

Airdrie Public Library & Mixed-Use Partner Space

Library Functional Program & Feasibility Report - DRAFT



DRAFT Issued: August 16, 2021



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PROJECT CONSULTANTS

Architectural Design:



Programming Consultant:



1.0 Executive Summary

1.0 Executive Summary

The City of Airdrie (CoA) released a RFP on February 9, 2020 title *Library / Multi-Use Facility - Functional Program for New Multi-Use Facility and Feasibility Study* to support the development of a new central library. The RFP had two primary scopes of work for a consultant team to deliver:

1. The Library's Functional Program,
2. Planning and Advisory Services to help understand how a multi-use partner space could be sized and designed to best complement the goals of City Council for a revitalized downtown as well as create synergies with the Library programming. This scope was defined to be delivered through the following:
 - **Engagement:** Public and stakeholder engagement were identified as deliverables to better understand the needs of Airdrie's communities.
 - **Conceptual Test-Fit:** Using the program and areas developed in the functional program, a conceptual design was required to test the building and site design in relation to the feasibility of the site (parking, circulation, building mass, etc), ability to act as a catalyst for downtown, sensitivity to adjacent urban context and ability to create place making through the exterior programming of the site design.

Due to COVID-19, the selection of a consultant team was delayed until January of 2021 when **hcma** architecture + design and Resource Planning Group (RPG) were awarded the project.

This report summarizes the findings from the public and targeted stakeholder engagement, presents the detailed library functional program and explains the rationale for the conceptual design test-fit.

CONFIRMATION OF LIBRARY SIZE

Although not identified in the project RFP, the consultant team revisited the gross building area required for the library to meet the needs of Airdrie when the building opens as well as to allow for future growth of the CoA. The analysis was based on provincial standards and comparisons of libraries in similar sized cities in Alberta. This work resulted in multiple engagement sessions with Airdrie's City Council where an endorsement to increase the library area to 60,000 ft² was achieved.

PUBLIC ENGAGEMENT

City of Airdrie staff and Council want to understand the alignment between the needs and interests of stakeholders and community members with those of the City, specifically in relation to the potential multi-use space associated with the library project. To hear input from stakeholders and Airdrie resident, engagement activities included:

1. Stakeholder Questionnaire
2. Stakeholder Interviews
3. Household Survey

Due to COVID-19, all engagement activities were delivered online.

Stakeholders and community members expressed interest in the potential multi-use space, with the highest levels of support for small-scale retail including a coffee shop and pop-up market/retail space. Maker/studio, display and retail space as well as connections to the exterior space and potential outdoor programming (park/play/green space) were also widely supported. The need for community gathering, presenting and performing was through interest in community access meeting rooms/kitchen space and use of the atrium.

Full results from the engagement activities can be found in section 3.0 and Appendix B of this report.

FUNCTIONAL PROGRAM

The Functional Program describes the activities and operational systems, and workload factors that need to be accommodated, along with the criteria that must be achieved in design related to architecture, interior design, signage and wayfinding, and building systems. It is used to inform subsequent design as well as serving as a reference to assess how well proposed designs support the functional requirements of the Library.

The Functional Program, which is included as Appendix A, includes three sections.

1. Introduction and Summaries
2. General Planning Criteria, which includes planning criteria related to the site and facility in general, including design objectives, criteria for the Library experience, the exterior public realm, interior public realm, operational systems and building systems
3. Component Planning Criteria, which includes criteria related to each of the twelve components that comprise the Airdrie Public Library project.

As the preceding Description of the Work Performed/ Process section indicates, the Functional Program was developed in close consultation with Library leadership. The overall size of the facility, at 60,000 square feet, was determined through a process that reviewed City demographics around growth, various library provisioning standards, comparison with peer library systems, and the application of the Province of Alberta's Best Practices methodology to the Airdrie City and Library context.

Highlights of the Functional Program include:

- An Atrium that collects visitors and customers from adjacent streets and Park pathways and connect them to the Library Entrance. It can also be used to access partner spaces. It will be used for larger public events hosted by the Library or other community groups

- A Large Program Room is provided that is accessed primarily from the Library but which also has opportunities for independent access and egress to support functions that go beyond Library hours of operation
- The provision of a Coffee Kiosk, with alternatives to be explored in design, including a kiosk in the Atrium or adjacent to the Atrium that serves into the Library entrance, and that has associated seating
- A Community Living Room space with informal lounge type area with fireplace and topical and current materials in bookstore type displays
- Two Children's areas, one focused on pre-school children and their caregivers with Open Program Area, Play Area and Program Nook and a school aged area, with Makerspace and four Tutoring Pods
- A Young Adults area that includes collections of interest to teens, a variety of seating areas and a gaming space
- An Adults area that includes Fiction and Non-Fiction as well as specialty collections, a mid-sized Program Room, small Meeting Room, four small Group Rooms and a Readers' Lounge
- Makerspace that provides opportunities to create, engage and discover existing and emerging technologies promoting lifelong learning
- A Quiet Study Room, that is a quiet retreat space that also includes Local History, Local Authors, and Genealogy collections
- Overall, the Functional Program includes just under 800 seats or stations for visitors and customers
- Staffing is assumed to increase from the current 30.5 FTE to 39.3, with two full time service desks provided, one on each of two levels of public service space

hcma utilized the Functional Program in the development of massing and stacking models on the downtown site.

SITE ANALYSIS

While RPG was developing the library functional plan, **hcma** conducted an analysis of the old fire hall site to gain an understanding of the current conditions to best understand how a new development could integrate with the existing built environment while also achieving the goals of revitalization for downtown. Some of the explorations in this phase were:

- Developing an understanding of the environmental conditions on the site,
- Mapping circulation around the site and developing best routes for integration into Airdrie's existing multi-modal network,
- Understanding the extent of the flood plain on the west edge of the site,
- Considering optimal vehicular access into the site,
- Balancing the need to create a gateway into downtown while respecting the existing residential houses to the south of the project site,
- Prioritizing both pedestrian movement on Main Street as well as on the multi-use path parallel to Nose Creek

The site analysis supported the consultant team in developing the conceptual test-fit.

CONCEPTUAL TEST-FIT

hcma focused on the following three methods of analysis to complete the conceptual test-fit.

1. FLOOR PLANS

Conceptual test-fit building floor plans were developed based on the following primary program:

- Library gross area of 60,000 ft²
- Multi-use partner space up to 25,000 ft²
- Entrance atrium approximately 5,000 ft²
- 1 level of underground parking

The Library spaces in the building floor plans are based off of the program size and layout described the functional program.

Whereas the multi-use partner space was informed through the project engagement where the consultant team heard the following key feedback:

- Partner space is preferred to be located with direct access to the exterior rather than on the third floor of the building,
- The perceived demand for partner space was in the range of 10,000 ft² - 15,000 ft² instead of 25,000 ft²

The consultant teamed used this information to inform the size of the partner space in the building floor plans.

2. SITE PLAN

The site plan balances the functional requirements of the building such as: parking, visitor drop-off, loading areas, main building entrances with the over-arching goals from the CoA of revitalization for downtown. Central to this project being a catalyst for downtown activity is well designed exterior programming that encourages all residents of Airdrie to choose this site as a destination. As such, the site plan shows a range of uses and activities intended to interest people of all ages. It also is designed to allow both the Library and Partner Space tenants to be able to extend their interior programming to the outdoors.

3. CONCEPTUAL MASSING

hcma developed conceptual massing for the building to test the size and scale in relation to the project site as well as to the neighboring existing buildings. The massing was also used to determine the success of the project to act as a gateway to downtown as had been described as a priority from City Council.

This report contains numerous 3D renderings to support the description of the conceptual test-fit while providing the reader an understanding of how this project would look within Airdrie's urban fabric.

NEXT STEPS

Many of the next steps for this project are currently known as the RFP to engage a full consultant team has been released with a schedule to secure the team in the end of September / early October of 2021. However, based on the work completed in this phase the consultant team has the following recommendations for the next phase of the project.

- Continue public engagement using the design images developed in the next phase to gain feedback from the public. If possible, in-person engagement events should be scheduled as they were not possible in this phase,
- Continue the targeted stakeholder as the discussions will be more useful once there is a design for the partner space and a confirmed construction completion date,
- Determine sustainability goals for the project,
- As the project moves into design–exploration around the provision of innovative library services and spaces continue, with the engagement and participation of library staff assisted by a library planning specialist, to review and confirm the planning concepts identified in the Functional Program and to capitalize on any opportunities that are found in the design process.



2.0 Project Background

- 2.1 Previous Reports & Studies
- 2.2 Site Selection
- 2.3 Project Vision & Principles

2.1 Previous Reports & Studies

The City of Airdrie has created numerous reports and studies over the last decade in preparation for this project with goals ranging from the site selection to understanding how this project can act as a catalyst for downtown revitalization. **hcma** and **RPG** used the following more recent documents as a basis to understand the work that has been completed to date, although there were other, slightly older documents that the team also reviewed.

- Airdrie Public Library Plan of Service 2018 - 2020
- Airdrie Public Library Plan of Service 2021
- Downtown Visioning Exercise Results
- City of Airdrie, Airdrie Public Library: Site Selection 2019
- City of Airdrie Comparative Community Profiles 2019
- Airdrie Public Library Facility Pre-Planning Study 2018
- Airdrie Downtown Area Redevelopment Plan (draft copy)

2.2 Site Selection

City Council approved a recommendation to locate the new Library at the old fire hall site on Main Street and just north of Ridgeway Way SW. This site was chosen as it not only aligns with City Council's goals for revitalization for downtown, but its generous size offers programming options for the Library, a partner space and for ample exterior programming



▲ Street view looking south-west at the project site

2.3 Project Vision & Principles

Through the past reports identified on the previous page, the CoA has identified the following key themes and guiding principles that guide the work in this report.

As outlined in the *City of Airdrie, Airdrie Public Library: Site Selection 2019*:

Project Themes

1. A Library is a Catalyst,
2. A Library is a Multi-Use Facility,
3. A Library is a Hub for Community Development,
4. Decide,
5. Create a Governance Structure.

Guiding Principles

1. The New Library will be part of the City of Airdrie's Vision,
2. The New Library will be innovative and meet the needs of a dynamic and growing community,
3. The New Library will be a destination for all,
4. The New Library will contribute to a healthy connected community.

As outlined in the *Airdrie Downtown Area Redevelopment Plan (draft copy)*: City Council defined success for Downtown Revitalization as follows: *A revitalized downtown has more people living, shopping and spending money there. Businesses stay open in our downtown. Residents are proud of downtown Airdrie. It is an important part of Airdrie's brand, identity and economic development.*



▲ Rendering of downtown Airdrie from the Airdrie Downtown Area Redevelopment Plan



3.0 Engagement

- 3.1 Introduction
- 3.2 Methods
- 3.3 Engagement and Communication Activities - Overview
- 3.4 Stakeholder Identification
- 3.5 Stakeholder Questionnaire
- 3.6 Stakeholder Interviews
- 3.7 Household Survey
- 3.8 Potential Co-location Partners

3.1 Introduction

Engagement Approach and Principles

The overall approach was focused on ensuring broad input by:

- Encouraging input from key stakeholders
- Communicating information and input opportunities through multiple channels to reach as many community members as possible (websites, social media)
- Inviting a range of community members to get involved

Engagement included a range of opportunities ranging from ‘inform’ to ‘consult’ on the International Association of Public Participation (IAP2) Spectrum of Public Participation:

	Inform	Consult	Involve	Collaborate	Empower
Engagement goal	To provide stakeholders and community members with balanced and objective information to assist them in understanding the problem, alternatives and opportunities.	To obtain input and/or feedback from stakeholders and community members on options and alternatives.	To work directly with stakeholder and community members to ensure that concerns and aspirations are understood and considered.	To partner with stakeholders and community members in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place the final decision-making in the hands of the stakeholders and community members.

Source: Modified from IAP2 Spectrum of Public Participation

All engagement activities were guided by the IAP2 principles of inclusiveness, clarity, flexibility, honesty, respect and integrity.

3.2 Methods

Method	Why We Use This Method	Level of Engagement
Social Media Facebook: @CityofAirdrie	To update interested stakeholders in a timely manner about project information and opportunities to engage.	Inform
Stakeholder Group Interviews / Focus Groups	To engage in meaningful dialogue to better understand user needs.	Consult
Online Questionnaire and Survey	To provide an accessible option for people to provide their input on their own time, wherever they are located.	Consult
Engagement Summary Report	To provide transparency into the process and a succinct summary of what we heard, including how it informed the project and if not, why not.	Consult

3.3 Engagement and Communications Activities – Overview

Activity/Purpose	Who?	Materials	When
Stakeholder Mapping <ul style="list-style-type: none"> To identify and understand the range of stakeholders who have an interest in a potential multi-use facility 	<ul style="list-style-type: none"> Stakeholders 	Stakeholder mapping matrix	February-March 2021
Online Questionnaire <ul style="list-style-type: none"> To inform key stakeholders about the project To identify programming and emerging community needs 	<ul style="list-style-type: none"> Stakeholders 	Online questionnaire	June 2021
Online Survey <ul style="list-style-type: none"> To inform Airdrie residents about the project To identify services and amenities that residents would like to see co-located with the library 	<ul style="list-style-type: none"> Airdrie Residents 	Online survey	July 2021
Communicating Engagement Opportunities <ul style="list-style-type: none"> To encourage participation in the online survey 	<ul style="list-style-type: none"> Airdrie Residents 	Social media posts Bold signs	July 2021
Stakeholder Interviews <ul style="list-style-type: none"> To inform key stakeholders about the project To identify programming and emerging community needs 	<ul style="list-style-type: none"> Business support/networking Creative industries Education/Post-Secondary Institutions Community Organizations Arts Organizations Social Services/Youth Engagement 	Semi-structured interviews	July-August 2021
Engagement Summary (as part of Final Report) <ul style="list-style-type: none"> To summarize and communicate what we heard, and how it informed the feasibility study conclusions 	<ul style="list-style-type: none"> All stakeholders 	Report	August 2021

3.4 Stakeholder Identification

In early 2021, City of Airdrie staff prepared a project stakeholder list with contact and awareness status of stakeholders including existing relationship with City staff and perceived level of awareness about the Library / Multi-use building project.

The project team was interested in hearing from stakeholders about their:

- general level of interest in the project / location
- current space / facilities
- expected future space needs / facilities
- potential benefits of being located with the library
- interest in shared facilities (e.g., meeting rooms)

3.5 Stakeholder Questionnaire

Following City Council's endorsement of the library size and between June 11-16 2021, City staff sent emails to identified stakeholders to introduce the project, the feasibility study and the consultant team. The consultant team followed up with additional information and up to three reminder emails, as needed, to encourage participation. The stakeholder questionnaire was open from June 11 until June 25, 2021.

There were 19 responses to the questionnaire covering all stakeholder groups. A breakdown of response rates by stakeholder group is provided below.

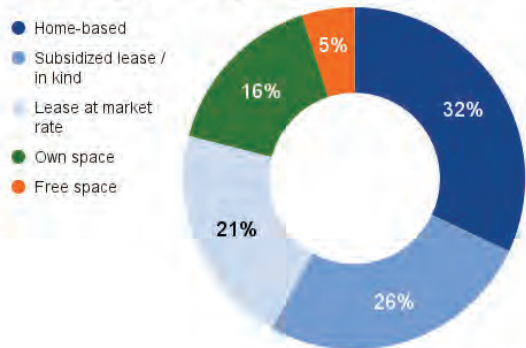
The questionnaire was not designed or administered to be statistically representative so results should be considered as indicative only.

Stakeholder Group	Number of Stakeholders Invited	Number of Responses
Business Support / Networking	21	2
Creative Industries	62	9
Education / Post-Secondary Educational Institutions	4	1
Community Organizations	5	3
Arts Organizations	4	3
Social Services	3	1
Total	99	19

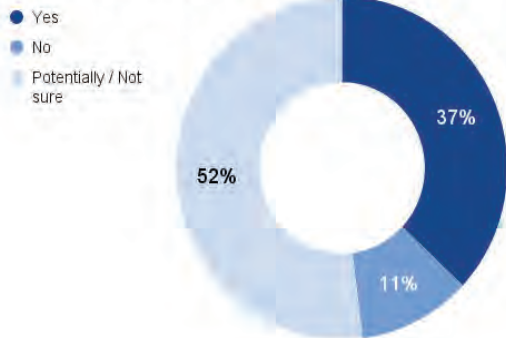
Results

- Approximately 80% of respondents are currently not paying market rates for their space.
- The majority of stakeholders, 63%, that participated in the questionnaire are either home-based, on a subsidized or in-kind space arrangement or have use of free space. Around 20% of participants indicated they are currently paying market lease rates, with the remaining 16% in owned space.

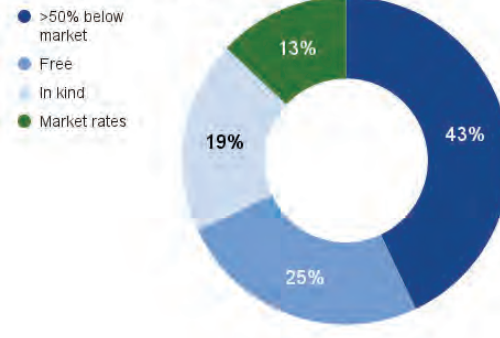
Current space arrangement



Interest in co-location opportunities



Ability to pay for space or services



- 90% of respondents are interested (37%) or potentially interested (53%) in co-location opportunities associated with the new Library and Multi-use space
- Nearly half of respondents (43%) would be able to pay >50% below market rates, 19% would be able to pay in-kind and 13% market rates. The remaining 25% would be looking for space at no cost.

3.6 Stakeholder Interviews

The consultant team held 30-minute Zoom interviews with 10 stakeholder groups between July 12 and August 5, 2021. Interview participants either self-identified through the online survey as wanting a follow-up conversation or were identified by City staff as priority groups. The consultant team made additional outreach efforts to the stakeholders identified as priority groups by the City, however did not receive responses from a number of priority stakeholders.

Results

- There was consistent interest in shared meeting and kitchen spaces.
- Access and connections to outdoor space / programming was of interest to most stakeholders.
- Ground floor locations and the atrium space were preferred to upper floors.
- Creative industry and arts organizations expressed interest in making/studio and retail space, as well as performance space.
- Time is of the essence for one stakeholder, based on the expiry of its current lease arrangement, noting it would likely need to seek an interim lease arrangement if it were to commit to the multi-use space associated with the new library.
- Needs ranged from office space for 2 people to 6,000 sf plus of dedicated space, with most stakeholders indicating very modest space needs.

3.7 Household Survey

Airdrie residents were invited to share their input as to desired potential services and amenities to be co-located alongside the new library. The online survey was open from July 7 to July 31, 2021. It was promoted through the City and Library's social media accounts and through bold signs located in the community. A total of 878 surveys were received. The survey was not designed or administered to be statistically representative survey so results should be considered as indicative only.

Results

All results below are listed in priority order based on the frequency of response.

Based on a list of suggested activities and services provided, overall, the most popular activities and services were:

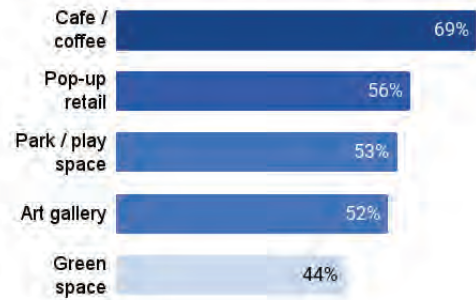
- café/coffee shop
- pop-up seasonal markets/retail space
- park/play space
- art gallery
- green space

There were slight differences in the order of priority of activities and services for library members (70% of respondents) and non-members (28% of respondents).

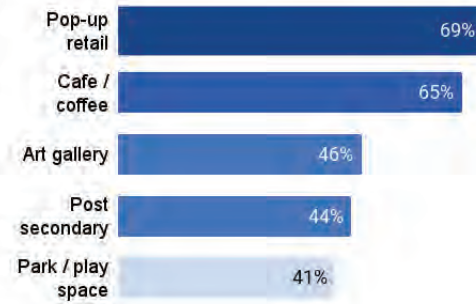
- For non-members, the most popular activities and services that would increase their interest in visiting the new library and/or becoming a member were:
 - pop-up seasonal markets/retail space
 - café/coffee shop
 - art gallery
 - post-secondary programs
 - park/play space

- For members, the most popular activities and services were:
 - café/coffee shop
 - park/play space
 - art gallery
 - pop-up seasonal markets/retail space
 - speaker / presenter space for community use

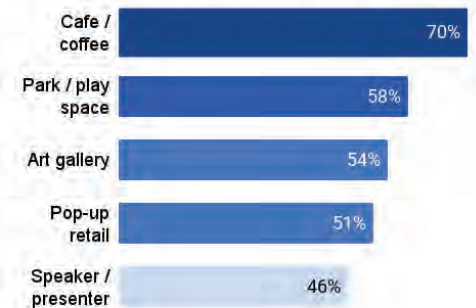
Overall top 5 services / activities



Library non-members top 5 services / activities



Library members top 5 services / activities



The most frequently suggested additional activities, services and amenities were:

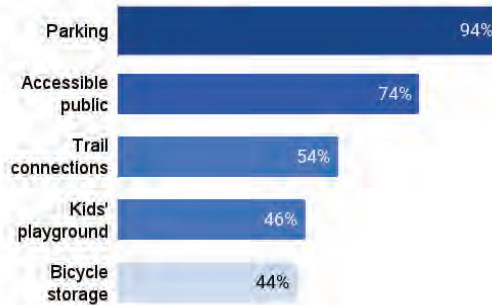
- community meeting/gathering space (including kitchen facilities)
- makerspace/studio space
- space for teens
- space for seniors/Over 50 Club

The key public amenities that would support participation in the identified activities/services were:

- free parking
- accessible public washrooms.

Connections to local trails, playground and bicycle storage amenities were also supported, but to a lesser degree.

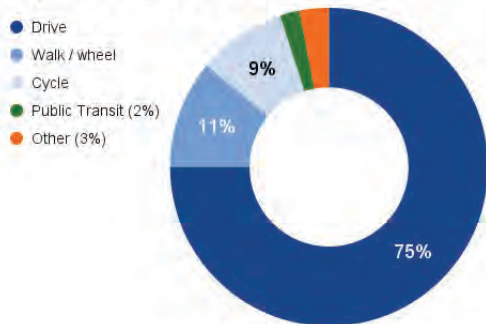
Overall top 5 amenities



“The library should be a community gathering spot, with facilities for all ages to enjoy.”

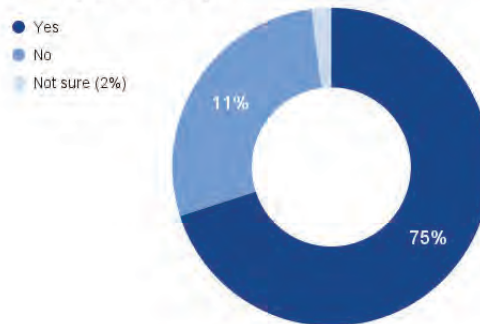
“Aim high! Main Street desperately needs a great gathering space!”

Expected mode of travel



Three-quarters of participants noted that they would drive to the new library and multi-purpose building, highlighting the need for sufficient parking space. Travelling by foot/wheelchair and by bicycle made up an additional 20% of travel mode with public transit and other combined modes making up the final 10%.

Library membership



A large majority, 75%, of respondents are already library members, with 11% noting they are not currently members. The remaining 14% were unsure whether or not they were library members.

See Appendix B for more information on the household survey responses.

3.8 Potential Co-location Partners

Throughout the engagement process, the consultant team sought to understand the alignment between the needs and interests of stakeholders, community members and the City of Airdrie, in relation to the potential multi-use space associated with the new public library.

Based on the responses received to the stakeholder questionnaire and interviews, and the household survey the consultant team recommends the following should inform the approach to the partner space:

- Include a coffee shop and allow for indoor small-scale permanent and/or pop-up retail space.
- Provide direct exterior access to some the partner space to allow connections to outdoor spaces that can support multiple community uses including pop-up retail, park, play, and quiet green spaces.
- Allow community access and programming of the atrium to support community interests in spaces for gathering, presenting and performing.
- Include community meeting/multi-purpose rooms and kitchen spaces.
- Accommodate both maker/studio space and artisan display/sale space.
- Keep the scale of the multi-use space modest (e.g., 10,000-15,000 sf) to accommodate primarily smaller scale interests but allow for larger tenant needs and future flexibility.
- Stakeholder interest in market rate space appears limited, therefore consider the financial viability of the space if tenants were able to pay >50% of market rates or less.

“I'd really like to see a lot of thought put into the outside spaces of the library. A parking lot that is safe for young families, safe walking access from the street and pathways. Areas outside for reading under a tree.”



4.0 Library Functional Program

- 4.1 Introduction
- 4.2 Organization of the Functional Plan
- 4.3 Component Summary
- 4.4 Summary of Visitor / Patron Accommodation
- 4.5 Staffing and Occupancy Summary
- 4.6 Space Summary

4.1 Introduction

The Functional Program is intended to direct and inform the design of the proposed Airdrie Public Library facility. It includes descriptions of the activities and workloads that need to be accommodated, as well as the criteria related to architecture, interior design, and building systems, that must be met in design. The Functional Program is also used as a reference to evaluate emerging designs and can be used to assist in evaluating various design options, to assess how well they comply with the goals and criteria as stated in the Functional Program.

That said, a functional program should be viewed as a living document, that may altered as new information or technologies emerge or are identified, and as new opportunities that arise through the design process itself come to light.

4.2 Organization of the Functional Program

The Functional Program, which is provided as Appendix X, includes the following sections:

1. Introduction and Summaries
2. General Planning Criteria, which, for the proposed library, includes planning criteria related to the site and facility and which include subsections describing design objectives and criteria for the Library experience, the exterior public realm, interior public realm, operational systems and building systems
3. Component Planning Criteria, which includes criteria related to each of the twelve components that comprise the Airdrie Public Library project

4.3 Component Summary

As noted above, the proposed Airdrie Public Library building includes twelve functional components in the Component Planning Criteria section. For each, functional and operational descriptions are provided to inform the design team about the people who will use the spaces within the component, the activities that they participate in, workloads such as collection numbers, and customer or patron accommodation, and staffing numbers. Each is followed by a Design Criteria section that identifies the architectural, interior design, signage, wayfinding, operational, and building system criteria that must be achieved in design. It also includes a review of functional relationships, and a functional area listing of space requirements to accommodate the activities described.

The components include:

1. **Exterior Spaces:** This component establishes the basic functional concepts relating to the development of the building site and describes practical, aesthetic and/ or symbolic exterior requirements for the library
2. **Atrium:** The Atrium component provides a multi-story lobby for the Library, a major spatial and organizing feature; it may eventually be part of a larger atrium space connecting Library Space and partner space
3. **Library Entrance and Program Room:** Accessed via the Atrium space, this component includes three zones, one that accommodates to the entrance to the Library itself and associated functions, a second for the Library's largest Program Room, and a third accommodating Programming staff
4. **Community Living Room:** This component accommodates, in a location close to the Library Entrance and Program Room, a welcoming and informal lounge and activity area featuring topical and current resources, a gathering and seating space with a fireplace, and small-scale recreational activities
5. **Pre-School Children's Area:** This component, one of two Children's Areas, accommodates the collections, program spaces and collection support spaces serving Pre-School Children.

6. **School Age Children's Area:** This component, the second of the two Children's Areas, accommodates the collections and program spaces, including a makerspace, serving school age children. The two Children's Areas share a service desk
7. **Young Adults' Area:** This component accommodates an Open Collection Area and a more spatially-contained Program Area that features at table seating, casual seating and gaming areas
8. **Adults' Area:** This component will house the Adult Non-Fiction Collection and the Adult Fiction Collection along with a mid-sized Program Room, small Meeting Room, multiple small Group Rooms, and a Readers' Lounge
9. **Makerspace:** This component is an innovative community hub providing opportunities to create, engage and discover existing and emerging technologies to promote lifelong learning
10. **Quiet Study Room:** This component, a quiet second floor retreat space, includes Local History, Local Authors, and Genealogy collections in a contained study room
11. **Staff Workspaces:** This component accommodates the workspace of staff in senior administration, Technical Services, and IT as well as centralized staff amenity spaces
12. **Back-of-House Functions:** This component accommodates back-of-house functions that ensure the practical operation of the building, including Materials Handling, and Building Services spaces that are distributed throughout the Library

4.4 Summary of Visitor/Patron Accommodation

The various components include a range of visitor and patron accommodation, ranging from casual seating, computer stations, makerspaces, and more formal seating. The following table identifies total numbers of seats and stations by component.

Type	Total Occupants
1. Exterior Spaces ¹	42
2. Atrium	75 ²
3. Library Entrance and Large Program Room	117
4. Community Living Room	16
5. Pre-School Children's Area	154
6. School Age School Area	113
7. Young Adults' Area	79
8. Adults' Area	177
9. Makerspace	37
10. Quiet Study Room	30
11. Staff Workspace	-
12. Back-of-House Functions	-
Total	798

Note:

1. Occupancy of Exterior Spaces is not included in total.
2. Occupancy includes seats only; Atrium open space is sized to accommodate between 200 to 300 people, depending on activity.

4.5 Staffing & Occupancy Summary

The following table identifies overall staffing for the Library, and includes existing staffing, future anticipated staffing as well as total building occupancy, including, for Components 2 through 10, visitors and patrons .

Component	Existing FTE	Future FTE	Total Headcount	Maximum Occupancy
1. Exterior Spaces	-	-	-	-
2. Atrium	-	-	-	75
3. Library Entrance and Large Program Room	15.8	20.4	41	146
4. Community Living Room	-	-	-	17
5. Pre-School Children's Area	-	-	-	136
6. School Age School Area	-	-	-	115
7. Young Adults' Area	-	-	-	81
8. Adults' Area	-	-	-	179
9. Makerspace	-	-	-	38
10. Quiet Study Room	-	-	-	31
11. Staff Workspace	10.0	13.0	16	15
12. Back-of-House Functions	4.7	5.9	7	7
Total	30.5	39.3	64	840

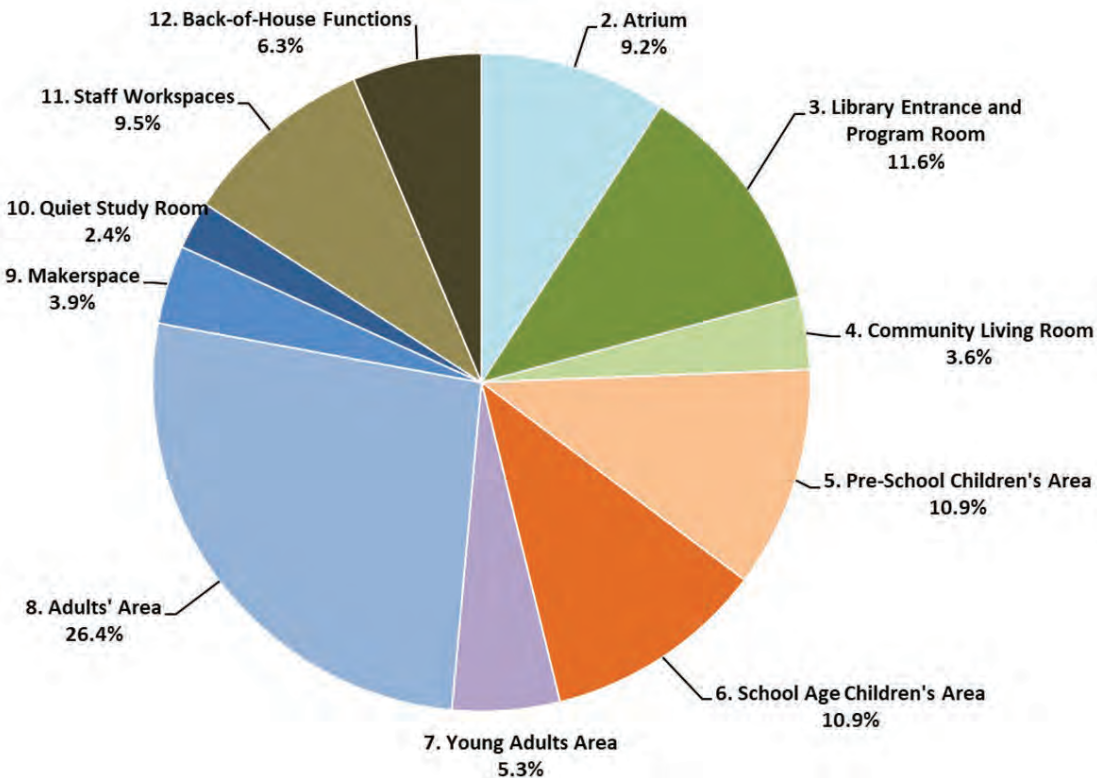
4.6 Space Summary

The following table summarizes the area requirements for the facility. It includes two parallel tables, with the numbers to the left identifying areas in square feet (CGSF), and the table to the right identifying areas in square metres (SGSM). Note that square feet is the primary metric and all square metre figures are conversions from square feet.

Two grossing factors are applied, with the component grossing factors, which for indoor spaces range from 1.10 to 1.40 accounting for the area needed for internal partitions, and aisles and corridors to access each function. These vary depending on the complexity of the space and the size of circulation corridors and aisles that are needed. The second grossing factor, the building grossing factor, is 1.20, and accommodates mechanical and electrical rooms, general building circulation functions such as elevators and staircases, and exterior walls. Note that the Functional Program has provided net area allowances for public and staff washrooms, janitorial closets, and communications closets, which are sometimes included in the building grossing factor. The resulting net to building grossing factor is 1.52

Component	Net Area	Grossing Factor	CGSF	Net Area	Grossing Factor	CGSM
1. Exterior Spaces	11,960	1.00	11,960	1,111.1	1.00	1,111
2. Atrium	3,670	1.25	4,590	341.0	1.25	426
3. Library Entrance and Large Program Room	4,463	1.30	5,800	414.6	1.30	540
4. Community Living Room	1,373	1.30	1,785	127.6	1.30	166
5. Pre-School Children's Area	4,181	1.30	5,435	388.4	1.30	505
6. School Age School Area	4,360	1.25	5,450	405.1	1.25	506
7. Young Adults' Area	2,110	1.25	2,640	196.0	1.25	245
8. Adults' Area	10,570	1.25	13,215	982.0	1.25	1,228
9. Makerspace	1,625	1.20	1,950	151.0	1.20	180
10. Quiet Study Room	1,095	1.10	1,205	101.7	1.10	110
11. Staff Workspace	3,400	1.40	4,760	315.9	1.40	442
12. Back-of-House Functions	2,645	1.20	3,175	245.7	1.20	295
Total	39,492		50,005	3,668.9		4,646
Building Grossing			1.20			1.20
Building Gross Square Metres			60,000			5,574

The following chart indicates the relative size of each component in terms of Component Gross Area (CGA):





5.0 Site Analysis

- 5.1 Introduction
- 5.2 Connection to Downtown
- 5.3 Project Site Analysis
- 5.4 Site Photographs

5.1 Introduction

The consultant team performed the below list of analysis on the project site in order to understand the project context and to prepare for developing the conceptual test-fit for the building program;

- Site Access & Optimal Parking Location
- Pedestrian & Cyclist Access
- Topography & Flood Plain
- Outdoor Programming Locations
- Sunpath & Daylight
- Future Development Opportunities



▲ Nose Creek offers a beautiful natural setting for the backdrop of this project site

5.2 Connection to Downtown

Key to the success of this project is a building and site design that encourages integration with the surrounding communities. In order for the project to act as a catalyst for revitalizing downtown the following design drivers were determined to be a priority from the consultant team.

