Library Buildings: Planning and Programming

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ABSTRACT
There are many books and articles dealing with planning a library building project. This article presents the need for project teams, describes their composition, and presents their role in the planning process. The role of the building consultant is outlined and the qualities desired in the building consultant presented. The space estimation process is presented, including charts of space required for selected library equipment. The building program document is described. Several examples from a building program are presented to illustrate the types of information found in these documents. The importance of inclusivity throughout the planning process is emphasized as well as the importance of including enough space for future expansion.

INTRODUCTION
Any library building project, whether it is a renovation of the current facility, the expansion of the current facility, or the building of a new facility is a major undertaking. For many library staff members, board members, or members of the community served by the library, it is a once in a lifetime experience. For the end result to be something that the user community will be proud of and use effectively for years to come, there must be considerable planning accomplished prior to the first shovel of earth or the first brick mortared into place. This article describes the planning process essential to the development of the desired new facility.

For any building project to be successful, it needs the coordinated participation of a wide variety of individuals. A first step in this direction is the assembly of a project team. This team will operate for the life of the project.

Project Teams
Who should be on the team? While your library is similar to many others, it is also a unique institution that is a reflection of the community in which it operates and the clientele it serves. You know your setting better than anyone else, so take the following suggestions into consideration in developing the project team. Team membership in the public library setting should include someone from the following areas:

- Local government. For any project to be successful, it needs an advocate with close ties to the library’s funding source(s). This individual could be an elected member of city or county government, an appointed official, or an individual serving in an administrative capacity within the government.
- Governing board. There needs to be at least one representative of the board of trustees on the planning team. Depending upon the size and composition of the board, more than one member might be advisable.
- Citizens from service area. At least one individual who has no direct ties to the library but who is interested in the project and willing to take the time to be an active participant in the process. It would assist the project if this representation comes from individuals the community knows and respects.
- Friends and Foundation. If the library has Friends of the Library or a Library Foundation, include at least one representative on the planning team from these groups. This will assist in garnering support from these groups when the inevitable fundraising efforts begin.
- Library staff. Include representation from all areas of the library. If there is a library union(s), there should be one representative from the union(s) on the planning team. There should be a representative from library administration on the planning team. In smaller libraries that person should be the library director. In larger libraries either the assistant director or head of library facilities should be a member.
- Legal representation. This can be the library’s attorney, or a representative from a funding local government’s attorney staff. It is good to have legal representation on a planning committee to assure that ideas are vetted for legal implications before proceeding into detailed planning.

In academic and school library settings, the planning team should consist of representatives from the administration, institutional architects, development office, legal office, faculty, and library staff. In the special library setting, the planning team will vary according to corporate needs and desires. However, it is important that special library staff have an important role in the planning process for any new library facility.
Who should chair the planning team? Select someone who understands group dynamics, is skilled in facilitation, has the respect of those on the planning team, and who leaves their ego at the door. The process of library building planning is long, is often very contentious, and needs a steadying hand at the tiller. Most planning teams will designate a small part of its membership to serve as a working committee. This working committee will then report back to the larger group at designated intervals for input, advice, and support.

What is the role of the planning team in the building process?

- Determine need for the project
- Examine library’s plan for service (long-range plan, strategic plan, etc.) to see what implications it has for building space needs.
- Look at current building(s) to assess their condition, repair needs, space allocations vs. programming needs, and future projections of demand for space.
- Work with library’s governing body in the employment of consultant to work with library on the development of a space needs study
- Work with consultant on the development of the space needs study
- Work with library’s governing body in the employment of an architect to develop specifications for building project
- Work with architect during the process of design development, project bidding, and construction

During this process there needs to be an understanding between the governing board of the library and the project team on the role of the project team in the building project. As the institution’s governing board, the board has final authority on major project decisions such as employment of consultants, architects, awarding of bids for construction, and any major decisions during the construction process. The project team is a special group established to facilitate the building process. Its authority derives from the governing board and will vary in each individual situation. In most cases the project team will have latitude on day-to-day activities and, as mentioned above, will designate a small group from within the team to work closely with all aspects of the project. It is essential that in all project team activities, one individual be designated as the spokesperson for the team. Thus when consultants, architects, and construction personnel are contacted during the process of building planning and construction, one individual is the contact point. This is essential for the success of the project. In the academic setting, the project team will likely report to a top level administrator who will then bring recommendations to the institution’s governing body for action.
BUILDING CONSULTANT
A building consultant is a necessary part of any successful building project. Only in the largest libraries is there expertise sufficient to plan and execute a building project. In even these situations, it is wise to employ someone outside of the institution who will bring a new set of eyes to assist in developing the best possible result.

