

A Building Program for the  
Carthage Public  
Library District

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# I. INTRODUCTION

This ***Building Program*** is designed to be used by the board of trustees, librarian, and architect of the Carthage Public Library District as a guide to planning and designing a new library building that will meet the community's needs at least through the year 2050.

This ***Program*** is a revision and update of a document first completed in 2000. Since that time, the library has moved into a different building and is now facing a very different situation and set of problems.

This ***Program*** was based on:

Extensive conversations with the Carthage Public Library District board of trustees and staff.

Inspection of the library's current collections and facilities.

Planning documents prepared by the library's staff and board of trustees.

Statistical data relevant to the library's collections and use.

A very brief report on the strength of the existing structure, prepared in 1996 by Klinger Associates, Consulting Engineers, Quincy.

A report on focus group sessions conducted in 2017.

Information available on the community currently served by the library.

Information in the Illinois state standards for libraries.

The author's background and experience in public library design issues.

## II. THE COMMUNITY OF CARTHAGE

Carthage is the county seat of Hancock County, Illinois. It is located in west central Illinois, about half way between Macomb, Illinois, and Keokuk, Iowa.

Carthage is a residential and agribusiness community.

The Carthage Public Library was established in 1893 and converted to a district library in 1991. The library district is coterminous with the Carthage Elementary School District. It includes the town of Carthage plus a number of very small villages, including Burnside, Ferris, Denver, and Bentley.

At the time the library converted to a district library, the town of Carthage deeded the buildings occupied by the library to the library board. Subsequently, in 2005, the Marine Bank and Trust donated its building to the library, and the library relocated to the new building in 2006.

The library is a member of the Reaching Across Illinois Library System (RAILS). Previous systems include the Alliance Library System and the Great River Library System.

This **Program** is based on a projected district population of 4,500 in the year 2050. Because no official population projections are available for the Carthage Public Library District, the following table is based on the presumptions that:

- No new land will be annexed to the district, and that
- The rate of growth for Carthage will approximate (or not greatly exceed) the projected growth rate for Hancock County in the *Illinois Statistical Abstract*.

The *Illinois Statistical Abstract* shows a Hancock County population of 22,751 in 1990 and a projected population of 22,057 in 2020, representing a 3 percent loss over the 30 years.

The 2010 population of the Carthage Public Library District is 4,250. This is slightly below the 2000 population (4,501) and the 1990 population (4,394). However, to allow for unanticipated growth, this **Program** assumes a district population of 4,500 in 2050.

### III. THE CARTHAGE LIBRARY BUILDING

Since 2006, the library has occupied a late nineteenth century commercial building on the town square, facing the courthouse. Over the years, the building has had a number of tenants, most recently the Marine Bank. The building was donated to the library with essentially no limitations on its use. (The main limitation placed on the library was that the building could not be used as a bank before November 1, 2020, but that time has nearly expired.)

The building has two stories. Currently the library occupies the main floor of the former bank, while the upper floor is used primarily for storage. A third story that housed an “opera house” was removed in 1919 when the Marine Bank took over the building.

#### **The building has some strong points:**

- **Location on the historic court house square.** The building is located in the historic center of Carthage. Because court house squares can fade away as historic businesses close, the presence of the library on the square supports the traditional community of Carthage.
- **Corner location.** Because the building is located on a corner, it has windows not only on its somewhat narrow historic front wall, facing the courthouse, but also windows on a much longer west wall.
- **Attractive, traditional architecture.**
- **Partially reinforced second floor.** At the time it moved in, the library had part of the second floor reinforced to make it strong enough to hold books. Currently the second floor is used for program and meeting space, plus storage.
- **Updated mechanical equipment.** Since acquiring the building, the library has made a number of essential repairs, including adding drinking fountains, adding a new heat pump (2014), replacing a chimney liner (2014), replacing the hot water heater (2007), adding a new sump pump (2015), adding some insulated windows (1994), roof repairs (1997, 2010, and 2015), repairs to brickwork (2002 and 2012), upgraded lighting (2007, with the help of a Clean Energy Grant), and addition of fiber optics (2015-16).

#### **The building also has a very large number of weaknesses:**

- **Two-story structure.** For a town the size of Carthage, a single-story library is always much superior to a two-story library. Single story libraries are easier to supervise (a significant issue

because staffing represents about two-thirds of the cost of operating a public library) and they do not require elevators, which are expensive and require ongoing professional maintenance.

- **Wasp waist construction on the first floor.** The library has distinct front and back areas, complicating staff oversight and limiting flexibility of space usage.
- **Poor connections between the first and second floors.** The library has a small and inadequate elevator at the south (rear) end of the building. It lacks a necessary second staircase for access to the second floor.
- **A very large number of small, low-ceilinged rooms on the second floor.** Most or all of these will need to be removed to make the second floor suitable for library use. Whether this can be done and the ceiling raised would need to be determined by an architect or engineer.
- **Odd connection to a neighboring building on the east.** The only staircase to the second floor is by way of a staircase in a neighboring building to the east. The staircase opens directly to the front sidewalk and not to the library building. At the head of the staircase, a door opens through the wall of the library building, providing the only access to the second floor of the library. The staircase also provides access to the second floor of the building next door.

This is an extremely poor arrangement. If the library stayed in the building, it would need to close off access to the staircase and construct two new staircases to the second floor.

A shared staircase of this type represents a threat to library security. Both unwanted intrusion and fire are possibilities.

- **Insufficient number of electrical outlets.** Areas for user seating do not all have access to outlets.
- **No tornado shelter.** In new library buildings of this size, restrooms are designed to be tornado resistant. Using any other rooms as tornado shelters leads to problems with stored items making it difficult for people to crowd into the rooms. Restrooms have the advantage of not being used as storerooms.
- **Limited expansion space.** A tower housing a staircase and elevator could be built to the south of the building, but if the building is too small to provide the needed library space (or future library space) options may be very limited.
- **Unnecessary basement.** The library has a basement and crawlspace, neither of which is useful in modern library. New libraries are almost always slab-on-grade construction. Basements are mostly a source of unwanted mustiness and water, and they have little potential for useful storage.
- **Potentially awkward access to the second floor.** If the library built a new staircase and elevator at the south end of the building, people who need access to the north end of the second floor will have to walk the entire length of the building twice.

- **Inadequate restrooms.** The main floor of the library has a single unisex restroom. The second floor has additional restrooms, but they are extremely difficult to reach. It seems doubtful that the restrooms meet the requirements of the Illinois Plumbing Code.
- **Potentially extremely expensive modernization and upkeep.**
- **Access to the various levels of the building is extremely awkward.** An outside staircase leads to a crawlspace and basement under the building. Access to the second floor is also awkward.
- **Converting ancient commercial buildings to public libraries is always an iffy proposition.**
  - **The library has already spent a great deal on MEP (mechanical, electrical and plumbing) systems, and it would probably need to spend a great deal more.** In new public libraries, the MEP systems cost about 40 percent of total construction costs, so future costs may be very significant.
  - **The right number of floors for a library of the size of the Carthage library is one floor.** Second floors add a great deal of cost for staircases and elevators, and it costs more to staff two-story libraries because staff must be provided on both floors.
  - **Two-story designs may lead to undesired floor arrangements if services need to be split awkwardly between floors.** If the service desk with staff workspace plus adult services plus young adult services do not all fit on one floor, the library will not be able to meet the needs spelled out in the *Program*.
  - **Given the amount of money required to update the building, the library would have to end up with a structure that would serve for the next 50 to 100 years, ending up with a 200-year-old structure.** What is the life expectancy of the old bank building?
- **Important questions to raise include:**
  - **Whether the bank building could provide sufficient space to meet the long-term needs of the library.**
  - **What complete modernization of the bank building would cost compared to the construction of a new library building.** The library has already spent a great deal of money, but many problems and inadequacies remain.

If the building's mechanical (heating, ventilating and air conditioning), electrical and plumbing systems all require substantial upgrades or replacement, this cost alone can be at least a third of the cost of a totally new library building.



- **What the operating costs of the current building will be compared with the costs of a new library.** A new building will be less expensive to operate because it will have all new MEP equipment, require less energy (due to better insulation and modern equipment), and require fewer staff members. Since staff salaries are about 2/3 the cost of operating a public library, the final item is a significant one. Having to hire an extra full-time person just to keep an eye on a second floor is a major (and eternal) waste of money.

**Given the many serious limitations of the library's current building, constructing a new library on a new site appears to be the only practical step.**

## IV. GENERAL REQUIREMENTS FOR THE NEW LIBRARY BUILDING

This *Building Program* is based on a group of specific objectives of the board of trustees of the Carthage Public Library District. These are summarized briefly below and then discussed in more detail throughout the program.

After reviewing the local library needs, the library board has decided that the library's collection will lie between the “growing” and “established” levels described in *Serving Our Public 3.0: Standards for Illinois Public Libraries*.

The library is intended to be a focal point of the town of Carthage. It will be a building with character. It will have a feeling of warmth, friendliness, cleanliness, and reasonable quiet. It will be cozy, welcoming, and comfortable. It will provide an atmosphere that will tempt people to relax and to read.

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### Table of Planned Seating

The new library will be designed to provide space for the following public seating

	Seats at tables	Soft seating	Total
Adult services	16	10	<b>26</b>
Study rooms	8	0	<b>8</b>
Young adult services	4	6	<b>10</b>
Children's services	8	8	<b>16</b>
<b>Totals</b>	<b>36</b>	<b>24</b>	<b>60</b>

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### Table of Planned Collection Sizes

In the new library, books and other materials will be clustered into the following major groups.

#### ADULT SERVICES

Nonfiction	10,000 volumes
Fiction	14,000 volumes
Paperbound romance	1,500 volumes
Reference	<u>500</u> volumes
<b>TOTAL ADULT BOOKS:</b>	<b>26,000 volumes</b>

Note that this does not include local history and genealogy

Video recordings:	5,000 recordings
Recorded books:	1,250 recordings
Music CDs:	<u>500</u> recordings
<b>TOTAL AV:</b>	<b>6,750 recordings</b>

**PERIODICALS: 80 subscriptions**

#### YOUNG ADULT SERVICES

**Books 2,400 volumes**

#### CHILDREN'S SERVICES

J nonfiction	3,200
J fiction	3,300
J fiction paperback	850
Picture books	6,500
Board books:	<u>350</u>
<b>TOTAL CHILDREN'S BOOKS:</b>	<b>14,200 volumes</b>

Book/recording sets:	<u>250</u> recordings
<b>TOTAL AV:</b>	<b>250 recordings</b>

**PERIODICALS: 5 subscriptions**

A large portion of the library's interior will consist of a single room with spaces for services to adults, young adults, and children, including collections, seating, and computers. Adjacent special purpose spaces will include two study rooms and a green screen room.

The library's meeting room will be designed to provide space for a variety of library programs, particularly programs for children. It will seat up to 50 adults on chairs, 25 adults seated at tables, or 80 to 100 children on the floor.

Other necessary spaces include:

A service desk, providing space for all staff public services, plus space for the storage of audio-visual materials, for the library's FAX machine, and for a photocopier.

