcommittee of no more than four people who will work directly with you. Encourage the board to choose people with the time, knowledge, and experience to contribute significantly to the process. What you don't need is deadwood, people whose egos demand that they be consulted but who have little or nothing to offer.

Flawed Group Process

In talking with many librarians, I've concluded that despite the talents and good intentions of the individuals involved in a building project, it's the group process that is often at fault when things go wrong. Groups have the advantage of bringing a wider variety of insights to bear on problems, but there is a downside to the group process as well. Some poor decisions seem to be the direct outcome of group dynamics rather than the bad judgment of any one person. Group decisions that initially seem brilliant get made on the spur of the moment. Looking back on them, however, it's hard to imagine why no one noticed their obvious flaws. Since groups are involved with the design of nearly all libraries and library additions, you had better confront the problem openly and honestly before it gets out of hand. If everyone involved in the project will agree to abide by the following rules and if the group accepts responsibility for seeing that the rules are followed, a lot of future wringing of hands will be avoided.

Rule 1

At the very beginning of the project it's important to make a pact with everyone involved, from board members to circulation clerks to academic deans to community members. There must be agreement in advance on the way group decisions will be made. Once that agreement is reached, participants will need to be reminded again and again and again.

Rule 2

One essential part of that agreement is a ban on spur-of-the-moment decisions. This is really a hard rule to follow and will require a lot of practice. Meetings are tiring. We begin our meetings with a clear focus and plenty of energy. Eventually, however, we become tired and cranky, anxious to go home or get back to that pile of work waiting on our desks. When meeting participants have arrived at this frazzled state, and are considering a knotty problem whose solution is eluding them, someone will inevitably make a loud, firm, and authoritative statement intended to put an end to fruitless discussion. Tired minds will grasp at it, wondering why they hadn't thought of it earlier. This decision is often the one that is recorded, and all too often, it is the one that should never have been made.

Perhaps the planning group works for months, exploring various alternatives before recommending a plan. Finally, their proposal comes before a board of trustees, a city manager, or a university dean. If those individuals are not parties to the agreement, they may become the victims of instant inspiration. They notice something that seems excessively expensive or inconveniently located. "We'll fix it," they say, and quicker than the blink of an eye they do.

Unfortunately, most decisions have a downside. If the circulation desk has a good clear view of the entrance, it won't have an equally clear view of the stacks. Most quick fixes will inevitably mean that something else "gets broke." The result will be arrangements and locations that are not quite right. Sometimes it is the less important problem that is solved while the essential function is sacrificed.

Administrators and oversight groups have a responsibility to critique and approve the work of their subordinates. The buck stops with them. However, they are no less vulnerable to the dangers of instant fixes. Since they cannot spend large amounts of time reviewing all the pros and cons involved in a decision, they should express their concerns and refer them back to the planning group. Individuals who are especially concerned may even wish to sit in on these deliberations. A building project is far too complex for any individual to understand at first glance, and no matter how perceptive one is, it will take time to see how one change affects other elements of the plan.

Rule 3

Observe the 80/20 rule. In every library, there are patterns that might be described as "business as usual." Staffing decisions are made based on past experience; collection development is guided by past circulation. Librarians try to call to mind their average patrons when they are making decisions about future needs. However, there are exceptions. The library may be adequately staffed most of the time but not at noon on Saturday, when the reduced staff must juggle lunch hours. Patrons normally request similar types of books, but every once in a while staff get that obscure question about cryogenic research in the Gobi Desert.

The same is true when planning a library. As you pore over floor plans, you should have a very good idea what your staff and users will be doing about 80 percent of the time. You can roughly predict the number of people using the Internet computers and anticipate the most heavily used traffic areas. However,

there are always situations that don't fit the norm. The best decisions are the ones that serve the library and its customers 80 percent of the time. However, special needs, in other words, those that come up infrequently, must be addressed as well. As a librarian, you don't redirect your collection to meet the needs of that cryogenic researcher. You fill the request through interlibrary loan. In other words, you try to find a way to meet the unusual need without penalizing the many who have very different reading habits. The same is true in building planning.

Ask library staff members to describe their typical day. How many staff members are stationed in public services? How many customers are using the library at 10:00 a.m.? At 7:00 p.m.? Get out those statistics you've been collecting for so long. Which collections are the most heavily used and the most likely to expand? Which tables, lounge furniture, and study carrels are occupied first? Why are these popular? If an area doesn't get heavy use now, it's unlikely to attract users if you re-create it in the new library. Once you have this clear picture of an average "business as usual" day, you can design a library that can be staffed most efficiently and that meets most customer needs.

Now, what about the other 20 percent? The library has a responsibility to serve its customers with different needs. For example, a customer in a wheelchair has a right to a safe and successful library experience. A service desk may need to be left unattended for brief periods. Although the library must be prepared for such situations, a decision that interferes with its ability to function effectively 80 percent of the time or serve 80 percent of its patrons is a poor decision. Each time a decision is made about the location of an office or the positioning of an elevator, the 80 percent rule should be observed. Undoubtedly, there are situations in which you have no alternative, but every option must be explored before conceding defeat.

TIPS

Come to agreements with trustees and whomever else (city, county, state officials) on who has the final say on what decisions.

Once the major players have been identified, spend time together. You can safely assume that they know little about libraries, but if they've been well chosen, they can bring a variety of other expertise to the planning process. Get to know each member's special strengths. Be sure you understand how much personal involvement your boss or your boss's boss is anticipating.

TALES

As construction reached its final phase, the director learned that the campus chancellor planned to come view the nearly completed and remodeled facility. Suddenly, one day the chancellor strolled by the director's office on this tour in the company of his special assistant, the assistant chancellor for administrative services, and the building project manager, none of whom stopped in to say hello to the director, much less include him on the tour.

During the construction, the library director was advised that he need not attend the weekly construction progress meetings, unless invited. This led to many small surprises.

If you aren't included in planning meetings, be bold and ask to be included and say why.

The "Libraries Will Be Extinct" Argument

As your construction project ascends from one approval body to the next, you will inevitably encounter a board member or bureaucrat who is convinced that there is no point in spending money to build or renovate a library since it will be obsolete in five to ten years. Naturally, academic and public officials prefer to save money wherever they can. The media's current fascination with the digital library provides an excellent excuse.

You will be tempted to become angry and defensive after you've heard the same argument for the twenty-third time. Anticipate your reaction and have a canned speech and written handout ready whenever the subject might

Medina County (Ohio) District Library, Medina Library, David Milling Architects, dmaa.com.
Photo: William H. Webb, Infinity Studio.

come up. Of course, it's true that librarians are worried about the future. No, we don't know exactly what the future holds in store, but we do know that the simplistic argument about the death of the book and universal delivery of electronic information is a smoke screen. Libraries are complex social institutions that provide a wide variety of services. You need not feel guilty or defensive; you are simply dealing with people who have a very limited picture of a library.

On some relatively calm and restful day when a new library is little more than a gleam in the library staff's collective eye, write a brief statement that speaks to the library doom-and-gloom argument. Limit your literary effort to a page and address the issue as simply and clearly as possible. Such esoteric points as the global information economy will not go down as well as local arguments illustrating how important the library is to your community. Make it clear that the book is unlikely to disappear anytime soon and that the library will be delivering both print and electronic information for the foreseeable future. Online access to the virtual library is a marvelous resource, but the library is far more than a website. Steer clear of arguments about whether books or computer equipment are more important. Collect statistics on library use, including civic groups using meeting spaces, educational programs, services for the unemployed, teen programs, and other functions that bureaucrats tend to forget when they see the library going the way of the dinosaur.

The "Hurry Up and Wait" Syndrome

Most librarians report that their building projects progressed not steadily but in a series of lurches. Long delays were followed by sudden bursts of activity when everything was due yesterday. Projects that have simmered on the back burner awaiting approval from a half dozen officials, government agencies, and advisory boards suddenly erupt into life and are given the all clear. It's full steam ahead and everyone is caught unprepared. Frequently, librarians find out about deadlines by accident or are forced to work around the clock to have their input ready for spur-of-the-moment meetings.

From the very first moment when your building project acquires some sort of tentative official status, start spending time on your own preparations. Many of the tasks described in the rest of this chapter can be done long before they are needed. Having a recommendation or request ready at a strategic moment can make all the difference between success and failure. It is also important to spend these quiet intervals bringing your building expertise up to speed. Use the time to take courses, read books and articles, and take frequent busman's holidays.

Create an Information Blitz

Many crises are avoidable if everyone is kept fully informed. Making use of her extensive experience with pathfinders and "quick bibs," one librarian got into the habit of creating one-page information sheets on every aspect of the planning and construction process. When the board and the architect were considering the best site, she gave all participants copies of her one-page bulleted list of the

ten most important considerations. Then she explained her points quickly and clearly and relinquished the floor before she'd lost the attention of her listeners.

All through the design and construction phases, that librarian had small stacks of one-page handouts ready. One briefly and succinctly explained preservation issues; another dealt with library security requirements. She never distributed more than one handout at a time and never included more than the barest essentials on a sheet. Large type, lots of white space, and important points emphasized with bold print and bullets distinguished all her masterpieces. Best of all, the handouts were always ready ahead of time, so when the conversation turned unexpectedly to a new subject, the librarian was ready. When new team members arrived on the scene, she began the process all over again. Although I don't know it for a fact and she never talked down to anyone, I wouldn't be surprised if this librarian began her work life teaching third graders. She never argued, never became hysterical or irrational; she just kept plugging along distributing and interpreting her information sheets. The success of her new building speaks volumes for the efficacy of her method.

THE POLITICAL ENVIRONMENT

Every library is enmeshed in some sort of political environment. Of course, political considerations are a part of any human endeavor that involves large sums of money. However, in some libraries they may become such an overriding concern that they jeopardize the success of the project. How can you cope? Well, first of all, take a good look at your community. Think back on the role of politics in past library decisions. You will know the extent to which library issues have been seized upon by competing political factions. You can probably predict many of the challenges that lie ahead even without the help of a crystal ball.

Your People Resources

Making effective use of the skills and resources of your board, boss, and library users is always necessary, even in the calmest of times. If the library is going to be at the center of a political firestorm, these supporters will be absolutely essential to the success of the project. As soon as you see the new library or addition looming on your horizon—in fact, long before any official approval is obtained—begin mustering your library's political strength. If you have some influence over the appointment of your board, seek out good politicians who have connections with decision makers in your community. Look for articulate people who will speak out and help communicate the library's needs to local government representatives and other citizens. Make them stakeholders in the project by keeping them informed and going to them for advice.

Even if you have little or no influence on the election or appointment of the board, never see your board as the enemy. Though you might willingly wring a few necks, you have far more influence over this group than you do over the other powers that be. Make allies on the board; work with them, inform them,

TIP

The funders (public or corporate) have to be educated over and over about what it is you're trying to build, renovate, plan, and so on. They don't know what you need unless you tell them; they need to know why, what, where, and how—and you are the only one who knows.

and finally make them participants rather than spectators. Academic libraries also operate in highly charged political environments. Of course, you're familiar with your usual chain of command, but you may find that the real decision makers are people you've never worked with before. Set yourself the task of identifying these unknown players. Consider how your needs and insights can be communicated to them without appearing to go over your boss's head.

You Gotta Have Friends

In addition to developing support on your board or among your administration, you should nurture the same kind of "people resources" in your Friends group, library foundation, and other sympathetic community organizations. Most libraries already have some group that raises money and advocates for the library. Take a good look at yours. If it's been inactive, what can you do to bring it back to life? Begin identifying regular library users who have the kind of political skills you are seeking. Personally invite them to participate. Use some of your precious staff time to plan activities that will reinvigorate Friends meetings. Then, as the building project begins in earnest, make regular reports to the group, encouraging them to attend hearings and lobby for the new library.

Start New Library Groups

Occasionally, a library has a Friends group that is, you might say, "on its last legs." Most of the members joined in 1976, and it has gradually become stagnant and fusty. You know deep down that the articulate, politically savvy newcomers you're looking for would never want to join, and anyway the old guard would discourage their advances. If this is a good description of your Friends group, all is not lost. Start one or more new groups that can coexist side by side with the old one. Book discussion groups work well for this purpose, or you could develop a special fund-raising group for the new library. The point is that you will want to hand-select as many of the members as possible. Once they're hooked, you must keep them involved with activities and responsibilities. One way or another, nurture a sizable group of people who are both involved in the community and possess the kind of political skills the library so badly needs.

