

Redefining the Library

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ACKNOWLEDGMENTS

To my family - for your patience and encouragement

CONTENTS

	Page
CHAPTER ONE: D9A THESIS PROPOSAL OUTLINE	1
PART I - THESIS STATEMENT	1
1.1 The Problem	1
1.2 Theoretical Position	1
1.3 Proposition	1
PART II - LITERATURE SEARCH	2
2.1 Historical Research	2
2.2 Innovation	2
PART III - METHODOLOGY	2
CHAPTER TWO: D9A THESIS RESEARCH	5
Part I - INTRODUCTION	
1.1 Importance of Study	5
1.2 Overview	5
Part II - THE PAST - Design Influences from the Beginning	6
2.1 The History of the Library	6
2.2 Types of Libraries	7
2.3 History of Library Design	9
2.4 Precedents	13
2.4.1 Procession	13
2.4.2 Sense of Place	16
2.4.3 Architecture of Time (Flexibility)	18
Part III - THE PRESENT - A Look at Trends in Public Libraries	21

3.1	Current Technological Trends	21
3.1.1	Online Services	21
3.1.2	Audio and Media Areas	22
3.1.3	Self-Serve Check-out Stations	23
3.1.4	High-tech areas for Children and Teens	24
3.1.5	Gaming and Activity Areas	24
3.1.6	Technological Support	25
3.1.7	Other Technological Trends	25
3.2	Trends in the Design of Public Libraries	26
3.2.1	Children and Teens	26
3.2.2	The Bookstore Approach	29
3.2.3	Incorporating Food and Drink	29
3.2.4	Community Needs	30
3.2.5	Flexibility	31
3.2.6	Gathering Spaces	32
3.2.7	Outdoor Spaces	33
Part IV - THE FUTURE - The Redefined Public Library		34
4.1	Design Requirements	34
4.1.1	Procession	34
4.1.2	Sense of Place	36
4.1.3	Flexibility	37
4.1.4	Other Important Elements	37
4.2	Giving Form to the Journey	40
4.2.1	Physical, Emotional, and Intellectual Needs	40
4.2.2	Static and Dynamic Spaces	40
4.2.3	Texture	41
4.2.4	Composition	42
4.2.5	Symmetry and Asymmetry	42
4.2.6	Symbolic Expression	43
Part V - FORMULATING THE PROGRAMME		45

5.1	Overview of the existing John M. Cuelenaere Public Library	45
5.1.1	Mission Statement	46
5.1.2	Existing Programs and Services	46
5.2	Prince Albert Context	47
5.2.1	Multicultural City	47
5.2.2	Site Context	48
5.3	The Next Chapter	48
5.3.1	Procession	49
5.3.2	Sense of Place	50
5.3.3	Flexibility	50
5.3.4	Other Important Design Elements	51
Part VI - SUMMARY		53
CHAPTER THREE: D9B THESIS PROGRAM AND DESIGN DEVELOPMENT		55
Part I - INTRODUCTION		55
1.1	The Redefined Public Library	55
1.2	Functional Program - Overview	55
1.3	Functional Program - Structure	55
Part II - PROJECT VISIONING		57
2.1	Mission Statement	57
2.2	Values	57
2.3	Goals	58
Part III - FUNCTIONAL AND PHYSICAL PARAMETERS		59
3.1	Functional Guidelines	59
3.1.1	Design Guidelines	59
3.1.2	Technology Guidelines	60
3.2	Functional Parameters	61
3.2.1	A - Community Services	61
3.2.2	B - Library Services - Public	62
3.2.3	C - Library Services - Internal	63

3.2.4	D - Building Support Services	64
3.3	Physical Parameters	64
Part IV - GENERAL PLANNING CRITERIA		66
4.1	Site Design Criteria	66
4.2	Facility Planning Criteria	67
Part V - PLANNING CRITERIA		70
5.1	A - Community Services	71
5.2	B - Library Services - Public	78
5.3	C - Library Services - Internal	93
5.4	D - Building Support Services	97
5.5	Analyzing the Data	100
Part VI - SITE SELECTION		102
6.1	Site Configuration Options	102
6.2	Optimal Site Location	103
6.3	Zoning	103
Part VII - SUMMARY OF FUNCTIONAL PROGRAM		105
7.1	Summary Chart	105
CHAPTER FOUR: D9B THESIS REPORT		107
APPENDIX		121
	Letters of Commitment	121-123
	Presentation Boards	124-130
LIST OF ILLUSTRATIONS		133
BIBLIOGRAPHY		143

CHAPTER ONE

D9A THESIS PROPOSAL OUTLINE

PART I - THESIS STATEMENT

The potential exists for the function of the library to tap into the dynamic and fast-paced lifestyle of society in the technological age. People generally frequent the library to obtain information in some form, whether it be for entertainment, education or simply for general interest. The majority of the offerings in a library are in the form of books with a small portion of additional features such as films, music, and computer stations. In our society, information is shared quickly and easily without referring to books at all. Information is available anywhere, anytime over a wireless network of endless possibilities. In order to maintain the function and the purpose of the library in the future, a re-evaluation of the current static programme is required. Ultimately, *redefining the library* allows designers to create spaces that are attractive to everyone from youth to seniors. The intent of this study is to redefine the library in order to integrate the historical function of the library with the technology and innovation of the future.

1.1 The Problem

To the majority of our population, the library is a quiet place to read, study, or do research. Today's fast-paced, information-sharing society has moved beyond what the library has to offer in terms of dusty paper books and antiquated reference material. In order to

keep up to the changes in our society, the redefined library needs to keep people plugged in, connected and interactive. The problem lies in defining the ambiguous line between tradition and innovation.

1.2 Theoretical Position

Regardless of whether or not the progression of society toward instant information is seen as a positive occurrence, the reality is that fewer people visit the library for traditional reasons. The history of the library is rich in tradition and must not be overlooked when searching for alternative sources of attraction. Establishing the perfect balance between tradition and innovation in a library setting is the key challenge.

1.3 Proposition

With the onset of digital media and the ability to store and access endless amounts of data in the form of books, music and videos, what happens with all the bound paper books that hundreds of people have borrowed over the years? Will they end up in a vault, kept as a record of the past for future generations? Traditional libraries have the opportunity to realize the benefits of introducing more and more technology into certain branches of the facility. Research will lead the way to options that may or may not be applicable to each defined environment.

PART II - LITERATURE SEARCH

In order to fully understand the future potential of the library, it is essential to study the origins of the first libraries and their evolution over the years. Sources of information for this study are based on historical research as well as new ideas within the field of accessing information.

2.1 Historical Research

Historical research begins with the definition of the word *library*. From the Encyclopedia Britannica, the word *library* "...refers to a collection of books gathered for the purposes of reading, study, or reference..."¹. Libraries in ancient times originated as a way to store records and collections of important documents in the midst of war-ravaged nations. Over the centuries, the function of the library has evolved. It is necessary to understand the history of the past before developing an informed opinion about the future. Many examples of libraries are documented from the earliest collection of papyrus and vellum scrolls in Ancient Greece to the array of e-classrooms, group learning pods, and wireless connectivity featured in the Cyberthèque at McGill University in Montreal.

2.2 Innovation

Living in a dynamic and ever-changing age, designers are urged to embrace technology and to design for the future. Although not even the experts can foresee all the trends, research into new ideas leads the way to an informed programme and subsequent design.

¹Encyclopedia Britannica, 15th ed., s.v., "Library".

PART III - METHODOLOGY

In order to fully understand the current state of the library and the metamorphosis that needs to take place, it is necessary to follow certain trends and to ask certain questions. The following is a list of questions and comments that will initiate research and aid in the development of an appropriate programme for a typical library:

- Who uses the library?
- Why do people go to the library?
- Have there been trends in the popularity of the library over the years?
- How many different types of libraries exist?
- What type of activities attract people of different ages?
- Is the library in need of change?
- Has the basic design of the library evolved over the years?
- How has technology affected the library?

It is also important to obtain answers to the above questions from the appropriate sources. In addition to facts obtained from historical literature and past studies, experts within the field of development of library programming are an important source of information. The following is a list of potential experts in the field of library operations from which information can be gathered:

- Director of local public libraries within Saskatchewan
- Director of campus libraries, University of Saskatchewan, University of Regina (refer to Letter of Commitment - External Advisor, included in the Appendix)

- Architects involved in the design of national, public, or academic libraries
- City officials and government officials involved in design development

Although the intended direction of research is outlined above, it is not limited to the questions and avenues included within this Thesis Proposal Outline. Investigation into any of the many branches of information may lead to a number of alternate conclusions, all of which cannot be defined at this early stage. The final development of a programme and subsequent design will be based on the findings drawn from all sources listed above as well as from new paths that are discovered during the research process.

CHAPTER TWO

D9A THESIS RESEARCH

Part I - INTRODUCTION

Although the typical public library offers an array of activities and programs, the reality is that fewer people visit the public library for traditional reasons. The intent of this study is to determine how the public library can remain relevant and useful to the community in light of the fact that accessing information from anywhere is becoming easier.

1.1 Importance of Study

It is important that the public library remains relevant and useful to the community because the public library offers a place where all individuals are welcome to explore the world of knowledge.

As this thesis will reveal, many forms of information can be accessed at the public library. There are those individuals that appreciate the tactile feeling of turning the pages of a book, or the musty smell of an old classic. On the other hand, there are other individuals that crave the latest technological devices and appreciate the convenience of reading a book from a portable electronic reading device, or listening to a soothing voice narrate a story in the car on the way to work.

This study is important because it reveals that the public library offers not only

traditional services but also non-traditional activities that enhance the lives of people of all ages within the community. Establishing the perfect balance between tradition and innovation in a library setting is the key challenge. With this in mind, it is important to study the trends in library science and in library design in order to create the ideal synergy between tradition and modernization.

It is also important to look at how the changing needs of the community have been addressed in public library design over the years, as well as how these needs will be accommodated in the future.

1.2 Overview

Under current social and economic conditions, it is important that a public library considers the following design elements in order to meet the changing needs of the community:

- Engages the visitor in a *procession* or journey
- Creates a *sense of place* where the visitor discovers a feeling of belonging
- Offers *flexibility* for future changes in social, cultural and political influences

The following thesis explores the importance of these design elements in creating a public building that remains relevant and useful to the community - today and into the future. It also explores other buildings that have been successful in portraying each of these elements through architecture.

Part I *Introduction* emphasizes the importance of the public library within a community.

Part II *The Past - Design Influences from the Beginning* looks to the past for precedents of public libraries and other building types. It also includes an overview of the different types of libraries that have developed over the years.

Part III *The Present - A Look at Trends in Public Libraries* looks at current trends in technology as well as trends in the design of public libraries.

Part IV *The Future - The Redefined Public Library* describes the ideal public library and elaborates on the important design elements that contribute to the success of a public library.

In **Part V *Formulating the Programme***, the John M. Cuelenaere Public Library provides the setting for the study in current library trends and how these trends may be translated to the built form.

Part VI *Summary* prepares the audience for the following chapter - incorporating all the important elements as defined within the thesis into the design of a *redefined public library*.

PART II - THE PAST - Design Influences from the Beginning

Long before the library was categorized into academic or public, ancient rulers stored collections of written archives in order to preserve a piece of history.

Today, the materials housed in a typical library include movies, music, books, magazines and papers in addition to equipment such as computers. The function of the library has also evolved to serve many different purposes. Some libraries include retail outlets, community centres and theatres, and act as gathering spaces for the entire community or academic centre.

2.1 The History of the Library

It is important to study the history of the library to learn how previous societies and time periods handled the changes and evolution taking place in the world of learning. As the civilized nations of the world shifted from monarchies to democratic nations, more people were able to access books and learn the art of the written language.

The function of the library itself has evolved to include a variety of different types of libraries that offer different services and information in different forms and levels of accessibility. Throughout history, all types of libraries have become more accessible to a greater percentage of the population, no longer requiring the status of monarchy to be able to enjoy the benefits.

Antiquity and Early Christianity (2900 B.C. to A.D. 540)

The earliest record of the preservation of reading material dates back to the third millennium B.C. in the form of clay tablets found in a temple in the Babylonian town of Nippur. As time evolved, papyrus and vellum were used to record

information, requiring protection during constant battles that plagued the ancient worlds of Greece and Rome during the centuries following the birth of Christ. Some of these records escaped total destruction under the protection of churches and monasteries.

Middle Ages (A.D. 540 to A.D. 1420)

A period of great insecurity followed where minimal cultural advances were made after the fall of the Roman Empire. With the notion of war and destruction looming everywhere, libraries in monasteries and churches secured their limited supplies of books safe within their walls.

Renaissance (A.D. 1420 to A.D. 1620)

As the Middle Ages evolved into the Renaissance, monasteries continued to recognize the importance of books in spiritual learning, establishing an even larger collection of scriptures and religious material. It was during this period that the practice of lending books to others began. Monasteries allowed other church organizations to borrow items from their collections.

Classicism (A.D. 1700 to A.D. 1840)

The Reformation and religious wars followed the Renaissance, during which many of the contents of monastic libraries were destroyed in support of various beliefs. As time passed, a renewed enthusiasm for book collecting coincided with the establishment of several universities in Europe in the seventeenth and eighteenth centuries. This led to the emergence of national collections and subsequently the development of the great national libraries throughout the developed world.

Into the Twentieth Century

The notion of the library continued to spread during the nineteenth century, necessitating the need for improvements in library administration and increased funding from public sources. Beginning in 1881, Andrew Carnegie instigated the most significant public library movement in history when he invested more than \$56 million of his own money over a period of thirty-six years to build 2,509 libraries throughout the English-speaking world, including 125 in Canada. Mr. Carnegie wanted to give everyone an opportunity to enjoy literacy.

Twenty-first Century

Libraries in the twenty-first century vary significantly in form, function and capabilities. This diversity in design is a reflection of the needs of the community to the extent that increasing financial constraints allow. The public libraries of the twenty-first century are already beginning to show their variations in form, function and capabilities. As this document will reveal, there is no set formula for the design of a twenty-first century public library.

2.2 Types of Libraries

Although the focus of this thesis is on redefining the *public* library, the various types of libraries are described below:

National Libraries

Most countries maintain a national or state library funded by national resources that strives to collect and preserve the literature of that nation. National libraries generally receive one copy of all copyrighted publications within the country. Some of the largest and most important national libraries in the Western world

can be found in Paris, London, Washington and Moscow.

In addition to books, many National Libraries contain coins and medals, maps, manuscripts, prints, drawings, negatives, slides and specialist catalogs.

Academic Libraries

The size of collections and content vary significantly among university or college libraries. Academic libraries develop comprehensive collections in specific subjects in order to promote research rather than attempting to provide uniform coverage of all fields. The largest University Library in the world is located at Harvard University in Boston, and includes an extensive collection of American and English literature.

Public Libraries

Public libraries provide an indispensable service to each community in which they operate. Services of public libraries have expanded to include access to materials through branch libraries as well as traveling libraries. Public libraries have served as gathering places for scholars, researchers and students throughout history.

Special Libraries

Special libraries are often associated with government departments, hospitals, universities, museums and other commercial or industrial sectors where there is a need for specialized information.

School Libraries

In recent years schools have established their own libraries with a limited array of materials in order to facilitate the access to books and reference materials by students of all ages. School libraries tend to be limited in their collection by space constraints but also place high importance on flexible learning spaces within the institution.

Private Libraries

Collections within private libraries vary and are based on the interests of the collector. They often contain rare books that reflect the individual personality of the owner, and are usually located within the residence of the owner.

Subscription Libraries

Between the seventeenth and nineteenth centuries, subscription libraries provided a service to professional groups as well as to the general public of loaning books to people for use within their homes, based on a fee for service. This service has since been made available at no cost to the general population and therefore subscription libraries no longer exist.

Archives

Instead of seeking out a collection of material as a public library does, archival institutions receive documents to preserve and catalog in chronological order. Some of the best known institutions are the *Archives Nationales* in France, the U.S. National Archives, and the British Public Record Office. In addition to these large national institutions, it is common practice for universities, professional organizations, and churches to establish their own archive departments.

2.3 History of Library Design

The function of the library has evolved since ancient times from simply providing safe storage space for various collections to providing an individual experience for each patron who enters the facility in search of knowledge in some form. The mission statements of many modern day libraries focus on providing valuable services to the community based on the needs of the people within that community. In terms of design, meeting this goal involves providing a functional space where services are offered.

Variables such as building form, orientation of shelving, type of construction and the amount of natural light have evolved over the years.

Antiquity and Early Christianity (900 B.C. to A.D. 540)

Since there are few records of the existence of libraries in ancient times, notions of the design of libraries are based on assumptions relative to the social and political climates of the time. Clay tablets and collections of early scrolls were stored in rooms within other buildings as opposed to within a building designed specifically for storing books and other collections (see Figure 2.1). Churches and monasteries made use of various rooms where books were stored on various types of shelves or in a book cupboard called an *armarium*.



Figure 2.1 Antiquity and Early Christianity. Collections were stored in rooms within churches and monasteries (shaded red). Sketch. (A. Webb, 2010).

Middle Ages (A.D. 540 to A.D. 1420) and Renaissance (A.D. 1420 to A.D. 1620)

During the Middle Ages, libraries in monasteries and churches secured their books with chains within a library stall, with just enough length to allow the book or binding of bulky papers to be opened up on a desk (see Figure 2.2). These desks, flanked with shelves, ran perpendicular to the exterior walls to allow light to penetrate through the windows (see Figure 2.3). Collections were stored in dedicated rooms or spaces within buildings serving other main functions.



Figure 2.2 Wimborne Minster Library, England. Example of a chained library, from "Chained Library". Online Image. (LordHarris at the wikipedia project, Wikipedia, 2006).

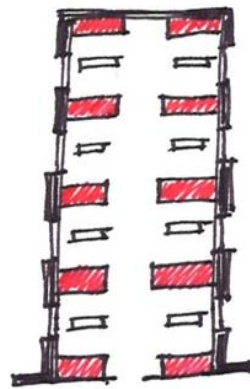


Figure 2.3 Middle Ages. Library stalls (shaded red) in collection room shown perpendicular to windows. Sketch. (A. Webb, 2010).

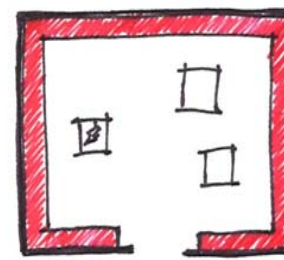


Figure 2.4 Early Classicism. Library stacks (shaded red) shown lining the exterior walls. Sketch. (A. Webb, 2010).



Figure 2.5 The Prunksaal (splendor hall). Begun in 1721, this building was the former Imperial Library of Austria until 1918. Note the soaring height of the walls lined with books, statues and displays at the centre of the room, the absence of windows, and the lack of a designated reading area, from "Austrian National Library". Online Image. (Oke, Wikipedia, 2006).

Classicism (A.D. 1700 to A.D. 1840)

After the Renaissance, when the constant threat of destruction subsided, buildings to house collections began to draw interest from governments and nobility. Building technologies allowed for the construction of taller buildings. Books were no longer chained to library stalls, but stacked as high as the walls reached, around the entire perimeter of the room or space. With the stacks of books lining the exterior walls, the interior space was free to be used as exhibit space for statues or other collections such as coins (see Figures 2.4 and 2.5). Books were taken from the shelf and brought to a different location to be read. Limited seating, if any, was provided within the collection space.

By the mid-nineteenth century, the existing reading rooms could not handle the number of people looking for a place to sit and read. Designs began to include the reading areas within the same spaces as the collections. As the

number of people interested in literature increased, so did the need for supervision. Lending desks also became more common.

The evolution in library design culminated in the design for the British Museum Reading Room, designed by Antonio Panizzi in 1854. Panizzi designed a circular domed building with the bookstacks made of cast iron flanking the exterior enclosing walls. Although not all libraries followed the same layout during the nineteenth century, the migration toward twentieth century design methodologies originated here. The British Museum Reading Room became a powerful symbol of the significance of libraries (see Figures 2.6 and 2.7).

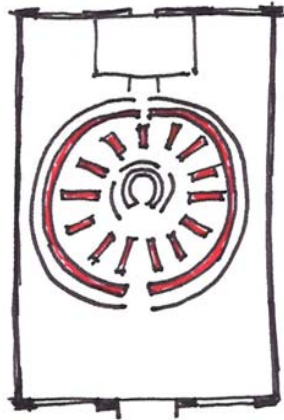


Figure 2.6 Late Classicism. British Museum Reading Room: Central circulation desk with radiating rows of book stacks (shaded red). Sketch. (A. Webb, 2010).

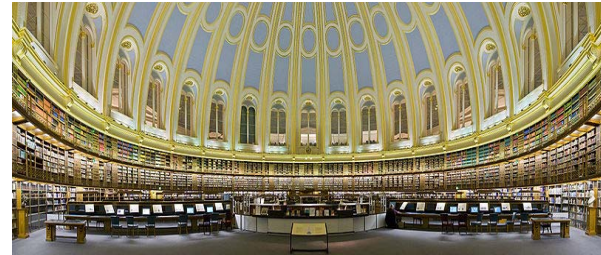


Figure 2.7 British Museum Reading Room. Note the computer monitors in the radiating rows where the reading tables used to be, from "British Museum Reading Room". Online Image. (Unknown Author, Wikipedia, 2006).

Into the Twentieth Century

It took many years of evolution in library design before all reading rooms were no longer self-contained areas, but instead integrated into the collection areas. The developed world experienced a monumental period up to the first world war where scholarly pursuits became more commonplace and libraries were constructed as symbols of higher learning, reflected in their formal exteriors. Many of the Carnegie libraries are comprised of both formal plans and classic exteriors (see Figures 2.8 and 2.9).

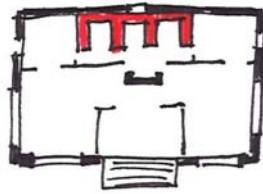


Figure 2.8 Early Twentieth Century. Typical formal style of a Carnegie Library. Note the variation in the placement of the book stacks (shaded red) and the barrier created by the reference desk between the public and the collection of books. Sketch. (A. Webb, 2010).

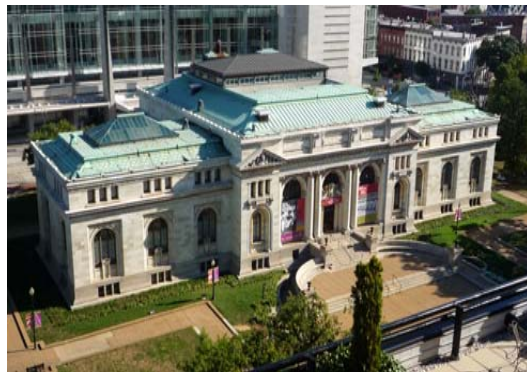


Figure 2.9 Historical Society of Washington, D.C.. This building was originally built in 1902 as a Carnegie Library, from "Historical Society of Washington". Online Image. (Bobal Ha'Eri, Wikipedia, 2008).

Twenty-first Century

The libraries of the twenty-first century do not follow a specific formula for design (see Figure 2.10). Although certain space elements are necessary within a library setting such as circulation areas, reading areas and stack areas, architects possess the human desire to "...express library significance that exceeds the desire for pure functionality in library design. Even in the contemporary era, there remains much more to library form than mere function"³. People are learning to see libraries as flexible, changing institutions; not altering their missions, but adding to them by providing new services and exploiting new technologies.



Figure 2.10 Twenty-first Century. Level 2 plan of Seattle Public Library showing the variation in orientation and placement of book stacks (shaded red). Sketch. (A. Webb, 2010).

³T. D. Webb, *Building Libraries for the 21st Century: The Shape of Information* (Jefferson, North Carolina: McFarland & Company, Inc. Publishers, 2000), 7.

2.4 Precedents

As the following text unfolds, it is evident that a public library has the ability to become one of the most important expressions of civic pride for a community. As previously mentioned, the redefined public library must offer an environment in which the following design elements are considered, in order to reflect its importance:

- Engages the visitor in a *procession* or journey
- Creates a *sense of place* where the visitor discovers a feeling of belonging
- Offers *flexibility* for future changes in social, cultural and political influences

Several examples of works possessing the above design elements exist throughout the world. The following section includes descriptions of various projects that were chosen because they illustrate one or more of the elements listed above.

When looking to precedents, it is important to look beyond the layers of historical styles to reveal the architectural idea behind the design. The buildings illustrated below include a diverse range of building types from residential to civic.

2.4.1 Procession

The formal definition of a procession is "...an organized body of people advancing in formal or ceremonial manner..."⁴ However, this

definition applies mainly to religious acts. Procession in architecture speaks to the path by which a person advances through a building or site, whether formal or informal.

Procession in architecture varies significantly between formal and informal styles. Looking back to the precedents of the Greeks and the Romans, the procession to a destination can be either organic or rational. The pathway leading up to the Acropolis is known as the Greek Panathenaic Way, and follows the land from beginning to end in a total organic unity. The Roman Triumphal procession, on the other hand, demonstrates a more rational order, utilizing the square form with the absence of circles or curves. Each method tells a different story and is perceived differently by the user.

In terms of experiencing a building, the individual's path is determined by the circulation patterns created before them. Creating an intuitive path allows the user to become immersed in the surroundings instead of searching for signs or wayfinding indicators in order to proceed through the space. The experience is more rewarding if the path remains clear but yet visually interesting.

"Since circulation determines how a person experiences a building, it can be the vehicle for understanding issues like structure, natural light, unit definition, repetitive and unique elements, geometry, balance, and hierarchy. Circulation may be defined within a space that is for movement only, or implied

⁴Encyclopedia Britannica, 15th ed., s.v., "Procession".

*within a use-space. Thus, it can be separate from, through, or terminate in the use-spaces, and it may establish locations of entry, centre, terminus, and importance.*⁵

As stated by Clark and Pause, circulation is an important factor in determining how we experience a building. The following examples present different forms of circulation elements and their effect on the journey through a space.

Villa Savoye, Poissy, France, Le Corbusier, 1929

Completed in 1931 by Le Corbusier, the Villa Savoye presents an example of utilizing the underlying idea of procession in design. The procession begins as you approach the residence on the driveway, proceeding under the structure to the rear entrance. After you enter, the first step in the procession is to ritualistically cleanse yourself at the free-standing sink before you proceed.

A series of ramps take you up to the subsequent levels of the house, broadening at each stage. The views at each point slowly present themselves as you advance. In addition to emphasizing the contrast points between the man-made and the natural, these framed and sometimes unexpected views are the ultimate goal as you proceed through the house (see Figures 2.11 and 2.12).



Figure 2.11 Villa Savoye. View of the terrace looking toward the master bedroom from the sun room, from “Villa Savoye”. Online Image. (Alison Keohane, Wikipedia, 2007).



Figure 2.12 Villa Savoye. Section showing the ramps (shaded red) as the central idea behind the achievement of procession. Sketch. (A. Webb, 2010).

⁵Roger H. Clarke and Michael Pause, *Precedents in Architecture* (Hoboken, New Jersey: John Wiley & Sons Inc., 1985), 5.

Solomon R. Guggenheim Museum, New York City, Frank Lloyd Wright, 1959

Frank Lloyd Wright also uses the ramp as the basis for his procession in the Solomon R. Guggenheim Museum in New York City. In this case, the processional path formed by the ramp serves to connect the building form to its ancient origins, in the form of a modern ziggurat (see Figure 2.13). The building is entered at street level and is intended to be viewed from the top down. The procession begins with a view of the heavens from a domed room at the top of the building (see Figure 2.14) and continues down the gentle slope of the continuous ramp. The circular form of the ramp emphasizes the dynamic nature of the art that is displayed inside, always changing (see Figure 2.15).



Figure 2.13 Solomon R. Guggenheim Museum, exterior. Established in 1959 in New York City, designed by Frank Lloyd Wright, from "Solomon R. Guggenheim Museum". Online Image. (Finlay McWalter, Wikipedia, 2004).



Figure 2.14 Solomon R. Guggenheim Museum, interior. New York City, from "Solomon R. Guggenheim Museum." Online Image. (Martyn Jones, Wikipedia, 2009).

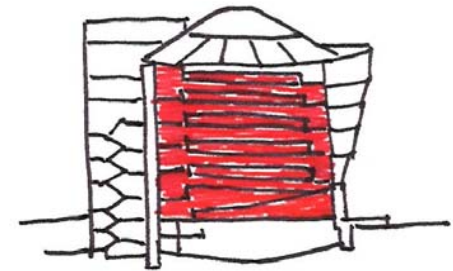


Figure 2.15 Solomon R. Guggenheim Museum. Section through the ramp (shaded red). The idea of procession around the central volume of space dominates the building. Sketch. (A. Webb, 2010).

Rosenthal Center for Contemporary Art, Cincinnati, Zaha Hadid, 2003

Contemporary architect Zaha Hadid uses the ramp in her design of the Rosenthal Center for Contemporary Art in Cincinnati to create an experience of viewing art. The black ramps that lead back and forth upward through the building

depict a dramatic procession from the earth to the sky. Along this procession, visitors see each other moving through the space and interacting with the art. In contrast to Wright's Guggenheim ramp, Hadid's ramp includes wide, low-rise stairs and is not continuous from start to finish. The procession up the ramp leads the visitor through a fragmented path to the galleries on the upper levels.

Hadid's expression of procession includes a more complex interpretation of the journey, a reflection of the increasing layers and fragments in the modern urban context (see Figure 2.16).

Many elements of the designs of Le Corbusier, Wright and Hadid are in contrast to one another. Wright and Le Corbusier gravitate toward classicism in their interpretation of modern design through the use of strong forms and continuity. Hadid expresses a different attitude toward modernism by showing us fragments of her interpretation of a complex society, pieced together as a whole. Despite the contrast in styles, the underlying idea of procession comes across clearly.



Figure 2.16 Rosenthal Center for Contemporary Art, Cincinnati. Designed by Zaha Hadid, completed in 2003, from "Rosenthal Center for Contemporary Art". Online Image. (Unknown Author, Wikipedia, 2006).

2.4.2 Sense of Place

In order to continue to hold meaning and usefulness to the community, the public library must encapsulate its own individual *sense of place*. Establishing this *sense of place* involves studying and being aware of the context of the site. This idea derives from the *genius loci*, who represented the spirit of a place in classical Roman times.

In order for a location to convey a sense of place, it must nurture a sense of authentic human attachment and belonging. These special places have a strong identity and character and are essentially public spaces that are desirable to occupy or to experience.

In today's globalized climate, people can visit and experience numerous locations virtually, but a virtual experience does not replace the act of human interaction.

In terms of design, a sense of place can be achieved by fulfilling any of the following three essential human needs:

- Human need for continuity with the past
- Need for making a personal impact on the environment
- Need for a mutual, balanced relationship with the environment

Many different types of buildings, parks, plazas and walkways can possess a sense of place. These places vary in size and function but ultimately make an individual feel welcome.

Terrace Building, Regina, Saskatchewan, P3Architecture Partnership, 2001

The Terrace Building at Innovation Place in Regina provides an example of both procession and a sense of place in its design for a dynamic information technology multi-tenant office complex. The procession toward the building begins through the exterior courtyard, which is an extension of the interior central rotunda. The path traveled to approach and pass through the public spaces is a meandering path which is in contrast to the axial nature of the plan. The main entrance is revealed adjacent to the central atrium (see Figure 2.17). Entering adjacent to the central rotunda allows the

vertical volume of the space to present itself as part of the procession.