A workroom or work area for library staff.

A director's workroom

Substantial storage space.

Public restrooms.

Public bulletin boards.

Standard support spaces, including mechanical space, janitorial space, etc.

## V. SUMMARY OF SPACE NEEDS

<b>Foyer</b>		<b>unassigned space</b>
<b>Service Desk</b>		<b>550</b>
<b>AV Recordings</b>		<b>325</b>
<b>Green screen room</b>		<b>125</b>
<b>Adult services</b>		<b>3,600</b>
Seating	575	
Adult collection	2,150	
Computer workstations	225	
Genealogy and Local History area	200	
Quiet reading area	200	
Study rooms	250	
<b>Young adult services</b>		<b>550</b>
<b>Children's services</b>		<b>1,800</b>
Younger children	775	
Older children	900	
Computer workstations	125	
Family restroom	unassigned space	
<b>Meeting room</b>		<b>850</b>
<b>Staff lunch room</b>		<b>150</b>
<b>Staff workroom</b>		<b>325</b>
<b>Staff restroom</b>		<b>unassigned space</b>
<b>Director's workroom</b>		<b>175</b>
<b>Public restrooms</b>		<b>unassigned space</b>
<b>Storage</b>		<b>500</b>
<b>Custodial storage</b>		<b>unassigned space</b>

<b>Mechanical</b>	<b>unassigned space</b>
<b>Total net assigned space</b>	<b>8,950 square feet</b>
<b>Estimated unassigned space</b>	<b>1,800</b>
<b>ESTIMATED GROSS SPACE</b>	<b>10,750 square feet</b>

## VI. SPACE CONFIGURATION

This section includes basic information on the internal arrangement of library spaces and what goes next to what.

Libraries of the size of the Carthage library work best when they are wide, flat and open. An area serving adults, young adults and children should be a single open space, permitting easy supervision and user assistance by library staff and making it possible to rearrange furnishings and equipment as library needs change. For example, if it becomes obvious that the library needs less space for adults and more space for children, making the change requires only relocating shelving and seating and computers. If adult and children's services are on separate floors or in separate rooms, changes can be difficult or impossible.

In addition to providing essential flexibility, libraries that are wide and open are less expensive to operate. Functions that are in separate rooms when they could just as well be in combined spaces may require additional staff just to keep an eye on things. Functions that are on separate floors almost always require extra staff, plus the costs of elevator construction and maintenance and the cost of staircases that meet fire codes.

**Additional problems can occur with two-story libraries if areas of the library must be awkwardly divided between two floors. For example, if either the adult or children's area has to be split between two floors, the quality of library service is seriously diminished.**

Since staffing represents about two-thirds of the annual operating cost of a public library, designing spaces that are easy to supervise can save a significant amount of money.

Walls should be provided only when necessary to meet programmed needs. In the case of the public areas of the library, the only walls needed between rooms are for the vestibule, meeting room, restrooms, main library room, and study rooms. To provide security and oversight, all the walls separating the listed rooms (except the restroom walls) can make extensive use of glass.

All libraries the size of Carthage should have only a single public entrance. The entrance leads to a vestibule or foyer that provides access to the main library room, the meeting room, and the library's public restrooms. This arrangement allows the meeting room to be used when the rest of the library is closed.

Access from sidewalks and parking lots should both be through the single public entrance. Any space arrangement that leads to users wanting to enter the library from two different ends of the building is a bad arrangement.

The library service desk in the main library room faces the foyer. This permits users entering the library to get help immediately, and it allows staff at the service desk to oversee all of the public areas of the building. Book shelving is arranged so that the open ends of the aisles face the service desk, allowing staff to look down the aisles without having to leave the desk.

Off-desk staff workspace is a work counter facing the entrance to the library, so that staff doing off-desk work can simultaneously keep an eye on the library.

Services for adults and young adults are on one side of the service desk while services for children are on the other side. Young adults usually prefer to share space with adults rather than with children.

Staff workrooms function best when they have windows to the public area of the library, making it easier for users to spot staff and for staff to keep an eye on the library.

Other support spaces—including storerooms and mechanical rooms—can be placed wherever they fit.

All library floors are strong enough to support the weight of books, allowing easy rearrangement of furnishings over the years. For public libraries without compact shelving or large collections of microfiche, the minimum live load rating is 150 pounds per square foot.

Electrical outlets are provided everywhere, including in book storage areas, enabling the library to convert spaces from book storage to other purposes in years to come without having to install new outlets. Since most new public libraries are constructed on concrete slabs, retrofitting additional outlets is extremely expensive.

The description above fits hundreds of extremely functional small public libraries in the US.



## VII. LIBRARY AREAS

### VII-A. Foyer unassigned space

The library will have only one entrance open to the public. All other entrances required to meeting building codes or for staff convenience will be equipped with panic hardware and alarms.

*Primary activities:*

1. The foyer will connect the public entrance to the library to the main library room, the meeting room, and the rest rooms.
2. The foyer will serve as an “airlock,” preventing winter winds from freezing the staff.

*Placement:*

1. Connecting the front entrance, the meeting room, the restrooms, and the main library room.

*Features and equipment:*

1. Provision for foot wiping, using an inset system with carpeted bars.
2. Drinking fountain accessible to disabled users.
3. Space for donor plaques and for a plaque listing persons involved in the construction project.
4. Sheltered area, including a bench, directly outside the entrance so users can stand outside the library when the building is locked without getting wet in the rain.
5. Floor of glazed ceramic tile with anti-slip grit and dark grout.
6. Two bulletin boards, each about four feet high and eight feet wide. One will be used to announce community events, and the other library events.
7. Electronic “people counter” to keep track of the number of people who enter the library. (Annual reports to the Illinois State Library require this information.)

## VII-B. Service desk 550 square feet

The service desk is the functional focal point of the library. It is centrally placed and always staffed. Patrons register for library cards here, and they borrow and return books and other library materials here. The staff provide reference service here. Books requested on reserve or interlibrary loan are held here until users pick them up. Audio and video recordings are stored here and made available to users on request. Staff telephones are located here. The space behind the desk includes a worktable for library staff, who will use it for a variety of tasks that can be carried out while watching the service desk for patrons.

The citizens of Carthage hold the current adult services circulation desk in great affection. It is important that a prominent role be found for it in the new library.

### *Primary functions:*

1. **Supervision of the entire library.** The central placement of service desk will make it possible for the person stationed there to watch over the adult services and children's services areas, the entrance to the library, and the doors to the meeting room and restrooms. Computer workstations will be close to the desk to allow easy supervision and assistance by the staff. The glass walls to the study rooms and meeting room will all be visible from the desk. Wherever possible, book shelving units will be oriented so that a staff member at the service desk can see down the aisles, but diagonal shelving is inappropriate and radial shelving disastrous.
2. **Greeting patrons as they arrive.**
3. **Registering new borrowers and renewing cards.**
4. **Lending and receiving books, magazines, audio recordings, DVDs, and other materials selected by users and brought to the desk for checkout.**
5. **Sorting returned items onto book carts prior to reshelving.**
6. **Holding books and other items for patrons.**
7. **Receiving interlibrary loan requests and holding items received until users can pick them up.**
8. **Collecting late fees and other charges.**
9. **Providing general patron assistance with the use of the library.**
10. **Maintaining user registration files.**
11. **Preparing overdue notices.**

12. **Handling renewals.**
13. **Answering the telephone.**
14. **Answering reference questions.**
15. **Storage of supplies in daily use.**
16. **Storage of CDs for audio books, plus DVDs.**
17. **Provision of FAX service.**
18. **Provision of copier service.**

*Placement:*

1. **In a central location suitable to broad supervision.**
2. **Near the computer work stations.**
3. **In a position to allow direct oversight of the foyer, restroom and meeting room entrances, and glass walls to the study room and meeting room.**
4. **In a location that allows space for staff to do back room work at the desk while supervising the library and helping users as needed.**

*Features and equipment:*

1. **The service desk.** The desk will include (or be designed to include at a future time):
  - a. **Space for up to two multi-function computer workstations** (including space for lasers and associated control boxes). These will be used both for circulation and for catalog access.
  - b. **Generous counter space for receiving and checking out books, etc.**
  - c. **A cash drawer.**
  - d. **Drawers for patron registration cards.**
  - e. **Two telephones, one of them cordless, and wiring for a third.** The library will at the outset be equipped with two incoming voice lines, and with an answering machine.
  - f. **A TDD.**

- g. **A book return bin with a slot at the front of the desk and an extra-large depressible book truck.** The bin will be in a section of the desk 40 inches high. Users accessing the slot will not get in the way of users checking material out.
  - h. **Sections at both standing height for service to adults (40 inches) and 30 inches high for service to users with disabilities.** The 30-inch section(s) will have knee room front and rear, separated by a modesty panel only.
  - i. **A system of adjustable pigeonholes for transmission flags, etc.**
  - j. **One secretarial-style chair.**
  - k. **Separate wire-management troughs (raceways) for 110 volt and low-voltage wiring, with knockouts for access at frequent intervals along the top of the desk.**
  - l. **Shelves to hold miscellaneous card files and held books.**
  - m. **A small desktop rack for pamphlets on the library and its services.**
  - n. **A printer for date-due slips.**
  - o. **Because service desk tops are subject to extraordinary wear and tear, the top of the service desk will be made of an extremely durable resilient material, such solid-core laminate or Corian.** It will not be made of wood or of laminate with a printed surface. It will not be covered with sheets of plastic or glass, which tend to slide around in use and create unpleasant reflections. It will be of a medium hue, neither white nor black, both of which cause eye strain.
  - p. **The desk will be modular and not fastened to the floor.**
  - q. **There will not be a matching soffit above the desk.**
2. **Floor space for two shelving carts for returned books.**
3. **The equivalent of six and one half double-faced 84-inch shelving units behind the desk, for storing the following:**
- a. **5,000 DVDs in circulating boxes** on the equivalent of five double-faced 84" shelving units (assuming 55 recordings per shelf and ten shelves vertically). Library users will bring empty display boxes to the desk, where the staff will swap them for the boxes containing the actual DVDs.
  - b. **CDs for 1,250 audio books** on the equivalent of one double-faced unit. Each side of each of these units will be equipped with ten shelves vertically rather than the customary seven. (Assuming 75 recordings per shelf and seven shelves vertically.)
  - c. **High-theft books,** on the equivalent of one-half of one double-faced unit.

4. **Necessary electrical and communications outlets and conduits.** It must be possible to provide electrical, telephone, and data connections to the desk without the use of wire mold on the floor, even if the desk is relocated at a future time.
5. **A FAX machine.** Staff send faxes for users as requested. The FAX machine will located on top of the service desk and will require a separate telephone line.
6. **A photocopier/printer.** A public photocopier/printer will be adjacent to the service desk. It will serve both as a general photocopier and a printer for public computer workstations. A dedicated electrical circuit will be provided for the copier/printer.
7. **Queuing space for up to 10 users.**
8. **Task lighting will not be provided for the service desk.** Lighting throughout the library will be of task quality. (See the separate section on lighting.)
9. **There will be *no soffit* above the service desk.**

*Calculation of space required:*

1.	Service desk.....	160
2.	6½ shelving units @ 23.5 sf.....	152
3.	Space for two book carts .....	20
4.	Photocopier/printer .....	65
5.	Typewriter for public use.....	25
6.	Queuing space .....	<u>80</u>
	Subtotal.....	502
	Circulation space.....	<u>48</u>
	<b>Total.....</b>	<b>550 square feet</b>

# VII-C. Audio and video recordings

## 325 square feet

***Primary functions:***

1. Shelving for audio and video recordings for use by all age groups.
2. Audio recordings intended exclusively for use by children will be in the children’s services area.

