Library Space

A PLANNING RESOURCE FOR LIBRARIANS

This guide was developed to empower librarians, administrators, space planners, and architects with a collection of best practices for the planning and design of public library buildings. A collaboration between the Massachusetts Board of Library Commissioners (MBLC) and Sasaki, it was undertaken with the belief that this information will help to facilitate improved library spaces and services across the Commonwealth of Massachusetts.

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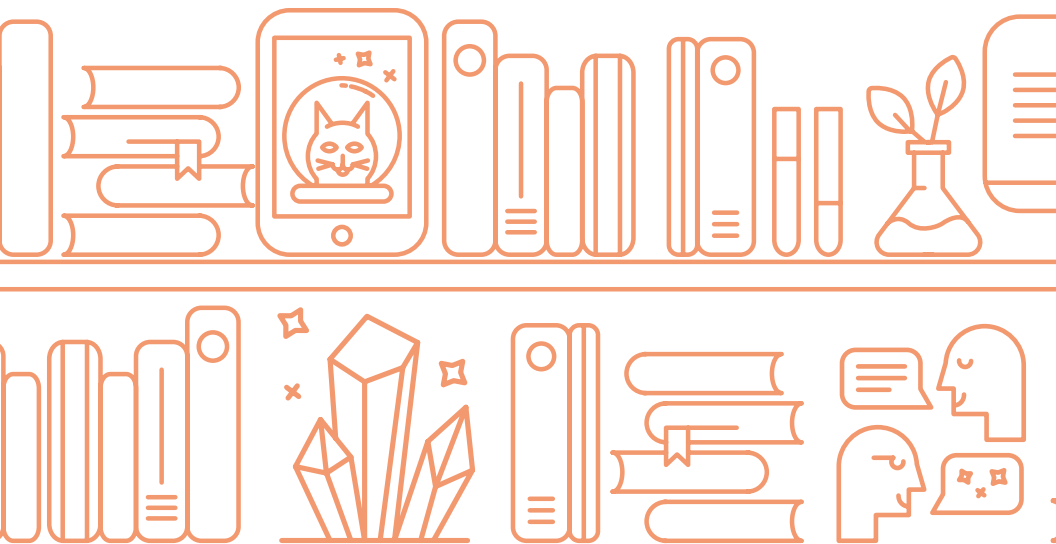
Why This Resource?

This resource will be useful to all those who have an interest in the space planning of public libraries, of any size or location. This resource will empower libraries to improve their services, spaces, and facilities to:

1. Kick-start their own planning projects by considering some of the program and space issues and considerations at play in the design of public libraries.

2. Identify and articulate needs, and make a case for a project to municipalities and other potential funders.

3. Address small scale space challenges on their own, without the need for outside assistance from a designer, furniture vendor, or contractor.

See page 152 for photo credits

Best Practices - A Multi-Faceted Approach

The MBLC recognizes the need for a set of best practices for public library facility planning and design. In the past, it has cited the Wisconsin Public Library Standards as the only widely known reference point for library planning standards. While these guidelines can be useful as a starting point, they do not address the rapidly changing landscape of public libraries today, including spaces for critical program areas such as library staff and administration, public meeting rooms, or rooms for flexible programming for children, teens, and adults.

Our methodology included three main activities: site visits, an analysis of a series of case studies, and a focus group meeting.

SITE VISITS. Our team visited several recently completed Massachusetts public library projects that represent a cross section of sizes and geographic locations to see for ourselves what individual libraries and their architects have designed and built as an outcome of their respective planning processes.

CASE STUDIES. Our team analyzed thirteen case studies of library projects that were completed within the last ten years. All projects were funded through the Massachusetts Public Library Construction Program (MPLCP) construction grant program. Our analysis looked at the library building program and also at the spatial organization of each case study. Each case study library exemplifies at least one of the best practices outlined here.

FOCUS GROUP. We held a focus group meeting with current and retired librarians from case study libraries. In this meeting, we discussed best practices around collections, children's areas, meeting rooms, etc. and collected feedback on the overall process and scope of study.

Public Libraries in Massachusetts: An Evolving Ecosystem

Understanding the Context

From our analysis, site visits, and a focus group session, we garnered insight about what is working, and also what is not working across public libraries in Massachusetts today. These visits and conversations were instrumental in underscoring, as most of us already instinctively know, that the more successful library spaces hinge on a dynamic and fluid understanding of library spaces: collection areas cannot be considered in isolation of seating areas, service points cannot be considered in isolation of seating areas, etc. For a set of best practices to be comprehensive and useful, each aspect of a library's building program should be addressed, along with the spatial implications of arranging them into an organized whole.

While our desire is to create a set of best practices, we also recognize that there is no one guiding set of standards that can serve as a "one size fits all." The Commonwealth includes over 350 public libraries: they come in many different sizes, from the very small to the very large, and in many different types, from the geographically remote to the urban node. In an earlier study that Sasaki completed in 2018 titled "Public Libraries in Massachusetts: An Evolving Ecosystem", one of the key findings was that library services across the state exist in an ecosystem, whereby each individual library participates in a network of libraries within a geographic region. The study found three distinct library typologies across the state's eight public library networks. While the study represented a specific point in time, it clearly demonstrated how shared resources and collaborative borrowing heavily influence how public libraries across Massachusetts are used. It also highlighted that to improve access and equity for library services across the state, funding also needs to consider the whole and needs to be responsive to these usage patterns.

Library Typologies

Resource

Libraries that serve a geographic area beyond their municipality and immediate region.
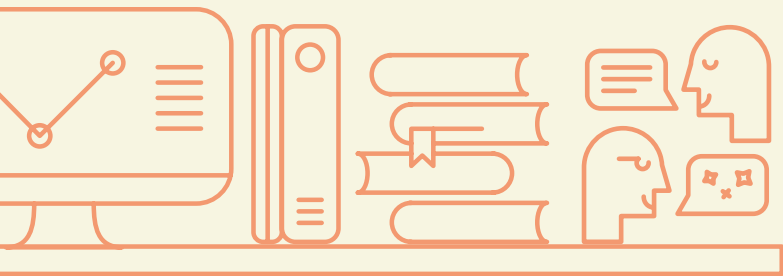
Peer-to-Peer

Libraries that operate in a network of similarly sized institutions that serve the needs of their immediate and immediately adjacent communities.

Seasonal

Libraries that balance shifting populations throughout the calendar year.

Definitions

The terms defined here may be useful when reading this guide. For a more comprehensive glossary of architectural and planning terms that relate to library buildings, refer to the Appendix of Schlipf and Moorman's The Practical Handbook of Library Architecture, see Resources page.

Accessible
Able to be used by people of varying abilities as defined by the Americans with Disabilities Act. "**Universal Design**" goes beyond this relatively narrow definition to promote **inclusive design** for all users

Adjacency
Condition in which two spaces directly connect to each other

Circulation
Architectural term referring to the spaces that allow people to move around. Corridors and stairs are considered "circulation spaces"

Cost-Benefit Analysis
A study of initial costs of a material or system compared to the eventual costs of maintaining or replacing it over the life of the building

Grade Change
The difference in elevation across an area of land, for example from the top to the bottom of a hill

Gross Area
Total area of a building or space, including the Net Area (see below), the wall thicknesses, the janitorial and mechanical spaces that may be part of that space and/or building. Gross Area is expressed in Gross Square Feet (GSF)

Inclusive
Welcoming and usable to people of varying abilities and backgrounds (a broader term than "accessible")

Net Area or **Assignable Area**
The net area of a library is the total area inside of the library's walls and used for library-specific functions, excluding janitorial and mechanical areas

Program
Other than the discussion of the Library Building Program, the terms program and programming are used in this guidebook to denote a program (event, activity, etc.) for the public hosted by the library

Proximity
Condition in which two spaces are near each other, but direct connection is not absolutely required (compare to **adjacency**)

Sightlines
An open visual corridor between two or more points.

Key Conside

Getting Started with this Planning Resource

This initial section reflects many of the considerations, both practical and idealistic, that motivate libraries to undertake building or facility improvement projects. We've drawn these topics and examples from our own experience and from our focus group of librarians who had recently completed their own projects.

Identifying the goals and priorities for your project is the first step in defining your library's space needs and will inform the ways you use the data and best practices in subsequent sections of this guide. For large scale projects, these key considerations will introduce you to critical areas to explore and become familiar, but it is suggested that a formal needs assessment with community involvement be conducted for a comprehensive review of your existing facility and necessary components of your desired facility.

erations

Renovate, Add, or Build New?

For some libraries, the needs are great enough that a new facility is a viable alternative to a major renovation and/or addition. Defining the needs using this guide is a good starting point.

1. How much space do you need, and what kinds of spaces will work best? Think about staffing, operations, and the user experience as well as collection, seating, and programs. See page 140 for further reading.

2. If the existing facility has issues with accessibility, energy efficiency, or building integrity, are these problems solvable? The greenest solution may be to upgrade an existing facility.

3. Understand the logistics of temporary closures and partial renovations, and/or maintaining operations during a construction project.

4. A cost-benefit analysis may be useful as a decision-making tool if there is no clearly preferred alternative.

5. Consider the strong public sentiment regarding historic buildings.

Accessible route to the front door

An Inclusive, Functional Facility

A library building should be designed to be as inclusive as possible in order to serve the public. This means going beyond accessibility in the strict legal sense to incorporate an overall attitude of inclusive design. Examples include an accessible main entrance, rather than a separate "wheelchair entrance"; intuitive wayfinding for the visually impaired; seating for all sizes and mobilities; and designing as many restrooms as possible to be gender-inclusive.

Cultural inclusivity is also important and can take the form of signage and other design elements that reflect and highlight community-specific collections and programming.

Safety, including the presence of hazardous materials, may provide an excellent argument for making changes. A professional architect, engineer, or experienced contractor can help quantify the need as well as point out any relevant code requirements or "while you're at it" upgrades.

Buildings that do not function well due to deteriorating infrastructure, inaccessibility, poor sightlines, or a mismatch between spaces and current uses are some of the primary reasons for libraries to undertake building projects.

A Flexible Facility

Library user expectations are evolving, library services are changing, and digital tools are transforming the role of the library. Any project to adapt or create space to deliver library services must acknowledge that library space needs will continue to evolve, sometimes in unpredictable ways.

The recent library shutdown and social distancing measures required as the result of the COVID-19 pandemic is a great example of planning for flexibility. It's very difficult to adapt rigid, built-in shelving and furniture to allow for greater space between people, while mobile items can be reconfigured to accommodate new and quickly changing requirements.

This guide intends to provide a holistic and flexible approach to planning library space. **Flexibility is implied in many of the best practices throughout this guide. In addition, this short list of common ways to plan for flexibility may help you enter into the planning process with flexibility in mind.**

- Locate the **elevator, main stair, and restrooms** at the perimeter so that floor plans can change over time

- Avoid **built-in elements,** such as fixed service desks, meant for one function; consider mobile furniture units instead

- Provide for plenty of **power and data** to allow the space to evolve with minimal updating

- Avoid rooms dedicated to a single purpose, e.g. computer labs with permanent equipment setups. **Flexible furnishings with lots of storage** for equipment works better

- Ensure program/community room **storage** can accommodate a majority of the tables and chairs outfitting the room. In-room built-in and/or mobile storage should be considered for any room that will be used flexibly

- Consider **mobile shelving** wherever gathering space can be created

- Consider whether the design and planning of the space requires an additional **staff service point** or after-hours staffing

- A **beautiful, comfortable space** will always be well-used

Library services continue to add more programming and services in addition to providing traditional collections. In the future, both the physical library and the network infrastructure that libraries already have will be an increasingly valuable resource in itself. Planning for flexibility will add to this value in the long term.

A Viable Location + Site

This partial list of considerations may be clarifying for a library looking to either select a site for new construction or assess whether the location of an existing building is still viable and suitable. If there are serious technical concerns about a site, or if the project is of a certain size, it may make sense to engage a design professional to formally assess the site.

- **Proximity** to residential neighborhoods, commercial centers, schools, and senior housing

- **Size**: enough land for the building or addition, parking, and service areas

- Significant **grade change** across the site may complicate the design of a new building and an accessible landscape around it

- **Certain contexts** that may complicate building include flood plains, wetlands, archaeological sites, and historic districts

- Positive and negative impacts on **parking, traffic, and pedestrian flow**

- Availability of **utilities** such as electrical, cable, data, storm-water or sewer

- **Regulatory context**: easements, zoning and dimensional requirements, local requirements for stormwater management, resilience, parking, etc

- **Walkability** and proximity to public transportation, which promotes sustainability and encourages visits

Spaces for Diverse Programming

From its 18th-century roots as a place for self-improvement, the library remains a physical place to interact with both library staff and one's community. New or reimagined libraries often focus on providing spaces for a wide range of expanded programming for all ages. Program rooms of different sizes and capabilities, as well as informal spaces like seating areas and even cafés, must be included in the planning process. Flexibility and adaptability in the planning of these spaces is of paramount importance.

Libraries in the Commonwealth have included makerspaces, art galleries, business incubators, demonstration kitchens, audio/video production facilities, and many more specialized program areas. Spaces beyond the traditional require careful attention to the required staffing expertise, equipment, and funding. The required investment in infrastructure, like heavy-duty wiring or exhaust for specialized tools or equipment, should be balanced with a consideration for long-term flexibility of the space. For example, power and data drops could be provided overhead rather than in the floor, in case the arrangement of the room needs to change later.

In our focus groups, librarians consistently cited a need for more and varied meeting spaces as a major reason for undertaking a construction project. Moreover, several librarians experienced an unanticipated increase in demand for meeting space after the new facility opened, as users integrated the new spaces into their routines. It's nearly impossible to provide too much program space.

Historic Buildings

Adapting a historic building can be incredibly rewarding, resulting in a library with wonderfully unique character and stewarding the building for future generations. While it is difficult to generalize about historic structures, the following considerations are a good place to start the process of determining what it will take to update or reuse an existing building.

Code and accessibility requirements will inform any historic project. Renovation work that exceeds certain cost thresholds may trigger legally required changes to accessibility, fire sprinkler systems, and even structural systems. Hazardous materials are common in pre-1980s buildings. A code consultant can provide building-specific advice.

Beyond legal requirements, a public library generally should have up-to-date life-safety systems and follow principles of universal design. At a minimum, a historic renovation is likely to include a sprinkler system, an elevator, and perhaps reworking building entrances so that wheelchair users are not relegated to a back door.

Many public libraries were built in the 19th and early 20th centuries. These buildings often have many small rooms defined by structural walls. Think creatively about which types of spaces can occupy these rooms. Structural stacks, because they hold up the building, are expensive and complex to renovate.

Modernist buildings often include the wide-open spaces common in current library planning, but may not reflect current models of service and security.

Building systems, including heating and cooling but also windows and roofs, may require extensive upgrades or replacement to meet contemporary standards of energy efficiency. Keep in mind, however, that updating an existing building usually has a much smaller environmental impact than starting new.

Finally, even small changes to historic buildings should involve an architect or designer knowledgeable about that building's era of architecture, to ensure that changes are respectful of the building's essential character. A professional assessment of the condition and functionality of any historic building is a good investment when considering a renovation or expansion.

A Sustainable and Resilient Building

A library should be sustainable and resilient, both for the greater good and to support the library's ability to operate in the long term. To be sustainable, it should require minimal resources to build and operate; to be resilient, it should be able to survive and thrive after a disaster. If the library is intended to serve as a community gathering space during extreme weather, it should have backup power and other specially-designed systems. If it incorporates green design features, the building itself can be a teaching tool using signage, exhibits, and/or dashboards.

The **reuse and renovation** of existing buildings emits far less CO_2 than the construction of new buildings, despite the fact that new buildings can be more efficient in terms of operational energy. The most sustainable building is the one that can continue to be used . Similarly, new buildings should be planned flexibly, to have a long useful life.

Green design requires intentional prioritization from the start and continued integrated planning throughout the design process.

In design, **energy efficiency** is a high priority. Solar orientation to promote passive daylighting and to avoid solar heat gain is an important first consideration. Active strategies to obtain a more energy efficient building include specifying high-performing walls, windows, roofs, lighting, and HVAC systems. In Massachusetts' climate, it is usually well worth the investment to pay close attention to these systems; though not visible, they all contribute to the long term energy demands of operating a building. If an existing building is to be renovated, an architect or building scientist can help determine what measures are needed to reduce energy demands of the existing building and its systems.

To complement energy conservation, **consider energy-positive design**, with rooftop solar power and ground-source heat pumps to generate the building's energy. Be aware that for a public building, these systems usually supplement, rather than replace, energy sources like natural gas or the electric grid. At this time, natural gas is typically a less-expensive energy source than electricity, but as our power sources continue to become greener, buildings with all-electric systems will be better positioned to take advantage of non-fossil-fuel energy sources.

Inside the building, **natural daylight** (sometimes with sensors that dim the electric lights) is both an energy-saver and a fundamental human comfort. Opt for LED lighting as a default to save energy. Avoid unnecessary or excessive screens and monitors that are always on, and consider switching from desktop computers to laptops or tablets.

Water-saving plumbing fixtures should be the default; in some situations, it may be feasible to harvest rainwater for toilet-flushing or outdoor irrigation.

Consider **interior materials** that reduce their impact in one way or another. For example, some commercial-grade carpet uses recycled synthetic fibers; linoleum flooring uses natural materials and is biodegradable; and an exposed concrete floor slab uses almost no additional material at all. In any product selection, a life-cycle cost analysis that looks at the costs and impacts of operating, maintaining, or replacing a system or product may help clarify decision-making. Consider materials that do not contain hazardous chemicals.

Green building resources are constantly being updated; see the Resources section of this guide for more information.

Welcoming, Open Spaces

Libraries are taking on an increasingly important role as a free, public space where all members of a community can access information, meet, learn, work, or just be without pressure to spend money. The library is a rare place where people are likely to naturally encounter members of their own community who are of a different race, age group, or income level.

Newer libraries tend to create this welcoming environment by emphasizing openness in the design of the spaces. One aspect of this design impetus is to use ceiling height, natural light, wide-open spaces, and long views to give library users a sense of their place in the building and their spatial relationship to other users. Good sightlines and downplaying the stereotypes reinforced by traditional, heavy library furniture and fixtures can help create an environment that is inclusive even to those who have never stepped into a library before.

Intuitive Navigation

The prototypes in this guide assume that intuitive wayfinding, in which the design and arrangement of spaces (rather than posted signage) is the primary means of navigating the building. Sightlines, spatial organization, and pathways from one place to the next all contribute to intuitive wayfinding.

Specific interior finishes or materials can color-code spatial zones, even in an open-plan building. If everything in the teen area is purple metal, it is easy to spot the teen area from across the building. A path on the floor (rather like the Freedom Trail in Boston) can lead users to a specific destination. The Cambridge Public Library (below) uses a red stair and ceiling to indicate the route from the first to the second floor. Visual consistency (common colors, typefaces, and materials) indicating staff service points, bathrooms, etc., can complement rather than compete with the formal signage program.

Effective Service Points and Operations

Facility improvements are often driven by a desire to make staff service points and operations more effective, more efficient, and more functional. Increasingly, service points are becoming more integrated within the overall library environment: they are smaller, more modular, and located at key positions within the space. Underpinning this new service model is the desire for the librarians to be easily found and approachable, while simultaneously allowing the librarians the clearest view possible within the overall space.

In some instances, roving librarians and self-service points are replacing fixed staffed service points. **Consider that library users usually don't distinguish between reference, circulation, and other staff positions**; if the design of these staff service points becomes more uniform and flexible, it may not only make the library user experience feel more intuitive and less intimidating, but also save space and preserve flexibility for future changes.

A Secure and Manageable Environment

The space types and prototypes in this guide imply a passive security approach based on visual supervision. In other words, **library staff should ideally be able to see nearly every space in the library from their stations or in the course of their normal activities.** Stacks and service points are sized and positioned to facilitate this.

Particularly important locations for visual control include building entrances and exits; enclosed spaces like conference rooms (achievable with glass); the entrances to restrooms; and areas of soft seating. Children's spaces must be carefully designed to allow both staff and parents to supervise even very active children.

There is an inherent conflict between this approach to everyday security, common in contemporary libraries, with the idea of a lock-down area or safe room to be used in a life-threatening emergency. One simple compromise is to consider at least one completely lockable space, such as a staff office, in even a very small library. Consider escape/emergency egress routes in space planning as well as furniture arrangement. It is important to work with local law enforcement agencies to develop a plan for emergency situations.

Consider equipment like panic buttons and a public-address system as part of the overall safety approach.

In terms of collection control, locate security gates close to and visible from the main staff service point. The design of the space should make it difficult to go around the gates. Since library security gates are expensive, it is worth the effort to design the spaces to minimize the number of gates required.

It's important to plan security gates carefully and work closely with your designer and your vendor to come up with a plan that will work well. These decisions must be made very early in the planning process in order to locate the power & data required.

Space for Physical Collections

As the nature of information has evolved and indeed exploded in the digital era, questions of what books, objects, and media are collected and how patrons access them continues to drive change in library planning and design. There is no topic more rife with speculation in public libraries than physical collections. What size collection should a particular library have? What should be collected in print and what is better addressed with digital resources? The full breadth of this topic is beyond the reach of this study, but we offer the following considerations below to libraries who are seeking ways to "right-size" their collections.

There is no magic number or formula for the size of collection in proportion to the population served or to the size of the physical facility. Each community is different, and in order to serve its community, each public library collection is different. Instead of a "one-size fits all" approach, a best-practice approach is to establish a **collection development policy** that sets the individual library's collection philosophy and guides its acquisition and retention procedures.

A first step in the development of a collection policy is to analyze the collection you have. Break it down into sections that are meaningful to your community (cookbooks and travel books are good examples). Analyze your community's use of the various topics and determine how exhaustively it should be collected. Supplement this numerical analysis with anecdotal information about use from your front-line staff.

Other factors in determining the collection level include the number of patron requests for specific materials, popularity of programs in a subject area, and any local or regional initiatives or political issues of particular interest.

In Massachusetts, **collaborative borrowing** within networks is the norm. As such, the holdings of any one library must be understood within the context of the state's reciprocal lending program. Looking at collections through this lens can be particularly helpful to some: local libraries can be more flexible and responsive to their communities with their collections, while not sacrificing

access and shelf space to a more generalized collection. This may also mean that they can use their physical space for other functions rather than for low-circulating collections.

Beyond the policy that shapes your philosophy, your library must set **priorities for how your space will be used**. In the last 20 years, the activities that take place in libraries have changed and multiplied dramatically. Many services that require space - such as small study rooms, creation spaces, and other programs, means that space must be found somewhere.

Wood reading tables are durable and timeless
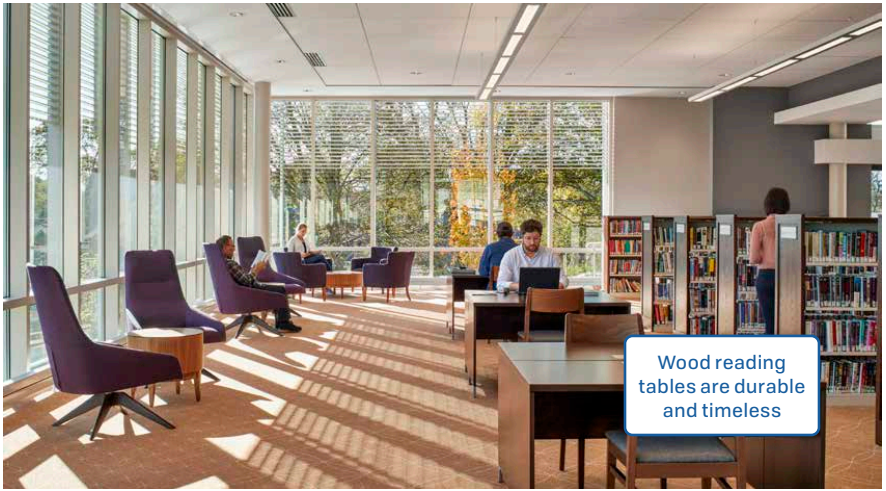
Updated Finishes and Furniture

The finishes (fixed surfaces) and furniture (movable items) within the library have an enormous impact on the feel and use of the space. When selecting or replacing furniture or interior finishes consider the following:

- Provide an array of different seating types to accommodate people of all sizes and abilities

- Use consistent colors and finishes to define spaces, such as a children's area. A certain amount of visual variation (for example, multiple colors of the same stacking chair) can make future repairs and replacements less noticeable

- Consider making bold aesthetic or color statements with materials that are relatively easy to change (such as paint and upholstery) and making more timeless choices for longer-lasting materials like flooring

- Anticipate the impact of the inevitable wear and tear before finalizing furniture selections: wood furniture maintains its condition even if the wood is scratched and dented, wheras plastic laminate is not so forgiving over time

- When choosing finishes for furniture consider their durability with respect to spill and stain resistance and anti-microbial features, and performance on the standard rub test

Technology and Furnishings

Technology, including power and data sources as well as personal devices, will continue to evolve. Projects planned now should strive to anticipate the need for increased bandwidth and plenty of wireless access points. Data connections typically serve library-owned equipment only, while personal devices rely on wireless ethernet.

This guide does not recommend specialized computer furniture. Simple reading tables, as long as they have a power supply, can accommodate laptops and tablets, whether the devices belong to library users or are borrowed from the library. The addition of data drops at the tables allows for desktop computers to connect. As technology needs change, this furniture can be used in different ways. A possible exception to this is computer tables designed for collaborative work that may be useful in children's and teen areas.

Computer areas require staff nearby, both to supervise users and to assist with printing and other technical issues. Print stations and other required equipment should be near the staff and users, not tucked into a remote alcove.

Electrical power is always high on libraries' wish lists. For large open spaces, floor boxes, ceiling-mounted power drops, and powered furniture can all supplement traditional wall receptacles. Floor boxes can be expensive and inflexible if they are located on a first-floor concrete slab. A raised-floor system may make sense.

Audiovisual Systems

It is important to plan for audiovisual systems as early in the design process as possible in order to designate enough space and locate required infrastructure.

Audiovisual (AV) systems vendors typically provide design services, although standalone AV designers are helpful for more complex projects. In either case, the AV design must be coordinated with any other design decisions. A simple example is that if speakers are to be recessed into a ceiling, the interior designer or architect will want to make sure there is enough space above the ceiling, which may need to be determined months before the speakers are actually purchased.

It may not always be possible, or even desirable, to tie designs too specifically to particular pieces of equipment. After all, AV technology changes rapidly. Be cautious with features such as wall-recessed monitors that only fit a particular size and mounting hardware, and build in some flexibility.

Planning ahead for AV involves not only the floors, walls and ceilings of a space but also the acoustic treatments, electrical and telecommunications infrastructure, and even structural support for equipment.

Here is a partial list of possible AV systems for consideration:

· Local cable access TV

· Assistive listening devices

· Coordinated sound and video in a multipurpose room

· Video conferencing (this is less common as laptops with cameras become more common)

· Digital signage and digital art galleries

· Wall-mounted monitors in study rooms

Comfortable, Functional Acoustics

Consider the acoustic properties of library spaces as early as possible in the planning process. Will the main collection and seating areas have a lively hum, with a few quiet study rooms and an exuberant children's room in separate spaces? The overall intent will drive a number of decisions with significant acoustic impact.

A bustling space with a fair amount of low background noise from HVAC systems, library users' activities, or even an electronic sound-masking system is more comfortable for many users than a space in which you can hear the proverbial pin drop. Acoustic absorption is important, however, to avoid sharp, echoing sounds. Carpet, fabric wall panels, tackboards, ceiling tiles or other soft materials, books, upholstered furniture, and even the people in a space can absorb sound.

Sound reflection is what happens when sound "hits" a hard surface within a space. Reflection may be desirable in some contexts. For example, in a larger meeting space, a hard ceiling above the podium will make the speaker's voice more audible. Soft surfaces will minimize reflection.

Spaces that are isolated (because they are very quiet or very noisy) should have plenty of absorption as well, but also consider sound transmission in and out of the space. Transmission is best prevented with a physical barrier, such as a wall that extends from floor to underside of roof. Sound transmission may take unexpected paths, such as ventilation ducts. Footsteps or vibrations from mechanical equipment may be transmitted through floors or roofs and may require special attention. Acoustics in restrooms require special attention.