Steer Clear of Dissension

Remember that building projects cause tempers to flare and nerves to fray. It is not even unusual for heads to roll in such a highly charged environment, and you certainly do not want to place your own head in danger. You will have to balance your determination to build the perfect library with your instincts for self-preservation. When the last carpenter has taken his lunch box and departed, you can also bid adieu to the architect and contractor. If your superior diplomatic skills failed you and you nearly came to blows, you need never speak to them again. Your job, however, should be just as secure as the day you took on

the project. In fact, you should have established such a good working relationship with your superiors that they now understand far more about the library and its needs.

Get Support

It is an unfortunate fact of human nature that we want someone else to take the blame when things go wrong. Depend on it: many things will go wrong during a building project. Hours will be spent arguing over who is at fault. Even when you are working with the nicest and best-intentioned people, you will want to protect yourself from such recriminations. It happens all too frequently that the individual who has done the least is the most critical of the work of others. The best way to avoid problems is to provide ample opportunity for input from all the important stakeholders.

Be sure you have plenty of support before going out on a potentially controversial "limb." If you don't have support and believe strongly that you are in the right and your colleagues in the wrong, tread carefully. If it's important enough, launch an educational campaign to clarify the situation. Assemble and present factual information to support your point of view. If, however, you begin to see yourself as a kind of Joan of Arc who alone understands what's really needed, or you feel like a suffering martyr buffeted on all sides by ignorance, stop! Pull yourself together. You're not going to survive this project unless you can calm down, back off, and acquire a more detached attitude.

TIP

Our project supervisor (hired by us to oversee the work of the contractors) advised me to leave the decisions on shingle, exterior trim, and brick color entirely to the board. I think he was wise. It is a very big decision. If it is a wrong decision it is very obvious, and we will have to live with it for a long time. It is better if the board has no one to point a finger at!

TALES

The building was designed by committee—we had a community group of thirty-five people involved in the planning stages and still ended up with a beautiful, functional building.

As the saying goes, "For God so loved the world he did not form a committee." That goes double for construction projects.

The president decreed that the campus store will be in the new learning center building. No one has been able to overturn that directive to this point. Why not bring in Kinko's? It would be cool if it were a big building, but it's only 22,000 square feet.

ESTABLISHING LINES OF COMMUNICATION

Several years ago, I worked in a library that had a gaping hole in the floor in front of the circulation desk. Patrons joked that anyone not returning books on time would be hurled into the chasm. It seems that a special (and very expensive) type of flooring material had been used. It was intended for easy removal when,

at some time in the future, the library would expand to the floor below and a staircase would be erected. Unfortunately, the floor chose to remove itself much earlier than planned. The architect had passed on an instruction booklet to the builder describing how the flooring material was to be installed. Unfortunately, one vital page was missing.

There was probably nothing the librarian could have done about this particular instance of miscommunication, but many other tragedies are easily avoided if the efficient flow of information becomes a priority for all concerned. The basic problem is that information often gets lost or buried before it gets to the right person. Changes requested by the librarian may have to go through so many different intermediaries that when they finally reach the contractor or subcontractor who can execute them, it is too late to make the alterations. Changes that once might have cost nothing to implement may later require extensive retrofitting at a cost of many thousands of dollars.

The Owner's Representative

As you read the tips and tales recounted in this book, as well as the recommendations in the text, you may find yourself confused. Who is doing what? Who reports to whom? This is partly a problem with terminology and partly a result of different local practices. The terms *commissioner of work, project manager,* and *clerk of the works* usually refer to the person hired by the owner (either the library board, university, or local government unit) to make sure everything is done correctly. *Commissioning* is a term that's used increasingly for the process of making sure that building systems work as planned, so the term *commissioner of works* is similarly becoming popular. In the tip below, the county engineer is acting as the owner's representative.

Ideally, such a person possesses both loyalty to the owner and expertise in building design and construction. A city or large university may have a permanent department assigned to this task. On the other hand, library decision makers may be unwilling to hire another highly paid professional. They may assign the job to the library's own facilities manager or to the library director. In fact, they may not even consider such a role necessary. To make matters more complicated, the architectural firm may appoint a project manager. This is usually an architect who is responsible not to the library but to the firm.

In the best of all worlds, the library board or university administration hires a highly qualified professional who possesses extensive experience in building design and construction. This paragon works closely with the librarian, clearly understands the library's needs and priorities, and makes sure that contractors and subcontractors comply with them. In reality, there are probably as many chains of command as there are libraries. This makes it difficult in a book such as this to precisely define the role of the library director and staff. However, the project will not be a success unless those relationships are defined and widely understood. The biblical exhortation that you cannot serve two masters is appropriate here.

In some situations, librarians are prevented from communicating directly with building professionals by administrators who fear their "add-ons" will drive up the cost of the project. This understandable concern can be alleviated if a clear procedure is established for approving financial commitments. Work out a system whereby key players involved in the building project routinely "copy" one another on important memos, making it clear that this is for information only.

TALE

I met on-site with the county engineer, the construction foreman, and the architect every other week. It was tremendously helpful to know the building from the ground up.

Help Building Professionals Communicate

Although you don't have a lot of say in the matter, it's vitally important that your contractor, architect, and other building professionals communicate well with one another. Any time you can bring them together, do so. They are all extremely busy, and unless they get together frequently, they may not take the extra time to make sure they're really "on the same page." The term *charrette* is often used for a collaborative session attended by all major players involved in a building project. Architects, engineers, contractors, and owners' representatives get together to brainstorm, identify design problems, and discuss solutions. They usually require multiple work sessions. You can get a good idea of how much communication is taking place among your team by asking about a charrette. If the term seems foreign, it may simply be a matter of terminology or you may have a problem.

Based on personal experience and the comments of other librarians, it seems as if far more time is spent passing around the blame for a mistake than is spent fixing it. When problems are identified early, they are usually easy to fix. Simple, inexpensive solutions are often the best ones. This means that success depends on a librarian who stays abreast of what's happening and on a contractor who checks back with the architect when something just doesn't feel right.

Write It Down

Get used to putting things in writing. In the classic Japanese film *Rashomon,* several people describe their memories of the same incident. Each is being honest, but each appears to have witnessed an entirely different event. This is often true of meetings with the various participants in a building project. Each will take away a different understanding of what occurred.

Follow up on meetings with messages or memos outlining the decisions and commitments made. If a decision cannot be made without more information, identify the person responsible for providing that information and the time frame in which the decision must be made. Mention anyone who has volunteered to perform a task or who has been asked to take on a responsibility. Although no one enjoys taking minutes, appoint yourself as official or unofficial reporter of the discussions in which you participate. Distribute photocopies of the minutes to everyone involved. If other members of the group understood matters differently, now is the time to discover their differing interpretations while the meeting is fresh in everyone's memory. Some people, of course, will consign your

memos and minutes to the trash can, but at least you've provided an opportunity for them to express their views. When an argument arises months later, you will be able to produce written evidence to support your position.

At this point, it is important to include a few additional words about the whole business of taking minutes. How many meetings have you attended at which everyone spent the first part trying to get out of taking minutes? Few chores are so unpopular. Nevertheless, the page or two of notes you take during a meeting or discussion can pay astounding dividends. First, you are establishing your interpretation of what happened as the official one. If minutes are distributed and group members are asked to submit corrections, you have provided an opportunity for the expression of other interpretations. Even though people rarely avail themselves of this opportunity, your minutes will usually be taken as the official version of an event in a court of law or in an arbitration hearing.

Human Relations 101

Make it a point in the minutes to present participants in their best light. Of course, you must not distort what actually happened, but the difference of just a few words can make a comment sound wise or foolish. Be sure everyone sounds wise, because they will be more likely to actually read what you have to say. We enjoy nothing more than reading complimentary things about ourselves. It's all very well to have the minutes available for ammunition in some future dispute, but it's much better for project participants to understand one another right now.

TIP

At building progress meetings, have a staff person who takes minutes along with the architect. Make sure the staff person records the stated concerns of contractors and the answers of the architects as part of the meeting minutes. (This procedure would have helped us later on when architects and contractors fought to establish the blame for problems.)

Never use your minutes to make yourself look like the only intelligent member of the discussion. Never use them to give voice to all your grievances or get revenge on an adversary. You'll simply initiate a spate of angry memos accompanied by hurt feelings and embittered reprisals. Focus your efforts on the building, not on the personalities. If you don't, by the end of the project you may be seething with hostility, and others may be feeling exactly the same way. The last thing you want to do at this point is to set off a tinderbox of explosive feelings.

YOU CAN'T DO IT ALL ALONE

If you imagine that the entire library staff will be doing their usual jobs while you drive yourself to a nervous breakdown with added responsibilities, better think again. Take off that halo. You're all in this together. Your staff's library lives are going to have to change almost as much as yours. Review the library's priorities. What functions can be compressed or postponed? How can you free staff time for the many tasks that a construction project involves? You're going to need someone who is in charge of public relations, whether this is an official position or is incorporated into an existing job description. Look around at your staff. Don't stop at

the professional staff. It doesn't take an MLS degree to be a charming and effective publicist and event organizer. Your library probably has some highly competent staff members who are active in the community and would do an excellent job.

Get Staff Involved

In most cases, you are enlarging your present library or designing a new building to replace an existing structure. This means that you already have a laboratory in which to experiment with new ideas and a staff of experienced professionals and paraprofessionals who together possess many years of library experience. Bring everyone in the library into the planning process. Not only will working together as a team improve their morale and job performance, but it will improve the quality of your own library work life as well. Involve them in creating your checklist of needed features and functions. Work together to weigh the importance of individual items. The staff can help you separate the "absolutely essential" from the merely desirable.

TIPS

Insist on staff involvement; they have to work there every day!

Staff members are heavily stressed during a building project. If they are also heavily involved and have bought into the project, they take the added stress with courage and good humor. At least ours did.

We had an incredible battle rearranging the interior to make sense, but the staff finally won that one. The staff and I kept each other going.

Don't forget that there are other employees who should be involved in the project as well. Custodians can provide expert suggestions on which materials wear well and which are especially difficult to clean. Maintenance staff and all-purpose handy people can also troubleshoot plans, identifying problems in their particular areas of expertise.

Library directors who have suffered through a building project often relate that they felt like martyrs, abandoned by people who didn't understand how hard they'd worked and how much frustration they'd experienced. It is sometimes hard to avoid such a neurotic outlook when board members demand the sacrifice of stack space for a reception area or the president cuts the construction budget by another million dollars. We do sometimes feel that we alone are holding up the bloodstained banner, and such an attitude can seriously interfere with our judgment. Involving the library staff provides a support group on which you can depend for informed advice and encouragement. These are people who understand both the mission and the practical reality of a library. Although opinions will differ sharply, they will tend to see the project in much the same way you do.

Nevertheless, be careful that you do not unload all your frustrations on the library staff. Naturally, you will feel the need for a sounding board when the board chairman has done something really dastardly, but your staff should not be used as confidantes. It is especially unwise, in a moment of anger, to utter insults or make wild accusations that you will long regret. You might instead develop a network of librarians outside your own library with whom you can let down your hair—colleagues who will understand what you're going through but who will regard your verbal torrents as confidential.

Tap the Staff's Institutional Memory

Pooling the experience of staff members can result in some unexpected bonuses. One staff member may remember a crisis that occurred because of a badly designed circulation desk; another will recall an error that made it impossible to use a service elevator or work space as originally envisioned. Such memories can keep you from making many costly mistakes. Invite staff members to walk through a typical workday using the preliminary floor plans. Looking through their eyes, you will discover a gaggle of traffic problems, unsupervised niches, poorly organized work spaces, and noisy reading areas. You will wonder how you could possibly have missed such obvious problems, but you are in no way at fault. We each view the world from our own unique perspective. Your role is not to be omniscient but to integrate the many views into one coherent whole. Staff are probably the ones who will catch the details while you are focusing on the big picture. Although some initial brainstorming sessions will be useful, staff must also be attuned to the project schedule so they don't identify problems after it's too late to do anything about them.

DEVELOP YOUR SKILLS

Although you are an expert on libraries, you still have a lot of homework to do before you're ready to launch a building project. For example, you have a new vocabulary to learn. Although you certainly have every right to insist that the architect and other building specialists speak English and avoid jargon, you must meet them halfway. Describing the fittings for a large, complex building requires an understanding of hundreds of new terms. (They are not gizmos or thingamajigs.) Small details like locking mechanisms that you may never have noticed come in endless varieties. A certain minimal understanding is needed to reinterpret technical details in terms of the library's needs.