***Placement:***

- 1 Adjacent to the service desk.

***Features and equipment:***

1. Storage for 5,000 DVDs on seven 84” shelving units (assuming 50 recordings per shelf and seven shelves vertically.) The cases on the shelves will be empty. Users will bring the cases to the service desk and exchange them for cases containing the actual DVDs.
2. Storage for 500 music CDs on one half of one 84” shelving units (assuming 75 recordings per shelf and eight shelves vertically).
3. Storage for empty cases for 1,250 recorded books on CDs on 4½ 84” shelving units (assuming 20 books per shelf and seven shelves vertically). The actual discs will be stored at the service desk.

***Estimate of space required:***

1.	DVDs: 7 units @ 23.5 sf .....	164
2.	CDs: ½ unit .....	12
3.	Recorded books: 4½ units @ 23.5 sf.....	<u>106</u>
	Subtotal.....	282
	Circulation space.....	<u>43</u>
	<b>Total.....</b>	<b>325 square feet</b>

## VII-D. Green screen room 125 square feet

*Primary functions:*

1. A space designed for green screen production work.

*Placement:*

1. Near the service desk, to allow staff to assist users with equipment.

*Features and equipment:*

1. Green screen equipment, as selected by the library.

## VII-E. Adult Services 3,600 square feet

Adult services will contain books and other materials, an AV selection area, seating for readers, computer workstations (OPACs, CD-ROM readers, and microcomputers), assistive technology, a quiet reading area, and a study room.

Young adult materials and seating will be located near adult services.

An open layout is extremely important, both to allow maximum flexibility of use and to make it possible for a single staff member, standing or seated behind the service desk, to monitor both the adult services and children's services areas of the library.

It is extremely important that this space be as flexible as possible. It will be possible to move all furnishings—including shelving, seating, and computer workstations—without having to relocate lighting, replace carpeting, add electrical receptacles, or install new data conduit.

### *Primary functions:*

1. **Shelving for all adult materials except audio and video recordings**, arranged for easy public access.
2. **Space for readers.**
3. **Space for public computer work stations.**
4. **Special work and study spaces, including:**
  - **A genealogy and local history area.**
  - **A quiet reading area.**
  - **Two study rooms.**
5. **Space for displays.**

### *Placement in the building:*

1. **Adult services will be located adjacent to the service desk.**



***Features and equipment:***

1. **Excellent indirect lighting**, suitable for the entire range of library activities and sufficiently flexible to allow easy repositioning of reader seating, shelving, and the service desk is absolutely essential. Bright, evenly-distributed, glare-free, shadowless, task-level lighting will be provided throughout all public areas of the main floor. Technical requirements of lighting for the Carthage Public Library District are discussed in detail under "general requirements."
2. **Sufficient acoustical control** to allow people to read quietly while others are transacting business, and to allow young adults and adults to occupy the same room happily.
3. **Electrical outlets and data conduit throughout.** See "general requirements."
4. **An absolute minimum ceiling height of ten feet throughout.**
5. **No unnecessary permanent partitions or other inflexible features.**
6. **All electrical outlets in all public areas of the library will be tamper resistant (child proof).** This is particularly important in adult services areas, where parents sometimes give their children car keys to play with while the parents are using the library.

VII-E-1. Adult seating 575 square feet

*Primary functions:*

- a. Space for readers.
- b. Display area.

*Placement:*

- a. Seating should be interspersed between shelving to provide separate reading areas.
- b. Ideally, seating will be provided along north windows, which provide the best reading light.

*Features and equipment:*

- a. **Two 4-person reading tables.** Tables will be without aprons (side skirts) or cross bars. Tables will have central electrical outlets for use with laptops.
- b. **Eight armchairs in pairs of two, each pair separated by a small end table with a bolted-on lamp.** Each lamp base will have a minimum of two electrical outlets for laptop use.

*Calculation of space required:*

1.	2 reading tables @ 100 sf.....	200
2.	8 easy chairs with 4 end tables @ 40 sf.....	<u>320</u>
	Subtotal.....	520
	Circulation space.....	<u>55</u>
	<b>Total.....</b>	<b>575 square feet</b>

## VII-E-2. Adult collections 2,150 square feet

This area includes shelving for adult books, current and back issues of adult magazines, and newspapers.

### *Primary functions:*

- a. Shelving for the following materials
  - i. Hardbound books.
  - ii. Paperbound books.
  - iii. New books.
  - iv. Current issues of magazines.
  - v. Back issues of magazines in pamphlet files.
  - vi. Current issues of newspapers.
  - vii. Large print books.
- b. Racks for pamphlets and tax forms.

### *Placement:*

- a. On one side of the service desk.
- b. Adjacent to adult services seating.

### *Features and equipment:*

- a. **Shelving for 10,000 non-fiction books** on the equivalent of 32 double-faced 84-inch units. All shelves will be 36 inches long, which is virtually a national standard for libraries. This shelving will hold adult fiction, adult nonfiction, and adult large print books. (Assuming storage densities of 26 books per shelf and six shelves vertically.)
- b. **Shelving for 14,000 fiction books** on the equivalent of 39 double-faced 84-inch units (assuming 26 books per shelf and seven shelves vertically). This area will include all large print books and all paperback books except for romance novels.

- c. **Shelving for 1,500 paperback romance books** on the equivalent of three double-faced 84-inch shelving units. (Assuming storage density of 35 books per shelf and nine shelves vertically.)
- d. **Shelving for 500 reference books** on the equivalent of three double-faced 60-inch shelving units (assuming 20 books per shelf and four shelves vertically). Accessibility requirements limit the height of shelving for referenced books to five feet.
- e. **Shelving for 80 current magazines and newspapers** (both adult and young adult magazines) on standard tilt shelving, with space to display the current issue on a slanted shelf and space to store recent issues below it. Assuming four magazines per shelf and five shelves vertically, 70 subscriptions should require 2 double-faced units. Accessibility requirements limit the height of shelving for current magazines to five feet.
- f. **One OPAC** will be located on a small accessible table at the end of a stack aisle. The table must be at accessible height with 27 inch leg clearance.
- g. **The following minimum specifications will obtain for all public shelving in the library, with the exception of display units and specified children's book shelving:**
  - i. **All shelving will be standard cantilever steel shelving designed for library purposes.**
  - ii. **Shelves will be a minimum of 9" (nominal 10") deep, with bases of at least 2 feet.**
  - iii. **Aisles will be a minimum of 42" wide between shelving units.**
  - iv. **No aisle will extend more than 21 feet (7 3-foot units), and shorter aisles are preferable.**
  - v. **No shelving aisles will have dead ends.**
  - vi. **All shelving will be installed on top of carpet for maximum flexibility, and freestanding units will be engineered not to require floor anchors.**
  - vii. **All steel shelving will have end panels. Highly visible end panels will be made of slat wall to permit displays of books, flyers, etc.**
- h. **New book display unit.**

*Estimate of required space:*

1.	Nonfiction: 32 units @ 23.5 sf .....	752
2.	Fiction: 39 units @ 23.5 sf .....	916
3.	Paperbound: 3 units @ 23.5 sf .....	70
4.	Reference: 3 units @ 23.5 sf .....	70
5.	Magazines and newspapers: 2 units @ 23.5 sf.....	47
6.	New book display .....	65
7.	OPAC .....	<u>20</u>
	Subtotal.....	1,940
	Circulation space.....	<u>210</u>
	<b>Total.....</b>	<b>2,150 square feet</b>

VII-E-3. Adult computer workstations 225 square feet

*Primary functions:*

- a. Space for up to eight computer workstations.

*Placement:*

- a. Close to the service desk, and within sight of staff at the desk.

*Features and equipment:*

- a. Space for eight separate computer workstations. Stations will be on individual accessible tables.
- b. A system printer for all public computer workstations will be located at the service desk.

*Estimate of required space:*

1.	Eight computer workstations @ 25 sf.....	200
	Circulation space.....	<u>25</u>
	<b>Total.....</b>	<b>225 square feet</b>

VII-E-4. Genealogy and local history area  
 200 square feet

*Primary functions:*

- a. A space to house the library’s local history and genealogy materials..
- b. Space for microforms and readers.
- c. Associated study space.

*Placement:*

- a. Within direct line of sight of the service desk, for supervision.

*Features and equipment:*

- a. Existing antique book cupboard.
- b. The equivalent of one double-faced 84-inch shelving unit.
- c. One 5-drawer filing cabinet.
- d. Microfilm reader/scanner. The reader/scanner will print to the printer at the service desk.
- e. One microfilm cabinet.

*Calculation of space required:*

1.	Antique book cupboard.....	50
2.	One shelving unit.....	24
3.	One filing cabinet.....	50
4.	Reader/scanner .....	35
5.	Microfilm cabinet.....	<u>20</u>
	Subtotal.....	179
	Circulation space.....	<u>21</u>
	<b>Total.....</b>	<b>200 square feet</b>

VII-E-5. Adult quiet reading area 200 square feet

*Primary functions:*

- a. Space for users who wish to read apart from the noise of a busy library.

*Placement:*

- a. In an area as acoustically isolated as possible.

*Features and equipment:*

- a. A reading table with four chairs.
- b. Two armchairs separated by an end table with a lamp. The base of the lamp will have electrical sockets for laptops.

*Estimate of required space:*

1.	Reading table .....	100
2.	2 armchairs with end table.....	<u>80</u>
	Subtotal.....	180
	Circulation space.....	<u>20</u>
	<b>Total.....</b>	<b>200 square feet</b>



## VII-E-6. Study Rooms 250 square feet

The adult services area will have two study rooms located conveniently for use by both adults and young adults.

Each study room will include a four-person table.

*Primary functions:*

- a. Quiet study.
- b. Small group work or study sessions.
- c. Tutoring.
- d. Small committee meetings of local organizations.

*Placement:*

- a. **Ideally, adjacent to the adult services area.** However, given the sound isolation provided by the room, almost any location in the main library room will be workable.

*Features and equipment:*

- a. Each study room will have a 3x5 foot table with four chairs.
- b. **Glass walls separating the room from the main reading area.** Basically, the study rooms will be like terrariums—glass boxes that contain sound but do not provide visual privacy. *This is important. Architects have tended to design study rooms that are claustrophobic and too private.*
- c. Electrical receptacles and data conduit.
- d. To control noise, the walls of both study room walls will continue past the drop ceiling to the bottom of the roof above.
- e. Separately ducted air supplies and returns, plus individual thermostats, for each study room.
- f. Conduit for a “crib monitor” roughed in, in case supervision becomes a problem.