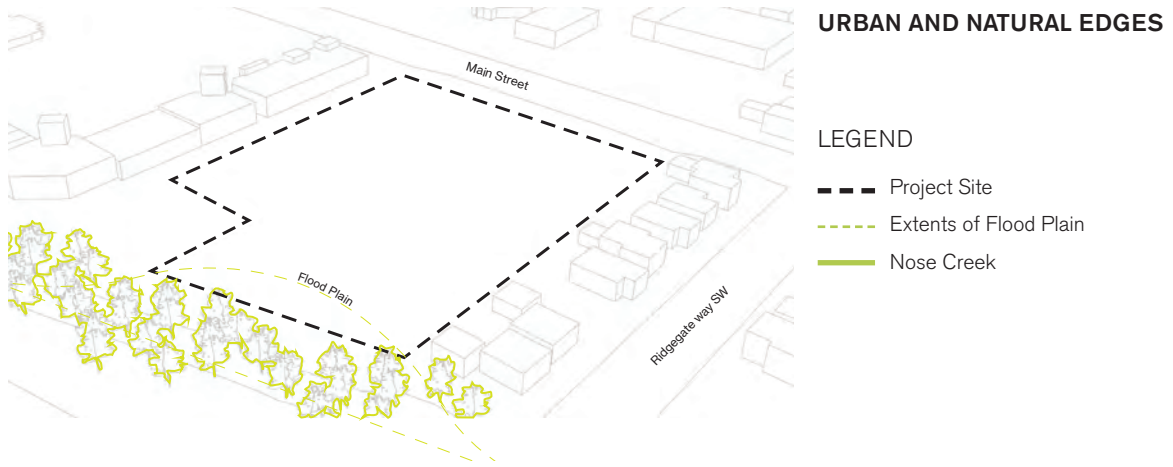
- Strong Place Making,
- Successful Connections to Existing Transportation Infrastructure,
- Balance of exterior and interior spaces,
- Respecting Adjacent Context,
- Mix of Urban and Natural

Adjacent residential areas and existing parks will see this site as offering new amenities to the area. However, the project site's location within downtown is strategic in supporting the City's new Area Redevelopment Plan. The project design will require strong place making, offer amenities and be well connected to existing transportation infrastructure to encourage residents to make it a regularly destination, which in turn will trigger more businesses to invest in downtown.



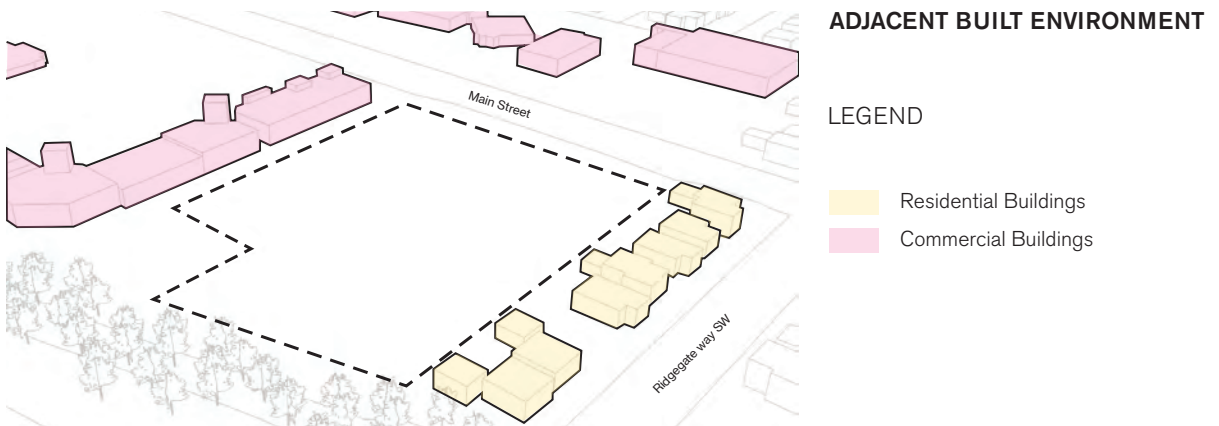
▲ Project site is located on the south end of Airdrie's downtown

5.3 Project Site Analysis

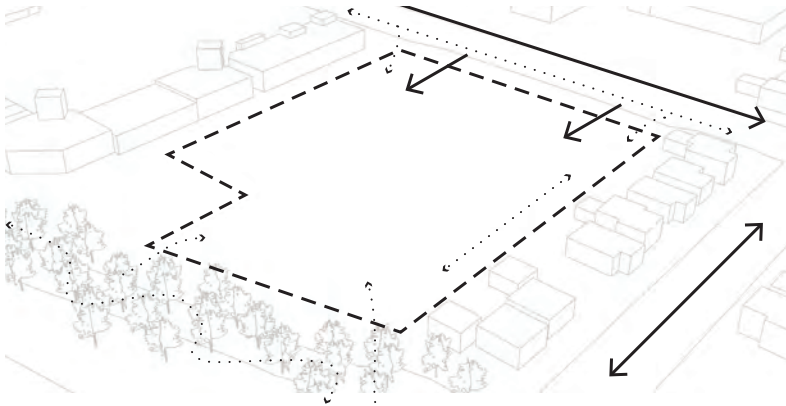


The project site has a unique condition of having a hard urban edge to the east and a soft natural edge to the west. Both of these conditions are required for successful civic spaces and the site design should encourage the presence of Nose Creek into the site.

The topography of the site slopes from Main Street towards Nose Creek where the site falls within a flood plain. The site design will need to respect this area by through programming that can accommodate periodic flooding.

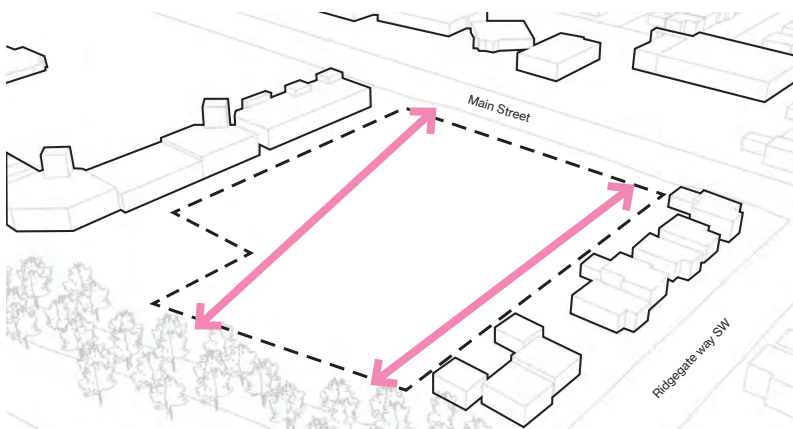


The site has another dichotomy of forces; that of residential and commercial. The row of single detached housing to the south should be buffered through landscape design and Library placement to not negatively impact these residents. Whereas to the north is a commercial strip that will probably be renewed throughout the life of the Library and providing open space adjacent to it will allow future flexibility to this potential development.



PRIMARY ROADWAYS

The project site has two existing vehicular accesses off of Main Street. The site design should determine whether both are needed or if one will properly serve the site and building needs. Although vehicular parking, loading and visitor drop-off zones are all important amenities for this project, due to the civic programming focus of the project, the presence of vehicles should be minimized to prioritize pedestrian scaled activity.



PEDESTRIAN AND CYCLIST ACCESS

To encourage movement east-west between Main Street and Nose Creek the site design should offer at least two connections through the site to provide pedestrians and cyclists options from all four corners of the site.

5.4 Site Photographs



▲ Project site is located on the south end of Airdrie's downtown



▲ View 1



▲ View 2



▲ View 3



▲ View 4



6.0 Site Test-Fit

- 6.1 Introduction
- 6.2 Gateway to Downtown
- 6.3 Conceptual Diagram
- 6.4 Civic Destination
- 6.5 Project Floor Plans and Renderings

6.1 Introduction

With a clear understanding of the site programming priorities combined with the Library functional program all while considering the critical relationships between them, **hcma** prepared a conceptual test-fit that explored accommodating the building, site programming and parking needs on the project site.

The goals for the test-fit were as follows:

- Develop a design that aligns with the City's goals for the project (ie. Library as a catalyst for downtown revitalization and a gateway into downtown),
- Create a site plan that offers a range of spaces and sizes that will create destinations for residents of Airdrie while respecting the neighboring properties,
- Align the site circulation with the existing pedestrian and vehicular circulation to allow seamless integration with surrounding context,
- Design the building to align with the Library functional plan,
- Make the atrium a prominent volume within the building that functions for both the Library and the Partner Space,
- Locate the Multi-Purpose Partner Space to have exterior accessible area as indicated in the household survey and targeted engagement,



▲ Aerial view showing building mass and site integration

6.2 Gateway to Downtown

A driving factor of this project's exploration was the desire to establish a gateway to Downtown Airdrie. The building's prominent peak intersects Main Street with a civic presence that is highly perceivable from the north and south.

Bridging site access from east to west, the entire site becomes activated by horizontal or vertical movement and ties into the urban fabric by being accessible via various modes of transport (motorized, bike, or foot).

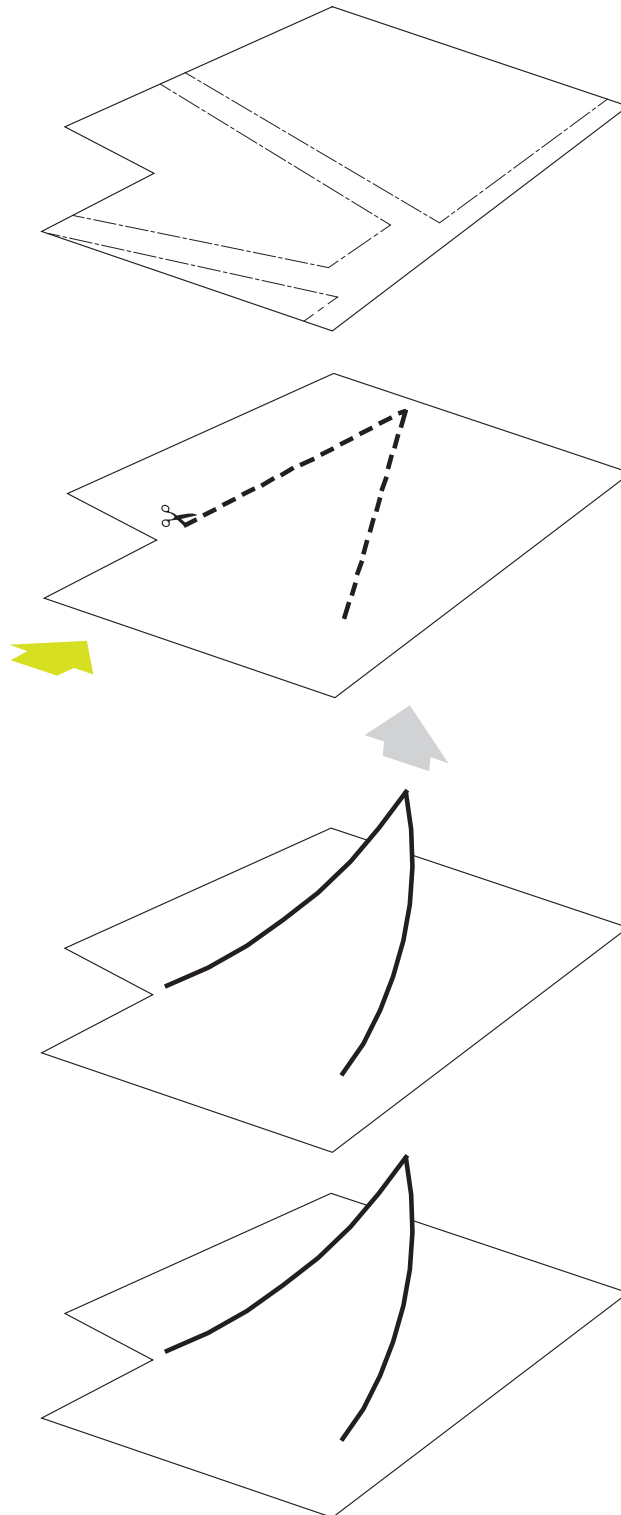


▲ Perspective from Main Street looking NW towards Library



▲ Perspective from across Main Street looking SW towards Library

6.3 Conceptual Diagrams



SITE

The existing site is comprised of three properties, all with different land use designations, and will require consolidation. The largest property within the site is zoned P2 (Public Facilities District) which allows for a maximum building height of 24m. Additionally, various Utility Right-of-Ways span across the site.

CUT

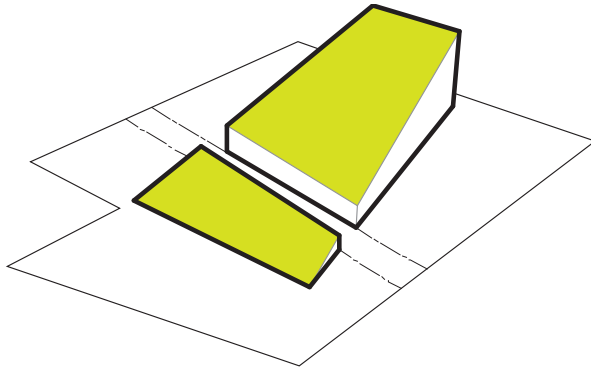
This site is directly accessible from the west via recreational pathways running alongside Nose Creek. A cut line is imagined on site to dedicate a central portion of site as an extension of public park space.

LIFT

Lifting a corner of the park raises it above the noise, dirt, and traffic of Main Street (towards the east) while creating building presence along the street elevation.

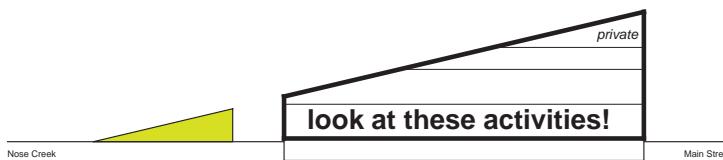
RESPECT THE URW

An existing Utility Right-of-Way bisects the site and organizes the Library's outdoor at-grade program from its indoor program. The Library's building mass becomes tucked under the rising park roofscape.



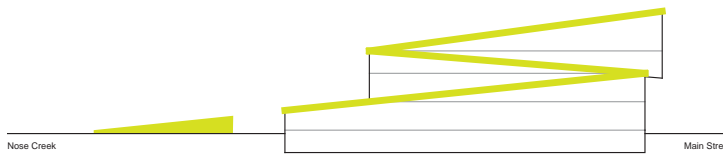
DIAGRAMMATIC SECTION

Larger, more public, and activity-filled programs are situated at lower levels. More intimate, contemplative, and quiet spaces are raised towards the sky.



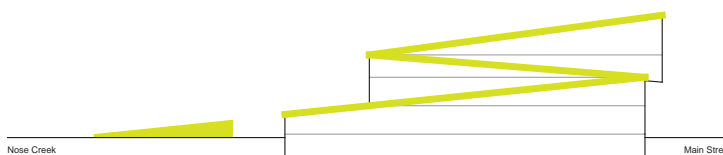
ATRIUM

The atrium is a multi-storey volume that welcomes visitors from the street; showcasing the Library's various program components and multiple levels from a central space.



FOLDED LANDSCAPE

Occupiable roof areas offer public park space across the east-west expanse of the site. These spaces are inclusively designed, accessible/controlled from within the Library, and serve as outdoor extensions of the Library's adjacent indoor program components.



LANDSCAPE SPIRE

This civic beacon weaves together landscape and built form - providing presence along its street frontage while terracing down to respect the smaller scale residential neighborhood along the south. Public park spaces at various heights offer a variety of views and experiences.

6.4 Civic Destination

Outdoor program around the site cater to various demographics and uses; forming a symbiotic relationship with the Library to become a community destination and catalyst for civic activity beyond Library operating hours.

Recreational park space is bountiful for various forms of casual play or gathering. Publicly accessible roofs intertwine park amenities with Library functions; encouraging visitors

to experience the building and their surrounding city in alternative ways.

A sloped plaza offers the potential to gather for civic engagements or to become rental event space for organized functions. The parking lot serves Library needs, though it could also become a temporary markets after hours.



▲ Eastward perspective showing continuation of park landscape from Nose Creek through the project site

6.5 Project Floor Plans and Renderings

The test-fit of this Airdrie Public Library massing scheme allows the building to respond to various site conditions and for the outdoor area around it to be programmed into a wide range of activity zones.

There is a direct connection and expansion of the Nose Creek Park natural landscape towards the west, and a hardscaped plaza along the south. These were programmed in consideration of sun movement and public access through

the site at various times of day. A landscape buffer along the south property line shields busy site activity from residents to the south.

Parking or loading zones are located off Main Street along the east and north of the building. Visitor drop-off zones are shown in front of the building entrance and along Main Street to relieve congestion for the surface parking area.



▲ Conceptual site plan with various potential outdoor program zones

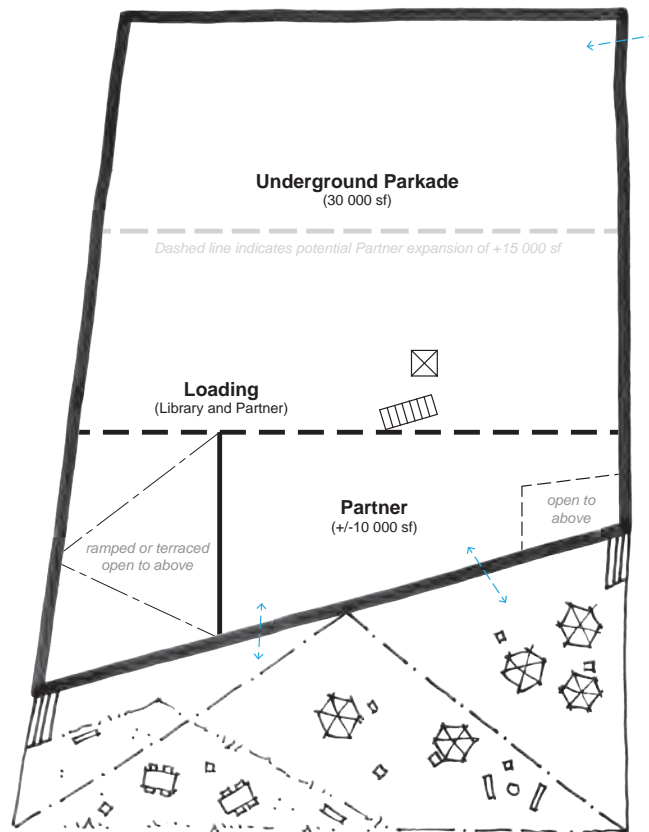
The Multi-Purpose Partner Space is located on a lower level with direct connection to the building atrium and exterior access along the south to the site's civic plaza. Dashed lines in the diagram below (black) indicate the potential layout of a Partner space ranging from 10 000 ft² to 25 000 ft² (gray). The rationale for the Partner Space size and location is as follows:

- Stakeholder engagement suggested that the demand of 25,000 ft² is not currently present, but more likely in the range of 10,000 - 15,000 ft²
- Through both the household survey and the stakeholder engagement there was a strong desire to have partner space at ground level and not above the library.

- The Library requires a significant amount of area on the ground level that led to finding a unique solution for locating the partner space.

A ramped or terraced floor area is indicated as a potential floor treatment of the Children's program on the Library's main floor above. This could serve sunken program requirements (reading area, ball pit, etc.) with an extended ceiling height.

An underground parkade is also shown, though its configuration and area can vary depending on eventual size of Partner space as well as the number of parking stalls required as determined by the traffic consultant.



- ▲ Lower level with direct access to a sloped plaza along the south



▲ Aerial perspective looking west above the public plaza, building street frontage, and landscaped roofs

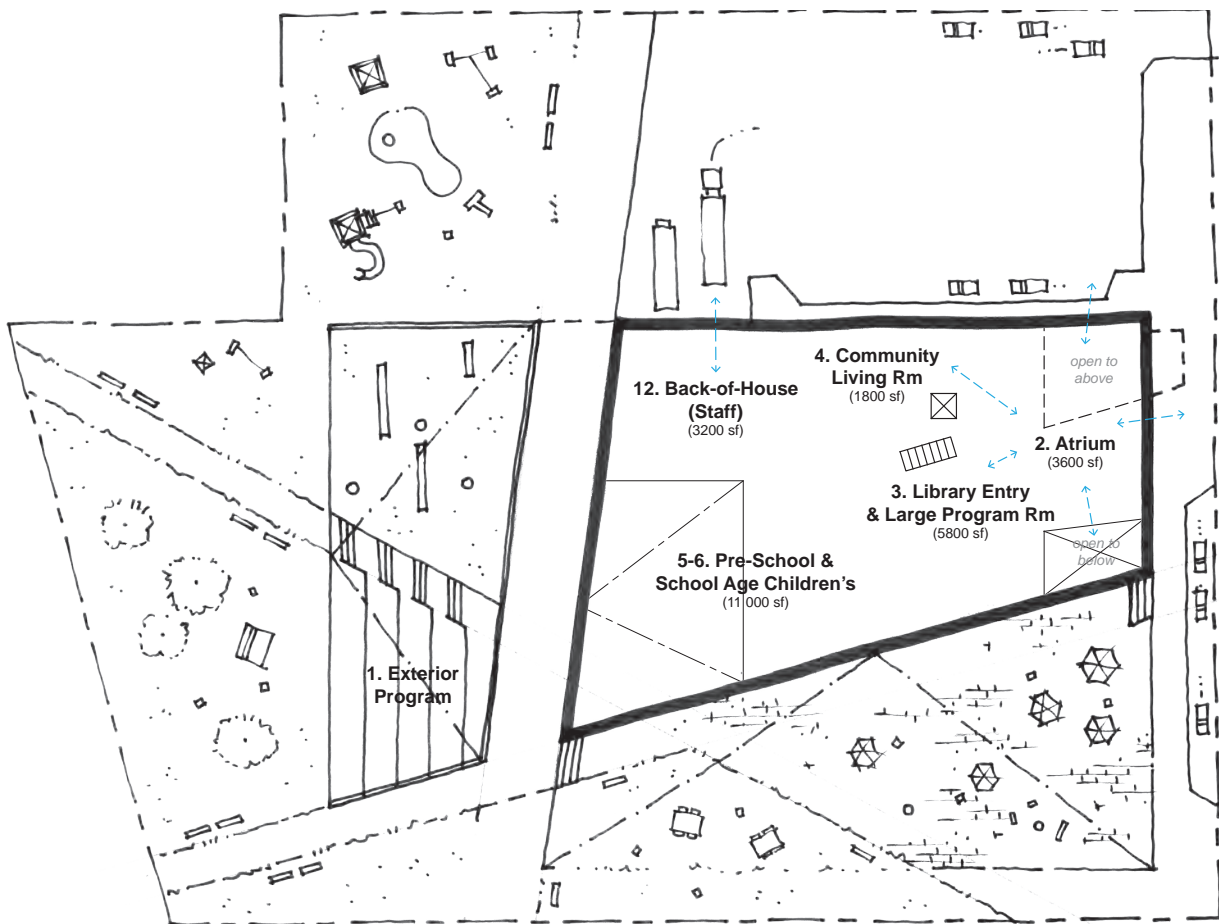


▲ Street perspective looking north at the plaza in front of the Multi-Purpose Partner Space

The Library's main floor consists of its most community-oriented programs and activity-filled Children's spaces. As such, it is directly accessible from the street along the north and east, while overlooking the sloped plaza along the south.

The multi-storey Atrium is central to Library planning and offers access to various program spaces as well as a means of observing activities on floors above. It also has the potential to be programmed indoor gathering or cafe space.

The Children's area is adjacent to a pathway on an utility right-of-way, which becomes a potential opportunity for extended play space along the exterior of the building. This outdoor area could be enclosed with controlled access to provide a protected zone for children's activities such as sidewalk art, climbing walls, or community planting.



▲ Main floor plan identifying the central connectivity of the atrium



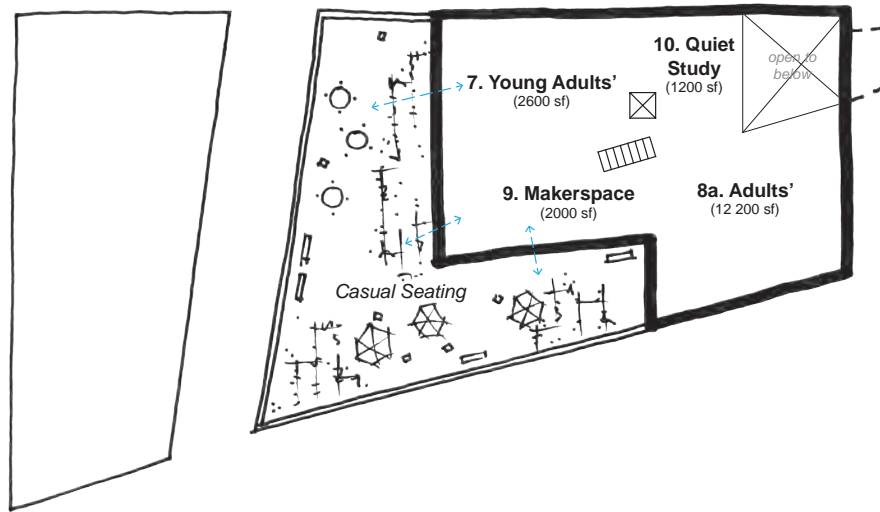
▲ Aerial perspective looking towards the utility right of way play area



▲ Perspective from across Main Street looking SW towards Library with Market in plaza

The second floor contains largely collection-oriented space and its associated support programs for more focused or self-directed activities. The atrium extends through this floor plate to offer views down to the main floor.

Adjacent outdoor spaces supplement the casual seating and study areas for enjoyment in a park setting. The outdoor spaces are fully controlled by the Library and access to them would be through the Library itself. As these roof top areas provide singular views, moments, and public gathering within the City of Airdrie, they would help increase the popularity of the project.



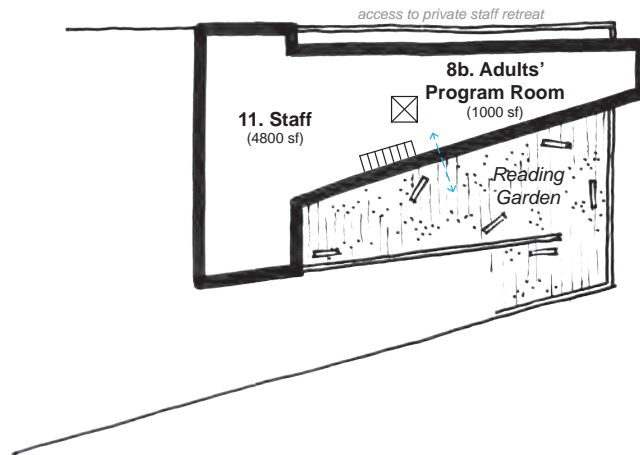
▲ Second floor plan with adjacent outdoor space for spillover program



▲ Aerial view showing casual seating area outside of the second floor

Staff work spaces on the third floor provide management and passive security of its adjacent Program Room, which has direct access to an exterior Reading Garden. A public barrier-free path also connects the outdoor area from the second floor to this garden.

Additionally, controlled access restricts an upper roof patio to private staff functions such as internal meetings, staff parties, or for enjoyment of a lunch break.



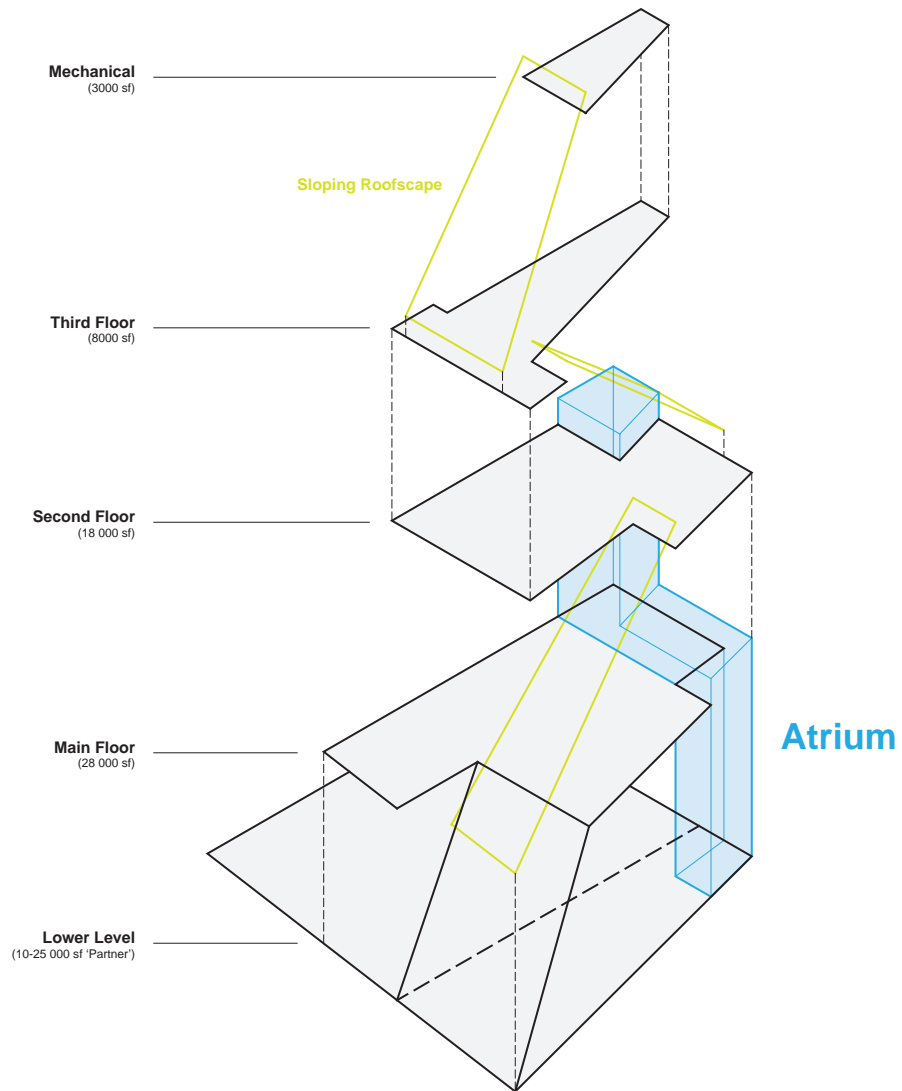
▲ Third floor plan with access to the outdoor reading garden and private staff roof patio



▲ Aerial view showing roof top programming

The below diagram illustrates the relationship between the building floor plates, central atrium, and sloping roofs (stretched vertically for diagrammatic purposes). The atrium volume (indicated in blue) demonstrates its inter-connectivity to multiple floor plates and prominent

direct access from Main Street to the east. The atrium has been designed to allow public access to parking and Partner spaces even if the Library is closed off to the public after hours.



▲ Exploded axonometric of floor plates and Atrium volume

7.0 Next Steps

7.0 Next Steps

The following are recommendations for how the project can move forward building off of the information developed in this phase.

Engagement

The project should continue public engagement using the design images developed in the next phase to gain feedback from the public. If possible, in-person engagement events should be scheduled as they were not possible in this phase. In addition, further targeted stakeholder sessions are encouraged as the discussions will be more useful once there is a design for the partner space and a confirmed construction completion date.

Library Functional Plan

The development of a detailed functional program generally involves a process with multiple substantive drafts generated through sets of meetings with library staff over the course of three to five months. For various reasons, this project had a shortened timeline for developing the detailed Functional Program, which was only achieved through the coordinated and committed efforts of Airdrie Public Library staff. Due to this abbreviated timeline, it is recommended that—as the project moves into design—exploration around the provision of innovative library services and spaces continue, with the engagement and participation of library staff assisted by a library planning specialist, to review and confirm the planning concepts identified in the Functional Program and to capitalize on any opportunities that are found in the design process.

Site and Building Design

As the project moves into a Schematic Design phase there will be various design iterations created for the site and building that will require coordination with a full sub-consultant team as well as alignment with the construction budget. It is expected that these designs will differ from the test-fit shown in this document, but hopefully alignment to the library functional plan, aspirations for place making, building massing that creates a gateway to downtown and expansion of Nose Creek into the site are maintained.



9.0 Appendix

- A Functional Program
- B Household Survey





FUNCTIONAL PROGRAM



Resource Planning Group Inc.

FINAL DRAFT

FINAL DRAFT

Airdrie Public Library

FUNCTIONAL PROGRAM

Draft: 2021 August 11



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The content of this document is the product of a collaborative effort of Resource Planning Group Inc., and Airdrie Public Library and requires the formal approval of these parties prior to its use. The specifications herein do not absolve the parties providing subsequent design services from their own responsibility to provide fully functional and complete facilities and to satisfy applicable building code requirements.

This document is to be used solely by Airdrie Public Library for the development and use of the project facilities. It is not to be reproduced, or copied in any form, for use on projects other than that for which the document was prepared.

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7. Young Adults' Area.....	3.71
8. Adults' Area	3.81
9. Makerspace	3.93
10. Quiet Study Room	3.101
11. Staff Workspace	3.111
12. Back-of-House Functions	3.119

FINAL DRAFT

FINAL DRAFT

**SECTION 1.0:
INTRODUCTION & SUMMARIES**

FINAL DRAFT

1.0 INTRODUCTION & SUMMARIES

INTRODUCTION

This Functional Program forms part of a larger study for the City of Airdrie that reviews the feasibility of developing a Multi-Use Facility that includes the Airdrie Public Library on a downtown location. The Functional Program for Airdrie Public Library only identifies the functional space needs for Airdrie Public Library. A separate stream of work, led by HCMA is reviewing the opportunities for partners to join the Library on the site.

HCMA is utilizing the Functional Program to assist in the development of indicative massing and stacking models on the downtown site. The Functional Program will be used to inform the subsequent design team of the criteria that must be met as through the design of the Multi-Use Facility as well as serving as a reference document to assess how well proposed design support the functional requirements of the Library.

DESCRIPTION OF THE WORK PERFORMED

The process to complete the development of the Functional Program document is provided below:

- Project Initiation Meeting with the City of Airdrie on January 27, 2021
- Collection of Library information through March 2021
- Introduction of Team and Project to City Council on April 6, 2021
- Visioning Session with City Council on April 7, 2021
- Macro Space Program meetings with Library Leadership through April 2021
- Visioning Session with the Library Board on April 13, 2021
- Presentation of Rationale for 60,000 square foot library to City Council on May 17th, 2021 and approval to proceed as per recommendation
- Macro Space Program meetings with Library Leadership through May 2021
- Submission of Interim Report to Board on June 23, 2021
- Presentation of Interim Report and Meeting with Library Board on June 29, 2021
- Meetings with Library Leadership through June and July
- Submission of Draft Detailed Functional Program to Library Board on July 27th for review by Library Board
- Receiving of comments from Library Board on August 5
- Submission of Final red-line and clean copies of Functional Program on August 11.

ORGANIZATION OF THIS DOCUMENT

This report includes the following subsections:

1. This Introduction and Summaries
2. General Planning Criteria, which includes planning criteria related to the site and facility in general, including design objectives, criteria for the Library experience, the exterior public realm, interior public realm, operational systems and building systems
3. Component Planning Criteria, which includes criteria related to each of the twelve components that comprise the Airdrie Public Library project.

SUMMARIES

FUNCTIONAL COMPONENTS

The proposed Airdrie Public Library includes the following functional components:

1. **Exterior Spaces:** This component establishes the basic functional concepts relating to the development of the building site and describes practical, aesthetic and/ or symbolic exterior requirements
2. **Atrium:** The Atrium component provides a multi-story lobby for the Library, a major spatial and organizing feature; it may eventually be part of a larger atrium space connecting Library Space and partner space
3. **Library Entrance and Large Program Room:** Accessed via the Atrium space, this component accommodates the entrance to the Library, the largest Library Program Room, and staff areas for Public Services and for Programming
4. **Community Living Room:** This component accommodates, in a location close to the Library Entrance and Large Program Room, a welcoming and informal lounge and activity area featuring topical and current resources, a gathering and seating space with a fireplace, and small-scale recreational activities
5. **Pre-School Children's Area:** This component, one of two Children's Areas within the Library, accommodates the collections, program spaces and collection support spaces serving Pre-School Children
6. **School Age Children's Area:** This component, the second of the two Children's Areas, accommodates the collections and program spaces, including a makerspace, serving school age children
7. **Young Adults' Area:** The Young Adults' Area accommodates an Open Collection Area and a more spatially-contained Program Area that features at table seating, casual seating and gaming areas
8. **Adults' Area:** This component will house the Adult Non-Fiction Collection and the Adult Fiction Collection along with a mid-sized Program Room, small Meeting Room, multiple small Group Rooms, and a Readers' Lounge
9. **Makerspace:** Makerspace is an innovative community hub providing opportunities to create, engage and discover existing and emerging technologies to promote lifelong learning
10. **Quiet Study Room:** The Quiet Study Room, a quiet second floor retreat space, includes Local History, Local Authors, and Genealogy collections in a contained quiet study room
11. **Staff Workspaces:** This component accommodates the workspace of staff in senior administration, Technical Services, and IT as well as centralized staff amenity spaces
12. **Back-of-House Functions:** This component accommodates back-of-house functions that ensure the practical operation of the

building, including Materials Handling, and Building Services spaces that are distributed throughout the Library facility.

**SUMMARY OF USER/
VISITOR/PATRON
ACCOMMODATIONS**

The following table identifies total numbers of seats and stations by component.