It is recommended that the building consultant be separate from the architect involved in the project. This individual will bring considerable building and library experience to the development of a plan for the project. In the case of a new building, this plan will examine the library’s space needs in light of service programs, its long-range or strategic plan, the community it serves, and future growth projections for the library’s service area. The resulting plan will recommend space assignments for the new facility and the relationship of each individual space to each other. The architect employed to develop final plans for the construction of the facility will use this program as a base in the development of the necessary construction documents. In the case of building renovation, a similar process is undertaken except that space needs take into consideration the current facility and how the renovated space will work in relationship to it. What should a library look at when it considers employing a building consultant?

- **Considerable library experience.** It is essential that the consultant understand how the library operates. Familiarity with and experience in libraries of similar size and operating structure are essential if your library is to get a good product.
- **Understanding of library buildings and how they function.** This comes from years of dealing with library buildings, their operation. It also includes an accumulated knowledge of the idiosyncrasies found in the construction and maintenance of library facilities.
- **Ability to listen.** You want someone who will provide what you need, not what they have in mind from other projects. Each library and the community it serves are unique. The consultant can tap into this only if they are willing to take the time to listen to their client.
- **Excellent oral and written communication skills.** The best consultant is only as good as their ability to communicate their ideas and concepts to others.
- **Political skills.** All the above are of no use if the consultant is not able to work with the diverse groups found within every community. Tact and common sense are sometimes unique skills. A good consultant will need both to be successful.
- **The building consultant should not be an employee of the architect.** They should be a separate individual reporting directly to the library’s governing entity.
How important is it that the consultant has direct library experience? The author feels that direct library experience is invaluable when considering the selection of an individual who will be providing the library with this essential service. While, as mentioned above, the author recommends that the building consultant be someone with direct library experience, there are good consultants who have an architectural background rather than direct library experience. The choice is yours. Just make sure that the consultant you select is one that you have confidence in and will be comfortable working with. If you are not comfortable working with them, do not hire them.

How do you find building consultants? Talk with your peers, check with your state library, and check publications such as *American Libraries* and *Library Journal*.

Once you have located consultants that you are interested in, prepare a Request for Proposal (RFP) to send out. Before sending this out, check with your attorney to see how your state governs such proposals. Some states have legislation that requires architects and consultants to be hired by interview and fee negotiation, not by bid. In the RFP, outline what deliverables the consultant is expected to provide, what the project timeline is, and any other information pertinent to the project. Depending upon the legal requirements of your state, there may need to be an indication of what their work will cost and how they plan to deliver it. It is essential that legal advice be employed through the RFP process.

**Space Estimation**

As you begin to think about a new building, building renovation, or building addition, the first question that presents itself is “How much space do I need?” or “How do I estimate the amount of space that will be needed to provide for the services that are desired for this new space?”

The answer to the latter question is “very carefully.” Space estimation is not a simple procedure. While there are space guidelines, much depends upon the knowledge and skill of the individual applying these guidelines. That is why it is recommended that any detailed space estimation be left to those with experience in this area.

There are two approaches to space estimation. The first is known as the quick and dirty method, which is formula driven. The second is the full-length program method. While the formula driven approach can be beneficial in developing a rough estimate of building space needs, use it with caution as it can often understate space needs. The full-length program method is preferred by the author for developing an accurate picture of actual space needs.

There are several sources for those of you who have a hankering to pursue this topic on your own, before you work with a consultant. A source that the author has used on many occasions is *Wisconsin Library Building*
Project Handbook (Holt & Dahlgren, 1990). The original work was by Raymond M. Holt and revised by Anders Dahlgren. A newer version of this publication is Public Library Space Needs: A Planning Outline, by Anders C. Dahlgren (2009). This work includes a helpful space-needs worksheet.

Libris DESIGN is the result of a grant from the U.S. Institute of Museum and Library Services under the provisions of the Library Services and Technology Act, to the California State Library. It is a stand-alone library Microsoft Access–based facility-planning database that assists individuals with the planning of public library buildings. Access to Libris DESIGN is limited to individuals who have received a two-day training session conducted by Infopeople. These training sessions are primarily held in California.