Noise has become one of the biggest issues in public libraries as they have shifted from silent study spaces to active, vibrant ones. An acoustician can help clarify the sound implications of design decisions on any library project, whether as a standalone consultant or part of a larger design team.

Navigating this Pla

The next several sections of this guide are organized according to scale, from individual components, to zones created from these components, to prototypes showing all of the zones in relation to one another, making up a complete library.

Spaces containing collection & seating are highlighted in orange
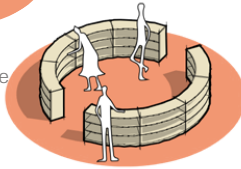
Components ----------

The smallest units of space planning are individual shelving units, furniture groupings and discrete rooms

Reservable spaces of any size for programming are highlighted in blue

Housing the Collection

User Seating

Spaces primarily occupied by library staff are highlighted in purple

Program Spaces

Staff Spaces
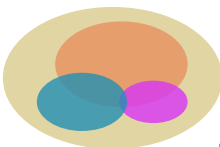
Gold colored areas indicate groupings of several different spaces

nning Tool

Zones

The functional building blocks of the library, zones are groups of related spaces and rooms that benefit from close adjacency

Library Entry

Children's Area

Collection & Seating: Intermingled

Collection & Seating: Rooms

Meeting Zone

Staff Zone

Prototypes

Combining components and zones, the prototypes illustrate how the relationships between these spaces can work in libraries of different sizes

Small Library

Medium Library

Large Library: Centralized

Large Library: Distributed

Components

The Library Building Blocks

This section provides the basic building blocks of library space.

We start with the two components that typically take up the most space: collections and seating. In practice, there is often a process of give-and-take between collection management and space planning. The elements in this section are intended to give a sense of how collection size and reader seats translate to space needs using several different configurations. In most libraries, reader seats and collection are intermingled. For the purposes of calculating space needs and capacity, however, they are illustrated separately in this section.

This section also illustrates program space, meeting space, and staff service points.

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Shelving Density

This diagram illustrates the variation in space needs related to various heights and configurations of shelving. Each zone represents approximately **360 linear feet** (LF) of storage arranged in common forms of shelving units. For planning purposes, the most dense shelving takes up approximately 75% less floor space than the least dense shelving shown here. Keep in mind that there are a variety of reasons to choose a particular form of shelving beyond the space needs associated with each. Specific information for each type of shelving is included on the following pages. For further reading on integrating shelving and seating, see the Collection and Seating zones on page 76.

Leave ample space around collections to browse

6-HIGH
320 SF

5-HIGH
370 SF

3-HIGH
570 SF

FREE-FORM
740 SF

ALL SHELVES USED

LESS DENSE SHELVING

BOTTOM SHELF EXCLUDED

3-
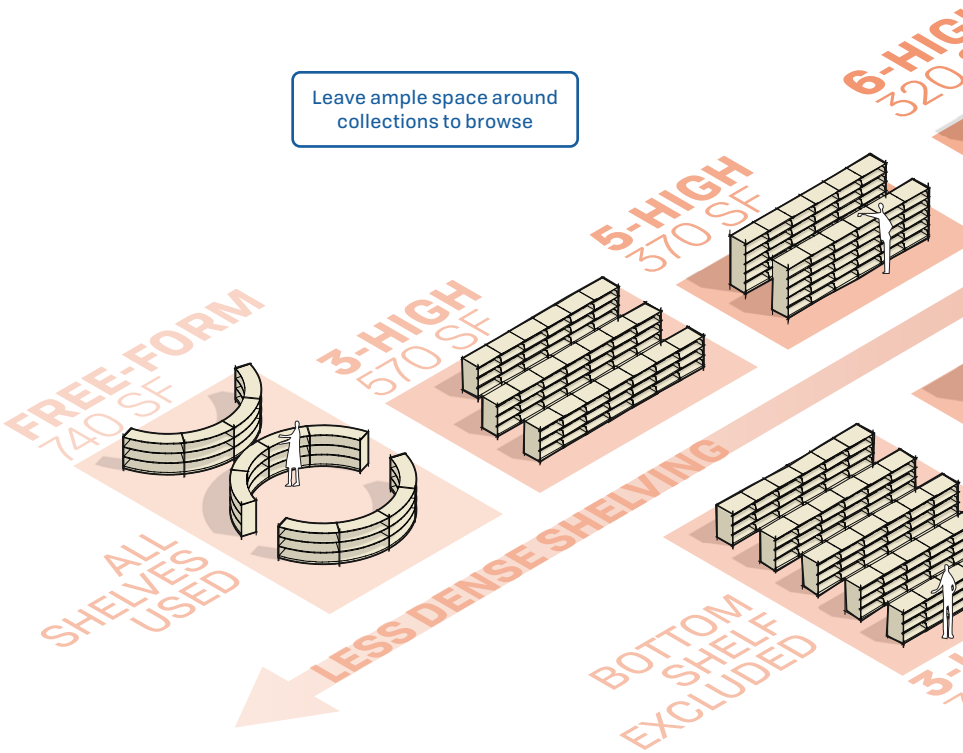
Space planning modules are measured by the linear foot of shelving. 8 volumes/linear foot is a common metric for general collections, but will vary based on the collection type. Allow for around 75% fill rate

8-HIGH
200 SF

7-HIGH
320 SF

8-HIGH
230 SF

MORE DENSE SHELVING

7-HIGH
320 SF

6-HIGH
370 SF

5-HIGH
450 SF
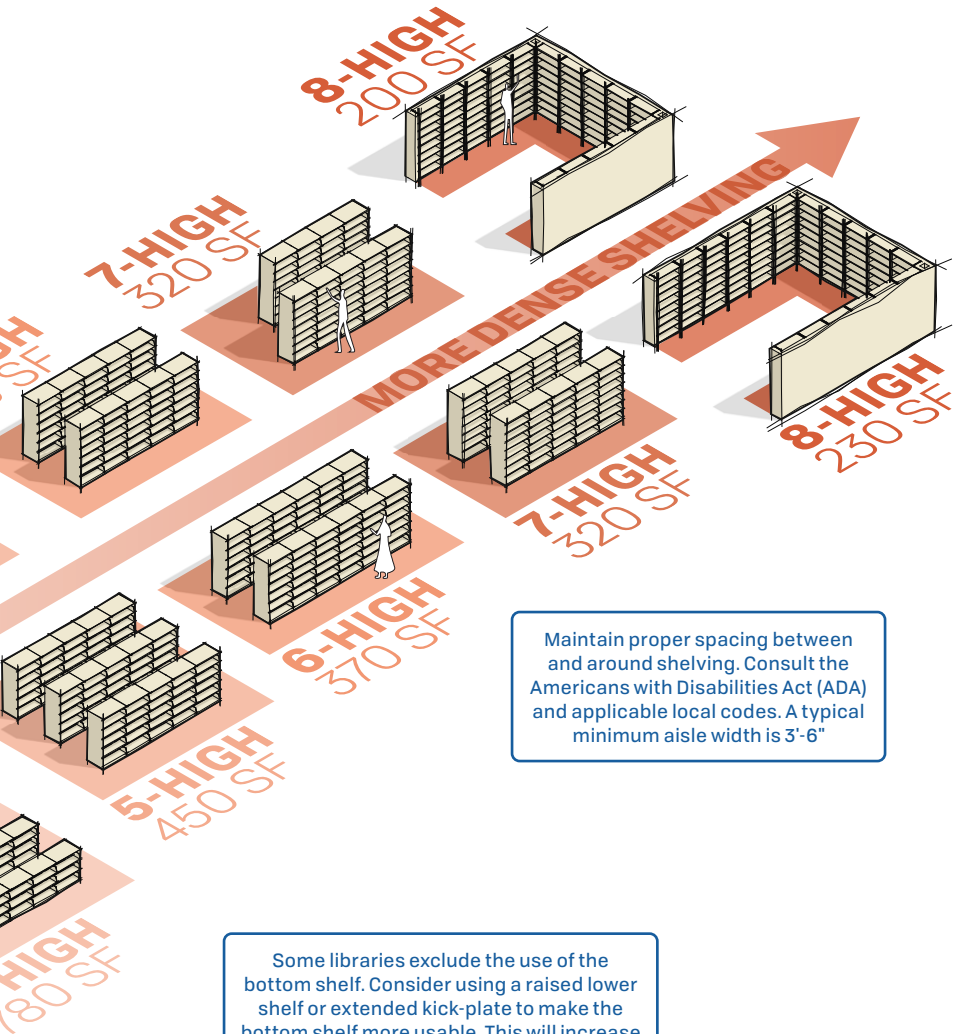
Maintain proper spacing between and around shelving. Consult the Americans with Disabilities Act (ADA) and applicable local codes. A typical minimum aisle width is 3'-6"

Some libraries exclude the use of the bottom shelf. Consider using a raised lower shelf or extended kick-plate to make the bottom shelf more usable. This will increase the height of the overall shelving unit

Low-height Shelving

Low shelving (three or fewer shelves) is not the most efficient way to store collections, but its advantages include improved sightlines (seeing over rather than between the shelves); the ability to display materials on the canopy tops; and relative ease of reconfiguring shelving units when necessary. Typically used in children's spaces and high-traffic areas where sightlines are particularly important.

21' or 7 units is a typical maximum run
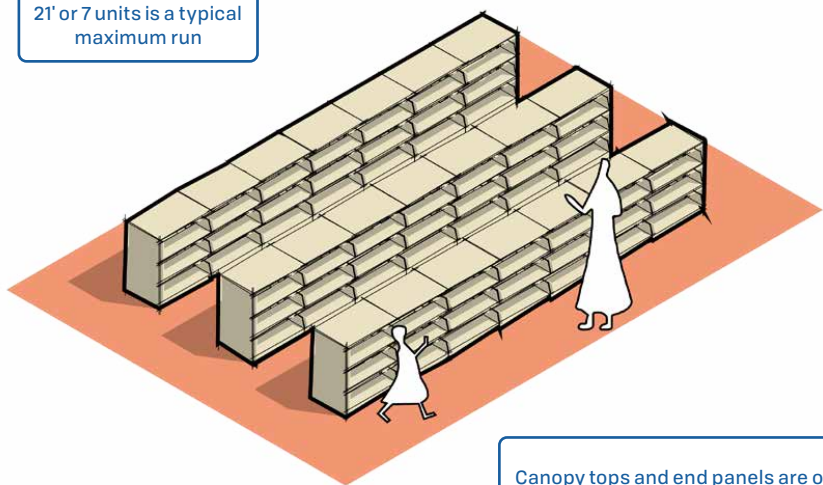
Canopy tops and end panels are optional elements often purchased through the Furniture, Fixtures, and Equipment (FF&E) budget

380 linear feet of shelving shown in 21 three-high, two-sided, 3-foot-wide bays in three ranges. Floor area shown is approximately 570 square feet
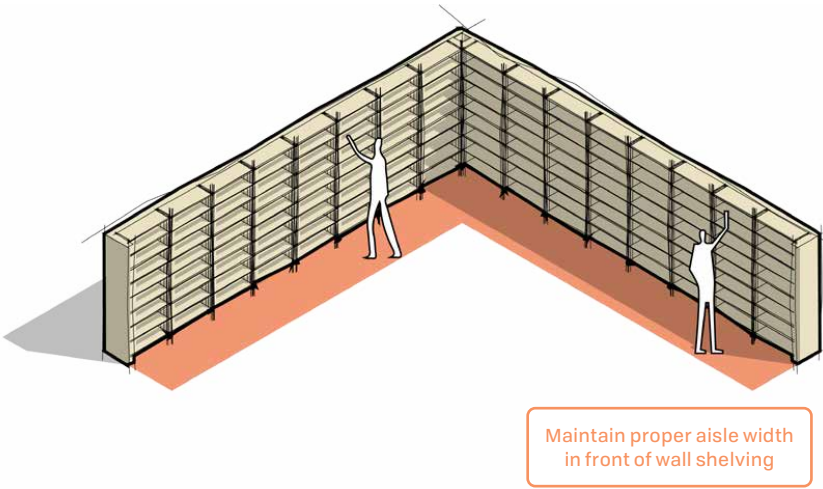
Additional Considerations

- Casters are recommended for as much low shelving as is practical. Consider that casters will add approximately 4"-6" to the total height. Always test casters before purchasing by moving a fully loaded shelving unit
- Consider using a raised lower shelf or extended kick-plate to make the bottom shelf more usable. This will increase the height of the overall shelving unit

Shelving on casters
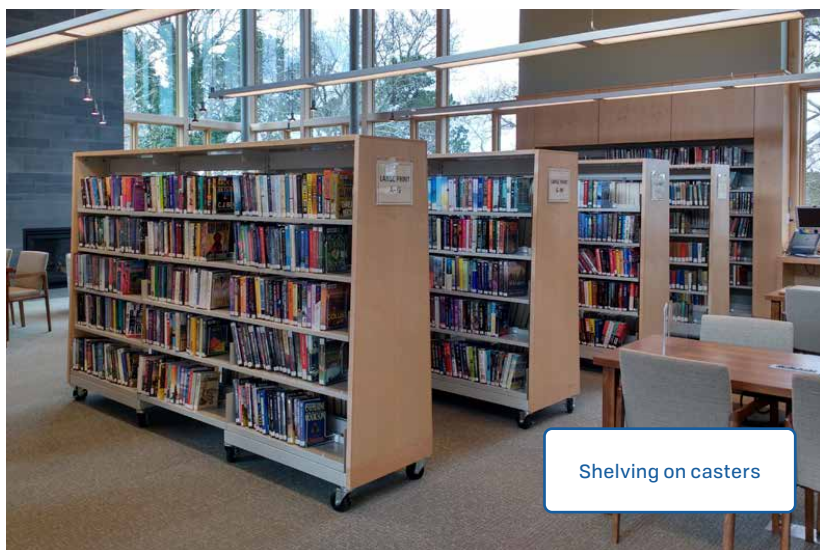
Mid-height Shelving

Four- and five-shelf-tall units provide a good compromise between capacity and usability, especially if the bottom shelf is raised to avoid empty bottom shelves. Four-high shelves may still offer sightlines and display capacity across the shelving for people in a standing position. The taller shelves offer books at a comfortable browsing height for most adults.

Limited visibility above 4-high shelving with canopy top
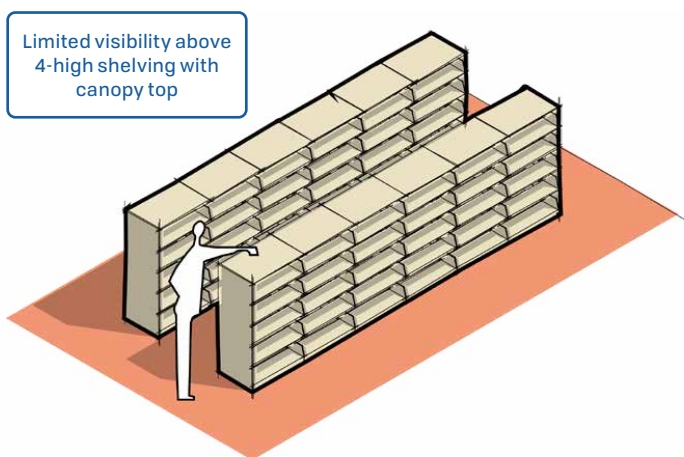
360 linear feet of shelving shown in 12 five-high, two-sided, 3-foot-wide bays in two ranges. Floor area shown is approximately 370 square feet.

Additional Considerations

- Casters are still usable at this height, if movabilty is desired. Consider that casters will add approximately 4"-6" to the total height. Always test casters before purchasing by moving a fully loaded shelving unit
- Integrated lighting is possible for non-movable shelving. Alternatively, if canopy tops are omitted, light from the ceiling can reach the books

Integrated end-cap display

High-height Shelving

The tallest shelving is best used in dedicated collection areas without a lot of integrated seating, since sightlines are only possible between the shelving. It may be helpful to increase the spacing between shelves to allow for better sightlines and maneuvering while browsing and reshelving. Orientation of these stacks is very important to achieve optimal sightlines.
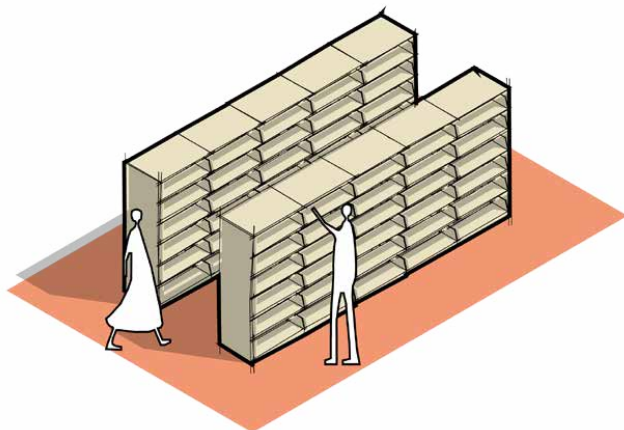
360 linear feet of shelving shown in 10 six-high, two-sided, 3-foot-wide bays in two ranges. Floor area shown is approximately 320 square feet.

Consider an aisle width wider than 3'-6" for taller shelving
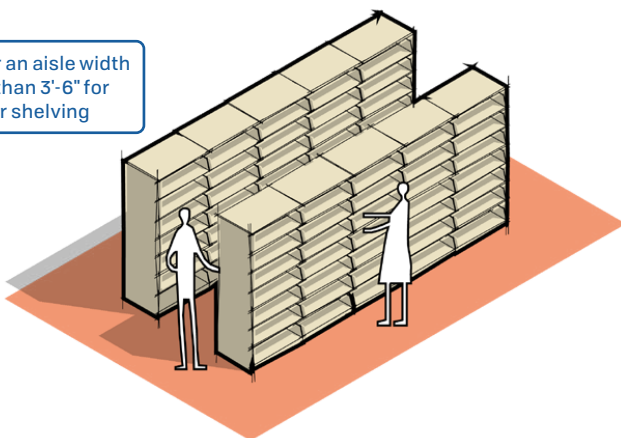
360 linear feet of shelving shown in 10 seven-high, two-sided, 3-foot-wide bays in two ranges. Floor area shown is approximately 320 square feet.

Additional Considerations

- Shelves this tall may require seismic bracing; consult applicable building codes. Casters are not recommended
- Integrating lighting into canopy tops is possible for non-movable shelving. Alternatively, if canopy tops are omitted, light from the ceiling can reach the books
- Ideally, ceiling lighting should run perpendicular to shelving
- Avoid shelving that abuts walls and creates a dead end situation; configure shelving to allow for aisles on both sides

Integrated lighting without canopy top

Wall Shelving

Wall shelving provides a "wall of books" effect and can be an effective way to use spaces between windows. The height of this shelving is only limited by the ceiling height and the ability to access the shelves; higher shelves may be useful for display.

Maintain proper aisle width in front of wall shelving

380 linear feet of shelving shown in 16 eight-high, one-sided, 3-foot-wide bays.
Floor area shown is approximately 230 square feet.

Additional Considerations

- Recessing shelving into a wall is less flexible, but also less obtrusive in the space. Tall wall shelving should be anchored to the wall
- Consider call-number or subject designation continuity between freestanding and wall shelving, if both are part of a larger collection "zone"

Free-Form and Display Shelving

This type of shelving, of which the images here are only a small sampling, does not replace linear shelving for the collection. It works well for special areas where books and other media are "merchandised," as in a face-out bookstore display.
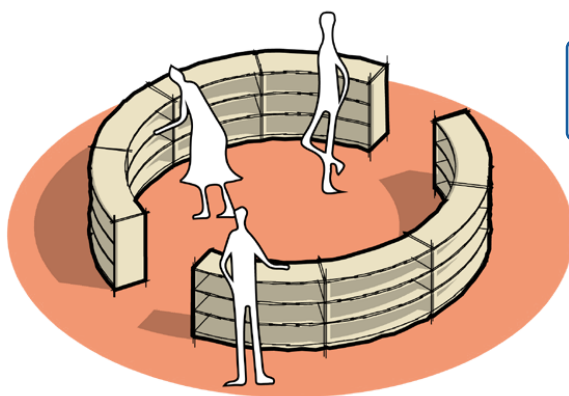
Maintain a minimum of 3'-0" clear at the narrowest points

Approximately 250 linear feet of shelving shown in 8 three-high, two-sided, curved bays in two ranges.

Additional Considerations

▪ Casters or other components that allow this shelving to be moved are a good idea, since this type of display is likely to change over time

▪ Call-number continuity may be difficult with this type of shelving

Free-form shelving can help define spaces for seating

Collection & Seating: Quiet Space

Every library should contain a dedicated quiet space or room for focused study free from distraction. This room should not contain any high-demand collection materials, and users should know that their meetings may be interrupted by staff or patrons retrieving materials. In many cases, this room can be open to all users at all times; providing ample wall shelving can reinforce the use of the space as dedicated to quiet study.
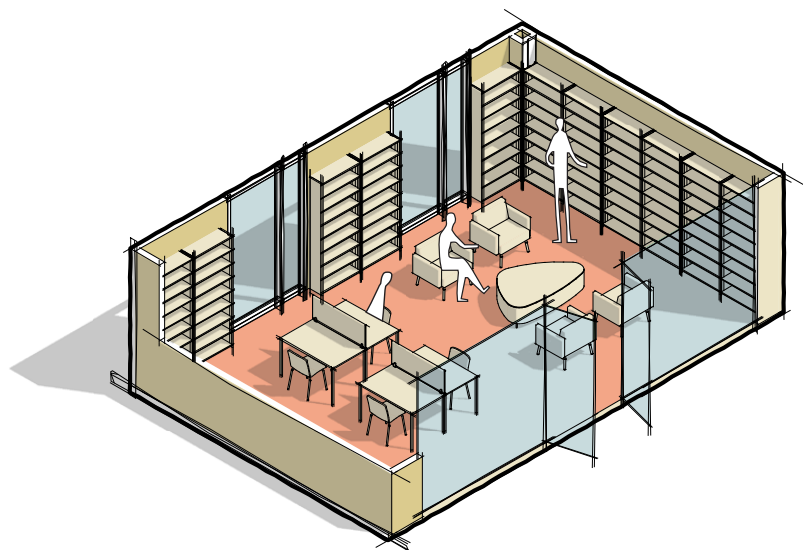
Non-Book Collections

As the needs for periodicals, music, DVDs, and other non-print media change relatively quickly, it's important to plan for flexibility. Movable/removable shelving rather than built-in specialty millwork is preferable. For example, a new periodical room should use boxes on flat shelves rather than tilt-back shelves to anticipate future reductions in periodical subscriptions. Stack manufacturers make DVD drawers that are compatible with other shelving dimensions so that they can be converted to shelving in the future; or DVDs can be shelved like books.

Consider multifunctional use of spaces by integrating unique collections with specific areas, such as an art collection or rotating gallery display in a larger quiet study room. For valuable or extensive art collections, engaging the services of an art consultant can be valuable in determining the optimal display area, lighting conditions, hanging system/display units, and security for such collections.

Libraries of things and unusually-sized objects, such as telescopes, require special consideration for space allocation. A decision has to be made to determine whether all items will be on display in public areas or if those items will be housed in storage with a public display for marketing the collection and indicating what is available to patrons.

True "special collections" such as historic artifacts or books will have very specific needs for HVAC, lighting, security, and display. Compact shelving requires additional structural capacity in the floors. Planning for special collections requires less emphasis on future flexibility and more advance planning to integrate this storage into the design.

Types of Seating

Reader seats are an essential building block of any library environment. For planning purposes, assume an average of about 25-35 square feet per seat for all types of seating.

The type of seating is just as important to consider as the space allocated to it. One helpful way to think about the type of seating is the degree to which it fosters socializing and collaboration or privacy and focus. Providing a variety of seating types (such as hard-backed chairs, ergonomic "task" chairs, and low armchairs) also provides comfort and accessibility for a range of users and activities. The next several pages explore some of the various seating types in more detail. For more information on integrating seating with collection, see the Collection and Seating zones on page 76.

Soft Seating
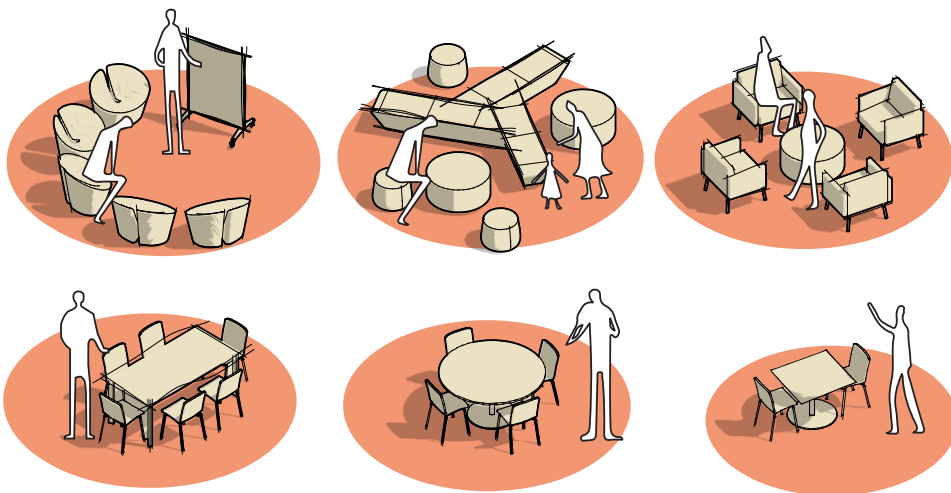
Hard Seating (Tables & Chairs)

More Social/Collaborative

Additional Considerations

- Seating is one of the most flexible components within a library and its location can adapt with user needs

- Seating areas dedicated to quiet, focused study should be semi-enclosed or separated from other areas

- Seating types should be tailored to each user group, including adults, teens, and children

- Avoid couches or other seating that will always be underutilized due to patrons preferring to sit alone. It is best to avoid couches and loveseats in teen and adult areas, but such seating is useful in children's rooms where children and caregivers will share seating while reading together

- Allow ample space around furniture to account for accessibility
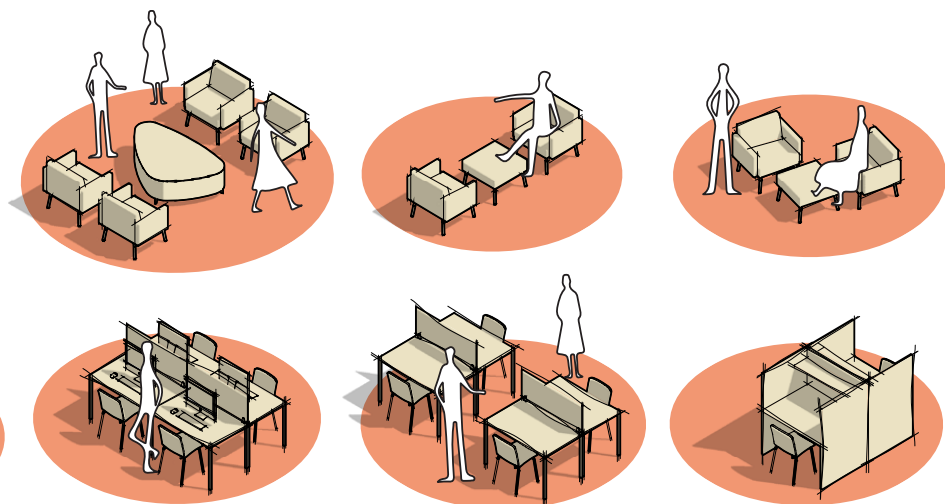
More Focused/Individual

Seating for Individuals

Many users prefer to sit alone in spaces that encourage focused study or relaxed browsing in the company of others. In many cases, this type of seating is provided in groupings of two or more seats to allow for flexible use for multiple users, as well as provide a degree of separation between individuals.