*Estimate of required space:*

- 1. 2 study rooms @ 125 square feet..... 250 square feet

## Summary of Adult Services spaces

A.	Seating.....	575
B.	Collections .....	2,150
C.	Computer workstations.....	225
D.	Genealogy and local history .....	200
E.	Quiet reading area.....	200
F.	Study rooms.....	<u>250</u>
	<b>TOTAL .....</b>	<b>3,600 square feet</b>

## VII-F. Young Adult Services 550 square feet

### *Primary functions:*

1. Service primarily to students in about 6th through 10th grades.

### *Placement:*

1. In general, young adults seem to prefer to be off by themselves, but especially not intermingled with children's services. Many adults make heavy use of young adult books.
2. Adjacent to adult services.
3. As far as convenient from children's services.

### *Features and equipment:*

1. **Shelving for 2,400 books** on the equivalent of six double-faced 84-inch shelving units (assuming 28 book per shelf and seven shelves vertically). Wherever suitable, shelving end panels will be made of slat wall to permit extensive face-out display of materials. This will require not only extra space for items on display but also extra space for users stopping to look at these items.
2. **Seating on six soft seats.** At least some of the seats will have swinging tablet arms with use with laptop computers. (Strong tablet arms are essential. Some library furniture companies make tables with arms that will hold about 300 pounds.)
3. **Seating at one four-person reading table.** The table will have 27 inches of leg clearance on all four sides, which means it will have no aprons and no beams connecting its legs. It will have an electrical outlet with four sockets in the center of the top.
4. **Pinnable walls.**
5. **New book display unit.**
6. **All electrical outlets in all public areas of the library will be tamper resistant (child proof).**

*Estimate of required space:*

1.	6 shelving units @ 23.5 sf.....	141
2.	6 soft seats @ 35 sf.....	210
3.	Reading table .....	100
4.	New book display .....	<u>50</u>
	Subtotal.....	501
	Circulation space.....	<u>49</u>
	<b>Total.....</b>	<b>550 square feet</b>

## VII-G. Children's Services 1,800 square feet

The children's services area houses the library's collection of books for readers through about sixth grade, including both standard-sized books and large numbers of flat, oversized books for very young readers. The department will provide reader seating at tables and armchairs, and in window seats if the library design permits.

Children's services will be located at the opposite side of the library from adult and young adult services, with the service desk between the two areas.

It will have a visually stimulating décor, designed to attract the interest of the children who use it. Possibilities include murals, a ceiling designed to support hanging displays, etc.

The area will be designed to prevent unnecessary transmittal of sound to the adult services area.

The children's area will be designed to feel open and airy, as opposed to the crowded feeling in the current library.

This *Program* assumes that adult and children's services will be located in the same wide-open area.

All electrical outlets in all public areas of the library will be tamper resistant (child proof).

VII-G-1 Services for younger children 775 square feet

Space for children ages pre-K through second grade, with seating for caregivers.

VII-G-1-a. Seating for younger children 275 square feet

*Primary functions:*

- i. Space for young children and their parents.

*Placement:*

- i. Adjacent to collection for younger children.

*Features and equipment:*

- i. **One toddler-sized table** with four chairs.
- ii. **Floor space for very young children.** A wide variety of rugs is available that can be inset into carpeting.
- iii. **Two compact love seats for use by adults reading to children and parents accompanying their young children.**

*Estimate of space required:*

1.	Toddler-sized table .....	40
2.	Floor space for very young children .....	80
3.	2 love seats @ 60 sf.....	<u>120</u>
	Subtotal.....	240
	Circulation space .....	<u>35</u>
	<b>Total.....</b>	<b>275 square feet</b>

VII-G-1-b. Collections for younger children 500 square feet

*Primary functions:*

- i. Shelving for the following materials:
  - Picture books
  - Board books.
  - New books for younger children.

*Placement:*

- i.. In children’s services, grouped with appropriately sized reader seating.

*Features and equipment:*

- i. Storage for **6,500 picture books** on eighteen 48” high shelving units with three shelves vertically and 60 books per shelf.
- ii. Storage for **350 board books in eight plastic tubs**, stored on the equivalent of one double-faced 48” shelving unit (assuming 2 tubs per shelf and 2 shelves vertically).
- iii. Storage for **CD book sets in hang bags** on one double-sided 48” shelving unit with two hanging rods on each side rather than shelves.

*Calculation of space required:*

1.	Picture books: 18 units @ 23.5 sf.....	423
2.	Board books: 1 shelving unit.....	24
3.	Cassette/CD book sets: 1 shelving unit .....	<u>24</u>
	Subtotal.....	471
	Circulation space .....	<u>29</u>
	<b>Total.....</b>	<b>500 square feet</b>

*Summary of spaces for younger children:*

Seating .....	275
Collections .....	<u>500</u>
<b>Total .....</b>	<b>775 square feet</b>

VII-G-2. Services for older children 900 square feet

Services for older children will be for children in grades three through six

VII-G-2-a. Seating for older children 375 square feet

- i. One adult-sized reading table with four chairs.
- ii. Six soft-seating units, of a design to be selected.

*Calculation of space required:*

1.	Table .....	100
2.	6 soft seating units @ 40 sf .....	<u>240</u>
	Subtotal.....	340
	Circulation space.....	<u>35</u>
	<b>Total.....</b>	<b>375 square feet</b>



VII-G-2-b. Collections for older children 525 square feet

*Functions:*

- i. Shelving for the following materials:

- J fiction and nonfiction books.**
- New J books.**
- New J magazines.**
- Back issues of J magazines.**

*Placement:*

- i. In children’s services, grouped with seating for older children.

*Features and equipment:*

- i. **Shelving for 3,300 J fiction books** on the equivalent of 11 double-faced 60” units (assuming 30 books per shelf and five shelves vertically.)
- ii. **For approximately 3,200 J nonfiction books** on the equivalent of 8 double-faced 60” units (assuming 50 books per shelf and four shelves vertically.)
- iii. **Shelving for 850 j paperback books** on the equivalent of one double-faced 60” unit (assuming 70 books per shelf and five shelves vertically).
- iv. **New book display.**
- v. **Wherever suitable, shelving end panels will be made of slat wall to permit extensive face-out display of materials.** This will require not only extra space for items on display but also extra space for users stopping to look at these items.

*Estimate of required space:*

1.	Fiction: 11 units @ 23.5 sf .....	258
2.	Non-fiction: 8 units @ 23.5 sf.....	188
3.	Paperbacks: 1 unit.....	24
5.	New book display .....	<u>25</u>
	Subtotal.....	495
	Circulation space.....	<u>30</u>
	<b>Total.....</b>	<b>525 square feet</b>

*Summary of spaces for older children:*

Seating .....	375
Collections .....	<u>525</u>
<b>Total</b> .....	<b>900 square feet</b>

### VII-G-3. Children’s computer workstations

125 square feet

*Primary functions:*

- 1. Three I pad workstations from grant.

*Placement:*

- 1. Close to the service desk.

*Features and equipment:*

- 1. Three computer tables, each about two feet square, similar to old fashioned carrels.
- 2. OPAC on small accessible table.

*Calculation of space required:*

1.	3 computer workstations @ 30 sf.....	90
2.	OPAC.....	<u>20</u>
	Subtotal.....	110
	Circulation space .....	<u>15</u>
	<b>Total.....</b>	<b>125 square feet</b>

## VII-G-4      Family restroom                      unassigned space

### *Placement:*

1.      Adjacent to the foyer, so that all public restrooms will be accessible to people using the meeting room after the library is closed.
2.      The door to the family restroom should be visible from the service desk.

### *Features and equipment:*

1.      The family restroom will meet all state and federal (ADA) standards for full accessibility, as well as the Illinois Plumbing Code.
2.      The family restroom will be a single user restroom designed particularly for use by parents assisting children.
3.      The restroom will be well lighted and ventilated, with acoustic treatment suitable to prevent restroom noises from disturbing people outside.
4.      The restroom will be designed for the easiest possible maintenance. It will have:
  - A floor drain.
  - Wall-mounted fixtures.
  - Vandal-resistant surfaces.
  - Glazed ceramic floor tile with an anti-slip grit surface and dark grout.
  - A flush valve rather than tank toilet.
  - An electric hand dryer roughed in.
5.      The restroom will have a shelf (on which users can place books, packages, purses, etc.) and a large mirror above the counter with the wash basin.
6.      The restroom will have a fold-down baby-changing table with a diaper bucket.
7.      There will be a wall-mounted fold down seat with a strap, to hold infants while their parents are using the restroom.

- 8. **There will be a minimum of two strong hooks on the wall of the restroom.** Hooks will be made of brass or steel rather than zinc, which tends to break.
- 9. **Soap dispensers tend to clog and corrode in use.** The restroom soap dispenser will be a disposable dispenser mounted on the wall or on the mirror.
- 10. **If the restroom lights are activated by a motion sensor, the sensor will turn the lights on as soon as users open the restroom door, not forcing people to grope their way into a dark room.**

## Summary of Children's Services Spaces

Younger children .....	775
Older children .....	900
Computer workstations .....	125
Family restroom.....	<u>unassigned space</u>
<b>Total</b> .....	<b>1,800 square feet</b>

## VII-H. Meeting room 850 square feet

The meeting room is intended to serve a variety of functions. It will be used for library programs, particularly children's programs, and it will also be available for general community use.

The meeting room will be accessible from the foyer to allow it to be used when the rest of the library is closed.

### *Primary functions:*

1. **Room for library-sponsored programs.**
2. **Space for public school students to study in groups when programs are not taking place.**
3. **Room for board meetings, and for staff meetings too large for the staff workroom or one of the study rooms.**
4. **Space for meetings of community groups.**
5. **Space for up to 50 adults seated at chairs.** This amount of space should be sufficient for about 90 to 100 children seated on the floor, or about 25 people seated at tables.

### *Placement:*

1. **The door from the meeting room will lead to the foyer.**
2. **If possible, a second door will lead to children's services area of the main library room.**

### *Features and equipment:*

1. **The wall between the hall and the meeting room will be glazed** in order to allow maximum potential for staff oversight.
3. **If there are outside windows, they will all have light control equipment to allow darkening the room for AV presentations.**
4. **A kitchenette providing space for an apartment-sized (not under-counter) refrigerator, a sink, and a counter.** The sink will have a gooseneck spigot high enough to allow medium-sized coffee urns to be filled. The kitchenette will have a minimum of five separate 20 amp electrical circuits to enable a number of microwaves, Dutch ovens, coffee makers, etc., to be used being locked.