Below is a summary sheet on general space allowances for libraries.

<table>
<thead>
<tr>
<th>Shelving Units</th>
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<tbody>
<tr>
<td>Standard 3’ width on a 3’ aisle</td>
<td>10 sq ft</td>
</tr>
<tr>
<td>Standard 3’ width on a 4’ aisle</td>
<td>15 sq ft</td>
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<tr>
<th>Book Capacity</th>
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<tbody>
<tr>
<td>Adult fiction and nonfiction</td>
<td>8 vols/lf</td>
</tr>
<tr>
<td>Adult reference</td>
<td>6 vols/lf</td>
</tr>
<tr>
<td>Children</td>
<td>15 vols/lf</td>
</tr>
<tr>
<td>Children reference</td>
<td>6 vols/lf</td>
</tr>
<tr>
<td>Video tapes, CDs, and DVDs</td>
<td>8 vols/lf</td>
</tr>
<tr>
<td>Cassettes</td>
<td>10 vols/lf</td>
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<tr>
<td>Periodical titles—displayed</td>
<td>1 title/lf</td>
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<table>
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<tr>
<th>Seating</th>
<th></th>
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<tbody>
<tr>
<td>Reader seating at tables</td>
<td>25 sq ft</td>
</tr>
<tr>
<td>Reader seating at carrels</td>
<td>20 sq ft</td>
</tr>
<tr>
<td>Reader seating at AV carrels</td>
<td>35 sq ft</td>
</tr>
<tr>
<td>Reader seating in lounge chairs</td>
<td>40 sq ft</td>
</tr>
<tr>
<td>Public seating in meeting room</td>
<td>10 sq ft</td>
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<table>
<thead>
<tr>
<th>Offices and Work Rooms</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Library director’s office</td>
<td>150–250 sq ft</td>
</tr>
<tr>
<td>Public workstations</td>
<td>150 sq ft</td>
</tr>
<tr>
<td>Staff work areas—private</td>
<td>100 sq ft</td>
</tr>
<tr>
<td>Staff work areas at public desks</td>
<td>60 sq ft</td>
</tr>
<tr>
<td>Secretary and reception</td>
<td>100 sq ft plus 30 sq ft for each seat in the reception area</td>
</tr>
</tbody>
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<tr>
<th>Miscellaneous</th>
<th></th>
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<tbody>
<tr>
<td>On-line public-access catalog station</td>
<td>35 sq ft</td>
</tr>
<tr>
<td>OPAC with printer</td>
<td>40 sq ft</td>
</tr>
<tr>
<td>Public access computer</td>
<td>60 sq ft</td>
</tr>
<tr>
<td>Atlas stand</td>
<td>35 sq ft</td>
</tr>
<tr>
<td>Dictionary stand</td>
<td>30 sq ft</td>
</tr>
<tr>
<td>Index table (six piece)</td>
<td>140 sq ft</td>
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Programming

Programming refers to the process of developing a document that outlines what the new, remodeled, or added-onto facility will contain. This document, commonly called a building program document or a space needs study, can then be taken to an architect for the development of schematic design and construction documents. Whether the building program document is done by a library staff member, a library building consultant, or a professional programmer who may have an affiliation with an architectural firm, the following items are core parts of the process:

- An understanding of the project’s goals
- How the project fits into the library’s long-range or strategic plan
- What limitations are present

To develop a good building program statement, there must be a thorough understanding of the goal of the project. What is the desired result of the project? Is it more space for readers? Is it better program space? Is it more space to hold and display collections? Is it better workspace for library staff? Is it space for more technology such as public access computers, computer-training facilities, etc.? Is it meeting room space for library programs and community groups? Do you desire more group study space?

Once the above becomes clear, the next step is to assure that the proposed project fits into the library’s planning document. If the library does not have a long-range or strategic plan document, now is the time to develop one. Good building efforts require that what is being undertaken come from both knowledge of what your goals are and how they tie into what the library is planning in the way of programs and services for the long term. A good useable building program is not possible without a long-range planning document in hand, one that is actually followed rather than gathering dust on the office shelves.