Type	Total Occupants
1. Exterior Spaces ¹	42
2. Atrium	75 ²
3. Library Entrance and Large Program Room	117
4. Community Living Room	16
5. Pre-School Children's Area	154
6. School Age School Area	113
7. Young Adults' Area	79
8. Adults' Area	177
9. Makerspace	37
10. Quiet Study Room	30
11. Staff Workspace	-
12. Back-of-House Functions	-
Total	798

**STAFFING & OCCUPANCY
SUMMARY**

The following table identifies overall staffing for the facility, including existing staffing, and future anticipated staffing as well as total building occupancy, including visitors and patrons for Components 2 through 10.

Component	Existing FTE	Future FTE	Total Headcount	Maximum Occupancy
1. Exterior Spaces	-	-	-	-
2. Atrium	-	-	-	77
3. Library Entrance and Large Program Room	15.8	20.4	38	146
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12. Back-of-House Functions	4.7	5.9	7	5
Total	30.5	39.3	61	840

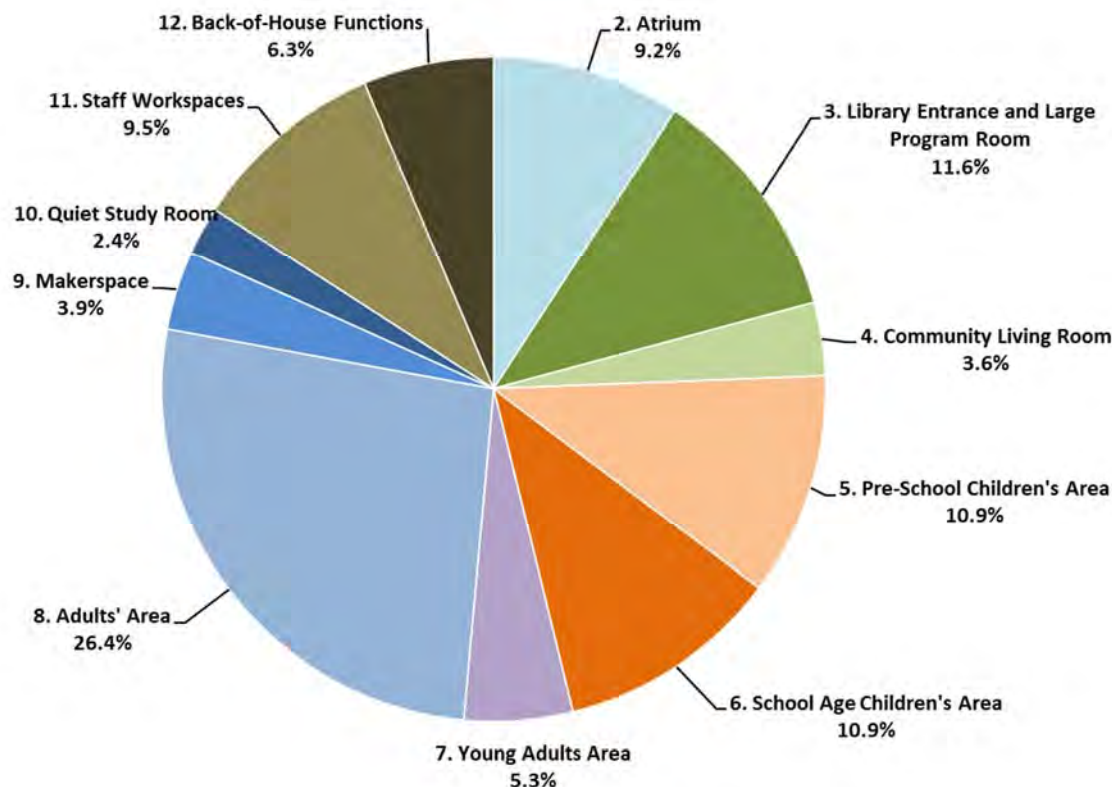
¹ Occupancy of Exterior Spaces is not included in total.

² Occupancy includes seats only; Atrium open space is sized to accommodate between 200 to 300 people, depending on activity.

SPACE SUMMARY

Component	Net Area	Grossing Factor	CGSF	Net Area	Grossing Factor	CGSM
1. Exterior Spaces	11,960	1.00	11,960	1,111.1	1.00	1,111
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7. Young Adults' Area	2,110	1.25	2,640	196.0	1.25	245
8. Adults' Area	10,570	1.25	13,215	982.0	1.25	1,228
9. Makerspace	1,625	1.20	1,950	151.0	1.20	180
10. Quiet Study Room	1,095	1.10	1,205	101.7	1.10	110
11. Staff Workspaces	3,400	1.40	4,760	315.9	1.40	442
12. Back-of-House Functions	2,645	1.20	3,175	245.7	1.20	295
Total	39,492		50,005	3,668.9		4,646
Building Grossing			1.20			1.20
Building Gross Square Metres			60,000			5,574

The following chart indicates the relative size of each component in terms of Component Gross Area (CGSM):



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**SECTION 2.0:
GENERAL PLANNING CRITERIA**

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2.0 GENERAL PLANNING CRITERIA

INTRODUCTION

This section of the document will describe Planning Criteria that apply to all spaces and systems in the building.

Planning Criteria should set the stage for the eventual development of design responses and technical specifications. They assume that any existing municipal, provincial, and/or national building codes and standards will take precedence over concepts described below.

Planning Criteria will be presented sequentially, from the most general to the most specific. More detailed, component-specific planning and design criteria will be included in each subsequent Functional Component description.

Planning Criteria are described in eight sections as follows:

1. Strategic Context
2. Project Assumptions
3. Defining Features
4. Key Site Development Goals
5. Interior Systems
6. Operational Systems
7. Building Systems
8. Sustainability Features.

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1. STRATEGIC CONTEXT

The Mission, Values, Vision, and Customer Service Philosophy form the Airdrie Public Library's strategic institutional context, to which all subsequent Planning Criteria must respond.

Mission

Airdrie Public Library fosters literacy, knowledge, and cultural connections.

We seek to inspire lifelong learning, imagination and creativity through our inclusive programs, services, and collections.

Values

Intellectual Freedom

Literacy & Lifelong Learning

Service & Organizational Excellence

Innovation

Community Collaboration

Accessibility & Inclusiveness

Vision

An inclusive landmark destination that engages the mind, strengthens community, and enhances quality of life.

Customer Service Philosophy

Every customer who uses our Library will be welcomed, valued and respected.

Every customer is entitled to their individual style of use of the Library if it gives consideration for the well-being of others.

Rules are in place to make the Library experience a rich and meaningful experience for all. Rules will be applied fairly to all.

If problems arise, all evidence will be duly considered before action is taken. Action taken will be in keeping with the severity of the problem.

Each day is viewed as a new beginning and each circumstance as an opportunity for growth and learning.

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2. PROJECT ASSUMPTIONS

The following assumptions are not exhaustive; they are included to establish a working snapshot of the major functional and spatial parameters that will guide the project:

Objectives

Create an appropriately scaled, state-of-the-art facility that will manifest the stated values of the Airdrie Public Library and provide optimal library services and resources.

Capture the Imagination of the Airdrie community.

Attract dynamic site partners.

The Project Charter also identifies the following key objectives of the completed project:

- *A Library is a Catalyst*

This Library has the potential to be a catalytic project to bring the focus back downtown. It is about encouraging the connectivity to people and programs that nurture mental well-being and build a healthy and vibrant community. With the Library being centrally located, it will be supportive of more walkable neighbourhoods, further contributing to a complete community

Metric: The new Library and multi-use facility drives increased visits downtown as evidenced by an increase in new businesses downtown at 2, 5 years post project and an increase in tax assessment

- *The project is a driver for a Multi-Use Facility*

A future library should incorporate one or more uses inside of the building that is owned and operated by a different business such as a café, a different cultural resource, a co-working space or retail. This will anchor the Library as a node drawing on different residents to visit the building for different reasons thereby stimulating the building as an activity centre. It will elevate the building to add up to more than the sum of its parts

Metric: Other users can demonstrate a business case to be included in the multi-use facility and are active on opening, as well as 2, 5 years and beyond

- *Meets and exceeds the needs of the Community*

This Library is to be used and enjoyed by all the community and a destination for all. To widen the users and patronage of users from all demographics

Metric: To increase those with an active Library membership from the current 34% of community, to 45% of the community

- *A Library is a Hub for Community Development*

How libraries are used is changing. Historically they were a space used to house books. Today, libraries are a place where people gather and celebrate their community. This can be achieved through event programming and designing

multipurpose flex spaces that can accommodate a range of uses (i.e., small conference and meeting rooms, makerspace rooms, a tools library, child minding, information technology, educational programs, multi-faith rooms, travelling art shows, etc.)

Metric: Increased visitation of a wider range of services, as measured by new and additional users by APL.

Scale

- The total project budget will be approximately \$55 million
- The overall building gross area will be approximately 85,000 square feet
- The design will include Library space and partner spaces, and a shared indoor gathering Atrium space
- The Library will utilize 60,000 square feet of space
- The partner space will be approximately 25,000 square feet
- The building is expected to be a permanent addition to the downtown core.

Operations

- Design will enable practical and sustainable Library operation of the central library as a permanent addition to Airdrie's urban fabric and capable of sustained operation for many years into the future
- Design will allow for access and egress from the Large Program Room when the main portion of Library is closed
- Average daily attendance is forecast to be between 1,000 and 1,500, with many extended visits
- Annual attendance is forecast between 350,000 and 500,000
- Approximately nine additional staff FTEs will be added
- Custodial and building operators may be contracted, an option requiring discussion with City
- The overall collection size will be approximately 160,000 print and non-print items with additional digital resources
- The entire Library facility will be compliant with Provincial accessibility design standards
- Partner provided services are assumed to include a café/ refreshment kiosk/eatery.

Systems

- Non-public and public parking spaces will be provided on-site; these are included in the overall project budget
- Shared secured bicycle parking will be provided for staff and facility customers

- There will be direct adjacent sidewalks and multipurpose exterior spaces
- There will be easy access to the Atrium from both the pathway system as well as from the Main Street sidewalk system
- There will be one or more public entrances/exits to and from the Atrium of the building
- A single and significant public entrance to the Library itself from the Atrium is preferred
- There will be access and egress to the Atrium to the Library's Large Program Room when Library is closed
- There will be a designated non-public staff entrance as well as an entrance associated with the loading dock
- It is highly desirable for the main floor of the Library to be at the elevation of the adjacent sidewalks
- The Library portion of the building will feature two levels of public areas), and a third level (with staff offices, but not materials handling). In addition, there may be a partial lower level (with loading dock, building services, and storage)
- The Library will feature multi-story spaces, an open staircase system and rooftop skylights
- There will be access to a café from the street, from interior window service into the Library and from interior window service into a general lobby serving the Library and shared partner space
- There will be extensive glazing throughout, allowing views of the surrounding site, the adjacent community, Nose Creek Park and the sky
- Within the Library, there will be centrally located public elevators, and no escalators
- There will be a raised floor system throughout allowing universal access to sub-floor systems
- Supernet and IT Systems and networks must meet specific APL requirements
- There will be a separate staff stair system and elevator system
- There will be two shipping and receiving bays to serve the Library and a nearby APL service vehicle parking spot, and another spot provided for non-APL vehicles
- The building will achieve a LEED® Gold equivalency but will not be certified.

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3. DEFINING FEATURES

The following defining features are not exhaustive; they provide a snapshot of key functional and spatial features:

1. Identity

- The building must have a striking and contemporary image
- The Library operation will be a focus of community activity
- The Library site will be a major exterior community destination
- The Library interior will be a major indoor community destination

2. Core User Experience

- Intergenerational Civic Pride and Ownership
- Universal Accessibility and Inclusion
- Comfort, Safety and Security
- Staff-Service and Self-Service
- Social Animation
- Individual Reflection and Contemplation
- Discovery, Innovation, Creation, and Exploration
- Enjoyment, Leisure and Fun
- Lifelong Learning

3. Community Presence

- A prominent inspiring destination with a simple, modern form and a transparent architectural image, expressed through the use of wood, stone, and glass
- A community gathering space that balances traditional library experiences, innovative activities, and empowering services
- Community observation and interaction is one of the major attractions of the Library. The building must allow for safe and comfortable physical proximity and visual contact between community members
- A library facility displays its activity, that is transparent by day and illuminated and transparent by night
- Acknowledgement of the spirit of the place conveyed through use of wood and stone, vegetation and access to natural light and awareness of local and regional climatic conditions
- A formal and spatial character full of light and warmth

4. User Friendliness

- Visible, accessible, welcoming staff assisted and customer self-directed services
- Staff, community and partner-led, and patron self-directed programs

- Comprehensive collections of relevant print, digital, and other media, arranged for optimal visibility, access and discovery
- Collection resources and building features arranged for optimal patron orientation and exploration
- Patron-provided and Library-provided technologies and innovative applications
- Innovative signage systems designed to promote optimal patron self-direction and orientation
- Cultural enrichment provided through patron engagement activities and public art

5. Interior Character

- The presence throughout the interior of inspiring beauty, achieved through pleasing spaces, forms, colour and proportions
- An emphasis on spatial openness, variety and visual transparency with partially or fully enclosed spaces being the exception
- The presence of ample daylight, year-round, with penetration to the interior using generous perimeter glazing and daylight from above
- Animating views of people and activities from above, below, between different floor levels, and across interior spaces
- An animated ground floor level, with quieter and more private upper levels
- Functions arranged to create a progression of activity from an active entrance and public interaction zone to a quieter zone more suitable for small groups and individuals
- One staff assisted, service point on each of the first two levels and another periodically staffed service point for Children's Services
- Wayfinding and orientation features that are consistently located throughout the building
- Multi-story spaces that allow views across the spaces and above and below those spaces
- A combination of open interactive spaces and smaller scaled personal work and reading stations
- Acknowledgement and celebration of the natural environment throughout the building, including natural light natural materials, plants and, in the Atrium, consideration of green wall systems.

4. KEY SITE DEVELOPMENT GOALS

1. Visibility

- The exterior of the Library facility should be prominently visible from adjacent streets, sidewalks, the surrounding greenspace, and buildings
- The interior of the Library should be prominently visible from adjacent streets sidewalks the surrounding greenspace and buildings
- Signage identifying the Library should be prominently visible from the two major adjacent streets.

2. Views

- Significant views of adjacent sidewalks, streets, outdoor natural spaces, and prominent local features, including the sky, should be provided from the interior of the Library.

3. Pedestrian and Vehicular Access

- Convenient pedestrian access should be provided from adjacent community destinations, transit systems, and pedestrian systems to the Library facility
- A convenient and safe pedestrian drop-off should be provided close to the entrance to the facility
- Public parking for private vehicles and staff vehicles will be provided at surface and under the Library facility, with convenient electric plug-ins and charging stations provided, as well as surface level drop-off stalls for school and accessibility buses
- Service and delivery vehicle access either at grade level or at the level of underground parking below
- On the site itself, there should be landscaped, programmable and contained multipurpose green space, accessible from pathway system, sidewalks and the interior of the building.

4. Project Image

- Site development must include building setbacks that create a sheltered entrance plaza and exterior arrival and gathering place and an area for multi-functional activities
- Design should explore visible and imaginative use of indigenous natural forms and materials; other historical elements may be explored and include references to farming and ranching communities, and the role of the railroad, which should be interpreted in a contemporary way. Other contemporary themes should also be considered.

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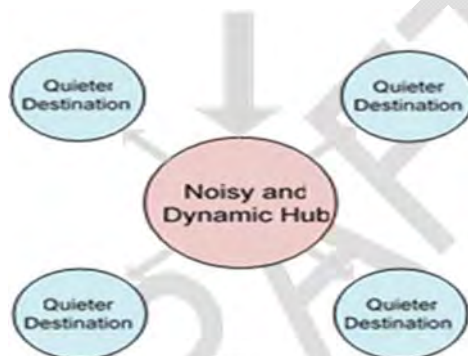
FINAL DRAFT

5. INTERIOR SYSTEMS

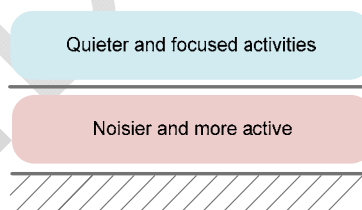
1. Key Features

- This will be a very highly used public building. Use will be daily, year-round and over several decades. Its diversity of users and its level of use will make ongoing demands on all fixtures, systems, and infrastructure
- The level of wear and tear will be very high. The building and all its sub-systems should be designed to be simply elegant, practical, durable, and easily maintained
- The interior character of the building and the essential character of the Library experience will be created through a combination of:
 - a variety of spatial scales and interconnection
 - a variety of natural and artificial lighting systems
 - views to the exterior
 - views across the interior
 - interior design elements
 - Library resources and technologies
 - the variety and animation of the users
- A prominent central spatial and architectural feature with references to local and regional social, historical, and environmental contexts
- The interior design – forms, spaces, furnishings, and fixtures – in some spaces should provide a neutral, non-intrusive backdrop to activities of patrons and Library resources. In other spaces, such as the Children’s components, innovative images, forms, furnishings, and fixtures will be welcome
- A multi-level interior, that includes a multi-story Atrium space will be the major spatial and unifying feature in the building. It will provide a central vertical space that connects spaces on all the different floor levels. It will also accommodate a multipurpose ground floor gathering point that acts as a focus for community interaction
- Intuitive wayfinding, visual cues and connections will ensure that building users:
 - have a clear understanding of the overall layout of the building, including the sequence of arrival spaces, and locations of key services and features
 - have a clear understanding of where stair and elevator/ systems are located
 - experience individual workspaces and private destinations
- Numerous opportunities for viewing and people watching, as well as quiet individual refuge
- Spatial simplicity and future reconfigurability achieved through a minimum of structural and fixed elements, access to natural light, and practically located services

- Furnishings and interior design concepts should create an ambiance for human comfort, enjoyment and inclusion
- Highlighted collection feature areas and service destinations, featuring a central arrival space with services, signage, and display features, etc., and specific related functions and spaces clustered around this central space
- Lateral spatial zoning that generally transitions from active common spaces at the centre, to quieter, collection display and workspaces at the perimeter



- Vertical, spatial zoning that generally transitions from active common spaces on lower floors, and quieter, reading, study and workspaces upper floors



- Generally, the Library will feature open and contiguous spaces with enclosed spaces the exception; stack and furniture layouts may be used to define local spaces and functional zones. All enclosed space must be acoustically damped
- Ample natural light must be provided throughout
- Exterior walls that feature large expanses of glazing, providing views into and out of building, to and from adjacent buildings, natural features, and public spaces.

2. Health and Safety Features

- Spatial dimensions and proportions, furnishing and fixture design should respond to the ergonomic and human factors realities of human physiology, including those of people with special needs, particularly the requirements to comfortably access, move, lift, adjust, and rearrange personal effects, collection resources, equipment, furniture, doors, operable partitions, lighting, play equipment, presentation equipment, and storage units

- On each level, bottle fillers and public handwash stations will be provided to allow opportunities for hands-free hand hygiene
- The design, materials, finishing details, fixture installation features, and maintenance activities of finishes will be easy to clean and minimize the likelihood of injury due to accidents, falls, etc.
- Safety and security features will be integrated unobtrusively using discreet, intuitive layout and design features, (including interior glazing), rather than through obvious surveillance and/or physical barriers
- Public areas will be visible from service points
- The Library interior is an interior urban space. The design of the space must reflect the principles of Crime Prevention Through Environmental Design
- All materials used must be non-toxic, and non-allergenic
- All materials used must be considered for frequent cleanability and high use
- Service desks should be sufficiently adaptable to allow the easy installation of sneeze barriers
- Provide touchless fixtures, paper towel dispensers, soap dispensers and toilets.

3. General Features

- Minimum 4.5 metre (14.8 ft.) ceilings in main public spaces, with a feature multi-story space
- Design treatment of ceiling planes, including suspended panels, lighting features, and signage should reflect the layout of functions taking place below, serving as spatial focal points and orientation devices
- An open feature staircase system strategically placed to not obstruct sightlines or to introduce floor areas with awkward access or proportions
- In areas featuring grouped workstations, minimal internal corridors that incorporate intermittent views and natural light along their length
- Orientation features and/or exterior views at the ends of corridors and aisles
- Bookable rooms with modular construction and partial glazing
- Program rooms with modular construction and partial glazing, including blinds
- Mitigation of glare from extensive perimeter glazing in patron and staff areas

- Collection resources that are laid out to be optimally visible, self-explanatory, and visually interesting, including illuminated shelving with many opportunities for face-out displays
- Public washrooms for males and females with airport style access, and unisex/universal washrooms, all located in the same location on each level of the building
- Infant change stations will be provided in all public washrooms
- Quiet room and family washrooms with adult and child sized fixtures within the Pre-School Children's Area.

4. **Functional Organization**

- Individual workspaces that are typically located adjacent to perimeter windows; with interactive spaces at the centre, although all spaces should have ample daylight
- A variety of spatial scales, including group and individually scaled spaces
- Spaces that are designed to allow reconfiguration and expansion in the future with minimal disruption of services and operations
- Grouped small bookable rooms.

5. **Lighting**

- An emphasis on natural light, throughout
- Glazing that provides shade and glare control. Glass should have integral shading capacity and UV protection
- There will be a wide variety of lighting conditions as well as the need to control of lighting conditions in specific reading, study, and programming, meeting, and bookable rooms
- Light quality, lighting fixtures, and lighting controls must be developed as a significant design feature throughout
- Full spectrum lighting should be provided to support use in winter conditions
- Generally, lighting will be LED, indirect and glare-free
- Local task lighting will be required to illuminate work surfaces, displays, and special features
- Illuminated collection shelving will be important with a high level of illumination on all lower shelves
- Also see comments on roof and skylight design in Building Systems.

6. **Acoustic Quality**

- Generally, acoustic dampening of noise from human activity and from any mechanical system is required throughout the building
- Performance-quality acoustic treatment in the Atrium and Program Room

- Acoustic dampening in all quiet reading and study spaces, offices, and meeting rooms.

7. Furnishings and Surfaces

- The Library operation involves the frequent movement of patron carried personal effects and Library resources. The presence throughout of flat, accessible surfaces where these effects and resources can be temporarily housed is essential
- Simplicity of design and coordination of forms and colours
- As much as possible, furnishings should be fully adjustable, moveable, and reconfigurable and allow sit/stand work practices
- Furnishings and surfaces should be commercially available with custom fabrication kept to a minimum. It should be selected for ease of maintenance, high durability, cleanability and conformance to infection control and general maintenance policies and procedures
- Power and cabling access should be integrated with furnishing design and layout.

8. Fixtures and Equipment

- All collection areas should be compliant with Province of Alberta Accessibility Design Standards
- All furnishings and computer workstations must be fully adjustable, with charging devices integrated with all furnishings
- Books trucks must be selected to balance work efficiency and ergonomics
- Collections will be stored on shelving units that are typically three feet wide and no more than 183 cm (72") high
- Stack-end display units should be included throughout
- Digital rather than printed stack-end wayfinding/labelling must be included for ease of updating
- Shelving units may be moveable (if under 132 cm high) or fixed to the floor structure, (if higher than 132 cm).

9. Signage and Display

- The building will include feature signage and information displays, signage and display elements that may be integrated into smart wall systems, wall/ceiling-mounted projection equipment and integrated whiteboards or screens
- Presentation equipment should be securely fastened to walls or ceilings
- Display features may be freestanding, suspended, and/or mounted on stack and wall systems
- Signage should be commercially available for ease of updating

- Provide consistent signage display locations on each level and a display surface designed to avoid scattered signage and contain permanent and temporary signage in the one designated location
- Distributed wayfinding beacons are required for mobile phone navigation.

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6. OPERATIONAL SYSTEMS**1. Partial Operations**

- Access to the Atrium must be provided to facilitate access while the remainder of the Library is closed
- Access to the Program Room, must be provided from the Atrium to facilitate access while the remainder of the Library is closed.

2. Room Booking

- Program Rooms and smaller study rooms may be booked by patrons or Library staff for private study, meetings, programs, and other events, but Library activities will always take priority.

3. Service Points

- There will be at least one public service point on levels one and two, with a periodically staffed service point for the Children's components
- Service points should be highly flexible (not built-in) with the opportunity to change the location as required.

4. Movement Systems

- Movement paths must be carefully coordinated to lead to and coincide with key functional destinations, such as feature collection areas, service points and collection displays
- Pathways to destinations should optimize direct movement by the shortest route
- Planning should develop staff and patron movement paths with simple geometries and clear sightlines; for security purposes, there should be no dead ends or hidden corners.

5. People Moving Systems

- Many patrons will use mobility devices, such as walkers, automated wheelchairs, and strollers accommodating small children. People moving systems must accommodate this with all systems optimized for ease of movement, orientation, and safety
- An open staircase that connects all levels of the Library. Its design should invite frequent use. It may include interim landing spaces with bench seating for rest and general prospect
- Public elevators (minimum two) will provide the second key means of vertical public movement.

6. Materials Handling Systems

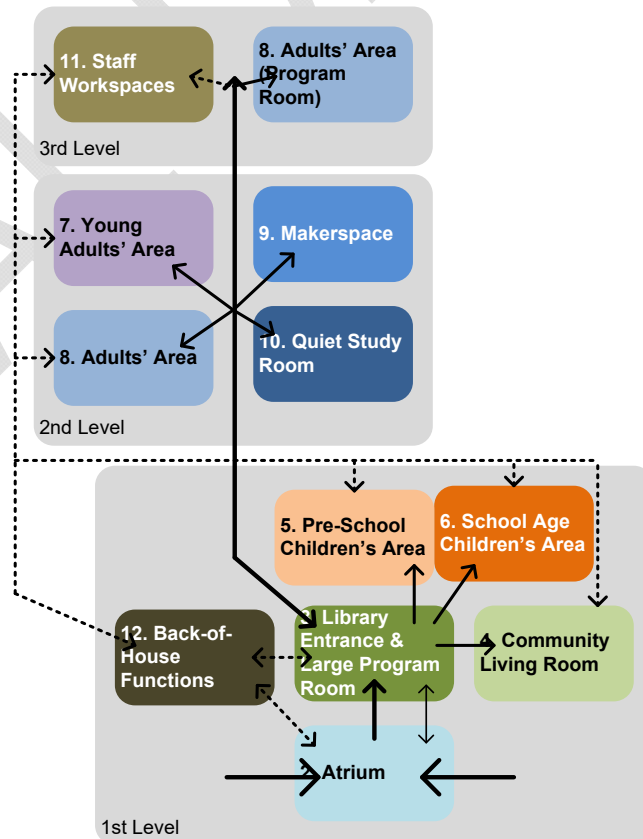
- Library patrons are the primary carriers of collection resources into and out of the building. Patrons typically carry collection resources and technical devices, as well as other personal effects. As such, all spaces and fixtures must be scaled to allow movement of patrons carrying these materials and should

support the need to set them down occasionally on horizontal surfaces

- Exterior book drops near the Entrance, with consideration also given to drop-off for vehicles, must connect as directly as possible to the Materials Handling Workroom
- There will not initially be an automated collection materials handling system, but it is likely one will be added in the future
- Any necessary conveyor elements from book drops should be located inside the building, with minimal lateral distances, no level changes, and no abrupt changes in direction
- Collections resources will be moved by staff from the Materials Handling Workroom via book trucks
- Other supplies and equipment may occasionally be moved via trolleys
- A dedicated staff service elevator will be the primary means of the vertical movement of materials and supplies handling
- There will be a dedicated unalarmed staff staircase.

7. Access and Control Model

The following illustration indicates the preferred organization of components within the Library:



8. Security Systems

- Doorbells or intercoms should be provided from staff entrance(s) to the Materials Handling Workroom (or other staff workspace)
- Staff must be able to unlock the staff entrance, not ring a bell for access
- There must be alarm bells and intercoms connecting all public rooms and enclosed public spaces, such as the Quiet Study Room to the main floor service desk
- There must be alarm bells and intercoms connecting all staff work areas and the main floor service desk for the safety of staff working in these areas
- Sidelight or viewing panels should be provided in exterior doors
- All staff work areas will be provided with alarm bells and intercoms and at least two means of access and egress
- All collection materials will have RFID tags that will be used for identification but not for collection security
- Passive surveillance will be provided through the general strategic positioning of occupants and staff, who will be located with direct sightlines to activity areas
- Card, fob or keypad locks will be provided for secured areas, with design to detail costs and benefits of each system
- Card, fob or keypad operated entry systems will be provided to staff-only workspaces
- There will be a multi-camera security system distributed throughout the building with cameras at the Atrium Library Entrance, Program Room, exterior book drops, loading dock, and in enclosed stairwells. Film will only be viewed after an incident has occurred.

NOTE: smart building systems may NOT be used for surveillance of any user activity and will NOT include the storage of any data outside Canada.

9. Communication Systems

Communication systems will include:

- A loudspeaker sound system will be required accessing all interior and adjacent exterior spaces
- Fibre access throughout and the provision of a server room and communication closets within the Library
- Wireless access required throughout the staff and public areas
- Acoustically shielded stations housing public telephones are required on the main level
- Access to networked digital screens in the Program Room

- Access to one IP-based television service in the Community Living Room
- Internet access throughout common areas, program and study areas, and outdoor programming areas through a robust and high-capacity Wi-Fi system
- Display monitors with permanent and/or ephemeral signage provided at critical points (as identified in the component programs) and in arrival and orientation spaces
- Ubiquitous electrical outlets near user seating to support use of personal devices
- Worktables with power that are not hard wired to support the reconfiguration of tables via ubiquitous power connections
- Communications systems networks, monitoring and controls must be integrated with any intelligent building systems.

10. Janitorial Systems

- Durable, easily maintained and easily operable interior systems, features, and finishes
- Locked storage for local janitorial supplies on each level
- A housekeeping base on the lowest level, with housekeeping closets located on each upper level.

11. Waste, Recycling and Compost Management

- Provide green waste, collection points in staff lounge area, and adjacent to food service and kiosk seating
- Waste, and recycling collection points in public near arrival and orientation spaces in each component and staff areas
- Sufficient space in non-public areas to store accumulated waste and recycling and green waste / compostable materials.

7. BUILDING SYSTEMS

1. The Overall Building System

The building exterior will include:

- At ground level, the exterior of the building, including fenestration and cladding, must be designed to preclude vandalism through impact and/or graffiti
- Exterior materials and finishes should be resistant to the impact of storms, including hail and heavy rains, as well as heavy snow loads
- Public activity on adjacent sidewalks should not be able to disrupt or cause distractions for activities occurring inside
- There should be places for people to sit, benches, low walls, landscape elements, adjacent to the entrances
- Consideration should be given to providing a convenient smoking area away from public and staff entrances
- There should be a green/programmable exterior area, equipped with security fencing
- At each building entrance, there should be exterior snow/slush roller pit capture system to remove material from visitor's footwear prior to entering the building.

The building interior will include:

- An efficient and regular structural system that optimizes unencumbered open floorspace
- An exposed ceiling structure with exposed services and featured suspended panels to define spaces below
- Distributed floor loading capacity that allows for the occasional repositioning of collection shelving
- A high-performance, sustainable building envelope
- A network of universally distributed, easily accessed building services, including a raised floor system
- Meeting room walls that are modular and reconfigurable
- A reconfigurable, non-structural, moveable wall subdividing the Program Room
- A family of reconfigurable interior design elements and/or furnishings
- Building systems designed to avoid extensive and unnecessary cosmetic features and finishes and that allow optimal flexibility and modifications to the interior.

2. Digital Integration and Digital Interfaces

- A digital infrastructure will be included as a critical link between many of the conventional building systems

- Automated processes can automatically control building operations and the performance, of heating, ventilation, air conditioning, lighting, security, and other systems
- Sensors, actuators, and microchips can collect data and manage it to comply with performance expectations, seasonal standards and the requirements of specific functions and services
- This infrastructure overlaid on conventional technologies can control energy use, optimize space utilizations, and customize spatial environments, with locally accessed manual overrides
- It is essential to recognize that new building systems and infrastructure are emerging, specifically those allowing access to digital information through traditional building systems components. Key applications include integrated smart screen/wall surfaces and digital signage projections. These applications are streamlining many previously cumbersome functions.

NOTE: smart building systems may NOT be used for surveillance of any user activity and will NOT include the storage of any data outside Canada.

3. Partition Systems

- Collection storage and display units serve as important partial partitions that define movement spaces in most public spaces. Shelving units should be reconfigurable, with some moveable shelving units provided adjacent to open and people movement areas. They may not be used for seismic bracing
- Structural column and bay spacings that accommodate the installation of non-load-bearing partitions, with all partitions non-loadbearing, except for those at the exterior and those surrounding elevator and service chases, etc.
- Non-structural wall and partition systems that are impact-resistant, acoustically shielded, and easily demountable to allow for possible future reconfiguration of space
- Moveable partitions that are designed to be anchored to adjacent ceiling structures, walls and/or adjacent partitions systems to preclude the risk of injury
- Partition systems that accept changing displays of decorative items, and/or the mounting of flat screen monitors, etc.
- Wall surfaces that have low reflectivity and that can be cleaned and maintained easily.

4. Fenestration and Glazing

- UV and glare reducing exterior glazing including both tinted glass and operable blind systems, with preference given to electrically assisted systems
- There should be no manually operated blinds on windows. Blinds must be integral to the glazing unit, UV resistant and automatically controlled

- Internal glazing used for clear orientation, light transmission, spatial continuity, and informal visual surveillance
- Some windows in staff areas should be operable
- Glazing and windows that are impact-resistant
- Glazing with high-performance thermal properties
- Bird-friendly window design, materials, and treatments to reduce or eliminate bird strikes
- Light from above will be critically important. However, the maintenance challenges of skylight systems providing light from above must be addressed: clerestory windows and or saw-tooth roof systems with integral glazing should be considered as lower maintenance options.

5. Flooring

- A raised floor system throughout to allow for universal access to sub-floor conduits and HVAC plenums
- Floors that feature a combination of non-skid surfaces, such as rubber, resilient or carpet tile, or sustainable materials
- Floor systems that include seamless or flush joints with no raised thresholds at doorways
- Floor materials and finishes that are selected for ease of movement, sustainability, and acoustical performance
- There must be easily cleanable flooring in the washrooms, Staff Lunch Room, Program Rooms and Pre-School Children's area
- The selections of floor materials must consider the ease of movement and mitigation of noise involved with the movement of book trucks.

6. Plumbing Requirements

- Access panels to plumbing systems located in general circulation/corridor spaces
- Environmentally responsible approaches to water conservation, such as low flow plumbing fixtures, and collection of grey water
- There must be no high-volume hand dryers in Pre-School Children's Area
- Touchless fixtures, motion-activated water fountains, paper towel dispensers, soap dispensers and toilets.

7. Materials and Finishes

- Materials and finishes that contribute to an overall atmosphere of space, clarity, and light, and that do not compete visually with the activities taking place
- The strategic use of APL branding is desirable on materials and finishes in all public areas

- Materials that are aesthetically pleasing, including consideration of wood and glazing for doors and partitions
- Impact-resistant wall finishes and wall bumper systems are required in public spaces and high-volume staff spaces, particularly where book trucks and other materials are moved
- Non-allergenic materials
- Materials that are selected for hygiene, durability and low maintenance
- Additional (acrylic) shielding on walls is required in all book truck corrals and TRAC box stacking and corral areas.

8. Lighting and Electrical Systems

- Introduction of innovative, energy efficient and sustainable lighting systems, with LED lighting, to create a distinctive image and to address the functional complexity of many activities occurring in the program spaces
- Lighting systems that contribute to an overall atmosphere of space and clarity and that do not compete visually with collection displays or activities taking place
- A minimal number of lighting systems with system maintenance, anticipated longevity of use and availability, and ease of parts replacement considered in the selection of all systems
- Localized controls for lighting in open areas, with dimmers, as appropriate, and in each enclosed programming, bookable and meeting room space
- Programmable lighting in most public areas including manual override systems
- Task lighting provided at individual workstations with task lighting that is centrally controlled for public areas
- Use of controls, access panels, wiring, conduit and fixtures that are not publicly accessible, de-mountable or breakable
- Consideration given to accessing lighting fixtures for maintenance
- Exterior outlets are required for maintenance and for sound systems and additional lighting, particularly adjacent to program areas or plazas
- Exterior lighting systems that support dark sky initiatives.

9. HVAC Systems

- To ensure the quality of the Library environment, acoustic effects must be considered when selecting all HVAC systems
- Provision of flexible systems that facilitate future modifications through looped distribution lines, ample branch-isolation valves, and adequate space for new services and maintenance access

- Specialized ventilation systems are required for the Makerspaces
- Thermostats placed away from direct sunlight and ensure they are only adjustable by staff
- Use of technology that has been tested
- Consideration given to a Thermenex type system that makes use of heating and cooling sources within the facility and distributes these, as necessary.