5. **Storage closets**
  - a. **A storage closet for furniture, including tables and chairs.** The architect will make sure that all of the stacking chairs and rolling tables will fit into the storeroom. The storeroom will have double doors to the meeting room.
  - b. **A separate, locking storage closet for AV equipment.**
7. **Coat hooks or pegs for about 60 coats, at staggered heights, with a shelf above them for miscellaneous objects and to protect people from bumping into the pegs.** The pegs will be strong enough to support book bags.
8. **Data conduit and receptacles around the walls and inset in its floor, to meet the standards of the library's public service space and staff workrooms.**
9. **Furnishings:**
  - a. **50 stacking chairs for adults.**
  - b. **10 tables on castors, with tops that flip up for storage. Each table will be about 2.5 by 6 feet.**
10. **Good sound insulation between the meeting room and the rest of the library.**
11. **An acoustic ceiling, to prevent unpleasant reverberation during group events.**
12. **A white board made of enameled steel to prevent its being damaged by incorrect marking pens.**
13. **A motor-driven projection screen with a locking switch.** The white board and screen will be placed for simultaneous use, and not block each other.
14. **Enough space at the front of the meeting room for a lectern or portable puppet stage.**
15. **Carpeted floor.**
16. **A ceiling between 10 and 12 feet high, to prevent the room from seeming oppressive and to permit proper indirect lighting.**
17. **Particular attention will be paid to conduit to the front of the room, so that the library can add a satellite downlink, cable TV feed, or teleconferencing without installing additional conduit.**
18. **Fluorescent or LED uplighting.**
19. **All electrical outlets in all public areas of the library will be tamper resistant (child proof).**

***Calculation of space required:***

1.	50 adults @ 12 sf .....	600
2.	Performer space .....	50
3.	Coat storage .....	40
4.	Kitchenette.....	20
5.	Furniture storage closet.....	70
6.	Storage for AV equipment .....	<u>50</u>
	Subtotal.....	830
	Circulation space.....	<u>20</u>
	<b>Total.....</b>	<b>850 square feet</b>



## VII-I. Staff lunch room 150 square feet

### *Primary functions:*

1. Lunchroom for library staff.
2. Place for staff to rest out of public view.

### *Placement:*

1. Near staff work areas.
2. Not visible from public areas of the library.

### *Features and equipment:*

1. **Kitchenette, including:**
  - a. **Space for an apartment-sized (not under-counter) refrigerator, a sink, and a counter.** The sink will have a gooseneck spigot high enough to allow medium-sized coffee urns to be filled.
  - b. **The kitchenette will have a minimum of five separate 20 amp electrical circuits** to enable a number of microwaves, Dutch ovens, coffee makers, etc., to be used simultaneously.

Stoves are a problem in library kitchenettes, for outside groups sooner or later make horrible messes or even start fires. If the library needs a stove, it should be in the staff lunch room rather than in a room available to the general public.

2. **Table with four chairs.**
3. **Small sofa.**
4. **Bulletin board** for legal notices, staff memos, and staff photos.

*Calculation of space required:*

1.	Kitchenette.....	30
2.	Table with 4 chairs.....	70
3.	Sofa .....	<u>45</u>
	Subtotal.....	145
	Circulation space.....	<u>5</u>
	<b>Total.....</b>	<b>150 square feet</b>

## VII-J. Staff workroom 325 square feet

### *Primary functions:*

1. **Desk or counter space for individual staff members.**
2. **Place for projects too messy or long-term for the service deskwork areas.**
3. **Unpacking shipments of books and other new materials.**
4. **Processing of books and other new materials, and repairing older books.**
5. **Keeping an eye on the service desk**, so that staff at work can see users who need help and get up to assist them.

### *Placement:*

1. **Directly behind the service desk**, either open to the back of the desk or in a separate room with large glass windows facing the back of the desk.

### *Features and equipment:*

1. **Three desks, each with a chair, computer L, and space for a telephone.**
2. **Counter for equipment**, including work space, paper cutter, laminator, disc cleaner, etc., with filing cabinet drawers and supply drawers beneath.
3. **Four single-sided 84-inch shelving units**, wall-mounted.
4. **Shared printer/copier.**
5. **Two bulletin boards** for legal notices and staff memos.
6. **Drive up service window where users can pick up held books.** The window should be visible to staff at the service desk and the staff workroom.

***Calculation of space required:***

1.	Three desks with computer workstations @ 60 sf .....	180
2.	Equipment counter.....	60
3.	4 single-faced shelving units @ 10 sf.....	40
4.	Printer/copier.....	<u>20</u>
	Subtotal.....	300
	Circulation space .....	<u>25</u>
	<b>Total.....</b>	<b>325 square feet</b>

## VII-K. Staff restroom unassigned space

### *Placement:*

1. Adjacent to the staff work area.
2. Not accessible directly from the staff lunch room.

### *Features and equipment:*

1. The staff restroom will meet all state and federal (ADA) standards for full accessibility, as well as the Illinois Plumbing Code.
2. The staff restroom will be a single user restroom.
3. The restroom will be well lighted and ventilated, with acoustic treatment suitable to prevent restroom noises from disturbing people outside.
4. The restroom will be designed for the easiest possible maintenance. It will have:
  - A floor drain.
  - Wall-mounted fixtures.
  - Washable surfaces.
  - Glazed ceramic floor tile with an anti-slip grit surface and dark grout.
  - A flush valve rather than tank toilet.
5. The restroom will have a shelf and a large mirror above the wash basin.
6. There will be a minimum of two strong hooks on the wall of the restroom. Hooks will be made of brass or steel rather than zinc, which tends to break.
7. Soap dispensers tend to clog and corrode in use. The restroom soap dispenser will be a disposable dispenser mounted on the wall or on the mirror.
8. If the restroom lights are activated by a motion sensor, the sensor will turn the lights on as soon as users open the restroom door, not forcing people to grope their way into a dark room.

# VII-L. Director’s workroom 175 square feet

The director's workroom will provide work and storage space for the director.

*Primary functions:*

- 1. Director's workspace.
- 2. Place for private conversations.

*Placement:*

- 1. Close to the staff workroom, with connecting door.
- 2. Close to the service desk area.
- 3. Positioned for maximum sight supervision of adjacent areas of the library.

*Features and equipment:*

- 1. Desk with chair and computer L or separate computer table.
- 2. Two visitors’ chairs.
- 3. Six four-drawer filing cabinets, at least one legal sized.

**Calculation of space required**

1.	Desk with chair and computer.....	70
2.	2 chairs for visitors @ 12 sf .....	24
3.	6 filing cabinets @ 10 sf.....	<u>60</u>
	Subtotal.....	154
	Circulation space.....	<u>21</u>
	<b>Total.....</b>	<b>175 square feet</b>

## VII-M. Public restrooms unassigned space

### *Placement:*

1. **Adjacent to the foyer, so that the restrooms will be accessible to people using the meeting room after the library is closed.**
2. **The doors to the restrooms should be visible from the service desk.**
3. **The rooms will be laid out in such a way that people standing outside the restrooms cannot see anyone using the restrooms.**

### *Features and equipment:*

1. **Both restrooms must meet all state and federal (ADA) standards for full accessibility, as well as the Illinois Plumbing Code.**
2. **Restrooms will not be single-person rooms.** User privacy will be provided by stalls rather than by locking entry doors.
3. **Non-handicapped-accessible toilet stalls will be generously proportioned.** Door swing will clear the front of the toilet by a minimum of eighteen inches.
4. **Restrooms will be well lighted and ventilated, with acoustic treatment suitable to prevent restroom noises from disturbing people outside.**
5. **Restrooms will be designed for the easiest possible maintenance. They will have:**
  - Floor drains.**
  - Wall-mounted fixtures.**
  - Vandal-resistant surfaces, particularly in stalls.**
  - Glazed ceramic floor tile with an anti-slip grit surface and dark grout.**
  - Wall-mounted toilets.**
  - Flush valve rather than tank toilets.**
  - Electric hand dryers roughed in.**

6. **Both restrooms will have shelves (on which users can place books, packages, purses, etc.) and large mirrors above the counters with wash basins.**
7. **Both restrooms will have fold-down baby-changing tables with diaper buckets.**
8. **Handicapped stalls will have fold down seats with straps, to hold infants while their parents are using the restrooms.**
9. **Entry doors will be designed to prevent any view from outside the Restrooms of people using the Restrooms.**
10. **A minimum of two stalls in the women's room and one stall and a urinal in the men's room, or more as required by the Illinois Plumbing Code.**
11. **Each stall door will have a minimum of two strong hooks on the inside.** Hooks will be made of brass or steel rather than zinc, which tends to break.
12. **Soap dispensers tend to clog and corrode in use.** Restroom soap dispensers will be disposable dispensers mounted on walls on or mirrors.
13. **Sinks will be strong enough to bear the weight of a 300-pound person.** (Many libraries have had sinks broken off walls by users standing on them in order to hide things in suspended ceilings.)
14. **Restrooms will be tornado resistant** to serve as storm shelters.
15. **If restroom lights are activated by motion sensors, the sensors will turn the lights on as soon as users open the restroom doors, not forcing people to grope their way into dark rooms.**



## VII-N. Library storeroom(s)

### Minimum of 500 square feet

All libraries require storage space for supplies, for children's program materials, supplies, etc. Almost every library has staff and board members who desperately wish their building had more storage space. The temptation to cut storage space for fiscal reasons is strong, but the result of cutting storage to the minimum can be a building that is hard to occupy, or that forces quick and draconian decisions on gift books, children's programming materials, etc.

#### *Primary functions:*

1. **Storage of library miscellany**, including supplies not kept at the service desk and staff workroom, items received but not processed, equipment used only occasionally, children's program materials, etc.
2. **Storage of decorations and display units when they are not in use for exhibits.**
3. **Storage of general maintenance materials not kept in the mechanical room.**
4. **Storage of gift books pending decisions on disposition.**
5. **Storage of supplies not kept in the staff workroom, including copier paper, etc.**
6. **Storage of library records in filing cabinets.** If a single storeroom is provided, these will be in locked filing cabinets.

#### *Placement:*

1. **In one or more locations where they can be squeezed in, preferably convenient for the staff.**

#### *Features and equipment:*

1. **The equivalent of 8 units of standard double-faced shelving.** Storerooms are a good place to use obsolete shelving.
2. **Floor space for display units, etc.**
3. **Space for up to eight locking, five-drawer, legal-sized filing cabinets for library records and for children's program supplies and equipment.**
4. **Space for two storage cabinets for children's program supplies.**

**5. Map case for posters and other items that need to be stored flat.**

**Calculation of space required**

1.	8 double-faced shelving units @ 20 sf.....	160
2.	8 filing cabinets @ 10 sf.....	80
3.	Two storage cabinets @ 20 sf.....	40
4.	Map case for posters.....	50
5.	Floor space for storage .....	<u>170</u>
	<b>Total.....</b>	<b>500 square feet</b>

## VII-O. Custodial space unassignable space

### Space for custodial equipment, including:

1. **Mop sink**
2. **Ladder storage.** The architect will make sure that necessary ladders can be stored somewhere in the building.
3. **Locking tool board.**
4. **Shelving** for paint, cleaning supplies, toilet paper, paper towels, garbage bags, etc.
5. **Floor space for cleaning cart**
6. **Floor space for vacuum cleaner and carpet shampooer.**
7. **Telephone jack.**

## VII-P. Mechanical space(s) unassigned space

Mechanical space will be necessary to house HVAC equipment, a water heater, electrical switching gear, telephone gear, exterior maintenance equipment, and cleaning equipment and supplies.

Depending on the needs of the building design, mechanical space can be provided in one or two rooms.