Continuing Education

Your local technical college offers a wide assortment of courses designed to introduce students to the building trades. You might audit a course in architectural drawing and learn to read a blueprint. Electrical connections, data lines, load-bearing walls, and plumbing lines are clearly indicated on a floor plan and obvious to a building professional. They are easily overlooked, however, unless you acquaint yourself with the symbols in standard use.

Branch out, if you have time, to other introductory classes dealing with electricity or heating, ventilation, and air-conditioning (HVAC) systems. The point is simply to acquire enough vocabulary and basic information to communicate effectively. If you haven't the time for a course, take a look at your own library shelves. Public library collections are especially rich in basic architecture and construction texts. Even "do-it-yourself" homeowner books can be helpful.

TIPS

Read all you can. You can't learn too much!

When it was evident that we would add on to our building, I was sent to participate in a very good workshop. It covered everything from planning and blueprints to how to deal with the architects. I can't recommend workshops and focused conference sessions enough!

Know how to read a blueprint. There will be construction mistakes, and only by knowing what the blueprints include will you be able to have change orders written at no cost to you. (This is very important because change orders add up quickly.)

Architects, project managers, contractors, and so on were all surprised to learn that I knew how to read a blueprint. They're much more careful when they know you can keep tabs on them.

We had 30-inch shelves installed as 18-inch shelves and outlets installed 6 feet apart when they were supposed to be 4 feet apart. These are examples of mistakes that were corrected at no cost to my project, since I could go through the blueprints and point out the mistakes. I really recommend staying on top of these details.

Fixing mistakes will cost money, but it's better than living with a gross error for years afterward.

Learning Where the Money Comes From

How much do you know about your library building budget? How is it divided? Will you have any freedom to move funds around if some bids come in lower and others higher than expected? Resolving these questions is crucial to any successful project and absolutely essential to maintaining positive relationships with the library's parent body, whether it be a university or a county government. Plan to meet individually with key staff members in your county or university business office or purchasing department. Become familiar with their procedures. Ask about other building projects in which they've been involved and find out how they expect your project to proceed based on their past experience. It is extremely important to develop a good working relationship with individuals in these offices. It is not usually difficult to follow their rules and submit the right paperwork at the right time. In exchange, they will be your friends for life.

The people who pay the bills often have an undeservedly negative reputation. They're the ones who must satisfy the auditors and whose jobs are on the line if any financial irregularities should be discovered. It is only natural that they lose their cool when their procedures are ignored. If you spend the time to get to know these people as human beings, you will be amazed at how they can expedite your requests and keep you informed of progress on bids and contracts.

Become a Building Connoisseur

As soon as a building project appears on the horizon, start looking at other buildings. When vacation time rolls around, take a busman's holiday. Learn what it feels like to enter a new building, to look for a particular office, to ride the elevator, or

New York Public Library, Francis Martin Library, 1100 Architect P.C., 1100architect.com. Photo: Timothy Furzer.

to find the restrooms. Watch what other visitors do. Although you'll want to take care that security officers don't identify you as a stalker, take notes on what tends to confuse people and where visitors look for assistance. Look at older buildings as well. Which materials look old and worn? Where does dirt collect?

Make a Scrapbook

When you visit these buildings, take your camera along. Start a scrapbook illustrating the features you like and want to incorporate into the new library. Just describing these features to the architect isn't enough; there is simply no way to transmit the picture in your mind to someone who doesn't have the same frame of reference. When trying to communicate your vision of the library, you may be tempted to couch your specifications in vague terms such as "family-friendly," "public image," "library philosophy," or other subjective phrases. This is a sure way to derail your project. You will believe that you and your architects are in perfect agreement until that fateful day when you look with horror at the way they have interpreted your suggestions.

Look at All Types of Buildings

Don't just look at libraries. In fact, it is sometimes even more helpful to look at other buildings because you won't be distracted by library functions, and you will be more likely to focus on architectural details and building materials. Visit museums, hotels, office buildings, and theaters. Take pictures of flooring materials, stairways, doors, windows, signage, counters, and all the other details that go into a modern building.

For example, during a summer vacation I visited a friend in Reno, Nevada. Not being much of a gambler, I found the casinos rather boring until I began looking at them as if they were libraries. In that tawdry world of excess, I discovered samples of almost every conceivable building material. Some casinos had opened only recently while others were showing their age, so I could see how wall treatments, carpeting, and restroom fixtures held up over time.

In addition, I discovered that designers rarely think about the people who will be cleaning the new building, especially its complicated surfaces that get dirtier as the years go by. Designers may not notice that light fixtures are positioned in such a way as to make them unreachable when bulbs inevitably burn out. It was interesting to compare older casinos with older libraries. Because the profits for some older casinos had declined, they no longer had the money to spend on expensive equipment like lifts or "cherry pickers" to reach those hard-to-get-to places, and so they got grimier and more tattered. It was clear that the more elaborate the decoration, the more rapidly the casino aged.

Become a Catalog Junkie

It's helpful to put your name on the mailing list for as many building-supply catalogs as possible. Don't stop at library catalogs. There are many construction-trade catalogs that are free for the asking. Of course, you should begin with the buyers' guide issue of *Library Journal,* but go on to explore the world of restroom equipment, door and window manufacturers, and lighting fixture distributors; the list goes on and on. ConstructionNet on the World Wide Web is a good port of entry into this unfamiliar world. In fact, the Web in general is full of good ideas. However, you will want to obtain printed catalogs so that you can cut them up, adding pictures of desirable features to your scrapbook.

Take care, however, that the materials and equipment you find in catalogs are in the moderate price range. A friend found herself accused of driving up building costs with her demands when the real reason for cost overruns was the architect's patrician taste. Architects may not mean to be extravagant, but they do not share your priorities. As a catalog junkie, you'll gradually come to know what things cost and will be alert to wasteful spending. If you can buy an item "off the shelf"—in other words, if it is made in huge quantities on an assembly line—it will be much cheaper than one made in small, buyer-initiated production runs. It is amazing how "plain vanilla" materials in the hands of an accomplished architect can be used to create a unique and imaginative structure.

COMPLEX MODERN BUILDINGS

Libraries are very big buildings. Not big enough, maybe, when you're trying to squeeze in a few thousand more books, but big nonetheless. Think of the number of fluorescent tubes that burn out at the exact hour and minute the custodian announces he's run out of replacements. Remember how many yards of carpet you discovered you would need to replace the library's frayed acreage? In

addition, think about the thousands of bits and pieces of shelving hardware, and the panes of glass whose life expectancy is directly proportional to the number of skateboards and softballs in the immediate area. The complexity of a building gets overwhelming, to say the least. Occasionally, the library seems even larger, as when the climate ranges from arctic levels in the basement through a somewhat temperate zone on the street floor to equatorial heat at the top. There's no getting around it. Library buildings are fraught with endless peril; ultimately, you're the one who must get the roof patched. (I know you told them flat roofs leak, and they said it wasn't really flat.) As you begin a building project, bear in mind the many experiences you've had as a librarian. Some problems are inevitable, and no architect and no builder can save you or your staff from grim reality. On the other hand, some problems were caused by building professionals who failed to understand how libraries really work.

Intelligent Buildings

Later in this book we'll be discussing what are called "intelligent buildings," structures designed around technologies that allow building systems including lighting, HVAC, security, and communications to be controlled centrally from a website. Such buildings can be more functional, more earth-friendly, and more energy-efficient. The smart or intelligent building of today contains an abundance of microprocessors that operate these internal systems and allow them to work in sync with one another. In addition, they support sophisticated telecommunications systems for voice, data, and video transmission.

Soon you will find yourself surrounded by building professionals who are bubbling over with enthusiasm for these innovations, and certainly your new building should be technically sophisticated. The problem is that apostles of modern technology sometimes seem to work in a world that is entirely divorced from the realities of library management. They are always planning and constructing buildings, never maintaining existing ones. Before you allow yourself to be carried away by their rosy visions of the future, take a moment to think about your own library environment. The last time the temperature rose or plummeted to unacceptable levels, how difficult was it to have the problem remedied? How computer-literate are your maintenance supervisor and staff? How responsive is your central administration when it comes to calling in outside technical expertise? How generous has funding been for library preventive maintenance? Is "deferred maintenance" the option of choice when budgets are tight? Have new electrical circuits been installed when you needed them, or are wires strung haphazardly around the library? Has your roof been repaired and replaced on schedule, or must you cope with leaks and buckets for months before something is finally done?

Next, look beyond your own library building. If you are in an academic library, how well maintained are the other buildings on your campus? Public librarians might select other county or municipal buildings for comparison. Ask the facilities manager or building occupants about climate control, maintenance, and repairs.

Money spent on new building materials that reduce the need for routine maintenance is usually well spent—as long as the materials have been thoroughly tested. You don't want to incorporate them into your building and then discover unanticipated problems. What might work fine in a laboratory can be a disaster in real day-to-day situations. New computer-controlled HVAC and other systems can be great choices, but they require service and maintenance staff members who understand them. They depend on computer software and hardware that is subject to all the same tragedies you encounter daily with the library network. Therefore, people who work on the system must not only be able to cope with mechanical problems, but they must possess computer skills as well. If your library is located far from a large metropolitan area, they may not be up to the job.

No matter what you discover in library literature about a new building in Denver or San Francisco or Oshkosh, remember that your situation is not quite like any other. What may work in one environment may be a disaster in another. It may be your grasp on the realities of everyday library existence that best qualifies you for the work ahead. Don't let your unique perspective be eclipsed by what can sometimes be the uninformed enthusiasms of those around you. Continually draw from your past experience to inform your decisions, but make sure you're not stuck in a rut. New technologies can greatly enhance the library; they just can't alter or transform the environment in which the library operates.

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2 The World of Architects and Contractors

As you will discover from the Tips and Tales sections, building or renovating a library is a lot of fun, but there's no denying that there will be days when you want to tear your hair out. If there is such a thing as a key to success, it may be found in establishing productive working relationships with the building professionals who will be involved in your project. A good place to begin, therefore, is with a basic understanding of who these people are and how they are selected.

HOW NEW BUILDINGS HAPPEN

Unless you've recently been involved in designing your own home, you may feel that you're totally in the dark about the way buildings come into being. Even if you've worked with an architect or contractor on your own home, you may still find the sort of wheeling and dealing that goes into a large building project rather overwhelming. So how does it all happen? The following is a brief description of the three basic project delivery systems currently in use in the United States.

The Traditional Building Project

Design-bid-build has long been the most common project delivery system in the U.S. construction industry. As owner, your library or its parent organization contracts separately with an architecture/design firm and with a builder/contractor. Your organization as owner contracts with a design firm to provide complete design documents that will allow the library to solicit fixed-price bids from contractors for the performance of the work. The contractors enter into an

agreement with your library to construct a building in accordance with the plans and specifications. This system ensures, for better or worse, that design and construction functions are totally separate. Thus, the contractor is only chosen after the design has been completed.

In most situations, the library works with a general contractor who in turn hires subcontractors; in some places, however, libraries must contract directly with several prime contractors like those providing general, mechanical, and electrical services.

Construction Management at Risk Project Delivery System

The construction management at risk project delivery system also involves the owner's contracting with the design firm and contractor separately, but the contractor is selected early in the project before plans are completed. The contractor performs construction management services and construction work, in accordance with the plans and specifications, for an agreed-upon fee. Because contractors enter the picture much earlier, they are able to have considerably more input into the design process. In fact, this is essential because the cost of the building has already been agreed upon, so it must be possible to construct the structure designed by the architect for the agreed-upon price. Since both building professionals are on board earlier, this method allows the project to progress at a much faster pace than with the design-bid-build project delivery system.

The Design-Build Project Delivery System

In recent years, however, a third type of project delivery system has been gaining in popularity. In the case of the design-build project delivery system, the library or its parent organization contracts with just one entity that performs both design and construction as part of a single design-build contract. With this system there is a single point of responsibility for both design and construction services. Specific work may be contracted out to other companies, but only the design-build firm is responsible directly to the owner. Discussions in this book will devote considerably more attention to this option than to the other two, since it is a recent innovation that is sweeping the world of publicly funded construction. It is important that you be prepared if your parent organization is moving in this direction.

THE WORLD OF ARCHITECTS

As the library building planning process becomes increasingly stressful, take comfort in the fact that librarians have been coping with building crises for hundreds, even thousands, of years. Assurbanipal's librarian in ancient Assyria endured many of the same headaches. Leaky roofs are nothing new; think how much more vulnerable (as well as heavy and breakable) those clay tablets must have been. In theory at least, we should have an easier time of it with all our

modern conveniences, but sometimes I wonder. For instance, did those ancient Babylonian librarians have to contend with architects?