Also unique to the facility is the elliptical shape of the rotunda (see Figure 2.18). Like the circle, the ellipse indicates motion but the elliptical form is also a metaphor for the dynamic nature of the information technology industry. The vertical circulation to the upper level wings also takes on an elliptical shape. The varied forms of the balconies that project over the vertical rotunda space are uniquely located at each level to create interest within the space and to emphasize movement within the space. All of these design elements come together to create a strong sense of place, both inside and outside the Terrace building.



Figure 2.17 The Terrace Building, exterior. Innovation Place, Regina, Saskatchewan. Digital Image. (J. Youck, 2010, reprinted with permission).



Figure 2.18 The Terrace Building. View toward rotunda through vertical stair. Digital Image. (J. Youck, 2010, reprinted with permission).

Singapore Changi Airport, Terminal 3, Changi, Singapore, 2008

The airport terminal presents an interesting view on creating a sense of place. If a person wants to travel by airplane, they must spend a certain amount of time within at least one airport terminal. Each terminal is not required to have an extensive selection of amenities since they are catering to a captive indoor audience. However, with more people traveling by air, airports are re-inventing themselves as mixed use urban centres that include retail outlets, restaurant chains, children's areas and comfortable seating.

The Changi Airport is successful in creating a place where the traveler feels welcome by providing a cascade of waterfalls, a vertical green wall that reflects the lush local landscape, and a butterfly garden within Terminal 3. The traveler is also able to maintain a connection with the external landscape through the expansive windows and skylights. The indoor areas are connected to the environment through the use of trees and framed views. Travelers are able to interact within pleasant surroundings that create a sense of place for the visitor (see Figure 2.19).



Figure 2.19 Terminal 3, Changi Airport, Singapore. Note the absence of invasive signage, the influx of natural light and the presence of natural trees, from "Singapore Changi Airport". Online Image. (Eternal dragon at en.wikipedia, 2008).

2.4.3 Architecture of Time (Flexibility)

"To be permanent is contrary to existence.

*Things are forever changing."*⁶

Architect Enric Miralles believed that architecture is subject to constant additions and variations over time. A work of architecture does not exist forever as one specific entity. Rather, it evolves to suit existing needs. The evolving functions of libraries have necessitated changes in the way libraries are designed and used over the years. In certain communities, we have witnessed the complete replacement of library buildings several times over a

⁶Futagawa, Yoshio, *Focus on an Architect: Enric Miralles*, Benedetta Tagliabue GA DOCUMENT No. 60. Nov. 1999, 92.

relatively short span of time. In the case of a public library, the function of the library changes and a new programme redefines the current needs of the community. This new programme ultimately translates into the continuous evolution of the traditional library expressed by additions and variations in the form of buildings over time.

The Seattle Central Library provides an example of how things are forever changing. Since the late 1800's the Seattle Public Library has seen many changes in the physical design of the building, reflecting the changing needs of the community (see Figures 2.20, 2.21, 2.22 and 2.23). If flexibility is not incorporated into a design, sometimes it is necessary to start over again.



Figure 2.20 Collins Block, downtown Seattle. The public library was one of its original 1894 tenants, from "Seattle Central Library". Online Image. (Joe Mabel, Wikipedia, 2007).



Figure 2.21 Former mansion, downtown Seattle. This building was designated as the permanent home for the public library, but burned down on January 2, 1901, from "Seattle Central Library". Online Image. (Unknown Author, Wikipedia, 1900).



Figure 2.22 Carnegie Library, downtown Seattle. It was Seattle's downtown library for nearly 60 years, from "Seattle Central Library". Online Image. (Unknown Author, Wikipedia, 1919).



Figure 2.23 Seattle Central Library. In 2004, this new library replaced the Carnegie Library on the existing site, from "Seattle Central Library". Online Image. (DVD R W on en.wikipedia, 18 April 2006)

Since technology is rapidly changing the way in which public libraries function, the need for flexibility in design is becoming more and more critical. In the case of a public library, it is very important to provide open, adaptable spaces while maintaining visual interest and providing a meaningful place for the community to gather and to seek knowledge.

According to Miralles, the architecture of time also incorporates the idea of embarking on a journey into architecture. He defines the journey as experiencing layers of time.

Igualada Cemetery, Barcelona, Enric Miralles, 1994

The Igualada Cemetery in Barcelona exemplifies the fact that architecture is always changing. The materials used throughout the cemetery will change over time. For example, the wood will change in appearance, the steel will rust, and the trees will grow. The cemetery also ties into the idea of procession in architecture, as a journey through the layers of time. It was designed to provoke thoughts and memories as you pass through different areas. From the top, as you begin your journey into the cemetery, you can view the entire project (see Figure 2.24). As you move along the path, variations in the senses are provoked by the texture of materials, like the gravel, wood, concrete and pavers used on the ground.



Figure 2.24 Igualada Cemetery, Barcelona. Designed by Enric Miralles, from "Igualada Cemetery". Online Image. (Unknown Author, Wikipedia, 2006).

Miralles also believed that architecture is not about fixed theories or ideas. This belief can be applied to the theory of library design. Although there are constraints in the programme, there is no set formula for designing a library. Architecture is always changing therefore it is important to allow for flexibility within the design so that the function of library spaces can continue to evolve over time as the needs of the community evolve.

Part III - THE PRESENT - A Look at Trends in Public Libraries

The Public Library is an important public building with a fundamental goal of providing access to knowledge for all people. It has a traditional role to fulfill as well as an opportunity to introduce new methods of learning to the community.

The traditional role of the public library is based on providing a safe, accessible environment for the pursuit of:

- Education
- Information
- Personal Development
- Culture and the Arts
- Social Interaction

In addition to the traditional roles played by the library, new opportunities are opening up. Today's technology facilitates the access to all types of information.

The following section provides an overview of some of the new technology currently being used within libraries to facilitate or enhance the experience of acquiring knowledge for the library patron. In addition to outlining some of the technological trends within the library industry, this section also provides an overview of some of the design trends.

3.1 Current Technological Trends

The potential exists for the function of the library to tap into the dynamic and fast-paced lifestyle of society in the technological age. People generally

frequent the library to obtain information in some form, whether it be for entertainment, education or simply for general interest. Public libraries offer books, films, music, computer access, and other specialized services and programs. In our society, information is shared quickly and easily without referring to books at all. Information is available anywhere, anytime, over a wireless network of endless possibilities. Information delivered by the public library can be accessed within the building as well as outside the physical walls.

Some of the current technological trends that are increasing in popularity in new libraries include:

- Online Services
- Audio and Media Areas
- Self Serve Check-out Stations
- High-tech areas for Children and Teens
- Gaming and Activity Areas
- Technological Support

The following sections include a brief description of some of the trends listed above.

3.1.1 Online Services

Online services are generally popular in all areas of the public library, especially for those who do not own a personal computer. Patrons can visit the library to access software, formulate resumes, print documents, and browse the internet, all free of charge (see

Figure 2.25).



Figure 2.25 Computer stations at the Murray Library, University of Saskatchewan, Saskatoon, Saskatchewan. Digital Image. (A. Webb, 2010).

Most patrons can also log in to their local library's web site to access information on music, programs and audio books from home, school, or anywhere else with internet access. In comparison, a book can be borrowed from a library on average 60 to 70 times per year, while an electronic book can be downloaded 10,000 times during the same period.

Although the information is available from anywhere, some form of instruction from a library staff member is often required in order to process the information. Research has shown that although the trend toward off-site access of information is increasing, people continue to frequent the library for other reasons such as social interaction. Wireless internet connection within the Learning

Commons areas of many academic libraries attract many students who want to access information within a more flexible, interactive environment (see Figure 2.26).



Figure 2.26 Learning Commons area, Murray Library, University of Saskatchewan, Saskatoon, Saskatchewan. Digital Image. (A. Webb, 2010).

3.1.2 Audio and Media Areas

Although music and movies have been available at most public libraries for many years, libraries have traditionally frowned upon noisy patrons. The current trend in design is to allow space for audio and media areas, where patrons can sample music at listening stations (see Figure 2.27), or try out a new video game complete with sound effects. These areas are generally kept separate from other areas of the library where quiet activities take place.

The trend is to allow larger areas dedicated to listening stations, big screen televisions and even film production equipment. Some libraries also allow patrons to check out a variety of musical

instruments to try out at home.



Figure 2.27 Music Listening Station. DOK (library concept centre), Delft, Holland, 2008, from “the music pods - totally awesome experience”. Online Image. (The Shifted Librarian, Flickr, 2008).

Many communities offer movies and theatrical events within the library facility, as well as workshops, drama camps and dance lessons. Although small theatres have traditionally been included within the library space, the trend toward expanding these areas to include all types of related activities is increasing in popularity (see Figure 2.28). Activities such as experimenting with *blue screens* and digital film manipulation, as seen in the movies, appeal to younger generations.



Figure 2.28 Theatre, Regina Public Library, Regina, Saskatchewan. Digital Image. (A. Webb, 2010).

3.1.3 Self-Serve Check-out Stations

In an attempt to alleviate wait times at check-out counters, self-serve check-out stations have been introduced in many public and academic libraries (see Figure 2.29). In addition to minimizing wait times, self-serve check-out stations provide the user with a certain degree of privacy when checking out material of a sensitive subject matter.

In terms of practical advantages, self-serve check-out stations also decrease the chances that staff will acquire repetitive strain injuries when checking out books in the traditional physical manner. Circulation desks are still provided in all libraries for checking out specialized materials.

As the public becomes more familiar with the self-serve check-out station, the number of stations integrated into new and existing libraries will increase.



Figure 2.29 Self-checkout stations, Murray Library, University of Saskatchewan, Saskatoon, Saskatchewan. Digital Image. (A. Webb, 2010).

3.1.4 High-tech areas for Children and Teens

Public libraries have traditionally included designated areas for children and teens, although the space requirements have changed over the years to accommodate new and innovative forms of learning. One of the current technological trends within the public library is the increase in high-tech areas for children and teens. In addition to books and magazines, these areas include basic computer stations, listening stations for music and books (see Figure 2.30), interactive displays, digital film-making and creative digital photo stations. Children and teens develop computer-based skills quickly and easily adapt to the current trend toward hi-tech

forms of information delivery.



Figure 2.30 Teen Media Area. DOK, Delft, Holland, from "Visiting the most modern library in the world". Online Image. (The Shifted Librarian, Flickr, 2008).

3.1.5 Gaming and Activity Areas

Libraries have the opportunity to offer some activities that have traditionally been unavailable in the past, such as electronic games and network activity. These activities appeal especially to children and teens who can indulge in the latest video games with friends in a safe environment at no cost (see Figure 2.31). This trend takes full advantage of continuous upgrades in technology and offers new activities that have never been offered before within a public library environment.



Figure 2.31 Gaming area at Brisbane City Library. Brisbane, Australia, from "Brisbane (AUS) City Library". Online Image. (freerangelibrarian, Flickr, 2008).

3.1.6 Technological Support

Before libraries became truly 'public', librarians were the only ones who could access the physical collection of materials on behalf of those who requested it. As the public was given more freedom to access the collections, library staff was on hand to help with directing patrons to the proper area, checking out items, copying materials and answering questions pertaining to the physical collection.

With the increase in computer access in all public libraries, providing the support for the new generation of computer users is essential. Although many computer programs and search engines have become more user-friendly in recent years, the need for trained library staff members still exists. The library staff of today require expertise in non-traditional areas such as wireless networking,

search engines, computer hardware and software, printing and scanning.

Staff must possess the ability to communicate positively with people and to understand the needs of the users. The formal interview style of exchange with a desk between the staff member and the customer is changing. Instead, staff members are fielding questions while working side-by-side in a less formal and more conversational exchange of information. The trend toward staff requiring knowledge in technological areas in addition to literary expertise is increasing.

3.1.7 Other Technological Trends

Michael Sorkin compares society's recent obsession with television and video games as a *city of simulations* in his book, *Variations on a Theme Park*⁷. Although the public library has seen a shift from physical collections to a more simulated environment, the need for a gathering place still exists.

Other trends pertaining to the advancement of technology that are suitable for integration into the public library include:

- **RFID (Radio Frequency Identification)**
RFID is a tracking system for library materials that combines radio frequency technology and microchip

⁷Michael Sorkin, *Variations on a Theme Park* (New York: Hill and Wang, 1992), 2-8.

technology in order to facilitate the maintenance of the collections. It also decreases theft and saves time in check-out lines.

- **Instant Messaging Communication**

Patrons can send a question in the form of an instant message to library staff members and instantly receive a response on their cell phone or personal computer.

- **Robotic/Automated Sorting**

Automated machines use a conveyor belt with laser detection to sort books in larger libraries.

- **Video Display Screens (returned books)**

Curious patrons can view which books have been recently returned on video display screens.

Video Display Screens (shelved books)

Book stacks can be equipped with video display screens at the end of the stack that continuously scroll through images of the covers of the selections available on that particular book stack, complete with an indicator of its position on the shelf.

- **Recording studio**

Patrons have access to a recording studio within some libraries

The technology-based innovations listed above are only a few of the advancements in the delivery of library services made available within the last few years. New technologies are constantly being

explored and tested within the library environment.

3.2 Trends in the Design of Public Libraries

Besides having a beginning, a body, and an end, there is no set formula for the written word within a book. Neither is there a single acceptable architectural formula for designing a public library. It is an expression of community needs and therefore varies with the size of the community, the context and the diversity of the population. However, several noticeable trends have emerged over the last few years.

The following section provides an overview of some of the trends affecting the current design of the typical public library.

3.2.1 Children and Teens

In order to keep up with the trend in increasing the technological requirements for the areas designated to children and teens, the space requirements for these areas are also evolving.

Parents have been encouraging their children to explore the world of learning in a library setting for many years. Most public libraries dedicate a certain room, area or an entire floor to activities, materials, and programs dedicated to children and teens. The size of these areas is dependent on the size of the community and the relative demographic factors.

Children's areas

Children's areas in new public library settings are moving toward a range of spaces and activities designated for different age groups as opposed to a single generic space for all ages. Services within these spaces range from story times for toddlers and preschoolers to after school programs for elementary school children.

The trend within children's areas is to provide a variety of stations and activities, all geared toward learning at different ages and levels of comprehension. The overall areas dedicated to children within the public library is increasing. Public libraries need to follow this trend by allowing more space for comic libraries, reading nooks, interactive displays, audio listening domes, and many other technology-based installations that are currently being tested throughout the world.

Another trend in areas that cater to children is the increase in the comfort level of the spaces. Public libraries are providing large carpeted areas with a variety of comfortable, durable furniture that is appropriate for children of all ages (see Figure 2.32).



Figure 2.32 Cotsen Children's Library at Harvey S. Firestone Memorial Library, Princeton University, Princeton, New Jersey, from "Cotsen Children's Library Princeton". Online Image. (Andreas Praefcke, Wikimedia Commons, 2007).

Teen spaces

Areas dedicated strictly to teens within the public library setting are increasing in popularity as well. Teen areas within libraries tend to be separate rooms, far away from the children's area in order for the teens to disassociate themselves with children's activities and behaviours. Teen spaces are provided to allow the youth to interact while doing the activities they enjoy, such as listening to music, playing video games, using the computer and reading magazines. The introduction of vending machines into the teen area as opposed to a café is another noticeable trend.

All people learn from each other, especially adolescents. Recent trends have shown that teen spaces within public libraries tend to function best when supervised by other teens as opposed to adults. Some libraries even allow teens to play a part in selecting the media

stock for the young adults section.

The trends listed above are in response to numerous recent studies on teen behaviour. In her book, *Teen Spaces*, Kimberly Bolan outlines seven developmental needs of adolescents⁸:

1. Physical activity
2. Competence and achievement
3. Self-definition
4. Creative expression
5. Positive social interactions with peers and adults
6. Structure and clear limits
7. Meaningful participation

Areas for youth that allow teens to explore and experiment with the above developmental needs are forming part of the trend toward the development of larger and more comprehensive teen areas.

The Imaginon in Charlotte, North Carolina is an excellent example of a public library that has incorporated many of the trends in children and teen areas outlined within this section (see Figure 2.33). It combines children's services and teen activities into a single impressive two storey building. The children's area occupies the first floor and is full of exciting visual effects. Children can read books, listen to music or explore the indoor garden.

The teen centre at the Imaginon is located in a second floor loft, far away from the children's portion of the library. In addition to books, this section contains a black-box theatre with a blue screen, and studios for drama camps, workshops, art, dance and technology training.



Figure 2.33 Imaginon, Children and teen library in Charlotte, North Carolina, from "ImaginOn". Online Image. (Public Library of Charlotte and Mecklenburg County, Flickr, 2008).

⁸Kimberly Bolan, *Teen Spaces* (Chicago: American Library Association, 2009),
2.

3.2.2 The Bookstore Approach

The *bookstore approach* to library planning examines how bookstores use other marketing tools to sell books. The stores themselves are generally warehouses with wide open spaces inside and clearly recognizable signage inside and out (see Figure 2.34).



Figure 2.34 McNally Robinson Book Store, Saskatoon, Saskatchewan. Digital Image. (A. Webb, 2010).

In her book, *Creating the Customer-Driven Library: Building on the Bookstore Model*, Jeannette Woodward emphasizes how important a first impression can be. A person's first impression of the public library should feel welcoming and intuitive. The author compiled the following list of sensory needs that must be met in order to welcome *library patrons as customers*⁹:

Customers need...

- ...to be informed

- ...to be entertained
- ...to get a good buy
- ...fast service
- ...to feel safe
- ...to feel special

Although public libraries cannot be entirely modeled after a bookstore since the need to turn a profit does not exist, treating library patrons as customers increases the likelihood that the public library patron becomes a *regular* customer.

3.2.3 Incorporating Food and Drink

One of the most visible changes in new library design over the past few years has been the introduction of spaces for food, drinks and social interaction. This trend is borrowed from retail bookstores that have increased in popularity as a destination to interact and to be seen. Many new public libraries include cafés either within the library space or adjacent to it. Careful planning keeps the food and drink away from the more valuable collections. In terms of design, the public spaces of the library are enhanced by the social interaction that is promoted in this type of setting.

The introduction of cafés or other retail outlets influences the hours of operation of the library as well. Many are open late to accommodate the browsers and to extend the urban experience in downtown locations.

⁹T. D. Webb, *Building Libraries for the 21st Century: The Shape of Information* (Jefferson, North Carolina: McFarland & Company, Inc. Publishers, 2000), 7.

Some libraries include the café or snack area deep within the floor plate to encourage patrons to browse the collections as they proceed to a reading room or sitting area where they can enjoy their literary selection. This also simulates the marketing tool used by bookstores that guides you past the books for sale in anticipation that you will make a purchase prior to arriving at your destination.

Other libraries include the café at the main level or entrance of the library in order to encourage patrons to grab a cup of coffee and consume it while browsing selections within the library. The consumption of food and drink while reading a book is a natural occurrence for many people and is intended to make library patrons feel more comfortable in a library environment. In any case, the trend that incorporates the availability of food and drinks into a public library setting is on the rise.

3.2.4 Community Needs

The design of a library is heavily influenced by the needs of the surrounding community. Communities in which there is a high population of immigrants or other diverse cultures present offer more programs that cater to learning languages and teaching life skills.

One of the fundamental services of the public library is that its programs and services must be made available to all and must not exclude any particular group within the community. All groups should be able to fulfill their need for education, information,

recreation, culture, and social interaction in the public library setting. This includes groups with linguistic differences, people with physical disabilities, and those living in remote areas.

Although public libraries have been helping minority groups for many years, the trend toward increased globalization and mobility among people is increasing the demand for community-based programs. This translates to the need for more multi-use spaces within the library to satisfy the increasing need for program space. Public libraries must designate sufficient spaces for programs in order for the programs to be successful.

The trend toward an increase in the area required for the display of art and other visual installations has climbed slowly over the years. Public libraries have traditionally displayed art such as statues and paintings within the collection areas, but the trend is shifting toward the inclusion of entire galleries and dedicated display areas within the design.

Certain groups within the community also benefit from the availability of meeting rooms for public use within the library. However, library hours of operation often limit the availability to many groups that are best suited to meet during evenings or weekends. In terms of design, the ideal placement of public areas to allow access at times that do not follow the library hours is becoming more important.

Many libraries offer programs specifically technology-based to help the public become more comfortable with the use of computers. Areas that are used for familiarizing the public on computer use are also valuable for holding regular training sessions for staff to keep them up-to-date on the latest trends related to technology.

3.2.5 Flexibility

The typical library of a hundred years ago, with its long, narrow rows of stacks, designated reading tables and circulation desk was designed to suit the needs of the community at that time. Over time, the desire for more programs and services increased, forcing many libraries to alter their layouts or construct new buildings in order to adapt.

The trend toward providing increased flexibility in our fast-paced world is applicable to all facilities affected by technological advances, including libraries. This creates a challenge in design. A successful building shell interacts well with the interior forms to define the spaces. However, many new public libraries provide the overall form and loosely define the interior areas so that shifts in popularity of services and programs can easily be accommodated.

The libraries of today and tomorrow must have integrated technology within the walls, floors, and ceilings to adapt to changes. This trend toward open areas with loosely defined or movable interiors is increasing in popularity (see Figure 2.35).



Figure 2.35 Glass-walled meeting room, Cybertheque, McGill University Library, Montreal, Quebec. Note the technology integrated into a single location within the room, from “McGill University Library Cybertheque”. Online Image. (Klauss Fiedler, Wikimwdia Commons, 2010).

Furniture also plays a big role in the flexibility of a space. The layout of chairs and tables often defines a space, eliminating the need for fixed walls. Comfortable chairs that can be easily moved around make the user feel at home within the library. In terms of furnishings, the trend toward comfortable, multi-functional pieces that are durable and easy to keep clean is increasing in popularity (see Figure 2.36).



Figure 2.36 Multi-functional movable furniture. Digital Image. (A. Webb, 2010).

3.2.6 Gathering Spaces

Recent trends show that space for interaction within a public library has become more important than space for storage of collections. In communities that have recently opened new public libraries, the rise in the number of users signifies that users do come to libraries presumably to seek a public space, or to strengthen their sense of community. Library patrons desire a place to be seen and a place to interact in addition to the ability to satisfy their quest for knowledge.

This accessible setting must be a safe environment where no single person or group feels threatened. It can be a place to interact or a place to be individually consumed. A successful gathering space

provides access for all people in a safe environment.

Gathering spaces can be built into the design of a building both on the inside and on the outside (see Figure 2.37). Common gathering spaces include expanded lobbies, covered entries, cafés and lounging areas. Within the building, special attention must be given to acoustics in gathering spaces and how the sound will travel to other areas of the building. Careful attention must also be given to the security barriers between such areas as cafés, lobbies and lounging areas, and spaces where physical library items are located.



Figure 2.37 Minneapolis Central Library. Gathering spaces associated with a public library can be located either inside or outside the building, from "Minneapolis Public Library". Online Image. (Michael Hardy, Wikipedia, 2006).

3.2.7 Outdoor Spaces

Designing in harmony with nature has always been a priority for some in the architectural field. Although many public libraries are located in urban areas, this is not always the case. Many libraries that have the opportunity to be located within a park or even adjacent to a small amount of open space are incorporating these spaces into their programs. Weather resistant furniture is arranged outside the library walls to give patrons yet another optional experience (see Figure 2.38). However, outdoor areas that provide library functions are typically contained within a courtyard or enclosed space for security reasons.



Figure 2.38 Outdoor Plaza. New York Public Library, New York City, from "New York Public Library Outdoor Plaza". Online Image. (Celikins, Wikipedia, 2006).

libraries. University or college campuses often present more of an opportunity to incorporate outdoor spaces into their overall designs. Incorporating outdoor space is achieved by allowing a physical connection to the outdoors but is also achieved by framing a particular view of the outdoors with a large expanse of windows.

The trend in providing outdoor spaces linked to the library setting is generally more applicable to academic libraries rather than public

Part IV - THE FUTURE - The Redefined Public Library

The redefined public library should possess three distinct design elements that make it meaningful to the community that it serves. The redefined public library should:

- Engage the visitor in a *procession* or journey
- Create a *sense of place* where the visitor discovers a feeling of belonging
- Offer *flexibility* for future changes in social, cultural and political influences

Section 2.4 demonstrated the use of procession, sense of place and flexibility in various existing architectural projects. The following section includes examples of public libraries that embrace these elements and illustrate their importance in design. It also illustrates how the elements listed above combine to form part of the design requirements for the redefined public library.

4.1 Design Requirements

4.1.1 Procession

Incorporating the element of procession into the design of a public library is important because it forms part of the overall experience. Although many forms of knowledge can be sought over a wireless network from almost any physical location, the dedicated library patron embarks on the physical journey to the public gathering place where knowledge is the experience.

The journey to the public library should begin with the approach to the building from afar. As you make your way from the parking lot, the street, or the sidewalk to the main entry doors, the composition of the forms changes.

As your journey past the threshold into the building unfolds, a clear path should be defined, leading you to the next chapter. Each subsequent space should reveal itself, just like turning the pages of a book.

Some libraries read like an open book, where you can experience the entire story as you enter (see Figure 2.39).



Figure 2.39 Public Library of Cincinnati and Hamilton County Avondale Branch. The symmetrical interior is easy to follow, from "Public Library". Online Image. (Rdikeman at en.wikipedia, 2004).

Other libraries draw you in through a series of public spaces and transition to the actual boundaries of the library within the building itself. The location of the public spaces sometimes dictates the path and chooses the experience for you by encouraging you to travel along a predefined route (see Figure 2.40). Paths may include ramps, stairs, and escalators.

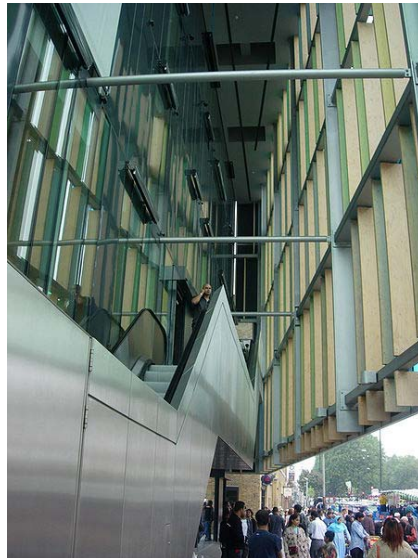


Figure 2.40 Whitechapel Idea Store, London, England. Note the clear path to the upper floors as you enter the building from street level. The path is chosen for you but the destination is unknown when you first enter. The café is located on the top floor, from “Whitechapel Idea Store”. Online Image. (Unknown Author, Wikipedia, 2006).

Throughout your procession, spaces will be defined differently. “A room is a space, although a space isn’t necessarily a room”¹⁰. The space may not contain four walls that make up a typical room, but it may be defined by other forms, compositions, materials, textures or colours.

Light, colour, materials and furnishings serve as guides in creating a self-navigable route that protects the overall visual integrity of the space. Bold, bright colours are suitable for locations within the public spaces where traffic is meant to maintain a steady flow of motion. Calmer, muted colours are suitable for areas of relaxation such as reading nooks where a person feels comfortable occupying the space for a longer duration.

In order to reinforce the journey to the public library as a *procession*, the ideal public library should include the following:

- An easily recognizable main entrance, visible from the parking lot, the street, and the sidewalk.
- An intuitive path that minimizes the need for wayfinding devices, both inside and outside.
- A variety of colours, materials, and lighting levels to suit each space and function.

¹⁰William Wayne Caudill FAIA, William Merriweather Pena FAIA, and Paul Kennon AIA, *Architecture and You* (New York: Watson-Guipill Publications, 1978), 16.

4.1.2 Sense of Place

Users interact with space in different ways. Some spaces are open, some are confined. A space that allows a person to feel a genuine sense of belonging and attachment is one of the fundamental goals of a public library.

The redefined public library should allow a person to make a connection with that particular location and within a certain context. Some public libraries achieve a sense of place by becoming a symbol of continuity between the past and the future. Others become the centre of activity because of their urban context and proximity to other people.

Although the physical properties of place and proximity are readily visible in many library designs, their virtual characteristics are also important. Today, place is about connection; not only connection with a physical location, but also connection to all types of information. Proximity is not only about access to physical materials, it is about online collaboration and network communication. The public library must offer both place and proximity to the community.

Certain groups within the library community believe that technology is diminishing the need for a physical building to house the activities of a public library. In recent years, fewer people frequent the library for traditional reasons such as reading books. In contrast, the

number of patrons who take advantage of the technology offered in most libraries is increasing. In addition, information can be accessed from a portable computer almost anywhere, decreasing the overall need for physical space within a library.

The *library without walls*, however, is not a viable option because the public library provides a means for social interaction in addition to the quest for knowledge. Library buildings enclose virtual space as well as physical space and therefore are still necessary. Technology cannot replace the need for a physical building and face to face instruction on how to process or interpret this information. In essence, information technology is only a substitute for the way in which we access documents, not a substitute for place or space.

An example of a library building that attempts to rid itself of walls is the *Bibliothèque Nationale de France* in Paris. The end result is a combination of four glass corner towers with the absence of walls in between (see Figure 2.41).



Figure 2.41 *Bibliothèque Nationale de France*, Paris, France. Dominique Perrault's absence of a building includes everything but the four corners of the square set into the ground. The sunken garden in the centre portion forms one of the largest open areas in downtown Paris, from "Bibliothèque Nationale de France". Online Image. (Bloomberg, Wikipedia, 2008).

"Libraries will continue to have walls, but will use digital technology to reach beyond them"¹¹. Even though digital technology is accessible from anywhere, the need still exists for the establishment of a centre of knowledge within a community to bring people together.

To create a *sense of place*, the redefined public library should:

- Incorporate elements from the history of the site or the context of the surrounding community in order for patrons to feel a connection to the past.
- Convey a subtle sense of motion that demonstrates the importance of new technology in all areas of the public library.

¹¹Building Libraries for the 21st Century: The Shape of Information (Jefferson, North Carolina: McFarland and Company, Inc., 2000), 261.

- Create a gathering space that fosters a sense of belonging where people feel safe both day and night.

4.1.3 Flexibility

Technology is a catalyst that imposes change in our society. Technological advances affecting the public library are increasing at an ever-increasing rate. In order for the public library to remain useful to the community, it must adapt to these changes. For this reason it is important to incorporate flexibility into the design of a library.

In order for the redefined public library to incorporate *flexibility* into its design, it must include the following:

- Spaces that are loosely defined by furniture, textures, colour and forms rather than by fixed walls.
- The provision of all the latest technological requirements with future expansion room factored in.
- A minimal number of walls that enclose virtual spaces as well as physical spaces.

4.1.4 Other Important Elements

In addition to the three main elements of high importance in the design of a public library as mentioned at the beginning of Part IV, several other design elements that are important to the success of a public library exist. Among these include daylighting and winter city design.

Daylighting, Transparency and Security

"When skillfully introduced, daylight creates an ambience of quiet contemplation and visual comfort, and links the modern library user psychologically with the pre-technological past"¹².

The redefined public library should allow natural light to penetrate into most areas of the library in order to benefit from all the positive psychological benefits of natural light on the human spirit. Comfortable spaces are created when the space and forms are visually pleasing and are washed in a natural glow.

Windows should be oriented at proper angles to the sun to allow natural light to penetrate deep into the space during the day but to also allow transparency into the building at night (see Figure 2.42). The visual connection from outside is important at night in order to establish a sense of security for patrons both inside and outside the building (see Figure 2.43). Patrons are more likely to enter the facility at night if they have a clear idea of the type of activities going on and the amount of other people that are inside enjoying the services of the facility.