When possible, position soft seating close to daylight & views
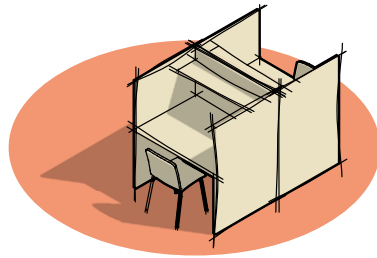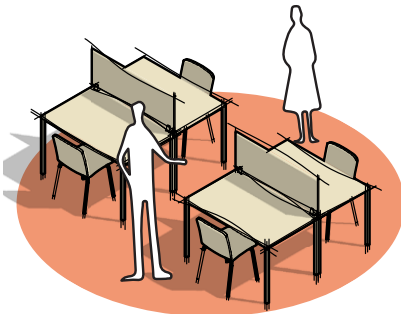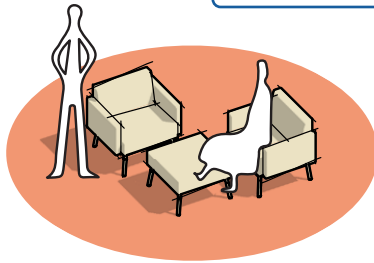
Consider tables for two to increase utilization & flexibility

Additional Considerations

- 2-seater tables are generally more flexible

- All seats typically require a table for books or devices

- Access to power is important for all seating types

- Weight and ease of moving should be tested before purchasing

- Ergonomics are particularly important for older users and those with limited mobility. Consider that not everyone can easily get up from low, soft seating.

- Balance degrees of privacy for users with clear sightlines

Seating for Groups

Meeting to collaborate with small groups at the library is an increasingly common use, particularly for students and teens, but also for adults. Furniture layouts that can be customized for varied sizes and needs of each group are key.

Allow ample space around seating for accessibility
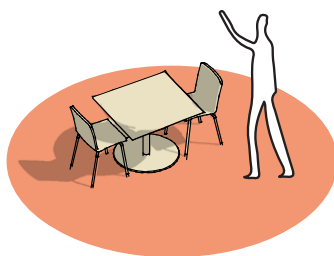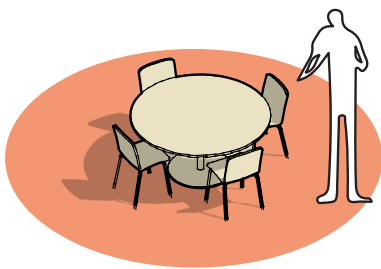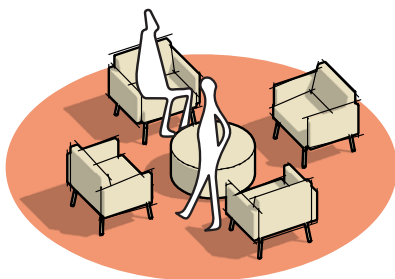
Additional Considerations

- Position seating for groups in open areas near public spaces that are naturally louder and more active

- Groups of 4-6 teens are common; adults tend to meet in smaller groups

- Provide adequate table surface area for devices and books. Consider adjustable-height tables or a variety of table choices in a space

- Access to power is important for all seating types

- Ease of moving and weight should be tested before purchasing

Seating for Computers

As discussed earlier in this guide on page 16, the most long-term flexibility comes with selecting furniture that can be used with or without computers.

Use surfaces that can accommodate a variety of technology
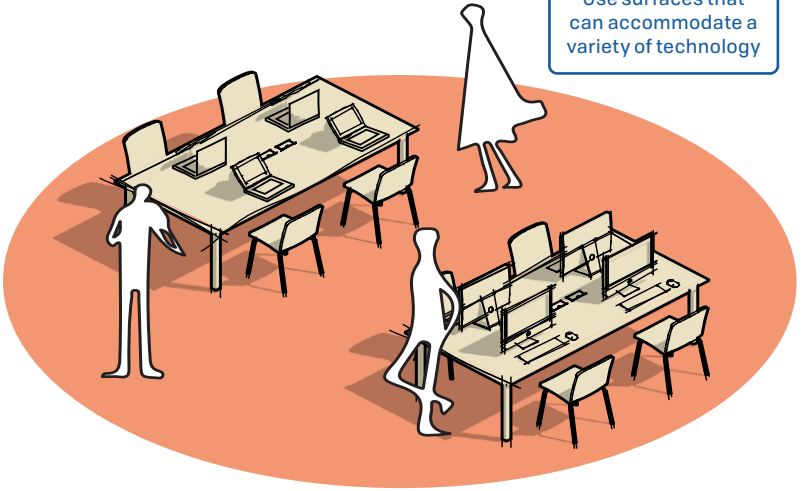
Use furniture that can easily be converted to non-computer use
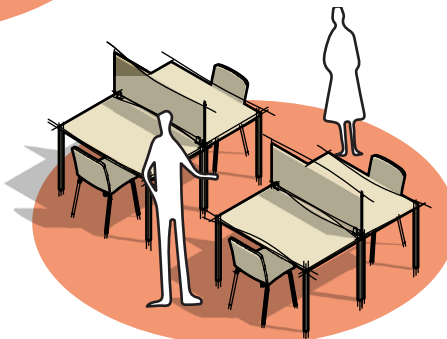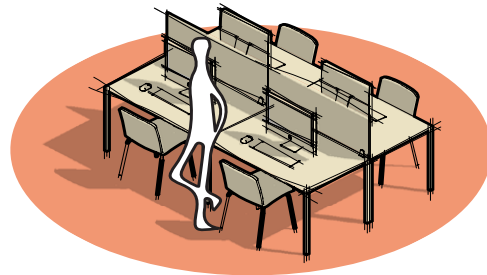
Program Spaces: Multipurpose Rooms

Large multipurpose rooms should be considered the most flexible part of the library, with the ability to host a variety of events that can change throughout a single day. These spaces should be easily accessed from the main entry, provide ample visibility and access to daylight, and contain a flexible array of AV equipment and digital technology to support a range of uses. Large multipurpose spaces are typically associated with support spaces, described further in the Meeting Zone on page 72.

> Theater style seating (shown) typically requires about 10-15 SF per seat

> Table and chair layouts typically require about 20-25 SF per seat
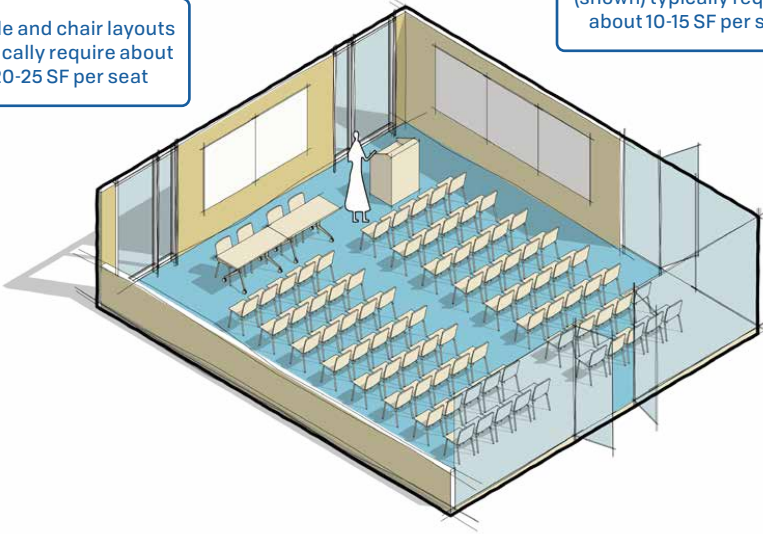
Meeting Room (80-100 seat)

Additional Considerations

- Adequate storage is crucial for allowing flexible use

- Flexible, lightweight furniture with good ergonomics is key

- Adequate space for technology support equipment, such as AV racks and device storage carts, should be provided

- Intuitive and flexible lighting, AV, and daylight controls can help users tailor the space to a variety of needs

- In smaller libraries, consider positioning this room between the main entrance and Children's area, to allow for shared use for story-time and crafts

- Space to support catering of events, such as a kitchenette with sink, counter, and cabinets should be provided

- Position kitchenette and storage in the back of the room, away from the screen/lectern position, and accessible from inside and outside the meeting room

- Provide adequate shades for light control
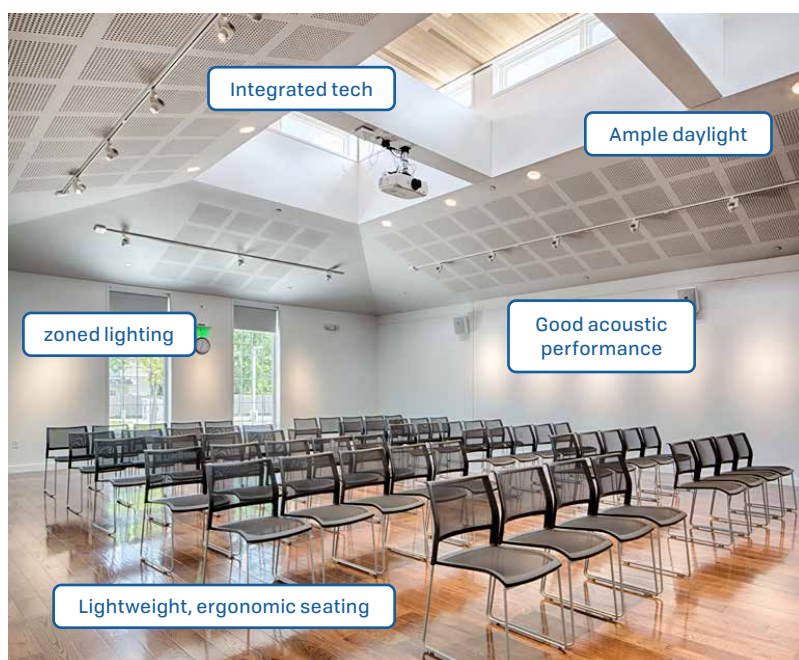
Program Spaces: Meeting & Study Rooms

Separate rooms satisfy the need for quiet spaces in a contemporary active, noisy library. Meeting and study rooms are enclosed spaces that can be reserved by individual users or small groups. While the smallest rooms may be outfitted with simply a table, two chairs, and an outlet, larger rooms may have writing surfaces and displays for users to share digital content. Staff visibility to these spaces is important.
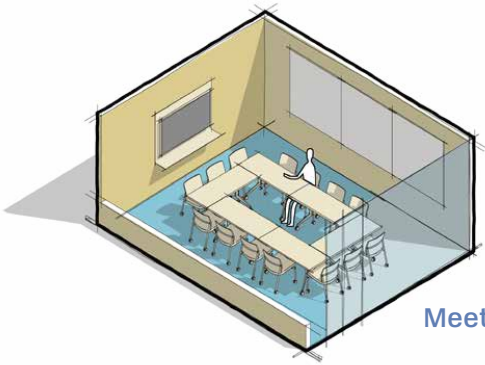
Meeting Room (14 seat)

Typically 20-25 SF per seat
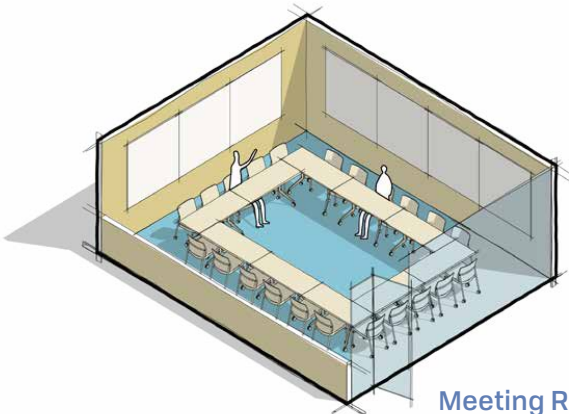
Meeting Room (22 seat)

Additional Considerations

- Provide acoustic separation for both quiet and noisy functions, separating individual rooms from each other and from adjacent open areas

- Mid-sized rooms seating about 10-30 people can be a key element in meeting overall demand by freeing the large meeting room for events that require a larger capacity. Alternatively, smaller libraries may consider making the large meeting room dividable into two or more smaller spaces. High-quality dividers can be expensive but are worth the cost. A divider that does not provide full acoustic separation will seldom be used.

- Separate rooms need their own sprinkler coverage and ventilation systems

- Flexible furniture allows for a variety of configurations in larger rooms

- Large meeting rooms need separate HVAC controls
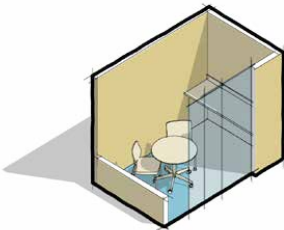
Study Room (2 seat)
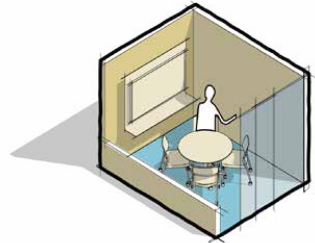
Study Room (4 seat)

Typically 20-25 SF per seat
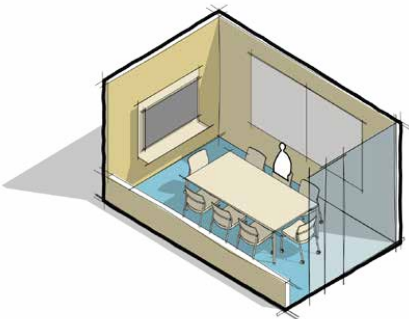
Meeting/Study Room (8 seat)

Program Spaces: Children's Storytime

A separate room that can be used for storytime and other activities is recommended for all but the smallest libraries. Providing both tables and chairs along with more comfortable seating allows this room to be used flexibly for a variety of events. Ample storage is key, while a counter with sink and easy access to a restroom is recommended.

Provide ample storage for supplies and equipment
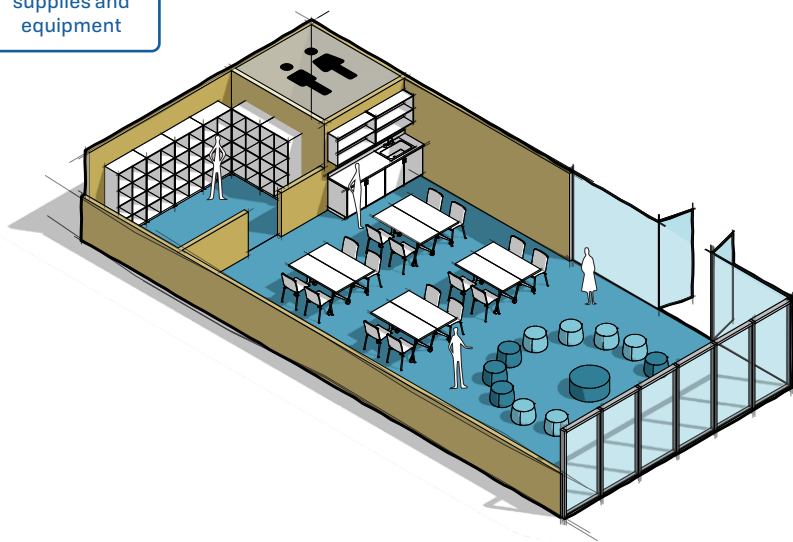
Program Spaces: Makerspace

The specific uses for a makerspace within the library will be driven by community needs, but a flexible space that supports a variety of tools and equipment with ample worksurfaces is a good starting point. Also consider the needs for a sink, mobile/lockable storage cabinets for supplies, and writing surfaces for group discussion and ideation.

Consider a glass-front entrance to highlight active uses and allow for staff supervision while controlling noise

Provide plenty of outlets along the walls, and possibly drop-downs from the ceiling to increase flexibility
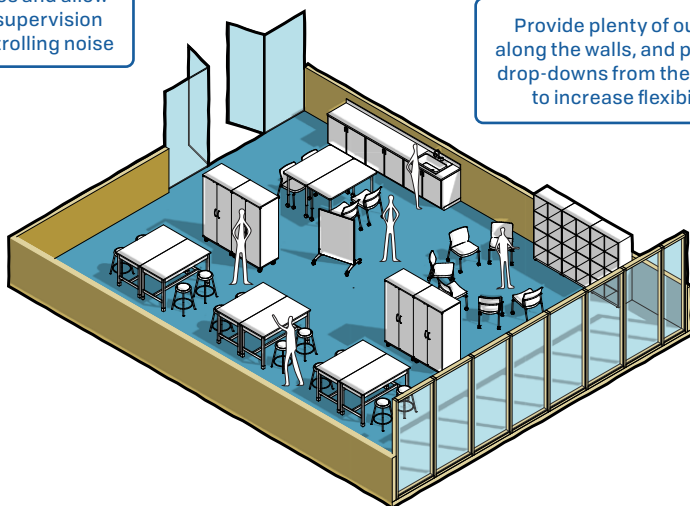
Staff Space: Service Points

Staff interact with users in a variety of ways. Below is a common range of staff service points that span from roaming interactions to a main service desk with multiple staff workstations. As service models continue to evolve, it is important to create service points that can adapt to changes over the lifespan of the library. See the Staff Zone on page 74 for more information.

Small
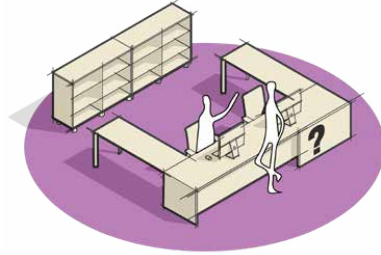
Medium
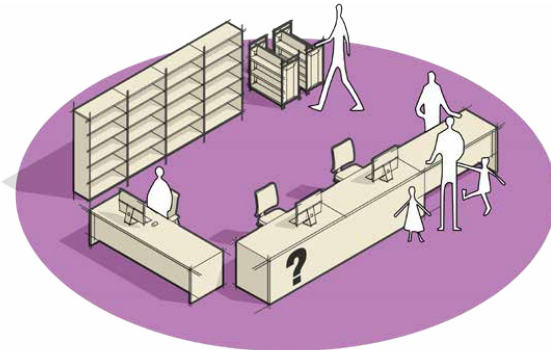
Large

Additional Considerations

- Avoid complex, built-in service points - consider using modular furniture instead

- Ensure service points are easily identifiable and accessible, with signage or graphics to distinguish them from user seating

- Position service points to allow for maximum sightlines for staff to monitor surrounding areas

- Provide adequate shelving and storage for staff items. Consider a mix of open shelving and enclosed storage areas

- Accessibility and contemporary ergonomic standards will require multiple or adjustable desk heights

- Circulation desks should include adequate space for book carts. Check the clear height requirements for book carts if the carts are to be stored under a counter

- Consider the space, finish, and infrastructure requirements for RFID or magnetic checkout stations

- Consider the proximity of a service desk to self-service equipment

Outdoor Spaces

Outdoor spaces that library visitors can use enhance the experience of the library even outside of operating hours. Even a relatively small site can be designed both to support essential functions like parking and to allow active outdoor uses.

Functional Design Considerations

A library site design must effectively manage the movement of pedestrians and drivers. Consider the interface with the streetscape (look beyond the site boundaries; where are people coming from?) from both perspectives. Consider the relationship of parking and drop-off zones to building entrances and the book drop. Don't forget bicycle parking and the possibility of offering curbside services.

Universal accessibility extends into the design of the site, especially at the building entrance and any paths leading to it.

Maintenance considerations include low-maintenance and/or native plantings. Surfaces should be designed for easy snow removal, and space should be provided for equipment storage. Other functional considerations include irrigation and/or rainwater harvesting; site lighting, with consideration for abutters and avoiding light pollution; storm-water management; and habitat restoration, biodiversity, and native planting.

## Design Considerations for Active Uses

Examples of actively programmed outdoor library spaces include contemplative gardens, porches, storytime amphitheaters, picnic tables, community gardens, and courtyards. Library visitors will use outdoor space if it is sheltered from wind, rain, and sun; the building and landscape design can have a real impact on the micro-climate and the comfort of people using the space.

Outdoor access to WiFi and to technology (electrical outlets, speakers) can encourage outdoor uses. If there are good connections between indoor and outdoor spaces, there may be the option for programs and events.

Sightlines are just as important outdoors as they are inside; consider views to and from the library interior as well as views within the outdoor space.

When selecting outdoor furniture, consider comfort for all ages, durability, weight (easy to move or hard to steal?), securability, accessibility, and appearance that complements the building and landscape design. Active outdoor spaces may also be good locations for public art and for interpretive signage educating visitors about sustainable design and/or historic features.
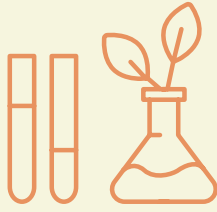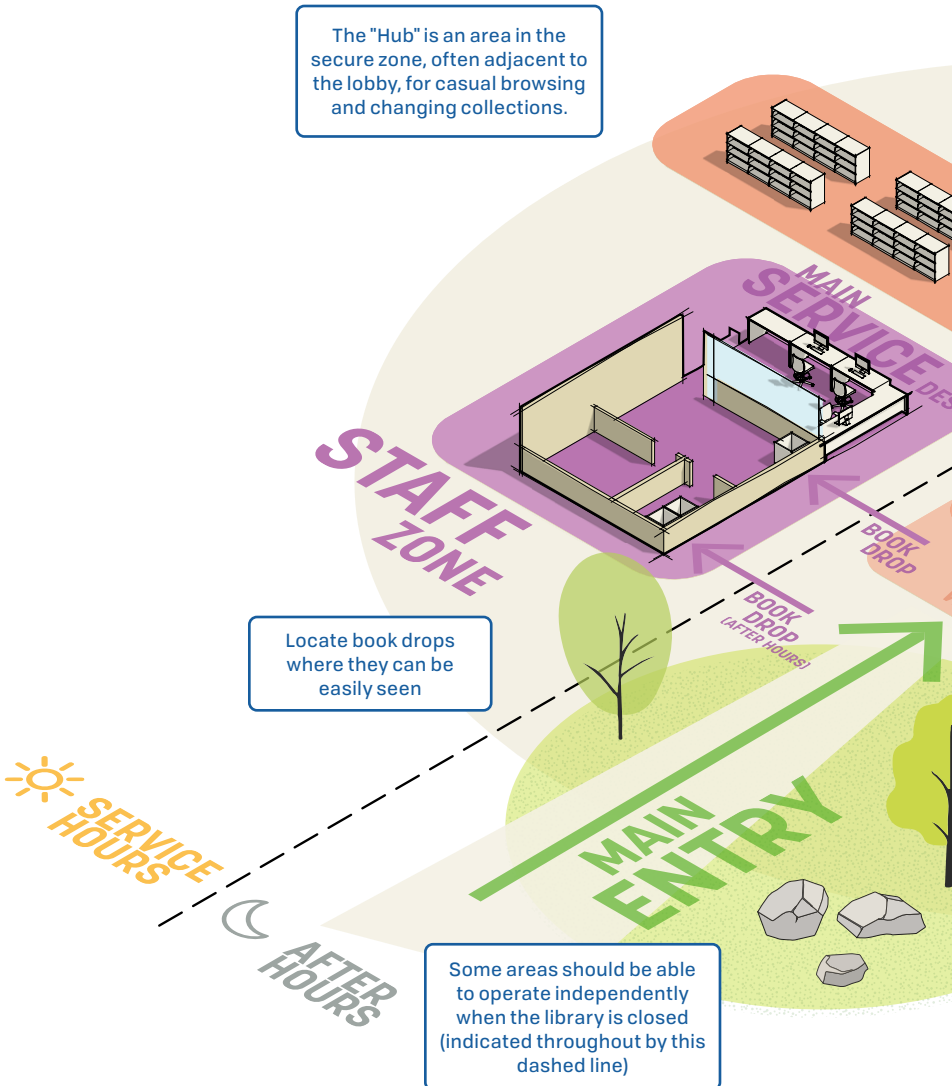
Zones

Putting Components Together

This section considers the spatial zones within a library that may group together two or more individual components to shape library space effectively. The creation of zones considers the adjacencies, proximities, and functional relationships among components and also how these relationships may be impacted by other factors, such as building entrances and exits and support spaces. What follows are not solutions in themselves, but rather relationships that explore opportunities for synergies and overlapping uses.

The Entry Zone

The experience of the library starts outside the building's walls. While the surrounding context is unique to each location, a well-choreographed entry sequence should consider the elements and adjacencies depicted below, enabling a consistent user experience and efficient operation of the library on a day-to-day basis.


The "Hub" is an area in the secure zone, often adjacent to the lobby, for casual browsing and changing collections.

Locate book drops where they can be easily seen

Some areas should be able to operate independently when the library is closed (indicated throughout by this dashed line)

STAFF ZONE

MAIN SERVICE DES

BOOK DROP

BOOK DROP (AFTER HOURS)

SERVICE HOURS

AFTER HOURS

MAIN ENTRY

Additional Considerations

- The lobby can double as a display or gallery space if it includes a flexible hanging system on its walls and/or display furniture

- Consider security for any furniture or displays in the after-hours areas

Security gates at the intersection of the hub and the lobby OR at the main entrance

HUB

EXHIBIT

DISPLAY

LOBBY

VESTIBULE

MEETING ZONE

HOLDS LOCKERS

BIKE PARKING

Any shelving or display furniture in the lobby should be mobile

Plan for around 10' of vestibule at building entrances
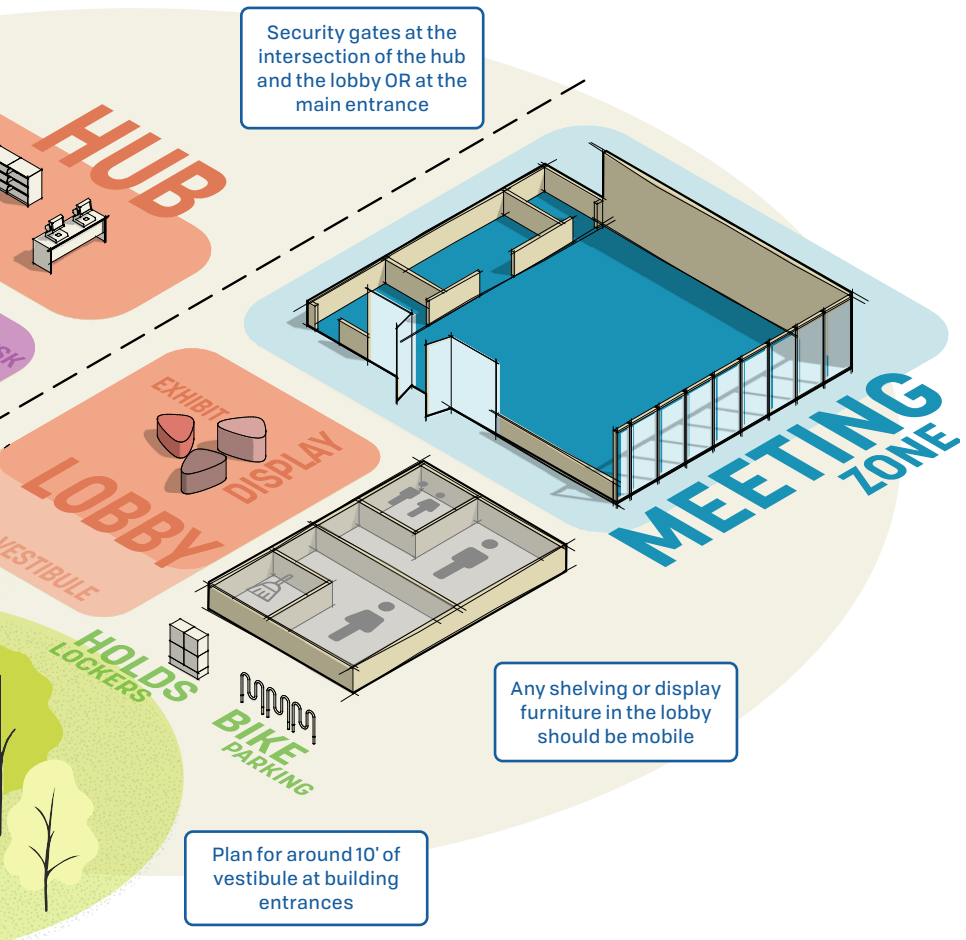
The Meeting Zone