Probably the ancients had someone comparable (names of some of the architects who designed the pyramids were actually recorded), but I doubt that any ancient architect ever designed a balcony on an upper level overlooking a fountain in the lobby. Few modern architects have ever paused to think of how a ten-year-old child will use such a golden opportunity. The splashing you hear represents a sizable portion of the book collection being hurled joyously into the fountain. The graciously curving central stairway with which I was once burdened served a similar function, but the books were aimed at the crania of friends below (not by children but by college students who also enjoyed sliding down the spiraling banister).

The Lure of the Library

I think that such errors in judgment may be the result of the delight architects experience when commissioned to plan a library building. Rarely do they have so much scope for their imaginations. Think of all that open space! What an impressive opportunity to exercise their talents! Office buildings are boring with their endless halls and small cubbyholes. Classroom buildings offer few opportunities to really let go. But a library! Think of all those imposing edifices from the old Carnegies to modern chrome-and-glass extravaganzas. Each looks magnificent until you have a chat with the librarian. As you enter one of those newer libraries, you may encounter a mystic maze of electric cords strung from wall to wall dipping precariously between computer workstations and book stacks. Apparently, the architects were picturing a nineteenth-century library.

Despite the librarian's input, the architects somehow failed to comprehend the plethora of computers, photocopy machines, printer stations, microfilm readers, and videoconferencing equipment that have become standard in a modern library. If you were to continue your progress through the building, you might encounter temperatures ranging from arctic to tropical. That might be due to the charming atrium at the center of the building. The architects apparently failed to consider the resulting heat gain in summer and heat loss in winter when designing the climate control system. The smell of decaying vegetation comes from the atrium's tropical jungle that overburdened staff members are too busy to care for properly.

Librarians spend a great deal of time finding fault with their buildings. Sometimes they ascribe the fault to their predecessors or to changes in technology. More often, they lay the blame at the feet of their architects. Regard such ravings with caution, but do listen. Some architects are flexible enough to respond to the library's requirements; others are not. It is not possible

TALES

From the start, everything suggested a good working relationship with the architects. We spent a lot of time poring over blueprints and pinpointing the location of every outlet and window, but somewhere along the line we neglected to make sure the architects knew what they were doing.

The stairs only go to the third of five floors. We also have another staircase that doesn't go anywhere but can be clearly seen from the outside of the building.

The marble counters retain the cold, which means you can freeze meat most of the year.

The clocks are so high that it requires maintenance to change them with the tallest ladders they have.

to know what really transpired during the planning and construction phases of any given library, but patterns do emerge. Look at the architect's work as a whole rather than judging her by any one building.

CHOOSING LIBRARY ARCHITECTS

Considering how important the architects are to your building project, how do you choose the best ones available? Of course, you will not have a free hand in the choice, but you can at least make sure the decision makers are prepared with the right information. Begin with a list of architectural firms that have demonstrated experience in projects similar to yours. Since library commissions are few, also look at firms that have designed other public and commercial buildings in your area. Analyze the buildings' good and bad features as you might a library. Does form follow function, or does it seem to be the other way around? Try to identify and interview the individuals who were involved in the projects. Ask how receptive the architects were to their suggestions. Did the architects appear to have a separate agenda, or did plans emerge from the expressed needs of the owners and users?

The American Institute of Architects can provide project-specific lists for your area. Begin with as long a list as possible and compare the architects' past work with your own project. Compare project size, project scope, time line, experience with nonprofit organizations, and reported interactions with clients. Invite the architects under consideration to make presentations so you can discover how they perceive the library's role. Did the architects do most of the talking, or did they listen more than talk? Did they ask the right questions? Did they come to the presentation prepared with knowledge about libraries in general and your project in particular? Did they communicate in jargon or in understandable terms? Are they accustomed to working with groups of people such as committees and boards? Do they understand and accept your budget limitations and the tight budget constraints that libraries must work under?

It Takes Time and Talent

You and your planning group will want to be wary of free services or the offer of a substantially reduced fee structure. No matter how large or small, your library will require many hours of highly individualized and highly professional labor. It is usually not possible to adapt the design of another building to the library's needs. Neither should you take a chance on a fledgling architectural firm that is looking for a large project to make a name for itself. The money saved in architectural services will not outweigh the problems that will ensue if the building is not properly designed.

Why are the architects under consideration interested in your particular project? Can you detect any particular enthusiasm or commitment, or are they simply casting their nets for any business that presents itself? Ask them about the specific expertise that makes them the best choice for your project. Inevitably,

the discussion will generate ideas, and it is important to note whether those ideas are focused on form or function. Are the architects describing what the building will look like, or are they focusing on what activities will be taking place within it? During these first contacts they will, of course, know little about libraries, but beware the architect who enthusiastically discusses the granite countertops or the dramatic staircase.

If you have a chance, take a look at the San Francisco, Denver, or Chicago main libraries. All three are amazing buildings, and all three say loudly and clearly that libraries are cool, trendy, and ready for the twenty-first century. After early encounters with architects, I thought that all I wanted was a vast warehouse or supermarket that tempted no architect's creativity. Now, after years of ranting, I have come to realize that the public's image of the library depends to a considerable extent on its architecture. We do, indeed, want a building that shouts "I'm an important place; I'm the focus of my community." I no longer begrudge the architects their awards as long as they do not turn a deaf ear to my service-oriented pleas and those of my colleagues.

Other Important Services

Seek out architects who are willing to participate fully in fund-raising. This means that they are willing to include deliverables in the contract such as presentation-quality visual materials, floor plans, material boards, renderings, and even computer model walk-through imaging. Ask about a presentation-quality site plan as well as exterior and interior perspectives and models. These can be extremely useful tools for increasing enthusiasm among your patrons and donors. It is not uncommon for the library capital campaign to be offered in-kind gifts from local businesses. These are sometimes welcomed with open arms, but they may also create problems. Deciding not only what is acceptable but what gifts will be sought out should be part of the contract. Since the architects' fees may be tied to the total cost of the project, it is especially important that they not artificially inflate costs by discouraging gifts.

TIPS

Take some time and find a design firm you can trust and that has experience in designing a library, a museum, or an archive. We spent over six months looking for our architect, and the result has been well worth the effort. Be sure you're comfortable working with the firm you select because things get pretty intense in the latter stages of the project.

I'd say that one of the requirements for a good architect, apart from experience and ability in designing libraries, is flexibility and willingness to present alternatives.

The architect should have the diplomatic skills to deal with college presidents, librarians, donors, and others and in some cases to negotiate compromises among them.

Try to make your building a community showplace without being the architect's monument to himself.

WHAT TO EXPECT FROM YOUR ARCHITECT

Before entering into an agreement with a firm of architects, you should obtain the American Institute of Architects (AIA) publication *You and Your Architect*.[1] This sixteen-page booklet was developed by a group of architects, owners, lawyers, and insurance risk managers. It presents the AIA's interpretation of the architect's role and responsibilities, and it is important that you be acquainted with this perspective. Since it is brief and simply written, you can provide it as suggested reading for other members of your project team. Included is a four-page removable instruction sheet addressed to the architect. It provides an opportunity to go over basic information so you can be sure you and your architect are both literally "reading from the same page." Becoming familiar with this pre-agreement checklist can alert you to issues and problem areas that may come up in your relationship. Discussing these items with any potential architects can help you make a final decision about whether this is the firm you want to design your building.

AIA forms have regulated transactions within the building trades since 1888 and have provided an important service by establishing standards to guide business transactions. The institute's publications constitute a coordinated system that spells out the legal relationships among owners, architects, contractors, subcontractors, and others. Since AIA documents have been around for so long, they have usually been tested in the courts, and legal interpretations have been amassed.[2] If your parent institution or its lawyers have a question about a provision, there is a whole body of literature available for review. Because the AIA documents will serve to clarify the roles and relationships of all of the parties involved in your construction project, they should be part of your professional reading (even though most are far less lucid than the pamphlet just cited).

Expanding Your Reading

Other organizations in the industry like the Engineers' Joint Contract Documents Committee also publish contract forms, and some of these are more likely to protect the owner. It may be in your library's interest to familiarize yourself with the different forms available because the competition among industry associations may work in your favor. The Associated General Contractors and the Construction Management Association of America are yet additional sources of standard documents.[3] You will quickly find yourself overwhelmed by unfamiliar terminology, but you will at least be able to talk intelligently with your library's legal counsel about expectations of your architects. If you believe that your library has insufficient access to legal assistance, be wary of highly customized contracts, since they must be scrutinized very carefully.

Cyburbia, an interesting website sponsored by the State University of New York at Buffalo's School of Architecture and Planning, is a directory of about 7,000 links to sites about planning, architecture, and related professions. In addition, it includes information about 130 architecture and planning-related mail-

ing lists. Checking this site from time to time will familiarize you with many architectural issues and, in some ways even more important, with the perspectives of architects themselves.[4]

The Architect's Contract

Before much more time passes, find out about B141, the Owner-Architect Agreement, otherwise known as the architect's contract recommended by the AIA. You might also browse through *The Architect's Handbook of Professional Practice,* which contains very useful explanatory material entitled "B141 Commentary."[5] Take a look at the Annotated B141, which is a provision-by-provision discussion of the Owner-Architect Agreement.[6] It explains the purpose of key provisions and provides a series of "practice pointers" intended to guide architects. In addition, it includes a number of liability alerts regarding the dangers that can arise from making changes in the standard document.

Another AIA publication, *Compromise Contract Language Alternatives,* illustrates a series of hypothetical owner-suggested modifications to the architect's contract and comments on the problems these create for both the architect and the owner.[7] Possible alternative compromise language is suggested. Of course, you will discover that many of these modifications in the contract serve to protect the architect and increase the owner's responsibility. If forewarned is forearmed, then this is the publication for you.

Does it really matter, you may ask, what is included in the architect's contract? Most emphatically yes, and the most important part may not be what you actually read in the contract. Since much of the contract consists of references to other sources, documents outside the body of the written contract may make all the difference in holding architects responsible for their mistakes. The phrase "attached hereto and made a part hereof" can mean much to the success or failure of your project. The terms of whatever documents are referenced are just as binding as the terms and conditions in the body of the contract. Even if the document referenced is not physically attached, it is probably a binding part of the agreement. Not only inexperienced owners but professional contractors with many years' experience may overlook these potential land mines. The specifics relating to a particular project are often quite brief, simply naming the parties; the name and location of the project; and the terms of the price, payment, and schedule. Referenced items, on the other hand, are often so numerous that few people are willing to spend the time looking each up separately to be sure the references mean what readers think those items mean. If you have the opportunity, make sure the library's attorney does not simply give her perfunctory approval but actually spends time with the contract.

TALE

Due to a budget freeze on travel, my enrollment in an excellent seminar on building project planning was delayed by a year. When I finally got to take it, I learned about the elements of a standard architect's contract on such projects as mine. My own campus folks, despite having several other projects under their belts, never bothered to tell me what I did and did not have a right to expect from the architect under the terms of his contract. That might have saved some confusion and misunderstanding and also might have given me more info and confidence as the project got under way. Taking the seminar in time might also have schooled me in what kinds of questions to ask and saved me some time and effort. . . . We saved the taxpayers several hundred dollars by not sending me that first year. But then . . . we spent the same amount next year—a year too late.

Architect's Liability

Let us assume that due to the architects' error some dreadful problem arises, jeopardizing the success of your building project. Are your architects responsible? Can you sue them? Though it pains a librarian to be as equivocal as a lawyer, the answer is unfortunately "maybe yes and maybe no." If architects fail to exercise reasonable care in the performance of their duties, they can be held liable to persons who are injured as a result of their failure. These persons can include the contractor, the owner, and any others involved in the project who, as a result of the architects' acts or omissions on a project, have incurred financial losses.

This does not mean, however, that architects are automatically liable if something goes wrong. As long as they can demonstrate that they have exercised reasonable care, it is extremely difficult to hold architects responsible for many problems. The courts have interpreted this obligation as nothing more than exercising the ordinary skill and competence expected of members of the profession. The owner is merely purchasing the architects' services, not insurance that everything will be done correctly. Nevertheless, architects have usually been held liable for obvious carelessness or other situations in which it is fairly clear that they "should have known better."

In complicated legal battles, architects sometimes succeed in avoiding liability by providing experts who will testify that they did, in fact, exercise reasonable care under the circumstances. In such cases, the owner or contractor will have to prove by a preponderance of evidence provided by their own expert-witness testimony that the architect did not exercise reasonable care. With more traditional project delivery systems, much time and energy is often spent passing blame back and forth between architect and contractor. One of the reasons many people feel positively toward the recent growth of the design-build industry (discussed later in this chapter) is that it brings the architect and contractor under one umbrella. Although this is a recent development and case law is inconclusive, there has been a tendency to hold the architect to the higher standard required of the contractor.