The size of the windows can either frame a particular outdoor feature or allow a panoramic view of an entire expanse of nature. Windows should be carefully placed in all areas of the public library

where special collections are not subject to damage and computer screens are not adversely affected by glare. Windows should be included in all reading areas since most patrons prefer to sit next to a window while reading. Windows are also necessary in all public areas with seating to allow people to observe others and to be seen by others.



Figure 2.42 Sendai Mediatheque, Sendai, Japan. View of transparent facade during the day, from "SendaiMediatheque.jpg - Wikimedia Commons". Online Image. (Atsi Otani, Wikimedia Commons, 2005).

¹²Charles M. Salter, "Acoustics for Libraries, Libris Design Project".
<<http://www.librisdesign.org/>>, 2005, 3.



Figure 2.43 Sendai Mediatheque, Sendai, Japan. View of the transparent facade at dusk, from "Sendai Mediatheque - WikiArquitectura - Buildings of the World". Online Image. (Unknown Author, Wikipedia, 2010).

The ideal public library should include the following *daylighting, transparency, and security* design elements within any new facility:

- South-facing windows to allow maximum natural light penetration to the interior spaces.
- Overhangs or other devices to control glare on computer screens.
- Windows at all reading nooks and public areas to allow visibility for patrons both from within the building to the outside and from the outdoors to the inside.

Winter City Design

Designing with sustainability in mind is a benefit to all and shows consideration for future generations. In northern climates, this includes designing for the many months of harsh winter temperatures each year. *Winter cities* take into account prevailing winds, site orientation and solar paths in the design of buildings (see

Figure 2.44).

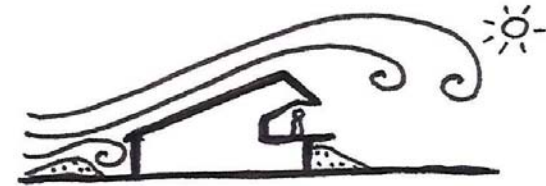


Figure 2.44 Winter wind pattern. Prevailing northwest winds travel over top of a structure with a low wall facing northwest. Sketch. (A. Webb, 2010).

In order to make the overall experience of visiting the library an enjoyable event during the winter months, designers must be aware of certain aspects along the way. For example, buildings that are designed as windscreens with outdoor seating areas facing south, and various forms of canopies, colonnades, and arcades are more suitable in colder climates (see Figure 2.45). Consideration for snow removal and transit shelters also improves the experience of frequenting the library during the winter months.



Figure 2.45 Sheltered outdoor gathering space. Sketch. (A. Webb, 2010).

The redefined public library should include the following *winter city design* principles, depending on final site location:

- Outdoor gathering spaces and seating areas facing south.
- Utility areas facing northwest with low walls to guide the prevailing northwest winds up and over the building.
- Large expanse of windows facing south with large overhangs on south side to allow sun to penetrate deep into the space during winter months only.

4.2 Giving Form to the Journey

A public library has the ability to reinforce civic pride and to breathe life into an aging or neglected district. It assumes the stature of a social institution, a cultural shrine, and a symbolic form because people possess an inherent respect for knowledge and the services that libraries render.

The following section provides insight into the design elements that give form to the redefined public library experience.

4.2.1 Physical, Emotional and Intellectual Needs

Every building must address the physical, emotional, and intellectual needs of the people who choose to experience it. The redefined public library must meet the physical needs of the population by creating a comfortable setting that provides shelter from the elements for all the patrons as well as for all the collections of information that are inside. In order to meet the emotional needs of the patron, the library must also create visual awareness through the appropriate use of space, form, texture, proportion, and colour. Each patron will experience the building at a different intellectual level, taking in different parts of the story that the building has to tell.

The redefined public library should address the *physical, emotional, and intellectual needs* of the patrons by:

- ensuring the comfort of the patrons.
- creating visual awareness of all surroundings.
- providing different levels of complexity.

4.2.2 Static and Dynamic Spaces

In order to relate the static and dynamic spaces of a building to the static and dynamic functions that happen within a library, a general idea of activities that are to take place within the library must be defined. As previously mentioned, public libraries typically

encompass traditional elements such as the storage of collections of books, magazines and reference material. These traditional activities can be compared to the static part of the story. Other non-traditional activities within the library include media areas, listening stations and cafés. These non-traditional activities have been evolving in recent years and can be thought of as the dynamic part of the story.

One approach to creating static and dynamic spaces for corresponding static and dynamic activities is to anchor the space with static forms, materials, and textures, and to vary the space by integrating dynamic forms.

For example, suppose the windows in the area containing the local history books are square in shape and evenly spaced according to the stacks. The new media area may contain the same sized square windows, but in a rhythm that does not follow a specific pattern, creating a dynamic feel within the space yet relating to the original sequence and size of the windows.

The redefined public library should address the need for both *static and dynamic spaces* by:

- including static elements to anchor the space and relate to traditional library functions.
- introducing dynamic elements to coincide with the new innovations that public libraries have to offer.

4.2.3 Texture

Words are used within stories and other literature to evoke emotion. The words of a story can be compared to the texture of a building or space. The texture of a material can also tell a story. Different materials evoke a different emotion from the observer.

A concrete mass is softened by groupings of trees on the exterior. From within, the flooring, walls, and ceilings send out messages based on their composition and juxtaposition to the functions within the spaces.

Smooth, transparent glass on the exterior allows visitors to take a peek at the story on the inside. The reflective qualities of water and glass act as visual triggers that stimulate the passage from physical to mental states, as though you were immersed in a story.

In order for the story to have a continuous, uninterrupted quality, the intervals or elements may gradually change their form, size or orientation. This gradation can be applied to the various textures used within the building as well as on the external planes.

The redefined public library should incorporate the following *textures* both inside and outside the space in order to introduce different elements of the story:

- Water and glass should be incorporated for their reflective qualities.

- Solid surfaces such as concrete should be used both inside and out, mixed with textured materials, finishes, and furnishings to provoke different emotions.
- A variety of textures should be used to help define the spaces in lieu of building walls.
- Textured materials should be used to help dissipate noise levels in quiet areas.

4.2.4 Composition

As we make our way through a book, the introduction of new elements adds another layer of depth to the story. In comparison, as we make our way through a building, the composition of the elements within changes as we proceed along the path.

The composition of the spaces within a library should make visitors feel comfortable in terms of scale and proportion. For example, the children's area must give appropriate thought to the scale of all the elements in order to make the children feel comfortable in their environment and not overwhelmed by large scale furnishings.

The placement of elements within a composition also affects the interpretation of the whole. The eye naturally groups elements that are closer together. Designing with proximity in mind makes it easier for people to follow the natural progression through the story. Clear sight lines help keep the circulation intuitive in nature.

The redefined public library should address the *composition* of the elements by including the following:

- Appropriately scaled furnishings for children, teens and adults.
- Clear sight lines from one chapter to the next along a central path through the building.
- Composition of forms that are intuitive in nature.

4.2.5 Symmetry and Asymmetry

Symmetry occurs in many traditional buildings, including libraries from the turn of the twentieth century. Symmetry in design is often associated with the traditional elements of a building. The traditional elements of a public library include primarily the book stacks and reference areas.

Asymmetry in any building allows the designer to add a few twists and turns to the story. An asymmetrical building cannot normally be judged by its cover. Asymmetrical areas of a public library are suitable for functions that are continually changing, such as gathering spaces, computer stations and children's areas.

The redefined public library should include the following blend of *symmetry and asymmetry* to relate to the traditional functions as well as to the new technologies used within the space:

1. Symmetrical elements that are subtle and smaller in proportion to the asymmetrical elements.
2. An overall asymmetrical design so that the storyline of the building is not easy to determine at first glance.

4.2.6 Symbolic Expression

Aldo Rossi states that a city is made up of parts. Each city has *primary elements* around which buildings aggregate, and *monuments*, which are fixed points in an urban dynamic.¹³ Public libraries are often designed as monuments to knowledge that form an important part of the urban fabric of the city.

Not all civic buildings can be considered monuments. A public library is important because all people are welcome to experience their own individual quest for knowledge in a safe and welcoming environment. The civic duty of the library cannot be taken lightly. The location, orientation, structure, massing and ultimate design come together to create a symbolic expression of the needs of the community.

Every community dictates what type of symbolic expression is appropriate for its location. Some successful public libraries act as a marketplace while others try to emanate the feeling of home (see Figure 2.46).



Figure 2.46 Veria Central Public Library, Veria, Northern Greece. Note the steps leading to the porch, typical of a house, from "Veria Public Library's photostream". Online Image. (Veria Public Library, Flickr, 2010).

Another important factor to consider in determining the symbolic expression of a building is the practical issue of visibility. A symbolic expression within the community must be visible both night and day. Just like a book cannot be read in the absence of light, a building cannot be experienced if it is not seen.

The new Bibliotheca Alexandrina is rich in symbolic associations. The circular shape of the disc symbolizes the ancient idea of a sphere containing all knowledge. The tilted roof represents the rising sun along the shores of the Mediterranean (see Figure 2.47). Hoping that the library would become "a place of dialogues and understanding between cultures and people,"¹⁴ the large granite wall contains inscriptions of characters and symbols from every language

¹³Aldo Rossi, *Postmodern Urbanism* (Princeton, New Jersey: Princeton Architectural Press, 1996), 1-13.

¹⁴Sascha Hastings, *Logotopia* (Cambridge: Cambridge Galleries Design at Riverside, 2006), 14.

and culture. The design is successful in linking the history of the past with the vision of the future by incorporating new elements into an historic setting.



Figure 2.47 Bibliotheca Alexandrina, Alexandria, Egypt. A symbolic building in an historic setting, from "Biblioteca Alexandrina." Online Image. (Biblioteca Alexandrina, Wikipedia, 2006).

The redefined public library should not literally be constructed as a monument to knowledge. Instead, it should represent a *symbolic expression* of the needs of the community by:

- Choosing a location that reflects the urban dynamic and culture of the surrounding community.
- Being highly visible and accessible, yet welcoming.
- Relating to the historic nature of the chosen site

Part V - FORMULATING THE PROGRAMME

The following section applies the knowledge gained through the study of the redefined public library in previous sections to the needs of a specific facility. The John M. Cuelenaere Public Library (JMCPL) serves as the subject for the application of this knowledge to the design of a new public library facility in the city of Prince Albert.

This section provides an overview of the needs of the surrounding community, the current context, and the goals of the existing library. It explores how the needs of the community, combined with new trends, will translate to a series of design principles specific to Prince Albert that provide design guidelines for the development of a meaningful civic centre for its citizens.

5.1 Overview of the existing John M. Cuelenaere Public Library

Prince Albert is currently home to a 450 square metre public library within the downtown district. The John M. Cuelenaere Public Library was built in 1973 at 125 - 12th Street East, just two blocks away from its former location in a heritage building (see Figures 2.48 and 2.49).

Although the John M. Cuelenaere Public Library currently provides adequate services to the community, there is room for improvement. A re-evaluation of the existing programs and collection materials is appropriate at this time.



Figure 2.48 Original Prince Albert Library, Prince Albert, Saskatchewan. The building was used as the city's public library until 1973, and is currently under renovation. Digital Image. (A. Webb, 2010).



Figure 2.49 John M. Cuelenaere Public Library, Prince Albert, Saskatchewan. Digital Image. (A. Webb, 2010).

5.1.1 Mission Statement

The mission of the John M Cuelenaere Public Library in Prince Albert, Saskatchewan is as follows:

“... to provide and encourage the use of a wide range of library materials, services, and programs that will enable the John M. Cuelenaere Public Library to best meet the varying informational, literary, self-developmental, cultural, and recreational needs of the residents of Prince Albert.”¹⁵

Although the mission statement above does not directly refer to serving the greater population around Prince Albert, the library actually reaches a much larger population given its unique location as the most northerly city in Saskatchewan.

In addition to providing the services outlined in the mission statement, the John M. Cuelenaere Public Library is currently focused on improving their collection of books, including increasing their Canadian content. The collections of music and movies available to the public are also currently being expanded.

5.1.2 Existing Programs and Services

The John M. Cuelenaere Public Library currently offers a variety of

programs and services to the residents of Prince Albert. These programs and services include:

1. Children's story times
2. Anime Club (teens)
3. Free movies on weekends (theatre)
4. Book launches
5. Children's seasonal craft sessions
6. Ongoing book sale
7. English as a Second Language (ESL) collection
8. 25 public internet stations
9. Wireless network within the building
10. Grace Campbell Art Gallery
11. Meeting rooms

In terms of collections, the John M. Cuelenaere Public Library offers a total of approximately 117,499 items to the residents of Prince Albert on any given day. They are categorized into the following sections:

- **Books** (88% of total holdings)
 - Adult
 - Young Adult
 - Juvenile
 - Large Print
 - Literacy/ESL
- **Audio/visual material** (11% of total holdings)
 - CDs

¹⁵ John M. Cuelenaere Public Library, *John M Cuelenaere Public Library Annual Report 2009*, 4.

- DVDs
- Videos
- Audio books
- **Magazines** (.5% of total holdings)
- **Other items** (.5% of total holdings)
 - Pamphlets
 - Kits
 - Microfilm

5.2 Prince Albert Context

Prince Albert, like many other cities, serves many different types of people from within the city and in the outlying areas. The city itself has a population of approximately 40,000 people but caters to an area that includes up to 100,000 people.

Prince Albert follows the pattern of a typical *main street village*¹⁶, the term that Aldo Rossi used to describe the layout of a typical prairie town established by pioneers (see Figure 2.50). The settlement began along the south side of the North Saskatchewan River and bears the title of Saskatchewan's oldest city, established in 1904. To this day, the downtown district remains within a two to three block area of the *main street* near the riverbank.



Figure 2.50 City of Prince Albert showing the North Saskatchewan River, the downtown district and the current location of the John M. Cuelenaere Public Library (JMCPL). Sketch. (A. Webb, 2010).

Prince Albert is known for its proximity to bountiful lakes and rivers and is coined with the slogan “Gateway to the North”. As you approach Prince Albert from the south, agricultural farm land in the vicinity is gradually taken over by trees. Pine, spruce, birch and poplar combined with a river setting create a beautiful backdrop for the built environment.

5.2.1 Multicultural City

The library in Prince Albert provides a necessary function within the city. In 2009, 11,582 residents held library cards and 349,860 items

¹⁶Aldo Rossi, *The Architecture of the City* (Massachusetts: The Massachusetts Institute of Technology, 1982). 23-29.

were borrowed and used in the library. There were also 350 different programs offered in 2009, with 10,052 people attending the various programs.

With about thirty per cent of the population of Prince Albert of aboriginal descent (see Figure 2.51), programs and services geared toward the aboriginal culture are offered on a regular basis. Many of the author readings at John M. Cuelenaere Public Library are presented by aboriginal writers who have the opportunity to share their experience and stories with the community. Aboriginal people are known for their excellent storytelling ability.

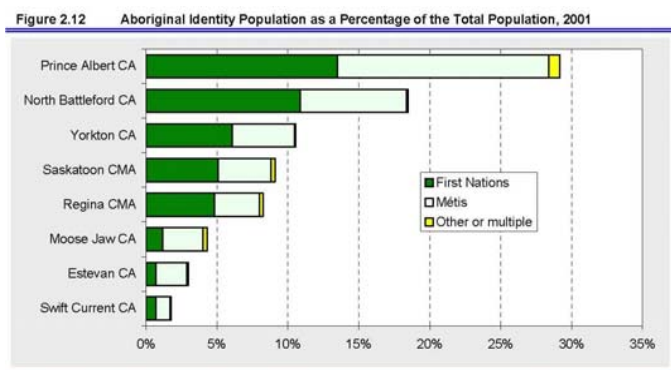


Figure 2.51 Aboriginal Identity Population as a Percentage of the Total Population, 2001. From "City of Prince Albert, Overview and Summary: Economic and Demographic Profile of Prince Albert", Copyright 2006 by City of Prince Albert. Reprinted with permission.

Another unique quality about Prince Albert is the large population of young people within the city. The median age of residents in Prince Albert is 33.5 years, more than three years lower than the provincial

average. The John M. Cuelenaere Public Library offers numerous children and teen programs and will continue to provide services geared towards the changing interests of this population.

Prince Albert is also experiencing an influx of immigrants to fill positions in the midst of a labour shortage within the city and surrounding area. Specific areas within the public library are required to allow the facility to offer programs such as English as a Second Language (ESL) to those who need it most.

5.2.2 Site Context

Prince Albert combines the benefits of both small town living and urban living. With an average of 2,179.6 hours of sunshine per year (6 hours per day), residents can enjoy both the winter and the summer seasons. The prevailing wind is from the northwest at 14.7 kilometres per hour, and should be factored in to the selection of the site and ultimately the orientation of the library on the chosen site.

5.3 The Next Chapter

The John M. Cuelenaere Public Library is poised to become an important civic institution within the City of Prince Albert that reflects the needs of the community and integrates the historical functions of the library with the technology and innovation of the future. This can be achieved by integrating the design elements listed in previous sections with the goals set out by the facility.

The following diagram (Figure 2.52) illustrates the proposed relationships between the various functions within the redefined John M. Cuelenaere Public Library.

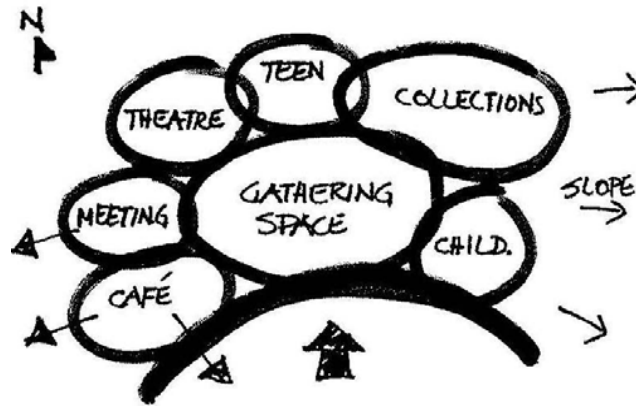


Figure 2.52 Relationship diagram showing the proposed connections between the library functions and the site. Sketch. (A. Webb, 2010).

Overview of Relationship Diagram

The main approach to the building is from the south, either as a pedestrian or in a vehicle. A sloped site would allow the incorporation of procession up to the building. Upon entering the gathering space, the library patron is immediately aware of the extent of the space but also realizes the fact that there are more chapters to be explored beyond simply the introduction. The gathering space is not wide open, but rather it is filled with furnishings and architectural forms of various scale, texture and colour. The café and meeting rooms are located in a way that allows them to be accessed any time, regardless of library hours.

Each additional component of the space can be accessed from the gathering space.

The following section provides further detail about how each of the important design elements established in the thesis are addressed within the relationship diagrams. The design elements illustrated within this section include:

- Procession
- Sense of Place
- Flexibility
- Daylighting, Transparency and Security
- Winter City Design

5.3.1 Procession

The design of the new John M. Cuelenaere Public Library will engage the visitor in a procession that ultimately leads to knowledge. This can be achieved by including:

- A south-facing main entrance that is easily visible from the proposed front face of the building.
- A sloped site that is conducive to providing a meandering path toward the building, creating a possible connection to the North Saskatchewan River.
- An intuitive path that minimizes the need for wayfinding devices both inside and outside.
- Alternate routes to each destination.

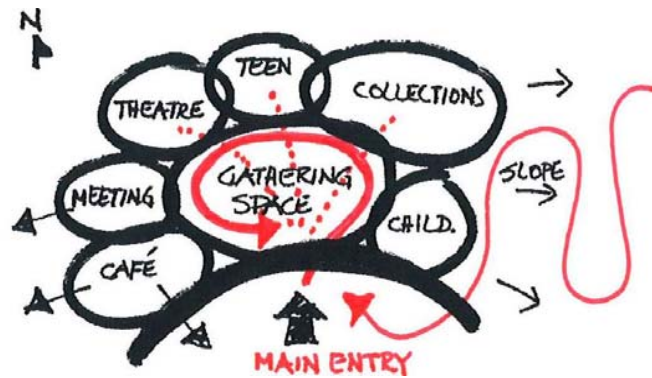


Figure 2.53 Procession: Showing south-facing main entrance, meandering path to the building, intuitive path within the building, and alternate routes to each destination. Sketch. (A. Webb, 2010).



Figure 2.54 Sense of Place: Showing south-facing outdoor area, visibility to all areas, link to the past (river), sense of motion indicated by elliptical path, and minimal walls required. Sketch. (A. Webb, 2010).

5.3.2 Sense of Place

The John M. Cuelenaere Public Library will become a destination for the residents of the city of Prince Albert where they experience a sense of belonging within the community. This sense of belonging can be achieved by including the following:

- A link to the history of the city by relating to the North Saskatchewan River.
- A sense of motion that demonstrates the importance of new technology in all areas of the public library.
- Activity areas that are visible from the outside of the building both during the day and at night, creating a safe and welcoming environment.
- Both indoor and outdoor areas that are sheltered from the elements.

5.3.3 Flexibility

The new John M. Cuelenaere Public Library will be designed with the future in mind, capable of adapting to changes in technology, political influences and social deviations. Flexibility in design can be achieved by providing the following:

- Spaces that are loosely defined by furniture, textures, colour and forms rather than by fixed walls.
- Technology integrated into all available surfaces to adapt to future changes.
- Room for expansion on the site.
- A minimal number of walls that enclose virtual spaces as well as physical spaces.

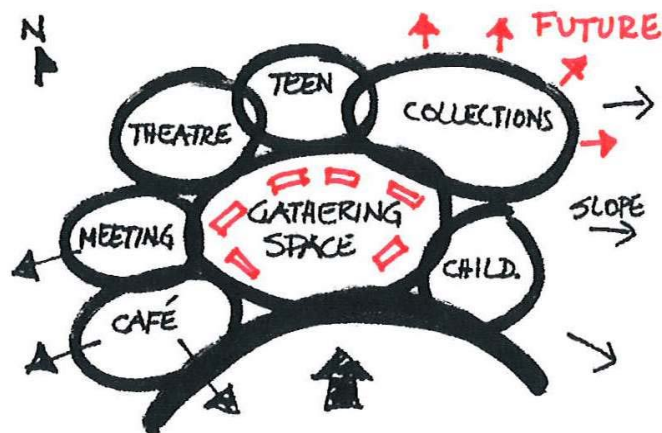


Figure 2.55 Flexibility: Showing a central open area defined by movable furnishings, complete with technology integrated into all available surfaces. Sketch. (A. Webb, 2010).

5.3.4 Other Important Design Elements

Daylighting, Transparency and Security

Natural light is an essential requirement in the design of the new John M. Cuelenaere Public Library. Ample daylighting, transparency and security can be provided by including the following:

- South-facing windows to allow maximum natural light penetration to the interior spaces.
- Overhangs to control glare on computer screens within the gathering space.
- Windows in all areas of the library to enhance the sense of security for patrons both inside and outside.



Figure 2.56 Daylighting: Showing south-facing windows with large overhang. Sketch. (A. Webb, 2010).

Winter City Design

The northern Saskatchewan climate provides an excellent opportunity to incorporate *winter city* design principles to the redefined John M. Cuelenaere Public Library. In order to make the journey to the library an enjoyable experience, the following *winter city* design principles should be incorporated:

- Outdoor gathering spaces and seating areas facing south, sheltered from the prevailing northwest wind.
- Utility areas facing northwest with low walls to guide the prevailing wind up and over the building.
- Outdoor gathering spaces large enough to incorporate additional shelters or colonnades.



Figure 2.57 Winter City Design: Showing a sheltered south-facing outdoor gathering space and utility areas facing the northwest winds. Sketch. (A. Webb, 2010).

- Clear composition among the elements in order to define the path through the building.
- An overall asymmetrical design that provides subtle symmetrical elements within the appropriate spaces.
- A symbolic expression of the needs of the community in a form that blends in well with the existing context of the site.

All of the design elements listed above can be incorporated into the redefined John M. Cuelenaere Public Library to create the ideal place where an individual can embark upon a journey in search of knowledge.

Forms Defined by Architectural Elements

In terms of form, the redefined John M. Cuelenaere Public Library should incorporate the following design elements

- Static forms, like rectilinear shapes, that relate to the more traditional elements of the public library
- Dynamic forms incorporating curves and irregularities that relate to the new innovations in library design.
- A variety of textures such as glass, water and concrete to provoke different emotions.

Part VI - SUMMARY

After exploring the history of the library, current trends, and future directions, the preceding chapters of the story are complete. Future chapters will interpret the content of the story as set out by this thesis and provide the anticipated conclusion to the tale.

In other words, the final design of the John M. Cuelenaere Public Library will reveal the culmination of the essential design elements as outlined in this thesis. The design of the redefined John M. Cuelenaere Public Library will incorporate the following essential design elements:

- Engage the visitor in a *procession* or journey
- Create a *sense of place* where the visitor discovers a feeling of belonging
- Offer *flexibility* for future changes in social, cultural and political influences

In essence, the redefined John M. Cuelenaere Public Library will establish itself as a relevant and meaningful institution within Prince Albert by creating a rewarding experience for the visitor, by possessing a sense of place where the visitor feels a spirit of belonging, and by fully embracing technological innovations by being equipped to adapt to change.

CHAPTER THREE

D9B THESIS PROGRAM AND DESIGN DEVELOPMENT

Part I - INTRODUCTION

This functional program is intended to provide the general development requirements for the design of a new public library for the residents of the city of Prince Albert. It is based on a redefined vision of the public library, as well as trends in current library design and innovations.

1.1 The Redefined Public Library

Planning for a public library in the past has been an exercise in efficiently arranging materials to be able to offer the public the widest range of choices possible. The redefined public library must still function efficiently but must also incorporate a new vision. The redefined John M. Cuelenaere Public Library (JMCPL) will incorporate the following essential design elements:

- Engage the visitor in a *procession* or journey
- Create a *sense of place* where the visitor discovers a feeling of belonging
- Offer **flexibility** for future changes in social, cultural and political influences

The functional program is a planning tool through which not only goals and objectives are established, but also a tool through which physical parameters will be translated into forms. The following document provides the building

blocks on which the redefined public library will derive its form.

The spaces set out in this functional program must be designed so that opportunities for socializing and browsing are created between the traditional spaces along the path. There are endless combinations when designing spaces but the goal of this document is to act as a guide in determining optimal adjacencies between spaces and to ensure a design that will be able to offer all the programs and services that help to redefine the public library.

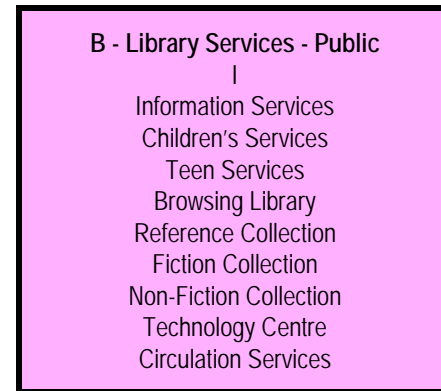
1.2 Functional Program - Overview

Part II to Part VII of this document outline the goals and parameters that help to redefine the public library. Part II includes goals and implementation ideas that will influence future planning decisions. Part III includes the functional and physical parameters as a guide to ensure the new facility meets the needs of the residents of Prince Albert. The general planning criteria in relation to the site and to the facility are included in Part IV. Part V provides the details of each component area, breaking each one down into individual spaces with subsequent areas required for each space. Although a specific site is not determined for the new facility, a general overview of site options and zoning is included in Part VI. Finally, a summary of the Functional Program is included in Part VII.

1.3 Functional Program - Structure

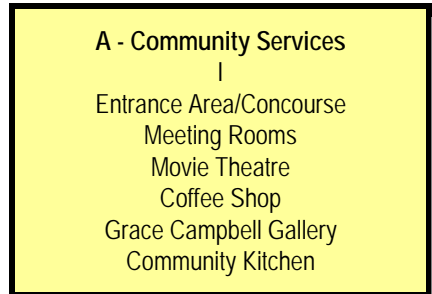
The functional program for the redefined JMCPL will consist of four component areas containing similar or related types of spaces, functions, and/or services:

- **A - Community Services:** Includes public spaces that serve library patrons as well as the general public.
- **B - Library Services - Public:** Includes public spaces that are dedicated to offering library services to the public.
- **C - Library Services - Internal:** Includes non-public library spaces that are occupied by library personnel.
- **D - Building Support Services:** Includes spaces that provide non-library specific support for building functions and operations, as well as support areas for staff.



B - Library Services - Public - spaces within component area.

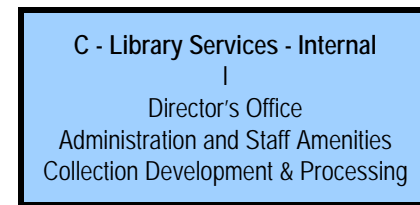
A - Community Services: Includes public spaces that can be accessed independently of the remainder of the library facility, such as meeting rooms, a movie theatre, coffee shop and community kitchen.



A - Community Services - spaces within component area.

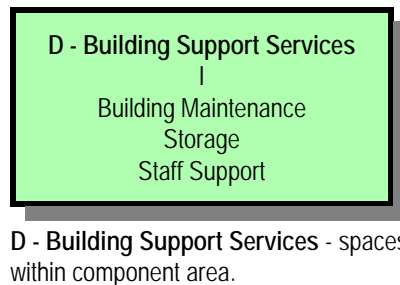
B - Library Services - Public: Includes traditional public library materials as well as non-traditional opportunities for learning. Some of the non-traditional areas include expanded children and teen areas and a technology centre.

C - Library Services - Internal: Includes areas dedicated to internal library functions such as administration areas and spaces for the collection and sorting of materials.



C - Library Services - Internal - spaces within component area.

D - Building Support Services: Includes areas required for the overall functioning of the building including building maintenance areas, staff support areas and general storage.



Each function, service, or space listed within the four component areas of the facility is further categorized into defined rooms or areas with appropriate space allotted to each function, service, or space. A summary of the Functional Program is included at the end of this document in Part VII.

Part II - PROJECT VISIONING

The following section defines the overall goals of the JMCPL. It also defines the strategic direction that will influence future planning decisions. It expands on the goals and implementation ideas outlined in the thesis "Redefining the Library".

2.1 Mission Statement

The mission statement of the JMCPL has been redefined to emphasize that all people can benefit from learning and exploring, no matter what form this evolution takes. For some, the journey toward personal growth may be in the more traditional forms of reading books and other literature. For others, the journey may translate into a more social experience, interacting with others over a cup of coffee during various programs and events offered at the library. In any case, the intention is to allow all people to experience what the public

library has to offer in their own way.

The redefined mission statement of the John M. Cuelenaere Public Library is:

"To provide a place where the residents of Prince Albert can embark upon a journey toward personal growth in a safe and welcoming environment that is engaging yet simple to navigate."

2.2 Values

As a public facility within the City of Prince Albert, it is important to uphold certain values when offering resources, programs, and services to the population. The JMCPL strives to uphold the following values in all activities associated with the facility:

- 1) **Learning**
The JMCPL supports lifelong learning through gathering knowledge in all forms to facilitate personal fulfillment and growth.
- 2) **Access for all**
The JMCPL removes barriers to access by providing materials and programs for all cultures and physical abilities.
- 3) **Accountability**
The JMCPL is committed to the pursuit of excellence in providing programs and services while being accountable and responsive to the needs of the community.