Meeting rooms, including the large community room, should be near the entry and ideally able to operate when the rest of the library is closed. Locating the restrooms in the same zone facilitates this independent operation.
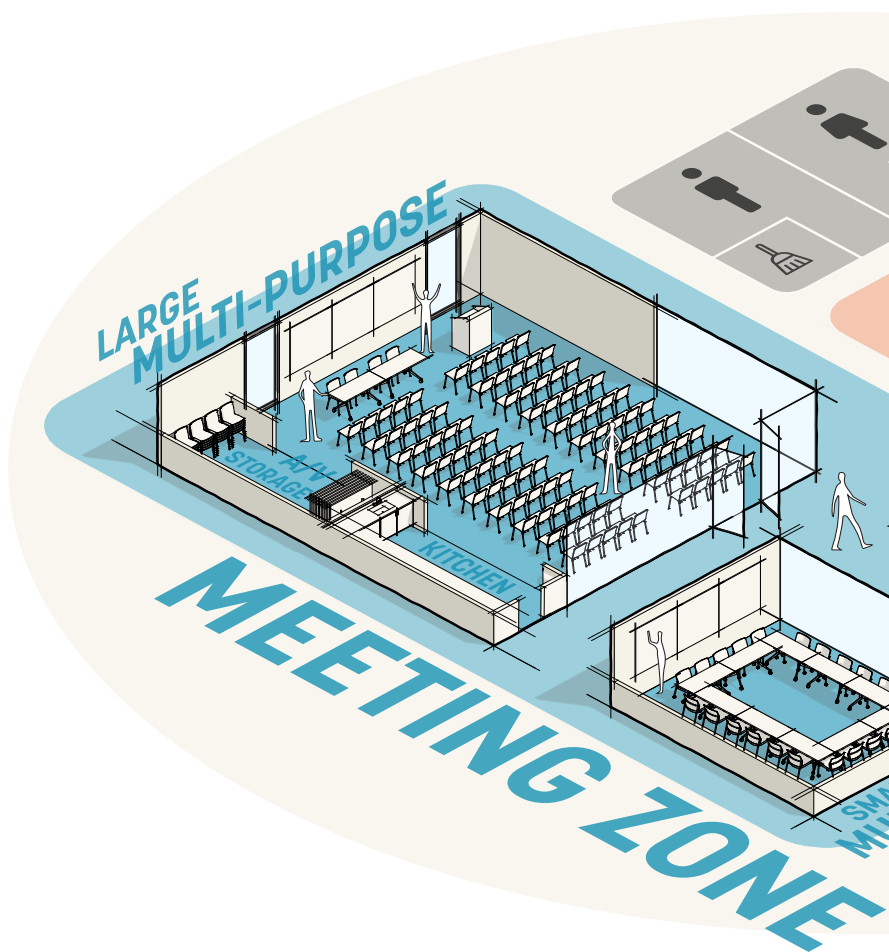
Additional Considerations

- The largest meeting room should have direct access to a kitchenette where food and drink can be served. Ensure that there is room for trash and recycling in this space. Kitchenette should be accessible from both the meeting room and the lobby when possible

- Storage for chairs, tables, and other equipment or supplies is essential. Audiovisual equipment may require a closet or rack room

- A meeting space can double as a display or gallery space if it includes a flexible hanging system with appropriate security on its walls

- Provide shades for light control during presentations

The library lobby doubles as a flexible pre- and post-function space

SECURED LIBRARY ENTRY

LOBBY

DISPLAY EXHIBIT

VESTIBULE

MULTI-PURPOSE

AFTER HOURS ENTRY
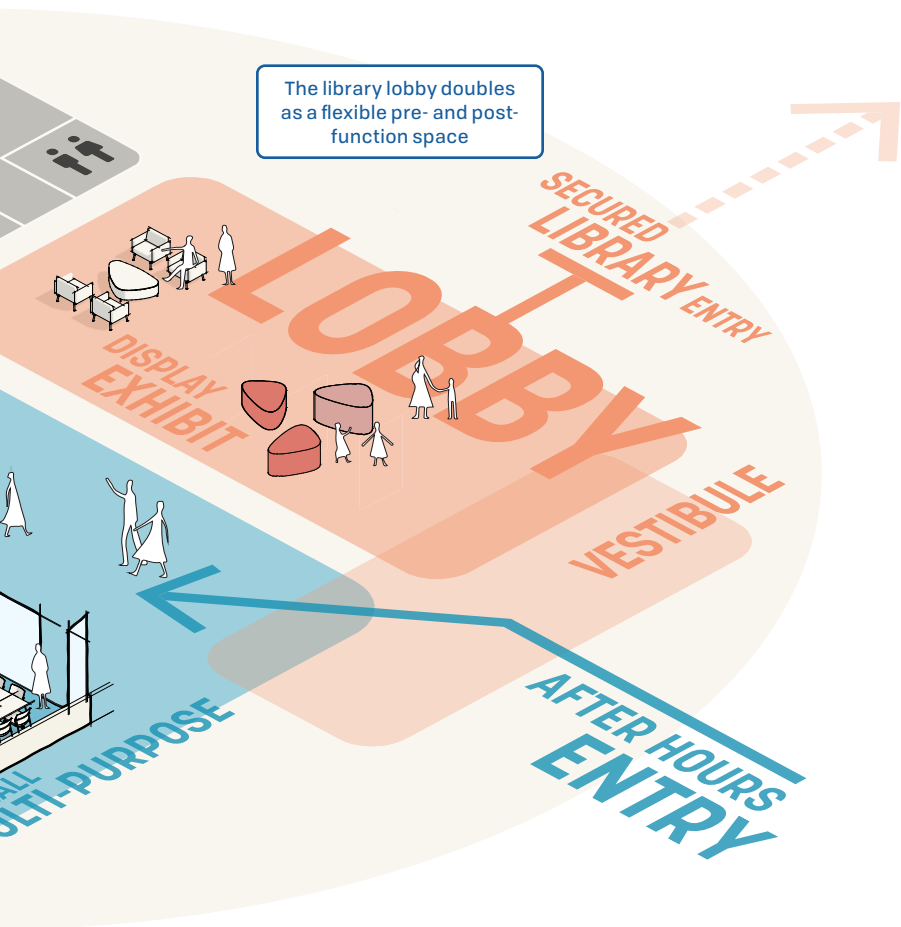
The Staff Zone

Staff spaces can either be centralized (for flexibility and the ability to share work space) or distributed in several locations throughout the library (for operational efficiency in larger or multistory buildings). The prototypes later in this guide show both models, see page 88 for the centralized model and page 90 for the distributed model. Consolidation of support spaces is recommended in both models. Even the smallest library should have at least one lockable space such as the head librarian's office. Other offices and shared work areas can follow an open plan model or be divided.

The "Hub" is an area in the secure zone, often adjacent to the lobby, for casual browsing and changing collections.

Staff need to be able to frequently help visitors in the hub

Workroom should connect directly to the circulation desk

HUB

COPY/PRINT

HOLDS

OFFI

NEW BOOKS

SELF-CHECK

MAIN SERVICE DESK

LOBBY

BOOK DROP

ST
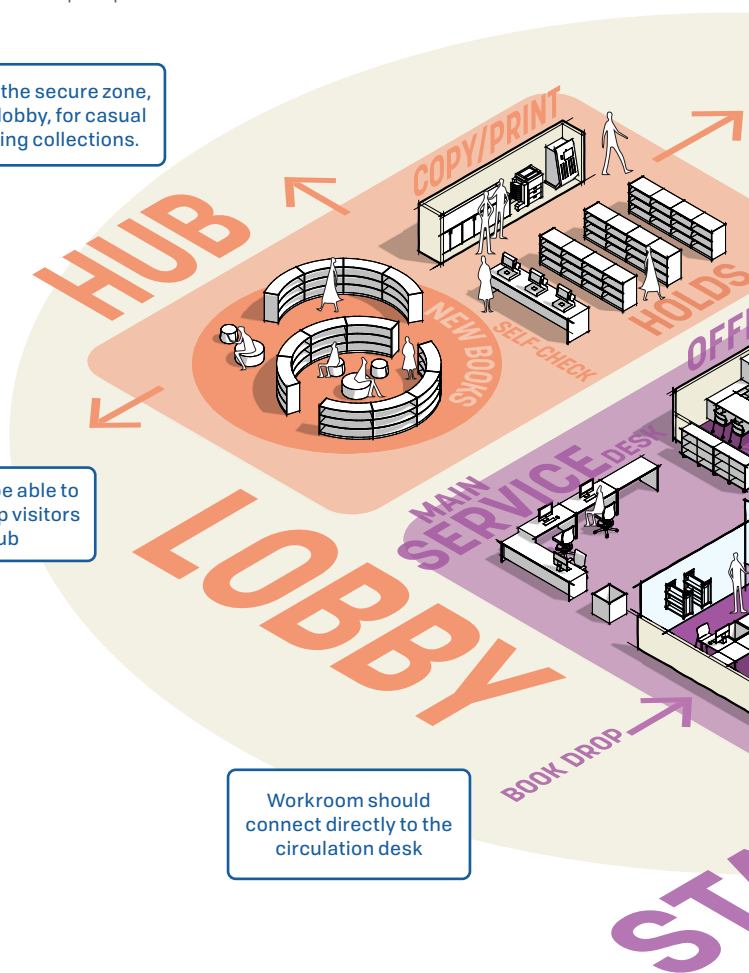
Additional Considerations

- Storage may be in separate room(s) or integrated into offices and the workroom or both

- All spaces, including enclosed staff workrooms, should have windows, openings, etc. to provide clear sightlines and allow for passive supervision

- A separate staff and delivery entrance may be useful. If ILL deliveries have a dedicated, lockable room they can be delivered outside of library hours

STAFF LOUNGE

ICES

ILL

MATERIAL HANDLING WORK AREA

STAFF AREA

STAFF ENTRY

If ILL delivery room is provided, it should be adjacent to truck parking and close to the exterior door
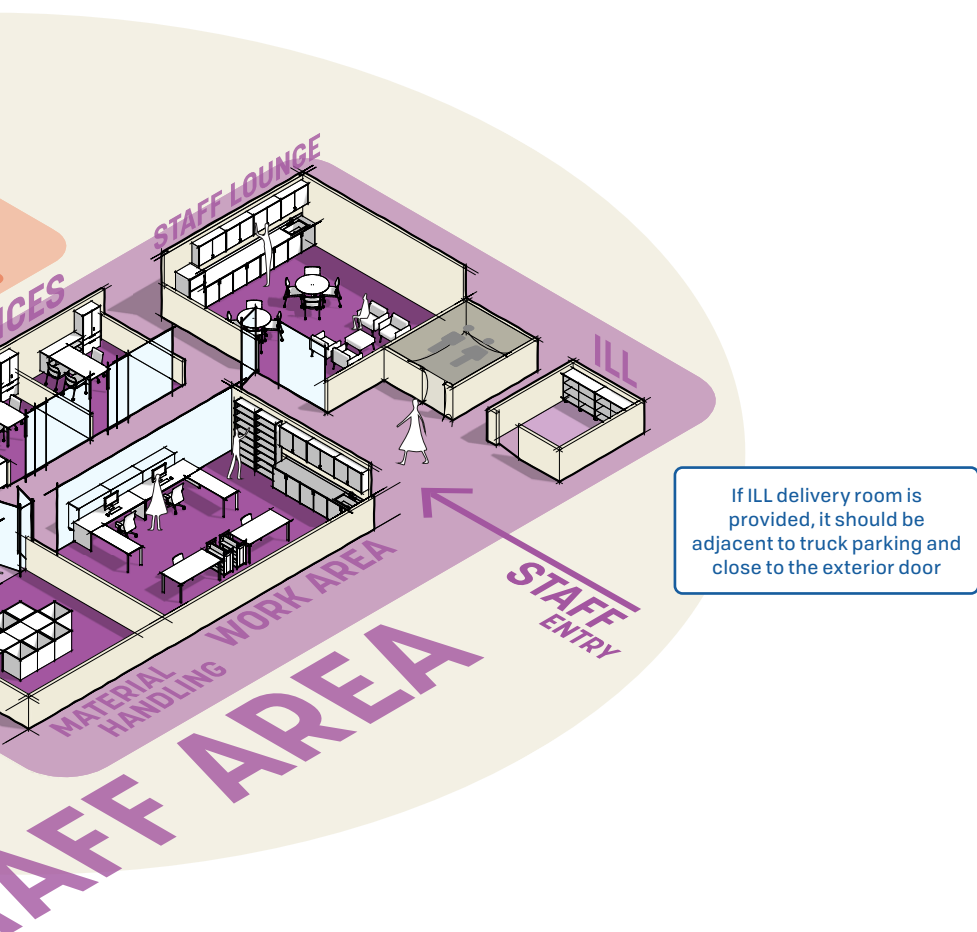
Collection & Seating Zone: Intermingled

Most libraries intermingle collection and seating to some extent. Since staff should be able to supervise reader seats and computer seats, the sightlines through or over the stacks become important to making this arrangement work.

Orient shelving to maximize sightlines from the staff service point

COLLECTION
SEATING
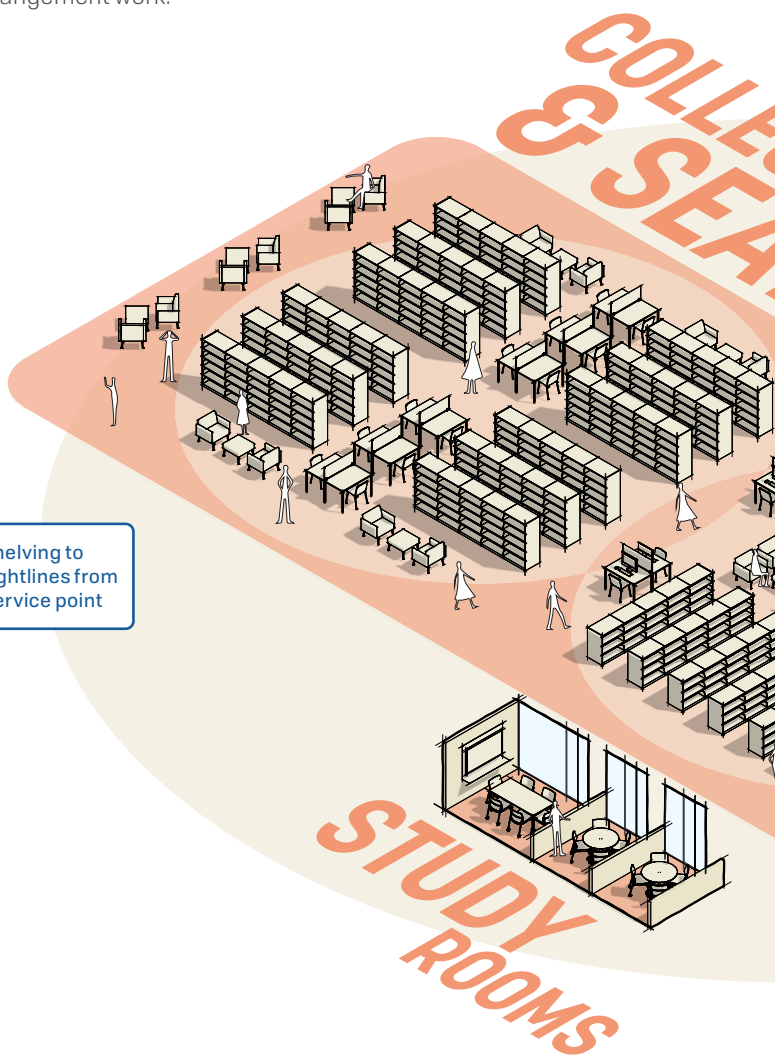
QUIET STUDY

STAFF

In an open-plan library, a dedicated quiet room is an important respite from all the activity

Enclosed quiet study rooms should be open during library hours and not reservable

Collection & Seating Zone: Rooms

In a library with a large collection or a building with a number of smaller rooms, a dedicated stack area paired with more active areas may make sense. Ideally, these spatial divisions will correspond to sub-collections like fiction or YA. Staff should still be able to see into all areas from the service point.

STACKS

Orient shelving to maximize sightlines from the staff service point

COLLECTION & SEATING

QUIET STUDY

COPY/PRINT

STAFF

Enclosed quiet study rooms should be open during library hours and not reservable

Copy/print stations should be close to both computer areas and staff service points

Computers are close to staff service point
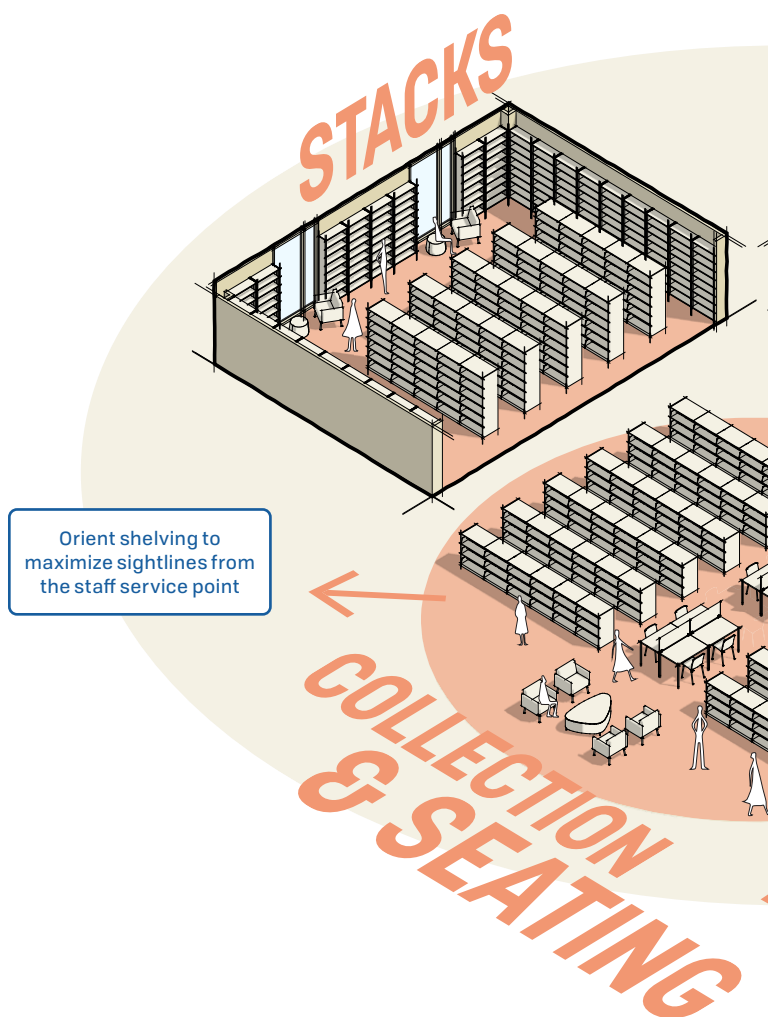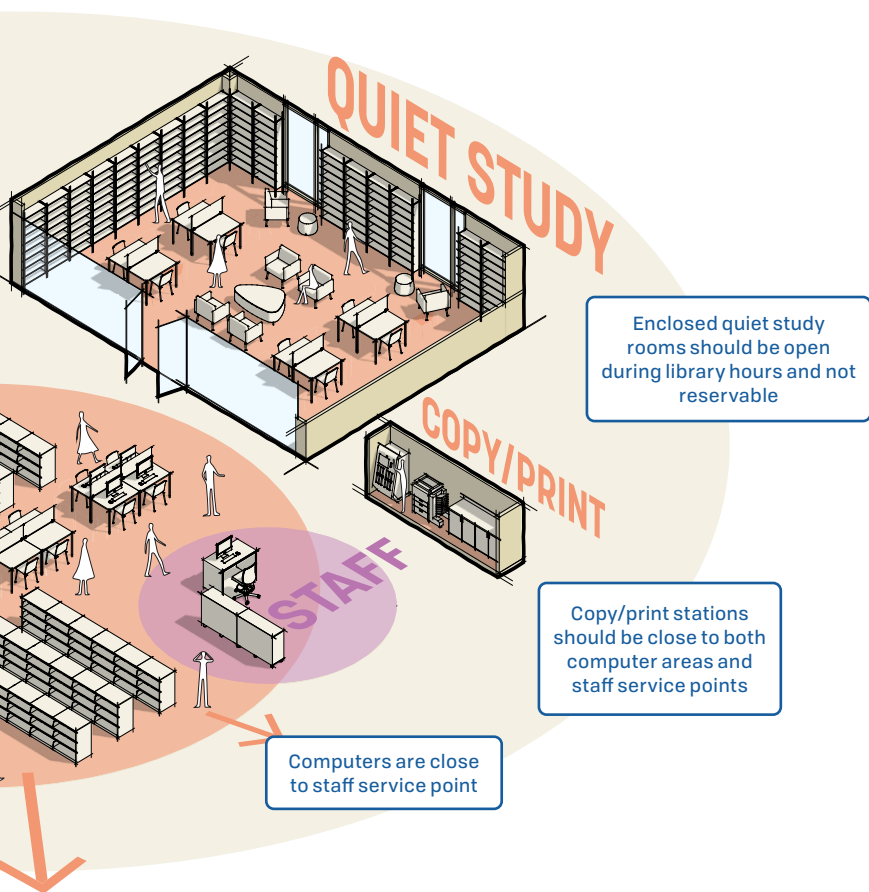
The Children's Zone

The children's room or zone functions as a self-contained mini-library, since it is not desirable for its small users to wander off. Everything from the children's staff office/workroom to a dedicated restroom is ideally located within sight of staff and adult caregivers. Including furniture that suits adult caregivers as well as children of all ages makes the experience more welcoming. The location of the children's zone is especially important, and should be weighed carefully during planning as there are many factors to consider. Some librarians prefer to locate this zone on the ground level near the main entry for easy access for those with strollers. However, this is not always practical or possible, and other factors such as desired adjacencies, the floor area required, or security concerns may necessitate other locations.

Storytime and crafts need dedicated storage space
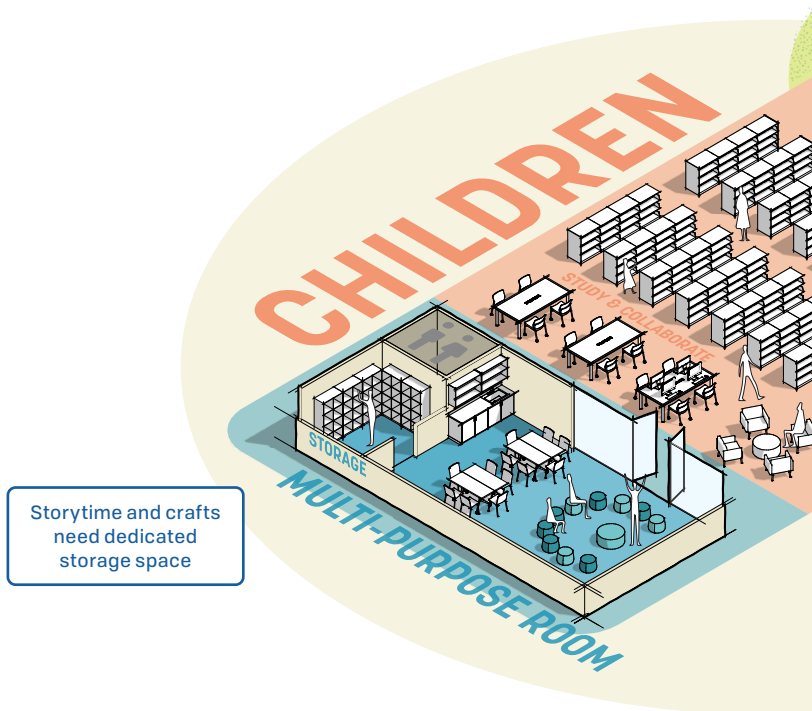
Additional Considerations

- In all cases, consider both ease of access and some degree of separation from other library areas
- Also consider beneficial adjacencies, such as larger staff or program areas that could be connected to this zone
- In some cases, locating the teen area in a distinctly separate area nearby can allow for staff to monitor both areas at once when needed
- Ideally, children should not pass through adult or quiet areas to reach this space
- A separate family restroom should be provided in this area, but not located next to the entry point

ACTIVE LANDSCAPE

EXPLORE & PLAY

SERVICE DESK

STAFF AREA

ENTRY

Outdoor spaces should be enclosed and secure

Computers are close to staff service point
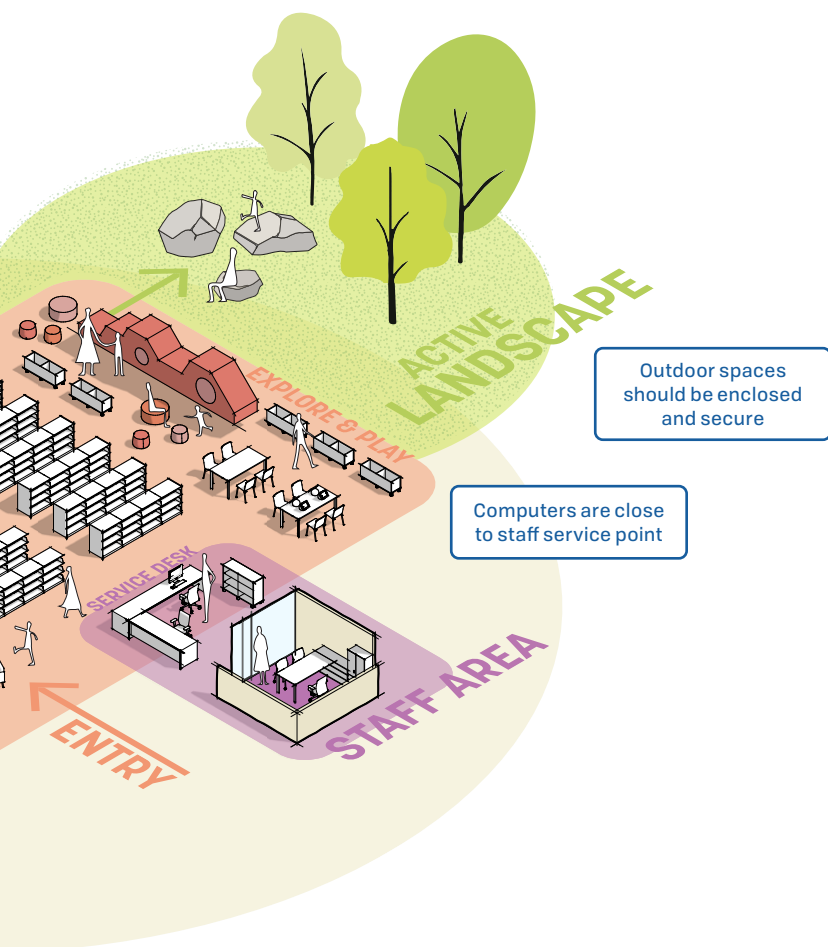
Prototypes

Putting it all Together

This section combines the components and zones described in this guide to illustrate how the relationships among these spaces can work in libraries of different sizes. **The prototypes in this section are not sample building plans.** They are relationship diagrams that also give a sense of scale, density, and sightlines.

Small Library

The small library provides core library services that meet the needs of its home community. Typically, the facility is less than 15,000 gsf and is organized on one level. To maximize its footprint, flexibility and adaptability are key drivers of its planning: spaces should be designed to accommodate multiple uses and users, even throughout the course of a day.