Meeting Your Architects

At some point after the "go" decision has been made, you will be asked to meet the architects. Ideally, your involvement should have begun much earlier, when you met all the architects being considered for your project. One way or another, however, a first encounter is looming on your horizon. How should you handle it?

This first meeting is a momentous one because it will set a pattern for future encounters. Most architects begin a project with enthusiasm and with a sincere desire to design a building that will please the people who will be using it. They also, however, begin with a picture in their minds of what a library should look like. It will be up to you to gradually change and fashion that picture until it reflects the realities of a modern library facility. Not only do the architects have a picture of a library embedded in their subconscious, but they have a picture of

librarians as well. Unless they have been involved in other library building projects, that librarian picture may be a fluffy older woman in orthopedic oxfords, immersed in her books, who could never understand the basics of architecture or construction. This image must be dispelled immediately if you are to exert any influence on the project. Therefore, careful preparation for this first meeting is essential. The following is an action plan to prepare you for the first meeting:

1. Go first to your library shelves and find a glossary of architectural terms. Although you will find a number of these terms sprinkled throughout this book, you will need many more to describe the library that is taking shape in your mind. It is wise to get the vocabulary under control before you begin the project. If you are familiar with widely used terminology, you will be able to conduct this first meeting on a much more professional plane. This should be a conference between colleagues, not the more typical "doctor-patient" consultation.
2. Make a very short written list of the things the architects should know about the library before proceeding further. Go over this list again and again, whittling it down to the items you are absolutely sure you can cover in the time available. Remove or explain any library jargon. Be sure that you are not assuming knowledge that the architects may not possess. In other words, begin at a very basic level and don't digress. You want to be certain that they leave the meeting with list in hand, knowing more about your vision of a library than they did when they arrived. The point is that you are beginning their library education. The next time you meet, refer to the information you provided and distribute part 2 of your library primer. Make the architects feel just a little guilty if they have not read their homework assignment. If necessary, provide another copy and make it clear that you will be discussing it later.
3. Try to arrange the meeting so that you are alone with the architects. This is not always possible, and you may be one of a group meeting together. The more people present, the less control you have over the meeting. You probably can't dislodge the principal, president, board chairperson, or county commissioner, but you may be able to schedule other occasions when you can meet with the architects more privately.
4. Be sure the architects take away an image of you that is friendly and competent. Welcome them enthusiastically to the team, but keep the ball in your own court.

The Architects and the Library Staff

At one time, I thought it was a very good idea for the architects to meet with the library staff early on to better understand their needs; now I am not so sure. I happened to come upon an article written by an architect for a professional architecture journal; the architect discussed a major public library project in which he had been involved and emphasized how sensitive he had been to the needs of the library staff. It was immediately clear that he had missed the boat

Lycoming County (Pa.) Library System, James V. Brown Library, Larson Design Group, larsondesigngroup.com.
Photo: Eric Stashak Photography.

entirely. He had listened while several dozen people expressed their frustrations with the old building and their hopes and dreams for the new library. Out of this mishmash, he seemed to pull the most irrelevant points and miss the really important ones. This was probably not entirely his fault, because he lacked the body of knowledge needed to evaluate the relative importance of the diverse contributions.

The library staff will naturally want to be involved as much as possible, but their contributions should be honed and shaped in just the way you prepared for your first meeting with the architects. Work with the staff to prepare for any meetings. Make a list of priorities and help staff understand the importance of hammering away at important points. When they do meet with the architects, staff should have their agenda and talking points prepared and be ready to redirect the discussion if it veers away from these key issues.

WHAT ARCHITECTS NEED TO KNOW

Because libraries are such an integral part of your life, you may forget to communicate simple, basic information. Before any architects begin sketching floor plans, they will need a crash course in libraries. By this I do not mean anything remotely resembling the introduction to library science you remember from library school. Although it may be obvious to you, the architect must be told who will use the library. How will they use it? Children have very different needs

from elderly adults, and college students use a facility in still different ways. What do staff do when they're working in the processing area? How are their needs different when they're working in public services? How many patrons will use the public computers, collaborative studies, restrooms, or meeting rooms at one time?

Architects need to know, for example, that your customers will enter through only one door and that all other doors will be emergency exits. They need to know that there will be a security system at this door and a service desk nearby so that customers setting off the alarm can be asked to return. They need to know how much space should be devoted to book stacks and how much to computer use. One would also think that, with all the stereotypes of the dowdy librarian shushing noisy patrons, they would know that a library should be a relatively quiet place, but this is often not the case.

The Two-Step Process

It is common on some projects to divide negotiations with an architectural firm into two phases. Phase one may involve contracting with the firm to produce only a conceptual design of the new library. Public libraries, especially, may need to have a detailed plan to present to their local government agencies and ultimately to the voters. Such a plan shows most of the building's important features but does not show detail. It may cost from $20,000 to $100,000, depending on the size of the project. The conceptual plan is needed as part of the library's capital campaign strategy, and architects may assist with the campaign by attending public meetings, providing the services of a public relations consultant, and producing attractive drawings and models that will help the library "sell" the project. Only when full funding has been obtained are architects hired to draw up the detailed sets of plans needed by a contractor.

The Case Statement

Before getting into the nitty-gritty of space requirements and load-bearing walls, get together with your planning group and take some time to hammer out a statement describing just what you expect from the new or renovated library. What will make it different from other libraries, from other public buildings? From the environment your patrons have come to expect? Why is it needed? Why is it worth the millions of dollars that will be spent on it? This will become, in a sense, your marching song. Often called a case statement, it will provide the foundation for negotiations with county commissioners and city planners and discussions with your architects, as well as the basis for newspaper interviews and presentations to community groups.

We often find it more difficult to write a brief case statement than a long laundry list of all the things we want to include in the new building. So I thought it might be helpful to include a fairly typical statement that covers important points clearly and succinctly.

SAMPLE CASE STATEMENT

It is the consensus opinion of the Bozeman Public Library Board of Trustees that the design for the new Library should strive to create a building and a place that

Responds to the wants and needs of the citizens of our community for lifelong learning.

Becomes a highly active, multiuse, family-centered learning environment for the twenty-first century.

Is responsive to the built, natural, cultural, and historic context of the site.

Demonstrates good stewardship of public funds by exploring alternative site developments that are cost-effective (affordable), provide the greatest cultural return to the community for the invested dollars, and allow for all foreseeable expansions of the Library.

Functions in an efficient and effective manner while being sufficiently flexible to meet the evolving technological and educational requirements of a contemporary library.

Has integrated interior and exterior learning environments.

Has a significant central organizing interior space with a sense of life (through plants, sunlight, people, etc.) within which, and about which, the Library functions are organized.

Is inspiring, provoking community pride and involvement on a continuing basis.

Responds to, and clearly integrates, the various modes of transportation serving the site.

Will be described as beautiful, exciting, inviting, and appropriate for Bozeman.

Addresses and engages both Main Street and Lindley Park through building and site design elements.

Demonstrates, and teaches, concern and respect for the preservation of our natural environment through the utilization of sustainable design principles, materials, and systems.

Minimizes the cost of construction and maintenance through life-cycle cost estimation.

Demonstrates a sense of history through an appropriate incorporation of the old depot building into the new site development.[8]

YOUR PRESENT AND FUTURE NEEDS

I sometimes think that architects fall victim to a sort of "Sleeping Beauty" complex. Since you entered the library profession, you've seen constant change. Almost every year of your professional career, you and your colleagues have made substantial alterations to the library. You've knocked down stacks and moved them to areas experiencing rapid collection growth; you've added phone lines; you've wired study carrels to provide media access and upgraded the electrical system to accommodate all the new equipment. An architect, however, works with a snapshot of a building frozen in time.

Wendell Wickerham of the architectural firm of Shepley Bulfinch Richardson and Abbott expressed frustration that architects work very closely with a building until it opens, but then they lose contact with both the staff and the activities that take place in the building. It is, therefore, difficult for the architect to determine exactly which of his ideas worked well and which should not be repeated. One of Wickerham's firm's major projects was the Leavey Undergraduate Library at the University of California. Overall, Leavey was an extremely successful library project, but Wickerham, not fully understanding library security problems, was disappointed that the patio he designed, complete with pleasantly situated tables and chairs, went unused.[9]

An architect soon moves on to another project and fails to see how the building changes over the years. On one project, our library architect tried to cut the carpet around the stacks so that they would rest more securely on the cement floor. It did not occur to him that those very stacks would be moved twice in the next ten years. This is information that only you can communicate.

If you are going to have a successful relationship with your architects, begin by clarifying which decisions you must make (or at least exert considerable influence over) and which offer more opportunity for the architects' imaginative design features. I don't know how you feel about working in an enchilada-red building like the San Antonio Public Library, but it's not your issue. Of course, you're free to express an opinion, but make it clear that it is not the same as your opinion on the load-bearing capacity of the floors. Let the trustees, the general public, the media, and anybody else so inclined debate the peripheral issues. Just be sure you don't get caught in the cross fire.

Establishing Priorities

Begin making a very precise list of just what your issues are. Let it evolve gradually over time as you delve into library literature, visit other libraries, talk with your staff, and analyze concerns about your present library building. It will soon become quite a long list, so be careful to prioritize. Just because you happen to come across an attractive design feature or hate the color green, you should recognize that these are very minor points. Your list should be focused on function, and including peripheral issues may serve to confuse your architects. Of course, you can't possibly cover everything. The point is to train your architects on the kinds of issues you consider important. At the same time, understand that the

architects' values are important too. Try hard to be encouraging and supportive of their creative input when it does not have a negative impact on function.

Library Spaces

In addition to basic information about library functions, begin describing specific library spaces. Will you need technically sophisticated classrooms for library literacy instruction? Meeting rooms that can be used when the library is closed? What about a twenty-four-hour study area in an academic library? This may be the appropriate time for an impassioned plea for adequate restrooms if your library's only conveniences are located off a dark hall or in the basement.

Consult published standards for your type of library to estimate the space requirements for collections and reading areas. Be sure you make it clear that a space or area does not usually mean a room. Walls in a library should be kept to a minimum, since they reduce flexibility and make supervision difficult. They also impede traffic flow and cause both customers and staff to waste time and energy taking the "long way around."

Once you have a general description of the spaces you'll be using, the architect will need to understand the relationships among them. Which ones should adjoin one another? Which can be widely separated? Make it clear that libraries, though spacious, are short-staffed and that staff time is valuable. Staff need to be able to do their work efficiently with the fewest number of steps. Customers also resent having to walk long distances unnecessarily. Don't attempt to draw a floor plan. Architects are far more knowledgeable about the technical and aesthetic considerations that go into such a plan. Be clear from the start about your roles, respecting their professional expertise but also demanding respect in your own professional sphere.

Other useful additions to your "magnum opus" are statistical summaries showing the way space has been used in other libraries similar to your own. Information included might cover collection and staff size; numbers of study carrels, tables, collaborative study rooms, and computer workstations; and floor space allotted to circulation, periodicals, acquisitions, and cataloging functions. Although you don't want to tell your architects how to do their job, obtain a variety of floor plans from other libraries so you can point out both the positives and the negatives.

Libraries Are Not Affluent

Since long before Andrew Carnegie financed the building of thousands of libraries, new library construction has depended on special or outside funding. The result may be generous or meager, but it bears little relation to the library's operating budget. Your university development office may solicit foundation grants or the voters in your municipality may approve a bond issue, but any funds obtained are earmarked specifically for the building project. They cannot be expected to support your everyday operations. It is a sad fact of library life that a new library will further tax your resources, forcing you to do even more with

less. Any increases in your operating budget will inevitably be swallowed up by the increased workload of a larger, more popular library.

Save Now, Suffer Later

If your institution chooses a traditional project delivery system, a universal law of nature states that the building the architects initially design will cost far more money than has been budgeted. Of course, everyone concerned had a wish list, and the architects brought their own visions that substantially inflated the cost. Now it is clear that the proposed building must be trimmed down to an affordable package, and a group is given the task of cutting enough fluff to allow the project to come in under budget. Unfortunately, what you consider necessities and what others, especially architects, consider necessities may be poles apart.

Another law of nature states that early in the paring-down process, it will be suggested that the library can do without a central light control panel, half the planned temperature zones, and windows that open. Well, it can't! Neither your staff nor your patrons should be asked to make such sacrifices to preserve the cherished atrium or spiral staircase that your design professionals hope will win architectural awards. The library is not just a showcase for their talents.