2.3 Goals

The goals of the JMCPL are closely connected to the redefined mission statement. The following section lists the top three goals followed by strategic steps, or proposed guidelines, to implement the defined goals.

1) *Procession:* To provide a journey toward personal growth

Strategic Steps:

- Provide spaces to interact with others and spaces to reflect or to work quietly
- Provide the space necessary for the gathering of book clubs, study groups, community groups
- Promote cultural events by offering more programs and events featuring authors, storytellers, artists and filmmakers
- Provide access to information in various forms in order to promote learning to all cultures and levels of ability
- Provide numerous internet stations in various areas (adult, teen, children)
- Offer leisure reading programs to children, teens and adults
- Provide early literacy resources and programs
- Provide a variety of interactive opportunities
- Provide cross-cultural programming
- Offer a wide variety of media within collections
- Maintain the art gallery to promote local artists
- Maintain the movie theatre with viewing at no charge to residents

2) *Sense of Place:* To provide a safe, welcoming environment for all residents of Prince Albert

Strategic Steps:

- Establish a civic presence within the community
- Provide access to food and drink within the library
- Cater to the specific needs and demographics of the city of Prince Albert
- Provide a healthy environment with access to natural light
- Provide welcoming and approachable staff
- Provide an area that is family-friendly

3) *Flexibility:* To provide a flexible environment that is simple to navigate

Strategic Steps:

- Provide movable furniture and installations to promote flexibility
- Provide wireless internet access within the building
- Offer services by phone, internet or in-person
- Arrange collections so that materials are easy to find

Part III - FUNCTIONAL AND PHYSICAL PARAMETERS

3.1 Functional Guidelines

The functional guidelines include both design guidelines and technology guidelines. This allows the distinction between the guidelines that promote the desired 'feel' of the facility and those that allow the facility to function efficiently given the current and anticipated technological climate.

3.1.1 Design Guidelines

Promote the Journey Toward Personal Growth

The new JMCPL will offer a wide variety of materials and programs that facilitate the journey toward personal growth. Given that every individual learns in a different way, there will be many choices in terms of media, programs, and activities offered within the library. The new facility must include a wide variety of areas, from quiet areas with individual seating to social areas with tables and chairs.

Provide a Safe Environment

By using established principles with respect to security of staff and patrons, the new library will provide secure spaces both inside and outside of the facility. Interior areas will provide open sight lines and outdoor areas will incorporate lighting and landscaping to promote safe access to and from the building.

Create a Civic Institution

The new facility will be highly visible yet durable and functional. It will be a destination that the residents can relate to and be proud to call their own.

Plan for Flexibility

Allowing for changes in technology will be provided within walls, floors and ceiling spaces. Flexibility will also be provided in all areas to adapt to the evolution in programs and activities related to a changing society and demographics.

Planning Horizon

The new JMCPL is to be designed with a 25-year planning horizon, with provision for future expansion as required after this time.

Increase in Use of Facility

Given the rapidly increasing population of Prince Albert, the facility will allow for a projected increase in patrons using a variety of resources and programs within the library.

Change in Demographics

The changing demographics within the Prince Albert area is projected to remain relevant throughout the planning horizon. The aboriginal population of Prince Albert is increasing along with a rise in the number of young people and immigrants

residing in the area. Children and teen areas will be expanded to provide spaces to accommodate the projected increase in young people visiting the library.

Extended Hours of Service

Public areas of the library such as meeting rooms and food and drink areas will be made accessible outside of the normal operating hours of the library.

Plan for Our Climate

By using established 'winter city' design principles, patrons and staff will be sheltered from the harsh winter winds and the hot summer sun as much as possible within the library site.

Shelving Systems

Borrowing from the successful bookstore approach to offering materials, the new library will include a variety of shelving heights and configurations appropriate to the intended audience and section of the library.

3.1.2 Technology Guidelines

Plan for an Integrated Library System

Library resources include physical and virtual materials. The availability of all programs and resources in physical and virtual formats will be integrated and equivalent in all possible aspects.

Plan for Self Service

Patrons will have the option of performing routine tasks independently, (like checking out books) or utilizing intuitive self-service mechanisms for certain materials. In addition to allowing patrons to experience independence and privacy, this will allow staff to help other patrons who may be having difficulty understanding the new technology.

Plan for Higher Noise Levels

Many trends in the use of the library involve an increase in the level of sounds generated from certain interactive activities. Areas allowing higher levels of noise will be placed to minimize disruption to other patrons.

Plan for Personal Technological Devices

The new library must be designed to accommodate a variety of personal electronic devices that are available today, and provide flexibility for the innovations of the future.

Plan for Visual Learning

Successful learning through visual stimuli will require larger areas that were previously not included within a library facility.

Processing of Materials

The projected population of the city of Prince Albert is not large enough to warrant the use of an automated materials handling

system at this time.

3.2 Functional Parameters

The functional parameters of the JMCPL can be defined as the general criteria for the design for a new central library facility. The functional parameters describe, in general terms, the projected requirements of the residents of Prince Albert and the general areas required to meet the needs of the public, staff, and stakeholders of the facility.

The following sections describes the general requirements for each of the four component areas of the facility: **A - Community Services**, **B - Library Services - Public**, **C - Library Services - Internal**, and **D - Building Support Services**.

3.2.1 A - Community Services

Entrance Area/Concourse

The entrance area/concourse will be the main entrance to the facility for the public. It will provide a generous common area through which access will be provided to other community areas such as the movie theatre and the coffee shop.

Meeting Rooms

In order to provide a civic gathering space for diverse groups within the community, meeting rooms of various sizes will be provided. These meeting rooms can be used for both public

meetings as well as for library programming.

Movie Theatre

The movie theatre will provide a space for regular screenings of films but will also act as a small auditorium setting for recitals, author readings and various presentations.

Coffee Shop

Accessible from the entrance area/concourse, from within the library, and from the outside, the coffee shop will provide access to beverages and light snacks.

Grace Campbell Gallery

Local artists and their talents will be showcased in the Grace Campbell Gallery. Displays range in format from small works of needlepoint to large canvas portraits. It will be an area for casual strolling and quiet discussion.

Community Kitchen

In order to focus on the future by promoting healthy nutrition habits early on, the community kitchen will offer after school programs, cooking classes and educational classes on cooking and nutrition to the residents of Prince Albert. The community kitchen will be used for demonstrations and instruction by private groups as well as for programs developed by library staff.

3.2.2 B - Library Services - Public

Information Services

Information services will be located near the main entry of the library to welcome patrons as they enter and to assist those with specific requests. It will be the first point of contact for the public and will assist in the overall security of the facility.

Children's Services

A range of programs, services, and materials will be available in the children's area to satisfy the learning needs of babies and toddlers up to school age children, along with the adults who are supervising them. This area will include a wide variety of materials ranging from CDs, DVDs, and books to areas dedicated to reading, listening, computer stations, discovery games and more. The children's area will accommodate large groups of children and will provide programs such as "Bring your Babies", "Time for Twos", "Pre-School Storytime" and "Four O'clock Fun". It will provide opportunities for children to interact, explore, and make friends while also offering a comfortable environment for parents and care givers to share ideas and communicate.

Teen Services

Since young adults typically embrace technology quickly and easily, the area of the new library dedicated to those primarily

aged thirteen to seventeen will be equipped with all the latest technology. Personal electronic devices will be welcome to allow the teens to experience the various audio-visual and media materials within the facility on their own terms within a safe social environment. Immediate supervision of the area will be handled by teens, with additional adult supervision only if required. The area will be in a distinctly different location and setting than the children's area.

Adult Services

All materials that are not designated as children or teen collections are included in the adult portion of the library. The adult area will be further categorized into individual areas including the following:

- **Browsing Library** - includes new and popular fiction and non-fiction, popular magazines and newspapers, located near the main entrance, using marketing techniques to display materials. This area will allow food and drink.
- **Reference Collection** - includes printed formats as well as electronic formats of encyclopedias, periodicals, etc. This section includes Outreach Services materials for persons who are not able to visit the library in person or may not be able to read printed material. It also includes material on literacy, ESL (English as a Second Language), local history,

genealogy, and multilingual collections.

- **Fiction Collection** - includes a substantial portion of the library's collection and will continue to be in high demand throughout the planning horizon, in both print and non-print formats. This area will also accommodate small book club meetings.
- **Non-fiction collection** - forms the largest part of the library's collection and will be designated as a quieter area than the rest.
- **Technology Centre** - accommodates the electronic information and technology coordination centre of the library, including a laboratory and training space.

Circulation Services

Circulation functions include checking out materials, checking in returned materials, overdue, holds, and other notices, collection of fines, and monitoring of self-check stations. The circulation desk will be centralized in one location and will include the loaning of equipment such as e-book readers. In addition to the main circulation desk, several self-serve check-out stations will be placed throughout the facility to promote independent operations. Staff will circulate throughout the facility to provide assistance in all areas.

3.2.3 C - Library Services - Internal

Administration

The library administration is responsible for maintaining the daily operations of a public library as well as planning for the future. The staff working within these areas does not deal with the public on a regular basis and therefore will be considered separately from the staff within the public areas of the library.

- **Director's Office**

The area dedicated to the director and associated administrative staff will include offices for both the director and the assistant director as well as a small reception area and support staff workstation. A meeting room will also be provided.

- **Administration and Staff Amenities**

The support staff area will include workstations and a work area for human resources, finance, and programming and development. It will also include a project room, storage and a staff room.

- **Collection Development and Processing**

The area dedicated to collection development and processing is the least formal area of the administration areas. It includes staff work areas for receiving, reviewing, and processing materials, as well as storage areas and access to delivery areas.

3.2.4 D - Building Support Services

Building Maintenance

The maintenance areas regulate the daily operations and requirements of the entire building and site. They include mechanical and electrical areas as well as storage space for janitorial supplies.

General Storage

Interior storage areas include spaces for storing garbage and recycling and extend to the covered loading dock on the exterior.

Staff Support

Support areas include showers and change rooms for staff, a mail room, and a workshop area for minor repairs to furnishings.

3.3 Physical Parameters

While the functional parameters describe the general areas required to meet the needs of the library staff and patrons, the physical parameters define the design objectives to ensure that each space is designed to satisfy at least one of the established goals.

Design Objectives

Five interrelated design objectives have been established to be used as

guidelines for the design of the new library. They incorporate some of the aspects of the goals of the project: *Procession, Sense of Place*, and *Flexibility*, as outlined in the thesis, "Redefining the Public Library":

1. Journey Toward Personal Growth

The approach to the new library should be clearly visible and intuitively lead you inside and throughout the building, giving each person the opportunity to explore what matters to them.

Functional Clarity - The new library should contain spaces that are loosely defined by furnishings, textures, colour and forms. Convenient and self-evident locations for key functions should exist.

Visual Contact - The new library should promote the relationship between outside and inside, nature and the built environment.

2. Human Physical and Psychosocial Health

The design of the new library should promote physical health and emotional well-being of both staff and visitors.

Light - The new library should utilize natural daylight to its fullest potential, with artificial light to supplement all areas.

Acoustics - The new library should group areas with a higher ambient noise level together and still provide quieter areas for certain functions such as reading or studying.

Beauty - The new library should inspire people to notice the beauty in their everyday lives by providing art, integrating different materials, and emphasizing certain areas through scale and proportion.

3. Architectural and Civic Presence

The new library should be a destination that becomes part of the fabric of the city where residents can feel a sense of belonging within the community.

Site Context - The new library should incorporate elements from the history of the site or the context of the surrounding community in order for patrons to feel a connection to the past.

Gathering Place - The new library should foster a sense of belonging where people feel safe and welcome.

Image - The new library should be timeless in design and should reflect the formality of a civic building along with the informality of a society that is constantly changing.

4. Public Safety

The design solution should address staff and patron security both inside and outside the building.

Natural Surveillance - By allowing flexibility within the building, each space should be somewhat visible from adjacent spaces in order to provide a sense of security to those both inside and outside the building.

Access Control - The new library should be designed to naturally control points of entry. The main entry will offer a highly visible and safe entry point to the facility.

Visibility - Activities within the new library should be visible from adjacent spaces as well as from the outside to enforce the natural surveillance principle. Suspicious activities are minimized when the possibility of being seen exists.

5. Functional Suitability

Design solutions should integrate both traditional elements of the library with technical requirements.

Anticipation of Change - The new library should include provisions for all the latest technological requirements as well

as be able to support change without compromising the permanent systems of the building.

Building Systems - The new library should reflect the latest energy efficient building systems and maintenance methods.

Part IV - GENERAL PLANNING CRITERIA

The General Planning Criteria consist of both site design criteria and facility planning criteria.

4.1 Site Design Criteria

The following site design criteria are intended to assist in the selection of a suitable site for the new public library in Prince Albert. The selection of the site should be based on the following:

1. Site Conditions

- Natural light should be available
- Site should allow opportunities for landscaping, wider sidewalks, and intermittent seating
- Site should be accessible in all seasons

2. Building Configuration

- Site should support both formal and informal approaches to link to both the past and the future
- Traffic patterns within the site should maximize safety

3. Building Orientation

- Building should be oriented to maximize daylighting
- Building should incorporate winter city design principles:
 - Smaller windows on the north side
 - Larger windows on the south side with sun shades designed to admit low winter sun and block the high summer sun
 - Entrances for staff, patrons, and deliveries protected from snow, rain and lateral winds
- Building should incorporate existing or new deciduous trees to admit light in the winter and provide shade in the summer

4. Building Visibility

- Building should be established as a highly visible landmark with maximum visibility from surrounding streets and vantage points
- Visibility into the library should allow the public to understand the type of activities taking place within the building during the day and at night
- Visibility for staff and patrons to the outside is also important
- The new building should be connected to the context of the site and its surroundings through the use of appropriate scale

5. Access

- The site and building should be accessible from as many approaches and directions as possible
- Once within the site, these approaches should lead to the single point of controlled public entry to the building
- Principles of Crime Prevention through Environmental Design (CPTED) should be followed to increase pedestrian safety
- Consideration should be given to drop off areas for transit, taxis, staff, patrons, as well as for deliveries and for garbage/recycling pick-up
- The site should allow a drive-by book drop connected to the appropriate interior area
- The site should be easily accessible by transit

6. Parking

- Depending on the location, on-site parking should be available for selected staff and patrons
- Dedicated parking spaces should also be provided for:
 - Persons with disabilities
 - Emergency vehicles
 - Garbage collection/recycling
 - Bicycles

4.2 Facility Planning Criteria

The following facility planning criteria are provided to assist in the development of schematic and detailed design. The building planning criteria are subdivided as follows:

1. Zoning of Public Spaces
2. Vertical Zoning of Building
3. Consistent Organization of Floors
4. Access for Service Components
5. Independent Operation of Specific Areas
6. Staff Work Areas
7. Information Systems Infrastructure
8. Flexibility

1. Zoning of Public Spaces

Public spaces that are noisy and active should be located near the vertical circulation systems as well as near the main entry. As you proceed further away from the noisy public areas, materials should follow, with the quieter study areas situated as far as possible from the noisy public areas.

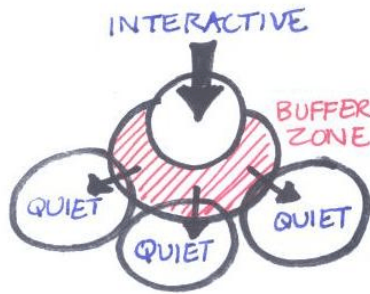


Figure 3.1 Sketch illustrating distribution of noise within library. Interactive entry areas are surrounded by a buffer zone.

2. Vertical Zoning of Building

Should the building require more than one floor to accommodate all public and administrative services, the higher activity areas should be located on the main entrance floor, with quieter and less active areas on the upper floors and sub-level areas.

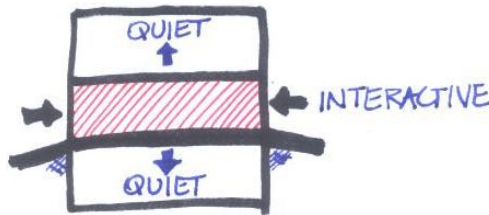


Figure 3.2 Sketch illustrating vertical distribution of noise. Noise can be zoned vertically as well as horizontally.

3. Consistent Organization of Floors

Each floor with public areas should consistently include the vertical circulation in the same place on each floor level. Washroom areas should also be stacked so that patrons and staff can find them easily no matter which level they are on.

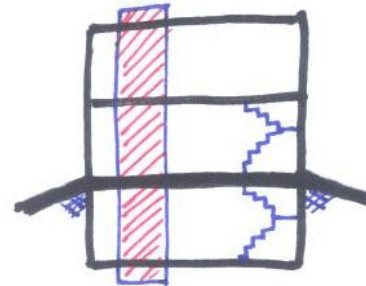


Figure 3.3 Sketch illustrating stacked vertical circulation zones (elevator and stair).

4. Access for Service Components

Service components such as loading and delivery areas should be connected to the library areas that receive and send materials and equipment regularly. These service areas should also be connected to convenient outdoor access points, away from public areas.

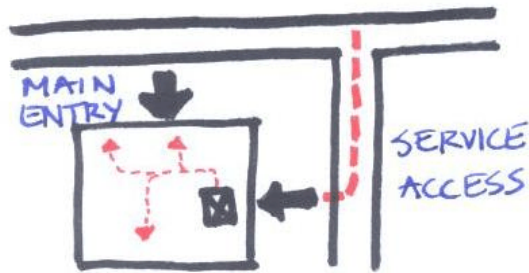


Figure 3.4 Sketch illustrating the importance of the service access and subsequent distribution of materials throughout the library.

5. Independent Operation of Specific Areas

In order to satisfy the needs of various community groups and the public, the library should allow for the independent operation of some functions such as meeting rooms and retail areas. The Grace Campbell Gallery may also benefit from independent but connected operation.

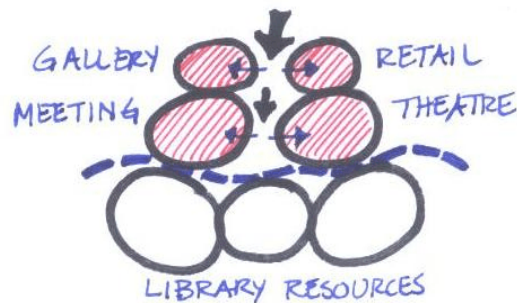


Figure 3.5 Sketch illustrating zoning to allow independent operation of extended library functions.

6. Staff Work Areas

Staff work areas should be organized so that workstations be placed closest to the windows to allow natural light within the work area. Should partition walls be required, glazing should be included in such a way that natural light is borrowed from the windows along the exterior walls. Work areas that include storage and photocopiers should be located within the central core of the building.

7. Information Systems Infrastructure

Although we cannot predict all the various directions that technology will lead us to, the library should allow for easy reconfiguration of spaces. This can be accommodated by allowing extra room within ceiling spaces or within raised floor areas. The final design should allow technology to be integrated within the walls, floors, and ceilings as much as possible in all areas, making the function of the spaces more adaptable to change.

8. Flexibility

In order to provide flexibility throughout the building, floor loads in all areas should be designed to accommodate stacks so that the collections can be relocated if required. All areas should be designed for maximum loads so as not to restrict any future reconfiguration.

Part V - PLANNING CRITERIA

The Planning Criteria outline the key elements of each component of the building, including the areas assigned to each activity. The component areas include:

- **A - Community Services**
- **B - Library Services - Public**
- **C - Library Services - Internal**
- **D - Building Support Services**

As previously mentioned in Part I, the first component area, **A - Community Services**, includes the following areas:

- Entrance Area/Concourse
- Meeting Rooms
- Movie Theatre
- Coffee Shop
- Grace Campbell Gallery
- Community Kitchen

The second component area, **B - Library Services - Public**, includes traditional public library materials as well as non-traditional opportunities for learning. These public areas include:

- Information Services
- Children's Services
- Teen Services
- Browsing Library
- Reference Collection

- Fiction Collection
- Non-fiction Collection
- Technology Centre
- Circulation Services

The third component area, **C - Library Services - Internal**, includes areas dedicated to internal library functions. The internal library staff areas include:

- Director's Office
- Administration and Staff Amenities
- Collection Development & Processing

The fourth and final component area, **D - Building Support Services**, includes all remaining areas that are not open to the public and not specifically related to library functions. The building support areas include:

- Building Maintenance
- General Storage
- Staff Support

The areas listed within the component areas A, B, C and D are broken down into a chart format that includes detailed room criteria. Relationship Diagrams also show the internal and external relationships of each area within these components. A summary of all the areas is included at the end of Part V.

5.1 A Community Services

The spaces for community events and programs will be accessed by an inviting entry leading to meeting rooms, a gallery, a movie theatre, and a place to enjoy refreshments. In addition, this public area will also include an area that is derived solely from the needs of the residents of Prince Albert: *a community kitchen*. This area will be focused on educating the public about good eating habits and will provide demonstrations, lessons, and after school programs for children who may not have access to healthy choices at home. In addition to benefitting the large aboriginal population in Prince Albert who are prone to developing diabetes, it will continue the education process that is starting to evolve in the schools of Prince Albert by taking on the role similar in concept adopted by the city's community schools.

A1 Entrance Area / Concourse

The Entrance Area / Concourse component includes the following functions and features:

- Main entrance space and lobby for entire facility
- Events signage
- Public art display
- Donor recognition
- Community information kiosk / display
- Socializing

Detailed Room Criteria Chart				
Area/Room	Sq. M. per room	Units	Total Area Sq. M.	Total Area (Sq. Ft.)
Vestibule	7.4	1	7.4	80
Entrance Lobby	47.6	1	47.6	512
Note: Entrance Lobby includes open space for events signage, public art display, donor recognition, community information display, and socializing of up to 1,000 people per day				
Informal Seating	32.0	1	32.0	344
Note: Seating in oversized lounge chairs calculated at 3.2 sq. m. per seat (10 people)				
Security desk/kiosk	23.0	1	23.0	250
Note: Security desk/kiosk includes desk with seating area for one person				
Total Area - A1 Entrance Area/Concourse			110.0 sq. m.	1,186 sq. ft.

External Relationship Diagram:

- Direct access by public from adjacent streets
- Direct access by public to Information Services
- Direct access by public to Meeting Rooms
- Direct access by public and staff to Grace Campbell Gallery
- Direct access by public to Movie Theatre
- Direct access to Community Kitchen
- Convenient access by public to Coffee Shop
- Convenient access by public from public parking

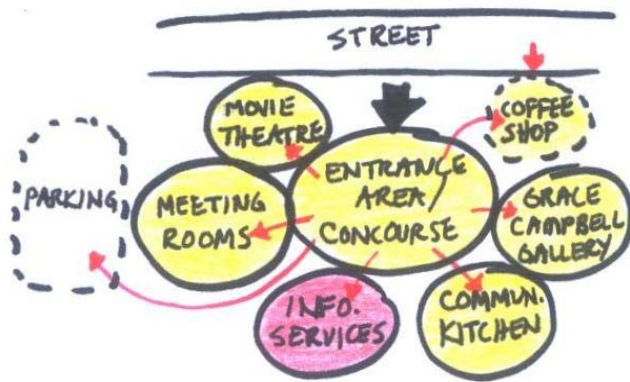


Figure 3.6 Sketch of external relationship diagram for Entrance Area / Concourse.

Internal Relationship Diagram:

- Vestibule adjacent security desk/kiosk
- Centrally located security desk/kiosk
- Entrance lobby adjacent all spaces
- Centrally located informal seating area

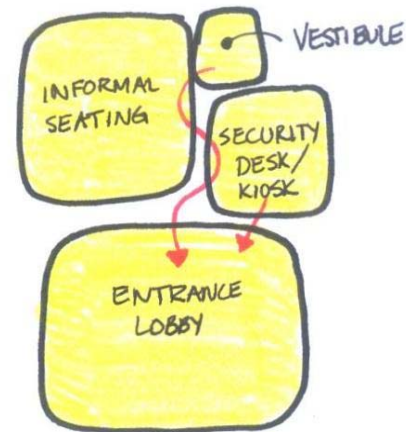


Figure 3.7 Sketch of internal relationship diagram for Entrance Area / Concourse.

A2 Meeting Rooms

The Meeting Room component includes the following functions and features:

- Community meetings
- Library programming
- Ability to provide catered meals, snacks and coffee

Detailed Room Criteria Chart				
Area/Room	Sq. M. per room	Units	Total Area Sq. M.	Total Area (Sq. Ft.)
Crush space	19.0	1	19.0	200
Coats/boots	9.0	1	9.0	100
Multipurpose Room	65.1	1	65.1	700
Note: Seating for 35 people at tables calculated at 1.86 sq. m. per seat				
Meeting Room	33.5	1	33.5	360
Note: Seating for 18 people at tables calculated at 1.86 sq. m. per seat				
Kitchenette	19.0	1	19.0	205
Note: Space is to accommodate meals provided by catering services, snacks, coffee, and minimal storage				
Table/Chair Storage	10.0	1	10.0	108
Total Area - A2 Meeting Rooms			170.5 sq. m.	1,835 sq. ft.

External Relationship Diagram:

- Direct access by public to Entrance area/Concourse
- Convenient access by public to Coffee Shop
- Convenient access by public from parking/outdoors

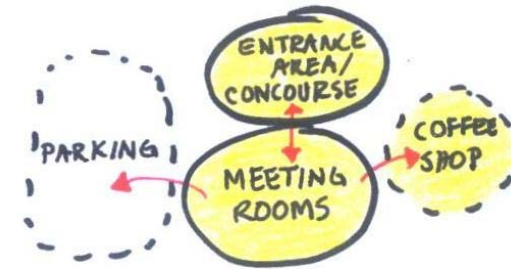


Figure 3.8 Sketch of external relationship diagram for Meeting Rooms.

Internal Relationship Diagram:

- Centrally located crush space
- Multipurpose room and meeting room directly accessible to kitchenette
- Conveniently located access to coats and storage

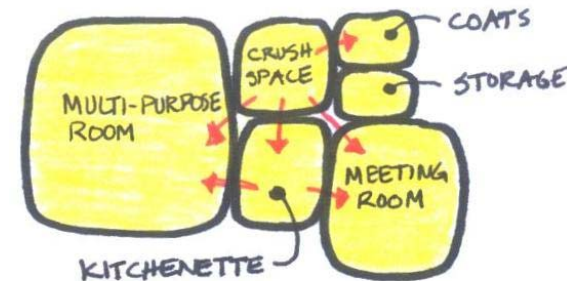


Figure 3.9 Sketch of internal relationship diagram for Meeting Room area.

A3 Movie Theatre

The Movie Theatre component includes the following functions and features:

- Regular screening of films
- Recitals and music events
- Presentations and receptions
- Author readings
- Beverage and snack sales

Detailed Room Criteria Chart				
Area/Room	Sq. M. per room	Units	Total Area Sq. M.	Total Area (Sq. Ft.)
Lobby	28.0	1	28.0	300
Theatre	184.1	1	184.1	1,982
Note: 180 seat tiered auditorium with flat proscenium performance space and 12 metre curved screen. Seating for 180 people calculated at .93 sq. m. per seat plus 10% for speaker/stage (167.4 sq. m. + 16.7 sq. m. = 184.1 sq. m.)				
Projection Technician's Booth	7.0	1	7.0	70
Change Rooms	9.5	2	19.0	200
Green Room	14.0	1	14.0	150
Total Area - A3 Movie Theatre			252.1 sq. m.	2,714 sq. ft.

External Relationship Diagram:

- Direct access by public to Entrance area/Concourse
- Convenient access by public to Community Kitchen
- Convenient access by public to Coffee Shop
- Convenient access by public from parking/outdoors

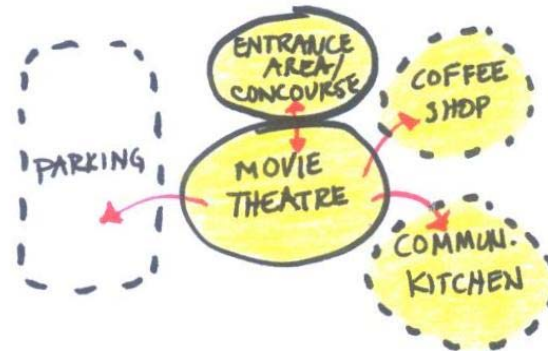


Figure 3.10 Sketch of external relationship diagram for Movie Theatre area.

Internal Relationship Diagram:

- Lobby accessible to movie theatre and change rooms
- Movie Theatre and stage provide access to exterior for exit requirements as well as for movement of items from parking lot or loading area

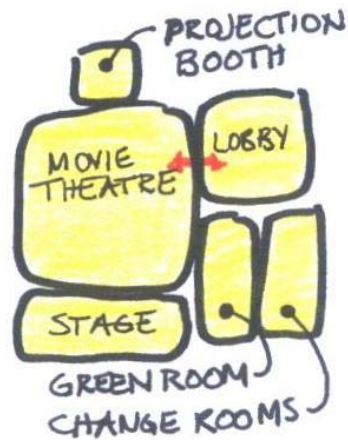


Figure 3.11 Sketch of internal relationship diagram for Movie Theatre area.

A4 Coffee Shop

The Coffee Shop component may include the following functions and features:

- Food services/restaurant
- Coffee bar
- Library gift store

Detailed Room Criteria Chart				
Area/Room	Sq. M. per room	Units	Total Area Sq. M.	Total Area (Sq. Ft.)
Vestibule	7.4	1	7.4	80
Restaurant area	60.0	1	60.0	646
Note: Design of coffee shop may vary dependent on service provider				
Storage / Utility / Loading	32.0	1	32.0	344
Total Area - A4 Coffee Shop			99.4 sq. m.	1,070 sq. ft.

External Relationship Diagram:

- Direct access by public from adjacent streets
- Convenient access by public from Entrance area/Concourse
- Convenient access by public from parking/outdoors
- Convenient access to General Storage/deliveries

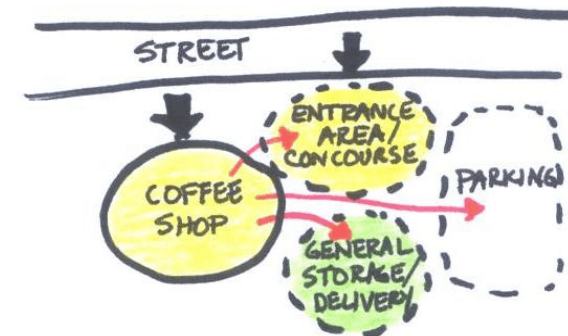


Figure 3.12 Sketch of external relationship diagram for Coffee Shop area.

Internal Relationship Diagram:

- Vestibule accessible to outside and to Entrance area/Concourse
- Good visibility from Coffee Shop to vestibule
- Storage/utility area accessible to Coffee Shop and to exterior parking area or loading dock

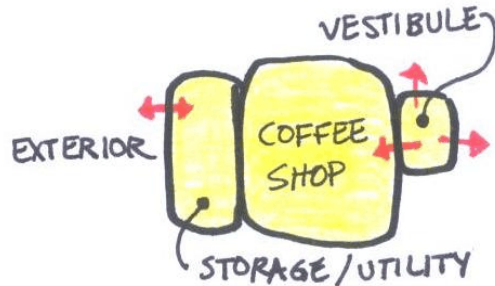


Figure 3.13 Sketch of internal relationship diagram for Coffee Shop area.