Small Library Case Studies

COLLECTION AND SEATING

STAFF

CHILDREN

KITCHEN STORAGE A/V MULTI-PURPOSE ROOM

MEETING ZONE
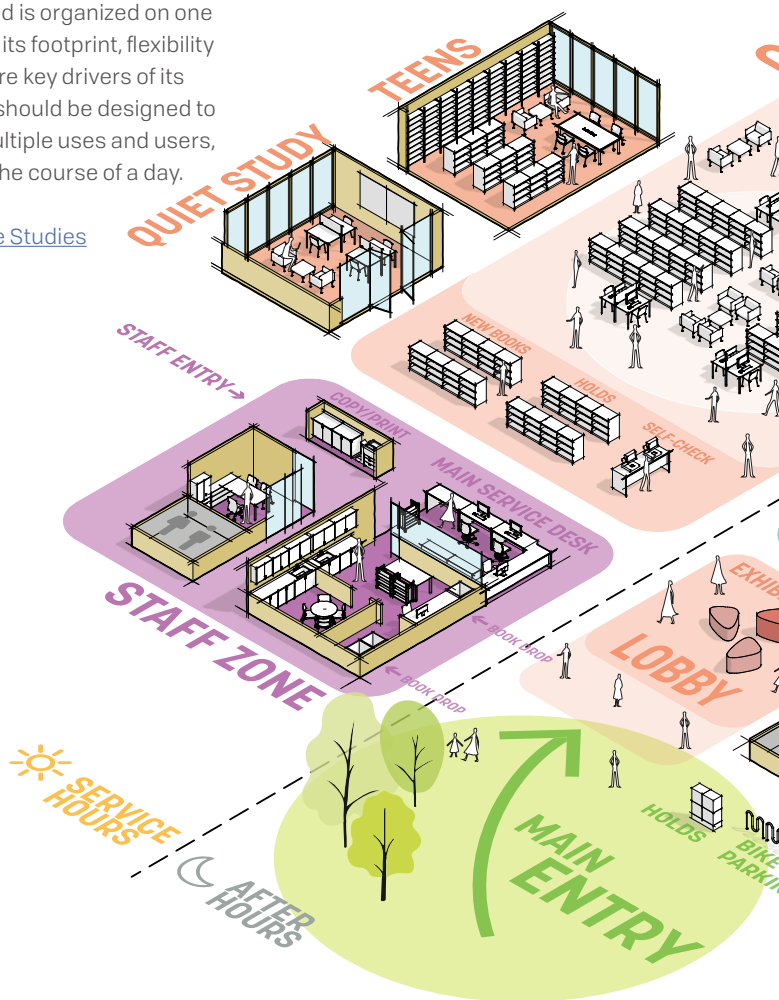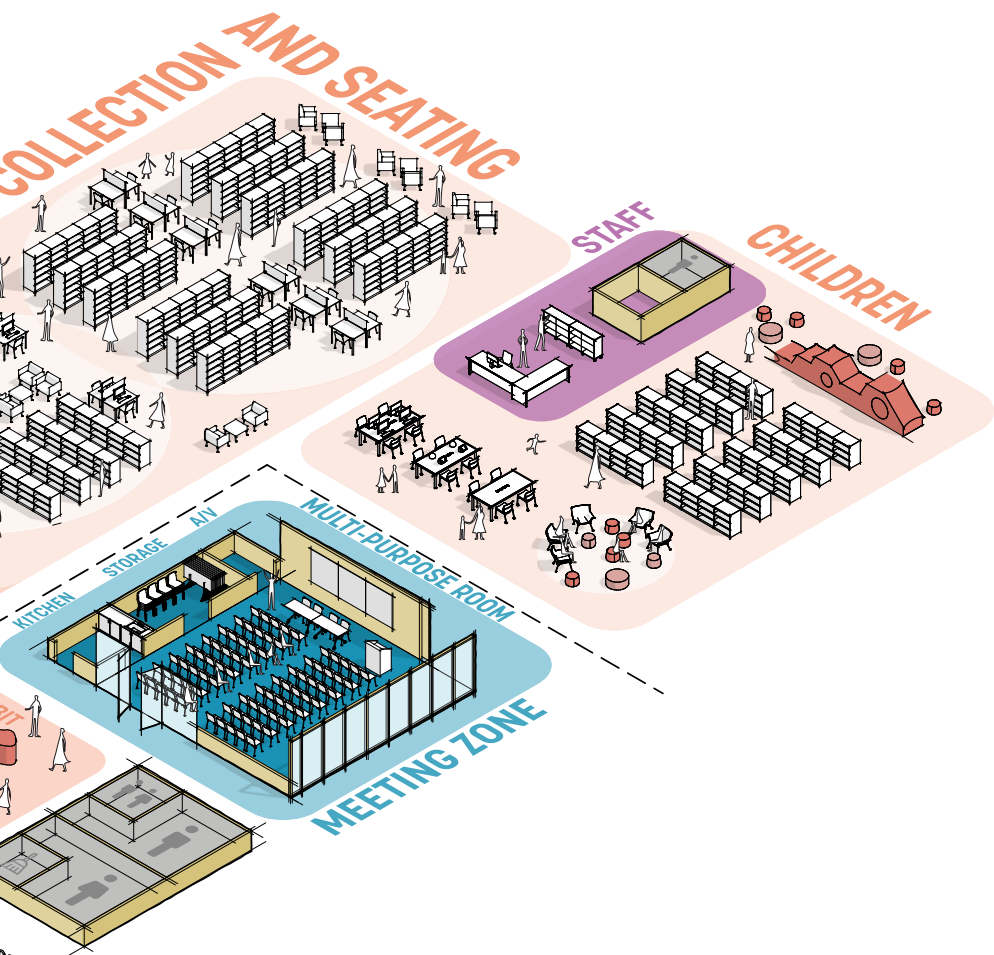
Medium Library

The medium library provides services that extend beyond core essential services. Dedicated space is often provided for core services, and also for certain programs or library zones. Typically these libraries are between 15,000 and 30,000 gsf and can be organized in a building that is one or two levels, depending on the site. Flexibility and adaptability are still key planning drivers to meet the fluctuating demand for public programming.

Medium Library Case Studies

TEENS

QUIET STUDY

STUDY ROOMS

STAFF

LOCAL HISTORY

COPY / PRINT

HOLDS

SELF-CHECK

NEW BOOKS

KITCHEN

STAFF ENTRY →

BREAK ROOM / WORK ROOM

STAFF ZONE

BOOK DROP

BOOK DROP

EXHIBIT

LOBBY

CAFE

SERVICE HOURS

AFTER HOURS

MAIN ENTRY

BIKE PARKING

COLLECTION
AND SEATING

STAFF

STORAGE

CHILDREN

STORAGE

LARGE FLEX ROOM

SMALL FLEX ROOM

MEETING ZONE

FRIENDS
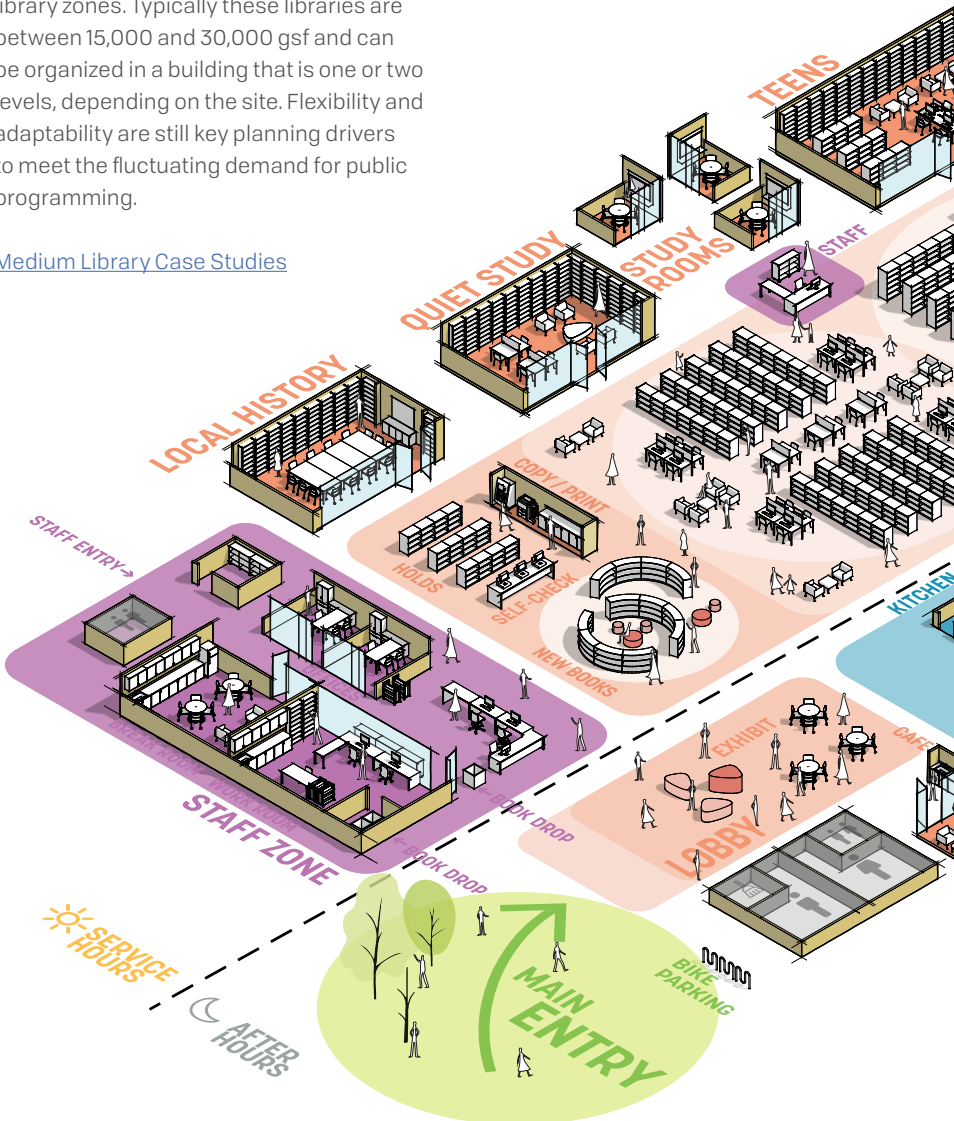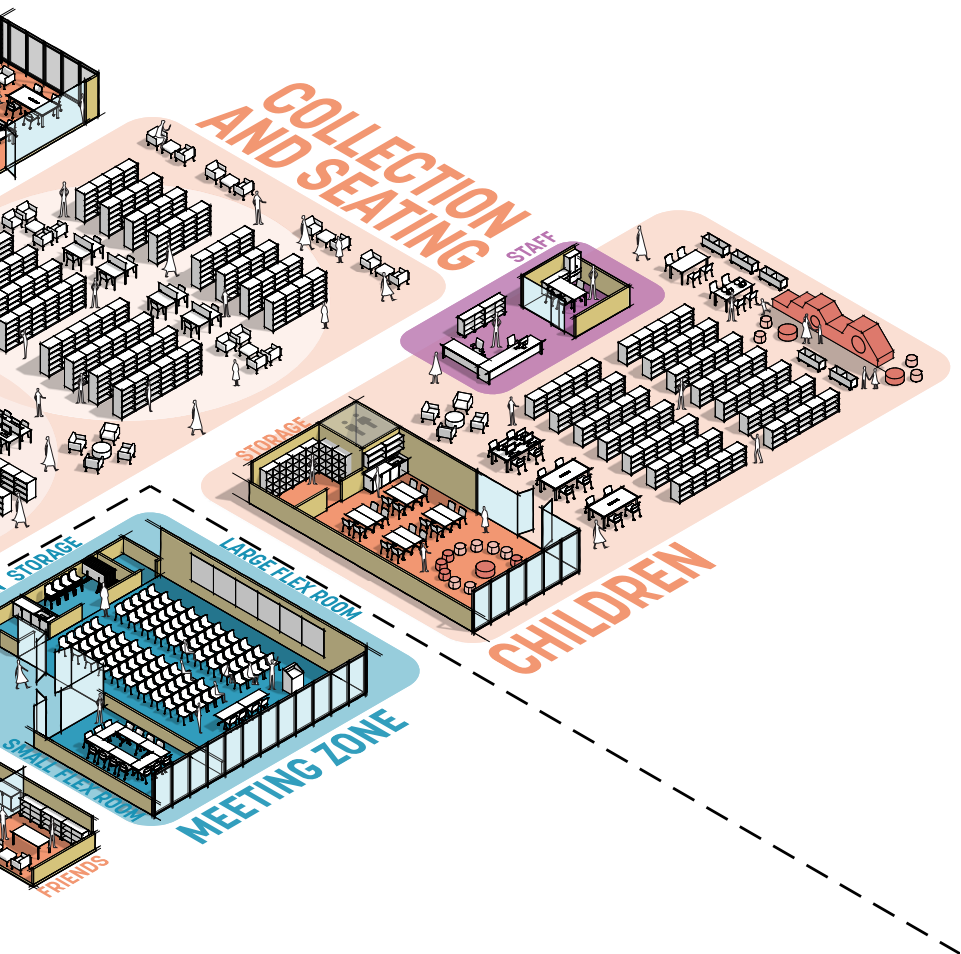
Large Library
Centralized Organization

Large libraries (typically more than 30,000 gsf) have substantial, diverse collections and an expanded offering of public programs. This diverse set of services and programs necessitates a larger staff body and support areas. Due to the size of the building program, there is more freedom and choice with respect to its spatial arrangement.
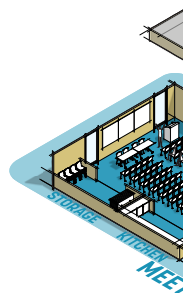
In the centralized model shown here, collection, seating, and staff areas are consolidated. The Children's Zone is located on the entry level for ease of access, also allowing the children's librarian's office to be grouped with the main staff space.

A good example of a large library with centralized organization is the Westwood Public Library.

LOCAL HISTORY

Level 2

ELEVATORS

MEETING ZONE

Level 1

COLLECTION AND SEATING

QUIET STUDY

STAFF

COPY & PRINT

STUDY ROOMS

TEEN

MAKER SPACE

CHILDREN

NEW BOOKS

SELF-CHECK

HOLDS

MAIN SERVICE DESK

OFFICES

BREAK ROOM

STAFF ZONE

LOBBY

HOLDS

BIKE PARKING

MAIN ENTRY

SERVICE HOURS

AFTER HOURS

UP
DN
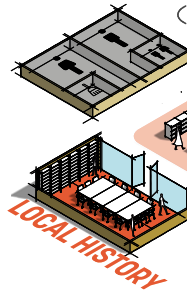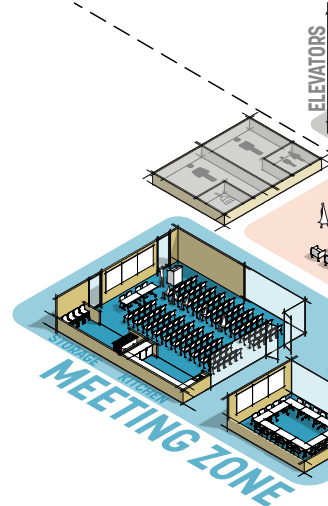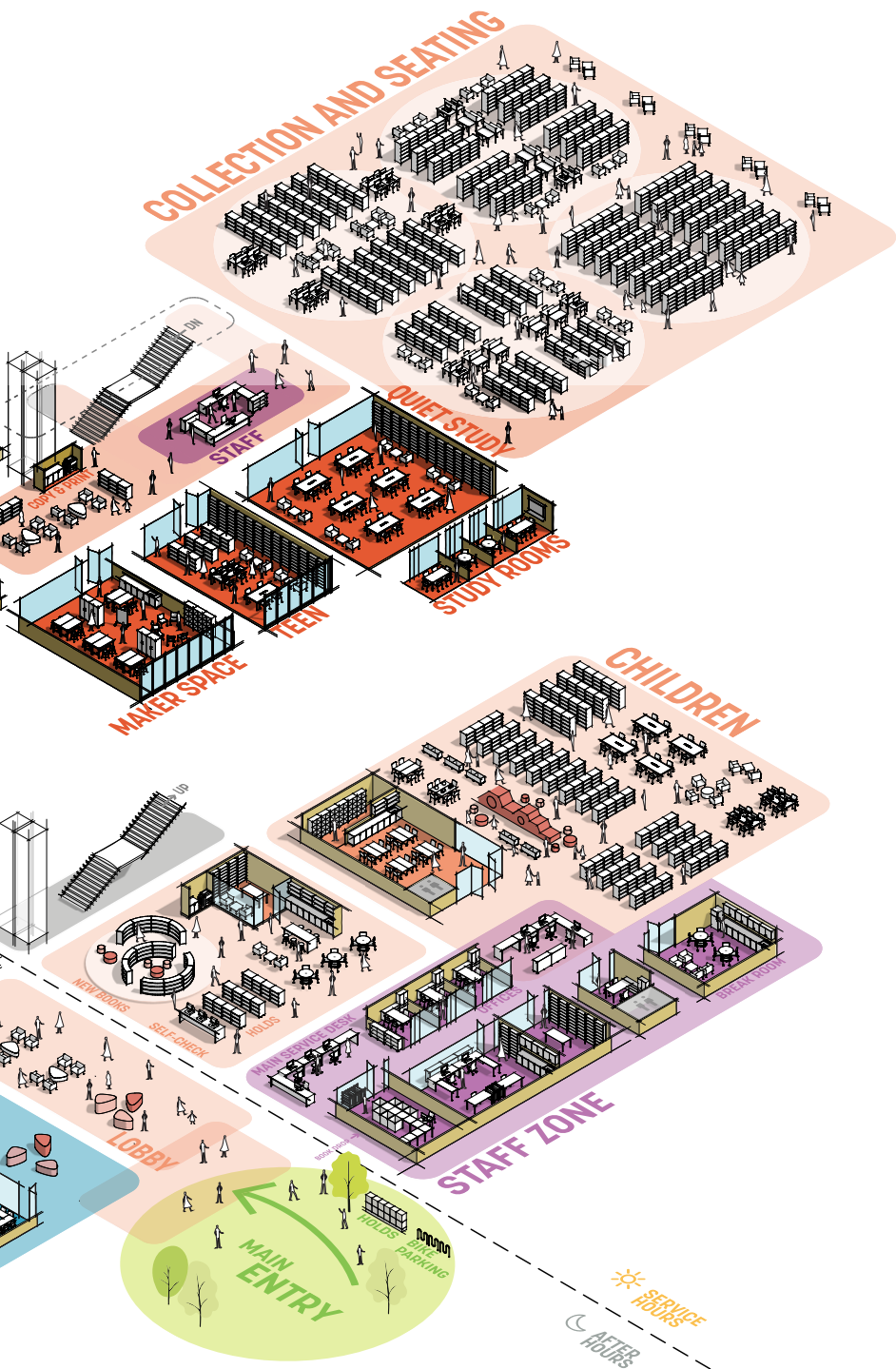
Large Library
Distributed Organization

Large libraries (typically more than 30,000 gsf) have substantial, diverse collections and an expanded offering of public programs. This diverse set of services and programs necessitates a larger staff body and support areas. Due to the size of the building program, there is more freedom and choice with respect to its spatial arrangement.

In the distributed model shown here, collection, seating, and staff areas are divided into smaller zones and distributed throughout the building. For example, staff spaces associated with the main service point are located near the entry, while children's staff spaces are embedded in the Children's Zone. The multiple collection and seating zones may be conducive to categories like Fiction and Nonfiction. This organizational model may be well-suited to existing buildings with multiple rooms and levels.

Good examples of distributed organization can be found at the addition/renovation projects at the Reading Public Library and Holyoke Public Library.

STUDY ROOMS

Level 2

STORAGE   KITCHEN

MEET

Level 1

STAFF

CHILDREN

COPY & PRINT

MAKER SPACE

TEENS

STAFF ZONE

COLLECTION AND SEATING

COLLECTION AND SEATING

DN

UP

ELEVATORS

NEW BOOKS

SELF-CHECK

HOLDS

MAIN SERVICE DESK

LOCAL HISTORY

STAFF ZONE

LOBBY

BOOK DROP

ATING ZONE

MAIN ENTRY

HOLDS

PARKING

☼ SERVICE HOURS

☾ AFTER HOURS

Case Studie

Recent Library Projects

Each of the case studies in this section was completed between 2009 and 2019 and exemplifies at least one of the best practices that informed this guide. An important part of the planning process for a project of any size is visiting other projects that have tackled similar issues. We visited these buildings and in some cases met with their librarians. The librarians involved in some of these projects also participated in our focus group.

Case Studies

Taken as a group, these case studies represent a snapshot of an approach to library space planning allocation over the last decade, and are consistent in the proportion of space given over to each element. While not a space standard per se, these space allocations certainly reflect "standard practice" today.

Key to Case Study Diagrams

collection & seating areas

program areas

staff areas

support areas

outdoor areas

Note that "non-assignable" space typically includes mechanical rooms and other building infrastructure as well as bathrooms, corridors, etc. In a new building, no more than 30% of total building area should be non-assignable, but historic buildings may pose unique challenges in this regard.

open
areas

strong
relationship

staff
sightlines

↕ stairs/elevator

👥 restrooms

enclosed
areas

weak
relationship

↑
building
entry

↑
after
hours
entry
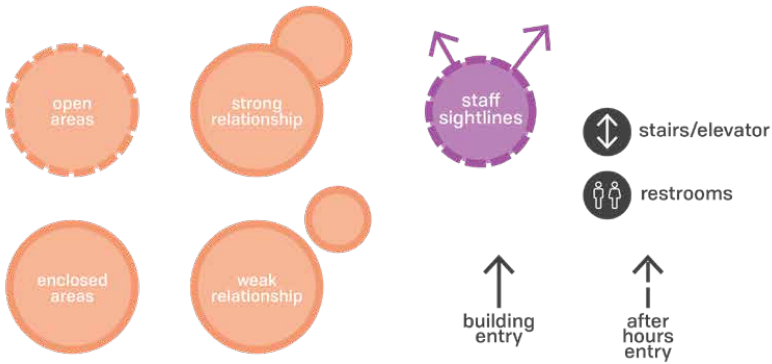
Case Studies

Case Study Space Allocation (Space Type)

Smaller Libraries	

Monterey — 42%
Westhampton — 42%
West Tisbury — 50%
East Boston — 51%
Eastham — 44%
Athol — 49%
Mashpee — 48%
South Hadley — 48%
Westwood — 48%
Scituate — 46%
Woburn — 43%
Stoughton — 45%
Reading — 42%
Holyoke — 47%

Larger Libraries

0% 10% 20% 30% 40%

■ Collection & Seating   ■ Prog

	22%	7%	30%
	17%	12%	30%
12%	9%		30%
11%	9%		30%
17%	9%		30%
13%	8%		30%
12%	10%		30%
12%	10%		30%
13%	10%		30%
14%	11%		30%
16%	12%		30%
14%	11%		30%
12%	16%		30%
13%	10%		30%

50%   60%   70%   80%   90%   100%
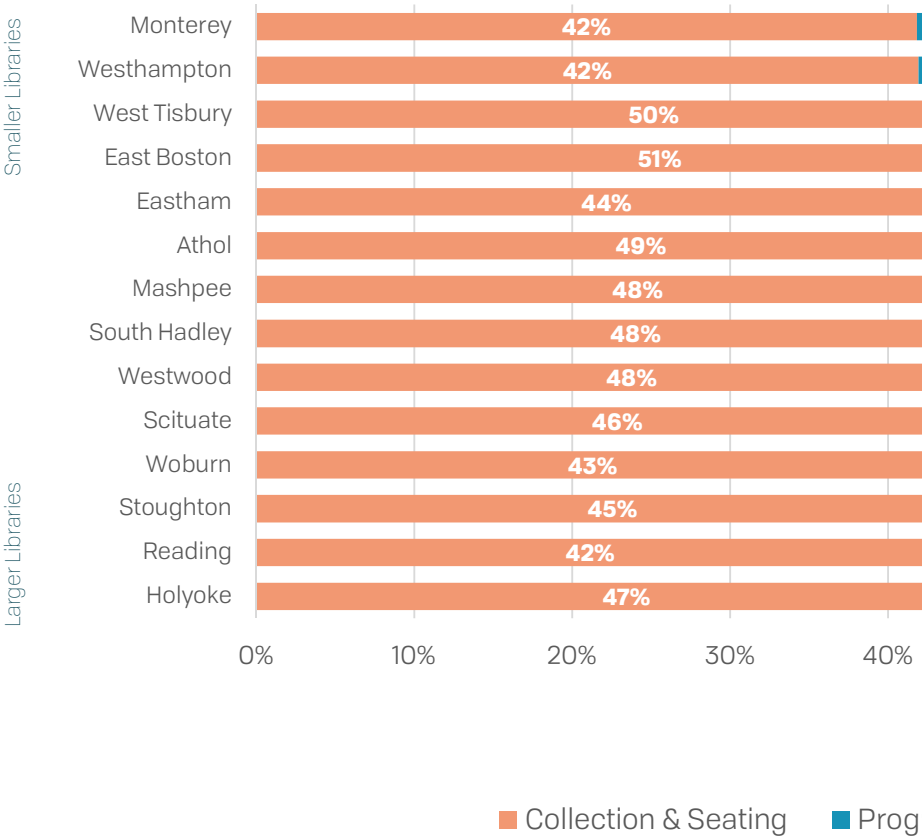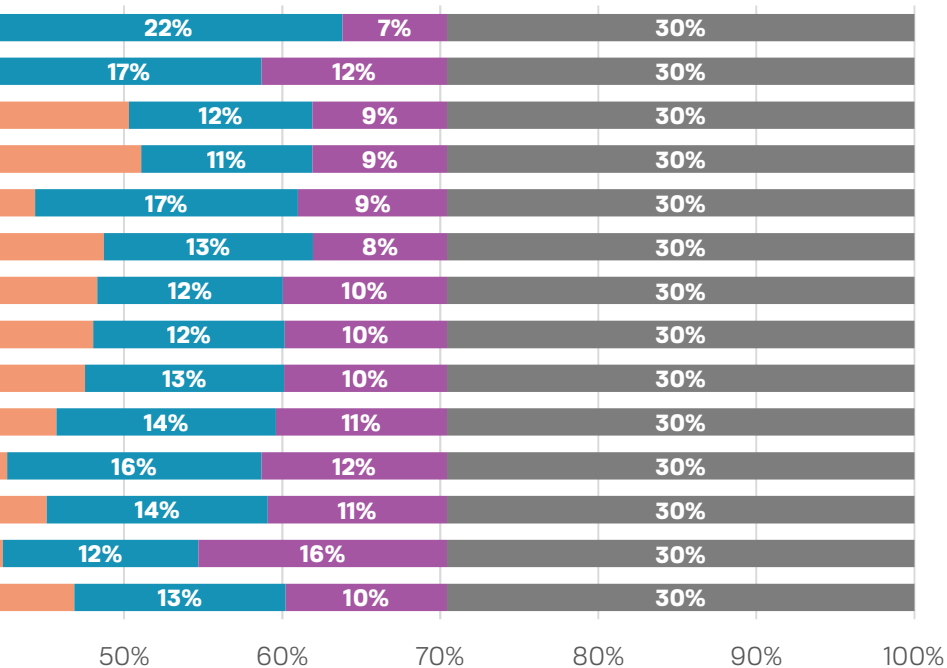
ram/Event ■ Staff ■ Non-Assignable

Case Studies

Case Study Space Allocation (Adult, Teen, Children)

Smaller Libraries	Monterey	29% · 4% · 9%
	Westhampton	20% · 5% · 17%
	West Tisbury	33% · 4% · 14%
	East Boston	24% · 10% · 17%
	Eastham	30% · 3% · 11%
	Athol	34% · 3% · 12%
	Mashpee	33% · 4% · 11%
	South Hadley	30% · 4% · 13%
	Westwood	32% · 3% · 12%
Larger Libraries	Scituate	30% · 4% · 11%
	Woburn	27% · 3% · 13%
	Stoughton	31% · 1% · 12%
	Reading	25% · 4% · 13%
	Holyoke	33% · 2% · 11%

Legend: ■ Adult ■ Teen ■ Children ■ Progra...

22%		7%	30%	
17%		12%	30%	
12%		9%	30%	
11%		9%	30%	
17%		9%	30%	
13%		8%	30%	
12%		10%	30%	
12%		10%	30%	
13%		10%	30%	
14%		11%	30%	
16%		12%	30%	
14%		11%	30%	
12%		16%	30%	
13%		10%	30%	

50%   60%   70%   80%   90%   100%

am/Event   ■ Staff   ■ Non-Assignable

Case Studies: The Small Library

The four Massachusetts libraries highlighted here are all less than 15,000 gsf and provide the library services that are elemental for small communities. They are selected because they each represent one or more of the underlying assumptions of the Small prototype in this guide.

Despite their small size, they all have relatively large public meeting rooms. Most allow for separate access to the meeting rooms and restrooms outside of normal library hours. Each has a robust children's area, reflecting the primacy of this function in even a small library.

Monterey Public Library

Addition/Renovation | 2019 | 3,700 gsf | EDM Architecture
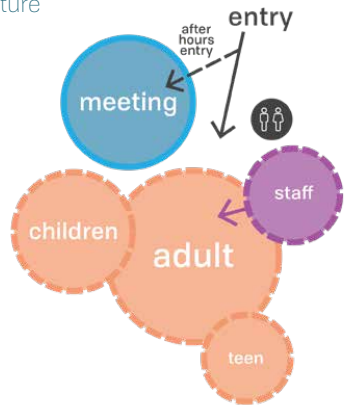
Monterey's library is the smallest in this guide. It is a lean and functional elemental library. The building is completely open inside, other than the two small study rooms. Although it has no private staff space, the circulation desk has direct sightlines to all collection and seating areas.

Despite the building's small size, its meeting room (which occupies the historic structure) is approximately 900 sf, accommodating over 100 people, reflecting a need in the community. The restrooms and meeting room are accessed directly from the vestibule, facilitating after-hours events.

Westhampton Public Library

Addition/Renovation | 2010 | 7,100 gsf | Tappe Architecture

An adaptive reuse of a non-library building, the Westhampton Public Library still follows the prototypical organization for a small library. It is functional and efficient in a small footprint.