There are many ways that features incorporated into the plans now can result in lower utility bills and fewer maintenance expenses later. On the other hand, design features can considerably increase the cost of operating a library. For example, in buildings with atria, it is very difficult to balance airflow; therefore, service calls to repair malfunctioning circulators, pumps, blowers, and other HVAC components are more frequent. You needn't overdo your impassioned speeches about library poverty, but be sure your architect understands that your operating budget is not generous.

Maximizing Staff Effectiveness

As mentioned earlier, library staff size inevitably surprises architects. That such a large and expensive building can be staffed by such a small number of people continually confounds them. Stress the fact that libraries are unlike many other buildings in that funding is often more readily available for capital outlay than for ongoing expenses. In contrast, when a corporation decides to construct a new office building, expenditures for the building are in line with the overall corporate budget. If the corporation is doing well, one might expect more generous funding for construction, staffing, and other corporate needs. Hard times would result in across-the-board cuts.

What all this means is that architects should design the most efficient library possible, one that requires the smallest staff to operate it and one that uses staff time most efficiently. For example, unnecessary walls make it impossible to keep disruptive or possibly dangerous patrons under observation. A centrally located light switch panel that allows one staff member to turn off all the lights in the building is not the luxury it might be in an office building where staff are assigned to all floors. Security cameras are far less expensive than staff members

personally monitoring the same spaces. Be sure the architect understands that you want to operate your new building efficiently with the number of staff currently employed. Considering the present uncertain state of libraries, it might even be desirable to plan for a reduced staff.

THE WORLD OF CONTRACTORS

As you've probably noticed in the Tips and Tales sections, librarians involved in a construction project may eventually find themselves at war with their architects. Contractors, however, seem to escape much of our venom. I used to think the basis of the conflict with architects was sexism, since librarianship is a female-dominated profession and architects were usually men. However, in recent years, more and more women are becoming architects, and yet I see no movement toward reconciliation.

Lately, however, I have adopted a new hypothesis (probably no sounder than the old one). We usually begin our relationship with our architects when we are filled with excitement and enthusiasm. The architects appear to share that enthusiasm and weave verbal visions of the ideal library. It is probably inevitable that we blame the architects when the fluffy pink clouds part and we behold our less-than-perfect library building. On the other hand, we usually begin our relationship with the contractor at a low point. He probably does not want us to set foot on the site and throws a first-class temper tantrum if we forget our hard hat or step in the wrong spot. The contractor makes us feel like naughty children, and we complain loudly that this is our building.

Two against One

As the project progresses, we gradually get used to one another. We discover that we're more welcome if we heap praise on the contractor's latest efforts. Since we really are delighted to see the building take shape before our eyes, the atmosphere starts to thaw. At about the same time, however, we begin noticing little problems. The cabinets we were promised in the processing area have disappeared from the plans. The contractor has a more recent set of blueprints, and somehow the conference room has shrunk by four feet. This means the custom-built conference table that's already been ordered no longer fits.

"That's just like an architect," the sympathetic contractor assures you. Contractors have had years to hone their resentment of architects (in fact, the two professions have probably been at odds with one another since the building of the pyramids), and you're more than willing to join the lynch mob. As the project progresses, you encounter more and more unpleasant surprises, many of which have to do with the design of the building, and your most understanding confidant is inevitably your contractor. Of course, the contractor is creating his share of problems, but it will probably be months or even years before you discover some of them.

Choosing a Contractor

Depending on your own unique library environment and the individuals involved in the building project, you may or may not be consulted in the selection of a general contractor. In some organizations, it may be considered none of your business and will be handled entirely through a purchasing or facilities department that sends out requests for proposals (RFPs) and selects the low bidder. Nevertheless, a few words of caution are in order in hopes that you can use your influence to avoid potential catastrophes.

Obtain bids from a number of qualified contractors using a detailed RFP that specifies what information is required and how it should be presented. That way, you can compare prices accurately. Ask the contractors for references from banks, suppliers, and insurance companies and review those responses carefully. Be suspicious of estimates that are not accompanied by "backup detail," including the names of sources for materials and subcontractors. You should also be suspicious of estimates based on a printout from a computer program or a boilerplate estimate that was really prepared for someone else's project. Then make sure you have read and understood all terms and conditions. Remember that this is a language unfamiliar to you, so obtain legal advice when necessary.

Large institutions and governmental units have usually had experience with other building projects and know the ropes. Small public and college libraries, however, may not have access to this kind of expertise. Board members may imagine that they can select a library contractor in much the same way they chose one when they built their own homes. This is not the case. To begin with, libraries are large, sophisticated, and expensive buildings. Any contractor under consideration must have had experience constructing other buildings at least as large and expensive as yours—preferably larger and more complicated. Of course, every building project is different and requires a new approach, but you do not want to be an experiment or a practice exercise for your contractor. You want someone who's already a pro.

Financial Stability Is Essential

Be sure that you consider only large, stable firms. Although Board Member Smith's brother-in-law may be in construction, this is not the place for a small business person. Be sure that decision makers have obtained excellent bank references before signing any contract. One of the worst things that could possibly happen is to have your contractor go bankrupt before the project is completed. In addition to these words of warning, be sure that your project team is considering only contractors who are licensed in your state. Insist on documentary evidence of this status. Find out how long the contractor has been in business and avoid any contractor who moves often or who hasn't been in your area long enough to provide local references.

It is a good idea to call previous customers, so you'll need to request names and other information from the contractor. Be sure, however, to request a list of all recent projects, not just the ones the contractor is most proud of. Check into

the other types of buildings the contractor has experience with (residential, commercial, etc.) and visit former customers at their building locations. While you're there, find out whether the contractor has kept to the established schedule and ask about the contract terms. Ask how problems were resolved on previous jobs and how willing the contractor was to make any necessary corrections. In addition, here are some other important ways to protect yourself and your project:

Ask for a bid bond that guarantees that the party bidding for the contract will, if the bid is accepted, enter into the contract and furnish performance and payment bonds for carrying out the work. Be sure that the cost of bonds is paid by the contractor and included in the bid.

Check that the contractor is a member of recognized local and preferably national professional organizations.

Insist that the contractor carry workers' compensation and liability insurance coverage. Insurance companies can provide evidence of coverage by issuing a certificate of insurance. They can also notify you in case of policy cancellation.

The Contract for Construction

Contracts and warranties, especially their sticky, tricky little clauses, define the legal obligations of all the participants in a building project. These documents are vitally important when it comes to clarifying who does what and who is responsible to whom. Conflict is an inevitable part of many building projects, and it's best to be fully prepared.

The most important document in any legal dispute, the Contract for Construction, is an agreement between the owner and the general contractor. Often referred to as the general contract, it establishes the rights and obligations of each party. In addition, it provides the framework of the whole project as well as the basis for most courtroom litigation. Insist that the contractor provide a contract bond for the project. This will guarantee the fulfillment of contract obligations.

General Conditions

Incorporated within the Contract for Construction are a number of "general conditions." For example, you might insist on a maintenance bond that requires that the contractor redo any unsatisfactory work or replace any materials at his own cost within a specified time after completion of the work. Also be sure that any contracts include the time frame in which the work must be completed. Check that contracts include a description of what constitutes substantial commencement of work and a notice that failure to substantially commence work within twenty days from the specified date without lawful excuse constitutes a violation of the contract. Be certain that the schedule of payments showing the amount of each payment is included and that any down payment does not exceed 10 percent of the contract price. To help keep track of payments, consider engaging a funding-control service (also called builder's construction-control, fund-disbursement, or cost-disbursement service).

Although some of these conditions and bonds will be explained in full, most will simply make reference to AIA Document A201. It is extremely important to have a copy of this publication handy, and since you work in a library, this should not pose a problem. A201 includes many of the specific requirements that define the obligations of the owner and the contractor. If you are in a law library or have relatively easy access to one, investigate the AIA Citator Service. You should at least know that this service exists, because if and when a conflict arises, it is the best source of information on the ways in which specific clauses found in AIA documents have been construed by the courts.

Special Conditions

In addition to "general conditions," the Contract for Construction contains several "special conditions." These may address any topic related to the project. For the most part, they concern technical requirements, and naturally they tend to be difficult to understand and extremely important. Most of the plans and specifications pertaining to the project are not actually physically included within the contract. (They're too big and bulky.) However, they are referred to throughout the document. Of course, this means they are very easy to miss because you probably don't have all these materials on hand. Check the general contract's "incorporation clause" carefully to clarify which additional documents may affect your rights and obligations.

Warranty Clause

This is one of the sections that should be read very, very carefully. Although we might automatically assume that a warranty is intended to protect the owner, it is, to a large extent, intended to protect the contractor. It may, for example, state that the owner must notify the contractor of any nonconforming work within one year of substantial completion to trigger the contractor's obligation to make repairs without additional cost to the owner. The law, however, may hold the contractor legally liable at any time within the applicable statute of limitations for negligent, nonconforming, or defective construction or for cost overruns. Some librarians believe that the warranty clause is nothing more than a wordy attempt to weasel out of this obligation.

Bonds and warranties are usually quite narrowly defined. If the basement leaks six months after you move into the new building, you need to know who will pay for it. How long is the contractor obligated to fix things? Most contractors provide a warranty or guarantee, but what's included varies with the individual contractor. It is inevitable that there will be situations that are not covered, but try to get the most inclusive language possible. Request specific wording that lists only what is not covered and includes a clear statement that everything else comes under the warranty. Discuss these issues as early as possible, preferably before the construction contract has been awarded.

Performance and Payment Bonds

The contractor is usually required to provide performance and payment bonds as part of the Contract for Construction. A performance bond is a separate

contract that promises the owner that the work will be performed either by the original contractor or a substitute contractor. Be sure to require an additional payment bond if it is not included in the performance bond. Often referred to as a labor-and-materials bond, it guarantees that bills for subcontractors' labor and vendors' materials used in the work project will be paid. A surety company issues the bonds, and it is in that company's interests that the contractor meet his obligations. The contractor may be more likely to listen to the surety company than to the owner or the architect. Insist that an insurance or surety company stand behind the bond if the contractor fails to perform.

Arbitration

In case of a dispute between owner and contractor, arbitration is the usual method of resolving conflict. Therefore, most construction contracts contain an arbitration clause. Either the actual clause will be included within the contract or it will be incorporated by a reference such as "Paragraph 4.5 of A201." References to standard AIA documents have the advantage of being widely accepted and therefore reasonably open and aboveboard. However, you should know what you are getting into, so at least make sure you have A201 on hand. If it is incorporated by reference into the arbitration clause, you are usually agreeing to arbitrate any dispute arising out of the contract by submitting the dispute to binding arbitration conducted in conformity with the Construction Industry Rules of the American Arbitration Association (AAA). You can obtain a copy of the rules from an AAA office, which can be found in most major cities. Cases are categorized by the amount of money in dispute. If the amount is under $50,000, your case qualifies for fast-track procedures. Next comes the regular track, and for very large amounts there is a large, complex track. A fee ranging from $500 to $7,000 is paid to the AAA at the time the demand for arbitration is filed.

THE DESIGN-BUILD DELIVERY SYSTEM

One of the big changes in the building industry in recent years is the emergence of the design-build project delivery option. Although it is currently the subject of many books and articles in the building trade, the term *design-build* is only gradually appearing in library literature. If you will have a role in contracting for the design and construction of your building, you should be aware of the advantages and disadvantages of design-build. It is also important to have a grasp of the basics if you will be working with a design-build firm on a day-to-day basis.

One Entity

Traditionally, the owner hires an architect or engineer to design the facility and produce plans to send to several contractors for competitive bidding. When an owner chooses the design-build option, the same corporate entity both designs and constructs the facility. The designer and contractor are, in a sense, partners representing the same firm. They may both actually work for the same firm, or

they may be from two or more companies working together as a joint venture. Still another configuration involves one of the firms serving as the prime contractor and the others as subcontractors. No matter what the specific arrangement, the owner contracts with only one entity that will be responsible for both designing and constructing the facility. This provides the library with greater fiscal control of the project—an important point when safeguarding taxpayers' money.

An excellent example of the design-build approach is the experience of the Harold Washington Library Center in Chicago. The dramatic building was the creation of the SEBUS group, an acronym taken from the names of the four major team members involved in the project. (Schal Associates was the construction services firm involved. A. Epstein and Sons International was an engineering/architecture firm that provided the engineering expertise, but another group of architects, Hammond Beeby and Babka, was primarily responsible for the design of the building. The final team member was the developer U.S. Equities Realty, Inc.) Working together in a joint venture, they guaranteed to provide the 765,000-square-foot building for $144 million. The group was chosen from a field of five contenders in a hotly contested design-build competition.