A5 Grace Campbell Gallery

The Grace Campbell Gallery component includes the following functions and features:

- Public exhibitions
- Multimedia presentations
- Display and storage of rental collection
- Secure, climate-controlled storage
- Monitoring of exhibits

Detailed Room Criteria Chart				
Area/Room	Sq. M. per room	Units	Total Area Sq. M.	Total Area (Sq. Ft.)
Exhibition Gallery	74.0	1	74.0	800
Display of rental collection	37.0	1	37.0	400
Office	12.0	1	12.0	125
Note: Above spaces form part of the Gallery Exhibit Space. Spaces listed below form part of the Workshops and Storage Space.				
Workshop / art supply storage	28.0	1	28.0	300
Storage vault	37.0	1	37.0	400
Total Area - A5 Grace Campbell Gallery			188.0 sq. m.	2,025 sq. ft.

External Relationship Diagram:

- Direct access by the public from the Entrance area/Concourse
- Convenient access by the public from the Browsing Library
- Convenient access by staff to General Storage for the movement of exhibits

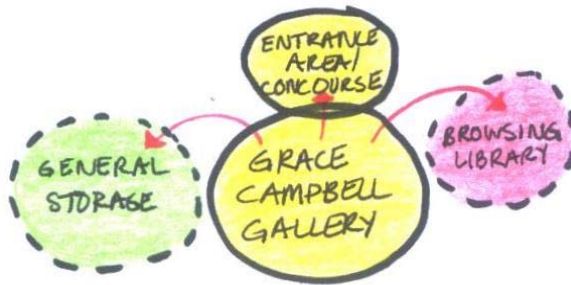


Figure 3.14 Sketch of external relationship diagram for the Grace Campbell Gallery.

Internal Relationship Diagram:

- Exhibition gallery easily accessible to public
- Good visibility from office to exhibit area
- Storage areas and workshop easily accessible to non-public internal circulation or exterior loading dock or parking lot

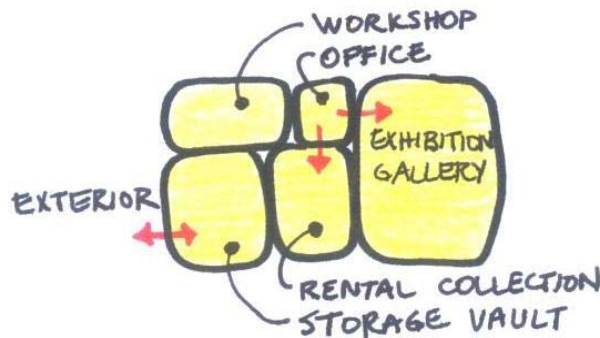


Figure 3.15 Sketch of internal relationship diagram for the Grace Campbell Gallery.

A6 Community Kitchen

The Community Kitchen component includes the following functions and features:

- Cooking classes
- After school programs
- Education on nutrition and health

Detailed Room Criteria Chart				
Area/Room	Sq. M. per room	Units	Total Area Sq. M.	Total Area (Sq. Ft.)
Full kitchen	55.0	1	55.0	600
Note: Space for up to three cooks; island seating for eight.				
Food storage	15.0	1	15.0	160
Note: Includes walk-in freezer and walk-in cooler.				
Audio-visual equipment	4.0	1	4.0	40
Office	9.0	1	9.0	100
Total Area - A6 Community Kitchen			83.0 sq. m.	900 sq. ft.

External Relationship Diagram:

- Direct access by public to Entrance area/Concourse
- Convenient access to General Storage/delivery areas
- Convenient access by public from parking/outdoors



Figure 3.16 Sketch of external relationship diagram for the Community Kitchen area.

Internal Relationship Diagram:

- Good visibility from office to community kitchen area
- Freezer and cooler easily accessible from kitchen area
- Audio-visual equipment accessible for display of information or instructions

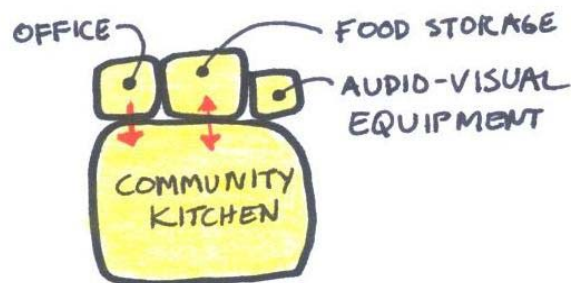


Figure 3.17 Sketch of internal relationship diagram for the Community Kitchen area.

The redefined library is focused on creating an experience with each visit to the library. The new facility will provide traditional materials arranged in interesting but easily accessible configurations. It will also provide non-traditional opportunities for learning such as expanded children and teen areas, as well as a technology centre where individuals can learn about new technology available to them and how to use this technology to enhance their learning experience.

B1 Information Services

The Information Services component includes the following functions and features:

- Patron administration activities
- Computer stations to check personal accounts
- Self-sorted materials drop area
- Gathering space for tours and school groups
- General facility orientation

Detailed Room Criteria Chart				
Area/Room	Sq. M. per room	Units	Total Area Sq. M.	Total Area (Sq. Ft.)
Library Service Desk	14.0	1	14.0	150
Note: Desk accommodates one staff person.				
Computer stations	4.3	3	13.0	135
Note: Require 3 stations @4.3 sq. m. per station = 13.0 sq. m.				
Lost and Found	3.0	1	3.0	30
Self sort materials drop area	1.4	4	5.6	60
Note: Require two drops for books and two drops for audio-visual materials.				
Gathering space for tours and school groups	20.0	1	20.0	215
Total Area - B1 Information Services			55.6 sq. m.	590 sq. ft.

External Relationship Diagram:

- Direct access by public from Entrance area/Concourse
- Convenient access by library staff from General Storage for the movement of materials
- Convenient access by the public to the Browsing Library
- Convenient access by public to Children's Services

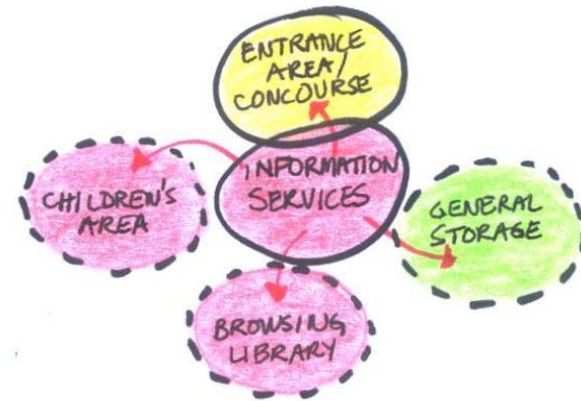


Figure 3.18 Sketch of external relationship diagram for the Information Services area.

Internal Relationship Diagram:

- First point of contact for public within library area from Entrance area/Concourse
- Convenient access to self sort materials drop
- Good visibility from library service desk to Entrance area/Concourse and to public circulation areas of library

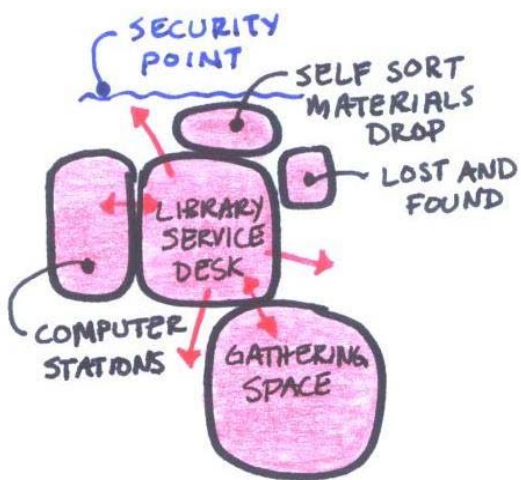


Figure 3.19 Sketch of internal relationship diagram for the Information Services area.

- Parent and child reading/exploration area
- Infant/toddler area with barriers
- Program activities such as puppet theatre, story-time, crafts
- Listening stations
- Viewing stations
- Printing and photocopying
- Seating areas

B2 Children's Services

The Children's Services component includes the following functions and features:

- Service point with roving staff
- Self check out of materials
- Materials displays
 - Juvenile audiovisual materials
 - Children's fiction/non-fiction
 - Parenting Collection
 - Magazines for children and parents
- Computer access

Detailed Room Criteria Chart				
Area/Room	Sq. M. per room	Units	Total Area Sq. M.	Total Area (Sq. Ft.)
Entrance Feature	5.0	1	5.0	54
Arrival and orientation	9.0	1	9.0	97
Stroller parking / gathering space	4.0	1	4.0	43
Service desk	14.0	1	14.0	150
Note: One staff person required.				
Self check out stations	3.5	2	7.0	75
Children's print collection	214.0	1	214.0	2,300
Note: 30,000 items sorted into areas by age group.				
Audiovisual collection	14.0	1	14.0	150
Listening stations	4.0	3	12.0	129
Note: Three stations required at 4.0 sq. m. per station.				
Viewing stations	4.0	3	12.0	129
Note: Three stations required at 4.0 sq. m. per station.				

Magazines	14.0	1	14.0	150
Note: 100 titles provided at .14 sq. m. per title.				
Play area	18.0	1	18.0	194
Note: Designed for infants and toddlers including toy storage.				
Reading area	11.0	1	11.0	118
Note: To accommodate children and their care givers.				
Computer stations	4.3	8	34.4	370
Note: Seating for two required at each station.				
Group tables	27.0	1	27.0	290
Note: Seating for 15 children at 1.8 sq. m. per seat.				
Small meeting room	11.2	1	11.2	120
Note: Seating for 6 people at 1.86 sq. m. per seat.				
Program room	46.5	1	46.5	500
Note: Seating for 25 people @1.86 sq. m. per seat.				
Children's staff workspace	17.0	1	17.0	180
Washroom	28.0	1	28.0	300
Note: Includes nursing area.				
Total Area - B2 Children's Services			498.1 sq. m.	5,362 sq. ft.

External Relationship Diagram:

- Convenient access by the public from Information Services
- Convenient access by the public to the Movie Theatre
- Convenient access by staff from General Storage for movement of materials

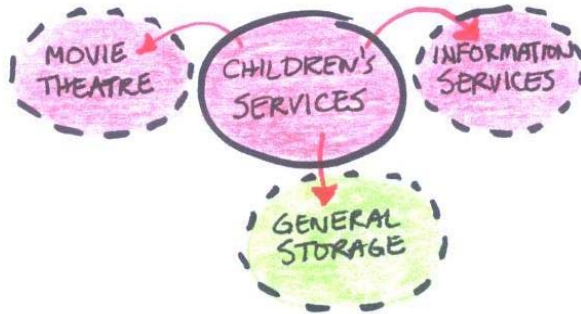


Figure 3.20 Sketch of external relationship diagram for Children's Services.

Internal Relationship Diagram:

- Good visibility from service desk into most areas
- Listening area, viewing area, audio visual area and computer stations located near service desk for easy access to helpful staff
- Program area located at opposite end from entrance area so that children and adults walk past materials on their way to participate in programs
- Reading area adjacent print collection
- Washroom located near Service desk for supervision



Figure 3.21 Sketch of internal relationship diagram for Children's Services.

B3 Teen Services

The Teen Services component includes the following functions and features:

- No formal service point
- Storage display and access of teen materials
- Informal socializing and study
- Homework activities in group and small group environments
- Gaming
- Computer access
- Informal reading area

- Printing and photocopying
- Art displays
- Enclosed area with multiple entrances

Detailed Room Criteria Chart				
Area/Room	Sq. M. per room	Units	Total Area Sq. M.	Total Area (Sq. Ft.)
Arrival and orientation	9.0	1	9.0	100
Self check out stations	3.5	2	7.0	80
Print / copy centre	5.0	1	5.0	50
Computer stations	4.3	6	25.8	278
Note: Seating for two required at each station.				
Teen print collection	43.0	1	43.0	460
Note: 6,000 items.				
Display area	7.0	1	7.0	80
Gaming area	9.0	2	18.0	194
Note: 2 stations accommodating 4 people each.				
Informal seating	32.0	1	32.0	344
Note: Seating in oversized lounge chairs calculated at 3.2 sq. m. per seat (10 people).				

Quiet study room	17.0	1	17.0	180
Vending machines	2.0	2	4.0	40
Total Area - B3 Teen Services			167.8 sq. m.	1,805 sq. ft.

External Relationship Diagram:

- Convenient access by the public to Circulation Services
- Distant relationship to Children's Services
- Convenient access to Fiction and Non-Fiction

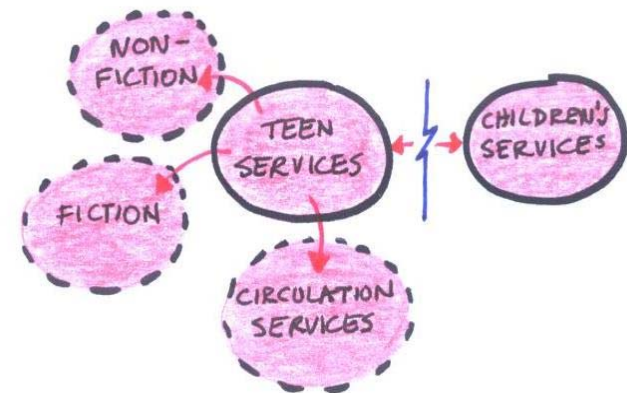


Figure 3.22 Sketch of external relationship diagram for Teen Services area.

Internal Relationship Diagram:

- Display area at centre of teen space
- Quiet study area at opposite end from gaming and computer area
- Seating adjacent print collection and vending machines

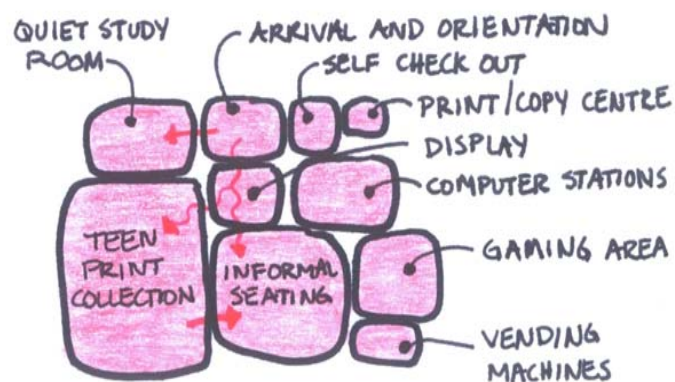


Figure 3.23 Sketch of internal relationship diagram for Teen Services area.

B4 Browsing Library

The Browsing Library component includes the following functions and features:

- Roving staff
- Self check out of materials
- Storage and display of:
- New and popular materials from all collections
- Quick picks
- Newspapers and magazines
- Audiovisual materials
- Quick stop computer access
- Informal reading
- Lounge area
- Listening stations

- Viewing stations
- Group study areas
- Access to food and drink

Detailed Room Criteria Chart				
Area/Room	Sq. M. per room	Units	Total Area Sq. M.	Total Area (Sq. Ft.)
Arrival and orientation	20.0	1	20.0	220
Self check out stations	3.5	2	7.0	80
Coffee bar	33.0	1	33.0	350
Note: Includes seating for 10 people and counter area designated for eating and drinking.				
Informal seating	57.6	1	57.6	620
Note: Seating in oversized lounge chairs calculated at 3.2 sq. m. per seat (18 people).				
Individual table seating	27.6	1	27.6	297
Note: Seating at tables calculated at 2.3 sq. m. per seat (12 people).				
Audio visual collection	7.0	1	7.0	80
Note: 1,000 items displayed.				
Listening stations	4.0	3	12.0	129
TV areas	10.0	2	20.0	215

Magazine collection	4.5	1	4.5	48
Note: 50 titles displayed at 0.9 sq. m. per title				
Total Area - B4 Browsing Library area		188.7 sq. m.	590 sq. ft.	

External Relationship Diagram:

- Direct access by the public from the Coffee Shop
- Security point provided between Browsing Library and Coffee Shop
- Convenient access by the public from Information Services
- Convenient access by the public to Circulation Services

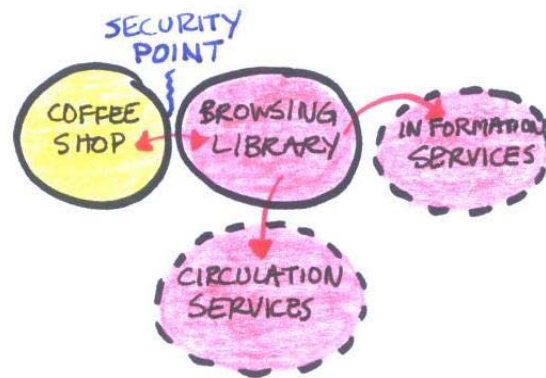


Figure 3.24 Sketch of external relationship diagram for the Browsing Library.

Internal Relationship Diagram:

- Magazines accessible immediately upon entering
- Proceed to seating area and tables
- Seating area adjacent to TV and audio visual areas

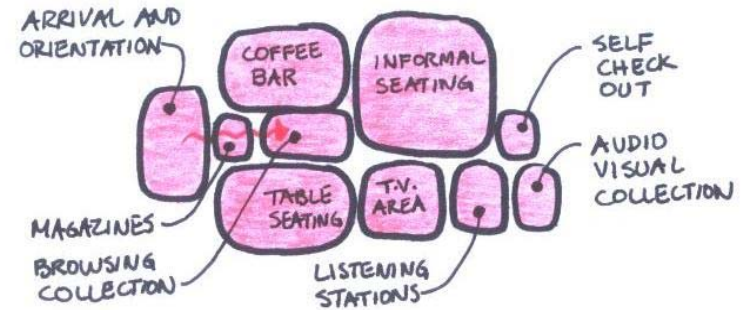


Figure 3.25 Sketch of internal relationship diagram for the Browsing Library.

B5 Reference Collection

The Reference Collection component includes the following functions and features:

- Shared service point with roving staff
- Self check out of certain materials
- Special technology for accessing materials
- Storage and display of:
 - Encyclopedias and periodicals
 - Outreach collection
 - Literacy collection
 - History and Genealogy
- Photocopying and printing
- Study and reading
- Computer access
- Reading at individual tables
- Group table area

Detailed Room Criteria Chart				
Area/Room	Sq. M. per room	Units	Total Area Sq. M.	Total Area (Sq. Ft.)
Service desk	17.0	1	17.0	180
Note: 2 staff based at service desk.				
Copy centre	5.0	1	5.0	50
Computer stations	4.3	4	17.2	185
Note: Require 4 stations @4.3 sq. m. per station = 17.2 sq. m.				
Reference collection	14.0	1	14.0	150
Note: 1,500 items.				
Periodicals	2.25	1	2.25	24
Note: 25 titles displayed at 0.9 sq. m. per title.				
Outreach collection	29.0	1	29.0	310
Note: 4,000 items including large print.				
Literacy collection	4.0	1	4.0	40
Note: 500 items.				
Individual table seating	23.0	1	23.0	248
Note: Seating at tables calculated at 2.3 sq. m. per seat (10 people).				
Meeting room	18.6	1	18.6	200
Note: Seating for 10 people at tables calculated at 1.86 sq. m. per seat.				
Total Area - B5 Reference Collection			130.0 sq. m.	1,387 sq. ft.

External Relationship Diagram:

- Convenient access by the public from Information Services
- Convenient access by the public to Circulation Services
- Convenient access by the public to Fiction and Non-fiction

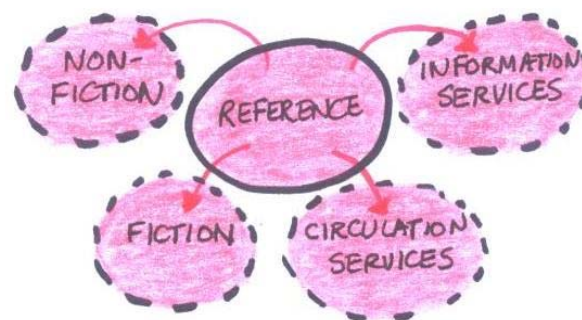


Figure 3.26 Sketch of external relationship diagram for the Reference area.

Internal Relationship Diagram:

- Accessible service desk for help with all reference items and research questions
- Centrally located functional seating area
- Enclosed meeting room for discussions

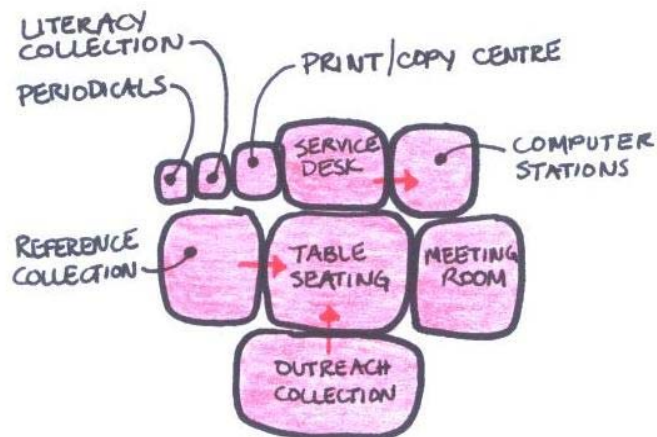


Figure 3.27 Sketch of internal relationship diagram for the Reference Collection area.

B6 Fiction Collection

The Fiction Collection component includes the following functions and features:

- Roving staff
- Self check out of materials
- Storage and display of:
- Fiction collection
- International languages collection
- Quick stop computer access
- Reading at individual tables
- Lounge area
- Program area including reading groups and writing groups
- Printing and photocopying

Detailed Room Criteria Chart				
Area/Room	Sq. M. per room	Units	Total Area Sq. M.	Total Area (Sq. Ft.)
Self check out	3.5	1	3.5	38
Print / copy centre	5.0	1	5.0	50
Computer stations	4.3	4	17.2	185
Note: Require 4 stations @4.3 sq. m. per station = 17.2 sq. m.				
Fiction collection	143	1	143	1,540
Note: 20,000 items.				
International languages collection	6.0	1	6.0	60
Note: 800 items.				
Informal seating	32.0	1	32.0	344
Note: Seating in oversized lounge chairs calculated at 3.2 sq. m. per seat (10 people).				
Individual table seating	23.0	1	23.0	248
Note: Seating at tables calculated at 2.3 sq. m. per seat (10 people).				
Total Area - B6 Fiction Collection			229.7 sq. m.	2,465 sq. ft.

External Relationship Diagram:

- Convenient access by the public from Information Services

- Convenient access by the public to Circulation Services
- Convenient access by the public to Non-fiction



Figure 3.28 Sketch of external relationship diagram for the Fiction Collection area.

Internal Relationship Diagram:

- Centrally located comfortable seating area
- Computer area adjacent print / copy area

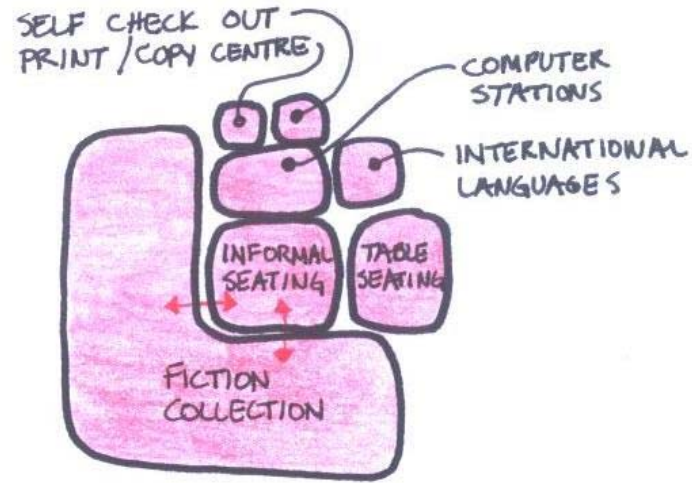


Figure 3.29 Sketch of internal relationship diagram for the Fiction Collection area.

B7 Non-fiction Collection

The Non-Fiction Collection component includes the following functions and features:

- Roving staff
- Computer-based research
- Storage and display of the non-fiction collection
- Informal meeting and study
- Group meetings
- Individual reading and study
- Printing and photocopying

Detailed Room Criteria Chart				
Area/Room	Sq. M. per room	Units	Total Area Sq. M.	Total Area (Sq. Ft.)
Self check out	3.5	1	3.5	38
Copy centre	5.0	1	5.0	50
Computer stations	4.3	6	25.8	278
Note: Require 6 stations @4.3 sq. m. per station = 25.8 sq. m.				
Non-fiction collection	286.0	1	286.0	3,075
Note: 40,000 items.				
Large print collection	11.0	1	11.0	115
Note: 7,500 items.				
Informal seating	32.0	1	32.0	344
Note: Seating in oversized lounge chairs calculated at 3.2 sq. m. per seat (10 people).				
Individual table seating	23.0	1	23.0	248
Note: Seating at tables calculated at 2.3 sq. m. per seat (10 people).				
Group tables	7.45	2	14.9	160
Note: 2 tables with seating for 4 people per table, calculated at 1.86 sq. m. per seat.				
Meeting / project room	18.6	1	18.6	200
Note: Seating for 10 people at tables calculated at 1.86 sq. m. per seat.				
Total Area - B7 Non-fiction Collection			419.8 sq. m.	4,508 sq. ft.

External Relationship Diagram:

- Convenient access by the public from Information Services
- Convenient access by the public to Circulation Services
- Convenient access by the public to Fiction

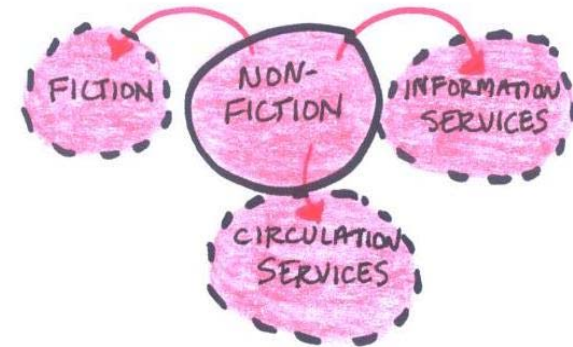


Figure 3.30 Sketch of external relationship diagram for the Non-fiction Collection area.

Internal Relationship Diagram:

- Centrally located comfortable seating area
- Computer area adjacent print / copy area
- Table seating adjacent non-fiction collection
- Group tables adjacent large print collection for gathering materials
- Enclosed meeting / project room for discussions

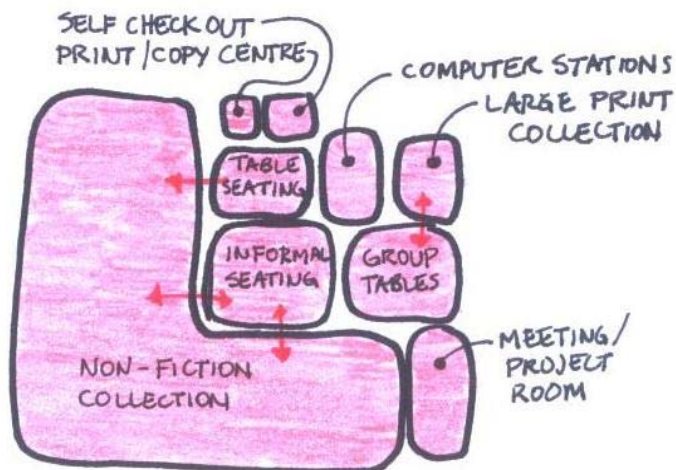


Figure 3.31 Sketch of internal relationship diagram for the Non-fiction Collection area.

B8 Technology Centre

The Technology Centre component includes the following functions and features:

- Informal service point with roving staff
- Display of materials
- Computer-based research and generation of multimedia products
- Exploratory lab for new technology
- Informal socializing and study
- Testing of prototypes, games
- Administrative activities associated with virtual services and internet
- Staging and set up of computers

- Printing, scanning and copying of materials

Detailed Room Criteria Chart				
Area/Room	Sq. M. per room	Units	Total Area Sq. M.	Total Area (Sq. Ft.)
Print / copy centre	5.0	1	5.0	50
Computer stations	4.3	6	25.8	278
Note: Require 6 stations @4.3 sq. m. per station = 25.8 sq. m.				
Electronic classroom	54.0	1	54.0	580
Note: 10 stations @4.18 sq. m. per station, plus 7.5 sq. m. for instructor.				
Training lab	54.0	1	54.0	580
Note: 10 stations @4.18 sq. m. per station, plus 7.5 sq. m. for instructor.				
Virtual services staff	5.0	1	5.0	50.0
Note: Stand-up help desk with 2 staff computer monitors.				
IT staff	5.0	1	5.0	50
Note: Stand-up help desk with 2 staff computer monitors.				
Total Area - B8 Technology Centre			148.8 sq. m.	1,605 sq. ft.

External Relationship Diagram:

- Convenient access by the public from Information Services
- Convenient connection to Server Room

B9 Circulation Services

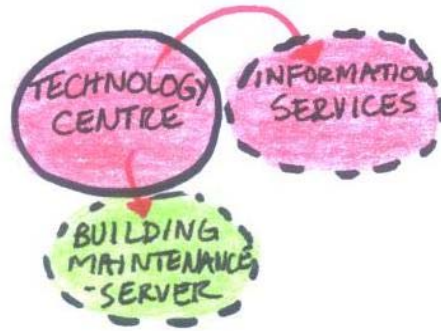


Figure 3.32 Sketch of external relationship diagram for the Technology Centre area.

Internal Relationship Diagram:

- Virtual services and IT staff easily accessible upon entry
- Computer stations adjacent staff help desks

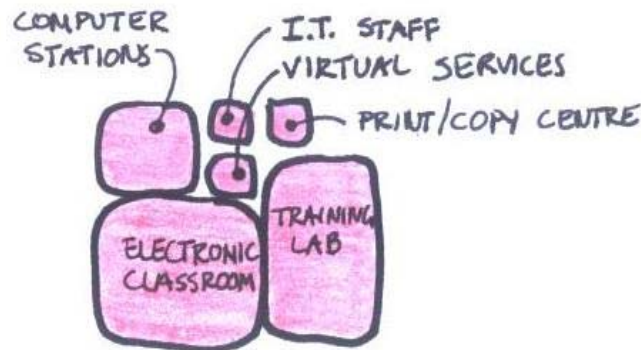


Figure 3.33 Sketch of internal relationship diagram for the Technology Centre area.

The Circulation Services component includes the following functions and features:

- Service point with dedicated staff
- Patron administration activities
- Storage and access of holds
- Access to computer stations to check personal accounts
- Self-sorted materials drop
- Interlibrary loans
- Loaning of equipment (ie. E-readers)

Detailed Room Criteria Chart				
Area/Room	Sq. M. per room	Units	Total Area Sq. M.	Total Area (Sq. Ft.)
Circulation Services Desk	30.0	1	30.0	320
Note: Desk accommodates two staff members.				
Holds storage	5.0	1	5.0	50
Interlibrary loans storage	5.0	1	5.0	50
Computer stations	4.3	4	17.2	185
Note: Require 4 stations at 4.3 sq. m. per station = 17.2 sq. m.				

Photocopiers / scanners	5.0	1	5.0	50
Self sort materials drop	1.4	3	4.2	45
Note: Require two drops for books and one drop for audio-visual materials.				
Staff work area	14.0	1	14.0	150
First aid room	7.0	1	7.0	80
Total Area - B8 Circulation Services		87.4 sq. m.	940 sq. ft.	