The community room and restrooms can be accessed directly from the building vestibule, providing a space-efficient solution to the problem of after-hours access for events. More space is dedicated to the children's and YA rooms than to the rest of the collection, reflecting the library's programming focus.

A small local-history room occupies a bay-windowed space with interesting architectural character in the existing building.
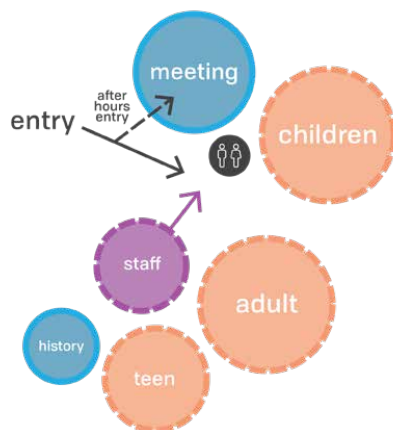
West Tisbury Free Public Library

Addition/Renovation **|** 2014 **|** 13,300 gsf **|** Oudens Ello Architecture
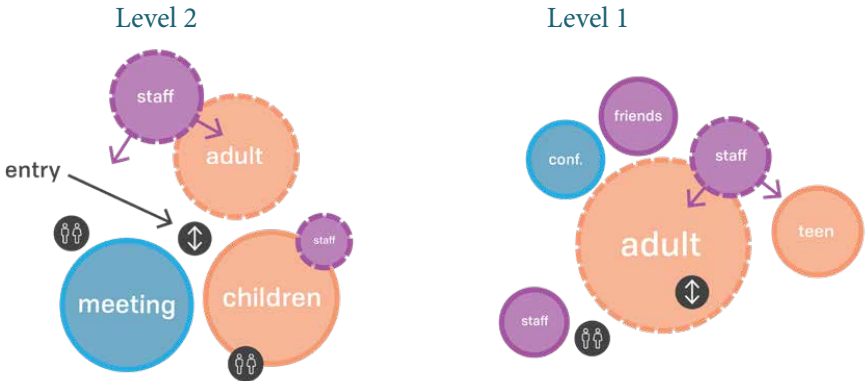
The West Tisbury library exemplifies how an existing building can be expanded upon to create a well-integrated interior on two levels. The entry floor has an inviting sense of openness where a low stack/reading area is flanked by the main service point and the events space. Despite its small size, the two-story arrangement works well because the building is planned in an efficient way. With minimal service points to conserve space, a small but functional staff area, and a single consolidated stack area, the building makes the most of its square footage. Its children's and teen rooms are airy, open, and take full advantage of views and access to the surrounding landscape.

East Boston Branch, Boston Public Library

New Construction | 2014 | 14,900 gsf | William Rawn Associates

The East Boston branch exemplifies effective large open space with low stacks and good sightlines throughout. As a complement to this openness and to provide some acoustic respite, the building includes an enclosed historic artifact room that doubles as a quiet study space.

The children's room can access the community meeting room directly through a large sliding door, allowing this space to be used for crafts and other daytime uses as well as evening and weekend community events.
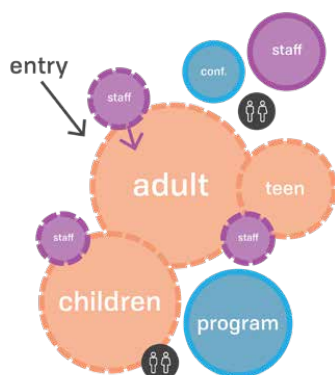
Case Studies: The Medium Library

These 15,000 - 25,000 gsf buildings have more complex programs and are often multistory buildings. Organizationally, they must account for larger collections as well as vertical circulation. Multiple staff service points (at least one per floor, plus a children's librarian) are dispersed throughout to provide visual control and service to patrons.

Mashpee Public Library

New Construction | 2010 | 21,400 gsf | Johnson Roberts Associates

Mashpee's library provides a well-organized and functional meeting suite, including two sizes of meeting space and a separate after-hours entrance. The children's room is located on the ground floor near the entrance, but the configuration of the entry effectively controls access to this space.

The site of this new building was selected to encourage walkability from a nearby commercial district.

Level 1

Level 2
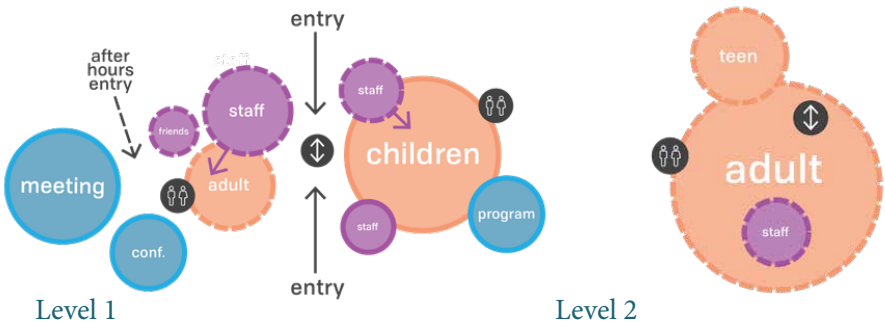
South Hadley Public Library

New Construction | 2014 | 23,100 gsf | Johnson Roberts Associates

Level 2

Level 1
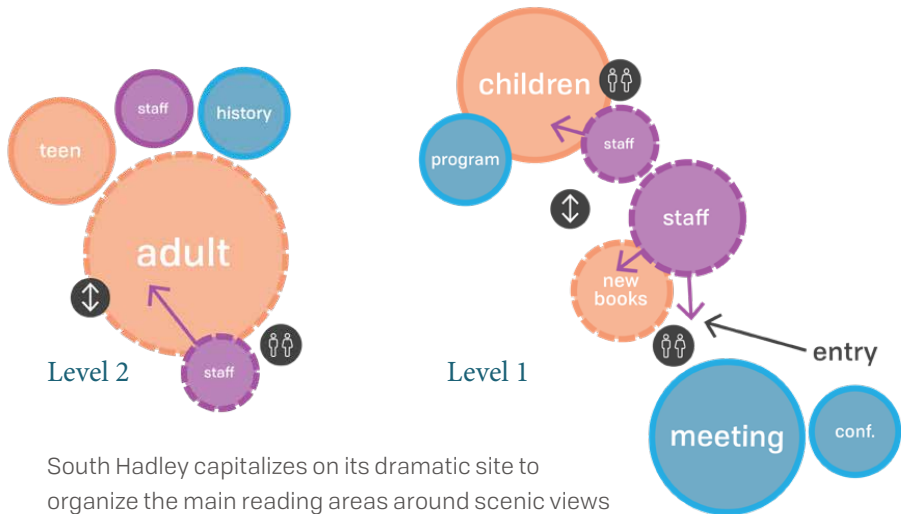
South Hadley capitalizes on its dramatic site to organize the main reading areas around scenic views to the outside. This approach translates to effective sightlines within the building.

There is a well-organized after-hours meeting suite, which includes two different sized meeting rooms, direct access to the entry, bathrooms, and a small kitchenette area.

Eastham Public Library

Addition/Renovation **|** *2016* **|** *17,800 gsf* **|** *Oudens Ello Architecture*

Eastham uses its tiny, historic building as a Friends' room and bookstore anchoring the meeting suite, while the large new addition responds to the site and landscape in an organic way. The children's room is located far from the entrance, on a lower level (which also exits to grade). From this room, the children's librarian can supervise the teen area and the storytime/crafts room through half-glass partition walls. The layout affords each age group a view of the nearby pond.
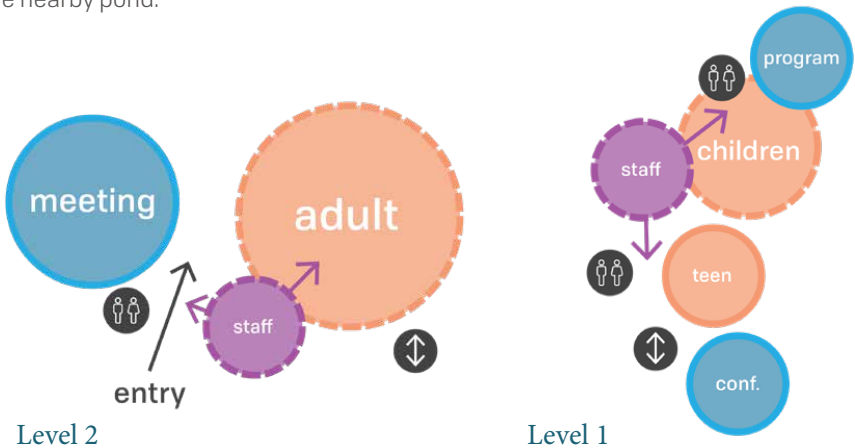
Level 2

Level 1

Scituate Town Library

Addition/Renovation **|** 2017 **|** 33,700 gsf **|** Oudens Ello Architecture

Very open with excellent sightlines despite its size, this library locates the children's and teen areas on the lower level with optimal visibility between the two and in close proximity to the main meeting room, which also has an after-hours entrance.
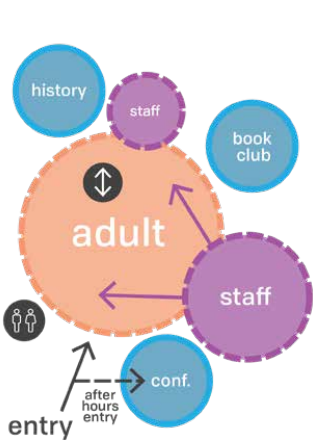
Level 2
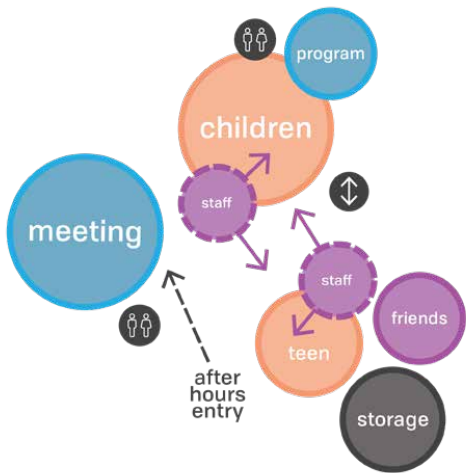
Level 1

Case Studies: The Large Library
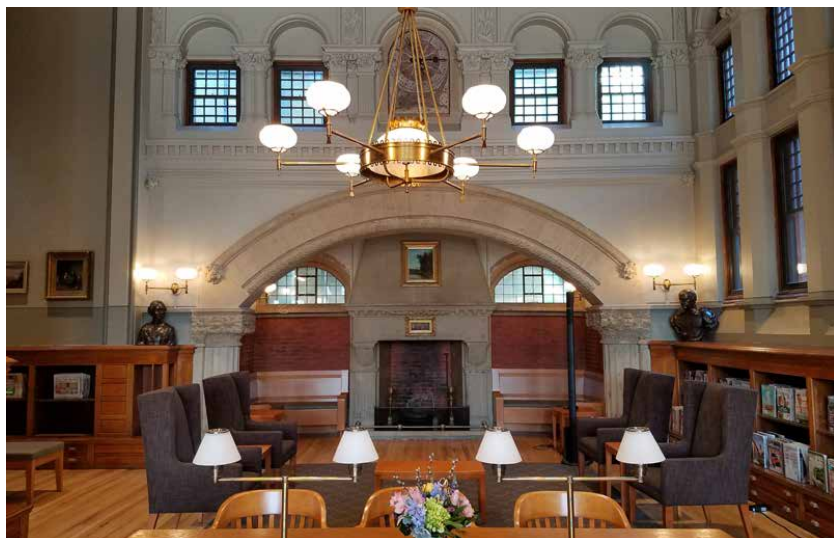
The largest and most complex libraries span two or more stories and typically break up their collections into multiple areas. At this scale, wayfinding and internal organization become very important to the visitor experience. Likewise, the distribution of staff areas and the number and arrangement of separate rooms can have significant impact on the day-to-day operations of the library. The libraries included here address these planning challenges in effective ways while responding to the specific requirements of their sites, programs, and (in all but one case) existing facilities.

Woburn Public Library

Addition/Renovation | 2019 | 50,200 gsf | CBT Architects

Woburn's recent renovation of and addition to its historic H. H. Richardson building thoughtfully addresses contemporary needs while respecting the original architecture. The Richardson building houses historic collections and quieter, more formal spaces that celebrate the restored architectural detail, while more active and space-intensive uses like the children's and main collection areas are given functional and contemporary spaces. The entry is relocated to the connection between old and new to knit the two sides together in the visitor experience.

Mezzanine Level

Level 2

Level 1
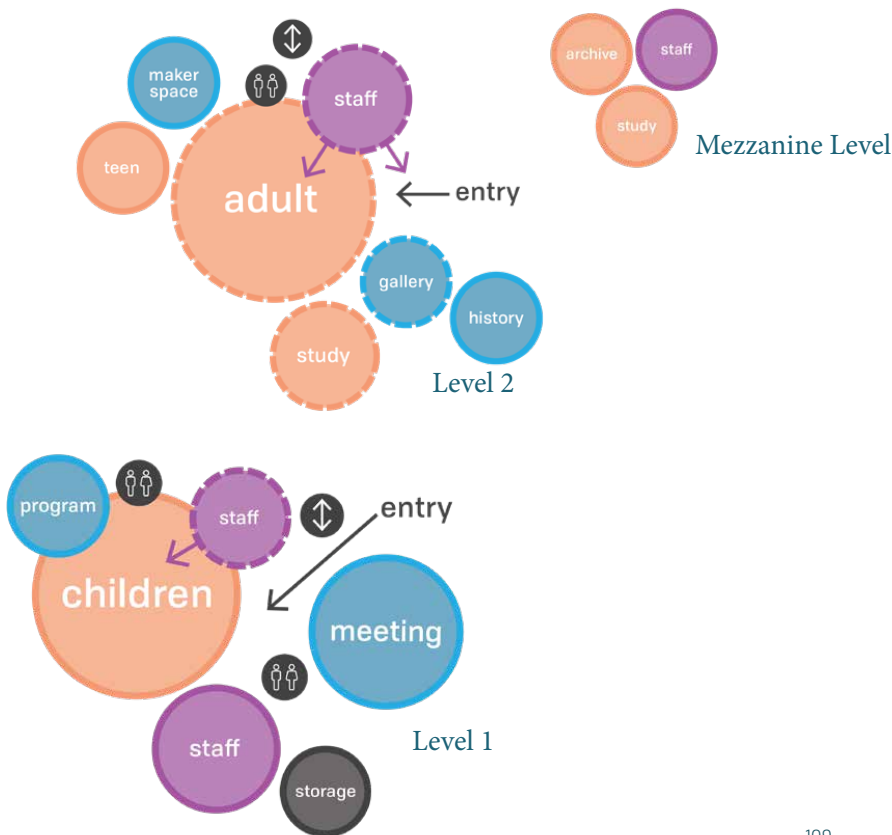
Westwood Public Library

New Construction **|** 2013 **|** 32,000 gsf **|** Finegold Alexander Architects

The Westwood library is organized around an open central stair. Responding to its sloping site, a separate staff and service entrance is provided on the second level. Its entry sequence includes meeting spaces and a cafe/gallery. The building is heavily used by school-aged children and teens, with the children's area on the main ground-floor level.
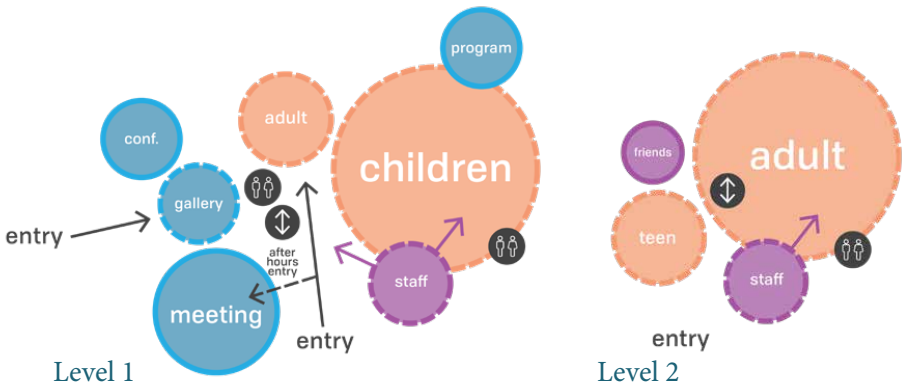
Level 1

Level 2

Stoughton Public Library

Addition/Renovation **|** 2018 **|** 38,700 gsf **|** Finegold Alexander Architects

staff
staff
conf.
adult
literacy/
tutoring

Level 3

entry
cafe
meeting
staff
conf.

Level 2

program
staff
children
teen
staff
entry
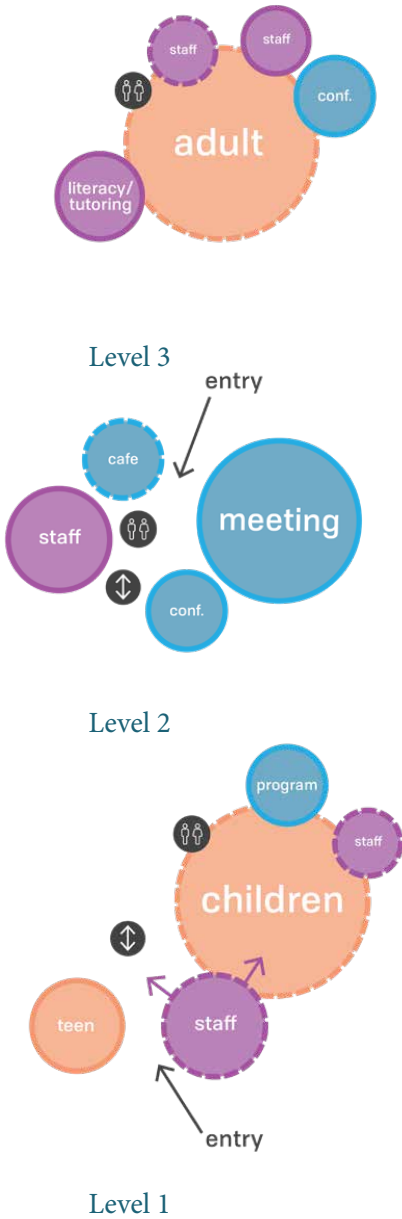
Level 1

This library's small, complex site includes parking and entrances at two levels, leading to the organization around a central stair and elevator. All tall stacks are located in a single space to free up the other two levels for open sightlines and a variety of seating types.

Holyoke Public Library

Addition/Renovation | 2013 | 39,600 gsf | Finegold Alexander Architects

Level 2

Level 1.5

Holyoke's library accommodates a significant special collection and extensive programming serving the city's large Spanish-speaking population, with bilingual signage that enhances wayfinding. Its unusual split-level design gives the children's area its own level, with its own program room, staff, and restrooms. The architecture effectively marries the historic with the contemporary, repurposing an exterior space as a striking interior reading room.
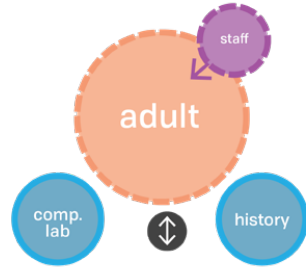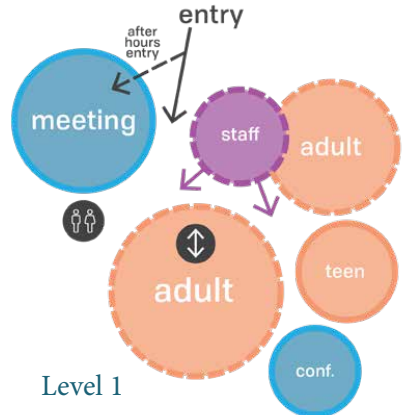
Level 1

Reading Public Library

Addition/Renovation **|** 2016 **|** 39,000 gsf **|** CBT Architects

Level 2
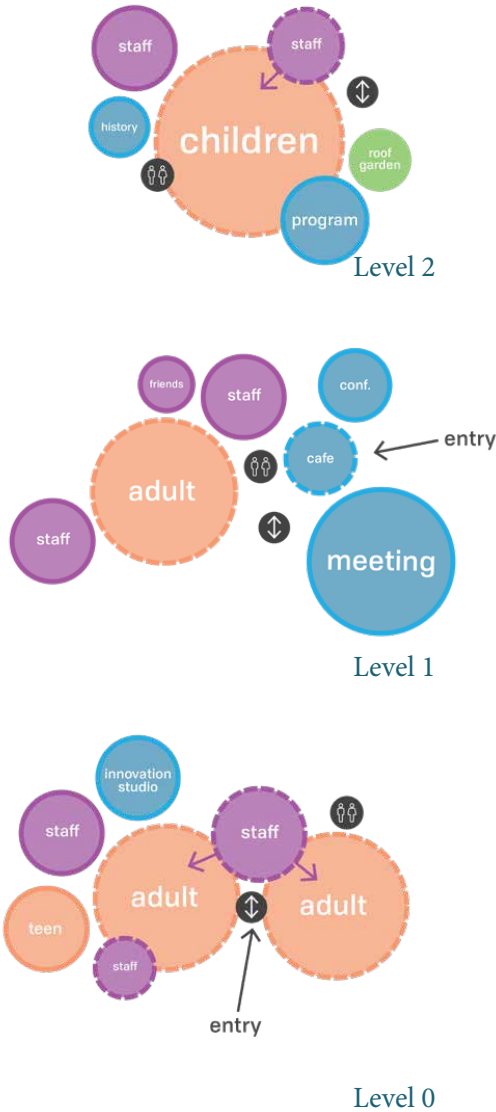
Level 1

Level 0

Reading's library is housed in an adaptive reuse of a school building, which provided ample space but was not designed to function as a library. It is spread over three levels, two of which have at-grade entrances. Despite these spatial conditions, the building achieves intuitive wayfinding and clear sightlines for both staff and visitors.
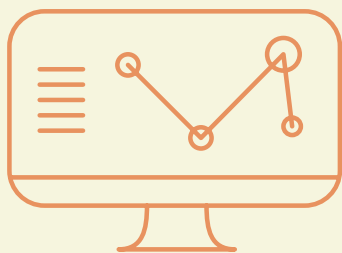
Metrics

For Massachusetts Public Libraries

An important reference for any library planning study is the data set describing all of the libraries in the Commonwealth. Key metrics tied to service population, such as number of reader seats and collection size, can inform initial planning studies. Because the information draws from libraries that have not been recently renovated as well as newly-renovated or newly-constructed facilities, there is a much broader range of space allocations than illustrated in the recent case studies in the previous chapter.

These metrics were derived from data collected as part of the 2018 Annual Report Information Survey (ARIS) administered by the MBLC. More information is available from the MBLC, and this information is updated annually. Selected guidelines from other sources are also provided where applicable for reference.

Interactive Metrics

Population & Building Size

This is a common metric for early planning stages, with building size denoted by gross square feet (gsf). While the shaded region indicates all libraries across the state reported in the ARIS data, the dashed line shows the median building size for the recently completed case study libraries. This reflects a growing trend toward libraries requiring more space to meet the needs of today's users than in the past.
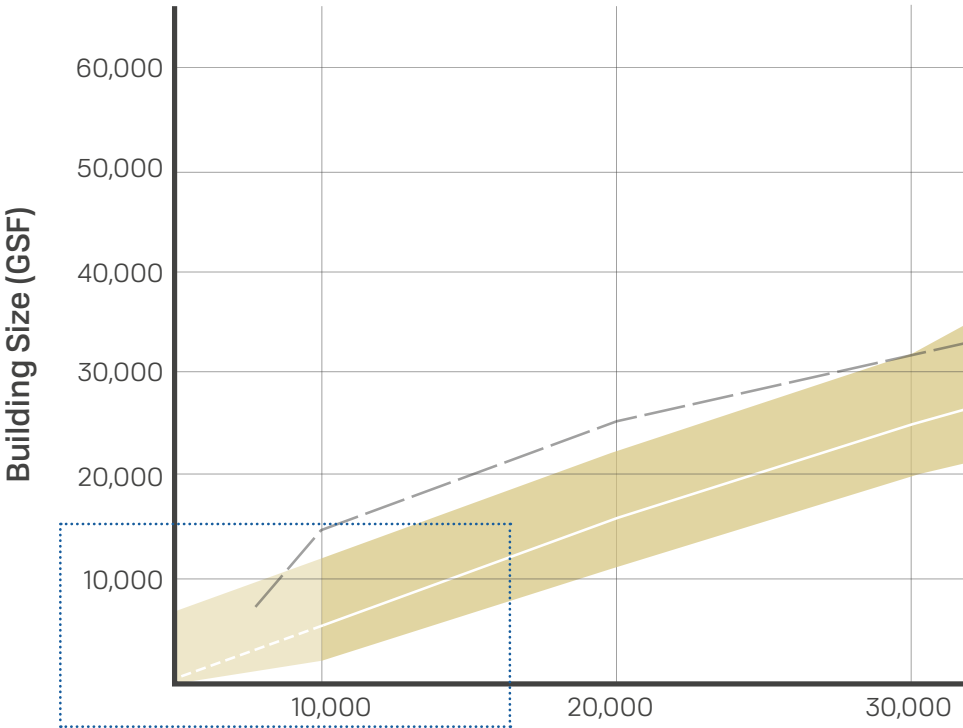
Pop

MA Libraries Range

– – – – – MA Case Studies Median

MA Libraries Range includes approximately 450 library locations (369 public libraries plus branches) from across the state with data collected in the 2018 ARIS. MA Case Studies consists of approximately 40 libraries newly constructed or renovated within the last 10 years
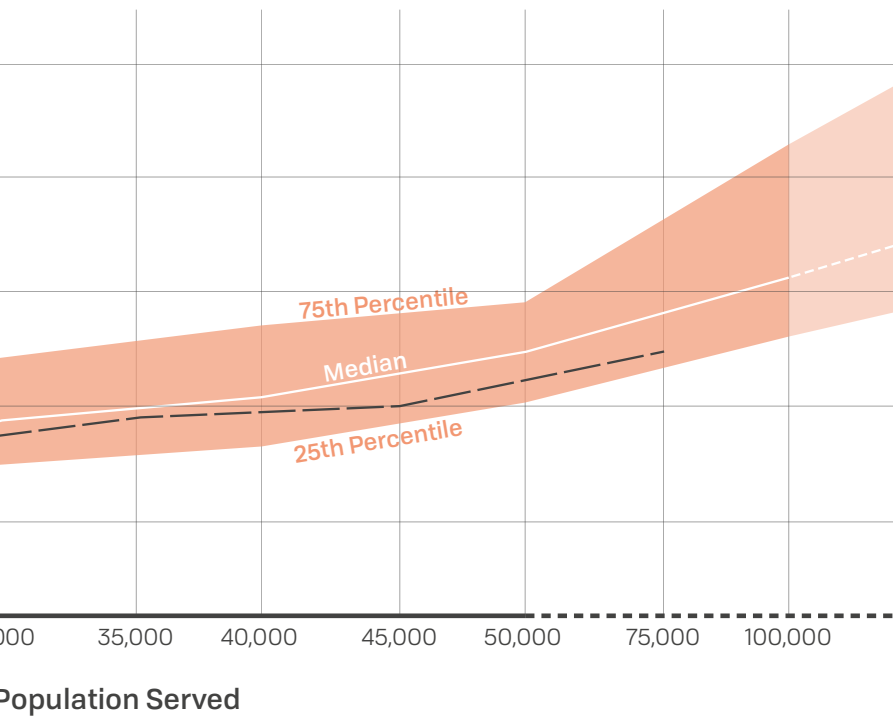
75th Percentile