On a somewhat smaller scale, the Utah Valley University Library, a facility of nearly 200,000 square feet, received the Design-Build Institute of America's 2008 Design-Build Award of Excellence. A number of successful public library projects like the Ramsey County Library in the Minneapolis-St. Paul suburb of Maplewood, which received an AIA Minnesota Honor Award for design excellence, have also been designed and built using this delivery system.

Advantages of Design-Build

It is becoming obvious that a great many owners believe there are significant advantages to choosing this option compared with more traditional project delivery methods. Among these advantages is a shortened project delivery time. The planning phase need not be complete before construction begins, and there is no waiting for contractor bids to be submitted. In addition, the last months of the design phase can overlap the first months of the construction phase, saving both time and money.

Fixing Responsibility

Another big advantage of the design-build system is a single point of responsibility. In traditional construction, architect and contractor spend a great deal of time pointing fingers at one another, blaming each other for every problem that arises. Warranties may not be honored, and protracted litigation may become necessary to fix responsibility. The design-builder, on the other hand, takes full responsibility for the outcome of the project.

In chapter 1 you read about the defective floor installation that resulted in a large hole in front of the circulation desk. Litigation went on for years while the participants argued the seemingly arcane question of whether the architect had provided every page of an instruction booklet needed to install the flooring material properly. When the designer and builder are the same entity, that entity

is responsible for everything. As mentioned earlier, architects do not guarantee the outcome of their work but agree only to exercise reasonable care. With the combined system, the design of the building is usually subsumed within the designer-builder's warranty. This is usually a big advantage, although, as will become evident later, the owner must be ever vigilant.

In traditional construction projects, the contractor is ordinarily entitled to additional compensation if he must deal with errors, omissions, or ambiguities in the architect's plans. In other words, with traditional construction models, the contractor stands to make money when the architect makes mistakes. Since the design-build model unites designer and builder into the same entity, that entity must assume full responsibility for its work. However, change orders that arise from the owner's requests still cost money, unless it can be established that the change is needed to rectify an error.

Design-build agreements allow performance warranties to be much more comprehensive. Again, this is possible because it is so much easier to fix responsibility for problems. However, even in design-build projects, the performance warranty will generally have exclusions in areas for which the owner is responsible. Designer-builders often take on more responsibilities than traditional contractors, sometimes providing turnkey services. This means that certain responsibilities that the owner normally assumes may be included within the design-build contract.

Improved Communication

When architect and contractor work for different companies, they have few opportunities to meet with one another. If your building is being planned and built by two or more traditional firms, you are going to have to assume some responsibility for communication or risk major misunderstandings. Of course, the whole point of plans and specifications is to communicate the design and construction details, but specifications can't transfer expertise from one professional to another. With design-build projects, expertise can be better shared. A single organization allows for improved communication and continuity between designer and builder. The adversarial approach to the project, frequently encountered among building professionals, can also result in mistakes and added expense. In theory, at least, everyone on a design-build project is working toward the same goals and is part of the team.

Of course, you know very well that communication, even among your library staff, is not necessarily improved by working under the same roof, so a unified organizational structure does not guarantee good communication. With all the new technologies involved in a library, architect, engineer, and contractor should all be knowledgeable about the entire range of materials, equipment, and systems processes that will be incorporated into the new building.

Disadvantages of Design-Build

Unfortunately, attractive as it may be, there is a downside to the design-build option. Although many libraries have good experiences to recount, you do lose

some of the safeguards associated with multiple entities. For example, you lose the system of checks and balances that is characteristic of traditional construction. In the past, the architect or engineer, to some extent, played the role of watchdog, helping to ensure that the facility was built as designed. Designers, at least in theory, owed their loyalties to the owner. Since designer and contractor were not members of the same team, they were to some extent adversaries and might be willing to blow the whistle on one another when they discovered irregularities.

Team Members or Adversaries

Because the architect and contractor are part of the same corporate organization in design-build agreements, the old assumptions may no longer be valid. For example, the design professionals or architects are not your consultants; they are on the contractor's team. Traditionally, the owner has a right to see the architect as an advocate or a partner when it comes to conflict with the contractor. Association with the contractor may cause architects to place such factors as ease of construction over other criteria that you consider important. Although it is always a good idea to hire someone specifically assigned to the job of watchdog or owner's representative, this becomes absolutely essential when dealing with a design-build firm.

You and the others on the project team may also be provided with less information than would otherwise be the case. You will no longer have access to the sort of candid appraisals that an independent architect can provide. Problems may be glossed over or hidden. (However, the outside consultant or watchdog is really a better solution anyway, since even with traditional delivery systems, architects have their own agendas.) Less information can result in less control, but it is possible to specify the kinds of information and the degree of detail that the designer-builder must provide to the owner.

Absence of Competitive Bidding

Another disadvantage of this system is that it is difficult to select a design-build firm through competitive bidding. A company must be chosen at the beginning of the project, when little information is available about cost. With traditional projects, the architect's fee is firm, and construction RFPs do not go out until the building has been designed. That way, contractors know what they are bidding on. When the services of architect and contractor are lumped together, separate bids are no longer possible. (It is possible, however, to specify that subcontractors be chosen through competitive bidding.)

Because the usual bidding process may be eliminated, the library must be extremely clear about its requirements. You will need to work with facilities experts to determine how large a building can reasonably be built with the funds available. Be specific about your most important technical requirements, such as electrical load and data capability or sophisticated environmental controls for a special collection, but leave some room for negotiation. You don't want to find yourself burdened with a designer-builder who, after having been selected for

the project, tells you that the funds available are not sufficient to provide for the library's most important needs.

Using the design-build system may have legal repercussions. It may be that your state or municipality has laws that severely restrict the use of designer-builders. Furthermore, licensing restrictions for design professionals and contractors may limit the permissible types of design-build structures. Insurance and bonding may also be more complicated to arrange. This situation is changing rapidly, however, as the delivery system becomes ever more popular.

Holding All Participants to a Higher Standard

Special care must be taken with the design-build contract so that the owner gets more protection rather than less. Standard contracts favor the designer-builder, and many provisions may be intended to transfer liability from the designer-builder to the owner when construction in accordance with the plans does not achieve the results intended.

You will want contract provisions to resemble the standard AIA Contract for Construction, not a standard architect's contract. Architects are usually held responsible only for exercising a reasonable degree of skill or care, and they do not normally warrant or guarantee a successful outcome for services. Since the contractor does warrant that the result of his services will be a successful project, the designer-builder should assume the obligations of the contractor, not those of the architect.

If you are entering into a design-build agreement, be extra careful, in reading over the provisions, that the standard of care is not changed by contractual agreement. The phrase "appropriate levels of skill and care" should set off alarm bells because it is an attempt to hold both architect and contractor to the lower standard. Instead of gaining greater accountability from the architect, you would be losing the level of accountability that has come to be expected of the contractor.

Tread carefully. This is certainly a matter that should be discussed with a lawyer. Your lawyer should go over the contract carefully and probably propose substitutes for a number of its provisions. If at all possible, use the services of a lawyer who is familiar with the design-build system and who can craft sections clarifying the parties' rights and remedies to reflect your institution's assumptions and understandings about the project. Boilerplate provisions might work with traditional construction, but they are not adequate for this new environment. Although the design-build option may provide additional protection for the owner, it is quite a new development, and the courts have not really established clear guidelines.

Who's the Boss?

Another potential disadvantage of the design-build system is the possible confusion about who is in charge of the work. Who is the prime contactor with the owner, and who is serving in the role of subcontractor? This may not be an issue if the two are really one entity. However, all sorts of business arrangements such as joint ventures and limited liability companies complicate the problem. Nevertheless, libraries across the country are embracing this new delivery system.

If you've ever felt like a Ping-Pong ball being batted back and forth between an architect and a contractor who are blaming each other for a problem, you'll see that working with them as one entity has some real advantages. The majority of court cases have held that a designer-builder is more nearly like a contractor than like an architect or other design professional, and the same warranty standards may apply to the architect's work as to contractors.

Other Difficulties

There are also potential licensing, insurance, and bonding problems when dealing with design-build firms. The insurance carried by architects and other design professionals ordinarily excludes construction services, and contractors' general liability policies exclude professional services. This could create a sticky wicket if it becomes necessary to make any claims. General liability policies also have little or no deductible, whereas professional liability policies have large deductibles. Surety bonds create similar problems. Be sure that your lawyer checks into the matter of adequate and appropriate insurance and bonding if you are considering a design-build firm. These are problems that can be fairly easily solved, but the time to solve such issues is before you're irrevocably committed.

Medina County (Ohio) District Library, Medina Library, David Milling Architects, dmaa.com. Photo: William H. Webb, Infinity Studio.

CHOOSING A TEAM TO RENOVATE OR REMODEL

If you are about to embark upon a renovation project, the decision was probably made for any or all of the following reasons:

- inadequate space
- inflexible interior design
- outdated electrical and telecommunications systems

- inadequate access for people with special needs
- inability to develop the collections and services you need

In addition, you may be forced to renovate instead of build because of political, fiscal, or historical factors. You may have hoped to start fresh with a whole new building, but funds were not available. Possibly, your county or city lacks the tax base to fund major new construction. Because of its historic or architectural importance, your institution or local government may also have a commitment to your existing library building. You will be seeking ways to improve access, create additional space, and accommodate new technology while at the same time preserving what is most valuable in the old building. How will you bring the library into the twenty-first century and still preserve the flavor of the past?

Experienced Building Professionals

If your project is a renovation rather than all-new construction, be sure the builder has experience in this area. If your library plans to remain open while construction work is in progress, your contractor should be accustomed to working with other people such as staff and visitors on the premises. Keeping the two operations—renovation and the library's ongoing services—separate and on track requires a great deal of planning and organization. Such skills are not learned easily. If the contractor has never had to consider how routine activities will continue side by side with construction, you probably don't want to be the one to educate him.

When you ask for a contractor's references, be sure that other projects similar to your own are included in them. Talk to the references who remained on-site while their building was being renovated or remodeled. Ask how cooperative the contractor was and how much advance warning staff were given when an area had to be vacated. You might even ask for specific examples of how disruption was avoided. If you have the opportunity to interview contractors who are being considered, ask what techniques they have developed for minimizing noise and debris.

Special Requirements

In many ways, planning for renovation and remodeling is not so very different from planning a new building, so most of the recommendations contained in this book will be relevant. You will be defining future needs, anticipating growth, and considering how technology will affect library services in the future. However, working with an existing structure adds new challenges. For example, modification of a historic building may be subject to review and oversight by federal or local historical commissions. You may find that you will need a more diverse team of building professionals if historic preservation is an issue with your building. For example, you may need an architect who understands how older buildings were constructed and what should be preserved.

The National Park Service publishes an extensive collection of guidelines and documents on the preservation, rehabilitation, and restoration of historic buildings. If you are contemplating rehabilitation and expansion of a historic building, you should become familiar with what's happening in the field. In a guide to library restoration and expansion published by the Illinois Historic Preservation Agency, Lonn Frye writes: "With each project, architects learn new techniques and easier ways of integrating historic preservation and contemporary design."[10] If your building is not already listed on the National Register of Historic Places, there should be a clear consensus on whether this is a goal. Once historically significant features have been altered, there's usually no turning back.

HIRING A WATCHDOG

One of the best ways to ensure that you get what you pay for is to hire an owner's representative. Also called a watchdog, quantity surveyor, project manager, or construction inspector, this individual is hired to keep an eagle eye on your project. No matter what the title (and it differs widely from one region to another), the job is similar. The watchdog remains at the construction site looking after the interests of the owner. Larger academic institutions and governmental units usually have some office or department for overseeing building projects. However, such departments frequently lack the time and expertise to effectively look after a building while it is under construction. Although this can be a very sensitive subject, use your persuasive skill (and tact) to obtain the services of a qualified, professionally trained overseer. She will

- ensure that the building is in compliance with regulations
- prevent unnecessary and expensive change orders
- ensure that the building is safe from hazards
- ensure that the building can pass state and federal inspections
- prepare samples for laboratory testing
- interpret blueprints and specifications
- maintain a construction and inspection log
- measure distances and verify the accuracy of structural layouts

Watchdogs come with a variety of qualifications and expertise. Among their many roles, they estimate and monitor construction costs and serve as consultants to the property owner. Some of them are faculty members who teach in the building and construction disciplines. Others may work for financial institutions. Watchdogs, whatever their name, use their knowledge of construction methods and costs to advise the owner on the most effective and economical way of achieving the construction requirements. Some of them are trained in cost planning, estimating, and cost analysis.