External Relationship Diagram:

- Convenient access by the public from Reference Collection, Fiction Collection and Non-Fiction Collection
- Convenient access by the public from Children's Services, Teen Services, Browsing Library and Technology Centre
- Convenient access by staff to Administration and Staff Amenities

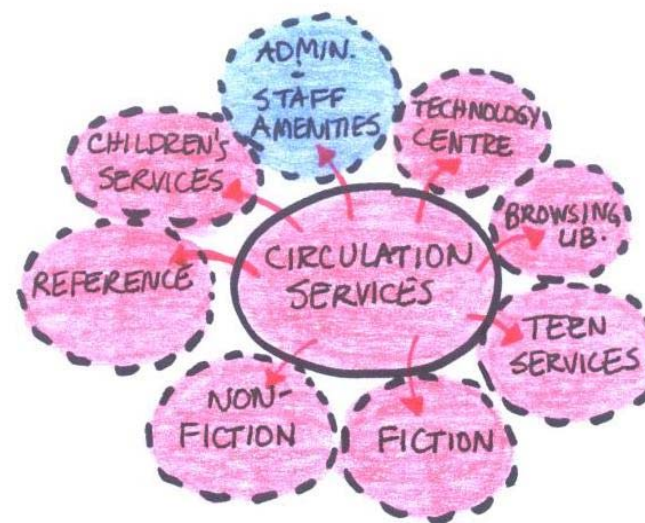


Figure 3.34 Sketch of external relationship diagram for Circulation Services.

Internal Relationship Diagram:

- Holds and interlibrary loans storage accessible only to staff behind circulation desk area
- Self sort materials drop, computer stations, and photocopiers / scanners directly adjacent circulation desk for easy access to staff
- Staff work area open to circulation desk

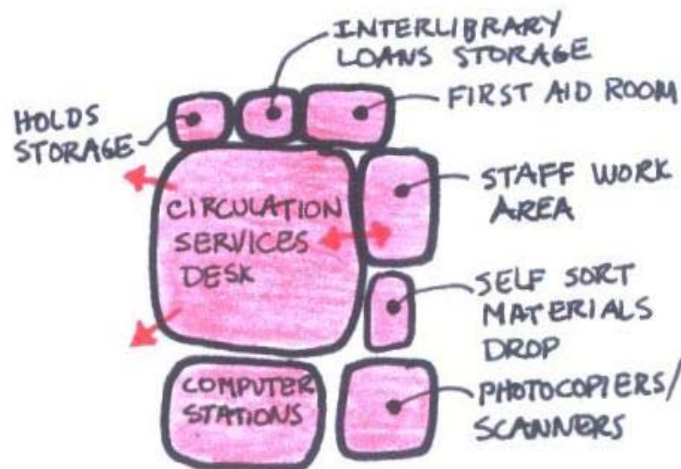


Figure 3.35 Sketch of internal relationship diagram for Circulation Services.

5.3 C Library Services - Internal

One of the goals of the redefined library is to make people feel welcome in the library, including staff members. Staff will enjoy pleasant work areas and efficient circulation paths that will help keep the facility running smoothly.

C1 Director's Office

The Director's Office component includes the following functions and features:

- Reception and waiting
- Administrative activities

- Meetings and project work
- Staff meetings
- Printing and photocopying

Detailed Room Criteria Chart				
Area/Room	Sq. M. per room	Units	Total Area Sq. M.	Total Area (Sq. Ft.)
Reception	7.0	1	7.0	80
Waiting area	6.8	1	6.8	73
Note: Seating for 4 people calculated at 1.7 sq. m. per seat.				
Director's office	17.0	1	17.0	180
Assistant Director's office	14.0	1	14.0	150
Administrative support workspace	9.0	1	9.0	100
Meeting room	14.9	1	14.9	160
Note: Seating for 8 people calculated at 1.86 sq. m. per seat.				
Secure storage	4.0	1	4.0	40
Total Area - C1 Director's Office			72.7 sq. m.	793 sq. ft.

External Relationship Diagram:

- Convenient access by staff to Administration and Staff Amenities

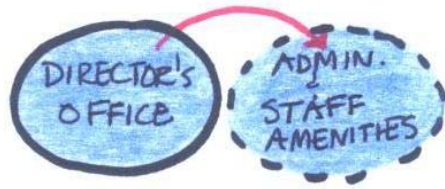


Figure 3.36 Sketch of external relationship diagram for the Director's Office.

Internal Relationship Diagram:

- Waiting area adjacent reception
- Administrative support area adjacent reception
- Director's office adjacent meeting room

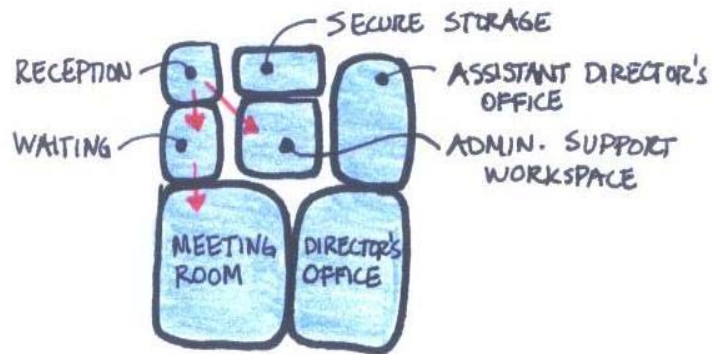


Figure 3.37 Sketch of internal relationship diagram for the Director's Office.

The Administration and Staff Amenities component includes the following functions and features:

- Administrative activities
- Meetings and project work
- Staff socializing
- Secure storage
- Printing and photocopying

Detailed Room Criteria Chart				
Area/Room	Sq. M. per room	Units	Total Area Sq. M.	Total Area (Sq. Ft.)
Workstation for Human Resources	9.0	1	9.0	100
Workstation for Finance and Administration	9.0	1	9.0	100
Workstations for Programming and Development	9.0	2	18.0	200
Work room	19.0	1	19.0	200
Project room	28.0	1	28.0	300

Secure storage	9.0	1	9.0	100
Staff lounge	19.0	1	19.0	200
Total Area - C2 Administration and Staff Amenities			111 sq. m.	1,200 sq. ft.

External Relationship Diagram:

- Convenient access by staff to Director's Office

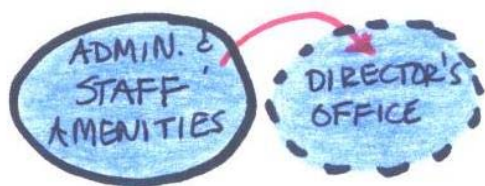


Figure 3.38 Sketch of external relationship diagram for Administration and Staff Amenities.

Internal Relationship Diagram:

- Workstations adjacent work room
- Staff lounge accessible from within Administration and Staff Amenities area as well as from main circulation area
- Programming and development adjacent project room for easy access to ongoing projects

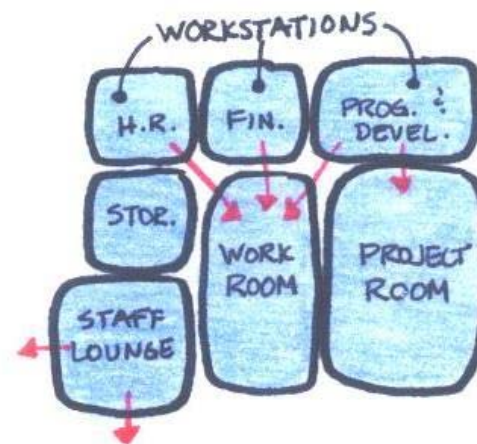


Figure 3.39 Sketch of internal relationship diagram for Administration and Staff Amenities.

C3 Collection Development and Processing

The Collection Development and Processing component includes the following functions and features:

- Selection of collection materials
- Storage and review of gift materials
- Acquisitions
- Checking new shipments with invoices
- Cataloguing of materials
- Processing of materials
- Repair of materials
- Secure storage

Detailed Room Criteria Chart				
Area/Room	Sq. M. per room	Units	Total Area Sq. M.	Total Area (Sq. Ft.)
Delivery truck access	19.0	1	19.0	200
Reviewing station	9.0	1	9.0	100
Staff workspace	14.0	1	14.0	150
Processing station	9.0	1	9.0	100
Storage	11.0	1	11.0	120
Work room	7.0	1	7.0	80
Total Area - C3 Collection Development and Processing area			69.0 sq. m.	750 sq. ft.

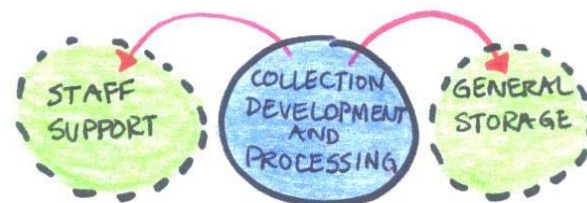


Figure 3.40 Sketch of external relationship diagram for Collection Development and Processing.

Internal Relationship Diagram:

- Access to deliveries from exterior
- Reviewing station and processing station immediately adjacent delivery area
- Staff work space adjacent delivery area for supervision of delivery area
- Convenient access to internal circulation for movement of materials throughout facility.

External Relationship Diagram:

- Convenient access by staff to General Storage for the movement of materials
- Convenient access by staff to Staff Support areas

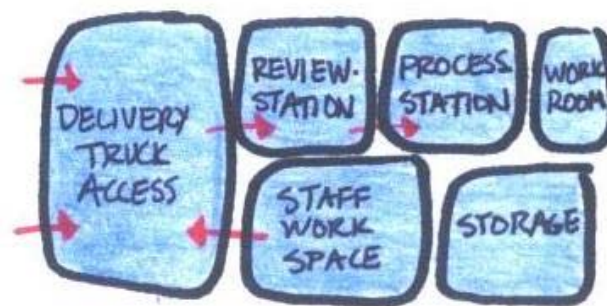


Figure 3.41 Sketch of internal relationship diagram for Collection Development and Processing.

5.4 D Building Support Services

In order for the redefined library to function efficiently, sufficient space must be dedicated to operations and maintenance. All of the functions and activities that happen behind the scenes also help to provide pleasant spaces for staff and users within the public areas.

D1 Building Maintenance

The Building Maintenance component includes the following functions and features:

- Physical plant (includes mechanical and electrical areas)
- Monitoring of environmental systems
- Storage of janitorial supplies
- Server Room

Detailed Room Criteria Chart				
Area/Room	Sq. M. per room	Units	Total Area Sq. M.	Total Area (Sq. Ft.)
Physical plant	33.0	1	33.0	355
Janitorial supplies	6.0	1	6.0	65
Server Room	28.0	1	28.0	300
Total Area - D1 Building Maintenance			67.0 sq. m.	720 sq. ft.

External Relationship Diagram:

- Convenient access by employees to Staff Support areas
- Convenient access to exterior for maintenance purposes

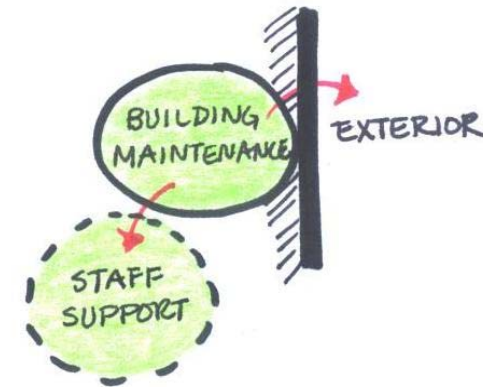


Figure 3.42 Sketch of external relationship diagram for Building Maintenance.

D2 General Storage

The Storage component includes the following functions and features:

- Covered loading dock
- Short term and long term storage
- Garbage storage
- Recycling area

Detailed Room Criteria Chart				
Area/Room	Sq. M. per room	Units	Total Area Sq. M.	Total Area (Sq. Ft.)
Covered loading dock	exterior	1	exterior	exterior
Shipping and receiving	19.0	1	19.0	200
Recycling storage	9.0	1	9.0	100
Garbage storage	11.0	1	11.0	120
Short term storage	5.0	1	5.0	50
Long term storage	11.0	1	11.0	120
Total Area - D2 General Storage			55.0 sq. m.	590 sq. ft.

External Relationship Diagram:

- Direct access to exterior for deliveries and garbage / recycling pick-up
- Convenient access to Staff Support areas
- Convenient access by staff to Collection Development and Processing for movement of materials
- Convenient access to the Grace Campbell Gallery for the movement of materials

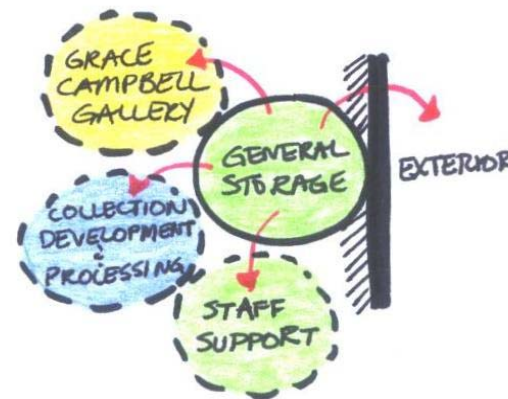


Figure 3.43 Sketch of external relationship diagram for the General Storage area.

Internal Relationship Diagram:

- Garbage and recycling areas adjacent shipping and receiving
- Connected to internal circulation system for dispersing of deliveries



Figure 3.44 Sketch of internal relationship diagram for the General Storage area.

D3 Staff Support

The Staff Support component includes the following functions and features:

- Mail room
- Shower and change room area for staff
- Workshop area for minor repair to furnishings

Detailed Room Criteria Chart				
Area/Room	Sq. M. per room	Units	Total Area Sq. M.	Total Area (Sq. Ft.)
Mail room	7.0	1	7.0	80
Shower and change room	11.0	1	11.0	120
Workshop	19.0	1	19.0	200
Total Area - D3 Staff Support area			37.0 sq. m.	400 sq. ft.

External Relationship Diagram:

- Convenient access to General Storage
- Convenient access to Collection Development and Processing
- Convenient access to staff entry to building
- Convenient access to Administration and Staff Amenities



Figure 3.45 Sketch of external relationship diagram for Staff Support area.

Internal Relationship Diagram:

- Convenient access to internal circulation system for movement of staff throughout building
- Workshop accessible to all areas for repair and maintenance of items other than books



Figure 3.46 Sketch of internal relationship diagram for Staff Support area.

5.5 Analyzing the Data

According to the detailed room criteria charts in Sections 5.1 through 5.4, the component areas for the JMCPL equal a total of 4,193.4 square metres, or 45,124 square feet (refer to Summary Chart in Part VII for a breakdown of the component areas). This total can be compared to other established standards in order to determine the level of service that the facility offers to the public.

Traditionally, libraries in North America refer to standards set out by the American Library Association (ALA) to determine the estimated area they require to offer a certain level of service. Minimum library space requirement standards were established in 1966 by the ALA and were tied directly to population. Note that the formulas are provided in imperial measurements, which is the accepted form of measurement in the United States. The ALA's 1966 standard is based on the following formula:

$$\text{Projected Population} \times 0.60 \text{ Gross Square Feet per capita} = \text{Gross Space Required}$$

Although this standard is generally accepted in developing an idea of the gross space needed to offer resources, programs, and services at a public library, it does not account for specific community needs (population diversity, demographics, special needs) that may vary in all locations. Since these minimum standards have not been updated by the ALA, several library agencies in the United States and some in Canada have developed their own standards for space requirements.

The Canadian Library Association does not publish any national standards or guidelines. One of the most recent space standards established for libraries is by the Florida Library Association (FLA) in 2004, updated as recently as April 2010. It describes three levels of service. These levels are listed and described as follows:

1. ***Essential:*** Essential level standards define the basics of library service. Every library can and should offer them.
2. ***Enhanced:*** This level starts where Essential leaves off and offers expanded services.
3. ***Exemplary:*** Achieving this standard provides the highest and best service to the community.¹⁷

The Florida Library Association has also established that, in cities with populations between 25,000 and 100,000, the following gross square feet per capita applies:

1. ***Essential:*** 0.60 square feet per capita (0.056 square metres per capita)
2. ***Enhanced:*** 0.80 square feet per capita (0.074 square metres per capita)
3. ***Exemplary:*** 1.0 square feet per capita (0.093 square metres per capita)

¹⁷Florida Library Association. "Florida Library Association Standards for Florida Public Libraries 2004, 2006 Revision, Standard 52 updated April, 2010." <http://www.flalib.org/publications_tab_files/FLPubLibStds_Apr_2010.pdf>. Web, 05 December 2010.

Since the JMCPL will offer more than just *essential* services to the residents of Prince Albert, the goal for this facility is to offer a level of service somewhere between *enhanced* and *exemplary*.

The planning horizon that applies to this functional program is 25 years, and the projected population of Prince Albert in the year 2035 is 50,000 residents. Based on the formula provided by the FLA, the suggested area of the new facility for both *enhanced* and *exemplary* levels of service is shown below:

Enhanced Level of Service:

$$\begin{aligned} &\text{Gross Space Required} = \\ &50,000 \text{ people} \times 0.80 \text{ Gross Square Feet per capita} = \\ &40,000 \text{ square feet (approx. 3,700 square metres)} \end{aligned}$$

Exemplary Level of Service:

$$\begin{aligned} &\text{Gross Space Required} = \\ &50,000 \text{ people} \times 1.0 \text{ Gross Square Feet per capita} = \\ &50,000 \text{ square feet (approx. 4,645 square metres)} \end{aligned}$$

In order to provide all of the conventional library services as well as additional services such as a community kitchen and a theatre, the new John M. Cuelenaere Public Library requires an area between 3,700 and 4,645 square metres (between 40,000 and 50,000 square feet). Further

descriptions of the services provided in this facility are included in Part V of this document.

Other information sources used as reference in establishing guidelines for the planning standards used within this document include:

- *"Standards for Member Libraries within Alberta's Regional Library Systems"*, October 3, 2003
- *"Standards for Florida Public Libraries 2004, 2006 Revision, Standard 52 updated April, 2010"*, Florida Library Association, April 2010
- *"Public Library Space Needs: A Planning Outline / 2009"*, Anders C. Dahlgren, President, Library Planning Associates Inc., for the Wisconsin Department of Public Instruction
- *"Regina Public Library Central Library Development Plan"*, Resource Planning Group Inc., 2010 January 15
- *"Centennial Library Millennium Project Facility Program, Winnipeg, Manitoba"*, The RPG Partnership, July 12, 2002

Each of the individual areas included in Part V are based on similar areas assigned to similar spaces within the documents listed above. Factors such as population differences, existence of branch libraries, and joint uses have been taken into account when comparing this information in relation to the constraints within the City of Prince Albert. These space requirements are also cross referenced with certain standard formulas based on population projections, such as meeting room size, or size of workstations. This information is found in the documents listed above.

Part VI - SITE SELECTION

6.1 Site Configuration Options

Given the proposed area of the redefined John M. Cuelenaere Public Library, the next step is to evaluate the proportions of the building on a given site. The following sketches indicate the relative size of the proposed facility in relation to lot and building sizes that are familiar to us. The intent is not to determine the proposed size of the building or parking area, but to illustrate the relative size of the building footprint on a given site.

According to the functional program included in Part V, the proposed total building area required for the new JMCPL is 4,193 square metres, or 45,124 square feet. Depending on the availability of a site, this area can be spread out all on one level, or it could be stacked in order to fit the site. In order to simplify this idea, the following sketches use a 3,700 sq. m. (40,000 sq. ft.) building to illustrate this idea (see Figures 3.47 and 3.48)..



Figure 3.47 Sketch illustrating a proposed single-level 3,700 square meter (40,000 square foot) JMCPL on a typical grid system block within the city of Prince Albert. Note the size of a typical 130 to 150 square metre (1,400 to 1,600 square foot) house on a standard residential lot in relation to the proposed library area.

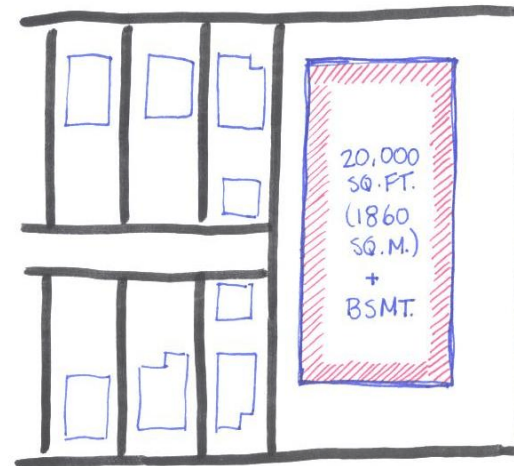


Figure 3.48 Sketch illustrating a proposed two-level facility on a typical grid system block within the City of Prince Albert. This option includes an 1,860 square metre (20,000 square foot) building footprint with a full basement.

6.2 Optimal Site Location

Based on the site design criteria outlined in Part IV, the location of the new JMCPL is best suited to a central location within the City of Prince Albert.

The advantages to a central location are as follows:

- Allows access to the highest density population
- The area is already served by public transit
- It would establish a civic presence in the heart of the city
- New construction would help to revitalize adjacent areas

Consideration must also be given to the disadvantages of a public library facility located in a central core area:

- Lack of ample parking at peak visiting hours
- Concern for patron safety outside the facility
- Limitations on expansion possibilities

The advantages and the disadvantages must be carefully weighed when selecting a location for the new facility.

6.3 Zoning

As previously mentioned, the area of Prince Albert that is best suited for the location of the new JMCPL is the central core area of Prince Albert.

The following map shows the overall city of Prince Albert:



Figure 3.49 Sketch of City of Prince Albert showing location of existing JMCPL within central core area of the city.

The central core area of the city is further enhanced on the following partial zoning map (Figure 3.50):

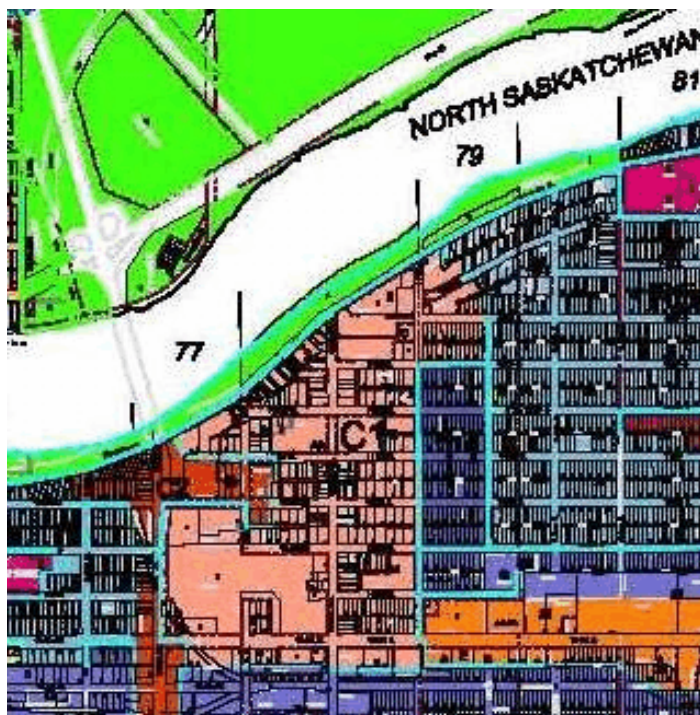


Figure 3.50 Partial zoning map, City of Prince Albert. Note the predominant C1 zoning (shaded pink) within the central downtown district. City of Prince Albert, Zoning Map, updated on October 1, 2008. <<http://www.citypa.ca/Portals/0/PDF2/Maps/EcDevPlanning/Zoning%20Map.pdf>>. Web, 09 December 2010.

According to the City of Prince Albert Zoning Bylaw¹⁸, the current zoning within the central zone area includes:

- C1 - Downtown Commercial

- C2 - Service Commercial
- T1 - Transitional
- P - Park (riverbank)

The development of a library is permitted as a discretionary use in all of the above zones and many of the same regulations apply with respect to landscaping, building height, and signs within each of these zones. However, parking requirements vary.

A new public library developed within the C1 zone has no requirement for on-site parking but does have a stipulation that only asphalt or concrete can be used for the surfacing. A new public library developed in any of the other zones would require one parking space per 46 square metres of floor area. For the new JMCPL, this translates to a maximum of 91 stalls based on a 4,193 square metre (45,124 square foot) building area.

Since the new facility will be located within the central core of the city with higher density housing in the immediate surrounding area and public transit readily available, the number of parking stalls will be based on a maximum of 40 stalls. Approximately 20 to 25% of available stalls will be dedicated to staff, and the remaining 75 to 80% to visitors. In any case, parking and site layouts are subject to final approval by the City of Prince Albert within the discretionary use zones.

¹⁸City of Prince Albert. "The City Of Prince Albert Zoning Bylaw No. 1 of 1987". <<http://www.citypa.ca/Portals/0/PDF2/Bylaws/Bylaw%20No.%2001%20of%201987%20-%20Zoning%20Bylaw.pdf>>. Web, 09 December 2010.

Part VII - SUMMARY OF FUNCTIONAL PROGRAM

7.1 Summary Chart

The individual component areas that make up the functional program include:

A Community Services		Sq. M.	Sq. Ft.
A1	Entrance Area / Concourse	110.0	1,184
A2	Meeting Rooms	155.6	1,623
A3	Movie Theatre	252.1	2,712
A4	Coffee Shop	99.4	1,070
A5	Grace Campbell Gallery	188.0	2,022
A6	Community Kitchen	83.0	893
Total Community Services Area		888.1	9,554
		Sq. M.	Sq. Ft.

B Library Services (Public)		Sq. M.	Sq. Ft.
B1	Information Services	55.6	597
B2	Children's Services	498.1	5,362
B3	Teen Services	167.8	1,806
B4	Browsing Library	188.7	2,039
B5	Reference Collection	130.0	1,399
B6	Fiction Collection	229.7	2,473
B7	Non-fiction Collection	419.8	4,515
B8	Technology Centre	148.8	1,602
B9	Circulation Services	87.4	940

Total Library Services (Public) Area	1,925.9	20,733
	Sq. M.	Sq. Ft.

C Library Services (Internal)		Sq. M.	Sq. Ft.
C1	Director's Office	72.7	781
C2	Administration and Staff Amenities	111.0	1,194
C3	Collection Development and Processing	69.0	741
Total Library Services (Internal) Area		252.7	2,716
		Sq. M.	Sq. Ft.

D Building Support Services		Sq. M.	Sq. Ft.
D1	Building maintenance	67.0	720
D2	General Storage	55.0	591
D3	Staff Support	37.0	397
Total Building Support Services Area		159.0	1,708
		Sq. M.	Sq. Ft.

Central Library Total Component Area	3,225.7 Sq. M.
	(34,711 Sq. Ft.)

Non-assignable space (30%)	967.7 Sq. M.
	(10,413 Sq. Ft.)

Central Library Total Building Area	4,193.4 Sq. M.
	(45,124 Sq. Ft.)

CHAPTER FOUR

D9B THESIS REPORT

ABSTRACT

As technological advances continue to influence how we access information, how will the municipal public library continue to hold meaning and usefulness to the community? If people no longer get their information from books, why would they need to visit a public library? The answer to this question lies in the fact that the public library of the twenty-first century offers so much more than just books.

The redefined public library will offer a place where an individual can embark on a journey in pursuit of knowledge. This journey will unfold within an environment that fosters a sense of genuine human attachment and belonging.

The experience of entering a library can be compared to that of opening a book. The quest for the ideal book begins long before the book is opened. It begins with a search for works by a specific author or about a certain subject. In any case, the cover is the first image that draws the attention of the reader. Often, books are judged by the cover and strive to retain the attention of the reader through written words after being opened.

Our journey into the library begins long before we approach the nearest book stack. It begins with the approach to the building. The entrance is easy to find in order to facilitate the journey. Upon entering, a well-designed library provides ample interesting elements along the path to keep the patron exploring. However, a good book must be simple enough to be understood by the majority of the intended audience.

The library building must also be interesting yet simple to navigate. Upon entering, the building does not reveal itself all at once. It reveals both traditional elements and innovative ideas intuitively along the journey through the library. The architectural elements that define the space allow the story to unfold.

Thesis Statement

The intent of this thesis is to redefine the public library so that it provides a sense of place where an individual may embark upon a journey in search of knowledge. In order for the municipal library to remain relevant and meaningful to the community, this journey must integrate the historical function of the library with the technology and innovation of the future within a flexible environment.

DESIGN REQUIREMENTS

Procession

Incorporating the element of procession into the design of a public library is important because it forms part of the overall experience. Although many forms of knowledge can be sought over a wireless network from almost any physical location, the dedicated library patron embarks on the physical journey to the public gathering place where knowledge is the experience.

The journey to the public library should begin with the approach to the building from afar. As you make your way from the parking lot, the street, or the sidewalk to the main entry doors, the composition of the forms changes.

As your journey past the threshold into the building unfolds, a clear path should be defined, leading you to the next chapter. Each subsequent space should reveal itself, just like turning the pages of a book.

Throughout your procession, spaces will be defined differently. "A room is a space, although a space isn't necessarily a room"¹⁹. The space may not contain four walls that make up a typical room, but it may be defined by other forms, compositions, materials, textures or colours.

Light, colour, materials and furnishings serve as guides in creating a self-

¹⁹William Wayne Caudill FAIA, William Merriweather Pena FAIA, and Paul Kennon AIA, *Architecture and You* (New York: Watson-Guption Publications, 1978), 16.

navigable route that protects the overall visual integrity of the space. Bold, bright colours are suitable for locations within the public spaces where traffic is meant to maintain a steady flow of motion. Calmer, muted colours are suitable for areas of relaxation such as reading nooks where a person feels comfortable occupying the space for a longer duration.

In order to reinforce the journey to the public library as a *procession*, the ideal public library should include the following:

- An easily recognizable main entrance, visible from the parking lot, the street, and the sidewalk.
- An intuitive path that minimizes the need for wayfinding devices, both inside and outside.
- A variety of colours, materials, and lighting levels to suit each space and function.

Sense of Place

Users interact with space in different ways. Some spaces are open, some are confined. A space that allows a person to feel a genuine sense of belonging and attachment is one of the fundamental goals of a public library.

The redefined public library should allow a person to make a connection with that particular location and within a certain context. Some public libraries achieve a sense of place by becoming a symbol of continuity between the past and the future. Others become the centre of activity because of their urban context and proximity to other people.

Although the physical properties of place and proximity are readily visible in many library designs, their virtual characteristics are also important. Today, place is about connection; not only connection with a physical location, but also connection to all types of information. Proximity is not only about access to physical materials, it is about online collaboration and network communication. The public library must offer both place and proximity to the community.

Certain groups within the library community believe that technology is diminishing the need for a physical building to house the activities of a public library. In recent years, fewer people frequent the library for traditional reasons such as reading books. In contrast, the number of patrons who take advantage of the technology offered in most libraries is increasing. In addition, information can be accessed from a portable computer almost anywhere, decreasing the overall need for physical space within a library.

The *library without walls*, however, is not a viable option because the public library provides a means for social interaction in addition to the quest for knowledge. Library buildings enclose virtual space as well as physical space and therefore are still necessary. Technology cannot replace the need for a physical building and face to face instruction on how to process or interpret this information. In essence, information technology is only a substitute for the way in which we access documents, not a substitute for place or space.

"Libraries will continue to have walls, but will use digital technology to reach

beyond them"²⁰. Even though digital technology is accessible from anywhere, the need still exists for the establishment of a centre of knowledge within a community to bring people together.

To create a *sense of place*, the redefined public library should:

- Incorporate elements from the history of the site or the context of the surrounding community in order for patrons to feel a connection to the past.
- Convey a subtle sense of motion that demonstrates the importance of new technology in all areas of the public library.
- Create a gathering space that fosters a sense of belonging where people feel safe both day and night.