Median

25th Percentile

40,000   50,000   100,000

ulation Served
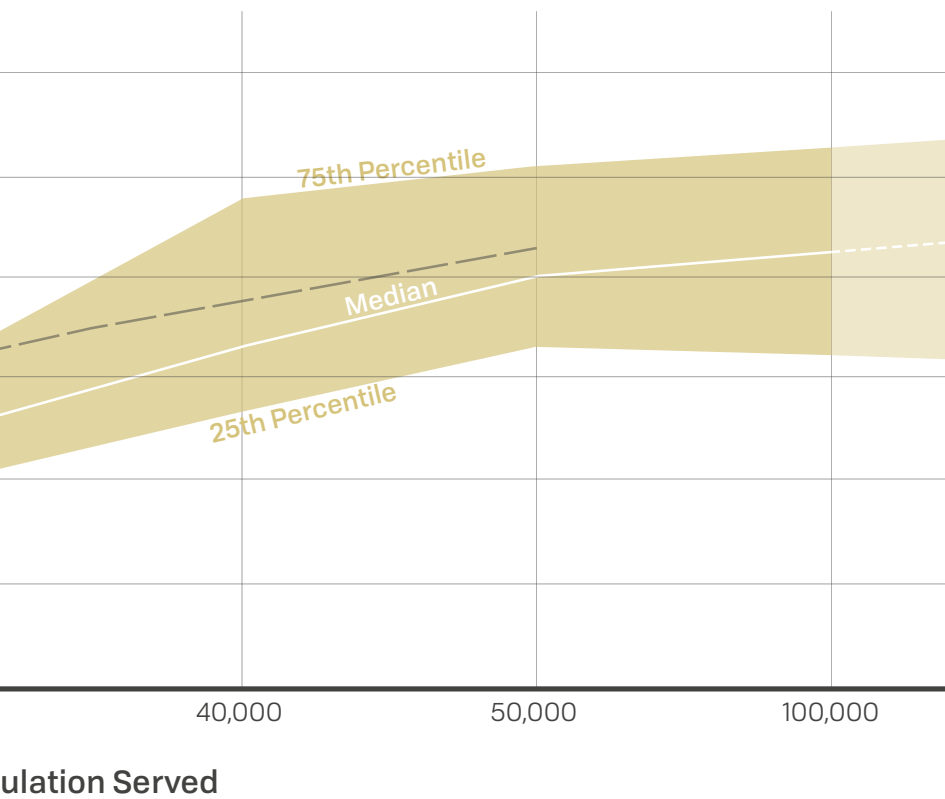
Population & Building Size
Small Libraries

This is a common metric for early planning stages, with building size denoted by Gross Square Feet (GSF), which is the total floor space enclosed. While the shaded region indicates all libraries across the state reported in the ARIS data, the dashed line shows the median building size for the recently completed case study libraries. This reflects a growing trend towards libraries requiring more space to meet the needs of today's users than in the past. For comparison, guidelines from Multnomah County, Oregon, and ARUPLO (Administrators of Rural and Urban Public Libraries of Ontario) recommend between 0.6-1.0 square foot per capita.
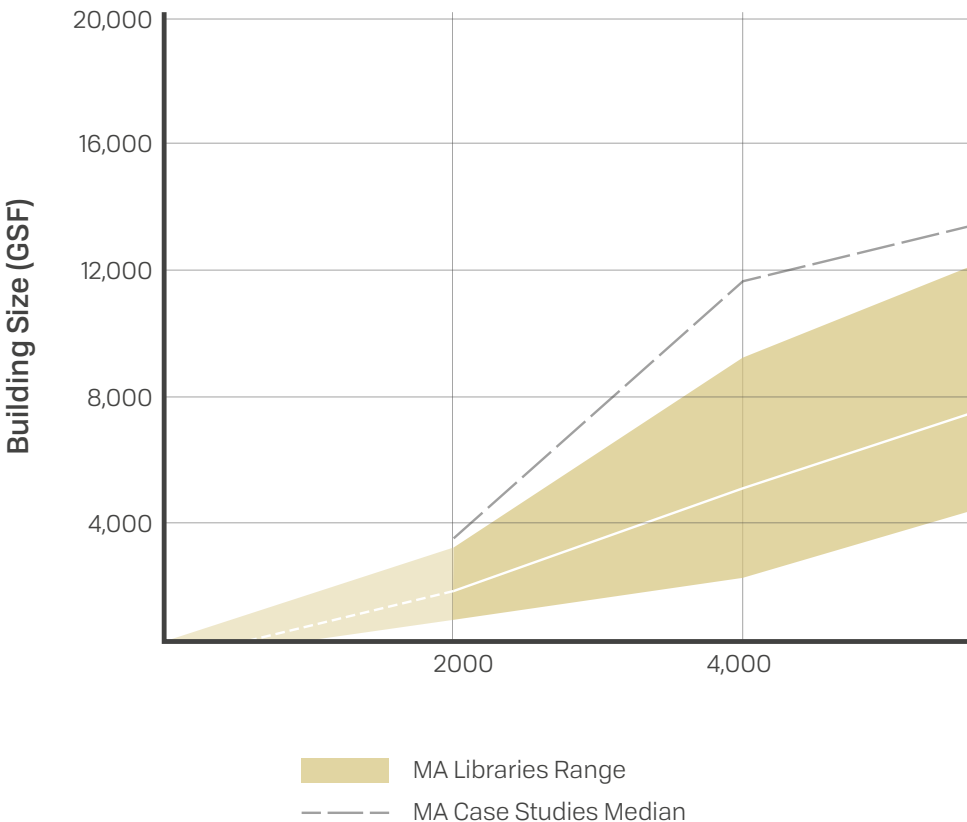
MA Libraries Range consists of approximately 180 libraries serving a population of less than 10,000 from across the state with data collected in the 2018 ARIS. MA Case Studies consists of 11 libraries newly constructed or renovated within the last 10 years

75th Percentile

Median

25th Percentile

6,000   8,000   10,000
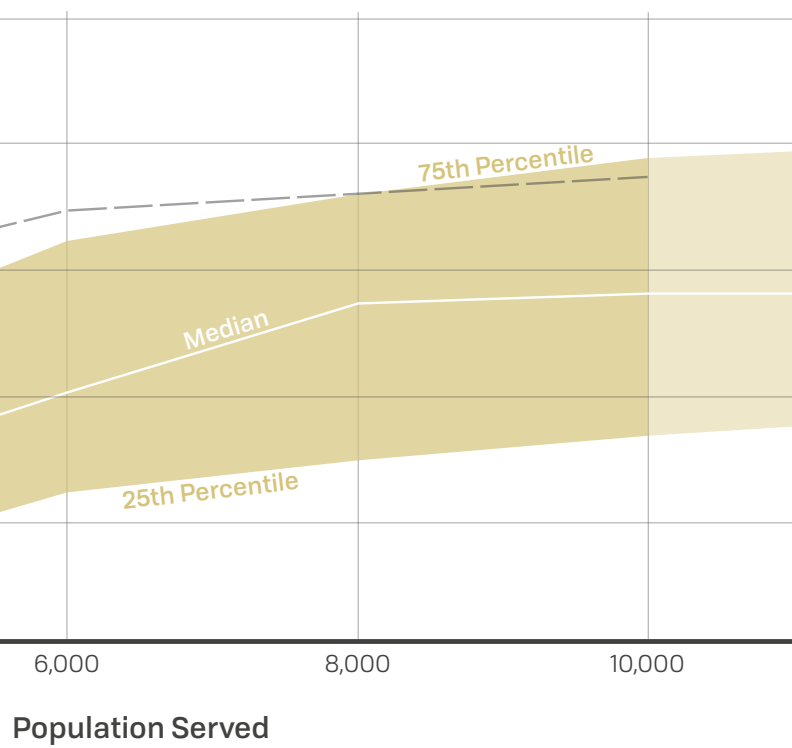
Population Served

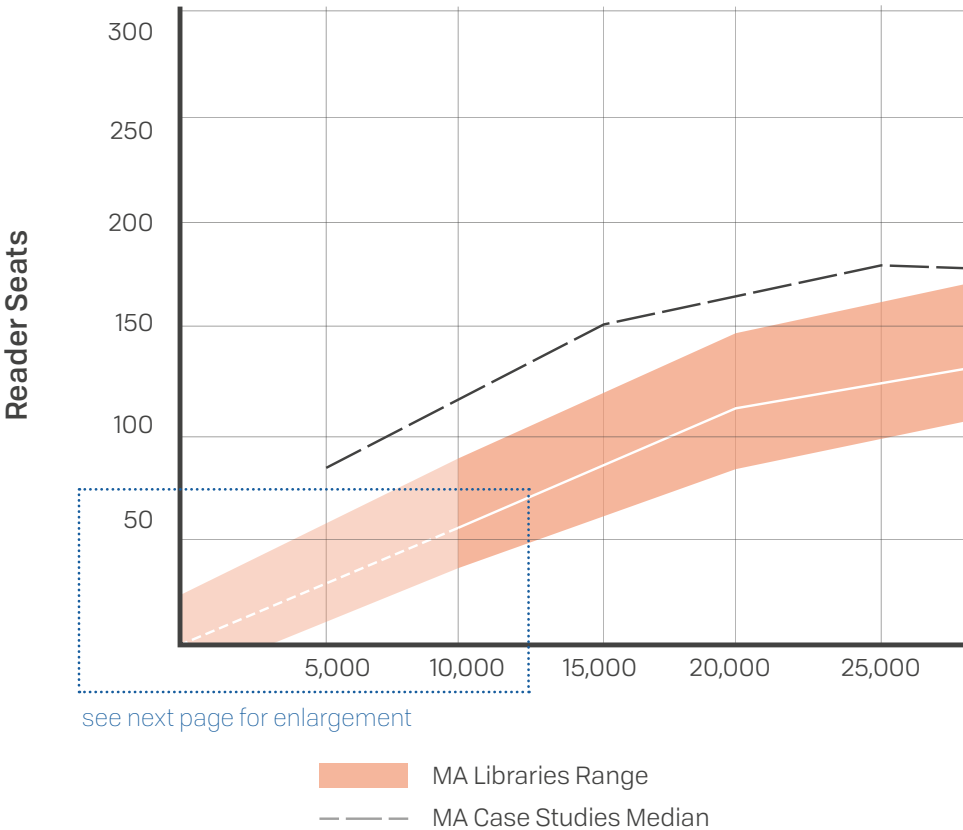# Population & Print Holdings

Why print holdings? Based on ARIS data, print holdings account for the vast majority of physical items, therefore serving as a good proxy when considering overall space need for collections.
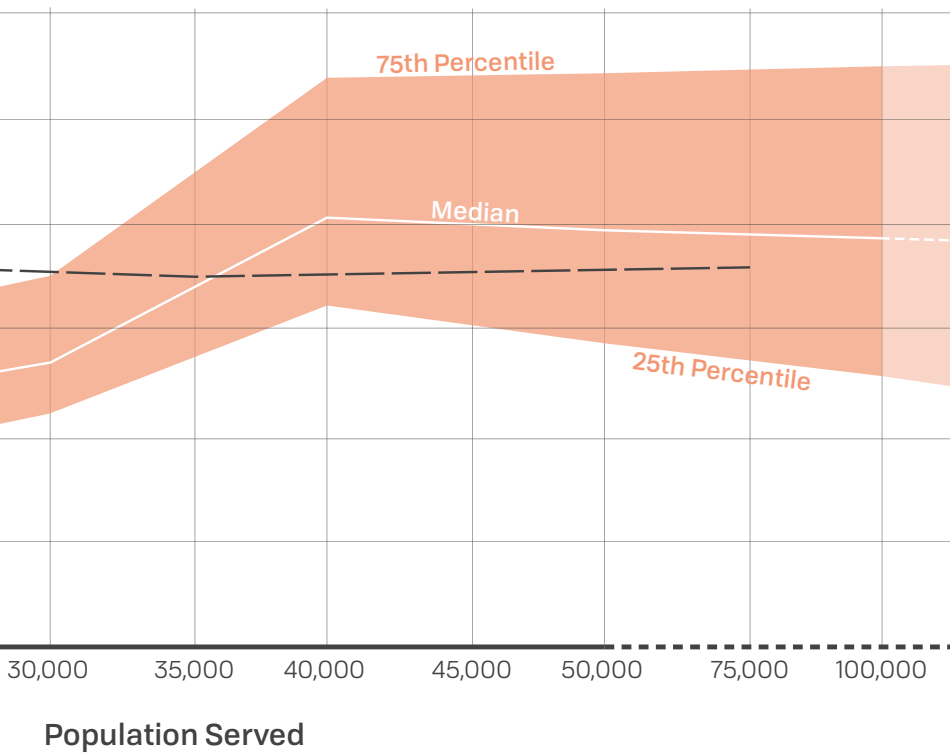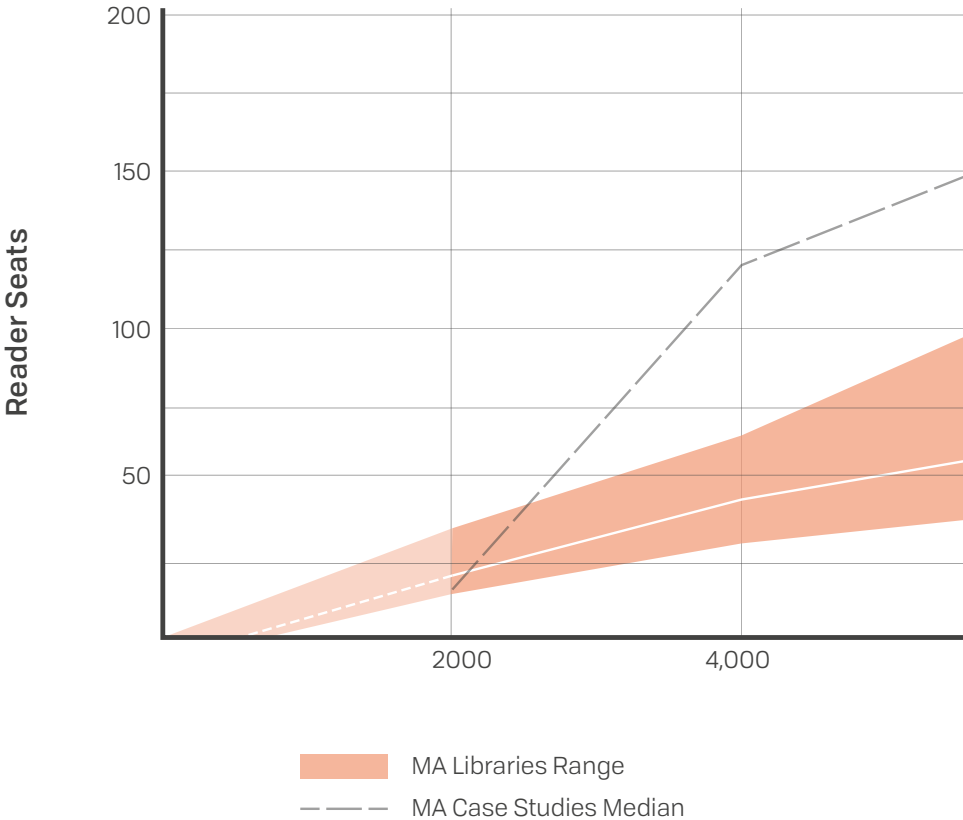

see next page for enlargement

MA Libraries Range

— — — MA Case Studies Median

MA Libraries Range includes approximately 450 library locations (369 public libraries plus branches) from across the state with data collected in the 2018 ARIS. MA Case Studies consists of approximately 40 libraries newly constructed or renovated within the last 10 years
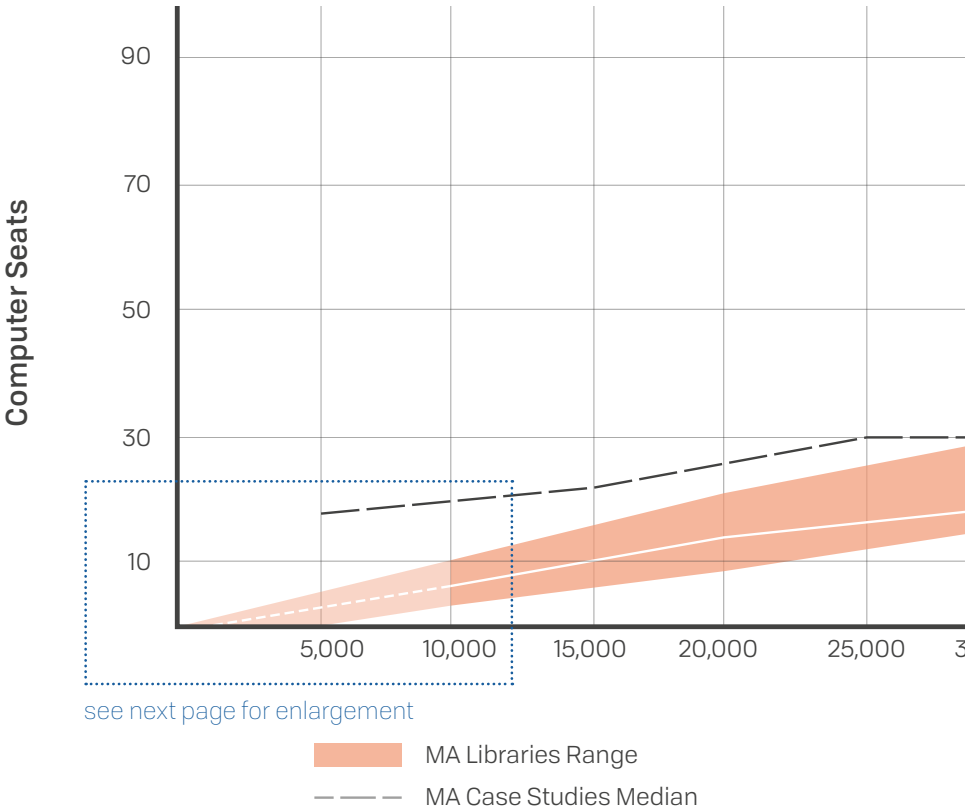
75th Percentile

Median

25th Percentile

35,000   40,000   45,000   50,000   75,000   100,000

Population Served
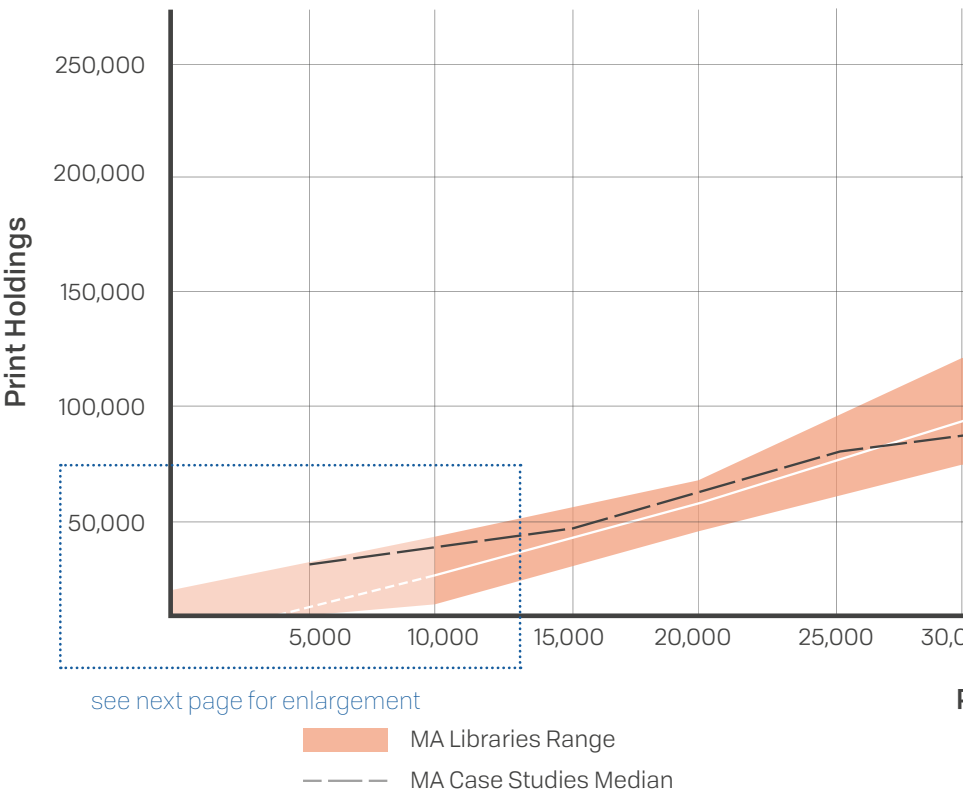
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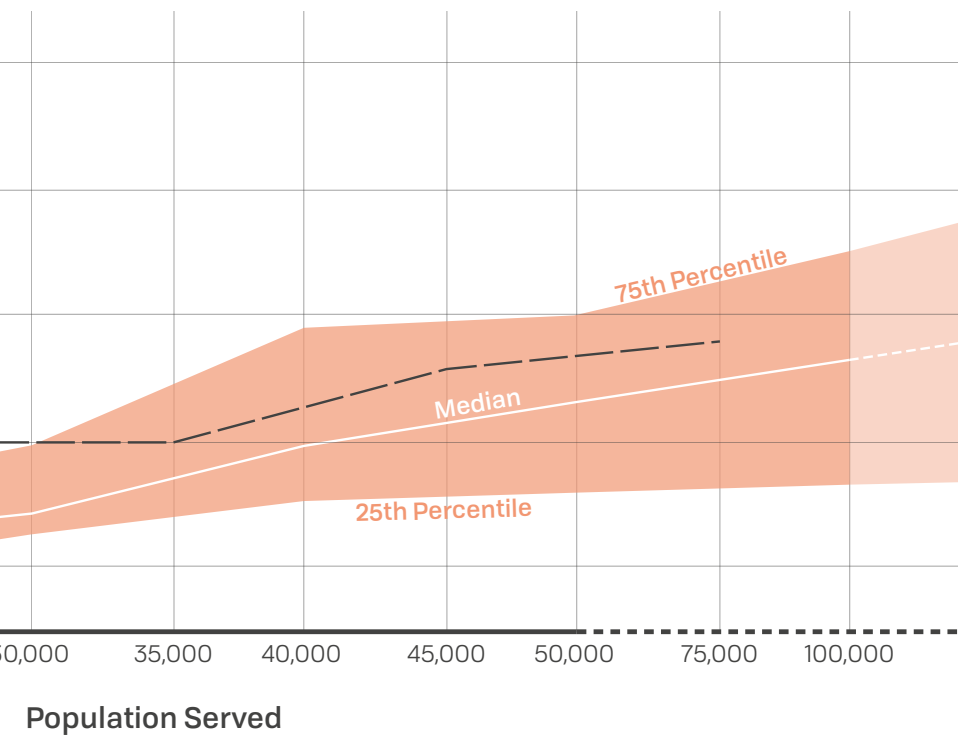
75th Percentile

Median

25th Percentile

Population Served

6,000   8,000   10,000
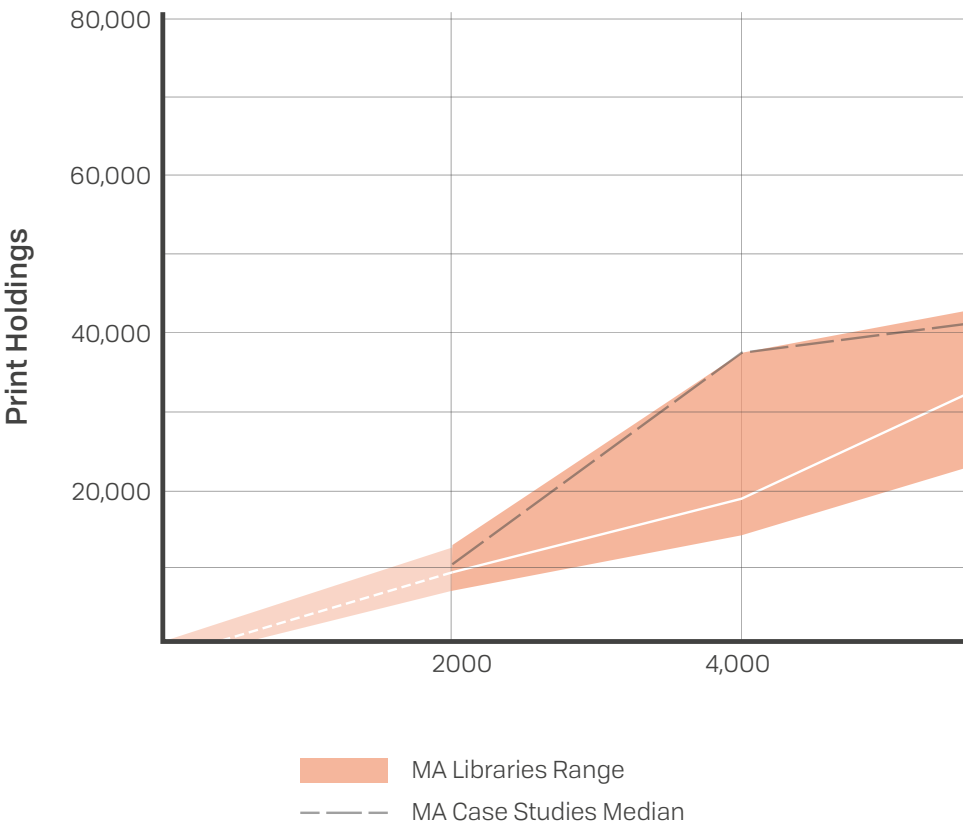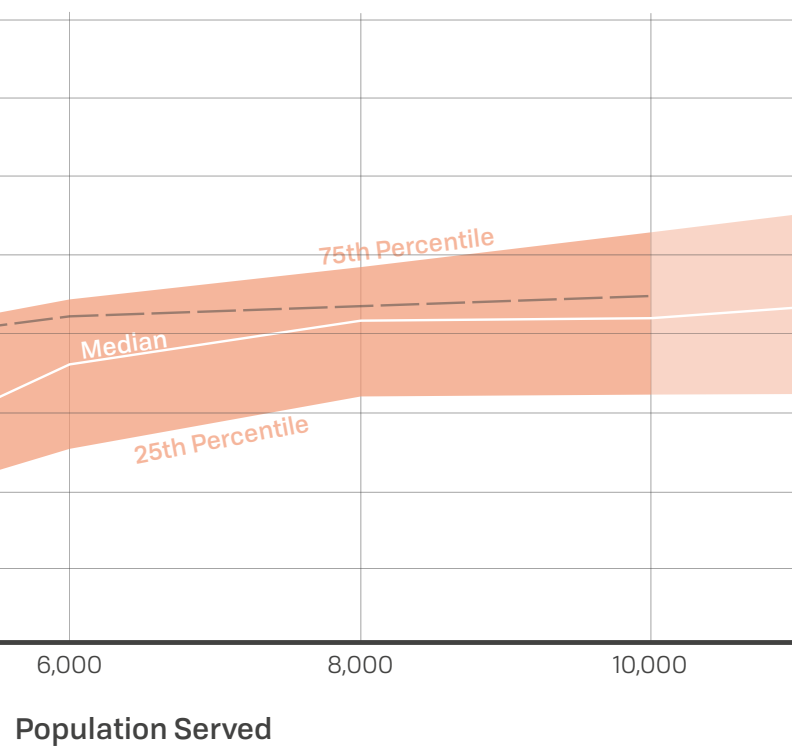
Population & Reader Seats

The ARIS data distinguishes between general purpose reader seats and computer seats (see next page),

see next page for enlargement

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Population Served

30,000 35,000 40,000 45,000 50,000 75,000 100,000

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Small Libraries

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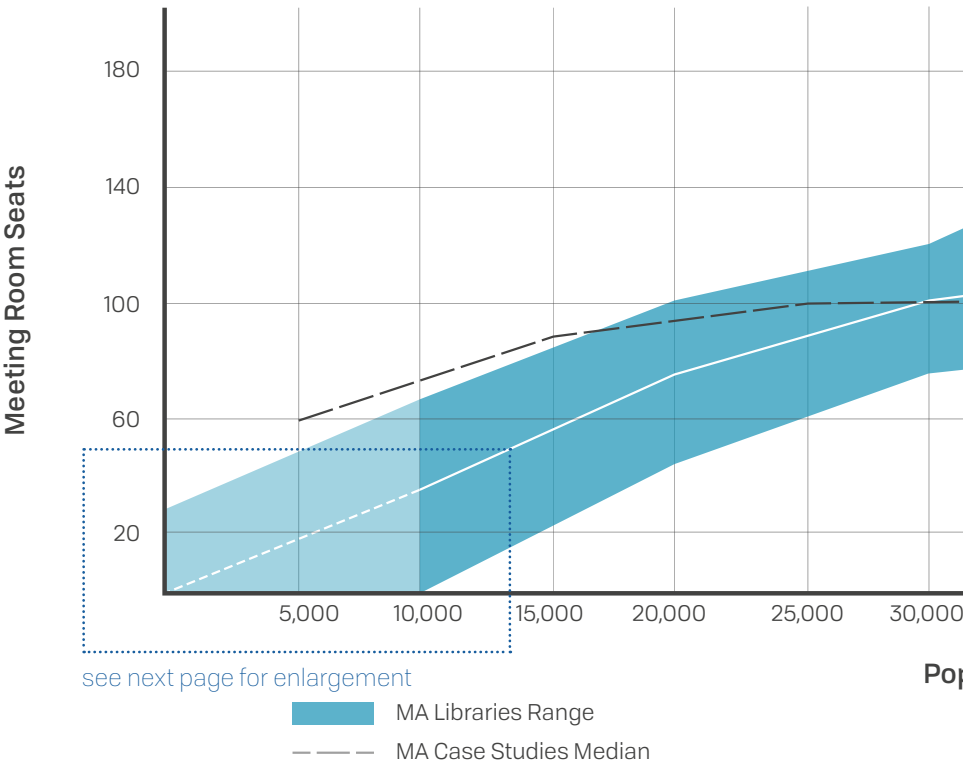