The library plans to hire outside contractors to mow lawns and remove snow, so it will not need space designed to house gasoline-powered equipment.

### *Primary functions:*

1. **Housing the indoor machinery associated with the library's heating, ventilating and air conditioning system.**
2. **Housing the library's power panels and telephone gear.**
3. **Storage of equipment for exterior maintenance of the library.**
4. **Housing for the library's water heater.**

### *Placement:*

1. **As determined by design needs.** With the possible exception of HVAC equipment, all mechanical spaces should be on the main level of the library.

### *Features and equipment:*

1. **HVAC equipment.**
2. **Electrical and telephone switching gear.**
3. **Water heater.**
4. **One telephone jack in each major mechanical room.**

## VII-Q. Exterior details

Required exterior features include:

1. **Adequate off-street parking.** The number of spaces needed will depend on local requirements, but a first guess is that the parking lot will have at least as many square feet as the library building.
2. **Parking and sidewalks will be laid out to be compatible with a single entrance to the library.**
3. **Shelter over the library's public entrance,** so that users can stand outside in the rain without being soaked.
4. **External electrical outlets on all sides of the building.** Outlets will be connected to circuits separate from inside circuits so that the outlets can be shut off when not in use.
5. **External water outlets on all sides of the building.** As with the external electrical outlets, they will be designed so they can be turned off from inside the building.
6. **Lighted flag pole.**
7. **Stand-alone external book return unit, in a location convenient to both drivers and pedestrians.**
8. **The library entrance will face south to shield users and staff from north winds.** If this is impossible, an east facing entrance is the next best idea.
9. **Sufficiently large site.** To allow for parking, sidewalks, setbacks and expansion, lots need to be at least four times the size of the library building.
10. **Complete and absolute library board ownership of the site, with no limitations of any kind imposed by the previous owner.**
11. **Bike racks.** Bike racks must be within view of the library entrance, or children will not use them.
12. **Open space for exterior programs and activities, with seating to be determined.**

## VII-R. Unassigned space 1,800 square feet

All libraries require space for hallways, restrooms, mechanical spaces, electrical panels, the thickness of walls, etc. In addition, libraries with more than one story require additional space for staircases, elevators, elevator machines rooms, etc.

Because the library will be constructing a new one-story building, an allowance of 20 percent for unassigned space should be sufficient.

## VIII. GENERAL REQUIREMENTS

This section of the *Program* consists of discussions of the general structural needs of the Carthage Public Library District.

Some of the requirements are based on the author's observations of the structural problems most commonly encountered in public library buildings, and the combined knowledge of other library building consultants.

Among the most important of these requirements for Carthage are:

**Sufficient electrical wiring and receptacles.** Access to 110-volt electrical service will be provided within six feet or less of all locations in adult services, children's services, the meeting room, and the staff workroom. All floor boxes will be prewired metal boxes completely flush with the floor when not in use. (see "Electrical Wiring")

**Sufficient communications conduit and access points.** Access to data conduit will be provided within six feet or less of all locations in adult services, children's services, the meeting room, and the staff workroom. All floor boxes will be metal boxes completely flush with the floor when not in use. Data wire will be pulled only as needed. (See "Electronic Communications.")

**Provision for later expansion.** There will be space directly adjacent to the library and owned by the library to provide at least 50 percent expansion, and space for 100 percent expansion is strongly preferred. (See "Expansion.")

**Maximum flexibility of design.** No item of carpeting, furniture, or lighting will limit the ability of the staff to relocate shelving, furniture, or the service desk. Architectural solutions will not be sought for furniture problems. (See "Flexibility.")

**Full access for the disabled, including compliance with all ADA and State of Illinois requirements.** (See "Handicapped Access.")

**High-quality, bright, low-glare, even, shadowless lighting, designed to illuminate the entire space within the library, including walls and ceilings.** All lighting will be indirect. Down lights, including in particular both can lights and fluorescent lights with parabolic wedge lenses, will not be used anywhere in the building. General lighting will be sufficiently uniform and bright to eliminate the need for task lighting. (See "Glare Control" and "Lighting.")

**Acoustic ceilings in at least all public areas in the new addition and the ground floor of the original building.** (See "Acoustics.")

**All floors will be designed to carry a minimum of 150 pounds of live load per square foot and to accept completely unequal loading in adjacent areas.**

**All shelving will be steel cantilever style shelving** with 11” (nominal 12”) base shelves. Aisles will be 42” wide. To avoid columns in the middle of shelving aisles, column spacing will be a multiple of 5’6”, leading to columns on either 22’ or 27’6” centers, or a combination of the two. Shelving aisles will be laid out to facilitate oversight from the service desk. Shelving heights will be

**84 inches:** most adult and young adult shelving

**60 inches:** shelving for adult reference and current magazines, shelving for J books

**48 inches:** shelving for children’s picture books, if flip bins are not used

**Security control, including:**

**Single public entrance.**

**Direct, line-of-sight supervision from the service desks of the entrance to the building...**

**(See “Entrances and Exits” and “Security.”)**

## VIII-A. Acoustics

Although public libraries are intended to be busy, active places rather than mausoleums, excess noise will be avoided as much as possible.

Equipment noise--such as sounds from HVAC equipment and restrooms—will not be heard in the rest of the building.

Sounds from the meeting room will not disturb readers in the rest of the library when the door is closed.

Noise in the children's services area will not carry easily to adult services.

Fluorescent lighting fixtures will be equipped with electronic ballasts.

Surfaces will absorb rather than reflect sound, and acoustic ceilings will be used in all areas of the library.

A small amount of “white noise” from the HVAC system, however, will help to mask other sounds and may therefore be desirable.



## VIII-B. After-hours book return

The library will have a separate after-hours book return unit located outside the library building. It will not have a return slot leading directly inside the library unless the slot leads to a room designed to contain a major fire.

If configuration of the library's site permits, the return will be placed to be accessible from cars, and from the driver's side.

The susceptibility of libraries to arson through internal book returns is very high, and such returns have been a major source of library fires.

## VIII-C. Conversion of existing structures

It is sometimes cost effective to convert existing structures to libraries. However, the cost of conversion can be nearly as high as that of new construction, and the limits imposed by the existing building may be significant. These limits are of significance because of special structural needs of library buildings.

A building under consideration for conversion should have some or all of the following characteristics:

1. **Excellent site.** (See "Site Selection")
2. **Modest acquisition cost.** Because conversion can easily cost 2/3 or more the cost of new construction, there is little financial advantage in converting an existing building.
3. **Excellent physical condition.** Older buildings may need new HVAC systems, new roofs, new plumbing, new wiring, and new lighting, and all of these are expensive.
4. **A floor loading rating suitable for library use.** The minimum floor loading rating for a modern library is 150 pounds per square foot.
5. **A grade-level entrance and a single floor.** Steps of any kind introduce service problems that can be avoided in new construction. Historic Carnegie libraries are difficult and very expensive to expand in part because they typically have entrances above grade level. Two-story buildings will always require the installation of an elevator, which is an expensive item.
6. **Architectural merit.** Architectural significance may lead to the selection of a non-library building for conversion to a library, but it should meet most of the other criteria listed here. (If a building selected for conversion is historically significant, that fact may limit the library's conversion options.)

7. **High ceilings.** Proper library lighting requires an absolute minimum ceiling height of 10 feet, with 11 or 12 feet strongly preferable. If ductwork needs to be supported below bar joists and above a ceiling grid, the slab-to-slab distance may need to be a minimum of 14 or 15 feet.
8. **The ability to provide completely flush receptacles and computer data conduit access in floors.** If retrofits require that access points to 110-volt current and to data conduit in the middle of rooms be even slightly raised, this will seriously interfere with good library function.
9. **Modular construction.** Good library design calls for maximum flexibility and the ability to open up wide areas. Bearing walls frequently make this difficult or impossible.
10. **No EPA problems.** Having to cope with asbestos, lead paint, or underground storage tanks can add a great deal to construction costs. Buildings constructed before about 1980 often have serious problems and should often be avoided.

## VIII-D. Electrical wiring

The following requirements are basic to any new library building.

Grounded duplex receptacles will be provided about every six feet along all walls of all public service areas, the staff workroom, and the meeting room. Receptacles will be provided behind any perimeter shelving that is installed, in anticipation of later relocation of shelving.

If local electrical supply conditions warrant, independently grounded receptacles (orange) will be provided in addition to standard receptacles in any areas where computer workstations are likely to be used at any future time. Quad boxes, equipped with one pair of standard receptacles and one pair of independently grounded receptacles) work very well for this purpose.

Supplementary outlets with absolutely flush, fitted lids in the style of Walker boxes (never raised boxes) will be provided in all floors, so that no public area of the library is more than six feet from a receptacle. Metal (not plastic) floor boxes are now available with flip lids providing access to both 110 volt service and data conduit in the same box, and these will be installed in all floors in such a manner that furniture or shelving may rest on the boxes. The access described here will require an eight-by-eight-foot grid of floor boxes

Receptacles with locking covers will be provided on the outside of the new wing the building every twenty to thirty feet. They will be on a separate circuit so they can be switched off at the main power panel when not in use.

One of the bitter lessons librarians have learned over the years is that buildings almost never have enough receptacles and data conduit. The time to install these is when the building is under construction. The cost of adding half a dozen receptacles or data conduit connections at a later time can be as great as equipping an entire building correctly at the outset.

All breakers in the main power panel for individual circuits will be switch rated.

All electrical receptacles in all public areas of the library will be tamper resistant (child proof). This is particularly important in areas designed for adult use, since it is there that parents give car keys to their bored children to play with.

## VIII-E. Electronic communications

It is hard to predict the future of electronic communications in libraries over the next twenty years, but they are sure to play an increasing role. In the past, most libraries were built with very inadequate conduit for data transmission lines, and as a result they are festooned with telephone and computer wiring today.

The library's telephone system will incorporate basic modern features, including an intercom, hands-free speaker phones in all staff workrooms, etc. A portable phone will be available at the service desk, to allow staff members to continue speaking to users while searching the shelves for requested items. The Library will be equipped initially with two voice lines, in addition to lines needed for the FAX machine and for other data transmission.

A library-wide PA system will be accessible through the telephones by code.

Each telephone location must be capable of being set up to require an access code for its use for outgoing calls.

The telephone system will be expandable to provide up to eight voice line phones, as listed below, without replacing or adding boards and without pulling new wiring. Five phones will be installed when the library opens are listed in parentheses.

Service desk	3 phones (2)
Meeting room	1 phone (1)
Director's workroom	1 phone (1)
Staff workroom	3 phones (1)
Mechanical rooms	1 phone each (1)

Communications conduit must be provided throughout the library, including adult services, children's services, the staff workroom, and the meeting room. No place in these rooms will be more than six feet from an access point to communications conduit. The floor slab will have a grid of empty conduit with flush lids (never raised boxes). See the note on combination floor boxes under "electric wiring."

## VIII-F. Entrances and exits

The library will have only one entrance. All other doors will be for emergency use only.

The architect will make a special effort to be sure that the entrance to the building is fully visible from the service desk.

All doors designed as emergency exits will be equipped with panic hardware and alarms.