In developing a building program, be honest with the limitations present. Are there difficulties with the current building that must be addressed in any renovation or addition? Do you lack space for proper expansion? Is there a limit to the amount of funding available? Is the site for a new facility already determined, even if it is not what is desired? Any limitation must be reflected in the development process of the building program.
A library building program takes the major functions of the library and defines what will be included in these functions and what relationship each functional area will have with other areas within the facility. Following are major functional areas of the library:

- Public space—where users read, use technology such as computers, or study
- Collection storage and display—where materials are stored or displayed waiting use
- Cultural space—for meeting rooms, programs, group study, galleries, and tutorials
- Staff space—work and office areas, lounge
- Facility space—maintenance, custodial, storage

There is another factor in any building program. This is nonassignable space. Nonassignable space includes the following:

- Entrance and vestibule
- Walls
- Restrooms
- Stairs, elevators, and hallways
- Heating, ventilating, and air-conditioning equipment

Some individuals will include facility space as a part of nonassignable space. From long experience, the author strongly believes that if there is not planning for storage and custodial operations as a part of the regular facility planning, it will be shortchanged in any final library design. As planning for the facility spaces progresses, always add at least 25 percent to the space needs of your facility for these nonassignable spaces. Depending upon the architectural design of the building, nonassignable spaces can occupy up to 40 percent of the final building.

Any building plan begins with a brief description of the library, its history, and place in the community. The plan then flows into a listing of general considerations that the architect should follow in preparing design documents. These considerations include the following:

- Aesthetics
- Building Access
- Signage
- Landscaping
- Lighting
- Parking
- Entrances
- Security
- Floor Coverings
- Heating, Ventilating, and Air Conditioning
The example below indicates how some of these issues are addressed in the building program document.

- **Landscaping.** Landscaping that accentuates the building and enhances the parking lot should be provided. The landscaping should not provide areas for individuals to hide. Vandal-resistant materials and construction should be used in the design of all walls, walks, and planters. Consideration should be given to provide outdoor seating at the entrance. If possible, this seating should be provided under cover to provide a pleasant place for those waiting to be picked up, and at varied height to accommodate various sized individuals. Three lighted flag poles should be provided to allow the flags to fly 24 hours a day. A banner pole for library flag or special events should be considered. The lighting should be from the pole or from the building. Ground mounted lighting should not be allowed. Provide at a minimum the amount of landscaping required by code. Use the landscaping to divide the parking into areas and to soften the amount of pavement. The use of native plants is desired. The Library Building Committee is working to provide a list of acceptable plant materials. Provide an irrigation system for all landscaped areas.

- **Entrance Doors.** The entrance doors should be protected from the elements and designed to provide a vestibule which would allow sufficient space between two sets of doors to provide an air-lock during normal use. Automatic doors are recommended for ease of access for the handicapped, elderly, and patrons carrying materials. Provide walk-off carpet that is a sufficient distance (approximately 20’) to adequately remove water and dirt before reaching the carpet.

- **Fire Prevention.** The building must be designed to meet all local fire codes.

- **Floor Coverings.** The entrance and lobby area of the library should be designed with a walk-off carpet that is easily maintained. The restroom floors should be designed with a hard, slip-resistant material that can be easily maintained. Carpet or cork should be considered in the public area for acoustical, aesthetic, and durability reasons. A high-quality commercial carpet that uses branded solution-dyed fibers with multicolored loop and a minimum 20 oz. weight should be used. The carpet should have a minimum ten-year warranty. Carpet tile must be considered for use in the public and high traffic areas.

- **Floor Loading Capacity.** Provide a floor loading of a minimum 150 pounds live load per square foot.

- **Glass Treatment.** The library should be oriented to provide major areas of glass on the north face of the building. Glass should be limited on the east and west faces. Insulated glass with tinting or Low-e should be considered for all exterior glazing. The use of canopies, overhangs, or other means of shading should be considered (PSA/Dewberry, 2007).
The building plan will address each individual space within the library. In addressing each space, the square feet needed for the space will be indicated, and the relationship of that space to adjacent spaces will be stated. What spaces need to be close to the space being described? What should be distant from the space? How should the space relate to the facility as a whole? Additional information for each described space will include any special requirements for the area, who will be using it, and what furniture and equipment will be required in the space. The following is an example from a library building program to illustrate how this information is presented.