10. Acoustic Systems

- The quality of performance acoustics in the Atrium and the Program Room may not be compromised by acoustic shielding in those spaces
- Wall, moveable partition, floor and/or ceiling-mounted acoustic treatment in areas that involve higher noise levels or require lower noise levels, with mitigating insulation features placed as close as possible to the sound source
- Acoustic assemblies, such as sound reflectors, acoustic panelling on walls and/or ceilings that are fully secured.

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**8. SUSTAINABILITY
FEATURES****1. Symbolic Recognition of the Local Environment**

- A major goal will be to acknowledge the spirit of the place and the character of the environment and climate throughout the building using natural light, and materials such as wood and stone
- Include key features that provide a low maintenance, (humidity-controlled and pest-free) garden-like thematic features, such as living walls, in the interior of the facility, xeriscape exterior planting, and local plants and grasses.

2. Standards

- In accordance with the principles of Environmental Equity, there must be a consistent standard and quality of interior finishes, light quality, and ergonomic comfort in both public and staff areas
- Consideration of local and provincial Energy Framework Guides
- The creation of a sustainability profile from typical and innovative sustainability practices and standards that also establish the building as a valuable demonstration project and teaching tool
- Consideration of approaches to environmentally responsible materials selection, and energy use that meet or exceed approved sustainability standards.

3. Energy Consumption Strategies and Targets

- Maximized thermal performance with a target of 60% of the kilowatt-hours of energy per square metre per year (Energy Use Intensity) that would be typically required for a conventional building of similar size
- Optimal passive solar orientation as well as strategic envelope apertures and enclosures for passive and active solar gain
- Use of photovoltaic arrays or provision for future use of photovoltaic arrays
- Opportunities for natural ventilation and cooling; allow warm and cool air to pass over concrete slab floors; use of solar chimney features to extract air
- As part of the building's teaching potential, explore the possibility of exposed mechanical and electrical services as demonstration tools.

4. Water Consumption and Management

- Innovative approaches for the management of groundwater related to building construction and maintenance
- Recycling and reuse of wastewater produced on-site
- Reuse of treated water in a general grey water system and for local irrigation

- Consider use of solar panels to generate hot water augmented by point-of-use heating.

5. **Materiality**

- Use of sustainable materials in all phases of the construction process
- Use of sustainable materials in all construction systems
- Consider non-slip resilient floors, heated and cooled with in-floor radiant systems (with sound attenuation)
- Sourcing local materials
- Sourcing materials with low embodied energy
- Sourcing reused, recycled and/or recyclable materials
- Sourcing renewable and sustainably harvested materials
- Sourcing materials that are non-toxic/non-polluting in manufacture, use and disposal
- Use of materials that are chlorofluorocarbon (CFC) and hydro chlorofluorocarbon-free (HCFC).

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**SECTION 3.0:
COMPONENT PLANNING CRITERIA**

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3.0 COMPONENT PLANNING CRITERIA

INTRODUCTION

The basic “building block” for physically organizing facilities projects is the FUNCTIONAL COMPONENT. A functional component can be defined as a grouping of activities and assigned spaces which are physically related by their common mission to satisfy a specific group of functions or operations. A functional component may or may not be synonymous with a department since the term “department” refers to an administrative organizational structure and not a physical planning structure.

Information for each functional component is presented under the following headings:

COMPONENT OVERVIEW provides a high level overview of the component including a brief description, key metrics, key adjacencies, a statement of character, and indicative photos.

Key Adjacencies indicates the priorities of the component for its location relative to other components.

“Direct access by internal or dedicated circulation” refers to components which are horizontally contiguous and linked internally. This form of access avoids movement through the general circulation system of the facility.

“Direct access by general circulation” refers to components linked by a minimal amount of horizontal and/or vertical general circulation.

“Convenient access by general circulation” refers to components linked by substantial horizontal and/or vertical general circulation.

FUNCTIONAL DESCRIPTION provides information on the feature, character, general services or activities of the component.

OPERATIONAL DESCRIPTION provides information on the primary operational concepts or systems which support the functional activity of the component.

WORKLOAD – EXISTING AND PROJECTED ACTIVITY summarizes existing and projected workload in appropriate units. This information is used to estimate the space requirements of the component. Not all components have quantifiable workloads.

STAFFING & OCCUPANCY ESTIMATES summarizes future estimated staffing in terms of Full Time Equivalents (FTEs) where relevant, as well as total headcount and maximum occupancy staffing.

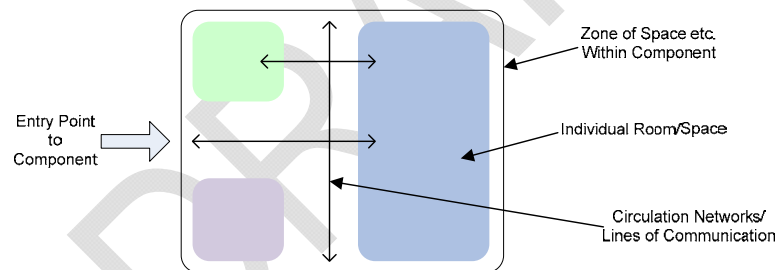
DESIGN CRITERIA presents information as follows:

Internal Relationships/Concepts indicates basic criteria and concepts for the organization or environmental design of space. They are organized into Architectural Concepts which includes zoning and organization of space; Interior Design Concepts, which

considers interior design concepts, signage, wayfinding and display concepts; Operational Concepts; and Building Systems Criteria, which indicate specialized structural, mechanical, power and information systems requirements. This section also includes a conceptual functional diagram showing organizational principles to be pursued in the design of the component.

The content of the diagrams is generally reflective of the headings used in the narrative and in the space requirements lists referring to “zones” of space, groups of rooms and, in some cases, individual rooms for which important internal relationship need to be emphasized. In general, thin lines terminating in arrows are used to indicate principal circulation networks or lines of communication between zones of space, groups of rooms, or individual rooms. Continuous/unbroken bold lines forming rectangles typically indicate zones or rooms.

Example:



Space Requirements are tabulated to indicate the number of rooms or spaces (units), the net square feet per unit (nsf/unit), the total net square feet for each room or space (nsf), explanatory or supplementary remarks (Remarks), and a reference number (Ref) used for cross referencing within this document and which will be available for use in any future supplementary document (e.g., Space Data Sheets and Schematic Design).

Indented line items indicate a close adjacency with the preceding line item.

COMPONENT OVERVIEW

This component establishes the basic functional concepts relating to the development of the building site and describes practical, aesthetic and/ or symbolic exterior requirements.

Overall area: 11,960 SF/1,111SM

Exterior Program Area – Capacity 30

Key Adjacencies

- | | | |
|---|--|---|
| 1 | 12. Back-of-House Functions | Provide <u>direct</u> access by <u>dedicated</u> on-site roadway and book drop-off to the public drive-through book drop-off connected to Back-of- House Functions. |
| 2 | 2. Atrium | Provide <u>direct</u> access by <u>dedicated</u> circulations to and from entry plazas and building entrance points in the Atrium. |
| 3 | 12. Back-of-House Functions | Provide <u>direct</u> access by <u>dedicated</u> vehicular route to loading docks and shipping and receiving areas in Back-of-House Functions, and to adjacent service vehicle parking areas. |
| 4 | 3. Library Entrance and Large Program Room | Provide <u>direct</u> access by <u>dedicated</u> circulation from exterior program areas to the Large Program Room in Library Entrance. |
| 5 | Public and Staff Parking Areas | Provide <u>convenient</u> access by <u>general</u> on-site pedestrian pathways and vehicular roadway to and from on-surface and underground public and staff parking areas. |



Arrival & departure; urban plaza, outdoor green space, signage, lighting, deliveries

**FUNCTIONAL
DESCRIPTION**

This component accommodates functions occurring on the Library site, outside the actual building. These functions are essential to support public visitor, Library staff (and partner) movement to and from the site, Library exterior program activities, and the practical operation of the Library spaces in terms of the shipping and receiving of materials, equipment, and resources. This component does not describe the space requirements for underground parking.

Together with the Library itself, the exterior spaces must provide a symbolic and functionally practical, attractive, and multi-functional civic setting and destination.

Site development and site amenities will play an invaluable role in establishing the building as a key civic destination. Site features must work closely with the architecture of the building, during the day and night, to create a safe, inviting and attractive environment and destination image.

The building will be an active destination, with approximately 1,500 people moving in and out daily, arriving by private vehicle, pedestrian and cycle paths, and public transportation. Additional numbers of people may be expected to be moving through the site to access potential partner space. Additionally, there will be regular resource and supply deliveries, as well as regular waste removal.

All exterior space must be open and welcoming; however, security of the public must be a major consideration in the design of all exterior spaces.

Exterior Spaces will provide the outdoor links between the surrounding urban fabric, landscape elements on the site, and the Atrium and Library Entrance components that access the building interior.

Open plaza space directly adjacent to busy traffic arterials and contiguous with moving traffic is not desirable, will not be attractive and useable, and will not be welcomed by the public.

Assume a combination of pathways allowing pedestrian access to the Atrium from more than one approach to the site.

The Back-of-House Functions component may be a combination of on or below grade and will be accessed by a service vehicle route that is on or below grade. On-grade materials handling of returned material is preferred for streamlined operations.

Features include:

Functional Arrangement

- Readily-apparent pedestrian and vehicular approaches
- No conflicts between on-site pedestrian and vehicular movement
- Optimally direct access to building entry and service points
- The use of the site and its urban and natural features, including its teaching garden, as a Library Program space

Presence and Visibility

- Easily read signage that identifies the Library location and vehicular and pedestrian routes to access the facility
- An iconic landmark architectural form that brings immediate identity to the site
- A building that presents an approachable and friendly public face from all sides and that does not have an overt service or utilitarian side
- From the site and immediate surroundings – views of features, spaces, and activities occurring in Library interior spaces
- From within the building – daytime and nighttime views of adjacent streets, and of buildings adjacent to the site
- From within the building – daytime and nighttime views of adjacent riparian areas
- From plaza and landscaped areas – views of people who are entering and leaving the Library
- Views into the building that preview the experience to be found in the interior, especially the Atrium, Library Entrance and Children's Areas
- Interior public areas that have visual contact with immediate, close, and distant exterior features, including the ground plane, the sky, and distant topography

Public Access Features

- Approaches to one or more entrances to the Atrium, with pedestrian paths, public art, banner/flags, and signage
- Overhead weather protection systems and protected waiting areas at all entrances
- Exterior approaches that are contiguous with interior floor levels in Atrium and Library Entrance, and involve no stairs and/or minimal ramps
- Exterior pedestrian access points to a public underground parking facility
- Covered and secure bicycle parking near entrances to the Atrium

Vehicular Access and Materials Handling Features

- Pedestrian drop-off return chute in the exterior wall adjacent to the Materials Handling Workroom for collection materials returned by Library patrons
- Drive-through drop-off return in addition to pedestrian drop-off return
- User drop-off zone for private vehicles, buses and for patrons with mobility challenges
- An access ramp with de-icing capability to a secure and safe public underground parking facility

- Service vehicle access to the Library's two dedicated delivery bays, including recycling and garbage marshalling areas, receiving of shipments and movement of supplies, and parking for Library vehicles in close proximity to the loading bays
- Green landscape features, building signage, public art, events signage, nighttime illumination
- Recycling and waste collection points.

Activities within this component include:

- Drive-through and pedestrian return of borrowed materials
- Building visitor drop-off and pick up
- Accessing underground parking by the public and by the Library (to one dedicated stall)
- Socializing and events in the paved entry plaza
- Surface parking by Library staff, with electrical outlets
- Outdoor Library programs, including programs within a Learning Garden
- Bus and car drop-off point adjacent to one main entrance
- Service vehicle access of Library loading docks
- Storage of recyclable materials
- Secure parking of bicycles
- Use of pedestrian walkways by the public.

OPERATIONAL DESCRIPTION

Hours of Operation

This component will generally be accessible for extended hours with most exterior areas accessible 24-hours per day.

User Profile

Users will include:

- Many children of all ages, arriving, departing, and waiting individually and in small, medium and large groups
- Many family groups requiring stroller access and stroller parking space
- Mobility impaired visitors
- Those looking to spend time alone or with others in an active public urban environment
- Those enjoying a break from their activities inside the building
- Those enjoying a break from activities taking place in the adjacent Atrium and/or Large Program Room, and who may be part of a larger group

- General community members attending an event held on the plaza or in the Atrium
- Those giving planned and/or impromptu outdoor presentations and/or performances.

Movement of the Public

Pedestrian and Vehicular Users accessing the site and building should be self-directed through intuitive wayfinding, assisted by various types of signage.

Many users will access the building directly from underground parking.

The site will be a place to stop and appreciate the visual impact and aesthetics of the building, and the animation of activities occurring around it.

Design should promote after hours use of exterior spaces by creating an attractive, active, visible, safe and illuminated location.

Places should be provided for people to sit, such as ledges or low walls, adjacent to the Atrium entrances, since people are often waiting, with books and personal effects, for the building to open, or they are waiting to be picked up.

Movement of Materials

Patrons will typically be carrying Library materials as they walk to and from their vehicles, their bicycles or simply as pedestrians.

A collection materials drop-off should be accessible from the exterior in a location that is convenient to the pedestrian drop-off zone adjacent to an entrance.

Materials movement by service vehicles will be a common activity.

Equipment required for exterior maintenance and Library seasonal equipment will require secured exterior storage.

WORKLOADS

Working Assumption

Up to 1,500 people will arrive per day to the Library site and will move into and out of the building.

A small proportion will move by foot across the site, with a much larger proportion moving from surface and underground parking directly to the building.

User Accommodation

Type	Total Occupants
Exterior Program Area - Seats	30
Access Forecourt - Seats	12
Total	42

DESIGN CRITERIA

Design criteria relevant to this component address unique conditions and design features required in the space.

For planning criteria that apply to the exterior generally, see the General Planning Criteria section of the Functional Program.

Design Relationships

Urban Design

- Site zones include:
 - paved and landscaped areas connecting to entry destinations, features and facilities on the site
 - sheltered and acoustically separated open plaza and program area adjacent to Program Space in the Library Entrance
 - service access route, including shipping/receiving, emergency access, access to secured exterior building services spaces, storage for equipment used for exterior maintenance such as landscape equipment, and for Library seasonal equipment, such as the Christmas tree and book bike
 - underground parking access routes
 - surface parking.
- All features should integrate the principles of Crime Prevention Through Environmental Design (CPTED).
- Site design should carefully separate three types of movement:
 - pedestrians and cyclists arriving via sidewalks and multiuse pathways
 - private vehicles arriving/departing via the parking facility access ramp
 - service delivery vehicles arriving/departing via the dedicated delivery bay access route.
- Wide and safe pedestrian crossings must be provided where sidewalks/pedestrian routes intersect with vehicle ramp access points.

Operational Systems

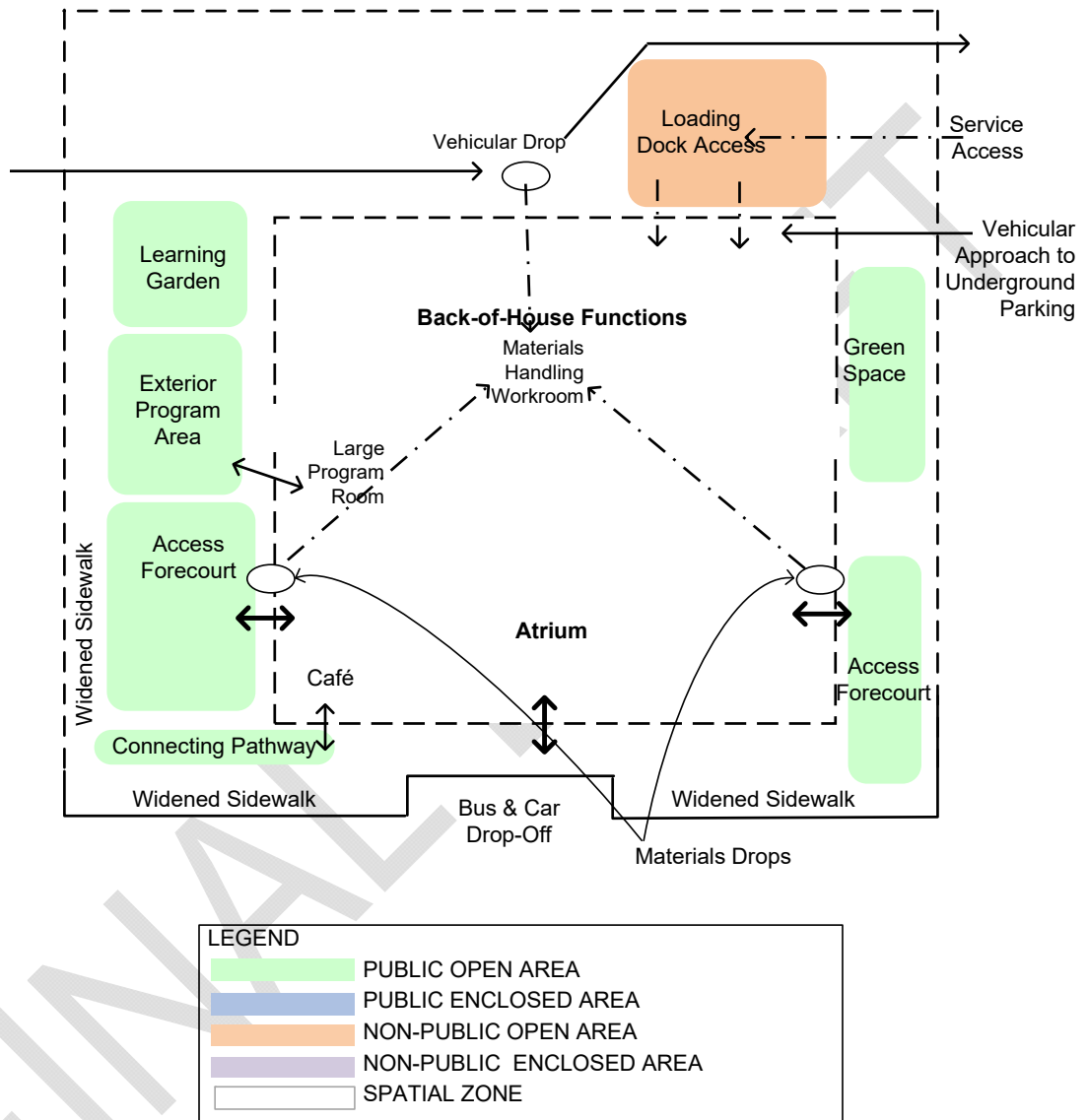
- Consideration is required around operational issues related to the underground parking, including considerations around security, hours of operation and overall management of the facility.

Exterior Services and Systems

- At each building entrance there should be exterior snow/slush pit capture system to remove material from visitor's footwear prior to entering the building.
- All design features should seek to minimize adverse weather and/or environmental conditions such as wind tunnels, rain exposure, and/or snow accumulation.
- Design should provide an acoustic separation or shielding from vehicles on adjacent streets to any program area.
- The service route providing access to the loading bay should not detract from the formality or dignity of the Library facility or from the surrounding urban fabric and pedestrian pathways.
- Video security surveillance must be provided.
- Underground services are required for lighting of pedestrian routes, program areas, building features, landscaped areas, surface parking, and signage and commemorative features.
- Secured storage will be required for equipment required for exterior maintenance and Library seasonal equipment.
- Access Forecourts and access routes will require security bollards/barricades.
- Vehicular access routes will require closable security barriers at ramp entrances and gates at facility entrances.
- Underground parking access ramps should have de-icing capabilities.
- Surface parking should have electrical outlets; charging stations should be provided in underground parking.
- Materials drop-off points should empty directly into the Materials Handling Workroom in the Back-of-House Functions component.
- Outdoor plaza areas should have electrical outlets to support.

Functional Relationship Diagram

The spatial organization of this component will be generally as shown in the diagram below.



NOTES:

Component functional diagrams are conceptual only – actual layouts will be explored in schematic design and developed in the detailed design process.

Space Requirements

Ref	Space	Units	Area/Unit (nsf)	Area (nsf)	Area/Unit (nsm)	Area (nsm)	Comments
01	Bus and Car Drop-Off	1		600		55.7	Vehicular access near main entrance; incl. space for 1 bus or 2 cars
02	Public Surface Parking at Materials Drop	1		1,400		130.1	For wheelchair accessible and quick drop-off of materials, 4 spaces
03	Paved Pedestrian Approaches	4	500	2,000	46.5	185.8	Allowance; incl paved approaches to Atrium entrances from two directions; incl. connections to adjacent pedestrian paths
04	Access Forecourt	2	750	1,500	69.7	139.4	Allowance; materials drop-off; overhead weather protection, building signage, low and medium level lighting systems, underground services, minimum width 15 m; covered parking for 10 bikes; 6 seats each
05	Green Space	1		750		69.7	Allowance; rocks, berms, and coniferous landscape elements
06	Learning Garden	1		750		69.7	Allowance; should support self-guided activities as well as facilitated program activities
07	Exterior Program Area	1		800		74.3	Accommodates 30, paved, integral seating, glazed wind protection, illuminated, secured perimeter, accessed from adjacent Large Program Room
08	Loading Dock Access	1		1,000		92.9	Allowance; dedicated access for maintenance and materials handling
09	Secured Building Service Storage	1		160		14.9	Secured storage for equipment required for exterior maintenance and Library seasonal equipment; unheated
10	Vehicular Approaches	2	1,500	3,000	139.4	278.7	Allowance
Total				11,960		1,111.1	
Grossing Factor				NA		NA	
Component Gross Area				11,960		1,111	

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COMPONENT OVERVIEW

Percentage Total: 9.2%



CGSF: 4,590 | CGSM: 426

- 1. Exterior Spaces
- 2. Underground Parking
- 3. Library Entrance and Large Program Room
- 4. 3. Library Entrance and Large Program Room
- 5. 12. Back-of-House Functions

The Atrium component provides a multi-story lobby for the Library, a major spatial and organizing feature; it may eventually be part of a larger Atrium space connecting Library Space and partner space.

Anticipated Library Patrons In and Out Daily	1,500
Public Entrances to the Atrium	2
Casual Seats	25
Café Table Seats	40
Lounge Seats	10

Provide direct connections by convenient circulation from site pedestrian pathways, and parking areas in Exterior Spaces, to facilitate pedestrian movements to and from the building.

Provide a direct connection by dedicated stairs and elevators between Underground Parking to facilitate movements of the public and staff to and from the building.

Provide direct connections by dedicated circulation from the main level of the Atrium (only) into the Library Entrance and Large Program Room.

Provide a direct connection by dedicated circulation between the Atrium in the Library Entrance and Large Program Room for the movement of program attendees during and after regular hours.

Provide direct connection by general service/staff circulation from the Atrium into the shipping and receiving area in Back-of-House Functions.

Indicative images for Atrium spaces



Atrium, casual gatherings, presentations, meetings, & performances

**FUNCTIONAL
DESCRIPTION**

The Atrium component provides a multi-story lobby for the Library, a major spatial and organizing feature; it may eventually be part of a larger Atrium space connecting Library space and partner space.

In both its initial and/or potentially enlarged form, the space may be used by the Library, by building partners, and or community groups as a multipurpose meeting destination during and after Library hours. Although part of the Library space allocation, the space will be managed by the City.

Features include:

- Access from exterior, from multiple directions, with after-hours access/egress
- A multi-story open space
- Elevator and stair access to lower-level parking space
- Views of the immediate, intermediate, and distant exterior
- Ample views into the ground floor and glazed upper floors of the Library
- The main entrance into the Library
- A dedicated entrance into the Large Program Room within the Library Entrance and Large Program Room
- Library Book Return
- Donor Recognition feature
- Events and Program signage
- Informal seating and stroller parking in designated areas
- Public Washrooms
- Greenery and a green wall in Atrium
- Space for a Café or Coffee Kiosk, with seats in the Atrium and service into adjacent Library Entrance space.

Depending on the inclusion of building partners, features may include:

- The addition of more floor area in the Atrium
- Elevator and stair access to upper-level partner's space
- Direct connections from the Atrium into (main level) partner's space(s)
- Direct connection by stairs and elevators from the Atrium to upper-level partner's spaces to facilitate movements to and from the building.

Activities in this component include:

- The primary activity will be the movement of people
 - into and out of the building, from exterior parking and pedestrian spaces

- into and out of underground parking via interior stairs and elevators
- to and from the Library
- to and from the Large Program Room in the Library Entrance and Large Program Room
- activities in the Atrium may be user, Library, partner or community initiated
- access to food services will be provided via a Café and/or Coffee Kiosk, with window access available to serve the interior of the Library Entrance
- Casual gathering and socializing in the open Atrium
- Return of Library materials at a materials drop
- Dedicated access to the Library's Large Program Room
- Coffee Kiosk activities, including preparation of drinks, sale of drinks and light snacks serving those in the Atrium as well as in the Library Entrance component
- Scheduled organized events and/or periodic community exhibitions taking place in the open Atrium, such as career fairs which may include temporary collection displays
- Access to Public Washrooms.

Depending on the inclusion of building partners, activities may include:

- Public access to ground floor partner spaces and to elevators and stairs to and from upper floor partners space
- Occasional partner activities taking place in open and/or enclosed meeting spaces in the Atrium.

**OPERATIONAL
DESCRIPTION**

Management Authority

Although the Atrium forms part of the Library's space allocation, this component will be managed by the City.

Hours of Operation

Hours of Atrium access and operation will extend beyond the typical operating and opening hours of the Library, which are provided below.

	Open	Close
Monday-Friday	9:00 a.m.	8:30 p.m.
Saturday	10:00 a.m.	5:00 p.m.
Sunday	1:00 p.m.	5:00 p.m.

There will be dedicated scheduled hours of service for the Café or Coffee Kiosk

Visitor Profile

Visitors will include:

- People visiting this building may come with a defined purpose – e.g., to access specific resources in the Library or they may come as casual visitors to meet others and socialize, or to access a partner facility
- Library patrons, of all ages, will come singly and/or in families and groups
- A significant number of small children must be anticipated; ample stroller parking will be essential
- Visitors to the building who come to experience its design and unique amenities
- Community members accessing programs, events or meetings without using other Library services.

Movement of Visitors/Patrons

The Atrium must be planned to allow for the movement of people who are arriving and/or departing.

The Atrium must be planned to allow for the presence of those who are stationary while waiting for others, socializing and/or meeting in the space.

The movement of people will not be constant throughout the day; there will be very busy times and less busy times.

Program attendees will attend programs scheduled throughout the day and after-hours.

Program attendees may move as a group from and to the Atrium area during breaks in program activity.

Casual building visitors may be present in the Atrium only.

Movement of Materials

The most significant movement of materials will involve library materials and personal effects carried through the Atrium by Library patrons.

There will be a dedicated library materials drop adjacent to the main Library Entrance in the Atrium, with the materials drop emptying into the Materials Handling Workroom.

Furniture and equipment may be periodically moved to and from storage space in this component and/or re-arranged to accommodate the activities taking place in the Atrium.

Materials and supplies required by the Café or Coffee Kiosk will be delivered to the building loading dock (which is not defined in this program) and then through shipping and receiving to the Atrium location.

Food preparation for the Café or Coffee Kiosk will take place in a designated preparation area in this component.

Furniture and equipment storage will take place in designated storage areas in this component.

Movement of Staff

No Library staff will typically be based in this component.

Staff managing the Café or Coffee Kiosk will be located in this component during food services operational hours.

Atrium Public Washrooms will be routinely serviced by city of Airdrie staff.

WORKLOADS

The estimated daily workload is a product of the anticipated maximum numbers of people present in and/or moving through this component, including:

- Library Attendees: up to 1,500
- Casual Building Visitors: *to be determined*
- Program Attendees per day: up to 300.

Visitor Accommodation

The following table identifies the occupancy of each space within this component.

Type	Number Spaces	Number of Seats	Total Occupants
Atrium Casual Seats	1	25	25
Atrium Café Table Seats	1	40	40
Atrium Lounge Seats	1	10	10
Total			75¹

Collections

No Library collections will be permanently located in this component.

¹ Occupancy includes seats only; Atrium open space is sized to accommodate between 200 to 300 people, depending on activity.

STAFFING AND OCCUPANCY ESTIMATES

Approximate occupancies for this component are summarized below.

Type	Existing FTE	Future FTE	Total Headcount	Maximum Occupancy
Food Services Staff	-	-	-	2
Atrium Casual Seats	-	-	-	25
Food Seating Attendees	-	-	-	40
Casual Public Seating	-	-	-	10
Total	-	-	-	77

DESIGN CRITERIA

Design criteria relevant to this component address unique conditions and design features required in the space.

For planning criteria that apply to the building generally, see the General Planning Criteria section of the Functional Program.

Internal Relationships

Architectural Concepts

- This component includes only one zone.
- The Atrium will be accessed from the exterior from at least two directions.
- There must be immediately adjacent seating inside the Atrium and outside the building next to building entrances.
- This component is the first that building users encounter in the Library. As such, it is intended to be a spatially and aesthetically notable destination, ideally a multi-storey space, leading to the Library Entrance and Large Program Room component.
- The space should be simple and logically understood; the intuitive layout of space, features and sightlines should facilitate easy self-orientation.
- The materials drop in the Atrium should connect to the Materials Handling Workroom.
- There must be interior elevator access from the Atrium to underground parking and upper floor partner spaces (Note: all elevator connections to upper floors of the Library must be from within the Library space, not from within the Atrium).
- Key Atrium features include:
 - ample visual connection to the city of Airdrie and adjacent natural features
 - views of adjacent parkland/greenery, exposure to daylight, the sky and changing weather patterns

- views of activities taking place in adjacent streets
- views into the main and upper floors of the Library
- views into main and upper floors of partner spaces.

Interior Design Concepts

- The Atrium should make a striking and memorable impression on visitors through use of spatial volume, vibrant colours, original building systems features, multiple views into and out of the building, and public art.
- It is a logical location for significant design features, including public art, unusual materials, daylight, as well as innovative, attractive, comfortable social and seating spaces and furnishings.
- The Atrium will be a very active area. Signage must be carefully arranged and managed to optimize functional orientation, user self-direction and efficient movement.
- There will frequently be concurrent signage features, such as Library building floor layout, program and daily event notices, partner signage, donor recognition and commemoration signage, as well as incidental exhibitions. Signage related to the Library and its programs and services specifically should be located in proximity to the Library Entrance.

Operational Concepts

- This component includes public space with very high public traffic. Seating areas must be carefully separated from high traffic movement paths.
- All spaces used by the public must be suitably scaled, optimally direct, safe, attractive and people-friendly.
- The Atrium includes an allocation of space for a Coffee Kiosk as well as associated seating. The Coffee Kiosk should be able to serve those in the Atrium as well as into the Library Entrance. If a commercial coffee enterprise is included as part of partner spaces, then the Coffee Kiosk will not be needed, but any commercial coffee enterprise should serve the wider community – with access from the Atrium or adjacent sidewalk – as well as serving into the Library Entrance component.
- Spaces must be scaled to accommodate the movement back and forth of large numbers of people, as well as the presence of stationary customers accessing services, and stationary services, and resources.
- Seating areas and informal gathering areas should not conflict with major movement paths to and from the Library and partner space thresholds.

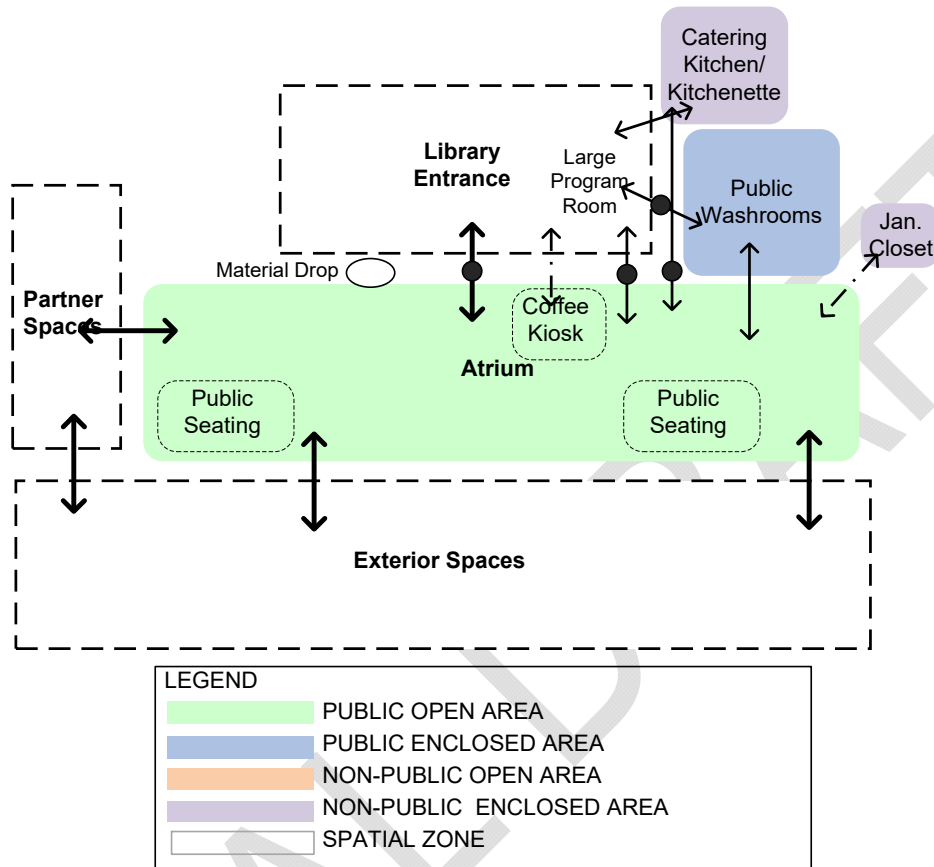
- An unobtrusive security threshold will be incorporated into the design near the Library Entrance and Large Program Room. The ground floor of the Library Entrance and Large Program Room space should be spatially contiguous with the Atrium.
- Non-obtrusive and natural surveillance will be essential. No public area of this component should be hidden from view.
- Library signage display screens should be linked to the Library's intranet system as the Library will have control over content.

Building Systems Criteria

- The draft lobbies accessing the Atrium from the exterior must be heated, with floor grills that manage snow and ice. There must be double-wide automatic retractable doors.
- A materials drop located near the Library threshold will connect to the Material Handling Workroom.
- This is a very high traffic area. All materials and finishes should be durable and easily cleaned and maintained.
- Water and power will be required in the Atrium to support a Coffee Kiosk.
- The quality of performance acoustics in the Atrium may not be compromised by general acoustic shielding in the space.

Functional Relationship Diagram

The spatial organization of this component will be generally as shown in the diagram below.



NOTES:

Component functional diagrams are conceptual only – actual layouts will be explored in schematic design and developed in the detailed design process.

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FINAL DRAFT

Space Requirements

Ref	Space	Units	Area/Unit (nsf)	Area (nsf)	Area/Unit (nsm)	Area (nsm)	Comments
01	Draft Lobby	2	90	180	8.4	16.7	
02	Atrium	1		2,750		255.5	Incl. casual seats for 25, Coffee Kiosk, Café table seats for 40, access to Public Washrooms; incl. access to the Library's Large Program Room (after normal Library operating hours); incl. security kiosk, designated stroller parking area, and furniture storage area
	Donor Recognition Feature	1		-		0.0	Included in Grossing Factor
03	Public Seating	1		200		18.6	Incl. lounge seats for 10, near entrances
04	Building Layout, Events and Services Display	1		25		2.3	Information on Library events, layout and features
05	Book Return	1		35		3.3	Exiting into interior materials handling space
06	Public Washrooms	1		280		26.0	Allowance; not maintained by the Library; supports Large Program Room after regular Library hours
07	Catering Kitchen/ Kitchenette	1		120		11.1	Supports the Library's Large Program Room as well as functions within the Lobby/Atrium; incl. counter and sink with cupboards above, fridge, microwave, other counter/ layout space and dishwasher
08	Janitorial Closet	1		80		7.4	Incl. floor sink, cart, charging area for scrubber
Total				3,670		341.0	
Grossing Factor				1.25		1.25	
Component Gross Area				4,590		426	

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FINAL DRAFT

COMPONENT OVERVIEW

Accessed via the Atrium space, this component accommodates the entrance to the Library, the largest Library Program Room, and staff areas for Public Services and for Programming.