The entrance will have a sheltered area outside the building, including a bench, where people waiting for the library to open or waiting to be picked up can keep out of the rain.

## VIII-G. Expansion

The building described in this document is large enough to meet the current needs of Carthage, as well as its expected needs for the next twenty years.

Sooner or later, however, all libraries run out of space. They need to house more books, provide seating for more readers, or provide services not anticipated at the time the building was constructed.

For this reason, it is extremely important that the building be configured to allow increasing its size by at least 50 percent at some time in the future.

## VIII-H. Flexibility

The space needs of libraries can change over the years in ways that no one can predict. Pressures due to simple growth occur constantly, but changes can also occur in the types of materials circulated, the types of services offered, and basic methods of library operation. Library staff members sometimes discover that the space utilization planned when the building was designed does not work in practice. Most libraries start rearranging furniture and shelving almost as soon as they open.

For these reasons the interior layout of the library building will be as flexible as possible. Specifically:

- 1) **Permanent partitions will not be created where the *Program* does not require them.**
- 2) **Structural spaces will not be created to house specific pieces of furniture or equipment.**

- 3) **Shelving will be standard steel bracket shelving installed on top of carpeting.** New perimeter shelving will need to be anchored to walls, but double-faced shelving will be free standing.
- 4) **No items of furniture, including the service desk, will be integral with the building.** The service desk will be modular, free standing, and installed on top of carpeting.
- 5) **No item of decor, design, or lighting will make it impossible to reposition the service desk or any other key pieces of furniture.** Task lighting will not be used in any part of the building; instead, lighting will everywhere be sufficient for tasks.
- 6) **Access to electrical service and data conduit will be located in every area of the public service departments and staff workroom.**

## VIII-I. Floor coverings

With the exception of entry and rest room floors, all floors will be covered with high-density, nylon, woven-loop carpet squares glued directly to the floor. The carpet squares will be anti-static and stain resistant.

Carpet color will be selected to show as little dirt as possible, and to resist coffee and other beverage stains. Carpet squares should have enough pattern to conceal dirt, and should come in a family of colors so that single squares do not stand out when they are replaced. Solid color carpet squares are hard to maintain and will not be used.

Because carpets tend to wear out more quickly at service desks and in front of machines like copiers, an attic stock of carpet squares will be ordered and stored for replacement purposes. It is axiomatic that matching carpet is never available later.

Restrooms will have floors of glazed ceramic tile with anti-slip grit and dark grout.

The foyer will have a floor surface designed for foot wiping. It will be removable for cleaning but will not creep in use. Special mats inset in drip pans are used in many buildings. Portions of the floor not covered by mats will have glazed ceramic tile with anti-slip grit and dark grout.

## VIII-J. Floor loading

Library standards for libraries without compact shelving (moveable, high-density stacks) call for a minimum live floor loading rating of 150 pounds per square foot. Some libraries have been built with lower floor loadings in reading rooms, and this has almost always proved to be a dreadful error, for furniture and shelving cannot be rearranged to serve changing needs.

Compact shelving and microfiche cabinets can require substantially higher floor loading ratings—up to 300 pounds per square foot, but they are unlikely to be used in the Carthage library.

## VIII-K. Furniture

New furniture—particularly tables and chairs—will be purchased from an institutional supplier of attractive, heavy-duty furniture. Tables will be of wood, with lumber cores and with high-pressure laminate surfaces on both sides of their tops, to prevent warping. Table legs will be anchored to tabletops with steel rods inside the legs welded to heavy-duty plates bolted to tabletops. Easy chairs will be upholstered in washable materials, such as heavy-duty vinyl. Chairs at tables or computer workstations may be molded plastic for easy cleaning.

Seating that looks attractive in catalogs sometimes turns out to be very uncomfortable. The architect/interior designer will for this reason either bring samples of chairs for trial in the library or take the board and staff to the Merchandise Mart to try chairs out.

Shelving will be of cantilever design, fabricated of heavy gauge steel, and manufactured by a company that specializes in library shelving. Base shelves will be 11 inches (nominal 12 inches) deep. Upper shelves will be either 11 (nominal 12) or 9 (nominal 10) inches deep. Specialty shelving is often used for magazines, children's picture books, and CDs.

Perimeter shelving perpendicular to the freestanding book stacks will be avoided if possible.

Because of handicapped requirements, the library will select tables—such as Parsons Design tables—with thin tops, without skirting, and without beams connecting the legs.

When purchasing new factory-made furniture or shelving, the library will select standard sizes and finishes. Although custom designs and finishes are fun and are often affordable at the time of a major order, the cost of adding an additional chair or table at a later time can be high.

Because libraries frequently reposition furniture and shelving, colors that force items of furniture or equipment into particular groupings will not be selected. Any chair or table of the right size will be suitable for any location in the library.

All seating will meet the CAL-133 flammability standard.

## VIII-L. Glare Control

One of the major problems in successful library design is the control of glare, both direct glare from too bright or overly concentrated light sources, and indirect glare (veiling reflectance) from shiny surfaces. Excessive glare can seriously handicap the ability of a library to function, and some sources of glare are difficult or impossible to eliminate after the building is constructed.

Methods of controlling glare are mentioned in other places in the *Program*, but are assembled here for ease of reference.

1. **There will be no direct sources of light in any area in which reading, computer use, staff work, or book storage might conceivably take place, either when the building is first built or when it is remodeled in the future.** “Direct” light includes so-called “recessed indirect” fixtures.
2. **All lighting will be uplighting, reflected off white acoustic tile.** Tile that reflects about 90 percent of the light striking it is now available.
3. **In order to make indirect lighting possible, all areas of the library will have ceiling heights from floor to suspended ceiling grid of absolutely no less than 10 feet, with 11 or 12 feet strongly preferable.** Existing structures that do not permit heights of this type will not be converted to libraries.
4. **Lighting will be designed to illuminate ceilings as evenly as possible, with no streaks of light and dark, and full brightness at perimeters.**
5. **There will be no extremely dark surfaces in the building.** In particular, there will be no dark ceilings, walls, tabletops, work surfaces, shelving, or stack end panels. The dark wooden surfaces associated with traditional elegant conference rooms inevitably lead to serious lighting and glare problems.
6. **There will be no skylights.** If daylight needs to be brought to interior areas of the library, it will be by means of clearstory windows facing north.
7. **All windows except those facing directly north will be equipped with blinds, unless the windows are so positioned that direct sunlight can never fall on any interior surface.** This includes small ornamental windows above standard rectangular windows, which are often forgotten when light control is planned.

8. **The building will be oriented to take maximum advantage of north light and to avoid west light as much as possible.** Frequently this means a south main entrance, reading tables clustered along north walls, and a windowless west wall.
9. **Wherever possible, flat screens will be used on all computer workstations.**
10. **Computer displays will use dark lettering on light backgrounds.**
11. **Outside of glazing, there will be no shiny surfaces in staff or user work or reading areas.**
12. **Track lighting will be used only where it is essential for exhibit areas, and after careful review with the entire planning team.**
13. **There will be no point sources of light, including PAR lamps, quartz halogen lamps, unshielded LEDs, etc.**
14. **Recessed downlights will not be used for any purpose inside any part of the library building, except as called for in this Program. Which does not call for any of them.**
15. **Lighting and lighting effects will not be used to create “excitement” in any part of the library building.**
16. **Tables and service desks will have tops that are of middle hues, neither white not black.**

## VIII-M. HVAC

Libraries need to be comfortable if they are to be successful. A building that is chilly or drafty in the winter, humid and hot in the summer, or stuffy and close at any time of year, will drive users away.

The heating, ventilating and air conditioning (HVAC) system will be able to maintain a comfortable temperature and humidity twelve months a year at a reasonable price.

Air movement and exchange will be sufficient to eliminate any feeling of closeness or stuffiness. The system will provide for controlled air replacement, and for sufficient mixing of recycled and fresh air.

It will be possible to maintain interior temperatures at least 25 degrees below outside temperatures and 95 degrees above outside temperatures without excessive strain on equipment.

An interior humidity of about 45 to 50 percent is ideal for libraries. High humidity can lead to mildewed materials, as central Illinois libraries discovered in the summer of 1993. Very low humidity is uncomfortable to borrowers, and wide swings in relative humidity can damage library materials. The



HVAC system will provide sufficient dehumidification to provide a relative humidity level of about 50 percent in the summer.

Winter presents more of a problem, for humidification equipment is notorious for high maintenance costs and relatively rapid failure. The board will review options with the architect or engineer in this area. In general, it's fairly easy to design new buildings for humidification, but buildings converted to libraries may not be suited for wintertime humidification.

Some libraries have problems with patrons feeling chilled near windows, and the HVAC system will be designed to prevent this.

Night temperature setbacks will not lead to wide daily ranges in relative humidity.

Temperature control will be zoned for maximum comfort and efficiency.

The system will provide extensive dust filtration. High-quality filtration will drastically reduce the need for such dismal tasks as dusting books.

On the presumption that energy costs are unlikely to decline, insulation will be extensive.

Air ducts will not subject staff and users to hot or cold blasts.

The HVAC contractor will be required as part of his contract to provide a manual for each piece of equipment, as well as for the entire HVAC system, written in non-technical terms for use by someone not trained as a custodian.

HVAC equipment will be sufficiently uncomplicated to allow local or nearby firms to provide maintenance.

## VIII-N. Handicapped access

Effective provision for persons with disabilities is an extremely high priority among Illinois libraries. All requirements which apply—including those of the Americans with Disabilities Act (ADA), Section 504 of the US Rehabilitation Act of 1973, the Illinois Facilities Act, and the Illinois Capital Development Board—must be met in full.

Among the most important points for libraries are:

- 1. All book stacks must have aisles at least 36 inches wide, and preferably 42 inches.** The minimum requirement of 36 inches is a reduction from the former Illinois Capital Development Board requirement of 42 inches, reflecting the ADA requirement of 36 rather than 42 inches. Although ADA requires that aisles be a minimum of 36 inches wide, it recommends that they be 42 inches. From the point of view of practical library service, 42-inch aisles are vastly preferable, and 48-inch aisles are even more user and staff friendly.)

2. **Because 42-inch aisles are far more pleasant for users and are easier to light, all aisles, as well as other clearances in public areas of the Carthage Library, will be established at a minimum of 42 inches.** This in turn dictates that support columns in a modular building be spaced in multiples of 66 inches (5'6"). The ideal module will be 27.5 feet square.
3. **Restrooms must be fully accessible to the disabled.**
4. **All doors to public and staff areas must meet width requirements for disabled access, and must be adequately easy for disabled persons to open.**
5. **Disabled parking will be provided in the location closest to the public entrance.** Laws and regulations specify the proper ratio and types of parking spaces for disabled users. If the library relies on street parking, handicapped spaces and curb cutouts will be provided in accordance with codes.
6. **There will be no unessential steps anywhere in the library.**
7. **The drinking fountain must be accessible.**
8. **The ADA requires that at least one section of the service desk must be no more than 36 inches high. However, because that is a very uncomfortable height, the low section of the desk will be 30 inches high.**
9. **Codes may require that shelving for the current issues of magazines be fully accessible.**
10. **Adult reading tables will be designed for access by users with disabilities.** In practical terms, this requires a table with a thin top, without skirts or supporting rails. Tables need 27 inches of leg clearance, and the most comfortable tabletop height is 29 inches.
11. **At least one catalog workstation (OPAC) must be located on a table of proper height for access by disabled users.**

***DISCLAIMER:*** The items listed here are intended to be examples only and are not represented as authoritative. The library will in its contract with its architects require that they meet all applicable regulations concerning access for disabled users.