Flexibility

Technology is a catalyst that imposes change in our society. Technological advances affecting the public library are increasing at an ever-increasing rate. In order for the public library to remain useful to the community, it must adapt to these changes. For this reason it is important to incorporate flexibility into the design of a library.

In order for the redefined public library to incorporate *flexibility* into its design, it must include the following:

- Spaces that are loosely defined by furniture, textures, colour and

²⁰Building Libraries for the 21st Century: The Shape of Information (Jefferson, North Carolina: McFarland and Company, Inc., 2000), 261.

forms rather than by fixed walls.

- The provision of all the latest technological requirements with future expansion room factored in.
- A minimal number of walls that enclose virtual spaces as well as physical spaces.

Other Important Elements

In addition to the three main elements of high importance in the design of a public library, several other design elements that are important to the success of a public library exist. Among these include daylighting and winter city design.

Daylighting

"When skillfully introduced, daylight creates an ambience of quiet contemplation and visual comfort, and links the modern library user psychologically with the pre-technological past"²¹.

The redefined public library should allow natural light to penetrate into most areas of the library in order to benefit from all the positive psychological benefits of natural light on the human spirit. Comfortable spaces are created when the space and forms are visually pleasing and are washed in a natural glow.

The size of the windows can either frame a particular outdoor feature or allow a panoramic view of an entire expanse of nature. Windows should be carefully placed in all areas of the public library where special collections are not subject to damage and computer screens are not adversely affected by glare. Windows should be included in most reading areas since most patrons prefer to sit next to a window while reading. Windows are also necessary in all public areas with seating to allow people to observe others and to be seen by others.

The ideal public library should include the following *daylighting* design elements within any new facility:

- Windows that allow maximum natural light penetration to the appropriate interior spaces.
- Overhangs or other devices to control glare on computer screens.
- Windows at reading nooks and public areas to allow visibility both ways.

Winter City Design

Designing with sustainability in mind is a benefit to all and shows consideration for future generations. In northern climates, this includes designing for the many months of harsh winter temperatures each year. *Winter cities* take into account prevailing winds, site orientation and solar paths in the design of buildings.

²¹ Charles M. Salter, "Acoustics for Libraries, Libris Design Project".
<<http://www.librisdesign.org/>>, 2005, 3.

In order to make the overall experience of visiting the library an enjoyable event during the winter months, designers must be aware of certain aspects along the way. For example, buildings that are designed as windscreens with outdoor seating areas facing south, and various forms of canopies, colonnades, and arcades are more suitable in colder climates. Consideration for snow removal and transit shelters also improves the experience of frequenting the library during the winter months.

The redefined public library should include the following *winter city design* principles, depending on final site location:

- Sheltered outdoor gathering spaces and seating areas.
- Utility areas facing northwest with low walls to guide the prevailing northwest winds up and over the building.
- Large overhangs on the south side to allow sun to penetrate deep into the space during winter months only.

GIVING FORM TO THE JOURNEY

A public library has the ability to reinforce civic pride and to breathe life into an aging or neglected district. It assumes the stature of a social institution, a cultural shrine, and a symbolic form because people possess an inherent respect for knowledge and the services that libraries render.

The following section provides insight into the design elements that give form to the redefined public library experience.

Physical, Emotional and Intellectual Needs

Every building must address the physical, emotional, and intellectual needs of the people who choose to experience it. The redefined public library must meet the physical needs of the population by creating a comfortable setting that provides shelter from the elements for all the patrons as well as for all the collections of information that are inside. In order to meet the emotional needs of the patron, the library must also create visual awareness through the appropriate use of space, form, texture, proportion, and colour. Each patron will experience the building at a different intellectual level, taking in different parts of the story that the building has to tell.

The redefined public library should address the *physical, emotional, and intellectual needs* of the patrons by:

- Ensuring the comfort of the patrons.
- Creating visual awareness of all surroundings.
- Providing different levels of complexity.

Static and Dynamic Spaces

In order to relate the static and dynamic spaces of a building to the static and dynamic functions that happen within a library, a general idea of activities that are to take place within the library must be defined. As previously mentioned, public libraries typically encompass traditional elements such as the storage of collections of books, magazines and reference material. These traditional activities can be compared to the static part of the story. Other non-traditional

activities within the library include media areas, listening stations and cafés. These non-traditional activities have been evolving in recent years and can be thought of as the dynamic part of the story.

One approach to creating static and dynamic spaces for corresponding static and dynamic activities is to anchor the space with static forms, materials, and textures, and to vary the space by integrating dynamic forms.

The redefined public library should address the need for both *static and dynamic spaces* by:

- Including static elements to anchor the space and relate to traditional library functions.
- Introducing dynamic elements to coincide with the new innovations that public libraries have to offer.

Texture

Words are used within stories and other literature to evoke emotion. The words of a story can be compared to the texture of a building or space. The texture of a material can also tell a story. Different materials evoke a different emotion from the observer.

A concrete mass is softened by groupings of trees on the exterior. From within, the flooring, walls, and ceilings send out messages based on their composition and juxtaposition to the functions within the spaces.

Smooth, transparent glass on the exterior allows visitors to take a peek at the story on the inside. The reflective qualities of water and glass act as visual triggers that stimulate the passage from physical to mental states, as though you were immersed in a story.

In order for the story to have a continuous, uninterrupted quality, the intervals or elements may gradually change their form, size or orientation. This gradation can be applied to the various textures used within the building as well as on the external planes.

The redefined public library should incorporate the following *textures* both inside and outside the space in order to introduce different elements of the story:

- Water and glass should be incorporated for their reflective qualities.
- Solid surfaces such as concrete should be used both inside and out, mixed with textured materials, finishes, and furnishings to provoke different emotions.
- A variety of textures should be used to help define the spaces in lieu of building walls.
- Textured materials should be used to help dissipate noise levels in quiet areas.

Composition

As we make our way through a book, the introduction of new elements adds another layer of depth to the story. In comparison, as we make our way through a building, the composition of the elements within changes as we proceed along the path.

The composition of the spaces within a library should make visitors feel comfortable in terms of scale and proportion. For example, the children's area must give appropriate thought to the scale of all the elements in order to make the children feel comfortable in their environment and not overwhelmed by large scale furnishings.

The placement of elements within a composition also affects the interpretation of the whole. The eye naturally groups elements that are closer together. Designing with proximity in mind makes it easier for people to follow the natural progression through the story. Clear sight lines help keep the circulation intuitive in nature.

The redefined public library should address the *composition* of the elements by including the following:

- Appropriately scaled furnishings for children, teens and adults.
- Clear sight lines from one chapter to the next along a central path through the building.
- Composition of forms that are intuitive in nature.

Symmetry and Asymmetry

Symmetry occurs in many traditional buildings, including libraries from the turn of the twentieth century. Symmetry in design is often associated with the traditional elements of a building. The traditional elements of a public library include primarily the book stacks and reference areas.

Asymmetry in any building allows the designer to add a few twists and turns to the story. An asymmetrical building cannot normally be judged by its cover. Asymmetrical areas of a public library are suitable for functions that are continually changing, such as gathering spaces, computer stations and children's areas.

The redefined public library should include the following blend of *symmetry* and *asymmetry* to relate to the traditional functions as well as to the new technologies used within the space:

- Symmetrical elements that are subtle and smaller in proportion to the asymmetrical elements.
- An overall asymmetrical design so that the storyline of the building is not easy to determine at first glance.

Symbolic Expression

Aldo Rossi states that a city is made up of parts. Each city has *primary elements* around which buildings aggregate, and *monuments*, which are fixed

points in an urban dynamic.²² Public libraries are often designed as monuments to knowledge that form an important part of the urban fabric of the city.

Not all civic buildings can be considered monuments. A public library is important because all people are welcome to experience their own individual quest for knowledge in a safe and welcoming environment. The civic duty of the library cannot be taken lightly. The location, orientation, structure, massing and ultimate design come together to create a symbolic expression of the needs of the community.

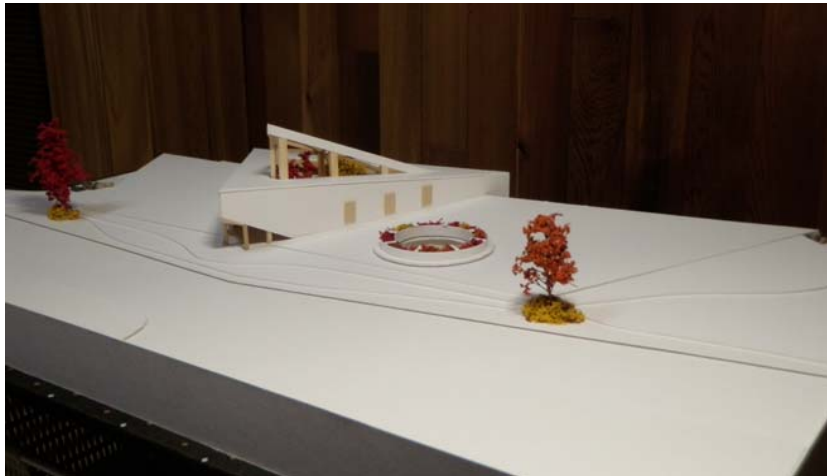
Another important factor to consider in determining the symbolic expression of a building is the practical issue of visibility. A symbolic expression within the community must be visible both night and day. Just like a book cannot be read in the absence of light, a building cannot be experienced if it is not seen.

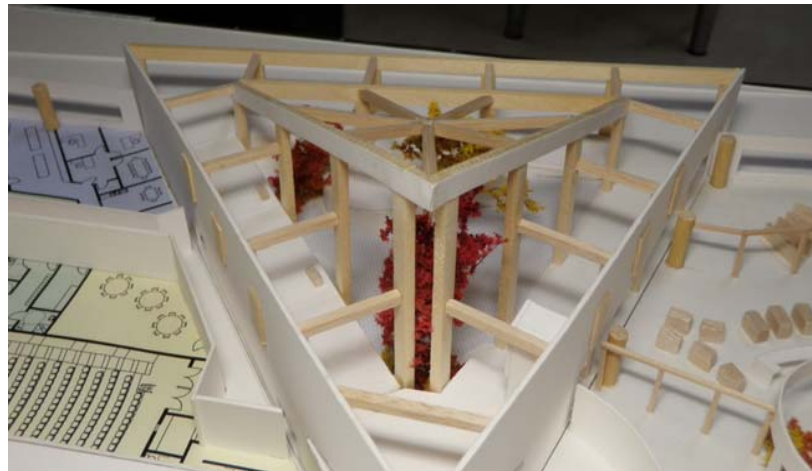
The redefined public library should not literally be constructed as a monument to knowledge. Instead, it should represent a *symbolic expression* of the needs of the community by:

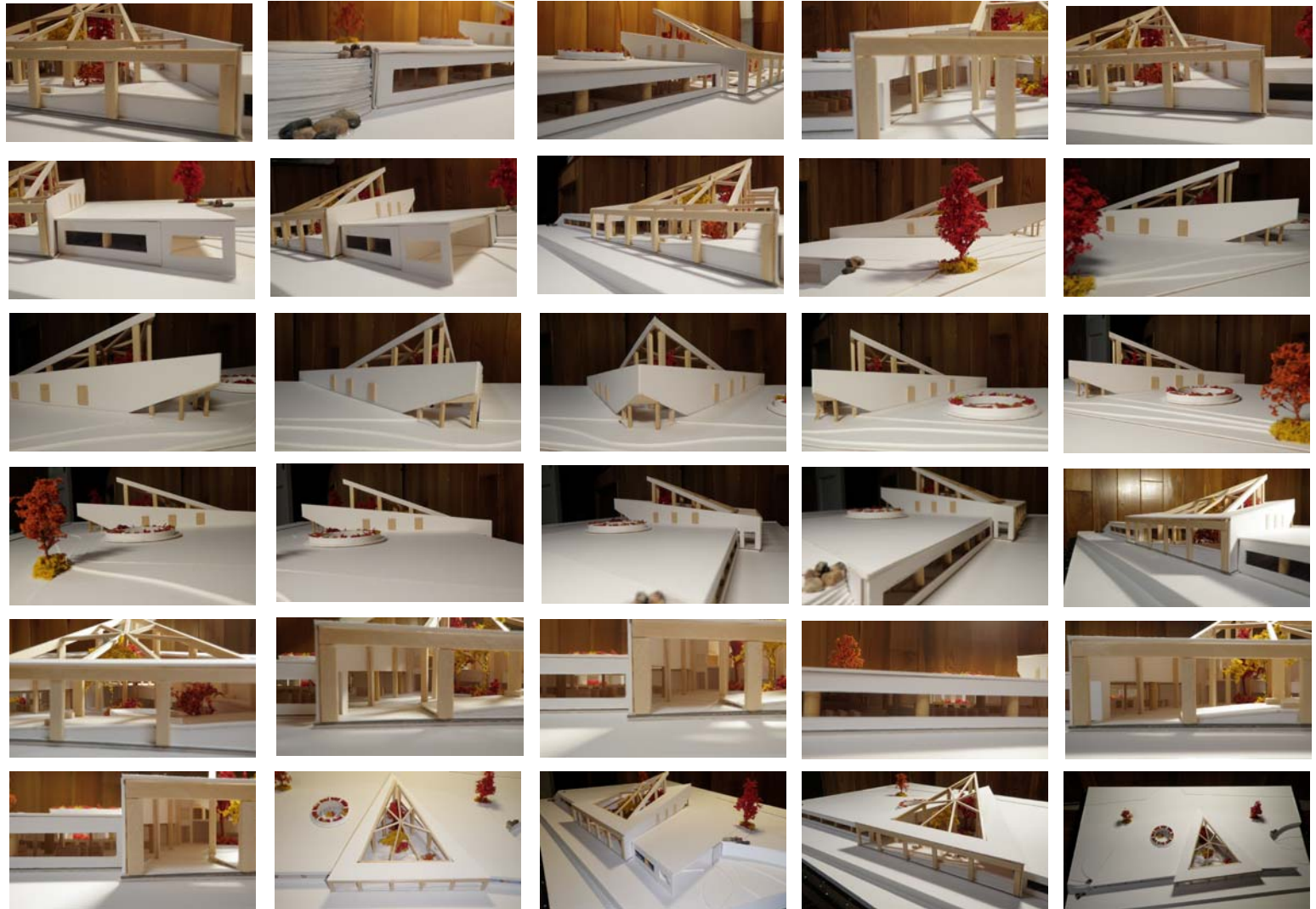
- Choosing a location that reflects the urban dynamic and culture of the surrounding community.
- Being highly visible and accessible, yet welcoming.
- Relating to the historic nature of the chosen site

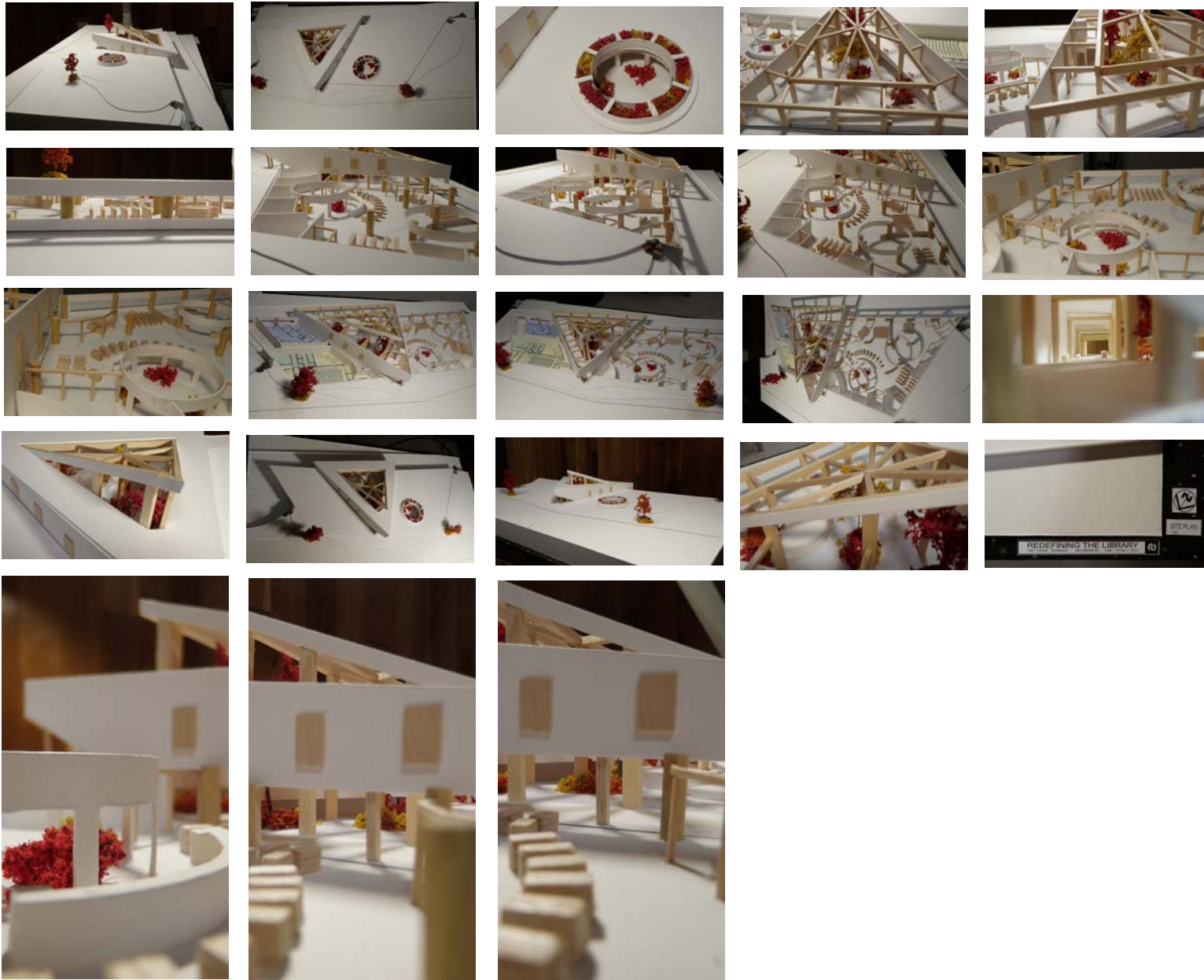
²²Aldo Rossi, *Postmodern Urbanism* (Princeton, New Jersey: Princeton Architectural Press, 1996), 1-13.

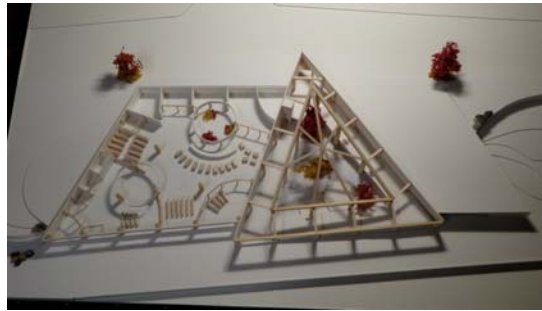
MODEL PHOTOS











APPENDIX

January 31, 2010

Don Greer, Dipl.Arch., B.A., MRAIC, SAA, Northern Saskatchewan Coordinator
P 3 Architecture and Interior Design
Suite 200 173 2nd Avenue South
Saskatoon, Saskatchewan
S7K 1K9

Re: Commitment to Thesis Committee

Please accept this letter outlining my intention to serve on the Thesis Committee for Amy Webb (SK980002). Amy has expressed her intention to begin D9A Thesis Research in Term 1, 2010, with the objective of continuing into D9B in Term 2, 2010. I plan to make every effort to attend the initial, interim, and final presentations, as well as act as a mentor throughout her research and design stages.

Sincerely,



David W. Edwards, SAA, AAA, MAA, PP/FRAIC

cc. National Office, Royal Architectural Institute of Canada - Syllabus
Jim Siemens, SAA, MRAIC, Advisor

January 31, 2010

Don Greer, Dipl.Arch., B.A., MRAIC, SAA, Northern Saskatchewan Coordinator
P 3 Architecture and Interior Design
Suite 200 173 2nd Avenue South
Saskatoon, Saskatchewan
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Sincerely,



Jim Siemens, SAA, MRAIC

cc. National Office, Royal Architectural Institute of Canada - Syllabus
David W. Edwards, SAA, MRAIC, Mentor

February 4, 2010

Don Greer, Dipl.Arch., B.A., MRAIC, SAA, Northern Saskatchewan Coordinator
P 3 Architecture and Interior Design
Suite 200 173 2nd Avenue South
Saskatoon, Saskatchewan
S7K 1K9

Dear Mr. Greer:

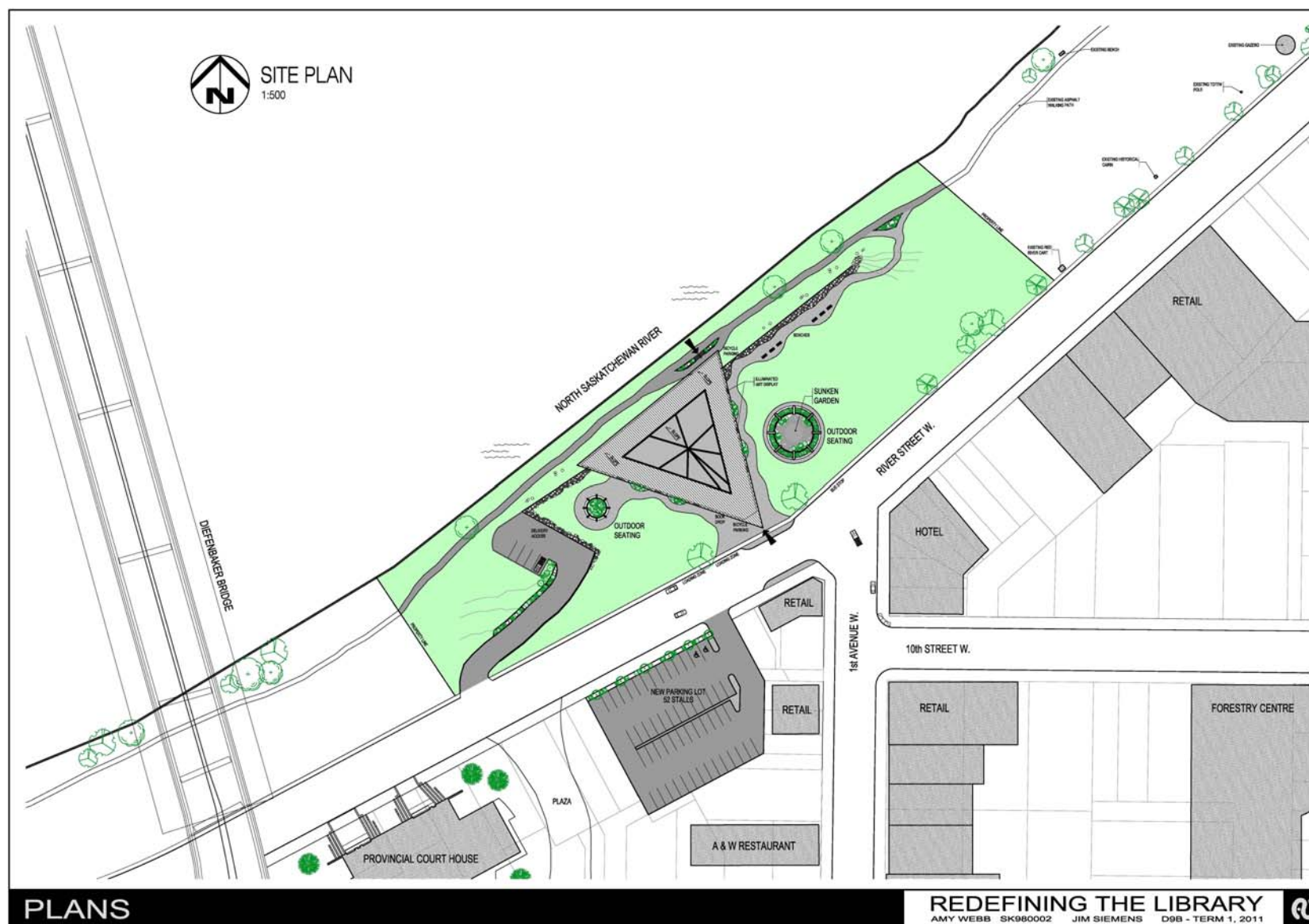
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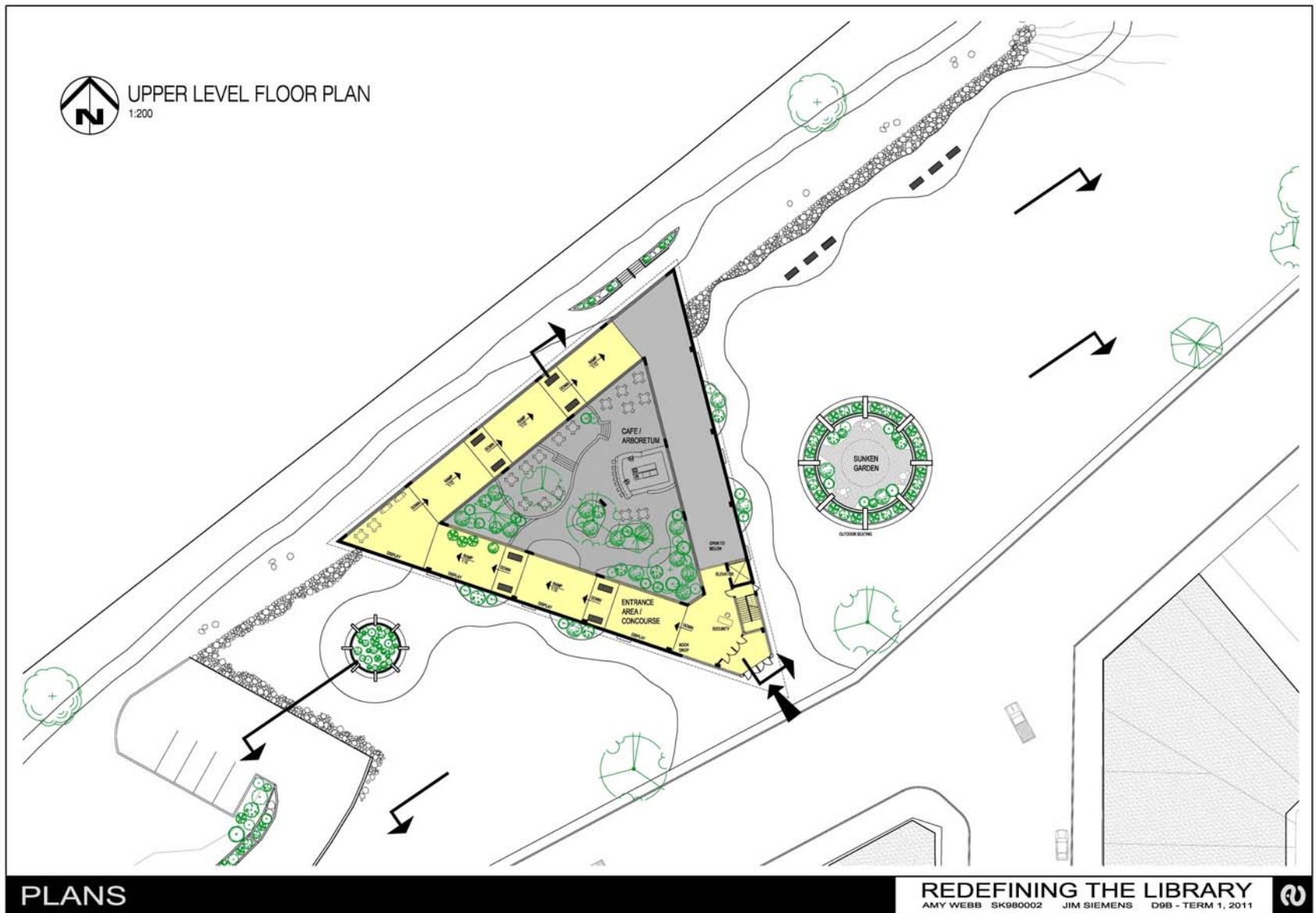
Sincerely,



Ken Ladd
Associate Dean

cc. National Office, Royal Architectural Institute of Canada - Syllabus
David W. Edwards, SAA, MRAIC, Mentor
Jim Siemens, SAA, MRAIC, Advisor