Percentage Total: 11.6%

Large Program Room – Occupancy

100



CGSF: 5,800 | CGSM: 540

Key Adjacencies

- 1 2. Atrium
Provide direct access by dedicated circulation to the adjacent Atrium for the movement in and out of all Library visitors and patrons.
- 2 4. Community Living Room
Provide direct access by general circulation to the Community Living Room for the frequent movement of Library patrons.
- 3 5. Pre-School and 6. School Age Children's Areas
Provide direct access by general circulation to ground floor Children's Areas for the frequent movement of young patrons and caregivers.
- 4 8. Adults' Area
Provide direct access by general circulation to the Adults' Area for the frequent movement of patrons.

Indicative images of Library Entrance and Program Room spaces



Entrance, patron services, access to library interior, café serving point & seating

**FUNCTIONAL
DESCRIPTION**

Accessed via the Atrium space, which serves the building generally, this component accommodates the single main entrance to the Library. It includes spaces and services required to welcome, orient, and process large numbers of Library patrons, such as directional and events signage, displays, and a Café window service provided from the Café or Coffee Kiosk located in the adjacent Atrium.

It includes the largest of the Library's Program Rooms, which is key to fulfilling the Library's mission to connect, inspire and inform the community. This versatile space accommodates up to 100 people for large group programs or it can be subdivided to run concurrent events and meetings. The Large Program Room may occasionally serve as a meeting room, small conference space, or space for a community forum or other large programs.

It includes staff office and workspace for Public Services and Programming.

The Library Entrance will not include security gates.

Features include:

- Access to other components of the Library
- Views to other public areas of the Library
- Displays/interactive features
- A service window accessing the Café or Coffee Kiosk located in the Atrium, with associated patron seating and storage
- Public art
- Materials return
- Service Desk for the ground floor
- Self-check-in and check-out stations
- Access to online public access stations (OPACs)
- Collection Holds located in an adjacent alcove
- A 100-seat Program Room that is subdividable, with kitchenette and storage
- Public washrooms
- Public Services offices and work area
- Programming staff offices and work area
- An adjacent safe exterior program area immediately adjacent to the interior Program Room
- First Aid Room with sink.

Activities in this component include:

- Movement of large numbers of building visitors and Library customers in, out, and through the Entrance space
- Movement of collection materials carried in and out of the Library by patrons
- Return of collection materials using materials drop(s)
- Answering enquiries about patron accounts and registering at a Service Desk
- Providing help using Library resources and answering information queries at the Service Desk
- Purchasing beverages and snacks at the Café or Coffee Kiosk
- People watching and socializing
- Self-serve access of collection materials held for pickup
- Self-check of materials
- Displays of art
- Displays of topical events
- General directional, event and ephemeral signage
- Furniture, equipment, and supply storage
- Direct public access/egress into the Atrium (and access to Atrium public washrooms) from the Large Program Room
- Development and design of Library programs delivered in the adjacent Large Program Room in the Atrium
- Activities within the Large Program Room, including scheduled programs organized and delivered by Library staff in the Large Program Room and/or adjacent exterior Program Space
- Programs conducted by or with other agencies and community partners
- Provision of catering support
- Wi-Fi access and use of personal technology
- Storage of equipment and supplies.

**OPERATIONAL
DESCRIPTION**Hours of Operation

Hours of operation for this component will be determined as the operational profile of the future Library evolves, with regular hours of operation as noted below.

	Open	Close
Monday-Friday	9:00 a.m.	8:30 p.m.
Saturday	10:00 a.m.	5:00 p.m.
Sunday	1:00 p.m.	5:00 p.m.

This component will always be open when the rest of the Library is open.

Patron Profile

The following types of users will access this component. Some patrons will be coming to this area to access specific staff assisted services, while others will be quickly passing through. Patrons will include:

- Patrons carrying personal effects, including books and other Library resources, clothing, personal devices, and sometimes food and drink
- Patrons who have never been in the Library before, or who are still somewhat unfamiliar with the building and its services, and who will require time and space to orient themselves to the building
- Patrons familiar with the building and its services and who know exactly where they are going, and who will move through the component quickly and into the Library
- Patrons who are browsing displays, reading signage and adjusting to the building environment
- Patrons in groups, who will typically move more slowly than individuals alone
- Many families with children, who will typically move more slowly and be encumbered with strollers and other equipment.

Movement of Patrons

The main operational goal will be to allow the maximum number of visitors and patrons to move into the building, orienting themselves safely and comfortably to their appropriate internal destination, and to move back out into the surrounding community when their visit is completed.

All patrons using the Library will move through this component, so it will have the heaviest use of any of the building components. All movement spaces must be scaled accordingly.

There will typically be up to 1,500 people a day moving in and out through this component.

Those attending Library programs in the Large Program Room may access that space from dedicated entrances from either the Atrium and/or from the Library interior.

Occasionally, egress from the Large Program Room will be through the Atrium or it may be accessed via the Atrium when the rest of the Library is closed to the public.

Movement of Materials

Holds materials awaiting pickup will be stored in a dedicated storage area in this component.

Collection resources may be dropped off by patrons at materials drops located at the building exterior, in the Atrium and/or within the Library Entrance and Large Program Room area.

Materials drop-offs should connect as directly as possible to the Material Handling Workroom located in the Back-of-House Functions component.

All borrowed collection materials will enter and leave this component carried by patrons.

Refreshments may be purchased at the Café or Coffee Kiosk located in Atrium, and/or by way of the service window accessed from within this component.

Movement of Staff

The Service Desk will also provide surveillance of this area, in addition to the rest of the floor. This desk will be staffed at all times; however staff will also provide roving service throughout the ground floor.

Program staff managing activities taking place in the Large Program Room will move to the Program Room as required, or to open and enclosed programming spaces throughout the Library, and occasionally into the Atrium as programs are accommodated there.

Programs will be designed and developed by staff based in this component. Programming staff will be provided with a work area located in this component.

Programs will be conducted in the Large Program Room by Library Program staff during and sometimes after regular Library hours. Programs may make use of the capacity for subdividing the Large Program Room.

Programs may be conducted in the Exterior Program Space adjacent to the Large Program Room by Library Program staff during and sometimes after regular Library hours.

WORKLOADS

Anticipate movement of Library users in and out of up to 1,500 a day. Anticipate a near full-time use of the Large Program Room by the Library.

Patron Accommodation

The following table identifies the occupancy of space within this component.

Type	Number of Spaces	Number of Seats	Total Occupants
OPAC Station	2	1	2
Bistro Seats	1	15	15
Large Program Room – Seats	1	100	100
Total			117

Collection

The only collection materials present will be those temporarily stored in the Holds Pick-Up area. Sufficient capacity is provided for 1,250 items.

STAFFING AND OCCUPANCY ESTIMATES

Estimated staffing and occupancies for this component are summarized below in full-time equivalents (FTE), headcounts, and maximum occupancy.

Type	Existing FTE	Future FTE	Total Headcount	Maximum Occupancy
<u>Public Service Staff</u>				
Manager, Customer Service	1.0	1.0	1	1
Coordinator, Customer Service	1.0	1.0	1	1
Library Assistant 4	1.0	1.0	1	1
Shift Supervisor	0.6	0.6	1	1
Library Assistant 3	3.5	6.5	12	10
Page	3.6	5.2	10	7
Subtotal	10.7	15.3	26	21
<u>Programming Staff</u>				
Manager, Programming	1.0	1.0	1	1
Preschool Supervisor	0.5	0.5	1	1
Preschool Programmer	1.3	1.4	6	2
Children's Programmer	1.0	1.0	1	1
Digital Literacy Programmer	0.5	0.6	1	1
Seasonal Student	0.6	0.6	2	2
Subtotal	4.9	5.1	12	8
Patrons	-	-	-	117
Total	15.8	20.4	38	146

DESIGN CRITERIA

Design criteria relevant to this component address unique conditions and design features required in the space.

For planning criteria that apply to the building generally, see the General Planning Criteria section of the Functional Program.

Design Relationships

Architectural Concepts

- This component is the first that building users encounter as actual secured Library space. As such, it is intended to be a spatially and aesthetically notable destination, including a multi-storey space allowing views to the upper floors of the Library.
- The ground floor level of the secure Library space should be contiguous with that of the adjacent Atrium.
- The Entrance consists of three functional zones: A Welcome and Orientation Area, including Public Services staff work area; the Large Program Room; and Programming Staff Work Area.
- Key aspects of the Welcome and Orientation Area include:
 - the space should be simple and logically understood; the intuitive layout of space, features and sightlines should facilitate easy self-orientation
 - immediate perception of a multi-story space connecting all Library floor levels, with visible elevators and open staircase, resulting in an intuitive understanding of the layout of the Library functions, including views across the ground floor of the Library
 - visual connection to second floor of the Library
 - visual connection to the exterior of Library site
 - clear sightlines from and to the Atrium and Community Living Room
 - patron service point located adjacent to the main movement corridors to the interior of the Library.
- Key aspects of the Large Program Room include:
 - dedicated access from the Program Room to the Atrium (and public washrooms)
 - no views into the Atrium space
 - dedicated access from the Program Room to the immediately adjacent exterior Program Space
 - a moveable wall that provides opportunity to subdivide the space.
- Key aspects of the Programming and Public Services Work Area include:
 - access to natural light and views

- dedicated staff access to adjacent equipment storage
- dedicated connection between Programming and Public Services staff workspaces to shipping and receiving.

Interior Design Concepts

- The Welcome and Orientation Area should make a striking and memorable impression on visitors, through use of spatial volume, vibrant colours, original building systems features, multiple views into and out of the building, and public art.
- The Welcome and Orientation Area will be a very active area.
- Signage must be carefully arranged to optimize patron self-direction and efficient movement. There will be daily event signage, Library floor layout and collection organization signage, and donor recognition/commemoration signage.
- The Large Program Room must:
 - be elegant and functional
 - be flexible and subdividable
 - have spatial proportions that allow for practical arrangement of furnishings and occasional subdivision of the space
 - be equipped with double wide entry doors
 - be equipped with presentation technologies
 - have a natural presentation focal point
 - allow for wall-mounted presentations
 - have a hard wood floor with retractable easily removed and maintained floor coverings
 - have an appropriately high ceiling
 - be acoustically shielded
 - have multiple custom lighting systems
 - have immediately adjacent storage spaces.
- All programming workspaces require natural light and clear access routes for the movement of materials and supplies.

Operational Concepts

Welcome and Orientation Area

- An unobtrusive security threshold must be incorporated into the design of the Welcome and Orientation Area.
- This component must accommodate very high patron traffic.

- All spaces used by the public must be suitably scaled, optimally direct, safe, attractive and people-friendly.
- Seating areas and informal gathering areas must not conflict with major movement paths to and from the Library threshold.
- Spaces must be scaled and organized to accommodate the movement of large numbers of people, as well as the presence of stationary patrons accessing services, and stationary services and resources.
- Non-obtrusive and natural surveillance will be essential. No public area of this component should be hidden from view.

Large Program Room/Programming Work Area

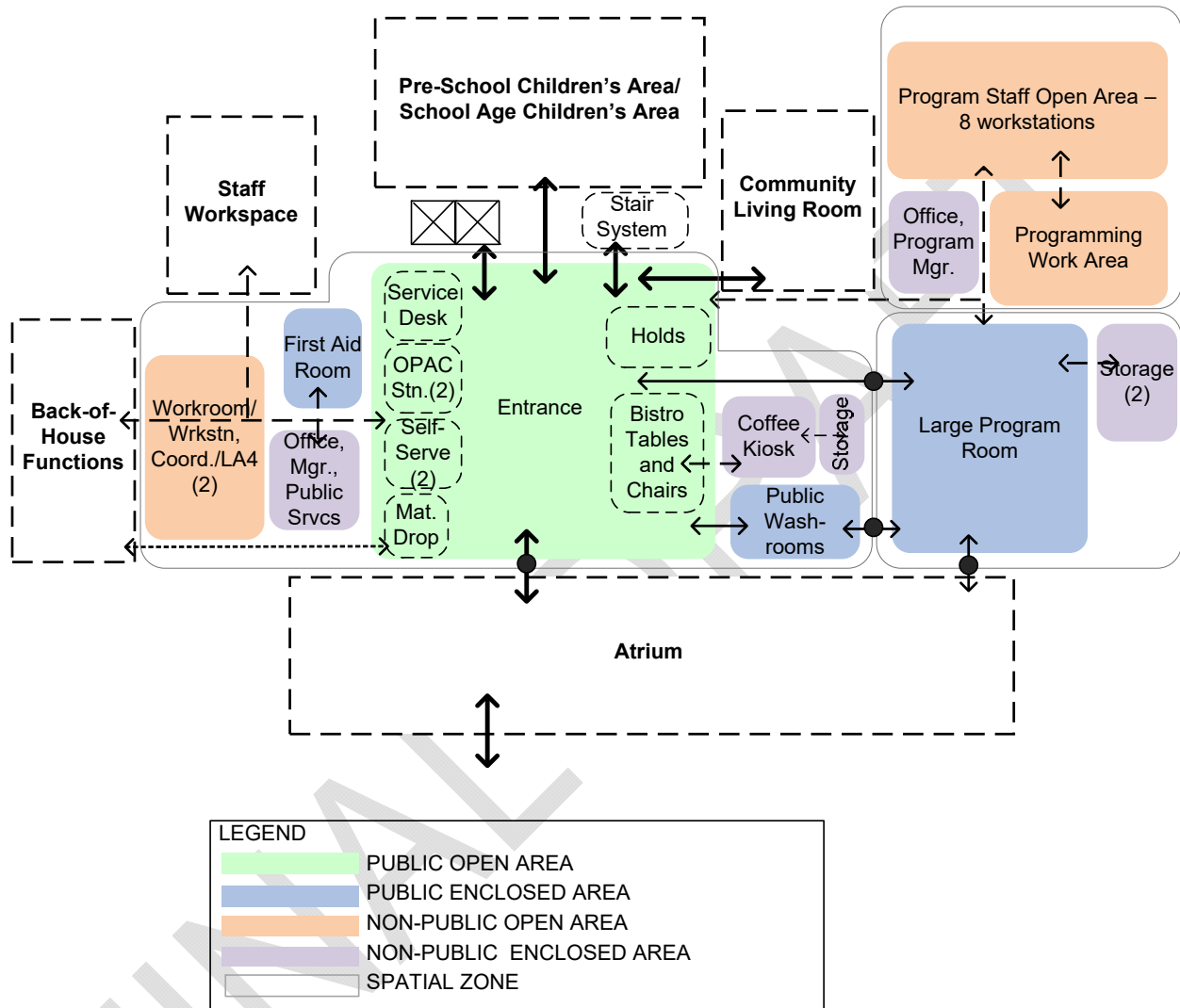
- The Large Program Room and its associated Programming Work Area must be interconnected and contiguous.
- The Programming Work Area will require dedicated staff only access.

Building Systems Criteria

- A Library materials drop located near the Library threshold must connect to the Materials Handling Workroom in component 12. Back-of-House Functions.
- All materials and finishes must be durable and easily cleaned and maintained.
- The quality of performance acoustics in the Large Program Room must not be compromised by acoustic shielding in that space.

Functional Relationship Diagram

The spatial organization of this component will be generally as shown in the diagram below.



NOTES:

Component functional diagrams are conceptual only – actual layouts will be explored in schematic design and developed in the detailed design process.

Space Requirements

Ref	Space	Units	Area/Unit (nsf)	Area (nsf)	Area/Unit (nsm)	Area (nsm)	Comments
	<u>Welcome and Orientation</u>						
01	Library Security Threshold	1		120		11.1	
02	Book Return	1		35		3.3	Exits in Materials Handling Workspace
03	Self-Service Check-Out	2	20	40	1.9	3.7	
04	Welcome/Meeting Point Seats	1		60		5.6	Incl. bench seats for 6
05	Printer/Copier	1		50		4.6	
06	Service Desk	1		120		11.1	Staffed service point/kiosk with computer, access, information materials
07	Art Display Case	1		30		2.8	
08	OPAC Station	2	20	40	1.9	3.7	
09	Holds Collection	1		108		10.0	Incl. 10 bays of shelving in alcove area
10	Coffee Kiosk	1		140		13.0	Incl. display cabinet, cash register, cappuccino maker, supplies; only required if there is not a provider for a Café or Coffee Kiosk in the Atrium
11	Bistro Tables and Chairs	1		270		25.1	Accommodates 15
12	Storage	1		40		3.7	Storage for supplies and extra food
13	Office, Manager, Customer Service	1		125		11.6	
14	Workstation, Coordinator/Full-Time LA4	2	65	130	6.0	12.1	Incl. L-shaped desk and
15	Public Services Workroom	1		245		22.8	Incl. shared desk, 1 bay utility shelving, 3 bays library shelving, storage millwork, wall-mounted mailbox, secure shredder tote and paper recycling station
16	First Aid Room	1		110		10.2	Incl. cot, chair, sink, lockable cabinet
17	Public Washroom	2	160	320	14.9	29.7	Allowance, to be confirmed
18	Universal Washroom	1		60		5.6	Incl. baby change table
	Subtotal			2,043		189.8	

Ref	Space	Units	Area/Unit (nsf)	Area (nsf)	Area/Unit (nsm)	Area (nsm)	Comments
<u>Large Program Room</u>							
16	Large Program Room	1		1,075		99.9	Accommodates 100; subdividable; access from Atrium. Access to immediately adjacent Exterior Program Space
17	Storage	2	120	240	11.1	22.3	For storage of furniture, equipment, supplies etc. (large enough for 100 stacked chairs, and stacked tables, plus miscellaneous podiums, etc.)
Subtotal				1,315	122.2		
<u>Programming Work Area</u>							
18	Office, Program Manager	1		125		11.6	
19	Workstation, Program Supervisor	3	65	195	6.0	18.1	
20	Workstation, Digital Literacy	1		65		6.0	
21	Workstation, Shared	3	45	135		12.5	
22	Programming Work Area	1		540		50.2	Incl. worktables/counters (3), sink, 7 bays of utility shelving, 8 book trucks, mail slots
23	Staff Washroom	1		45		4.2	
Subtotal				1,105	102.7		
Total				4,463	414.6		
Grossing Factor				1.30	1.30		
Component Gross Area				5,800	540		

COMPONENT OVERVIEW

Percentage Total: 3.6%



This component accommodates, in a location close to the Library Entrance and Large Program Room, a welcoming and informal lounge and activity area featuring topical and current resources, a gathering and seating space with a fireplace, and small-scale recreational activities.

Fireside Lounge – Capacity	16
Popular Picks Collection – Items	2,604
Oversize Collection - Items	58
Magazines - Titles	37
Newspapers - Titles	6
AV Collection – Items	4,805
Video Games	940
Electronics and other Collections – Items	106

CGSF: 1,785 | CGSM: 166

Key Adjacencies

1

3. Library Entrance and Large Program Room

Provide direct access by general circulation from the Library Entrance and Large Program Room to optimize visibility and facilitate movements in and out.

2

5. Pre-School Children's Area

Provide direct access by general circulation to ground floor Pre-School Children for the frequent movement of young patrons and caregivers.

3

6. School Age Children's Area

Provide direct access by general circulation to ground floor School Age Children for the frequent movement of young patrons and caregivers.

Indicative images of Community Living Room spaces



A visible, welcoming, and informal ground floor destination

**FUNCTIONAL
DESCRIPTION**

This component accommodates, in a location close to the Library Entrance and Large Program Room, a welcoming and informal lounge and activity area featuring topical and current resources, a gathering and seating space with a fireplace, and small-scale recreational activities. It also includes an AV collection area.

This will be an active high-traffic area. The Community Living Room is a notable destination in the Library, a space defined by high quality interior design features.

Features include:

- Fireplace with adjacent informal reconfigurable lounge seating
- Popular collection adult materials
- Oversize coffee table books
- Puzzles, board game, colouring books
- Newspapers and magazines
- AV collection in a dedicated adjacent AV zone
- Video games and other electronics in a dedicated AV zone.

Activities in this component include:

- Storage, access and browsing of popular picks, magazine and newspaper collections
- Casual reading
- Socializing and people watching
- Storage, access and browsing of AV, video games, and electronic resource collections, in a separate zone
- Book truck parking for floor if Materials Handling Workroom is provided on a lower floor level.

**OPERATIONAL
DESCRIPTION**

Hours of Operation

Hours of operation for this component will be determined as the operational profile of the future Library evolves.

	Open	Close
Monday-Friday	9:00 a.m.	8:30 p.m.
Saturday	10:00 a.m.	5:00 p.m.
Sunday	1:00 p.m.	5:00 p.m.

This component will always be open when the rest of the Library is open.

Patron Profile

Patrons will include:

- Typically, adults, although there will frequently be small groups and families with children
- Patrons seeking the new, the recently acquired, the novel and the entertaining
- Many patrons interested in browsing, socializing and people watching.

Movement of Patrons

Patrons in this component will move to this component from the Library Entrance and Large Program Room by way of the Atrium. They may also access this component from other components, including components on the upper floor.

Patrons may:

- Purchase beverages and snacks at the Coffee Kiosk in the Library Entrance and consume them in this component
- Browse popular collection materials and newspapers and magazines in the Fireside Lounge area
- Access prominent displays that facilitate browsing of new, high demand and featured titles/collection items
- Browse AV collections
- Read, socialize, play games, and watch television programs
- Proceed from this component to other components in the Library to access other Library services and resources.

Movement of Materials

Except for newspapers and oversized books, collection materials in this component will circulate. After access by patrons some collection materials will be routinely collected by staff and reshelved.

After access by customers, other collection materials may be taken to check out stations in the Library Entrance for check out.

Movement of Staff

Staff will be present only occasionally to reshelve magazines, newspapers, and other collection materials, or to update and display new or topical collection resources.

WORKLOADS

The primary workload associated with this component involves the periodic shelving and re shelving of collection items displayed in this area.

Patron Accommodation

The following table identifies the occupancy of each user space.

Type	Number Spaces	Number of Seats	Total Occupants
Fireside Lounge Seats	1	16	16
Total			16

Collections

Assumptions for the size of collections located in this component are provided below. Increased sizes of magazines, CDs and DVDs collections are not anticipated in the long-term future, but these items will be provided for the foreseeable future.

Type	Total Items	Circulation Rate	Items on Shelves
Popular Picks	2,604	70%	781
Oversize Books	58	0%	58
Magazines – Issues	1,902	10%	1,712
Newspapers – Issues	252	0%	252
Video Games	940	75%	235
Adult AV Collections (DVDs/Blu-ray)	4,805	25%	3,604
Special Equipment/Collections	106	25%	80
Total	10,667		6,722

STAFFING AND OCCUPANCY ESTIMATES

Estimated staffing and occupancies for this component are summarized below.

Type	Existing FTE	Future FTE	Total Headcount	Maximum Occupancy
Library Staff	-	-	-	1
Patrons – Seated	-	-	-	16
Total	-	-	-	17

DESIGN CRITERIA

Design criteria relevant to this component address unique conditions and design features required in the space.

For planning criteria that apply to the building generally, see the General Planning Criteria section of the Functional Program.

Internal Relationships

Architectural Concepts

- This space should be contiguous with the Library Entrance and Large Program Room and other components on the main floor of the Library.
- The Community Living Room is not an enclosed space. It may have perimeter exterior glazing on one or two sides and be mostly open to the rest of the interior on the remaining sides.
- Within this loosely defined space, there are three zones:
 - Popular Picks Collection and Display
 - Fireside Seating
 - AV Collection.
- The space should be simple and logically understood; the intuitive layout, features and sightlines should facilitate easy self-orientation and user movement.
- All spaces used by the public must be suitably scaled, optimally direct, safe, attractive and people friendly. Comfort is an important component of the lounge seating in this area.
- Seating areas and informal gathering areas should not conflict with nearby major movement paths.
- Key aspects will include:
 - immediate visibility from the Library Entrance and Large Program Room component
 - exterior views of site landscape features, parkland/greenery, exposure to daylight, the sky and changing weather patterns
 - visual connections to the upper floor(s) of the Library.

Interior Design Concepts

- The Community Living Room is a logical location for significant design features, including:
 - a feature fireplace
 - ample daylight
 - innovative, attractive, comfortable furnishings
 - spatial volume
 - vibrant colours
 - views cross the interior

- views out of the building
- public art.
- The adjacent Library Entrance and Large Program Room component will be very active: noise and visual distractions from the frequent movement of arriving and departing patrons must not compromise the quieter Community Living Room.
- Seating areas can be protected from noise and visual distractions by locating them behind collection display features.

Operational Concepts

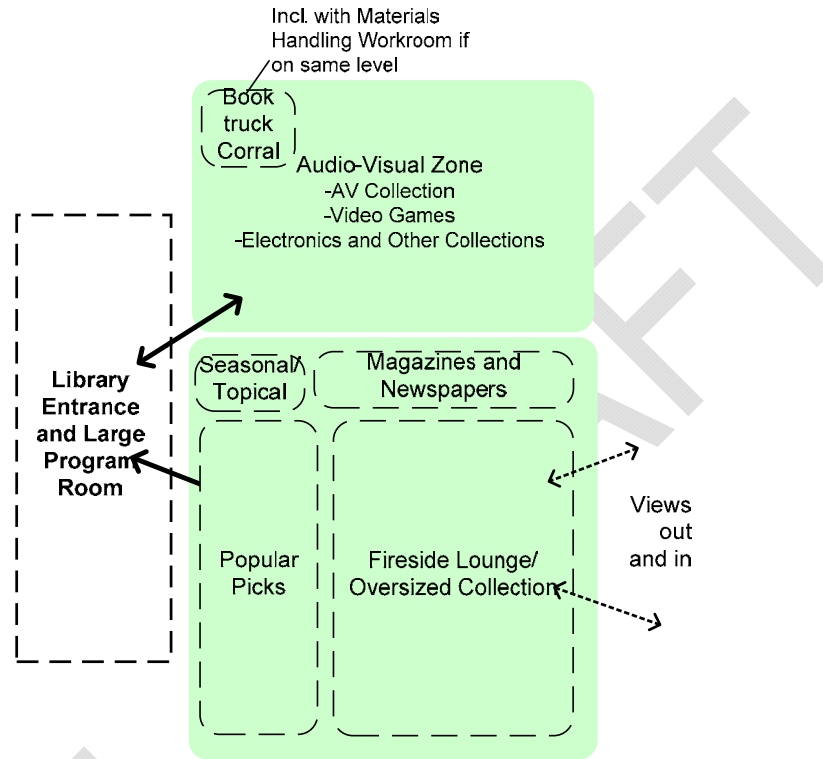
- Non-obtrusive and natural surveillance will be essential. No public area of this component should be hidden from view.
- Fireplace controls will not be publicly accessible.

Building Systems Criteria

- All materials and finishes should be durable and easily cleaned and maintained.
- The Fireside lounge and adjoining areas should include:
 - a combination of hard and soft flooring materials
 - data ports and power outlets
 - an acoustic control system.

Functional Relationship Diagram

The spatial organization of this component will be generally as shown in the diagram below.



LEGEND	
	PUBLIC OPEN AREA
	PUBLIC ENCLOSED AREA
	NON-PUBLIC OPEN AREA
	NON-PUBLIC ENCLOSED AREA
	SPATIAL ZONE

NOTES:

Component functional diagrams are conceptual only – actual layouts will be explored in schematic design and developed in the detailed design process.

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FINAL DRAFT

Space Requirements

Ref	Space	Units	Area/Unit (nsf)	Area (nsf)	Area/Unit (nsm)	Area (nsm)	Comments
<u>Community Living Room</u>							
01	Seasonal/Topical Material Display	2	10	20	0.9	1.9	
02	Popular Picks Collection	6	30	180		16.7	Uses table display 4'X4'
03	Overflow Bay	6	10	60			
04	Fireside Lounge	1		500		46.5	Incl. fireplace, lounge seats for 16 near the fireplace
05	Newspaper Collection	3	20	60		5.6	6 titles - on tables with 2 titles per table
06	Back Issues, Newspapers	3	15	45			14 issues per shelf and 6 shelves per oversized bay
07	Magazine Collection	4	12	48		4.5	Incl. 37 titles on 4 bays (12 titles per bay with storage behind display [1902 issues])
08	Oversized Collection - Table top	3	12	36			Incl. 1 title per table
09	Oversized Collection - Display shelving	2	12	24			Incl. 16 volumes per shelf and 3 shelves
<u>Audio-Visual Zone</u>							
10	AV Collection – DVDs	19	10	190	0.9	17.7	Vertical shelving, one row of face out display, do not use bottom 18 inches
11	Video Games	2	10	20	0.9	1.9	Vertical shelving, one row of face out display, do not use bottom 18 inches
12	Electronics and Other Collections	1		70		6.5	Book Locker style with glazed doors, assumes that half have two doors per "shelf"; assumes one control bay
13	Book Truck Corral	1		120		11.1	In alcove near Service Elevator; accommodates 15; should be included with Materials Handling Room if on same level
Total				1,373		127.6	
Grossing Factor				1.30		1.30	
Component Gross Area				1,785		166	

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FINAL DRAFT

COMPONENT OVERVIEW

Percentage Total: 10.9%



This component, one of two Children's Areas within the Library, accommodates the collections, program spaces and collection support spaces serving Pre-School Children.

Total Collection Items	39,960
Program Nook Capacity	40
Patron Occupancy (excludes collection areas)	154

CGSF: 5,435 | CGSM: 505

Key Adjacencies

1

6. School Age Children's Area

Provide direct access by general circulation to the School Age Children's Area to share Service Desk.

2

3. Library Entrance and Large Program Room

Provide convenient access by general circulation to the Library Entrance and Large Program Room for the movement of patrons and staff and the movement of materials.

3

11. Staff Workspaces

Provide convenient access by staff circulation from Staff Workspaces for the movement of staff.

Indicative images of Pre-School Children's Area spaces



Singly and together, discovering, learning, playing, beginning

**FUNCTIONAL
DESCRIPTION**

This component—one of two Children's Areas within the Library—accommodates the collections, and informal and formal program spaces for Pre-School Children and their caregivers.

These Library users are typically accompanied by adults; they are highly active and require special resources, services, and furnishings, as well as an environment scaled and designed for the very young.

Features include:

- Stroller Parking
- Access to an OPAC that is kid-friendly and fun
- Service Desk that also supports School Age Children's Area
- Self-Check-Out station
- Early literacy computers
- Play Area, including roll out toys on playcards
- Collections area
- Parent and Child Reading alcoves
- Open Program Area with pony wall
- Program Nook with sink and storage
- Family Washrooms with pre-school scaled fixtures
- Quiet Room.

Activities within the component include:

- Topical display of materials
- Stroller Parking
- Orientation to the component
- Group marshalling
- Information and collection queries at part-time Service Point
- Self-check of materials
- Imaginative play activities promoting literacy and learning
- Storage, maintenance, display and access of collections, including:
 - Board Books
 - Picture Books
 - Beginning Readers
 - Dual Language collection
 - French Board Books/Picture Books and Beginning Readers
 - Easy International Collection
 - Easy magazines
 - Easy kits
 - Easy AV materials

- Parent and child reading and exploration
- Browsing of electronic resources
- Story time programs
- Other programs for Pre-School Children.

OPERATIONAL DESCRIPTION

Hours of Operation

Hours of operation for the Pre-School Children's Area will be same as other public functions within the Library. Current hours are indicated below:

	Open	Close
Monday-Friday	9:00 a.m.	8:30 p.m.
Saturday	10:00 a.m.	5:00 p.m.
Sunday	1:00 p.m.	5:00 p.m.

Patron Profile

More than other components, this component will be marked by patrons who typically arrive in groups of two or more. Most groups will have at least one adult and one child. Patrons will include:

- Those who have come as part of a large group, from a kindergarten or daycare
- Parents and other caregivers who have with them children of varying ages
- Patrons who arrive with strollers, some of which may be large, accommodating multiple children
- Patrons who arrive simultaneously to be part of a programmed activity
- Adult patrons who arrive by themselves to pick up materials for children
- Children who range widely in skills, from those who need constant attention to those who are highly self-sufficient.

Movement of Patrons

People will arrive and depart this component from Component 3 Library Entrance and Large Program Room through general circulation.

Patrons will arrive and depart this component through an Arrival and Orientation area, which should be in proximity to the Service Point.

Patrons arriving in larger groups or with strollers will move to the Stroller Parking and/or marshalling areas, which will be located away from the Arrival and Orientation area.

Patrons will access various areas of the component, with collections and supporting patron spaces organized generally by age appropriateness and ability. Patrons may attend scheduled program events in open areas or within Program Nook.

Patrons will select materials and check-out materials here or at the Self-Serve Check-Out Stations at the Library Entrance and Large Program Room.

Movement of Materials

Collection resources requiring re-shelving after return will be moved by staff from the Materials Handling Workroom to the collection areas of this component on book trucks.

Materials used by patrons while in the component but not borrowed will be picked up by staff from tables and designated collection drop-off shelves, placed on book trucks and re-shelved as required.

The vast majority of collection resource materials will leave this component carried by Library patrons.

Staff Support

Staff, based in component 11 Staff Workspaces, will come to the Pre-School Children's Area based on staff schedules and need.

Roving staff, based at a centrally located Service Point in this component, will provide informal assistance to patrons in both this component and in component 6 School Age Children's Area. It is expected that most of the time staff will be roving and proactively assisting patrons.

WORKLOADS

The primary workloads associated with this component include patron accommodation and collections

Patron Accommodation

The following table identifies the occupancy of each space within this component.

Type	Number Spaces	Number of Seats	Total Occupants
Self-Check-Out	1	-	1
Literacy Computer Station	4	4	16
Library Play Area	1	32	32
OPAC Station	1	1	1
Parent and Child Reading Chair/Alcove	4	3	12
Open Program Area	1	30	30
Group Table	2	6	12
Casual Seat	10	1	10

Type	Number Spaces	Number of Seats	Total Occupants
Program Nook	1	40	40
Total			154

Collection

Assumptions for future collection size are provided below. The AV collection and the number of magazine titles may decrease in size in the longer-term future.

Type	Total Items	Circulation Rate	Items on Shelves
Board Books	7,005	65%	2,452
Picture Books	21,066	55%	9,480
Beginner Reader	7,712	65%	2,699
Dual Language	618	15%	525
French Board/Picture/Easy Reader	2,145	25%	1,609
Easy International Books	208	15%	177
Easy Magazines (Items)	58	30%	41
Easy Kits	120	85%	18
Easy AV – Fiction and Non-Fiction	1,028	40%	617
Total	39,960		17,618

STAFFING AND OCCUPANCY ESTIMATES

Estimated staffing and occupancies for this component are summarized below in full-time equivalents (FTE), headcounts, and maximum occupancy.

Type	Existing FTE	Future FTE	Total Headcount	Maximum Occupancy
Library Patrons	-	-	-	134
Library Staff - Service Point/Roving	-	-	-	1 – 2
Total	-	-	-	135 – 136

DESIGN CRITERIA

Design criteria relevant to this component address unique conditions and design features required in the space.

For planning criteria that apply to the exterior generally, see the General Planning Criteria section of the Functional Program.

Design Relationships

Architectural Concepts

- The Pre-School Children's Area and School Age Children's Area together should be visible from Component 3 Library Entrance and Large Program Room with easy access and clear wayfinding. A sense of anticipation should be created with invitations to imagine that begin outside and on the way to the component itself.

- This component is almost entirely comprised of public space except for a Storage Room associated with the Program Nook.
- The entrance to this component should be marked by a gateway or entrance that reflects the content of the collection and program activities.
- Views should be provided to the Pre-School Children's area from other key components while maintaining the general enclosure of the component. This will create opportunities to market the services and resources of the component and maintain the level of visual security. The general enclosure will ensure that children do not wander off into elevators and adjacent components. Notwithstanding the above, children should not be on display, either to the public within the Library or to those outside.
- The component should be organized by level of activity and amount of noise. Patron seating and support areas, however, should relate to adjacent collection areas, as possible.
- Design should consider a higher ceiling to support large hanging displays that add character and life to the environment.
- The Service Desk must be situated within view of and proximate to arriving public. It should have visual connections to all public areas of both the Pre-School Children's Area and School Age Children's Area so that activities can be monitored.
- The overall layout and associated net to gross for this component reflect a more organic and informal approach to the organization of space. This may be reflected in the architecture, as well, with elements such as tilted columns, landscaped ceilings, etc.
- This component should emphasize natural light and views to landscaped exterior areas.
- Program spaces should be located away from the component entrance, so that general traffic flow is not impeded.
- A contained Play Area must be provided for toddlers and small children and should link to respective collections.
- The Play Area should be located away from the Program Nook and in a corner of the component to focus noisy activities. It will include a roll out toys on play carts, as well as interactive play stations. This may be an area that is noisier with exuberant children.
- For safety, the Play Area must not be located near exits, elevators, and/or stairs.
- Family Washrooms are included within this component and should be within view of the Service Desk.