## VIII-O. Keys

Ideally, the doors most heavily used by library staff will have proximity card control.

The staff and board will select a pattern for master keys.

At the least, there will be a master key for the entire building, a submaster for use by groups using the meeting room after hours, and individual door keys for all doors.

## VIII-P. Lighting

Effective lighting is critical to the success of all library buildings, and it is one area with which library boards and staffs are most frequently dissatisfied. More libraries suffer from bad lighting than almost any other problem, and this is true of new libraries as well as older buildings.

The Carthage Library will be equipped with an indirect fluorescent or LED lighting system designed to provide all surfaces—including tabletops, vertical shelves, floors, walls, and ceilings—with even, bright, and glare-free light. To permit flexibility in use, the lighting will be as identical as possible throughout the entire building.

Ideally, fluorescent lighting will be provided by three-tube uplight fixtures, with the two outer tubes switched separately from the center tube, and the spacing of fixtures calculated to offer a choice of 30, 60, or 90 footcandles of illumination at table top level.

Regardless of lighting fixtures selected, a minimum of 50 to 60 footcandles will be maintained on all working surfaces, and at least 20 footcandles on the darkest vertical shelf surfaces.

All fluorescent lighting fixtures will have electronic ballasts and will be equipped with T-8 lamps. All lighting—fluorescent or LED—will have a CRI of at least 85.

Metal halide fixtures will not be used inside the library.

Lights will be switched by fairly square areas served by parallel rows of fixtures rather than by long runs of single fixtures.

**Among the types of lighting that will NOT be employed at the library are:**

- 1. Task lighting.**
- 2. Direct HID.**
- 3. The library will have no soffits, particularly soffits with recessed downlights. If perimeter soffits are suggested for individual rooms, the library will use crown molding instead.**
- 4. Track lighting.**
- 5. Direct incandescent, including halogen.**

6. **Fluorescent with parabolic diffusers, or any other form of fluorescent lighting designed to direct all light downwards.**

**Here are some general requirements of library lighting:**

1. **Lighting needs to be glare-free, non-directional, and bright.** In every area of the library except the mechanical rooms, restrooms, and storerooms, general lighting needs to be sufficient to permit comfortable reading and close work.
2. **High quality, bright, indirect lighting provides by far the most satisfactory illumination in libraries, and it will be used in the Carthage Library wherever ceiling heights permit.** Highly directional lighting will not be employed in any part of the library.
3. **A particular advantage of indirect light is the reduction of glare (veiling reflectance) on computer screens.** The proliferation of computers in libraries provides an additional, important reason for using indirect lighting.
4. **Because tasks are performed in nearly every area of the library, the concept of "task lighting" is inappropriate and will be avoided.**
5. **Even lighting is important.** The lighting system will provide no "hot spots" or dark patches, and a reader will not find great contrasts between the level of illumination on his book and that on his surroundings.
6. **One common problem with library lighting is the tendency to not provide adequate light along the perimeters of rooms.** Many libraries with otherwise excellent lighting have had to retrofit additional lighting along walls.
7. **All lighting will have a color rendering index (CRI) of at least 85.**
8. **Switches for lighting in public areas will be behind service desks or in adjacent staff workrooms.**

In consultation with the architect, the board will select a lighting color temperature suitable for the library—probably 3500 degrees Kelvin.

Wherever possible, the absolute minimum ceiling height for the Carthage Library will be eleven feet, and twelve feet will be provided if at all possible.

Lighting fixtures will be positioned to allow maximum repositioning of furniture, bookshelves, and service desks within the library. The maintenance of essential flexibility is among the major reasons for avoiding task lighting.

Emergency lighting—consisting of hard-wired, self-charging, battery-operated fixtures that switch on automatically when the current goes off—will be provided in the foyer, the meeting room, the main library room, and elsewhere as called for by local codes.

Exterior lighting of walkways, the entryway, and any off-street parking areas will be provided. Flood lighting of walls will be seriously considered, both for appearance and security. If the exterior lights are switched off and on by an electric eye, it will save the staff the constant frustration of remembering to turn them on as twilight approaches. Exterior light fixtures will be vandal resistant.

## VIII-Q Parking

The site of the new library will be large enough for off-street parking that meets local requirements.

## VIII-R. Security

Security has become an increasing problem for all public libraries, and buildings should always be designed with the easiest possible supervision and control in mind. Although the Carthage Public Library District has not had security problems, they may occur as use expands and the community grows. Many security problems can be avoided by good architectural planning. Security issues appear throughout the *Program*, but some of the main ones are summarized here because they involve important points.

1. **The library will have only one public entrance.** All other exits will be for emergency use only, and equipped with alarms. Delayed egress alarms are available that sound for 15 seconds or so before the door unlocks, allowing staff to rescue toddlers who are about to wander out into traffic. (If fire alarms are activated or power is off, doors with delayed egress alarms open instantly.)
2. **All doors for public use will be at least partially glazed.**
3. **A glass wall will separate the meeting room from the foyer.**
4. **The staff workroom will be equipped with a window to maximize staff supervision of adjacent public areas.**
5. **At least some of the exterior windows will be openable in case of HVAC failure, but they will not be openable by library users.**
6. **The book return will be a separate unit outside the library building, to protect the library from arson.** Metal units need to be made of stainless steel to prevent rapid rusting.
7. **Battery-powered emergency lights will be hard-wired to the electrical system.**
8. **Dark, secluded corners will be avoided.**

9. **No stack aisles will have dead ends.**
10. **Wherever possible, stack aisles will be oriented so that staff at the service desk can see the length of the aisles.** This requirement will not be met, however, with radial or diagonal aisles.
11. **Surfaces, particularly in the restrooms, will resist vandalism.**
12. **A fire alarm system with heat—and particularly smoke—detectors will be installed and hard-wired.** The alarm will ring both inside and outside the library and be connected directly to an alarm service. The alarm system will include both buzzers and flashing lights, as called for by the ADA. An annunciator will be installed in the entry foyer.
13. **An intrusion alarm system will be provided.**
14. **Fire extinguishers will be provided as called for by applicable codes and good practice.**
15. **If local emergency services use them, a Knox Box will be installed outside the main entrance.**
16. **The exterior of the building will be lighted, including all emergency exits.**
17. **Even if the building is less than 12,000 square feet, the library will seriously consider a sprinkler system. Among other things, if they library is later expanded to over 12,000 square feet, a sprinkler system will need to be retrofitted.**
18. **Security cameras with a server capable of retaining three weeks of data for all cameras.**

## VIII-S. Signs and graphics

Signs will be planned and coordinated with the building project.

Interior signs will be clear, but not excessive in number. Because the library will alter space usage as the years go by, signage will be flexible. If matching signs are necessary at a later time, they will be available at a reasonable cost.

All signs will meet ADA requirements.

## VIII-T. Site Selection

Site selection is always a complex undertaking, but there are a few basic rules.

**In the simplest terms, a good library site is usually a good site for a nice store.**

Good library sites are:

1. **Well drained.** No library should be built on a flood plain. As part of applications for construction grants, the Illinois State Library requires that the library seeking the grant provide assurance that its site is not on a flood plain. Existing flood plain maps may be obsolete, with flood waters rising higher than expected in years to come.
2. **Convenient, but not too close to middle schools or high schools.** When libraries are constructed near schools—particularly junior high schools—students tend to become major discipline problems before and after school and during lunch hours. A distance of 1000 feet will not make it difficult for students to reach the library.
3. **In low-crime areas.** Public libraries in areas frequented by drug dealers can expect to have drug dealing in the library.
4. **In areas that people feel safe visiting after dark.** An area of town that citizens regard as unsafe is an extremely poor place for a library. Similarly, if a library is located in a park, its entrance should be on a well-lighted street, not inside the park.
5. **Visible.** Libraries that are hidden on back streets are not visible to their communities.
6. **In commercial rather than “government” locations.** Library use is much more akin to shopping than to the use of government facilities. Some communities are tempted to create governmental centers, including city halls, police and fire stations, libraries, etc. Often these provide second-rate library locations. Library site needs should be based on usership, not ownership.
7. **Reasonably central.** However, it is important that centrality reflect anticipated growth patterns.
8. **In areas not frequented by the homeless.** Although it sounds illiberal to say so, many public libraries have problems with people who use them as daytime shelters. This interferes with the mission of the library to provide the cultural, informational and educational services for which it was created.

9. **Areas for which the library is not intended to be a major agent of change.** Although it is tempting to place a library in an area that needs upgrading, neighborhoods probably have more influence on libraries than libraries have on neighborhoods.
10. **Sites that are not “white elephants.”** Every community has abandoned sites for which uses have long been sought. Often, such sites are abandoned for good reason, and if they are undesirable for other purposes they are undesirable for library purposes.
11. **Capable of bearing the necessary loads.** Taking soil borings in advance of site purchase is a good idea.
12. **Sufficiently large.** A good estimate is a site four times larger than the programmed building space, but detention basins make larger sites necessary. Sites this size provide space for off-street parking, access sidewalks and driveways, limited long-term expansion, setbacks, and landscaping.
13. **Sites that allow relatively square structures with windows on all four sides and single entrances.**
14. **Sites that do not require north entrances.**
15. **Sites without existing buildings to be converted to libraries.** Although a few buildings lend themselves to conversion, most are not suitable. Libraries need wide-open spaces, single levels (until up to about 40,000 square feet), ceilings at least 10 feet high, and unusually strong floors. In addition, existing buildings built before about 1980 may have major problems with asbestos and lead paint. (If a site has a building you don't want, it may be very expensive to remove it.)

Taken as a whole, library site needs call for desirable sites, and the library may be in competition with commercial and other interests for its location. As a result, excellent library sites are seldom cheap sites.

## VIII-U. Windows

The provision of pleasant user space by generously sized windows is important in all libraries.

Many readers prefer to read by natural light, and to sit next to windows where they can see out. For this reason, as well as the general internal feel of the library, the inclusion of adequate and well-selected windows is very important.

The area for adult leisure reading, in particular, will be directly adjacent to windows and provide a view of the street and community outside.



Because of the unpleasant nature of western sunshine in Illinois, all western windows must be equipped with adjustable light-control devices, and western windows will be avoided as much as possible. In general, western windows are the worst possible choice.

Light control will also be provided on ALL eastern and southern windows, including any high windows set in the roof or above other windows.

Since all ventilation systems eventually fail in use, it will be possible to unlock and open enough windows to provide cross ventilation in the case of emergencies. It will not be possible, however, for users to open windows. Windows that can be opened will be provided with screens.

The library will not have skylights or monitor roofs. If sky lighting is needed, the library will have north-facing clerestory windows.