TIPS AND TALES

For any building project, you need to have what we call a quantity surveyor on-site all the time. A quantity surveyor is usually someone trained as an architect and/or engineer who acts as a building inspector for the client and checks to make sure everything is built as designed, according to the plans, before the work is signed off. This can result in saving several thousands of dollars of work.

The first recommendation I have is to find a project manager who is able and willing to do the work and give him the authority to get the job done. Many a project has run into problems when folks decide to manage it with a committee.

Another issue is construction management. If you are talking about a project over $15–20 million, which most libraries would be, then you're going to have a mob at the door wanting to manage your project and save you money. If you have a fast-track project or multiple prime contractors, then you do need a firm specializing in construction management to help you out. Get them in place early. These folks can do as much or more in the design process as they do in managing the contractor.

We contracted with our architect to place someone on-site for the entire construction phase. This allowed me to have expert technical advice immediately while getting much faster response on submittals, RFPs, and other questions.

Choose one person as the main contact with contractors and subcontractors. Our contact would call me to answer a question someone else had asked. I had no idea what he was talking about, and he would tell me one thing and give someone the exact opposite answer. It got very confusing.

Commissioning

In recent years, the concept of a "commissioning agent" has taken hold, especially in commercial real estate. Commissioning may be defined as "a process that ensures that a building conforms to the original intent of the owner." The commissioning agent can be involved in the early design phases; through installation and start-up; and during the installation of lighting systems, HVAC systems and controls, elevators, and structural elements. The commissioning agent represents the owner throughout the planning and construction period, seeking to ensure that design objectives are met, that all systems are functional, and that all equipment is installed properly. Seeing that all needed support documentation is available is another important role.

Buildings have become so much more complicated in recent years that most professionals may lack the breadth to understand the project as a whole. For example, advances in technology, improved materials, new methods, and other factors have meant that centralized integration and coordination of the project may be lacking. This integration is an important role of the commissioning agent. New materials, such as extra-strong concrete and super-plasticizers,

make it possible to build flatter floors and smaller columns for more available floor space. In steel construction, the old standard of 36,000 pounds per square inch (psi) has now been replaced with 50,000 psi, meaning that buildings require less steel. This can mean a savings of thousands of dollars in construction materials and labor costs if your building professionals are well informed. If they're not, it's up to your own expert to bring such matters to their attention.

Medina County (Ohio) District Library, Highland Library Branch, David Milling Architects, dmaa.com. Photo: William H. Webb, Infinity Studio.

KEEPING YOUR PROJECT ON TRACK

As plans change from day to day, you may lose track of how the new design will affect the library's function. As you solve one problem, you may be creating another. Thus, you will need some way of measuring each round of changes against a set of basic requirements. As the building evolves, it becomes increasingly complex. You will need a procedure for regularly reviewing plans to be sure that the features you've requested are still present and located in appropriate places.

Checklist of Basic Requirements

At the end of the preliminary information you provide to the architect, add a checklist of basic, nonnegotiable requirements. Although the items on the checklist will be more specific and concrete than the other information, they should, as much as possible, proceed from the information you have already provided. If the architect understands why you want extensive electrical capacity in the stack areas or a sight line to computer equipment, such considerations are much more likely to appear in the floor plans. Over time, the checklist will be amended and may become very long, but it is essential that you continue to go over it again and again. New players appear onstage almost daily, and your concerns may not be communicated to later arrivals such as subcontractors.

The Contractor's Schedule

If this is your first building project, you will discover that it is all unbelievably complicated. There are literally thousands of tasks that must be accomplished, thousands of items to be ordered, and thousands of decisions to be made.

All these elements must be integrated into a very structured, rigid schedule. In many instances one subcontractor cannot begin work until another has finished. The electrical contractor, for example, cannot install wiring until after the framing for the partitions is in place but must complete most of the work before the drywall installers arrive.

Your contractor's project schedule may be the most critical element in your project plan. Not only is it important for scheduling your actual move, but it will clarify which decisions must be made first. The project schedule allows you to plan ahead and avoid those high-stress moments such as when the contractor tells you he needs a decision on locks for all the doors in the building immediately. Be sure you get a copy every time the schedule is revised. The final schedule may be very different from the one initially proposed. Such a schedule is long and elaborate.

Occasionally, you may encounter a contractor who has only a vague idea of what will be happening when. The resulting project schedule is incomplete, and it is clear that the contractor has not thought through the sequence of activities very carefully. This is an indication that you are dealing with the type who "flies by the seat of his pants" or who is not accustomed to working on large projects. By the time you discover this, the papers have been signed, and there is little you can do. It will probably be difficult to pin the contractor down without alienating him, but do your best. Remain enthusiastic and supportive, but ask lots of questions. Then create your own schedule based on your contractor's responses and go over it with him. It may serve to jog your contractor's memory and help ensure that the plumbers are planning to arrive at the right time or that the electricians will be free when needed.

The Library's Project Schedule

In addition, you will need to make yourself a separate internal project schedule from the library's perspective. Such a project schedule is a list of the tasks that must be accomplished, the length of time each task will take, and the order in which they must be completed. You will need to break down your preparations into small, definable units that can be given probable beginning and end dates as well as absolute deadlines, so you and the staff will know where you are on your project—what activities are on track, what is running behind, and what lies ahead.

The business world has given us some excellent ways of dealing with such complexity, but you don't have to become an expert. Lots of excellent computer software is available to keep track of a simple project or a very complex one. Most are quite easy to use. The best known is probably Microsoft Project. Most of the larger construction companies use professional project software to stay on schedule. If this is the case with your contractor, you might ask for periodic printouts. If your library and your general contractor use compatible software, you might ask instead for a copy of the project file.

Preserving the Paper Trail

Yours may be one of those lucky projects that moves along steadily to completion with few detours along the way. Just because there is a flurry of interest, however, your new building or addition may not be just around the corner. The economy may plummet. Legislators and board members may change. Even after plans are drawn and land is purchased, your new building can be put on hold indefinitely. Multiyear delays can mean a succession of library directors and architects who know little about the planning that took place before their arrival. Gradually, information can disappear, and changes can get lost or never be recorded. The plumbing contractor may end up working with outdated blueprints that show incorrect restroom locations, and the millwork subcontractor may be sizing a circulation desk for a space that's been cut in half.

Begin collecting information about the project, whether it's your own research, minutes of meetings you attend, consultants' reports, or notes taken during conferences with the architects. Label materials as carefully as possible and file everything. Imagine the years passing. A new architect is hired; your own memory dims. You've put a lot of hard work into the project, and it could all go down the drain unless you can bring the new team members up to speed. Once the project is back on track, continue to collect materials.

Libraries are repositories of information. You as a librarian are an information specialist, an expert on collecting and organizing resources. While your building is under construction, vast quantities of written instructions, wiring diagrams, blueprints, service manuals, and installation guides are floating about. Copy every one of them and file the copies in a safe place. Obviously, this is a lot easier when you're on the premises, as is the case with a remodeling project or a new addition. Ask to copy any brochures or installation instructions that accompany equipment. Copy guarantees and warranty information.

This is especially important with HVAC and other high-tech equipment that changes often and will soon be out of production. When systems break down, as they inevitably will, information about model numbers, replacement parts, and liability will all be vital. If such materials tend to get lost at the job site, you may want to routinely request them from manufacturers. Implementing these procedures may be a true test of your relationship with your architects and contractors. However difficult it may be, be sure you make it clear that you simply want to do what librarians do best—preserve vital information. Explain that you are not trying to second-guess your building professionals, and you have no plans to do anything with the materials you collect except to preserve them. They will object loudly the first time you remove a sheaf of papers from their office or the construction site (a battery-operated scanner can prevent bloodshed), but if you're back in ten minutes, they will come to accept you as a harmless lunatic. The first time they themselves lose a manual or booklet and discover they can come to you for a copy, your relationship will improve considerably.

High Turnover

Don't depend on some other department in your organization to retain this kind of information or to pass it down through the years. Whether you rely on the maintenance staff of your city, county, or academic institution to maintain your equipment, you're talking about positions that have extraordinarily high turnover rates. Physical plant supervisors will take their institutional memories with them when they move on to other jobs. One of the most helpful things you can do is see to it that each new generation of staff members involved with maintaining equipment is provided with copies of the printed instructions. Never, however, lend your only copy—within hours the information may be trodden underfoot or smeared with a gooey black lubricant.

This chapter has emphasized the preparations that will be needed for the journey ahead. You have a long way to travel, so your preparations must be extensive. A building project should never be started casually. It will take up most of your time for several years and may have a profound impact upon your career. You now know whom you will be dealing with and the sort of interactions you can expect. Even more important, you now have an idea where you fit into the process and the kind of unique expertise you can provide. Recognizing the contributions that only you can make to the project will give you confidence to express your ideas freely. It should not, however, encourage you to be bossy or opinionated, telling other professionals how to do their jobs.

NOTES

1. American Institute of Architects, *You and Your Architect* (New York: American Institute of Architects), available at www.e-architect.com/consumer/yarch.asp and at www.aiapvc.org/yourarch.htm.
2. Werner Sabo, *Legal Guide to AIA Documents,* 5th ed. (New York: Wiley, 1988). This guide provides coverage of key AIA documents such as A101 Owner-General Contractor Agreement, A201 General Conditions, B141 Owner-Architect Agreement, and C141 Architect-Consultant Agreement. The guide also has annual supplements.
3. See the list of resource organizations below for addresses and telephone numbers of these organizations.
4. State University of New York at Buffalo, School of Architecture and Planning, Cyburbia, http://cyburbia.ap.buffalo.edu/pairc/.
5. *The Architect's Handbook of Professional Practice* (Hoboken, NJ: D. C. Wiley and Sons, 2008).
6. American Institute of Architects, Annotated B141: Standard Form of Agreement between Owner and Architect with Standard Form of Architects' Services (Washington, DC: American Institute of Architects, 1997).
7. American Institute of Architects, *Compromise Contract Language Alternatives* (Washington, DC: American Institute of Architects, 1997).
8. Bozeman Public Library, www.bozemanlibrary.org/newlibrary.html.
9. Wendell Wickerham, "Designing and Building Leading Edge Libraries" (paper presented at the 9th annual conference of the Association of College and Research Libraries, Detroit, April 8–11, 1999).

10. Lonn Frye, *Older Library Buildings: Special Building and Design Problems* (Springfield: Illinois Historic Preservation Agency, 1999), available at www.uic.edu/~build1.htm.

RESOURCE ORGANIZATIONS

American Institute of Architects
1735 New York Ave. NW
Washington, DC 20006-7918
(202) 626-7300

Associated General Contractors
333 John Carlyle St., Ste. 200
Alexandria, VA 22314
(703) 548-3118
E-mail: info@agc.org

Construction Management Association of America
7918 Jones Branch Dr., #540
McLean, VA 33102-3307
(703) 356-2622

Engineers' Joint Contract Documents Committee
American Institute of Architects
1735 New York Ave. NW
Washington, DC 20006-5292
(202) 626-7300

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Writing from the perspective of a librarian who has been through numerous building projects, Jeannette Woodward walks you through the process of overseeing the planning and execution of facility construction and renovation. Packed with helpful checklists and worksheets, this revised edition includes

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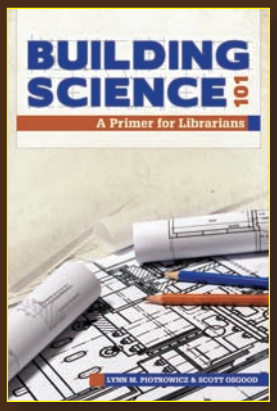

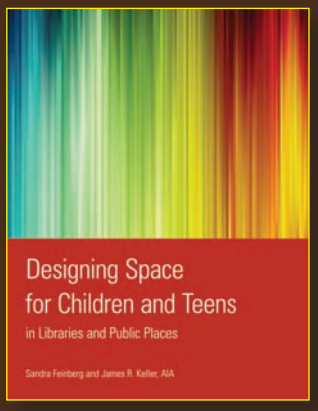

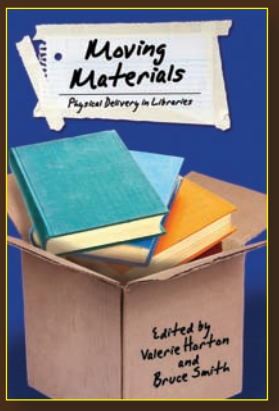

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