Interior Design Concepts

- A transitional gateway should be provided to the Pre-School Children's Area, emphasizing a transition into a world that excites the imagination of children that has wide and long-lasting cultural appeal. Displays should be manipulative and interactive, enhancing discovery.
- The character of the Pre-School Children's Area and the School Age Children's Area will differ from that of the remainder of the Library. They may have themes in which children become part of the stories that they are reading. They should be environments of exploration and engagement that are translated into the display of collection resources, installations, and program areas. Interior design themes should be rich in the use of colour, language and language elements.
- Notwithstanding the above, the Children's Areas should reflect and maintain a common spirit with the rest of the Library.
- The environment should be safe. Partitions and furniture should have rounded corners to minimize injuries.
- The space, furnishings, lighting and signage should be flexible to facilitate change, exploration and experimentation by both staff and children.
- Signage should focus on the Service Desk and on the collections to graphically identify collection types and subject areas. Signage should be understandable to children and adults and should include pictures, words, and numbers. Signage should be easy to change and update.
- The scale of space and furnishings are critical factors. Design must reflect "child-sized" environments to respond to the needs of infants and toddlers, while also providing furnishings appropriate for parents and other adults.
- Child-height coat hooks and boot mats must be provided in the Stroller Parking area.
- Child-scaled fixtures must be included in the Family Washrooms.
- A mix of seating types should be provided, including informal seating and benches and tables for groups of children. Some activity areas will require furniture that allows children to interact with accompanying adults. Furniture should be robust as adults will on occasion use child-sized seats.
- The collection area should feature more intimate environments for reading and associated activities. These may be provided through the use of a lower ceiling, canopy or by creating physically separate but connected area(s).

- Shelves must be arranged so that there are no hidden collections.
- Furniture and stacks/shelving should be flexible to allow for changes in collections, formats and users.
- Collections will be accommodated in bins and on lower (two- and three-shelf) units.
- Public activity spaces within the Children's Library need to be visible to employees from the Service Desk and yet should provide a cozy, secure and intimate environment for children.

Operational Concepts

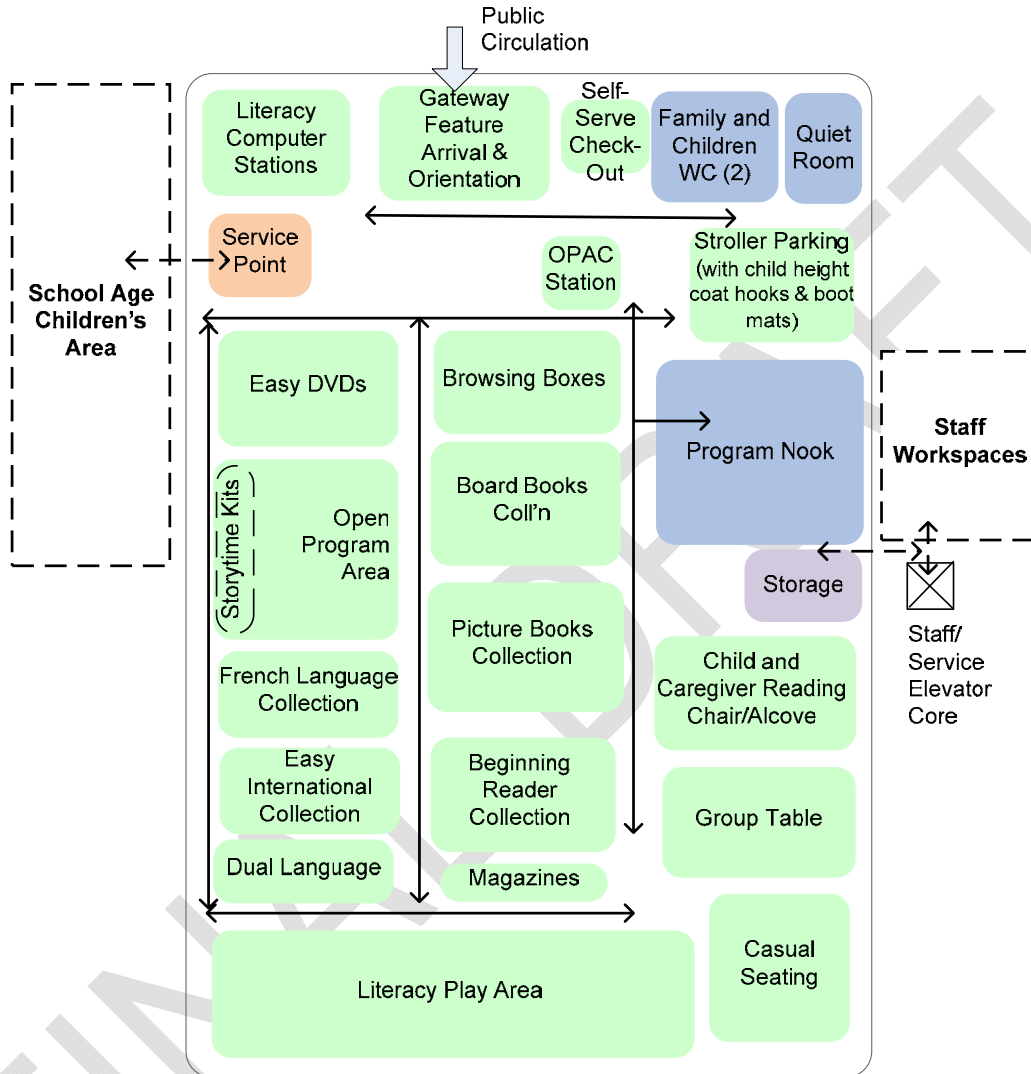
- While there will be a Service Desk, other areas may require controlled access, such as the Program Nook.
- Children will leave their coats and boots on the coat hooks and boot mats in the Stroller Parking area.

Building Systems Criteria

- Lighting systems should be flexible and should highlight the Service Desk, display areas and component signage.
- Acoustic treatment and/or separation should be provided between the various activity areas to reduce acoustical interference.

Functional Relationship Diagram

The spatial organization of this component will be generally as shown in the diagram below.



LEGEND	
	PUBLIC OPEN AREA
	PUBLIC ENCLOSED AREA
	NON-PUBLIC OPEN AREA
	NON-PUBLIC ENCLOSED AREA
	SPATIAL ZONE

NOTE:

Component functional diagrams are conceptual only – actual layouts will be explored in schematic design and developed in the detailed design process.

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FINAL DRAFT

Space Requirements

Ref	Space	Units	Area/Unit (nsm)	Area (nsm)	Area/Unit (nsm)	Area (nsm)	Comments
01	Gateway Feature	1		45		4.2	Feature that reflects program activities and content of the collection
02	Arrival and Orientation	1		120		11.1	Open area to view component
03	Stroller Parking	1		120		11.1	Locate off to side and out of way
04	Family Washroom	2	60	120	5.6	11.1	Allowance only; each adult and child-sized fixtures, adult and child-sized sinks, and change table
05	Quiet Room	1		100		9.3	Recliner, soft music
06	Service Desk	1		35		3.3	Accommodates 1 staff station
07	Self-Check-Out	1		20		1.9	Adjacent to Service Point
08	Thematic Display Area	3	10	30	0.9	2.8	Distributed through Library area
09	Literacy Computer Station	4	25	100	2.3	9.3	Each accommodates up to 3 to 4 children
10	Literacy Play Area	1		800		74.3	Accommodates 16 children and caregivers; incl. sensory wall, soft seating area, numerous imagination play environments roll out toys on playcarts; Accommodates activity stations, such as Burgeon large scale interactives
11	Board Books Collection	1		144		13.4	Accommodates 70% of board books; 1,716 items on 12 movable five-shelf bays, with display on top
12	Browsing Boxes	17	8	136	0.7	12.6	Accommodates 30% of board books; Child friendly, random collection in bins with 45 per 2'X2' bin
13	Picture Books Collection	1		768		71.3	Accommodates 9,480 items on 64 three-shelf movable bays, could also be support story time nook
14	Open Program Area	1		250		23.2	Open area in stacks for story times and other open program activities
15	Dual Language	1		60		5.6	Accommodates 525 items on 5 three-shelf movable bays
16	French Board Books, Picture Books and Beginning Readers	1		144		13.4	Accommodates 1,609 items on 12 three-shelf movable bays
17	Easy International Collection			24		2.2	Accommodates 177 items on 2 three-shelf movable bays
18	Beginning Readers	1		108		10.0	Accommodates 2,699 items on 9 five-shelf bays

Ref	Space	Units	Area/Unit (nsm)	Area (nsm)	Area/Unit (nsm)	Area (nsm)	Comments
19	OPAC Station	1		15		1.4	Locate prominently at end of stacks
20	Story Time Kits Backpack Collection	1		-		0.0	Accommodates 30 items on coat hooks located above low shelving
21	Easy Kits Collection	2	15	30	1.4	2.8	30 items with 15 items per bay
22	Magazines Collection	1		12		1.1	4 titles on 1 2-shelf bay
23	Easy DVD Collection	5	12	60	1.1	5.6	617 items on 5 4-shelf bays
24	Parent and Child Reading Chair/Alcove	4	35	140	3.3	13.0	Locate with younger age collections; accommodates 2-3 each
25	Group Table, Smaller Children	2	60	120	5.6	11.1	Each accommodates up to 6 children
26	Casual Seating	10	20	200	1.9	18.6	Distributed in collection areas
27	Program Nook	1		300		27.9	Accommodates up to 40, with storage cabinets, counter and sink, and coat hook area; should have glazed opening wall to main children's area and should be blackout capable. Room will be open and available when not in use for programs
28	Storage Room	1		180		16.7	Adjacent to Program Nook; stores a variety of equipment and furnishings
Total				4,181		388.4	
Grossing Factor				1.30		1.30	
Component Gross Area				5,435		505	

COMPONENT OVERVIEW

Percentage Total: 10.9%



This component—one of two Children's Areas within the Library—accommodates the collections and program spaces serving school age children.

Total Collection Items	39,014
Makerspace Capacity	35
Patron Occupancy (except collection areas)	113

CGSF: 5,450 | CGSM: 506

Key Adjacencies

1

5. Pre-School Children's Area

Provide direct access by general circulation to Pre-School Children's Area to share Service Desk.

2

3. Library Entrance and Large Program Room

Provide convenient access by general circulation to the Library Entrance and Large Program Room for the movement of patrons and movement of materials.

3

11. Staff Workspaces

Provide convenient access by staff circulation from Staff Workspaces for the movement of staff.

Indicative images of School Age Children's Area spaces



Group and independent exploration, discovery, learning, creating

**FUNCTIONAL
DESCRIPTION**

This component, one of two Children's Areas within the Library, accommodates the collections and program spaces serving school age children. These Library users may or may not be accompanied by adults; school age children are in various stages of development and ability, requiring resources, services, and furnishings, as well as an environment scaled and designed to reflect their activities and abilities.

This component is a clearly defined space that provides children and families with varying degrees of separateness from the larger Library space, to ensure their safety, security and comfort.

The School Age Children's Area will foster a child's growing independence while welcoming parental/caregiver oversight. It will be a space for children to discover their passion for reading, explore their interests to become lifelong learners, and engage in activities independently as well as in social and family groups of varying sizes and ages.

Through a variety of environments, it will appeal to children with both quiet temperaments and more exuberant natures. Children will range from five years of age to 12 years.

Features include:

- Display cases at entrance for student art
- Service Desk that is shared with the Pre-School Children's Area
- OPAC
- Self-check-out
- Computers
- Informal seating
- 4-seat reconfigurable tables
- Juvenile Fiction and Non-Fiction collections
- French and International collections
- Juvenile Graphic Novels collection
- Children's Magazines
- Junior DVD collections
- Tutoring pods
- Children's Makerspace.

Activities within the component include:

- Topical display of materials
- Group mustering and storage of personal belongings
- Answering collection and information queries at a Service Desk in Pre-School Children's Area and by roving staff
- Self-check of materials

- Group and individual study and homework activities
- Decompressing and reading in a quiet environment
- Developmentally appropriate programming, including story and craft activities, reading and homework assistance, coding and digital literacy for large and small groups
- Tours or supervised group visits
- Storage of program materials
- Discovery and educational activities at computers including group work on computers
- Storage, maintenance, display and access of the following collections:
 - comics and graphic novels
 - Fiction Collection
 - Non-Fiction Collection
 - French materials including Fiction, Non-Fiction and graphic novels
 - Junior materials including DVDs
 - Magazines
- Reading/project work/computer use in informal areas (when it is not used for programs), and group tables and informal seating areas that are associated with and appropriate to collection subjects and to the age of users
- Art displays
- Accessing virtual collections
- Shelf checks and re-shelving of materials by staff.

**OPERATIONAL
DESCRIPTION**

Hours of Operation

Hours of operation for the Pre-School Children's Area will be same as other public functions within the Library. Current hours are indicated below:

	Open	Close
Monday-Friday	9:00 a.m.	8:30 p.m.
Saturday	10:00 a.m.	5:00 p.m.
Sunday	1:00 p.m.	5:00 p.m.

Patron Profile

This component is characterized by patrons that arrive typically in groups of two or more. Younger patrons will have at least one adult accompanying them. Patrons will include:

- Those who have come as part of a large group, from a school or kindergarten

- Parents and other caregivers who may have with them children of varying ages, including very young children with whom they will actively attend and who may be visiting the Pre-School Children's Area
- Child and adult patrons with special needs, including physical and mental challenges and who may be accompanied by a caregiver
- Patrons who arrive simultaneously to take part in a programmed activity
- Parents, caregivers and educators wanting children's resources or information
- Children ranging widely in skills, from those who need constant attention to those who are highly independent
- Teen volunteers for programs.

Movement of Patrons

People will arrive and depart this component from Component 3 Library Entrance and Large Program Room through general circulation.

Patrons will arrive and depart this component through an Arrival and Orientation area, which should be in proximity to the Service Point.

Patrons arriving in larger groups will move to the Mustering Area, which will be located near the Arrival and Orientation area.

Patrons will access various areas of the component including collection areas, computer stations, or programming spaces. Patrons may attend scheduled program events in the Makerspace.

Patrons will select materials and check-out materials here or at the Self-Serve Check-Out Stations at the Library Entrance.

Movement of Materials

Collection resources requiring re-shelving after return will be moved by staff from the Materials Handling Workroom directly to the collection areas of this component on book trucks.

Materials used by patrons while in the component but not borrowed will be picked up by staff from tables and designated collection drop-off shelves, placed on book trucks and re-shelved as required.

The vast majority of collection resource materials will leave this component carried by Library patrons.

Staff Support

Staff, based in Component 11 Staff Workspaces, will come to the School Age Children's Area based on staff schedules and need.

Roving staff will provide informal assistance to patrons in both this component and in Component 5. Pre-School Children's Area.

WORKLOADS

Patron Accommodation

The following table identifies the occupancy of each space within this component.

Type	Number of Spaces	Number of Seats	Total Occupants
Self-Check-Out Station	1	-	1
Computer Station	10	2	20
OPAC Station	1	-	1
Casual Seating	20	1	20
Group Table	6	4	24
Tutoring Pod	4	3	12
Makerspace	1	35	35
Total			113

Collection

Assumptions for future collection size are provided below. Magazines, and DVD collections are anticipated to be smaller in the longer-term future but will be provided in the shorter term.

Type	Total Items	Circulation Rate	Items on Shelves
Fiction Books	13,946	35%	9,065
Non-Fiction Books	15,052	20%	12,042
Graphic Novels and Comics	4,788	82%	862
French Fiction Books	1,003	10%	903
French Non-Fiction Books	600	5%	570
French Graphic Novels	355	15%	302
International Books	184	5%	175
Magazines (items)	230	20%	184
Juvenile AV	2,856	45%	1,571
Total	39,014		25,674

STAFFING AND OCCUPANCY ESTIMATES

Estimated staffing and occupancies for this component are summarized below in full-time equivalents (FTE), headcounts, and maximum occupancy.

Type	Existing FTE	Future FTE	Total Headcount	Maximum Occupancy
Library Staff – Service Point/Roving	-	-	-	1 – 2
Library Patrons	-	-	-	113
Total	-	-	-	114 – 115

DESIGN CRITERIA

Design criteria relevant to this component address unique conditions and design features required in the space.

For planning criteria that apply to the interior generally, see the General Planning Criteria section of the Functional Program.

Design Relationships

Architectural Concepts

- The Pre-School Children's Area and School Age Children's Area together should be visible from Component 3. Library Entrance and Large Program Room with easy access and clear wayfinding. A sense of anticipation should be created with invitations to imagine that begin outside and on the way to the component itself.
- This component is entirely comprised of public space.
- The entrance to this component should be marked by a gateway or entrance that reflects the content of the collection and program activities.
- Some views should be provided to the School Age Children's Area from other key components. Notwithstanding the above, children should not be on display, either to the public within the Library or to those outside.
- The component should be organized by level of activity and amount of noise. Patron seating and support areas, however, should relate to adjacent collection areas, as possible.
- Design should consider a higher ceiling to support large hanging displays that add character and life to the environment.
- The Service Desk must be situated within view of and proximate to arriving public. It should have visual connections to all public areas of both the Pre-School Children's Area and School Age Children's Area so that activities can be monitored.
- This component should emphasize natural light and views to the exterior.
- Wall space for displays of children's artwork should be maximized, including a wall at the entrance to the component to showcase local children's art, including children's digital art.

Interior Design Concepts

- A transitional feature should be provided to the School Age Children's Area, providing a transition that excites the imagination of children and that has wide and long-lasting cultural appeal.
- The character of the School Age Children's Area will differ from that of the remainder of the Library. It should be an environment of exploration and engagement including displays of collection

resources, and program themes. Interior design should be rich in colour, and continue language motifs.

- Notwithstanding the above, the School Age Children's Area should reflect and maintain a common spirit with the rest of the Library.
- The space, furnishings, lighting and signage should be flexible to facilitate change, exploration and experimentation by both staff and children.
- Signage should focus on the Service Desk and on the collections to graphically identify collection types and subject areas. Signage should be understandable to children and adults and should include pictures, words, and numbers. Signage should be easy to change and update.
- The scale of space and furnishings are critical factors. Design must reflect "child-sized" environments to respond to the needs of children of various ages and sizes, while also providing furnishings appropriate for parents and other adults.
- A mix of seating types should be provided, including informal seating and benches and tables for groups of children. Furniture should be robust as adults will on occasion use child-sized seats.
- There should be minimal use of wall shelving so that wall surfaces can be used for display.
- Furniture and stacks/shelving should be flexible to allow for changes in collections, formats and users.
- Collections will be accommodated on shelving units that have four to five shelves.
- Activity spaces within the School Age Children's Area need to be visible to staff from the Service Desk and yet should provide a secure environment for children, where they do not feel they are constantly monitored.

Operational Concepts

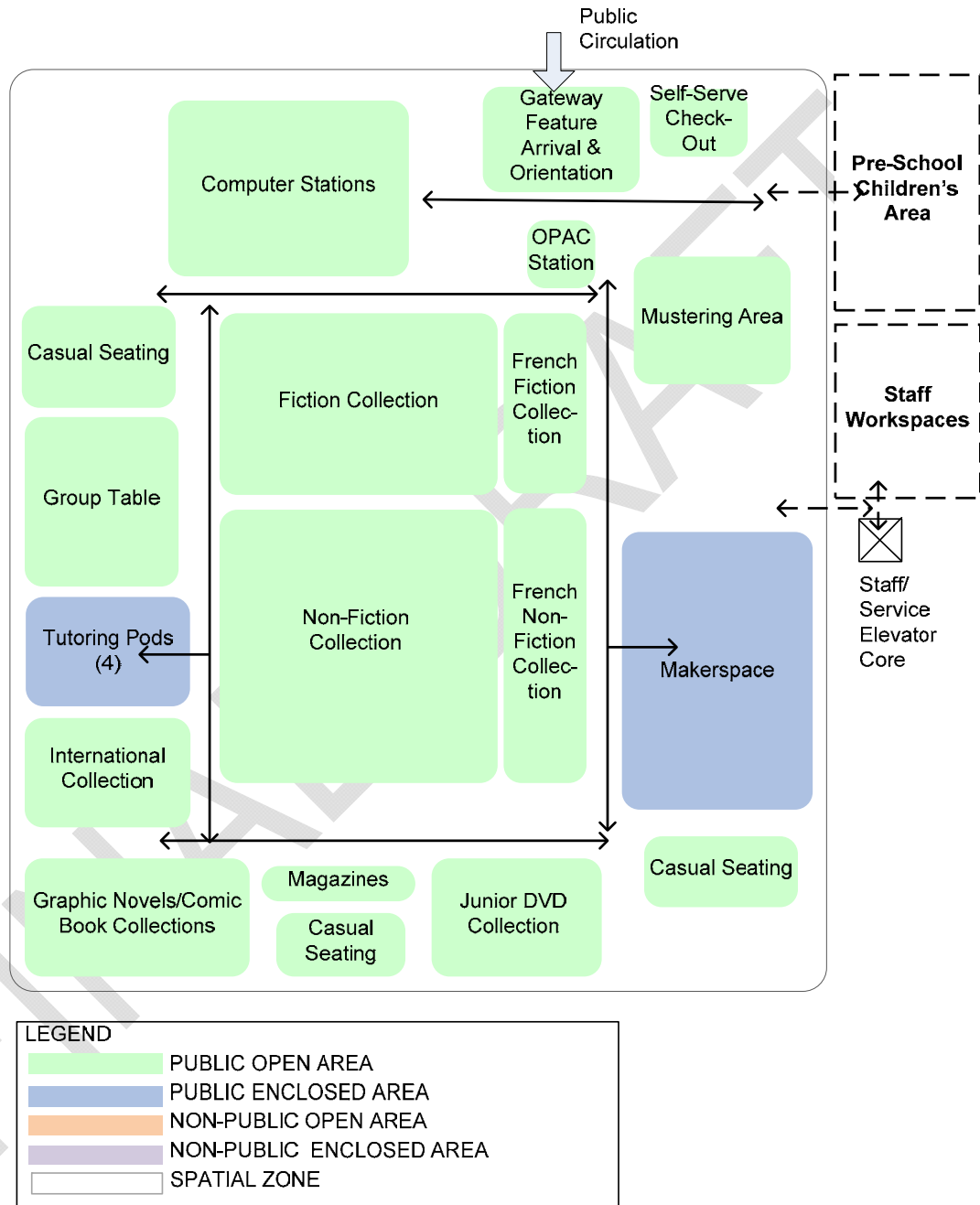
- Although they may base themselves in this component, some of the patrons of the School Age Children's Area will also access other collection and service areas in the Library.
- Children touring the component or attending programs in the Makerspace will leave personal belongings in the muster area, which will have coat hooks and boot mats.
- Materials used by patrons for casual reading while in the component will be deposited in designated locations and re-shelved by staff.

Building Systems Criteria

- Sound attenuation provisions are required to insulate the remainder of the Library from the sometimes higher level of sound originating in this component.
- Lighting systems should be flexible and highlight the Service Desk when it is staffed, display areas and component signage.

Functional Relationship Diagram

The spatial organization of this component will be generally as shown in the diagram below.



NOTE:

Component functional diagrams are conceptual only – actual layouts will be explored in schematic design and developed in the detailed design process.

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FINAL DRAFT

Space Requirements

Ref	Space	Units	Area/Unit (nsm)	Area (nsm)	Area/Unit (nsm)	Area (nsm)	Comments
01	Gateway Feature	1		60		5.6	Feature that reflects program activities and content of the collection
02	Arrival and Orientation	1		120		11.1	Open area to view component
03	Mustering Area	1		120		11.1	Open area with coat hooks and boot mats
	Service Desk	1		-		0.0	shared with Pre-School Area
04	Self-Check-Out	1		20		1.9	Adjacent to Service Point
05	Thematic Display Area	3	10	30	0.9	2.8	Distributed through Library area
06	Computer Station	10	25	250	2.3	23.2	Each accommodates up to 1 to 2 children
	<i>Children's Collections</i>					0.0	
07	Fiction Collection	1		730		67.8	Accommodates 9,065 items on 73 five-shelf bays
08	French Fiction Collection			70		6.5	Accommodates 903 items on 7 five-shelf bays
09	OPAC Station	1		20		1.9	Locate prominently at end of stacks
10	Non-Fiction Collection	1		970		90.1	Accommodates 12,042 items on 97 five-shelf bays
11	French Non-Fiction	1		40		3.7	Accommodates 570 items on 4 five-shelf bays
12	International Collection	1		20		1.9	Accommodates 175 items on 2 five-shelf bays
13	Graphics Collection	1		80		7.4	Accommodates 862 items on 8 four- shelf bays
14	French Graphics Collection	1		30		2.8	Accommodates 272 items on 3 four- shelf bays
16	Junior DVD Collection	1		120		11.1	Accommodates 1,571 items on 12 four-shelf bays
17	Magazines Collection	1		10		0.9	6 titles on 1 four-shelf bay
18	Casual Seating	20	20	400	1.9	37.2	Distributed in collection areas
19	Group Table	6	50	300	4.6	27.9	Accommodates 4 each
20	Tutoring Pods	4	55	220	5.1	20.4	
21	Makerspace	1		750		69.7	Accommodates up to 35, with storage cabinets; should have glazed opening wall to main children's area and should be blackout capable
Total				4,360		405.1	
Grossing Factor				1.25		1.25	
Component Gross Area				5,450		506	

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FINAL DRAFT

COMPONENT OVERVIEW

Percentage Total: 5.3%



CGSF: 2,640 | CGSM: 245

Key Adjacencies

1

9. Makerspace

Provide convenient access by general circulation to the Makerspace for the movement of patrons.

2

8. Adults' Area

Provide convenient access by general circulation to the Non-Fiction collection area in the Adults' Area for the movement of teen patrons.

3

3. Library Entrance and Large Program Room

Provide convenient access by general Circulation to the Library Entrance and Large Program Room for the movement of young adult patrons.

4

11. Staff Workspaces

Provide convenient access by staff circulation from Staff Workspaces for the movement of staff working in this component.

Indicative images of Young Adults' Area spaces



Spatially-contained; dedicated collections & resources; unique seating & design

**FUNCTIONAL
DESCRIPTION**

The Young Adults' Area accommodates an Open Collection Area and a more spatially-contained Program Area. The Open Collection Area will be frequented not only by young adults, but also by adults. The Program Area is expected to be frequented mainly by young adults.

Users of this component are typically highly independent. They may work alone or in groups. Activities may be educational or recreational.

Features include:

- Proximate to Makerspace
- OPAC
- Collection layout and orientation signage
- YA Fiction and Graphic Novel collections
- Computer stations
- Gaming Space, including three lounge type gaming areas, plus three computer stations with additional area for friends/spectators
- Large projection screen to broadcast games
- Study seating and group activity spaces (reconfigurable tables and chairs)
- Mix of furniture types but all with built-in charging stations
- Open Program Area to accommodate 20.

Activities within the component include:

- Individual study and research
- Recreational reading
- Informal socializing
- Gaming, including computer based and console, with opportunity for broadcasting and spectating
- Programs related to collections and resources
- Browsing of print and electronic collection materials
- Roving employee assistance.

**OPERATIONAL
DESCRIPTION**

Hours of Operation

Hours of operation for this component will be same as other public functions within the Library. Current hours are indicated below:

	Open	Close
Monday-Friday	9:00 a.m.	8:30 p.m.
Saturday	10:00 a.m.	5:00 p.m.
Sunday	1:00 p.m.	5:00 p.m.

Patron Profile

Patrons are generally aged 13 to late teens and are here to access the content, programs and spaces provided. Patrons will include:

- Those who access the Library with family groups and who come to this component alone
- Patrons who are homeschooled
- Patrons who come in groups to study, socialize or work on school projects, who will also use other areas of the Library and who may use this area as a base
- Patrons who come to participate in a program
- Patrons who have come to use specialized equipment and resources in the Makerspace, and in the Young Adults' and Adults' Areas and who use this component as a base
- Patrons of all ages who may use this area when the area is not frequented by teens
- Patrons of all ages who access the Young Adults' collections.

Movement of Patrons

Patrons will access this component through general circulation routes after accessing the Library through the Library Entrance and Large Program Room.

After accessing the component, patrons will go to the Open Collection Area or to the more contained program areas for independent and group activities. Activities may be scheduled or not.

Movement of Materials

Materials for young adult collections will arrive through the Materials Handling Room in the Library Entrance and Large Program Room component where they will be placed on book trucks and brought to this component by way of service elevator.

Materials used by patrons while in the component but not borrowed will be picked up by staff from tables and designated collection drop-off shelves, and re-shelved as required.

The vast majority of collection resource materials will leave this component carried by Library patrons.

Movement of Staff

Staff who provide services in this component will be based in the Staff Workspaces component. Employees may access this component by way of the public circulation routes or staff/service circulation routes, depending on convenience.

A Service Desk is not provided in this component; staff will generally provide roving services to patrons.

WORKLOADS

The primary workload associated with this component involves collection size and patron accommodation.

Patron Accommodation

The following table identifies the occupancy of each space within this component.

Type	Number Spaces	Number of Seats	Total Occupants
OPAC Station	1	-	1
Computer Station	3	2	6
Informal Seating	1	12	12
Group Table Seating	4	4	16
Open Program Area	1	20	20
Console Gaming Stations	3	4	12
Computer Gaming Stations	3	4	12
Total			79

Collection

Assumptions for the future collection size are provided below. Collection size is anticipated to increase in the future; however, magazines, CDs and DVDs are not anticipated in the longer-term future but will be provided in the shorter term.

Type	Total Items	Circulation Rate	Items on Shelves
Adult/YA Graphic Novels	3,510	40%	2,106
YA Fiction Books	4,481	20%	3,585
Total	7,991		5,691

STAFFING AND OCCUPANCY ESTIMATES

Estimated staffing and occupancies for this component are summarized below in full-time equivalents (FTE), headcounts, and maximum occupancy.

Type	Existing FTE	Future FTE	Total Headcount	Maximum Occupancy
Library Patrons	-	-	-	79
Library Staff – Roving	-	-	-	1 – 2
Total	-	-	-	80 – 81

DESIGN CRITERIA

Design criteria relevant to this component address unique conditions and design features required in the space.

For planning criteria that apply to the exterior generally, see the General Planning Criteria section of the Functional Program.

Design Relationships

Architectural Concepts

- The Young Adults' component must be defined as a distinct space.
- The component includes two zones which are quite different in nature: the Open Collection Area is open to general Library space and will be frequented by patrons of all ages. The Program Area is spatially defined and is intended to be for young adult patrons.
- The safety of young adult patrons is paramount and should be safeguarded by ensuring that all areas of this component are highly visible, particularly by staff working in this and other component service areas. However, the high visibility should create an experience of safety, not one which detracts from the autonomy of patrons.
- This component should feature natural light and views to the exterior. The component should be a feature facility and be visible from the exterior.
- Activity levels will range from individual (writing/reading/study) to communal and gregarious. A variety of study and social environments should be provided with provision to mitigate noise levels.
- To support the wide range of needs within this patron group, including privacy, public accommodation should include a mix of "seating" types, including individual carrels or pods, group tables, and stand-up/perching stations.

Interior Design Concepts

- Seating should be teen-friendly, both in terms of design and robustness.

- Furniture should be moveable so that patrons can create their own groupings and arrangements.
- The component should feature strong design elements that reflect the interests of young adults.
- Some of the collection materials should be accommodated on moveable bays to support open programming.

Operational Concepts

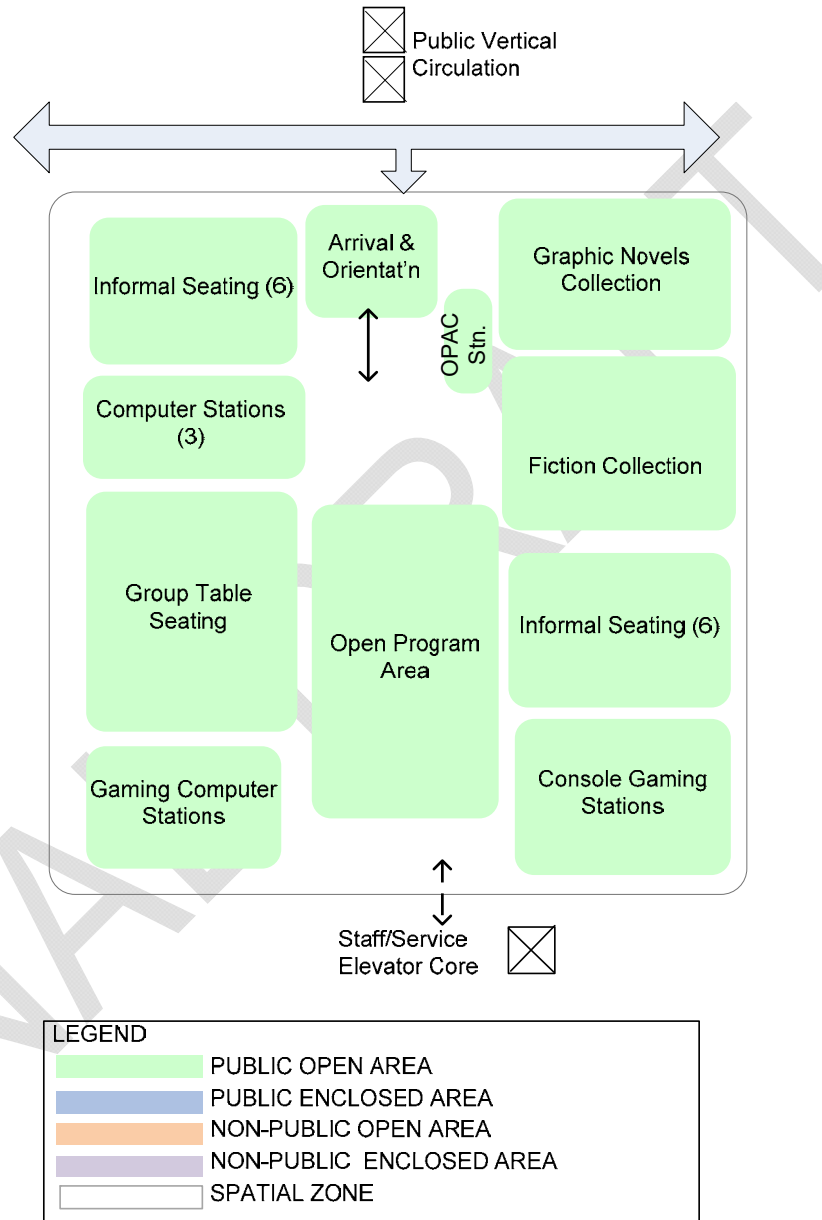
- Young adult patrons will use the adult collection areas, although they may base themselves in this component. In particular, young adult patrons are expected to use the Makerspace.
- This component will have unique patterns of use during the school year. It may be more highly used at lunchtime, after school and in the evening. It will be highly used on weekends.

Building Systems Concepts

- Electrical outlets should be integrated into seating or be easily accessible from seating. A comparatively higher number of electrical outlets should be provided in this component than in other public components as young adult patrons are high users of electronic devices.

Functional Relationship Diagram

The spatial organization of this component will be generally as shown in the diagram below.



NOTE:

Component functional diagrams are conceptual only – actual layouts will be explored in schematic design and developed in the detailed design process.

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FINAL DRAFT

Space Requirements

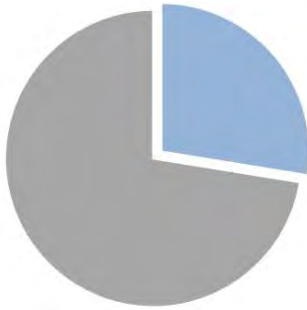
Ref	Space	Units	Area/Unit (nsf)	Area (nsf)	Area/Unit (nsm)	Area (nsm)	Comments
01	Arrival and Orientation Point	1		100		9.3	Incl. gateway features, orientation, events notices, and directional signage, bench seating for 10
02	Collection Layout Signage	1		10		0.9	Incl. print and digital displays conveying content and layout of the Collection, associated resources and related programs
03	OPAC Station	1		20	0.0	1.9	Adjacent to Collection
04	Fiction Collection – General	1		360		33.4	3,585 volumes on 36 5-shelf bays; incl. factor for aisle and cross aisles
05	Graphic Novel Collection	1		180		16.7	Incl. 18 4-shelf bays for 2,106 graphic novels
06	Computer Stations	3	35	105	3.3	9.8	Collaborative Stations
07	Informal Seating	12	25	300	2.3	27.9	Dispersed at component perimeter
08	Group Table Seating	4	90	360	8.4	33.4	Reconfigurable tables and chairs
09	Open Program Area	1		300		27.9	
10	Console Gaming Stations	3	75	225	7.0	20.9	Accommodates 3 to 4 each
11	Gaming Computer Station	3	50	150	4.6	13.9	Accommodates 3 to 4 each
Total				2,110		196.0	
Grossing Factor				1.25		1.25	
Component Gross Area				2,640		245	

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FINAL DRAFT

COMPONENT OVERVIEW

Percentage Total: 26.4%



CGSF: 13,215 | CGSM: 1,228

Key Adjacencies

1

10. Quiet Study Room

Provide direct access by general circulation to the Quiet Study Room for the movement of Library patrons and staff.