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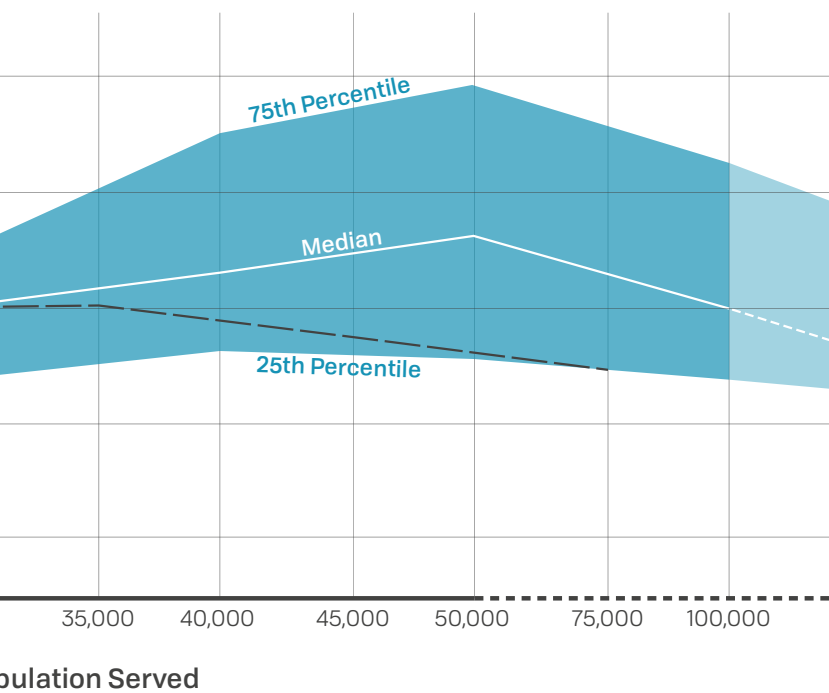
75th Percentile

Median

25th Percentile

6,000   8,000   10,000
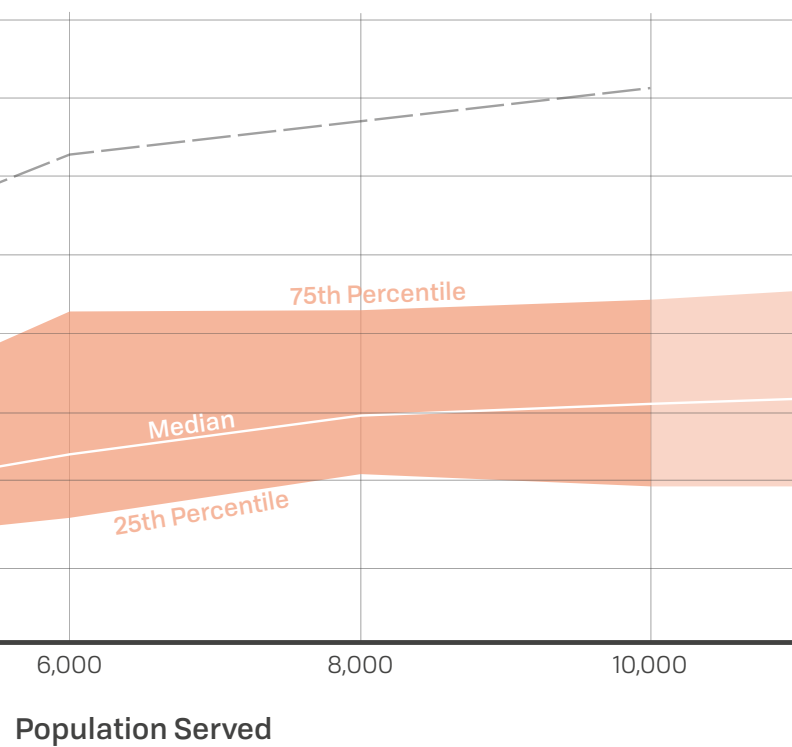
Population Served

Population & Computers

The ARIS data distinguishes between general purpose reader seats (see previous page) and computer seats.

see next page for enlargement

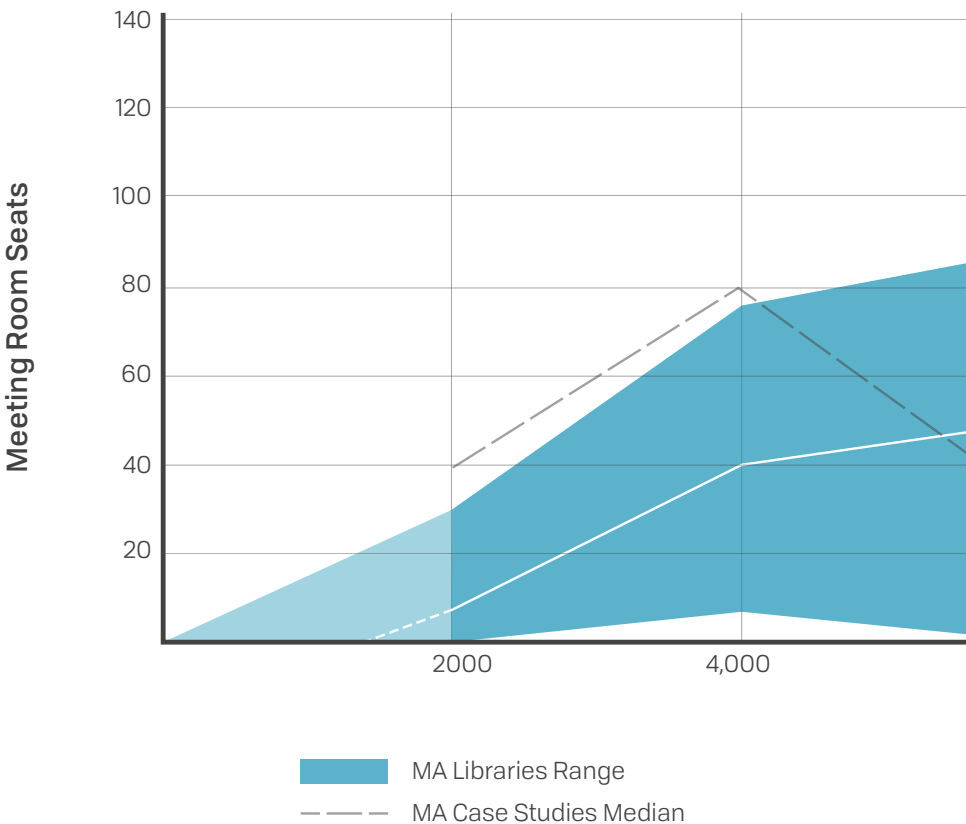MA Libraries Range

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Population & Computers
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Computer Seats

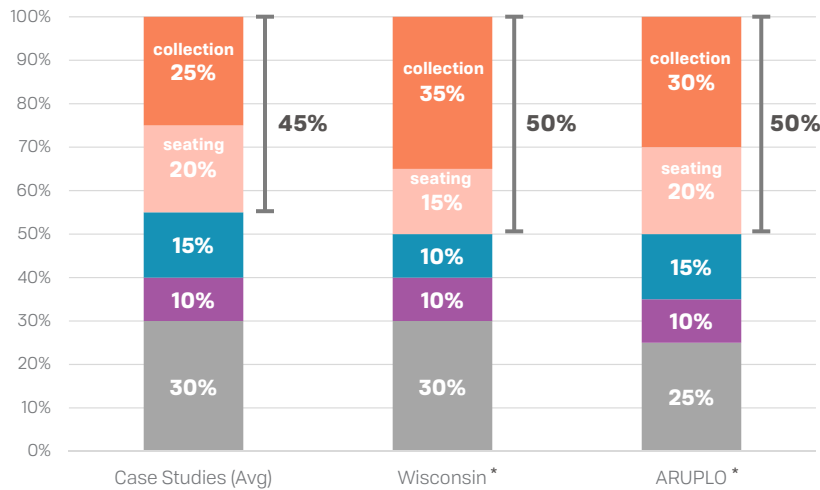MA Libraries Range
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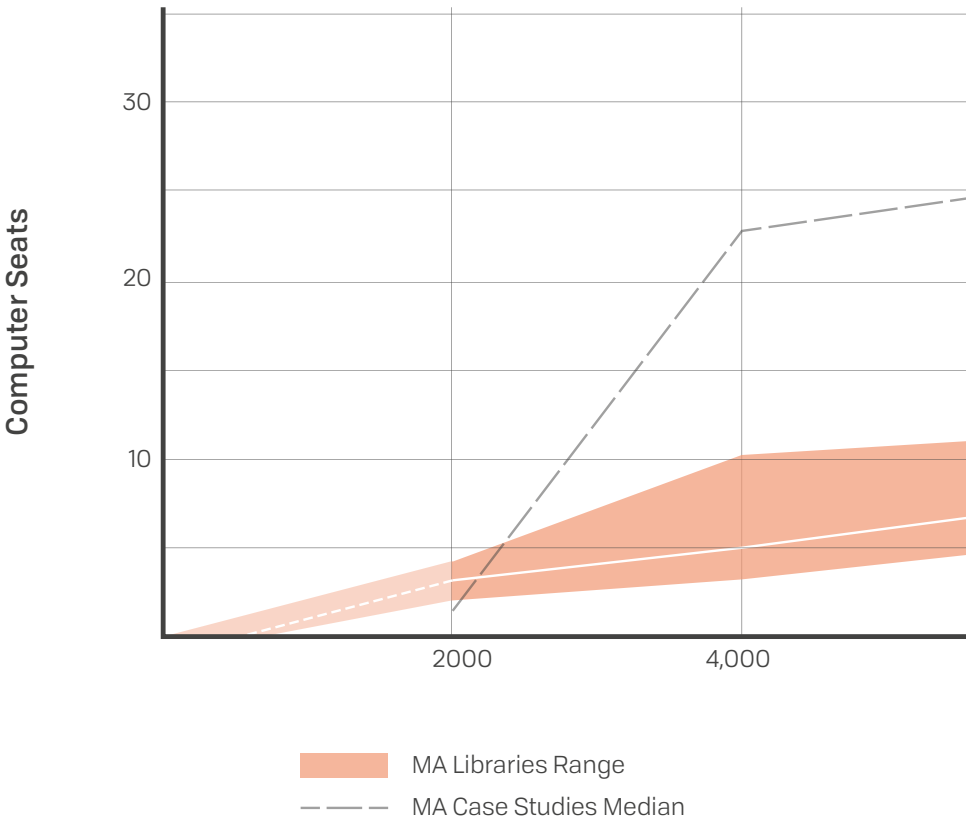
Population Served
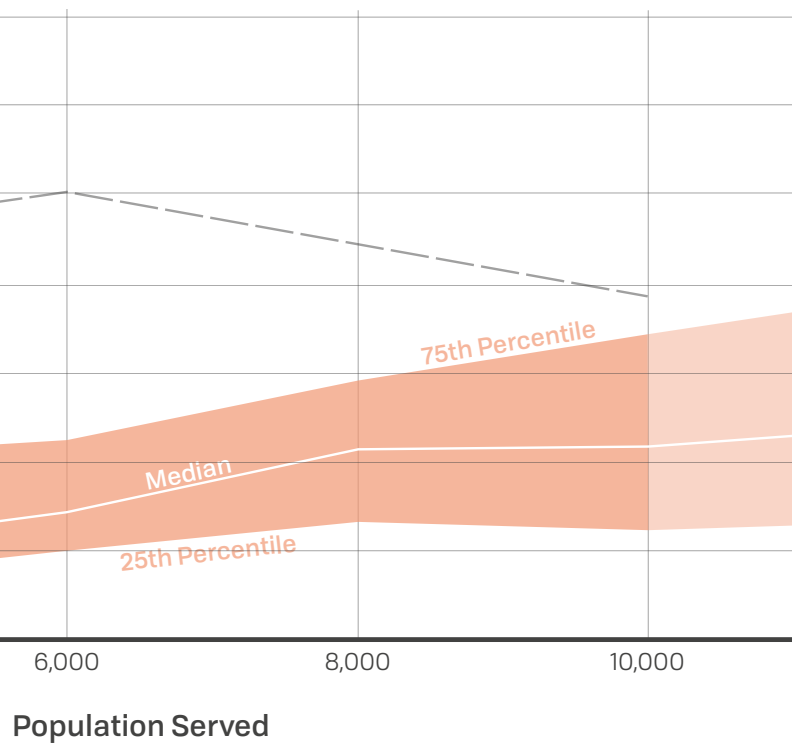
Population & Meeting Rooms

The chart below depicts the capacity of the largest meeting room in each library across the state. It does not include additional seating capacity in smaller meeting or conference rooms. While this particular metric will vary depending on the unique conditions in each community, there is a trend towards larger meeting room capacity as the population increases.

see next page for enlargement

Population

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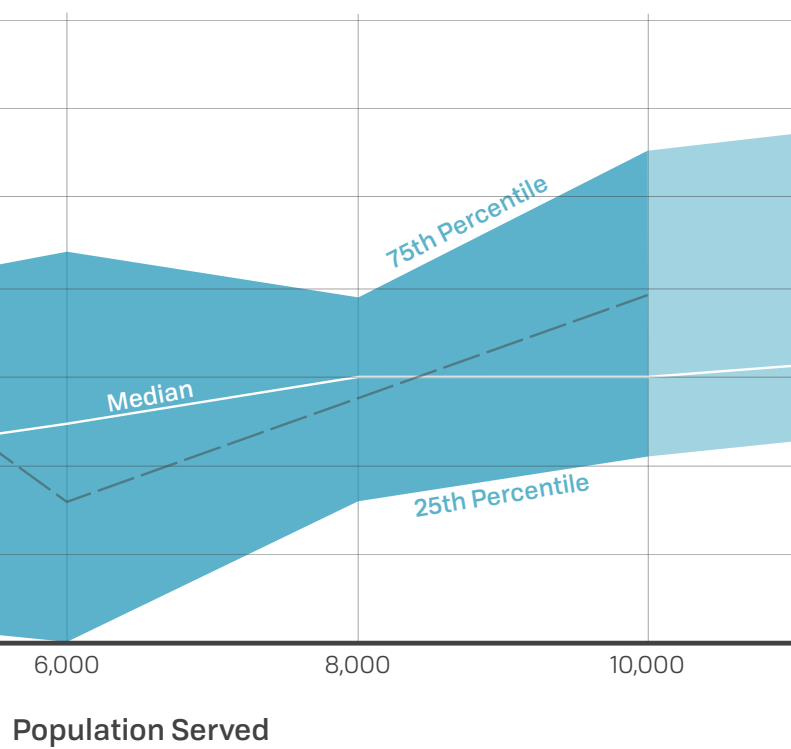
Overall Space Allocation

Another metric for consideration during early planning stages is the breakdown of library space into sub-categories. For example, when considering the Massachusetts case study libraries and other guidelines, about half of the overall library gross square footage is devoted to space for collections and reader seats. Between 25-30% of space is devoted to Non-Assignable functions, such as restrooms and mechanical spaces.

Case Study & Space Allocation Guidelines

Chart data:

Case Studies (Avg):
- collection 25%
- seating 20%
- 15%
- 10%
- 30%
- (45%)

Wisconsin *:
- collection 35%
- seating 15%
- 10%
- 10%
- 30%
- (50%)

ARUPLO *:
- collection 30%
- seating 20%
- 15%
- 10%
- 25%
- (50%)

Legend:
- collection & seating areas
- program areas
- staff areas
- support areas

One can further sub-divide collection and seating space between common user groups, as shown below. For the case study libraries in Massachusetts, about 25% of overall library gross square footage was dedicated space for adult collections and seating, followed closely by spaces for children, with dedicated teen spaces occupying a smaller footprint.

Space Allocation by User Group
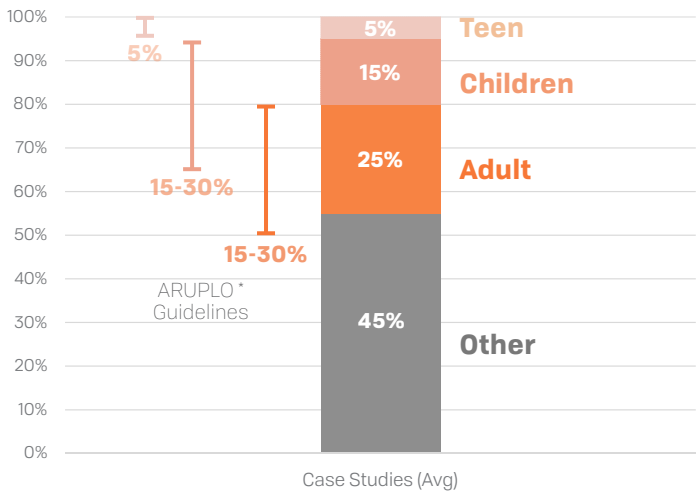
* See page 149 for links to these guideline documents

Process

This guidebook addresses the spatial building blocks of a public library and their considerations. The process of planning and building a library starts with the definition of the need which is referred to in the building industry as a **building program**. The building program is the narrative which guides the planning process forward. The **planning process** itself is comprised of a series of steps starting with initial planning, design and approvals, and construction.

The Library Building Program

A crucial early step in planning a new or renovated facility is the Library Building Program*. This is a document that serves as a guidebook or set of instructions from the library and municipal or other governing bodies to the architect. The building program is also an excellent tool that can serve as the foundation for a PR and marketing campaign for your building project.

The building program articulates the library's vision of its future and serves as a set of instructions to the architect. The architect confirms program requirements through independent investigation and then begins conceptualizing a building that answers the needs expressed. Throughout the project, the building program serves as a yardstick to determine how true the design remains to that vision.

"Done by a librarian in consultation with the library staff and the trustees, the library building program is a powerful planning document. It is the distillation of all that has been learned through community surveys, the library's planning process, the experience of the staff throughout their careers and the insights of the trustees. It defines the developing vision of what the library ought to be or might become, both in terms of public services and as a public facility." -- Patience Jackson, former MBLC Library Building Consultant

At the MBLC, we ask you to imagine that your library has been flattened by a tornado, and you have to start from scratch. What library services are needed and wanted by your community, and what facilities are required to provide these services? Library consultants with expertise in library design and space planning are available to help local professionals with gathering community input and other data, and writing the final document. The MPLCP process requires that the Library Building Program be written prior to the hiring of an architect.

* This is the only time in this guide that we use the word "program" in the architectural sense - that is, as describing and setting parameters for the spaces that make up a building.

Elements of the Library Building Program:

- A concise history of the library and the community
- Community analysis with demographics and 20-year projections
- The library's mission, values, and service roles
- Previous and current facility and organizational planning efforts, if applicable
- Description of the existing building
- Analysis of current collections and services
- Pertinent trends and statistics, including staffing and public use
- Special circumstances for your library and/or your community
- A Needs Assessment
- Area descriptions & adjacencies
- Site & exterior considerations
- Requirements for:
  - Sustainability
  - Accessibility
  - Security
  - Acoustics
  - Data & Telecommunications
  - Lighting & electrical
  - Furniture, fixtures & equipment
  - Ergonomics
  - Signage
- Photographs with descriptive captions (site, building exterior, building interior) of existing facility as well as potential new locations, if applicable

The Planning Process

Initial Planning

1. Form your planning committee

2. Hire your building consultant (if needed)

3. Complete the community and facility needs assessment, incorporating community input

4. Write the building program, synthesizing the library's strategic plan and/ or facilities plan and the facility needs assessment. Determine your space requirements, independent of site or location

5. Introduce the library's needs and building program to the community, raising awareness of a potential building project

6. Receive local approvals and funding allocations for design as needed

The Design Process

1. Assemble the design team

2. Hire the owner's project manager (OPM) – required in Massachusetts for all projects estimated to be $1.5 million or over

3. Hire the architect – this is the OPM's first task

4. Work with the architect

5. Research alternative locations and determine the building site

6. Execute engineering and geotechnical studies

7. Prepare related documents, including a completed conceptual design and an independently-prepared professional cost estimate, for local and State funding requests

8. Raise public awareness and build support

9. Keep local officials and community informed

Construction

1. Form the building committee

2. Organize a capital campaign committee

3. Receive local approvals and funding allocations for design

4. Complete the schematic design and design development phases

5. Re-estimate project costs

6. Receive local approvals and funding allocations for construction

7. Complete construction documents

8. Conduct bidding process to select the general contractor

9. Negotiate the construction contract

10. Groundbreaking
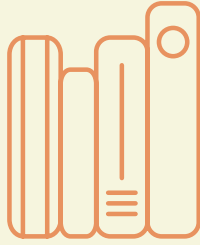
Resources

For further reading

For Further Reading

Books

Barclay, Donald and Eric Scott. The Library Renovation, Maintenance, and Construction Handbook

This book provides an overview of the planning, design, and construction processes for library staff, including an explanation of the roles of various building industry professionals, with a focus on process and design considerations rather than on providing hard-and-fast design recommendations. Includes an overview of building systems. Some of this information will vary depending on current codes, but this is a useful introduction to the technical aspects of design and construction for a nonspecialist audience. Includes discussion of library-specific spaces; security and other considerations around entrances, exits, and transitions; wayfinding and signage; and interior design. The chapter on "Green Libraries" focuses on a life-cycle approach.

Carr, Mary. The Green Library Planner
A broad and thoughtful overview of sustainable design as it relates to library design and planning, which touches on LEED and other rating systems, but does not rely exclusively

on them. The book includes technical information aimed at a nonspecialist audience, allowing readers to become conversant with technical topics such as chemical emissions from interior materials. This guide could be useful to those planning small upgrades, equipment purchases, etc. as well as those engaging in a major construction project.

Feinberg, Sandra & James R. Keller. Designing Space for Children and Teens in Libraries and Public Places
A step-by-step guide specifically about spaces for young readers. In addition to some of the practical considerations covered in other common resources, this guide has useful chapters on the design process, including the creative and community-engagement process and a chapter on how to connect the mission to the design by setting program and design goals. The chapter on "Relationships and Adjacencies" is particularly helpful. Chapters on design and "ambiance" are somewhat quirky but may spark interesting ideas.

Library Leadership & Management Association, American Library Association. Building Blocks for Planning Functional Library Space, 3rd Edition

The bulk of this book is made up of space-planning blocks with dimensions, e.g. stack configurations with aisles translated into square footages, to scale, intended for use in laying out spaces. Whole-room layouts provided for a number of specific spaces such as the Children's Storytelling/Program Room, the Restrooms, and the Break Room. While this is a very useful guide, some of the dimensional requirements listed may be superseded by current ADA and local accessibility requirements or even by LEED requirements. A sample room data sheet form is provided, and the introduction includes a brief explanation of adjacency planning, unassignable areas, and other relevant topics.

Marquez, Joe J. & Annie Downey. Library Service Design: A LITA Guide to Holistic Assessment, Insight, and Improvement

A guide to rethinking library service, in terms of user touchpoints (service desks, web sites) and in operational terms (policies, processes). The step-by-step processes in the book are intended to help a library rethink

service design on a philosophical level and make concrete changes in support of that understanding.

Sannwald, William. Checklist of Library Building Design Considerations, 6th Edition

This book is made up of a series of checklists intended to guide the planning, design, and maintenance processes for both academic and public libraries. It addresses topics that will come up during initial project planning; during the process of working with professional planners and designers; and policy-oriented topics internal to the library operations. Reading from beginning to end provides an interesting preview of the process.

Schlipf, Fred & John A. Moorman. The Practical Handbook of Library Architecture: Creating Building Spaces that Work

A compendium of information about library programming, space planning, design, and construction. There is a wealth of information in this guide about library architecture and the planning/design/building process, ranging from the preliminary to the very detailed. The guide is organized topically and can also be read in sequence. This book is

written in a casual, humorous style and strictly from the librarian's point of view; the authors hold very strong opinions about many of the topics addressed.

Schmidt, Aaron & Amanda Etches. Useful, Usable, Desirable: Applying User Experience Design to Your Library

This book uses the concept of User Experience (UX) design borrowed from the commercial world as a framework for discussing library services. It introduces the concept of the "touchpoint" which can be any interaction with the institution, from a website transaction to a building sign to a shelf in the library. All of the touchpoints taken together make up the user experience. Each chapter offers concrete ideas of improving user experience that could be applicable to a range of projects, from constructing a new building to policy changes to a simple cleaning and decluttering of an existing space.

Regional Guidelines and Master Plans*

ARUPLO (Administrators of Rural and Urban Public Libraries of Ontario) Guidelines 3rd Edition
This document provides a metrics-based set of guidelines for libraries (i.e Small, Medium, Large, and Urban, tied to specific criteria of population, net library space, hours of operation, FTE, collections, seating, # of public access computers), along with other considerations such as the relationship of libraries to other public services.

Dahlgren, Anders. Public Library Space Needs: A Planning Outline
This guide is incorporated into the Wisconsin standards and provides rules of thumb for amounts of space to assign to collection space, computer seats, reader seats, staff work space, meeting room space, special use space, nonassignable space, and the net : gross ratio.

MBLC grant criteria
For libraries in the Commonwealth, the MBLC website has guidelines and grant criteria for the Massachusetts Public Library Construction Program.

Vancouver Public Library Facilities Master Plan 2018
This document is a heavily data-oriented plan that relies on Canadian standards for SF/user and other quantitative standards and categories. It ranks existing facilities and provides a decision framework for determining whether and where to build (organized by neighborhood and site criteria). Includes an extensive bibliography.

Wisconsin Standards 6th Edition
This guide was first published in 1987 and has been updated regularly since then. It describes three "tiers of service" for both quantitative and qualitative criteria, including holdings, seats, hours, staffing, and expenditures per capita as well as governance, administration, funding, staffing, collections, programs/services, PR, access, and facility standards.

*These links are valid as of November 2020

Articles and Websites*

Inclusive Restroom Design
lj.libraryjournal.com/2018/05/
buildings/lbd/inclusive-
restroomdesign-library-design/
This brief guide discusses options for
providing facilities beyond men's and
women's bathrooms.

Model Programmer
https://modelprogrammer.slks.dk/en/
This site is a resource for stakeholders,
not an exhaustive guide to library
design, but includes inspiration and
instructions for how libraries can be
optimized for creating new spaces and
functions. It is organized by process,
general considerations (new role of
library staff, interplay with urban space,
etc), zones and spaces, and case
studies, and also provides a series of
exercise worksheets for programming.

Sustainability

**Community Resilience Design
Resources (American Institute of
Architects)**
https://www.aia.org/resources/85646-
community-resilience-
designresources:56

**Cost Control Strategies for
Zero Energy Buildings (National
Renewable Energy Laboratory)**
https://www.nrel.gov/docs/
fy14osti/62752.pdf

**Getting to Zero: Zero Energy Project
Guide (New Buildings Institute)**
https://newbuildings.org/wp-content/

uploads/2017/10/GtZ_ZEProjectGuide_
NBI.pdf

Net Zero Energy Buildings (Whole Building Design Guide)
https://www.wbdg.org/resources/net-zero-energy-buildings

Precautionary List of Building Materials (Perkins & Will Architects)
https://transparency.perkinswill.com/lists/precautionary-list

* These links are valid as of November 2020

Photo Credits

This report is a collaboration between the Massachusetts Board of Library Commissioners and Sasaki

November 2020

Mary Ann Cluggish, Chair, MBLC
James Lonergan, Director, MBLC
Lan Ying Ip, Principal, Sasaki

For more information

For more information or to download additional copies of this guide, see:
mblc.state.ma.us/libraryspace

For comments or questions on this document, please contact Lauren Stara at **lauren.stara@mass.gov**

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Carla Ceruzzi, Architect, Sasaki
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sasaki.com

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