**SECTION: A PUBLIC ENTRANCES AND LOBBY**

**SPACE:** Public Restrooms

**FUNCTION:** To provide restroom facilities for the public.

**LOCATION:** Accessible to public meeting rooms

**REQUIREMENTS:** For use after hours

**SPECIAL REQUIREMENTS:**
- Fixtures and finishes should be vandal resistant.
- Provide ceramic tile or other hard service on all walls.
- Provide floor drains in all restrooms.
- Use low water plumbing fixtures.
- Light switches should be controlled by the staff.
- Provide shelf at back of stalls.
- Consider creating stalls with tile walls in lieu of partitions.
- Provide stall doors which swing out.

**OCCUPANCY:** Patrons. As required by code.

**TOTAL SPACE REQUIRED:** 800 square feet

**SHELVING REQUIRED:** None

**FURNITURE AND EQUIPMENT:**
- Women’s Toilet stalls (one handicapped accessible)
- Sinks
- Mirrors
- 8–18” parcel ledge in each stall
- Trash Receptacle
- Exhaust Fan
- Electric hand dryers

- Men’s Toilet stalls (one handicapped accessible)
- Urinals
- Sinks
- Mirrors
- 8–10” parcel ledge in each stall
- Trash receptacle
- Exhaust fan
- Electric hand dryers
COMMENTS:

Provide wall hung fixtures for ease of maintenance.
Provide counter in lavatories.
Provide changing counter in all public restrooms for babies.
Provide child seat in at least one stall.


Programing for any new, renovated, or remodeled facility is a complex process. It involves close cooperation and communication between all parties involved in the development of a building program. Do not be afraid to ask questions. The author’s experience has shown that many buildings are too small the moment that they are constructed—thus the emphasis on communication and asking questions during the development of the building program. Also, even the best and most experienced individual can misunderstand what is desired or can forget to include items. If it is not in the building program, you can rest assured that the architect will not see that it gets in the design and construction documents. Even if it is in the building program, constant vigilance is required to make sure that it gets from the building program into the final construction documents.

Providing for Future Expansion

As plans are developed for the building project, always have in the forefront the realization that while the facility is being planned to last for the next ten to twenty years, it is likely that expansion will be needed within that time span. Why? Population growth estimates may be incorrect, ethnic makeup may be substantially different than what was anticipated, new technology may bring unplanned needs and demands, and service plans will have been substantially changed from your current vision.

Thus the final building plan should provide for a facility that can be added onto. There must be adequate land to enable an addition to be possible, including space for additional parking. Make sure that the building site includes this expansion space and that drainage or other site limitations do not preclude the ability to expand. While it costs more to begin with, particularly if you are site limited, construct the building with adequate foundation loads so that a second story can be added in the future. This maximizes the use of the building site.

Conclusion

To be successful, the planning process must be inclusive. Library staff, members of the governing authority(s), users, and affiliated groups such as Friends and Foundation must be represented in the group charged with overseeing the planning process. However, those participating in the process must understand that the whole is bigger than anyone’s specific interests. What should drive the process is the desire to provide a facility that will meet the needs of its user community. In this process it is vitally
important that the institution’s planning documents are consulted on a regular basis.

As an individual who has consulted on many library building programs and lived with the building results of others, my advice is to avoid making the facility an architectural statement or a monument to the current trend of the moment. A building can and should be attractive and economical to operate. But foremost it must be usable by its community.

In sum, planning is challenging, time consuming, and fun. Enjoy your opportunity to be a part of developing a new library facility that will serve the community for years to come.

References

John A. Moorman is director of the Williamsburg Regional Library (Virginia). A chief library administrator since 1975, in North Carolina, Texas, Illinois, and Virginia, he is active in state and national library associations. Professional interests include library buildings, combined school/public libraries, and organizational theory. Moorman has worked with libraries on building programs, space needs, and organizational studies. He has provided workshops on a variety of topics, including fundraising and the organization of library support groups. Moorman’s articles include “Knowledge of the American Library Association’s Code of Ethics among Illinois Public Library Directors: A Study” (Illinois Libraries, 77(3), 140–146, 1995). He is editor of Running a Small Library: A How-To-Do-It Manual (2006). A graduate of Guilford College in North Carolina (1969), Moorman has a master’s degree in Library Science from the University of North Carolina at Chapel Hill (1972) and a PhD in Library and Information Science from the University of Illinois at Urbana–Champaign (2002).