2

7. Young Adults' Area

Provide convenient access by general circulation to the Young Adults' Collection for the movement of young adult patrons using this component.

3

3. Library Entrance and Large Program Room

Provide convenient access by general circulation to the Library Entrance and Large Program Room for the movement of patrons accessing this component.

4

12. Back-of-House Functions

Provide convenient access by staff/service circulation to the Materials Handling Workroom in Back-of-House Functions for the movement of materials.

This component will house the Adult Non-Fiction Collection and the Adult Fiction Collection.

Total Collection Items	61,740
Arrival Seats	4
Large Print Collection – Seats	2
OPAC Stations	2
Single Table Seats	40
Computer Commons – Stations	20
Small Group Room	4
Readers Lounge – Seats	24
Program Room – Capacity	40
Meeting Room – Capacity	10

Indicative images of Adults' Area spaces



Adult non-fiction, fiction, browsing, study, reading & discovery

**FUNCTIONAL
DESCRIPTION**

This component will house the Adult Non-Fiction Collection and the Adult Fiction Collection.

Both areas include space for collection storage and display, Service Points, self-directed individual, and group user activities such as browsing, quiet reading, and studying.

Features include:

- OPACs
- Self-checkout stations
- Dewey collection with highlighted focus areas
- Self-help study and seating
- Centralized service desk and in-stack perching areas for staff
- Four small group rooms for four people each, all highly glazed
- Computer Commons with high end printers
- Browsing chairs with Large Print and with Fiction collections
- 40 single tables
- 24 lounge seats in Readers' Lounge and 20 distributed in collection areas
- Program Room for 40 on Level 2 or Level 3
- Meeting Room for 10
- Corral alcove for 15 book trucks.

Collections

All collection resources are circulating resources that will be used extensively by those interested in reading for enjoyment and for lifelong learning, research and study.

Each collection has a unique character and profile of use:

Fiction Collection

The Fiction Collection comprises a popular and current reading collection. Some of the materials may be grouped by genre.

Paperback Fiction Collection

This sub-collection will be located in proximity to the Fiction Collection on specially configured shelving.

Non-Fiction Collection

The Non-Fiction Collection must be flexible to accommodate changing community interests and changing collection organization and display systems, including general organization using Dewey and special focus areas or subject 'neighbourhoods' addressing specific topics.

Large Print

This collection includes materials printed in large font to support visually challenged customers.

Adult French Collection

This collection includes a mix of fiction and non-fiction materials printed in French.

International Languages Collection

This collection area includes books for patrons who seek resources in languages other than English and French.

Literacy Collection

This collection includes materials appropriate for adults learning to read in English.

Biography Collection

This collection includes biographies and autobiographies.

Activities within the component include:

- Arrival and orientation at the component entrance
- Answering collection and information queries at a Service Desk and by roving staff
- Self-check of materials
- Use of OPACs to find Library materials
- Storage, maintenance, display and access of physical collections
- Public use of computers with Office productivity software and Internet connection
- Printing and scanning of materials
- Individual study and research
- Recreational reading
- Informal socializing
- Maker activities, with a digital literacy focus
- Group programs sponsored and organized by the Library or a partner organization
- Programs for adults of all ages
- Group meetings, including scheduled and ad hoc meetings
- Exam proctoring
- Storage of Program Room furniture.

**OPERATIONAL
DESCRIPTION**

Hours of Operation

Hours of operation for the component will be the same as opening hours of the Library. Current hours are indicated below:

	Open	Close
Monday-Friday	9:00 a.m.	8:30 p.m.
Saturday	10:00 a.m.	5:00 p.m.
Sunday	1:00 p.m.	5:00 p.m.

Patron Profile

The Fiction Collection will typically attract adults who read fiction.

The Non-Fiction Collection will typically attract those with a special interest in a part of the spectrum of knowledge and information, including:

- Adults interested in lifelong learning
- Students engaged in formal education programs.

The Large Print Collection will typically attract:

- Older adults with vision challenges
- Patrons picking up materials for others.

The Literacy Collection will typically attract:

- Those learning English as a second language
- Those who may have challenges with reading and reading comprehension.

The International Languages Collection will typically attract those who read in languages other than English and French.

The open study and reading space will typically attract those reading or studying for formal or informal and lifelong learning purposes.

Movement of Patrons

Patrons will access this component through general circulation routes after accessing the Library through the Library Entrance and Large Program Room.

Patrons will use general circulation to access this component on Level 2 of the building arriving at the Arrival and Orientation Area. They will move to their respective destinations, including the collections, programming spaces, and reading and study activity areas occurring in seating and other spaces distributed among collection resources and at the glazed perimeter of the component.

Some patrons will be self-directed in both their browsing of the collection, and their subsequent reading/study of materials, occasionally assisted by services provided from staff at a nearby service desk and/or by roving staff. Other patrons may require more assistance to navigate the collection.

Both scheduled and spontaneous program presentations and interaction will occur in the Program and Meeting Rooms.

Movement of Materials

Materials for adult collections will arrive through the Materials Handling Room in the Library Entrance and Large Program Room component where they will be placed on book trucks and brought to this component by way of service elevator.

Collection storage and display will occur primarily on medium-height, typically 5 to 6-shelf bays, with up to 72" shelving used strategically to help define space, and where shelving is wall-mounted. Collections should feature face-out and shelf-end displays.

Materials used by patrons while in the component but not borrowed will be picked up by staff from tables and designated collection drop-off shelves, and re-shelved as required.

Collection resources requiring re-shelving after borrowing will be moved by staff from the service elevator to the collection area of the component on book trucks.

The vast majority of materials will leave this component carried by Library users.

Movement of Staff

Staff who provide services in this component will be based in the Staff Workspaces component. Employees may access this component by way of the public circulation routes or staff/service circulation routes, depending on convenience.

A Service Desk is provided in this component overseeing all public areas on Level 2; staff will also provide roving services to patrons.

WORKLOADS

Patron Accommodation

The following table identifies the occupancy of each space within this component.

Type	Number of Spaces	Number of Seats	Total Occupants
Arrival Seats	1	4	4
OPAC Station	2	-	2
Self-Check Station	1	-	1

Type	Number of Spaces	Number of Seats	Total Occupants
Computer Commons	1	20	20
Large Print Browsing Chair	1	2	2
Fiction Browsing Chair	1	2	2
Program Room	1	40	40
Readers Lounge	1	24	24
Distributed Lounge Chair	16	1	16
Small Group Room	4	4	16
Single Table Seat	40	1	40
Meeting Room	1	10	10
Total			177

Collection

Assumptions for future collection size are provided below. Overall collection size is anticipated to increase in the future; however, magazines and DVDs are not anticipated in the longer-term future but will be provided in the shorter term.

Type	Total Items	Circulation Rate	Items on Shelves
Fiction Collection	28,053	20%	22,442
Non-Fiction Collection	26,426	15%	22,462
Paperback Collection	1,864	40%	1,118
Adult French Collection	84	30%	59
Large Print Collection	1,715	20%	1,372
International Collection	436	5%	414
Biography Collection	2,730	20%	2,184
Literacy Collection - items	432	4%	415
Total	61,740		50,466

STAFFING AND OCCUPANCY ESTIMATES

Estimated staffing and occupancies for this component are summarized below in full-time equivalents (FTE), headcounts, and maximum occupancy.

Type	Existing FTE	Future FTE	Total Headcount	Maximum Occupancy
Library Patrons	-	-	-	177
Library Staff – Service Point	-	-	-	2
Total	-	-	-	179

DESIGN CRITERIA

Design criteria relevant to this component address unique conditions and design features required in the space.

For planning criteria that apply to the interior generally, see the General Planning Criteria section of the Functional Program.

Design Relationships

Architectural Concepts

- An Arrival and Orientation Area should be provided for patrons as they access the component. It should include signage that introduces patrons to the layout and distribution of the collections and associated accommodation.
- A rational and sequential layout of collections resources should allow for optimal patron orientation and access.
- Focus collections will be located strategically throughout the Non-Fiction collections to enhance browsing and provide varied patron experiences, visual interest and distinctive smaller quiet reading areas.
- A defined and contained Readers Lounge will accommodate individual reading and study.
- The Small Group Rooms should be grouped together in proximity to the Non-Fiction Collection.
- The Book Truck Corral should be located in an alcove in a discreet location.

Interior Design Concepts

- As the overall floor area is anticipated to be large, it will be essential that interior design concepts:
 - avoid the impression of a monotonous or featureless ceiling plane
 - create a simple easily understood organization of functions
 - create a zone of activity at the centre of the space with quieter areas along the edge of the space
 - create a distinct sequence of spaces by combining movement paths, collection areas, and internal and perimeter destinations
 - use varied shelving heights, focused lighting, suspended ceiling panels and overhead signage to create a hierarchy of spatial and functional focal points.
- Design and location of the Service Desk must provide visual access and clear sightlines to all areas of the component.
- Clearly visible signage must be provided in all areas to enhance the self-service concept.
- Collection areas must be inviting, comfortable and visually interesting. Within the general collection area, focus areas should be created as interesting destinations, possibly with unique features.
- Shelving should be arranged to avoid creating an experience of visual and/or physical obstruction, and should be oriented to

maximize sightlines across the component and to the various service and focus destinations within the component.

- Opportunities for strategically placed face-out Collection resources should be maximized and include both inset face-out shelving units as well as stack-end display units.
- As the sizes of the collections grow or shrink, more or less of the collection may be organized as face-out display. Ongoing changes in collection size can be expected in the future.
- Floor surfaces should make use of a durable, easily cleaned, acoustically absorbent material on which loaded book trucks can be moved easily and quietly.

Operational Concepts

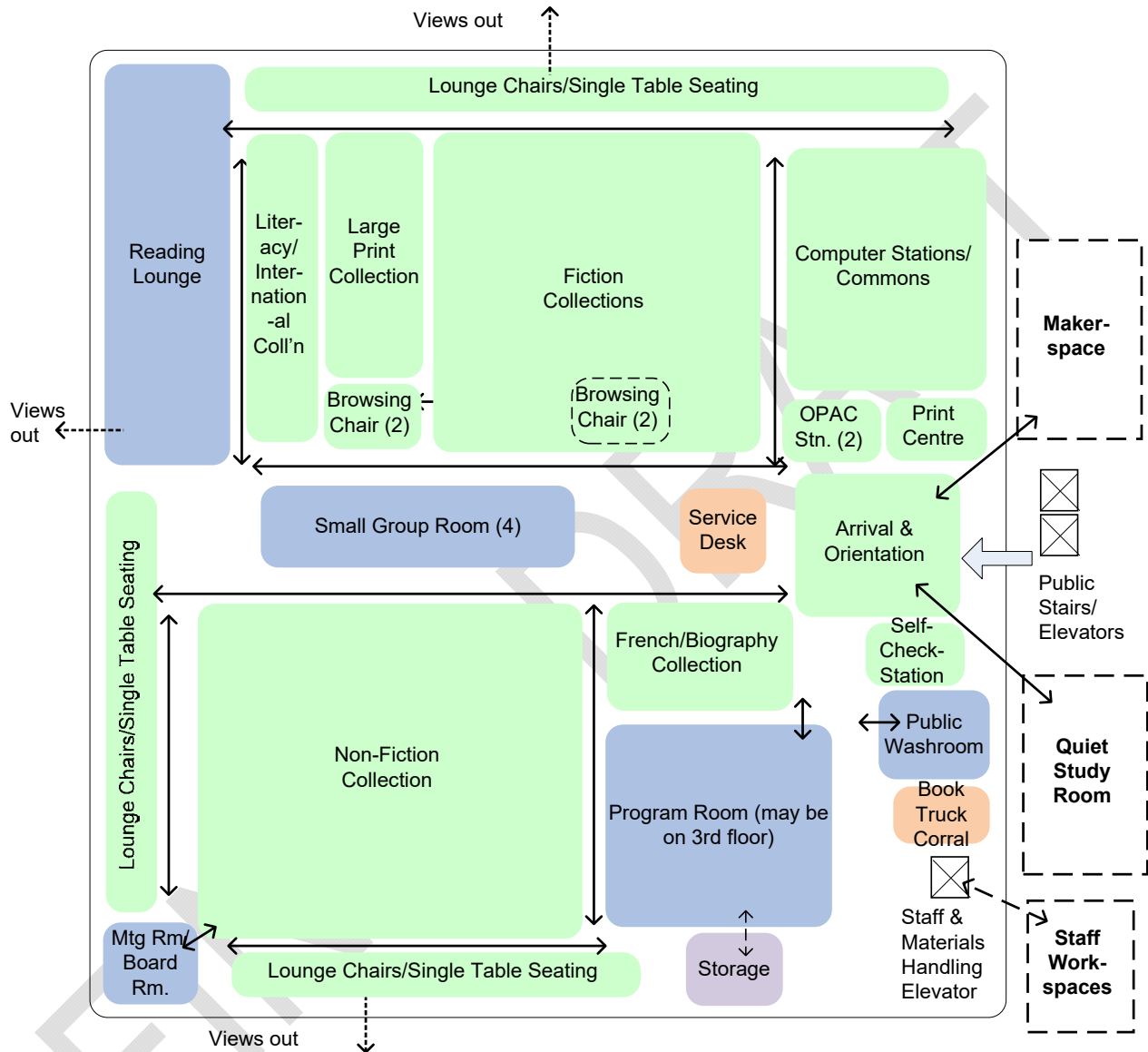
- The Non-Fiction Collection may be arranged in a modified Dewey order with interspersed feature focus areas and displays.
- Collection resources will typically be stored and displayed on 3-foot-wide bays, each with five to six shelves. Allowances for shelving units include an allowance for the user circulation spaces between storage units.

Building Systems Criteria

- Shelving should have integrated lighting which can assist in creating collection 'neighbourhoods'/focus areas.
- Patron seating should be equipped with task lighting and individual power supply.
- Individual power supply should be provided for lounge seating.
- Individual power and data are required at all workstations in the Computer Commons.

Functional Relationship Diagram

The spatial organization of this component will be generally as shown in the diagram below.



LEGEND	
	PUBLIC OPEN AREA
	PUBLIC ENCLOSED AREA
	NON-PUBLIC OPEN AREA
	NON-PUBLIC ENCLOSED AREA
	SPATIAL ZONE

NOTE:

Component functional diagrams are conceptual only – actual layouts will be explored in schematic design and developed in the detailed design process.

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FINAL DRAFT

Space Requirements

Ref	Space	Units	Area/Unit (nsf)	Area (nsf)	Area/Unit (nsm)	Area (nsm)	Comments
01	Arrival and Orientation Area	1		120		11.1	Incl. gateway features, orientation, events notices, and directional signage, bench seating for 4
02	Collection Layout Signage	1		15		1.4	Incl. print and digital displays conveying content and layout of the Collection, associated resources and related programs
03	Service Desk	1		80		7.4	Locate with views to all public areas of this component and of Floor Level 2
04	OPAC Station	2	15	30	1.4	2.8	Distributed in Collection area
05	Self-Check Station	1		20		1.9	Locate near the Arrival and Orientation Area
06	Print Centre	1		50		4.6	
07	Computer Commons	1		700		65.0	Locate in a group near the Service Desk and Print Centre
08	Large Print Collection	1		200		18.6	Incl. 20 four-shelf bays for 1,372 vol. (72 volumes per bay); incl. factor for aisle and cross aisles
09	Browsing Chair	2	25	50	2.3	4.6	For browsing Large Print Collection
10	French Collection	1		10		0.9	Incl. 1 five-shelf bay for 125 volumes
11	International Languages Collection	1		50		4.6	Incl. 5 five-shelf bay for 414 volumes
12	Non-Fiction Collection	1		2,110		196.0	22,462 volumes on 211 five and some six-shelf bays; incl. factor for aisle and cross aisles
13	Fiction Collection – General	1		2,250		209.0	22,442 volumes on 225 five-shelf bays; incl. factor for aisle and cross aisles
14	Browsing Chair	2	25	50	2.3	4.6	Distributed, for browsing Fiction Collection
15	Fiction Collection – Paperback	1		100		9.3	1,118 volumes on 11 six-shelf bays; incl. factor for aisle and cross aisles
16	Biography Collection	1		220		20.4	Accommodates 2,284 volumes on 24 five-shelf bays
17	Literacy Collection	1		30		2.8	Accommodates 415 volumes on 3 five-shelf bays
18	Program Room	1		900		83.6	Accommodates 40 people; placed with views to exterior; incl overhead digital projector, retractable screen,

Ref	Space	Units	Area/Unit (nsf)	Area (nsf)	Area/Unit (nsm)	Area (nsm)	Comments
19	Storage	1		100		9.3	sound system, white boards, AV control panel
20	Readers Lounge	1		720		66.9	Accommodates 24 soft seats; locate with views to the exterior and chairs oriented to the views
21	Lounge Chairs, Distributed	16	30	480	2.8	44.6	Locate in groups
22	Small Group Room	4	120	480	11.1	44.6	Locate in a group near to the Non-Fiction Collection
23	Single Table Seating	40	25	1,000	2.3	92.9	Dispersed at component perimeter
24	Meeting Room/Board Room	1		225		20.9	Accommodates 10; includes whiteboard and large monitor
25	Public Washroom	2	160	320	14.9	29.7	Allowance, to be confirmed
26	Universal Washroom	1		60		5.6	Incl. baby change table
27	Janitors Closet	1		80		7.4	
28	Booktruck Corral	1		120		11.1	Accommodates 15 book trucks in alcove
Total				10,570		982.0	
Grossing Factor				1.25		1.25	
Component Gross Area				13,215		1,228	

COMPONENT OVERVIEW

Percentage Total: 3.9%



The APL makerspace is an innovative community hub providing opportunities to create, engage, and discover using existing and emerging technologies to promote lifelong learning.

Open Space Occupancy	10
Staff desk	1
Digital Workstation	10
Non-Digital Workstation	10
Special technology Station	5
Print Station	1
Video Recording Station	2

CGSF: 1,950 | CGSM: 180

Key Adjacencies

1

7. Young Adults' Area

Provide convenient access by general circulation to the Young Adults' Area to allow for the frequent movement of young adult patrons.

2

8. Adults' Area

Provide convenient access by general circulation to the Adults' Area to allow for the frequent movement of adult patrons.

3

6. School Age Children's Area

Provide convenient access by general circulation to the School Age Children's Area to allow for the frequent movement of younger patrons.

4

11. Staff Workspaces

Provide convenient access by dedicated service/staff circulation to adjacent Staff Workspaces for the movement of staff.

Indicative images of Makerspace spaces



Discovery, experimentation, design and creation, new technologies, multimedia projects

**FUNCTIONAL
DESCRIPTION**

Makerspace is an innovative community hub providing opportunities to create, engage, and discover using existing and emerging technologies to promote lifelong learning.

It will involve individual and group exploration, and the design and creation of small-scale projects using digital technologies.

Library patrons of all ages may use these spaces as designated. Projects may be user-initiated and directed, or staff-assisted; they will use existing and emerging digital technologies, including, among others, artificial intelligence, robotics, video production, and 3D printing.

The space will require dedicated and custom designed workstations, and will require specialized lighting and ventilation, as well as special furnishings and equipment; secure storage will be essential.

Features include:

- Arrival and orientation area
- The main Makerspace with a small staff service point
- Video recording room
- Secure storage spaces.

Activities within this component include:

- Display and storage of products and works in process
- Group orientations to programs, protocols, space and equipment
- Individual and group exploration, design and creation of digital project work, including artificial intelligence, robotics, and 3D printing
- Video production and editing
- Storage of equipment, materials, tools, and supplies.

**OPERATIONAL
DESCRIPTION**

Hours of Operation

This component will typically be available during regular opening hours, However, depending on the need for staff supervision, some specialized hours of operation may be required.

	Open	Close
Monday-Friday	9:00 a.m.	8:30 p.m.
Saturday	10:00 a.m.	5:00 p.m.
Sunday	1:00 p.m.	5:00 p.m.

Patron Profile

Patrons will include young adults and adult patrons who bring leading edge concepts and emerging technologies into their projects.

Movement of Patrons

Patrons will access this component from other components through general circulation.

Patrons may work unsupervised independently or in small groups.

They may work supervised in small groups in scheduled programmed staff-led activities.

Patrons may be involved in sequential visits while working on ongoing projects.

Movement of Materials

Supplies and equipment will typically be brought to this component from Back-of-House Functions.

Some materials and equipment will be stored in this component.

Patrons may sometimes bring materials and equipment required for project work.

Movement of Staff

Staff, typically based in component 11. Staff Workspaces and component 3. Library Entrance and Large Program Room will not be routinely based in this component but will be present during scheduled times to complete user orientations, oversee activities, advise on resource uses and projects in process.

WORKLOADS

Activities in the Makerspace may be staff-organized or user-initiated; Typically, individual and group activities will be scheduled.

Additionally, there may be activities organized and/or facilitated by community members.

Workloads associated with this component involves the number of concurrent self-initiated and scheduled staff-assisted projects occurring.

Patron Accommodation

Type	Number of Spaces	Number of Seats	Total Occupants
Open Space	-	10	10
Makerspace:	-	-	-
Individual/Group Workspace	10	1	10
Computer Station	10	1	10
Special Technology Station	5	1	5
Video Recording Room	1	2	2
Total			37

Collections

Print library materials will be displayed but not housed in the Makerspace. There will be a significant inventory of unconventional resource materials such as supplies, tools, and equipment.

STAFFING AND OCCUPANCY ESTIMATES

Estimated staffing and occupancies for this component are summarized below in full-time equivalents (FTE), headcounts, and maximum occupancy.

Type	Existing FTE	Future FTE	Total Headcount	Maximum Occupancy
Library Staff	-	-	-	1
Patrons	-	-	-	37
Total	-	-	-	38

DESIGN CRITERIA

Design criteria relevant to this component address unique conditions and design features required in the space.

For planning criteria that apply to the interior generally, see the General Planning Criteria section of the Functional Program.

Internal Relationships

Architectural Concepts

- The component should provide an arrival space that allows an immediate understanding of the layout and distribution of services and technologies.
- An enclosed and partially glazed group instruction room (with easily re-arranged furnishings) will allow for group activities and programs.
- Semi-private computer workstations will support project creation and design.

Interior Design Concepts

- Technology resources should be grouped by type. Some resources will attract more activity; some will require minimal distraction and increased focus.
- Open demonstration and instructional space may be created periodically by the rearrangement of lightweight furnishings.
- All technology should be arranged to avoid creating an experience of visual and/or physical obstruction and should be oriented to maximize sightlines across the component.
- Floor surfaces should make use of a durable, easily cleaned and acoustically absorbent material.

Operational Concepts

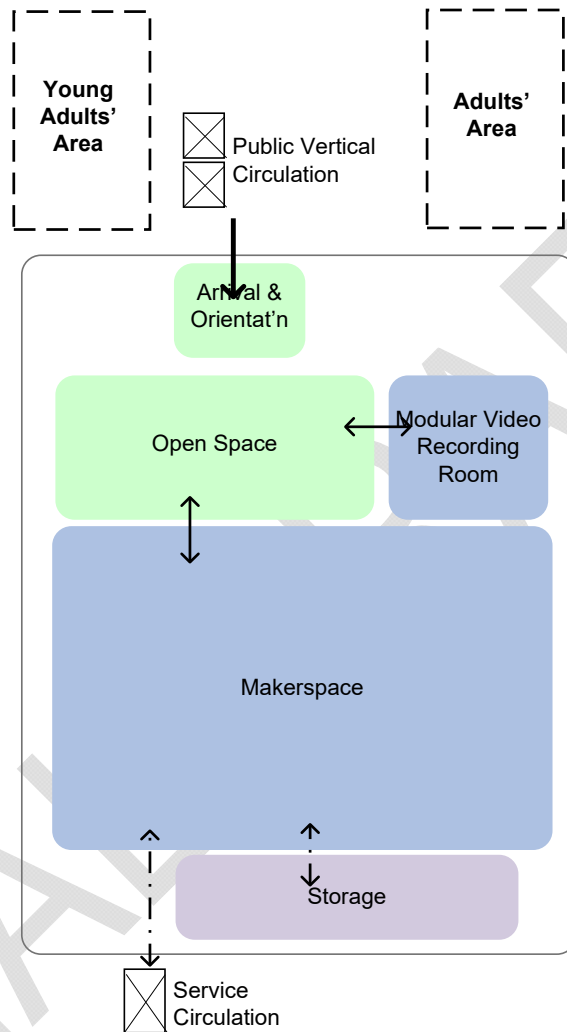
- The component does not require direct adjacency to non-public staff workspace.

Building Systems Criteria

- Patron technology stations will be semi-private workstations equipped with larger work surfaces and power supply.
- Equipment used to create projects, such as 3D printing, will result in the need for special ventilation.

Functional Relationship Diagram

The spatial organization of this component will be generally as shown in the diagram below.



LEGEND	
	PUBLIC OPEN AREA
	PUBLIC ENCLOSED AREA
	NON-PUBLIC OPEN AREA
	NON-PUBLIC ENCLOSED AREA
	SPATIAL ZONE

NOTE:

Component functional diagrams are conceptual only – actual layouts will be explored in schematic design and developed in the detailed design process.

Space Requirements

Ref	Space	Units	Area/Unit (nsf)	Area (nsf)	Area/Unit (nsm)	Area (nsm)	Comments
01	Arrival and Orientation Point	1		100		9.3	Incl. gateway features, orientation, events notices, and directional signage, project display space
02	Open Space	1		240		22.3	Incl. 10 study table seats
03	Makerspace	1		875		81.3	Accommodates 25 people at tables and assumes use of laptops; large movable door/wall to integrate space into other area; incl. staff desk and wall-mounted shelving for collection display
04	Storage	1		330		30.7	For laptop cart, mobile locked storage carts, and wall-mounted storage cupboards with glazed doors, storage for works in process
05	Modular Video Recording Room	1		80		7.4	
Total				1,625		151.0	
Grossing Factor				1.20		1.20	
Component Gross Area				1,950		180	

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FINAL DRAFT

COMPONENT OVERVIEW

Percentage Total: 2.4%



CGSF: 1,205 | CGSM: 110

Key Adjacencies

1 8. Adults' Area

2 11. Staff Workspaces

The Quiet Study Room will be an upper-level retreat space removed from the more main floor areas of the Library.

Local History Collection – Volumes	255
Local Authors Collection – Volumes	85
Genealogy Collection – Volumes	232
Reference Collection – Volumes	86
Patron Seats	30
Roof Deck – Seats	(15)

Provide direct access by general circulation from the Adults' Area for the movement of patrons.

Provide convenient access by general circulation to the Staff Workspaces for the frequent movement of library staff.

Indicative images of Quiet Study Room spaces



Seclusion, privacy, refuge, views out, natural light, silence

**FUNCTIONAL
DESCRIPTION**

The Quiet Study Room will be a second floor retreat space removed from the more active areas of the Library.

This space is intended to provide a refuge for quiet reading and study, typically involving adult patrons.

It is not intended as an active group study or social destination, nor as a destination for children.

The design and environment of this space should echo traditional library reading spaces but should be interpreted in a contemporary way.

Within the space, the selection of furnishings and the design of workstations and reading stations will be critical in establishing the tone and the level of comfort in the space.

Additionally, environmental features such as the level of acoustics, the flexibility of lighting systems, and the reconfigurability of furnishings will greatly add to the value of the space as a destination in the building.

Significantly, this space should offer the best exterior views of the City and of distant natural features and topography.

Features include:

- Quiet seating for 30 people at study tables and individual chairs
- Fireplace area with lounge seating
- Circulating and non-circulating collections, including:
 - Local history
 - Local authors
 - Genealogy
 - Reference.

Activities within the component include:

- Independent reading and study
- Storage and access of collections
- Seasonal occasional quiet reading and viewing on the Roof Deck.

**OPERATIONAL
DESCRIPTION**

Hours of Operation

Hours of operation for this component will be determined as the operational profile of the future Library evolves. The current hours of opening are as follows:

	Open	Close
Monday-Friday	9:00 a.m.	8:30 p.m.
Saturday	10:00 a.m.	5:00 p.m.
Sunday	1:00 p.m.	5:00 p.m.

Patron Profile

Patrons will include:

- Patrons focussed on specific research and/or recreational reading/studying
- Adult patrons, accessing the specialized collections located here.

Movement of Patrons

Patrons may stay in this component for extended periods.

Typically, patrons will be solitary.

Movement of Materials

Patrons may bring their own materials required for study and/or reading.

Patrons may access collection materials in the Adults' Area of the Library and bring them to this component for study and reading.

Patrons will sometimes access collection resources in this component and return them to shelving areas after use.

Movement of Staff

Staff will be present in this component only when required for collection maintenance or periodic roving supervision.

Staff will monitor this space, re-shelving items after patron use, and ensuring the Room is being used in a safe and respectful manner.

WORKLOADS

The workload associated with this component involves the level of public attendance.

Patron Accommodation

The following table identifies the occupancy of spaces within this component.

Type	Number of Spaces	Number of Seats	Total Occupants
Fireside Seats	1	10	10
Study Tables (10)	10	2	20
Roof Deck Seat	-	(5)	(5)
Roof Deck Bench	-	(10)	(10)
Total			30

Collection

Assumptions for collection size are provided below. The Collection size may increase in the future.

It is assumed that with the exception of the Local History Collection, all collection items in this component will be non-circulating.

Collections items will be stored and displayed face out as much as possible.

Type	Total Items	Circulation Rate	Items on Shelves
Local History Collection	300	15%	255
Local Authors	100	15%	85
Genealogy Collection	273	15%	232
Reference Collection	86	0%	86
Total	759		658

STAFFING AND OCCUPANCY ESTIMATES

Estimated staffing and occupancies for this component are summarized below. No staff will be permanently located in this component.

Type	Existing FTE	Future FTE	Total Headcount	Maximum Occupancy
Staff	-	-	-	1
Patrons	-	-	-	30
Total	-	-	-	31

DESIGN CRITERIA

Design criteria relevant to this component address unique conditions and design features required in the space.

For planning criteria that apply to the exterior generally, see the General Planning Criteria section of the Functional Program.

Design Relationships

Architectural Concepts

- If this space is located on the second level with views to the exterior.
- It is assumed that this space will be spatially separated by a glazed wall from the adjacent arrival zone to ensure silence.
- It must have three zones: the fireplace seating area, the study tables area, and collection display area.
- Collection shelving may be used to delineate these zones.
- Access to each zone should not compromise activities taking place in the other zone.
- Access to the Roof Deck, for occasional visitors and patrons of the quiet study space, should be near the entrance to this space to prevent disruption of quiet activities taking place within.

Interior Design Concepts

- This component should be identifiable as the quiet sanctuary in the Library.
- The space should have a strongly enclosing “interior” wall and an open area adjacent to large windows, Roof Deck and views.
- The fireplace and adjacent seating area should be near the enclosing “interior” wall.
- Interior design elements should reflect traditional library reading rooms spaces, using muted colours, and natural wood, but reflecting modern rather than traditional design.
- Flooring should be carpet tile that accommodates book truck movement.
- Ceiling treatment should be used to reinforce the functional zoning below.
- Lighting will be critical: there must be anonymous general lighting systems: independently controllable local area lights are necessary.
- All seats at tables should have independently controlled attractive desk top lights and power.

- There should be comfortable upholstered furnishings in the fireplace area and ergonomic and adjustable furnishings at all table seats.
- All stand-alone collection shelving will be a maximum of 60 inches high, with 72" shelving used against walls.

Operational Concepts

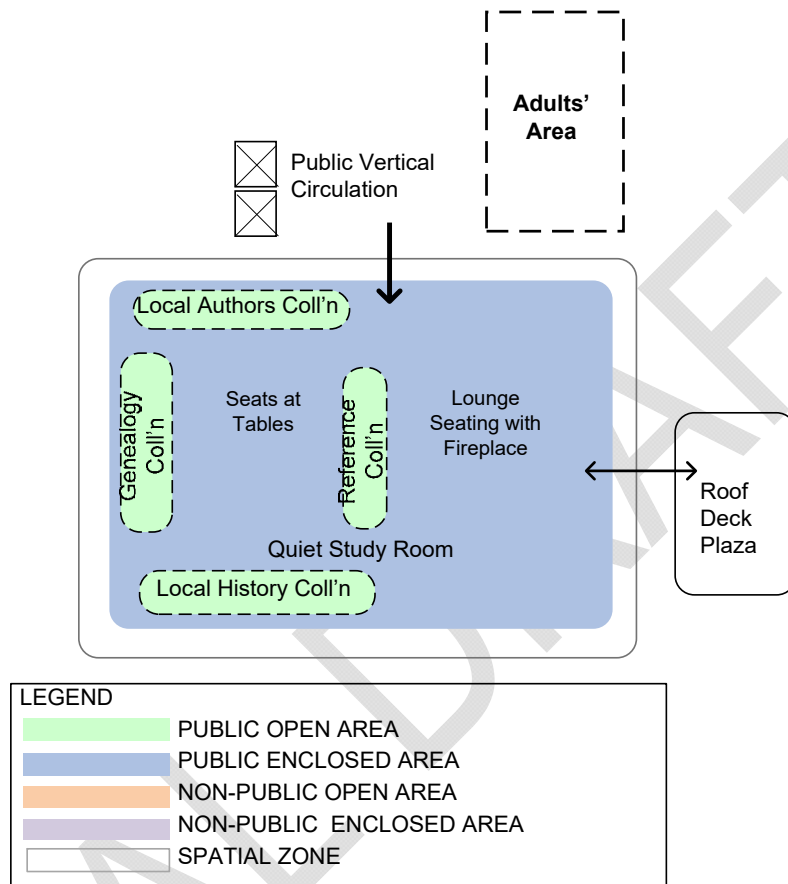
- Distributed power connections for portable computers are essential.
- Fireplace controls will not be publicly accessible.
- Local lighting controls will be publicly accessible.

Building Systems Criteria

- Large windows will require light control blinds for evening and summer conditions.
- Acoustic shielding will be required throughout this room.
- Acoustic shielding will be required to prevent noise intrusion from any nearby rooftop ventilation units.
- No digital devices will be provided by the Library in this component, although power outlets should be provided at each patron workspace for personal laptop use.

Functional Relationship Diagram

The spatial organization of this component will be generally as shown in the diagram below.



NOTE:

Component functional diagrams are conceptual only – actual layouts will be explored in schematic design and developed in the detailed design process.

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FINAL DRAFT

Space Requirements

Ref	Space	Units	Area/ Unit (nsf)	Area (nsf)	Area/ Unit (nsm)	Area (nsm)	Comments
01	Quiet Study Room	1		975		90.6	Incl. reconfigurable seats and tables for 30; fireplace
02	Local History Collection	1		50		4.6	255 volumes on 5 five-shelf bays; incl. factor for aisle and cross aisles
03	Local Authors	1		20		1.9	100 volumes on 2 five-shelf bays
04	Genealogy Collection	1		30		2.8	273 volumes on 3 five-shelf bays
05	Reference Collection	1		20		1.9	86 volumes on 2 four-shelf bays
	Roof Deck						600 square feet (55.7sm) bench and individual seating for 15
Total				1,095		101.7	
Grossing Factor				1.10		1.10	
Component Gross Area				1,205		110	

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FINAL DRAFT

COMPONENT OVERVIEW

Percentage Total: 9.5%



This component accommodates the workspace of staff in senior administration, Technical Services, and IT as well as centralized staff support spaces.

Total Staff Workspaces	17
Meeting Room – Capacity	10
Staff Lunch Room – Capacity	15
Staff Lockers	40

CGSF: 4,760 | CGSM: 442

Key Adjacencies

1

8. Adults' Area

Provide convenient access by dedicated service/staff_circulation to Adult Collection for the movement of staff providing service.

2

5. Pre-School and
6. School Age
Children's Areas

Provide convenient access by dedicated service/staff_circulation to the Children's Areas for the movement of staff providing service.

3

7. Young Adults' Area

Provide convenient access dedicated service/staff_circulation to Young Adults' for the movement of staff providing service.

4

4. Community Living
Room

Provide convenient access by dedicated service/staff_circulation to Community Living Room for the movement of staff providing service.