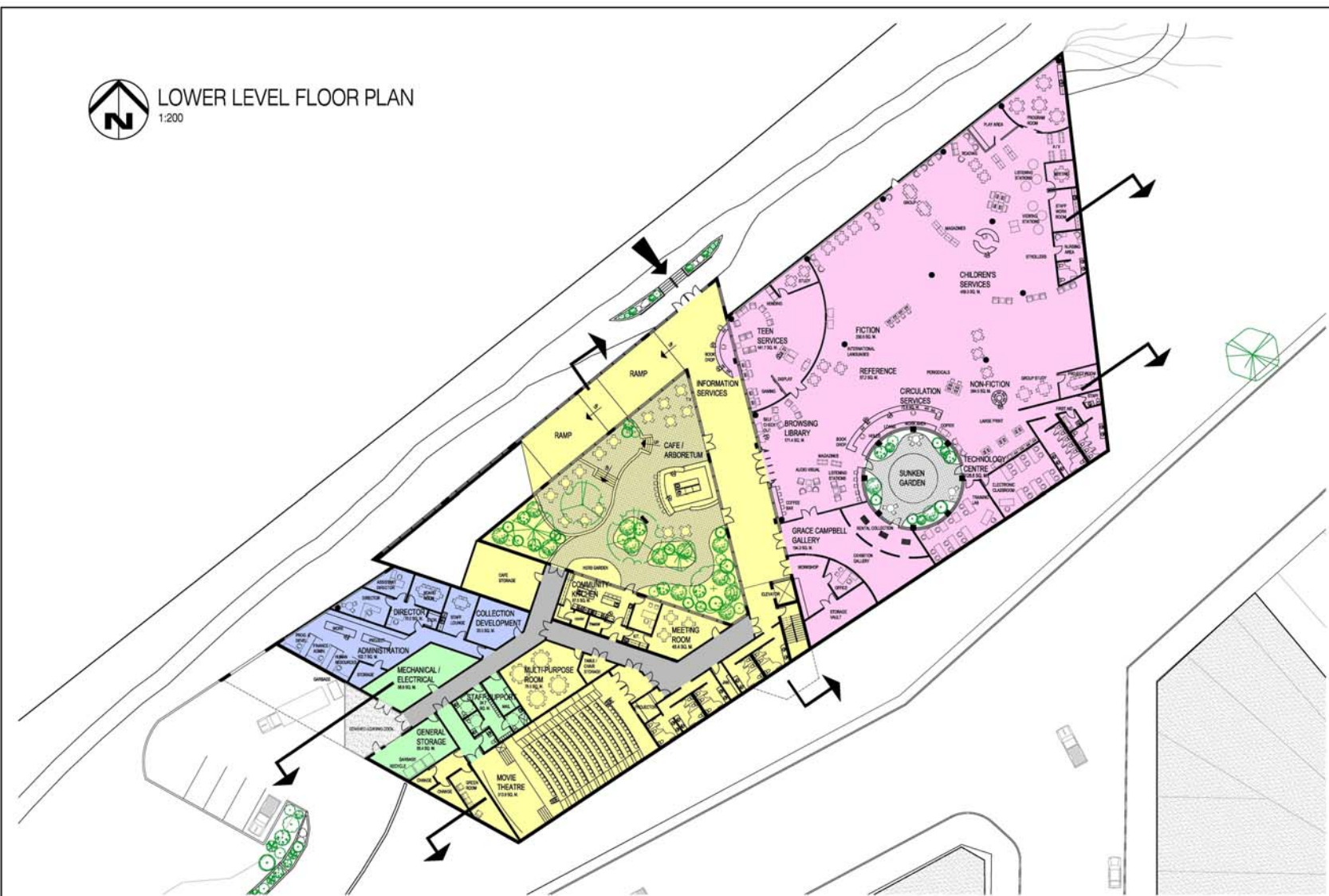






LOWER LEVEL FLOOR PLAN

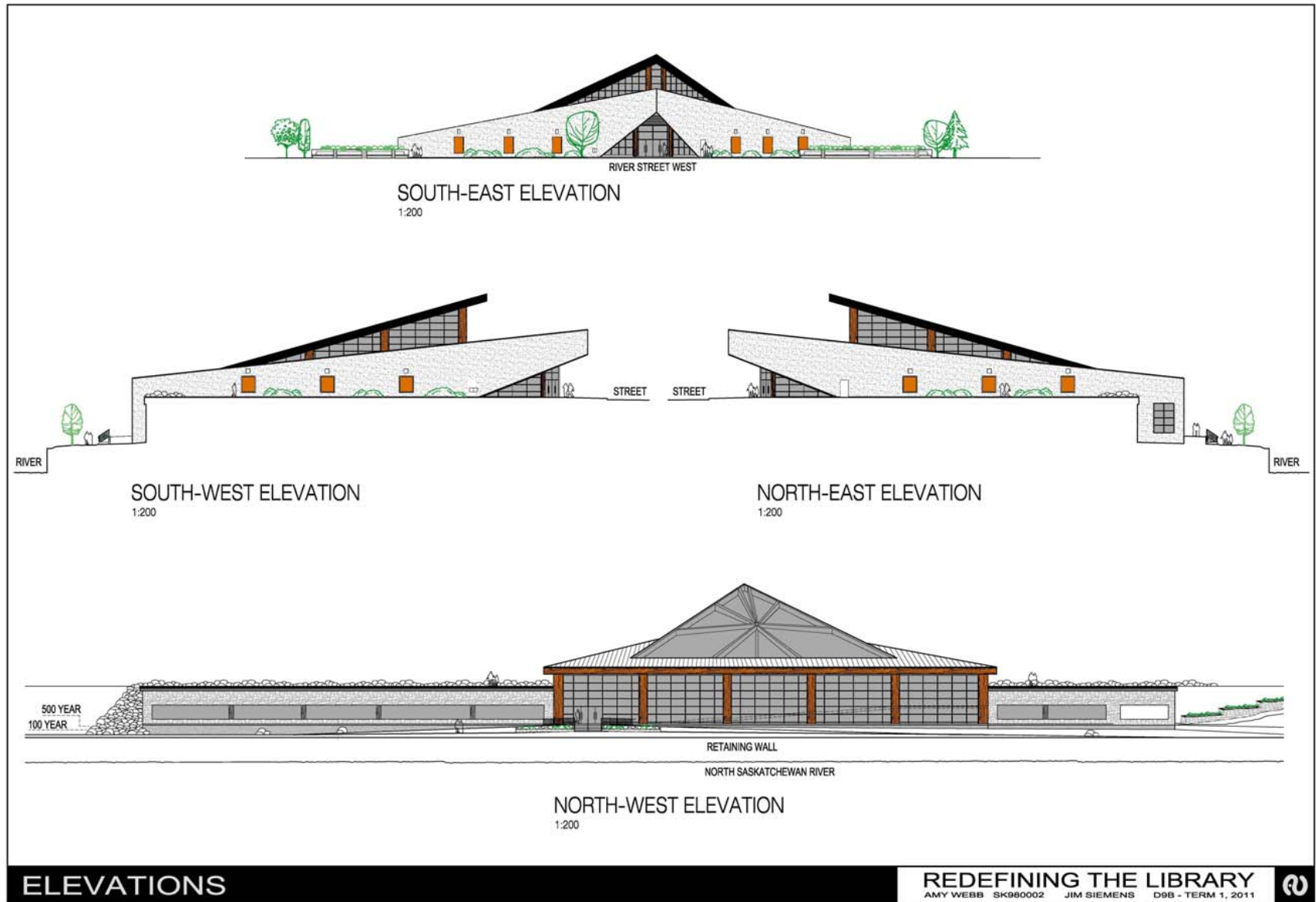
1:200



PLANS

REDEFINING THE LIBRARY
AMY WEBB SK980002 JIM SIEMENS D9B - TERM 1, 2011







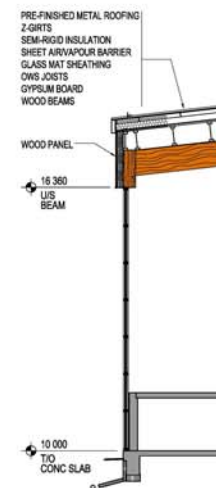
SECTION AT CAFE / ARBORETUM
1:200



SECTION AT ENTRANCE
1:200



SECTION AT MOVIE THEATRE
1:200



WALL SECTION
1:50

SECTIONS

REDEFINING THE LIBRARY
AMY WEBB SK980002 JIM SIEMENS D9B - TERM 1, 2011



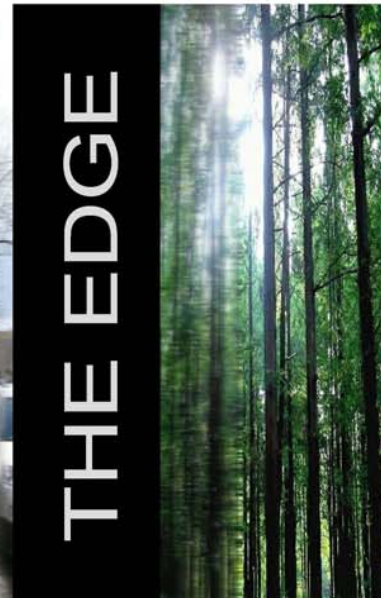
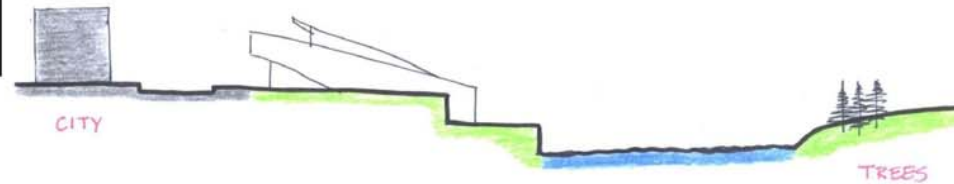
CITY



AS YOU BEGIN YOUR JOURNEY IN SEARCH OF INFORMATION, YOU MUST CROSS THE THRESHOLD AT THE EDGE OF THE CITY. THIS THRESHOLD REPRESENTS THE TRANSITION FROM THE CONCRETE AND ASPHALT MATERIALS OF THE CITY TO THE NATURAL MATERIALS AND TEXTURES FOUND IN THE FOREST. THE CONDITIONS OF BOTH THE CITY AND THE FOREST CAN BE EXPERIENCED AS YOU PROCEED THROUGH THE LIBRARY SPACE.



ON THE EXTERIOR, THE CLOSEST EDGE OF THE BUILDING TO THE RIVERBANK IS FLOCKED WITH NATURAL BOULDERS THAT MIMIC THE EDGE OF A SHORELINE. WHEN VIEWED FROM ACROSS THE RIVER, THE NATURAL RUBBLE STONE RESPECTS THE RIVERBANK LOCATION AND THE HORIZONTAL GLAZING CAPTURES THE REFLECTION OF THE SUMMER SUNSET GLISTENING OVER THE WATER.



THE EDGE

TREES



FROM THE CITY TO THE TREES, THE STORY UNFOLDS AS YOU EMBARK UPON YOUR JOURNEY IN SEARCH OF KNOWLEDGE.



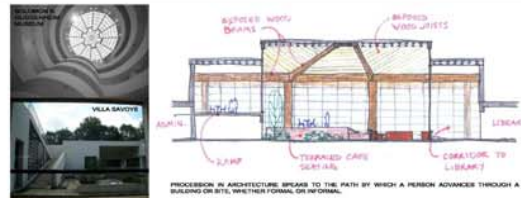
THE EDGE

REDEFINING THE LIBRARY
AMY WEBB SK980002 JIM SIEMENS D9B - TERM 1, 2011



PROCESSION

ENGAGES THE VISITOR IN A *PROCESSION* OR JOURNEY



1. INCLUDES AN EASILY RECOGNIZABLE MAIN ENTRANCE, VISIBLE FROM THE PARKING LOT, THE STREET, AND THE SIDEWALK



2. PROVIDES AN INTUITIVE PATH THAT MINIMIZES THE NEED FOR WAYFINDING DEVICES, BOTH INSIDE AND OUTSIDE



3. USES A VARIETY OF COLOURS, MATERIALS, AND LIGHTING LEVELS TO SUIT EACH SPACE AND FUNCTION

SENSE OF PLACE

CREATES A *SENSE OF PLACE* WHERE THE VISITOR DISCOVERS A FEELING OF BELONGING

1. INCORPORATES ELEMENTS FROM THE HISTORY OF THE SITE OR THE CONTEXT OF THE SURROUNDING COMMUNITY IN ORDER FOR PATRONS TO FEEL A CONNECTION TO THE PAST



2. CONVEYS A SUBTLE SENSE OF MOTION THAT DEMONSTRATES THE IMPORTANCE OF NEW TECHNOLOGY IN ALL AREAS OF THE PUBLIC LIBRARY



3. CREATES A GATHERING SPACE THAT FOSTERS A SENSE OF BELONGING WHERE PEOPLE FEEL SAFE BOTH DAY AND NIGHT



SMOOTH, TRANSPARENT GLASS ON THE EXTERIOR ALLOWS VISITORS TO TAKE A PEEK AT THE STORY ON THE RIVER. THE REFLECTIVE QUALITIES OF WATER AND GLASS ACT AS VISUAL TRIGGERS THAT STIMULATE THE PASSAGE FROM PHYSICAL TO MENTAL, BECAUSE AS THOUGH YOU WERE IMMERSING IN A STORY.



IN ORDER FOR A LOCATION TO CONVEY A SENSE OF PLACE, IT MUST SUBTLY A SERIES OF AUTHENTIC HUMAN ATTACHMENT AND BELONGING. THESE SPECIAL PLACES HAVE A STRONG IDENTITY AND CHARACTER AND ARE ESSENTIALLY PUBLIC SPACES THAT ARE DESIRABLE TO OCCUPY OR TO EXPERIENCE.

BY INCORPORATING SEVERAL CITY DESIGN PRINCIPLES OUTDOOR GATHERING SPACES ARE MORE PLEASANT FOR PEOPLE TO ENJOY ALL YEAR ROUND.

FLEXIBILITY

OFFERS FLEXIBILITY FOR FUTURE CHANGES IN SOCIAL, CULTURAL AND POLITICAL INFLUENCES

1. INCLUDES SPACES THAT ARE LOOSELY DEFINED BY FURNITURE, TEXTURES, COLOUR AND FORMS RATHER THAN BY FIXED WALLS



2. PROVIDES ALL THE LATEST TECHNOLOGICAL REQUIREMENTS WITH FUTURE EXPANSION ROOM FACTORED IN



SECTION AT CAFE / ARBORETUM

3. INCLUDES A MINIMAL NUMBER OF WALLS THAT ENCLOSE VIRTUAL SPACES AS WELL AS PHYSICAL SPACES



TODAY, PLACE IS ABOUT CONNECTION, NOT ONLY CONNECTION WITH A PHYSICAL LOCATION, BUT ALSO CONNECTION TO ALL TYPES OF INFORMATION.

LIBRARY BUILDINGS ENCLOSE VIRTUAL SPACE AS WELL AS PHYSICAL SPACE AND THEREFORE ARE STILL A NECESSARY PART OF SOCIETY.



DESIGN ELEMENTS

REDEFINING THE LIBRARY
AMY WEBB SK980002 JIM SIEMENS D9B - TERM 1, 2011



ILLUSTRATIONS

Figure	Page
2.1. Webb, A., "Antiquity and Early Christianity". Sketch. 03 May 2010	9
2.2. LordHarris at the wikipedia project, "Wimborne Minster Library", 17 October 2006. Online Image. <i>Wikipedia - Chained Library</i> . 17 May 2010. < http://upload.wikimedia.org/wikipedia/commons/thumb/d/df/Wimborne_Minster_9.jpg/220px-Wimborne_Minster_9.jpg >	10
2.3. Webb, A., "Middle Ages". Sketch. 03 May 2010.	10
2.4. Webb, A., "Early Classicism". Sketch. 03 May 2010.	10
2.5. Oke, "The Prunskaal (splendor hall)", 09 July 2006. Online Image. <i>Wikipedia - Austrian National Library</i> . 19 May 2010. < http://upload.wikimedia.org/wikipedia/commons/5/54/Wien_Prunksaal_Oesterreichische_Nationalbibliothek.jpg >	10
2.6. Webb, A., "Late Classicism". Sketch. 03 May 2010.	11
2.7. Unknown Author, "British Museum Reading Room", 10 February 2006. Online Image. <i>Wikipedia - British Museum Reading Room</i> . 17 May 2010. < http://upload.wikimedia.org/wikipedia/commons/thumb/c/c5/British_Museum_Reading_Room_Panorama_Feb_2006.jpg/800px-British_Museum_Reading_Room_Panorama_Feb_2006.jpg >	11
2.8. Webb, A., "Early Twentieth Century". Sketch. 03 May 2010.	12
2.9. Ha'Eri, Bobal, "Historical Society of Washington, D.C.", 01 September 2008. Online Image. <i>Wikipedia - Historical Society of Washington, D.C.</i> . 03 May 2010.< http://upload.wikimedia.org/wikipedia/commons/thumb/9/95/2008-0601-DC-CityMuseumCarnegieLibrary.jpg/800px-2008-0601-DC-CityMuseumCarnegieLibrary.jpg >	12
2.10. Webb, A., "Twenty-first Century". Sketch. 03 May 2010.	12
2.11. Keohane, Alison, "Villa Savoye", 09 November 2007. Online Image. <i>Wikipedia - Villa Savoye</i> . 03 May 2010. < http://upload.wikimedia.org/wikipedia/en/thumb/d/d3/DSC02280.JPG/800px-DSC02280.JPG >	14
2.12. Webb, A., "Villa Savoye". Sketch. 03 May 2010.	14

2.13. McWalter, Finlay, "Solomon R. Guggenheim Museum, exterior", 14 July 2004. Online Image. <i>Wikipedia - Solomon R. Guggenheim Museum</i> . 03 May 2010. < http://upload.wikimedia.org/wikipedia/commons/7/74/Guggenheim_museum_exterior.jpg >.	15
2.14. Webb, A., "Solomon R. Guggenheim Museum". Sketch. 03 May 2010.	15
2.15. Jones, Martyn, "Solomon R. Guggenheim Museum, interior." 04 May 2009. Online Image. <i>Wikipedia</i> . 03 May 2010. < http://upload.wikimedia.org/wikipedia/en/thumb/9/98/Guggenheim_New_York.jpg/800px-Guggenheim_New_York.jpg >.	15
2.16. Unknown Author, "Rosenthal Center for Contemporary Art, Cincinnati", 06 December 2006. Online Image. <i>Wikipedia - Rosenthal Center for Contemporary Art</i> . 03 May 2010. < http://upload.wikimedia.org/wikipedia/commons/thumb/6/6e/Contemp_Art_Center.JPG/450px-Contemp_Art_Center.JPG >.	16
2.17. Youck, James, "The Terrace Building, exterior". Digital Image. 04 April 2010. Reprinted with permission.. . . .	17
2.18. Youck, James, "The Terrace Building, interior". Digital Image. 04 April 2010. Reprinted with permission.. . . .	17
2.19. Eternal dragon at en.wikipedia, "Terminal 3, Changi Airport, Singapore", 20 January 2008. Online Image. <i>Wikipedia - Singapore Changi Airport</i> . 21 May 2010. < http://upload.wikimedia.org/wikipedia/commons/thumb/c/c7/SINT3.JPG/800px-SINT3.JPG >.. . . .	18
2.20. Mabel, Joe, "Collin Block, downtown Seattle", 10 November 2007. Online Image. <i>Wikipedia - Seattle Central Library</i> . 03 May 2010. < http://upload.wikimedia.org/wikipedia/commons/thumb/4/48/Seattle_-_Collins_Block_01.jpg/800px-Seattle_-_Collins_Block_01.jpg >.. . . .	19
2.21. Unknown Author, "Former mansion, downtown Seattle", 1900. Online Image. <i>Wikipedia - Seattle Central Library</i> . 03 May 2010. < http://upload.wikimedia.org/wikipedia/commons/thumb/a/a2/Seattle_Public_Library_-_1900.jpg/800px-Seattle_Public_Library_-_1900.jpg >.. . . .	19
2.22. Unknown Author, "Carnegie Library, downtown Seattle", 1919. Online Image. <i>Wikipedia - Seattle Central Library</i> . 03 May 2010. < http://en.wikipedia.org/wiki/File:Seattle_-_Carnegie_Library_01.jpg >.. . . .	19
2.23. DVD R W on en.wikipedia, "Seattle Central Library", 18 April 2006. Online Image. <i>Wikipedia</i> . 03 May 2010. < http://upload.wikimedia.org/wikipedia/commons/thumb/e/e4/SCL3.JPG/450px-SCL3.JPG >.. . . .	19
2.24. Unknown Author, "Igualada Cemetery, Barcelona", 07 October 2006. Online Image. <i>Wikipedia - Igualada Cemetery</i> . 03 May 2010.	

< http://upload.wikimedia.org/wikipedia/commons/2/25/lqualada_mont1.jpg >..	20
2.25. Webb, A., "Computer stations at the Murray Library, University of Saskatchewan, Saskatoon, Saskatchewan". Digital Image. 26 March 2010..	22
2.26. Webb, A., "Learning Commons area, Murray Library, University of Saskatchewan, Saskatoon, Saskatchewan". Digital Image. 26 March 2010..	22
2.27. The Shifted Librarian, "Music Listening Station", 17 March 2008. Online Image. <i>Flickr - the music pods - totally awesome experience</i> . 21 May 2010. < http://farm3.static.flickr.com/2300/2342416374_1611d33273.jpg >..	23
2.28. Webb, A., "Theatre, Regina Public Library, Regina, Saskatchewan". Digital Image. 25 March 2010..	23
2.29. Webb, A., "Self-checkout stations, Murray Library, University of Saskatchewan, Saskatoon, Saskatchewan.". Digital Image. 26 March 2010..	24
2.30. The Shifted Librarian, "Teen Media Area", 17 March 2008. Online Image. <i>Flickr - Visiting the most modern library in the world</i> . 21 May 2010. < http://farm3.static.flickr.com/2002/2342516982_bc8119d876.jpg >..	24
2.31. freerangelibrarian, "Gaming area at Brisbane City Library", 16 November 2008. Online Image. <i>Flickr - Brisbane (AUS) City Library</i> . 17 May 2010. < http://farm4.static.flickr.com/3070/3036502979_f3aa1ee932.jpg >..	25
2.32. Praefcke, Andreas, "Cotsen Children's Library at Harvey S. Firestone Memorial Library, Princeton University, Princeton, New Jersey", 13 June 2007. Online Image. <i>Wikimedia Commons - Cotsen Childrens Library Princeton</i> . 03 May 2010. < http://upload.wikimedia.org/wikipedia/commons/thumb/5/53/Cotsen_Childrens_Library_Princeton.jpg/800px-Cotsen_Childrens_Library_Princeton.jpg >..	27
2.33. Public Library of Charlotte and Mecklenburg County, "ImaginOn", 30 October 2008. Online Image. <i>Flickr - Imaginon</i> . 17 May 2010. < http://upload.wikimedia.org/wikipedia/commons/thumb/e/e9/Imaginon.jpg/800px-Imaginon.jpg >..	28
2.34. Webb, A., "McNally Robinson book store, Saskatoon, Saskatchewan". Digital Image. 25 March 2010..	29
2.35. Fiedler, Klauss, "Glass-walled meeting room, Cybertheque, McGill University Library, Montreal, Quebec", 08 January 2010. Online Image. <i>Wikipedia -</i>	

McGill University Library Cybertheque. 17 May 2010. < http://upload.wikimedia.org/wikipedia/commons/a/a0/McGill_University_Library_Cybertheque.jpg >..	31
2.36. Webb, A., "Multi-functional movable furniture". Digital Image. 26 March 2010..	32
2.37. Hardy, Michael, "Minneapolis Central Library", 05 September 2006. Online Image. <i>Wikipedia - Minneapolis Central Library</i> . 17 May 2010. < http://upload.wikimedia.org/wikipedia/commons/b/b5/MinneapolisCentralLibrary.jpg >..	32
2.38. Celikins, "Outdoor Plaza", 22 July 2006. Online Image. <i>Wikipedia - New York Public Library Outdoor Plaza</i> . 17 May 2010. < http://farm1.static.flickr.com/73/195519638_2c77920305.jpg >..	33
2.39. Rdikeman at en.wikipedia, "Public Library of Cincinnati and Hamilton County Avondale Branch", 24 April 2004. Online Image. <i>Wikipedia - Public Library</i> . 17 May 2010. < http://upload.wikimedia.org/wikipedia/commons/c/ca/Carnegie_lib_interior.jpg >..	34
2.40. Unknown Author, "Whitechapel Idea Store, London, England", 18 September 2006. Online Image. <i>Wikipedia - Whitechapel Idea Store</i> . 03 May 2010. < http://upload.wikimedia.org/wikipedia/commons/thumb/1/11/Idea_store_4.jpg/450px-Idea_store_4.jpg >..	35
2.41. Blork-ntl, " <i>Bibliothèque Nationale de France</i> ", 01 June 2008. Online Image. <i>Wikipedia - Bibliothèque Nationale de France</i> . 03 May 2010. < http://upload.wikimedia.org/wikipedia/commons/thumb/9/9a/Paris-bibliotheque-mitterrand-passerelleSdB.jpg/800px-Paris-bibliotheque-mitterrand-passerelleSdB.jpg >..	37
2.42. Otani, Atsi, "Sendai Mediatheque, Sendai, Japan", 12 June 2005. Online Image. <i>Wikipedia - File: SendaiMediatheque.jpg - Wikimedia Commons</i> . 04 May 2010. < http://upload.wikimedia.org/wikipedia/commons/thumb/3/36/SendaiMediatheque.jpg/450px-SendaiMediatheque.jpg >..	38
2.43. Unknown Author, "Sendai Mediatheque, Sendai, Japan", 12 April 2010. Online Image. <i>Wikipedia - Sendai Mediatheque - WikiArquitectura - Buildings of the World</i> . 04 May 2010. < http://wikiarquitectura.com/es/images/0/0f/Mediateca_9.jpg >..	39
2.44. Webb, A., "Winter wind pattern". Sketch. 19 May 2010..	39
2.45. Webb, A., "Sheltered outdoor gathering space". Sketch. 19 May 2010..	40
2.46. Veria Public Library, "Veria Central Public Library, Veria, Northern Greece", 06 May 2010. Online Image. <i>Wikipedia - Veria Public Library's photostream</i> .	

17 May 2010. < http://farm5.static.flickr.com/4021/4583263485_1bcf8a0d01.jpg >..	43
2.47. Biblioteca Alexandrina, "Biblioteca Alexandrina, Alexandria, Egypt", 14 September 2006. Online Image. Wikipedia. 17 May 2010. < http://upload.wikimedia.org/wikipedia/commons/1/16/BA_day.jpg >..	44
2.48. Webb, A., "Original Prince Albert Library, Prince Albert, Saskatchewan". Digital Image. 18 May 2010..	45
2.49. Webb, A., "John M. Cuelenaere Public Library, Prince Albert, Saskatchewan". Digital Image. 08 April 2010..	45
2.50. Webb, A., "City of Prince Albert showing the North Saskatchewan River, the downtown district and the current location of the John M. Cuelenaere Public Library (JMCPL)". Sketch. 17 May 2010..	47
2.51. City of Prince Albert, "Aboriginal Identity Population as a Percentage of the Total Population, 2001", 26 September 2006. Copyright 2006 by City of Prince Albert. Reprinted with permission..	48
2.52. Webb, A., "Relationship diagram showing the proposed connections between the library functions and the site". Sketch. 18 May 2010..	49
2.53. Webb, A., "Procession: Showing south-facing main entrance, meandering path to the building, intuitive path within the building, and alternate routes to each destination". Sketch. 18 May 2010..	50
2.54. Webb, A., "Sense of Place: Showing south-facing outdoor area, visibility to all areas, link to the past (river), sense of motion indicated by elliptical path, and minimal walls required". Sketch. 18 May 2010..	50
2.55. Webb, A., "Flexibility: Showing a central open area defined by movable furnishings, complete with technology integrated into all available surfaces". Sketch. 18 May 2010..	51
2.56. Webb, A., "Daylighting: Showing south-facing windows with large overhang". Sketch. 18 May 2010..	51
2.57. Webb, A., "Winter City Design: Showing a sheltered south-facing outdoor gathering space and utility areas facing the northwest winds". Sketch. 18 May 2010..	52
3.1. Webb, A., "Sketch illustrating distribution of noise within library". Sketch. 12 September 2010..	68

3.2. Webb, A. "Sketch illustrating vertical distribution of noise ". Sketch. 12 September 2010.	68
3.3. Webb, A. "Sketch illustrating stacked vertical circulation zones ". Sketch. 12 September 2010..	68
3.4. Webb, A. "Sketch illustrating the importance of the service access and subsequent distribution of materials throughout the library". Sketch. 12 September 2010..	69
3.5. Webb, A. "Sketch illustrating zoning to allow independent operation of extended library functions". Sketch. 12 September 2010..	69
3.6. Webb, A. "Sketch of external relationship diagram for Entrance Area / Concourse". Sketch. 20 October 2010..	72
3.7. Webb, A. "Sketch of internal relationship diagram for Entrance Area / Concourse". Sketch. 20 October 2010..	72
3.8. Webb, A. "Sketch of external relationship diagram for Meeting Rooms". Sketch. 20 October 2010..	73
3.9. Webb, A. "Sketch of internal relationship diagram for Meeting Room area". Sketch. 20 October 2010..	73
3.10. Webb, A. "Sketch of external relationship diagram for Movie Theatre area". Sketch. 20 October 2010..	74
3.11. Webb, A. "Sketch of internal relationship diagram for Movie Theatre area". Sketch. 20 October 2010..	75
3.12. Webb, A. "Sketch of external relationship diagram for Coffee Shop area". Sketch. 20 October 2010..	75
3.13. Webb, A. "Sketch of internal relationship diagram for Coffee Shop area". Sketch. 20 October 2010..	76
3.14. Webb, A. "Sketch of external relationship diagram for the Grace Campbell Gallery". Sketch. 20 October 2010..	77
3.15. Webb, A. "Sketch of internal relationship diagram for the Grace Campbell Gallery". Sketch. 20 October 2010..	77
3.16. Webb, A. "Sketch of external relationship diagram for the Community Kitchen area". Sketch. 20 October 2010..	78
3.17. Webb, A. "Sketch of internal relationship diagram for the Community Kitchen area". Sketch. 20 October 2010..	78

3.18. Webb, A. "Sketch of external relationship diagram for the Information Services area". Sketch. 20 October 2010..	79
3.19. Webb, A. "Sketch of internal relationship diagram for the Information Services area". Sketch. 20 October 2010..	80
3.20. Webb, A. "Sketch of external relationship diagram for Children's Services". Sketch. 21 October 2010..	82
3.21. Webb, A. "Sketch of internal relationship diagram for Children's Services". Sketch. 21 October 2010..	82
3.22. Webb, A. "Sketch of external relationship diagram for Teen Services area". Sketch. 22 October 2010..	83
3.23. Webb, A. "Sketch of internal relationship diagram for Teen Services area". Sketch. 22 October 2010..	84
3.24. Webb, A. "Sketch of external relationship diagram for the Browsing Library". Sketch. 22 October 2010..	85
3.25. Webb, A. "Sketch of internal relationship diagram for the Browsing Library". Sketch. 22 October 2010..	85
3.26. Webb, A. "Sketch of external relationship diagram for the Reference area". Sketch. 22 October 2010..	86
3.27. Webb, A. "Sketch of internal relationship diagram for the Reference area". Sketch. 22 October 2010..	87
3.28. Webb, A. "Sketch of external relationship diagram for the Fiction Collection area". Sketch. 02 November 2010..	88
3.29. Webb, A. "Sketch of internal relationship diagram for the Fiction Collection area". Sketch. 02 November 2010..	88
3.30. Webb, A. "Sketch of external relationship diagram for the Non-fiction Collection area". Sketch. 03 November 2010..	89
3.31. Webb, A. "Sketch of internal relationship diagram for the Non-fiction Collection area". Sketch. 03 November 2010..	90
3.32. Webb, A. "Sketch of external relationship diagram for the Technology Centre area". Sketch. 03 November 2010..	91
3.33. Webb, A. "Sketch of internal relationship diagram for the Technology Centre area". Sketch. 03 November 2010..	91
3.34. Webb, A. "Sketch of external relationship diagram for Circulation Services". Sketch. 07 November 2010..	92

3.35. Webb, A. "Sketch of internal relationship diagram for Circulation Services". Sketch. 07 November 2010..	93
3.36. Webb, A. "Sketch of external relationship diagram for the Director's Office". Sketch. 07 November 2010..	94
3.37. Webb, A. "Sketch of internal relationship diagram for the Director's Office". Sketch. 07 November 2010..	94
3.38. Webb, A. "Sketch of external relationship diagram for Administration and Staff Amenities". Sketch. 09 November 2010..	95
3.39. Webb, A. "Sketch of internal relationship diagram for Administration and Staff Amenities". Sketch. 09 November 2010..	95
3.40. Webb, A. "Sketch of external relationship diagram for Collection Development and Processing". Sketch. 09 November 2010..	96
3.41. Webb, A. "Sketch of internal relationship diagram for Collection Development and Processing". Sketch. 09 November 2010..	96
3.42. Webb, A. "Sketch of external relationship diagram for Building Maintenance". Sketch. 09 November 2010..	97
3.43. Webb, A. "Sketch of external relationship diagram for the General Storage area". Sketch. 09 November 2010..	98
3.44. Webb, A. "Sketch of internal relationship diagram for the General Storage area". Sketch. 09 November 2010..	98
3.45. Webb, A. "Sketch of external relationship diagram for Staff Support area". Sketch. 19 November 2010..	99
3.46. Webb, A. "Sketch of internal relationship diagram for Staff Support area". Sketch. 19 November 2010..	99
3.47. Webb, A. "Sketch illustrating a proposed single-level 3,700 square meter (40,000 square foot) JMCPL on a typical grid system block within the city of Prince Albert". Sketch. 17 September 2010..	102
3.48. Webb, A. "Sketch illustrating a proposed two-level facility on a typical grid system block within the city of Prince Albert". Sketch. 17 September 2010..	102
3.49. Webb, A. "Sketch of City of Prince Albert showing location of existing JMCPL within central core area of the city". Sketch. 17 September 2010..	103
3.50. City of Prince Albert. "The City of Prince Albert Zoning Map, updated on October 1, 2008".	

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