Indicative images of spaces in Staff Workspaces



Daylight, limited partitions, reconfigurable workstations, some enclosed spaces

**FUNCTIONAL
DESCRIPTION**

This component accommodates the work space of staff who work in senior administration, Technical Services, and IT, as well as the support and amenity areas required to support staff working throughout the Library.

Other staff workspaces within the building include:

- Library Entrance and Large Program Room: workspaces for Program staff and Public Services staff
- Back-of-House Functions: workspaces for Materials Handling staff and Office and Facility staff.

Features include:

- Offices and work area for Administration and Technical Services on 2nd or 3rd Floor
- Offices and work area for IT staff
- Generally open workstations
- Few enclosed offices
- Meeting room space to support collaborative activities
- Break room, staff washrooms
- Lockers.

Activities within the component include:

Administration/Technical Services

- Administrative functions, including Human Resources, Communications, and financial services
- A broad range of desk-oriented activities specific to individual positions
- Activities related to the selection, acquisition, cataloguing, and processing of new collection materials
- Group meetings and other collaborative activity
- Document handling and mail processing

IT Services

- Help functions
- Administrative activities associated with IT Services
- Set up of computers/peripherals
- Secure accommodation of Library servers
- Secure storage of supplies and equipment

Staff Amenities

- Storage and preparation of snacks and light meals

- Quiet and gregarious staff break activities
- Charging of personal devices
- Hosting informal staff recognition events and celebrations
- Secure storage of staff personal effects
- Staff Washroom facilities.

OPERATIONAL DESCRIPTION

Hours of Operation

Hours of operation are as follows, assuming staff may be present up to one hour before and one hour after regular Library operating hours. Staff amenities will be available at any time that staff are in the facility, which may include any hour of the day and weekends.

	Open	Close
Monday-Friday	8:00 a.m.	9:00 p.m.
Saturday	9:00 a.m.	6:00 p.m.
Sunday	12:00 p.m.	6:00 p.m.

Security

Card access will be provided to the general staff zone, after which staff will be able to move to the various spaces without card access.

WORKLOADS

Workloads are dependent on the number of staff required to support the provision of services.

STAFFING AND OCCUPANCY ESTIMATES

Estimated staffing and occupancies for this component are summarized below in full-time equivalents (FTE), headcounts, and maximum occupancy.

Type	Existing FTE	Future FTE	Total Headcount	Maximum Occupancy
<u>Administration/Technical Services</u>				
Library Director	1.0	1.0	1	1
Operations Manager	1.0	1.0	1	1
Finance Assistant	0.4	0.4	1	1
Human Resources Assistant	1.0	1.0	1	1
Fund Development Assistant	0.8	0.8	1	1
Communications Coordinator	0.8	0.8	1	1
Coordinator, Technical Services	1.0	1.0	1	1
Selector/Collections Specialist	1.5	2.0	2	2
Library Assistant 2	1.5	2.0	3	2
Future Growth position	0	0	1	1
Subtotal, Administration/ Technical Services	9.0	10.0	13	12

Type	Existing FTE	Future FTE	Total Headcount	Maximum Occupancy
<u>IT Services</u>				
IT Administrator	1.0	1.0	1	1
IT Specialist	-	2.0	2	2
Subtotal, IT Services	1.0	3.0	3	3
Total	10.0	13.0	16	15

DESIGN CRITERIA

Design criteria relevant to this component address unique conditions and design features required in the space.

For planning criteria that apply to the exterior generally, see the General Planning Criteria section of the Functional Program.

Design Relationships

Architectural Concepts

- Staff workspace identified in this component is one of three staff work areas in the building. Ideally it requires a private location on the second or third floor.
- If possible, it should be directly above a corresponding operational staff work area on the ground floor to provide the opportunity for direct staff circulation by way of a staff or service elevator and staircase.
- The component requires a vestibule entry from public areas. This will allow for a sound lock transitional space, and separate approaches to Administration offices, the open office area, and the Staff Lounge and Washroom.
- Natural light and, preferably, views should be provided in all office areas.
- The Staff Lunch Room would benefit from an irregular or rectangular shape to create zones that support noisier and quieter activity.
- The Staff Lunch Room should have natural light and views with opening windows.
- The Staff Lunch Room should have access to a private rooftop area, if possible.

Interior Design Concepts

- This component is a non-public space. There should be no views into this area from public spaces.
- Generally, the staff work area will be an open plan environment, with sound reducing partitions, as necessary.

- The staff work area will be organized into groupings (e.g., Administration, Technical Services, and IT), to encourage collaboration and sharing among those doing similar work. Each grouping will consist of open workstations.
- The IT area should be separately secured, with card access.
- All workstations, and offices must have ample natural light and nearby views to the exterior.
- Each staff workstation should include a sit-stand desk.
- IT requires shared stand-up work benches in addition to individual workstations.
- The atmosphere of the Staff Lunch Room should be inviting and non-institutional, with warm natural materials, comfortable furnishings, and indirect lighting.
- The Staff Lunch Room should accommodate a variety of seating types, with group and individual seating areas providing opportunities for social interaction, but also with areas for quiet solitary activities.
- The Staff Lunch Room kitchen area should include a double sink, refrigerator, dishwasher, microwave, garbage bins, recycling centre, counters for food preparation and cupboards for the storage of dishes and supplies.

Operational Concepts

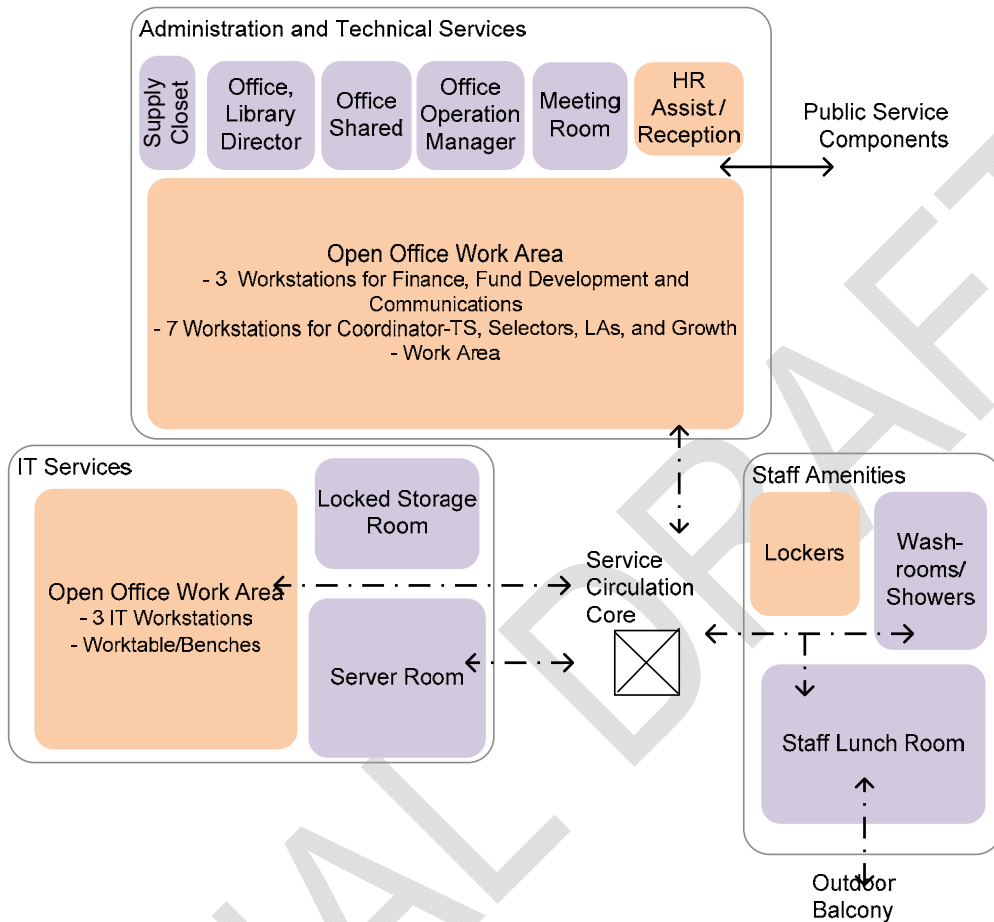
- Each staff member who does not have a dedicated workstation will be assigned a locker.
- The HR Assistant should be close to the public access point to this component and will act as the Reception for all functions within the component.

Building Systems Criteria

- Each staff workstation must have two data ports and two duplex electrical outlets.
- Staff desks should have task lighting.
- The Staff Lunch Room should have Wi-Fi capability and should include an area to charge devices.
- Acoustical separation must be provided between the Staff Lunch Room and any adjacent work and public areas.
- The Staff Lunch Room should be plumbed and wired to support vending machines.

Functional Relationship Diagram

The spatial organization of this component will be generally as shown in the diagram below.



LEGEND	
	PUBLIC OPEN AREA
	PUBLIC ENCLOSED AREA
	NON-PUBLIC OPEN AREA
	NON-PUBLIC ENCLOSED AREA
	SPATIAL ZONE

NOTE:

Component functional diagrams are conceptual only – actual layouts will be explored in schematic design and developed in the detailed design process.

Space Requirements

Ref	Space	Units	Area/Unit (nsf)	Area (nsf)	Area/Unit (nsm)	Area (nsm)	Comments
<u>Administration and Technical Services</u>							
01	Office, Library Director	1		150		13.9	L-shaped desk and chair, credenza, meeting table and 5 side chairs
02	Office, Operation Manager	1		125		11.6	L-shaped desk and chair, small table and 4 side chairs
03	Office, Shared	1		100		9.3	L-shaped desk and chair, 3 side chairs
04	Workstation, Finance Assistant	1		65		6.0	L-shaped desk and chair, filing cabinet
05	Workstation, HR Assistant	1		65		6.0	L-shaped desk and chair, filing cabinet
06	Workstation, Coordinator, Technical Services	1		65		6.0	L-shaped desk and chair, side chair
07	Workstation, Selector	2	65	130	6.0	12.1	L-shaped desk and chair, pedestal
08	Workstation, Fund Development Assistant	1		65		6.0	Incl. table and 4 chairs, central to above work pod
09	Workstation, Communications Coordinator	1		65		6.0	
10	Workstation, Technical Services Library Assistant	3	65	195	6.0	18.1	
11	Workstation, Spare/Growth	1		65		6.0	
12	Meeting Room	1		250		23.2	Shared by all areas; accommodates 10
13	Work Area	1		680		63.2	Incl. open floor area for new materials, space for 20 book trucks, 4 bays for new materials, donations, etc., large counter or worktable, 10 bays of utility shelving, photocopier, and paper recycling station, mail slots
14	Lockable Supply Closet	1		40		3.7	
Subtotal, Administration and Technical Services				2,060		191.4	
<u>IT</u>							
15	Workstation, IT Administrator/Specialist	3	65	195	6.0	18.1	
16	Worktable/Benches	1		140		13.0	Incl. locked cabinet and two-sided bench with shelves, multiple outlets

Ref	Space	Units	Area/Unit (nsf)	Area (nsf)	Area/Unit (nsm)	Area (nsm)	Comments
17	Locked Storage Room	1		120		11.1	
18	Server Room	1		140		13.0	Raised floor, air conditioned
Subtotal, IT				595		55.3	
Staff Amenities							
19	Lockers	1		55		5.1	40 assigned purse lockers 18" X 18"
20	Staff Washroom	4	45	180	4.2	16.7	Wheelchair accessible
21	Staff Shower	2	30	60	2.8	5.6	Incl. drying area, adjacent to lockers and Washroom
22	Staff Lunch Room	1		450		41.8	Accommodates 15; incl. communal spaces, tables and chairs, soft seating, well as areas of refuge; incl. sink, counter, full sized fridge, dishwasher, washer dryer stacking, microwave
	Outdoor Balcony						Provide approximately 250 sf
Subtotal, Staff Amenities				745		69.2	
Total				3,400		315.9	
Grossing Factor				1.40		1.40	
Component Gross Area				4,760		442	

COMPONENT OVERVIEW

This component accommodates back-of-house functions that ensure the practical operation of the building, including Materials Handling, and Building Services spaces that are distributed throughout the Library facility.

Percentage Total: 6.3%

Total Staff Workspaces

7



CGSF: 3,175 | CGSM: 295

Key Adjacencies

1

1. Exterior Spaces

Provide direct access by dedicated service/staff circulation from the Loading Dock Access in Exterior Spaces for the movement of vehicles to the Delivery Bay.

2

3. Library Entrance and Large Program Room

Provide direct access by dedicated service/staff circulation to Library Entrance and Large Program Room for the movement of materials from the materials drops.

3

11. Staff Workspaces

Provide convenient access by dedicated service/staff circulation to Staff Workspaces for the movement of new materials and supplies.

4

2. Atrium

Provide convenient access by general service/staff circulation to Atrium for the movement of materials and supplies serving events.

Indicative images of spaces in Back-of-House Functions



Collection sorting and movement, building management, and supplies storage

**FUNCTIONAL
DESCRIPTION**

This component accommodates the spaces required to ensure the practical operation of the building, including the movement of deliveries, collections, supplies, materials, furniture, and equipment in and out of the building as well as Building Services spaces that are distributed throughout the building and not associated with specific components.

The main internal operations activity is the movement of collection materials in bins on trolleys and library material sorted onto mobile book trucks. Marshalling areas are provided on each level for the corralling of loaded book trucks.

It includes staff workspaces for Materials Handling Services in addition to space to support Building Services staff functions and general building storage.

This component must be planned to support the significant movement of materials in and out of the facility.

Features include:

- Loading dock (2 bays)
- Shipping and receiving
- ILL and collection sorting
- General storage
- Workspace for Office and Facility Coordinator
- Maintenance Storage
- Janitorial storage plus housekeeping closets throughout the building.

Activities within the component include:

Shipping and Receiving Area

- Control and management of loading dock activities, which include:
 - shipping and receiving of equipment, furniture, supplies and materials related to the operation and maintenance of the Library
 - shipping and receiving of equipment and supplies for events in the Program and Meeting Rooms located throughout the Library
- General processing of deliveries, unpacking of boxes, assembly of refuse
- Sorting of incoming shipments of items and initial distribution to departments in the Library
- Temporary storage and staging of shipments
- Storage of recyclables

- Secure storage of staff bicycles, including the electric bike used for the Library's book bike service (see also component 1. Exterior Spaces)

Materials Handling Area

- Receiving of materials from materials drops from both the exterior of the building and from the Lobby or Library Entrance and Large Program Room
- Sorting of returned collection materials using an automated materials sorting machine
- Placing materials onto book trucks prior to moving them to book truck corrals in collection areas on upper floors
- Shipping and receiving of returns and requests transported via the Marigold delivery truck
- Inspection and minor mends of collections as well as some processing of collections
- Administrative activities associated with Materials Handling Services

Storage Area

- Storage of some of the general supplies used throughout the building
- Storage of surplus furniture and miscellaneous equipment
- Central storage of housekeeping supplies and coordination of services.

**OPERATIONAL
DESCRIPTION**

Hours of Operation

Indicative hours of operation for Back-of-House Functions are as follows:

	Open	Close
Monday-Friday	8:00 a.m.	9:00 p.m.
Saturday	9:00 a.m.	6:00 p.m.
Sunday	12:00 p.m.	6:00 p.m.

Movement of Materials

Deliveries to Facility

Outside agencies will contact staff in this component to notify that deliveries are being made, whereupon staff will meet the deliveries at the loading bay. New materials will be moved by dolly directly to the Materials Handling area in this component or the IT or Technical Services area in component 11. Staff Workspaces. Materials received through InterLibrary loan materials will be taken directly to the Materials Handling Workroom for processing and distribution. After processing, materials will be placed on book trucks and moved to the Holds shelving in component 3. Library Entrance and Large Program Room.

Staff will have access to the loading dock entrance to deliver materials related to building operations or to conduct maintenance activities.

Circulating Library Materials

Returned Library materials will move from materials drops to the automated sorting machine with a minimum of conveyors and with no staff handling requirements.

Material will be automatically sorted into bins by the automated Materials Handling machine. Staff will fine sort the materials onto book trucks and move the book trucks to appropriate collection areas of the Library, as well as to the Holds area in component 3. Library Entrance and Large Program Room.

Staff will use the designated service elevator for moving book trucks.

General Shipping and Receiving

Materials and supplies will be received through the loading bay and transferred to appropriate locations through the building, including janitorial storage, the staff workrooms/work areas, and to general storage rooms.

WORKLOADS

The workload of this component is generally a function of the numbers of staff needing accommodation, and the numbers of materials circulating in the Library System, and the size of the facility itself.

As a single branch Library that will expand in the future, and as a member of a Library System with busy InterLibrary lending, two loading bays will be provided.

Use of the Library can be expected to increase significantly over existing levels with added requirements for maintenance services.

**STAFFING AND
OCCUPANCY ESTIMATES**

Estimated staffing and occupancies for this component are summarized below in full-time equivalents (FTE), headcounts, and maximum occupancy.

Type	Existing FTE	Future FTE	Total Headcount	Maximum Occupancy
<u>Materials Handling Services</u>				
Supervisor, Materials Handling Services	1.0	1.0	1	1
Materials Handling, Library Assistant	2.7	3.9	5	3
Coordinator, Office and Facility	1.0	1.0	1	1
Total	4.7	5.9	7	5

DESIGN CRITERIA

Design criteria relevant to this component address unique conditions and design features required in the space.

For planning criteria that apply to the exterior generally, see the General Planning Criteria section of the Functional Program.

Design Relationships

Architectural Concepts

- The Back-of-House staff workspace is one of three staff work areas in the building. It requires a ground floor location that is convenient for vehicular access, materials receiving, and processing.
- If possible, it should be directly adjacent to staff workspace described in component 3. Library Entrance and Large Program Room and directly below staff workspace described in component 11. Staff Workspaces. Ideally, a convenience stair(s) should be provided linking all staff workspaces.
- Design should be driven by the staff environmental needs and the Materials Handling requirements of the component and the Library.
- There are three zones:
 - Shipping and Receiving
 - Materials Handling Workroom
 - Stores Area.

These zones must be separated by appropriately scaled movement aisles.

- This component must include a weather-protected staff entrance.
- Connections into the interior public space must be sufficiently wide, and located close to the service elevator.
- There must be views of the loading dock and vehicular approaches from one of the staff work areas, either directly or by video surveillance.
- This component will require detailed consideration of corridor width and circulation space, equipment clearances, exit widths, door sizes, etc., to allow for the movement of equipment and materials.
- Barriers to the movement of materials should be minimized. The number of right angle turns should be minimized in all materials movement pathways.

Interior Design Concepts

- This component will be qualitatively different from others in the type of finishes, materials and flooring used. These must be selected to minimize cleaning and maintenance and to withstand heavy impacts and usage.

- Where staff are in spaces within this component for extended periods of time, light and views should be introduced as possible.

Operational Concepts

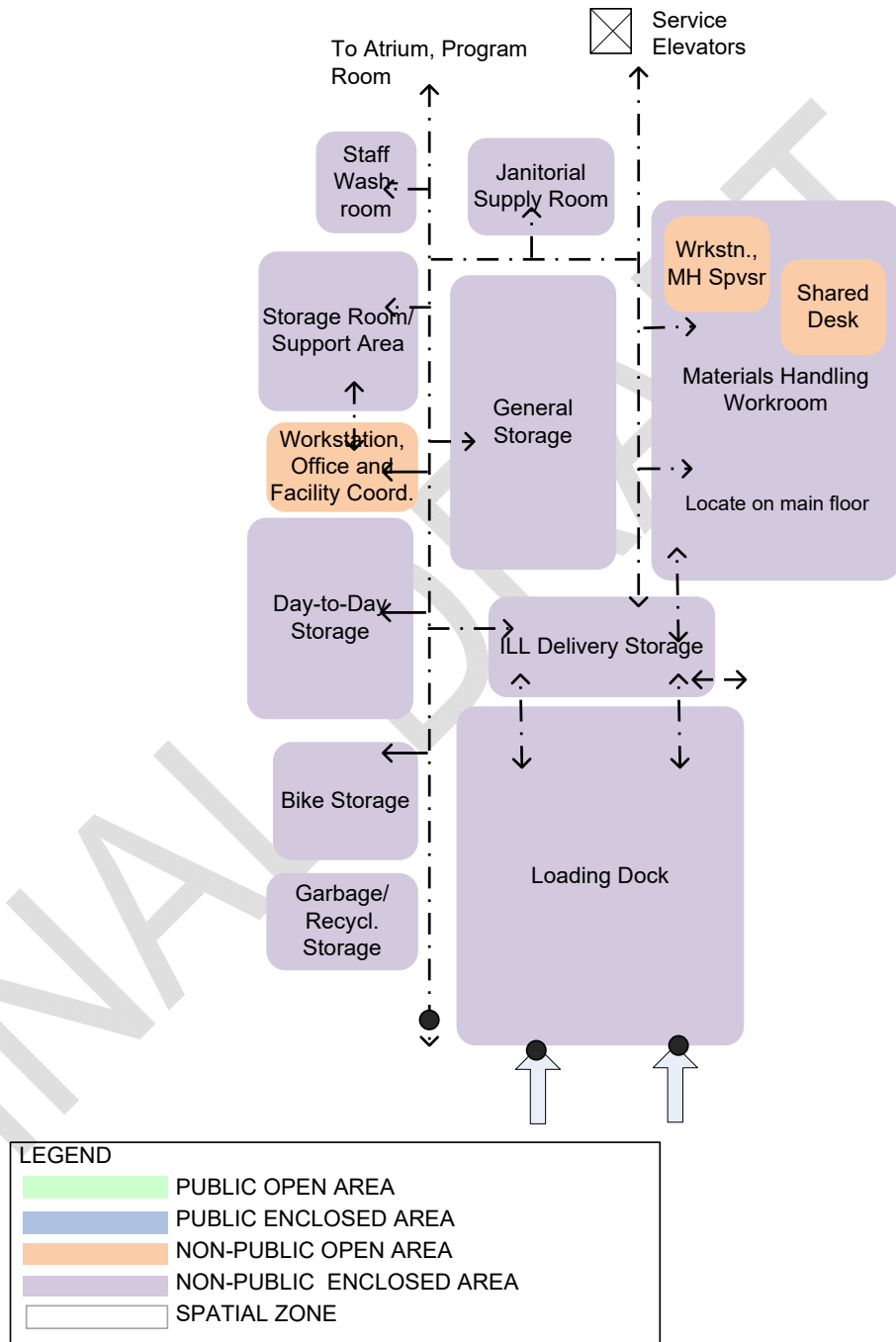
- The loading bay must accommodate 3-ton trucks, including any overhead canopies.
- The loading bay must be adjustable to match the various heights of delivery truck decks.
- Incoming materials include books and collection resources, supplies, furnishings and equipment and will arrive by delivery vehicle at the loading bay.
- Materials will be moved by trolley to an unpacking area before distribution to appropriate storage area or to other Library components. Materials will be distributed to four main areas:
 - InterLibrary Loans materials will be delivered to Materials Handling Workroom for sorting, processing and delivery to the appropriate Library component
 - circulating collection resources returned via external and/or internal book drops will arrive, (via minimal horizontal conveyor systems), in the Materials Handling Workroom for sorting
 - new and incoming materials will be delivered to Technical Services in component 11 Staff Workspaces for processing
 - supplies, furnishings and equipment will be transported to IT in component 11. Staff Workspaces or to central storage areas for long-term storage.
- Book trucks that have been loaded in the Materials Handling Workroom will be moved to book truck corrals in the public area and to appropriate destinations in the collections. Once emptied, book trucks will be returned to a book truck storage area in the sorting room.
- A designated service elevator should connect this component to the upper level of the building. A marshalling area of 8.0 square metres (86 sf) should be located adjacent to each elevator door.
- Controlled access is required for all areas of this component.
- Recycling includes pop and juice cans and bottles, plastics, glass, cardboard, and paper, and compostables. Materials are collected from boxes on each floor and brought to bins in this component for pick-up.
- Staff of this component will also use the central amenity Staff Lunch Room located in Component 11. Staff Workspaces on the upper level.

Building Systems Criteria

- Camera surveillance of the loading bay area and all corridors should be provided.
- An intercom and buzzer system with video is required to connect the loading dock with the Materials Handling Workroom. This is an area full of supplies, equipment, books and materials.
- Card access should be provided to all non-public areas.
- Acoustic shielding must be provided for all mechanical equipment.

Functional Relationship Diagram

The spatial organization of this component will be generally as shown in the diagram below.



NOTE:

Component functional diagrams are conceptual only – actual layouts will be explored in schematic design and developed in the detailed design process.

Space Requirements

Ref	Space	Units	Area/ Unit (nsf)	Area (nsm)	Area/ Unit (nsf)	Area (nsm)	Comments
<u>Shipping and Receiving Area</u>							
	Delivery Bay/Vehicle Parking	2					Exterior area
01	Loading Dock and Staging Area	1		300		27.9	
02	Interlibrary Loan Delivery Storage	1		60		5.6	
03	Bike Storage	1		160		14.9	Exterior access; accommodates 6 bikes, book bike
04	Recycling Storage/Compactor			100		9.3	Incl. in Enclosed Delivery Bay/Vehicle Parking
Subtotal, Shipping and Receiving Area				620		57.6	
<u>Materials Handling Staff Work Areas</u>							
							Requires natural light
05	Material Handling Workroom	1		995		92.4	Incl. 100 ILL bins, 70 book trucks, sink, mail slots, 2 secure shredder totes, paper recycling station, 2 input stations, designated returns check-in station, shared desk, mail sorting counter, bedbug oven
06	Shared Desk	1		45		4.2	
07	Workstation, Material Handling Supervisor	1		65		6.0	Locate in Materials Handling Workroom
08	Staff Washroom	1		45		4.2	
09	Workstation, Office and Facility Coordinator	1		65		6.0	
11	Storage Room/Support Area	1		210		19.5	Incl. 1 bay utility shelving, tool cabinet, worktable, counter, mail sorting table; lockable
Subtotal, Materials Handling Staff Work Areas				1,425		132.4	
<u>Stores Area</u>							
12	Day-to-Day Storage	1		200		18.6	For items that require ready access
13	Janitorial Supplies Room	1		200		18.6	As per existing area; lockable with card access; incl. charging station, industrial shelving and open floor area for supplies and equipment; incl. sink

Ref	Space	Units	Area/ Unit (nsf)	Area (nsm)	Area/ Unit (nsf)	Area (nsm)	Comments
14	Storage, General	1		200		18.6	
	Subtotal, Stores/Shop Area			600		55.7	
	Total			2,645		245.7	
	Grossing Factor			1.20		1.20	
	Component Gross Area			3,175		295	

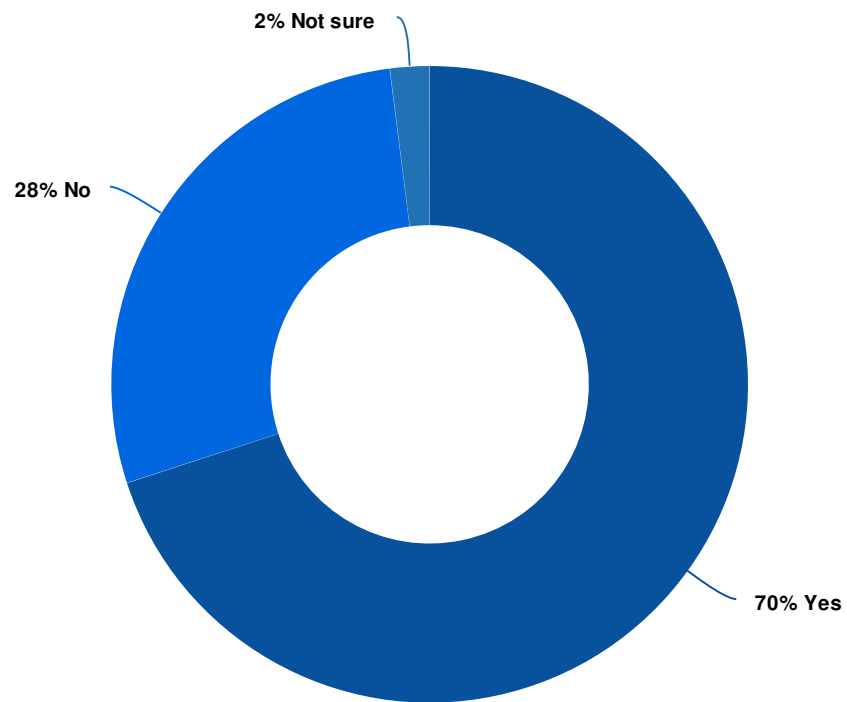
Report for City of Airdrie Library and Multi-use Space

Response Counts



Totals: 878

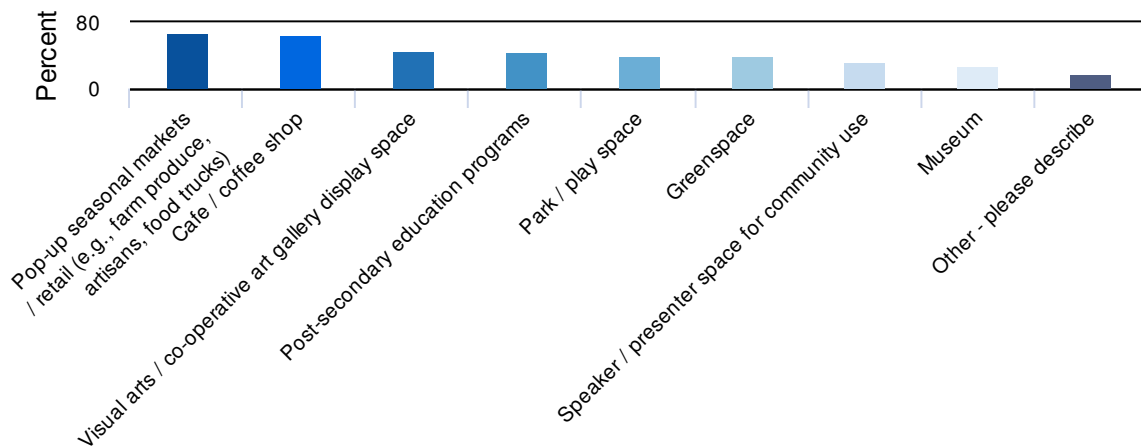
Are you, or other members of your household, currently members of the Airdrie Public Library?



Value	Percent	Responses
Yes	70%	612
No	28%	247
Not sure	2%	18

Totals: 877

What activities or services being co-located at the new public library might increase your interest in visiting the new building and/or becoming a library member? (select all that apply)



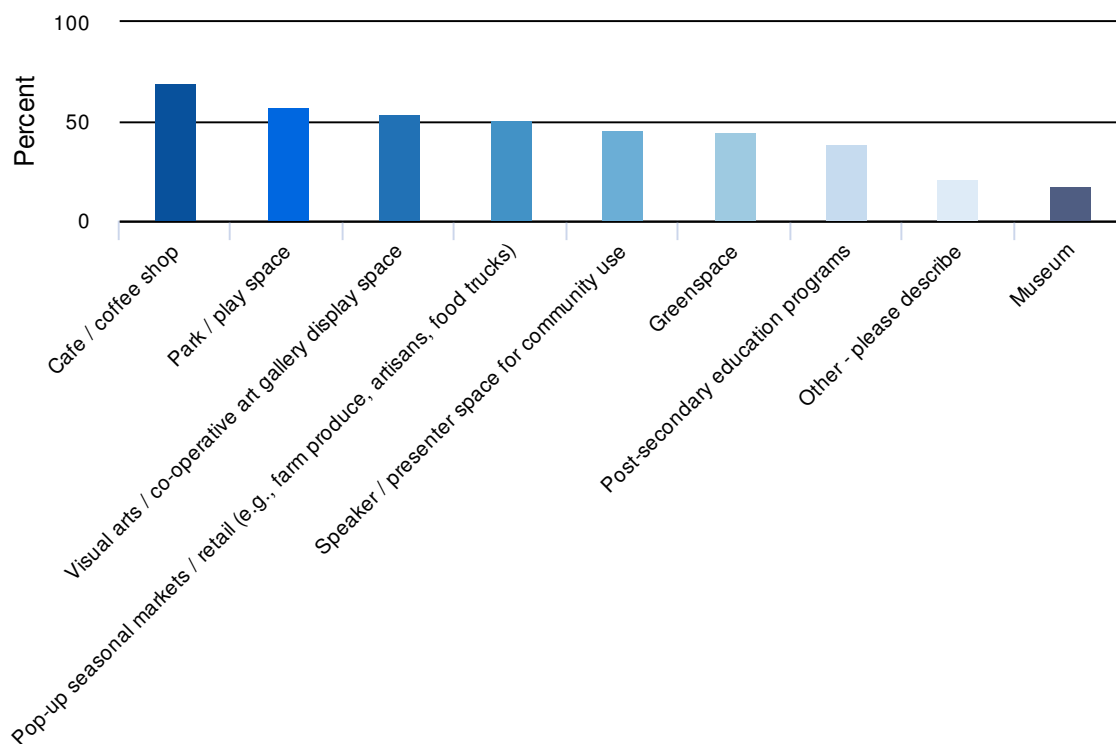
Value	Percent	Responses
Pop-up seasonal markets / retail (e.g., farm produce, artisans, food trucks)	69%	162
Cafe / coffee shop	65%	154
Visual arts / co-operative art gallery display space	46%	109
Post-secondary education programs	44%	104
Park / play space	41%	96
Greenspace	39%	93
Speaker / presenter space for community use	34%	81
Museum	28%	65
Other - please describe	18%	42

Statistics

Total Responses

236

What activities or services would you like to see co-located with the new library? (select all that apply)



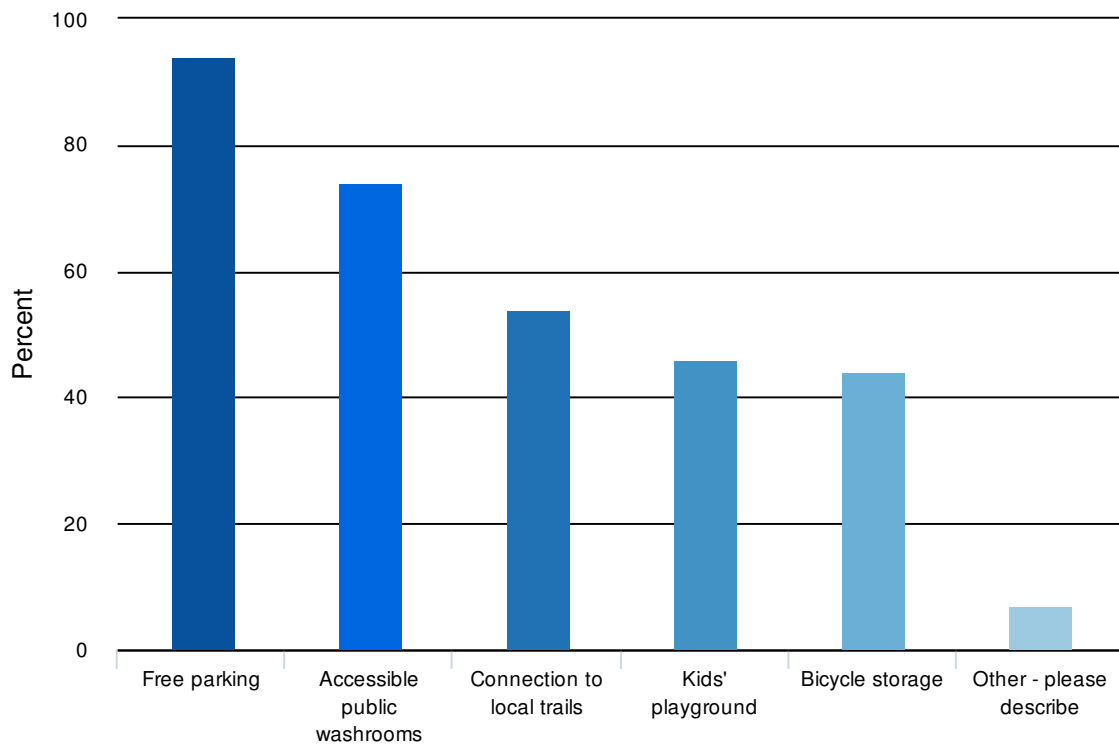
Value	Percent	Responses
Cafe / coffee shop	70%	427
Park / play space	58%	357
Visual arts / co-operative art gallery display space	54%	329
Pop-up seasonal markets / retail (e.g., farm produce, artisans, food trucks)	51%	312
Speaker / presenter space for community use	46%	281
Greenspace	45%	273
Post-secondary education programs	39%	239
Other - please describe	22%	137
Museum	18%	111

Statistics

Total Responses

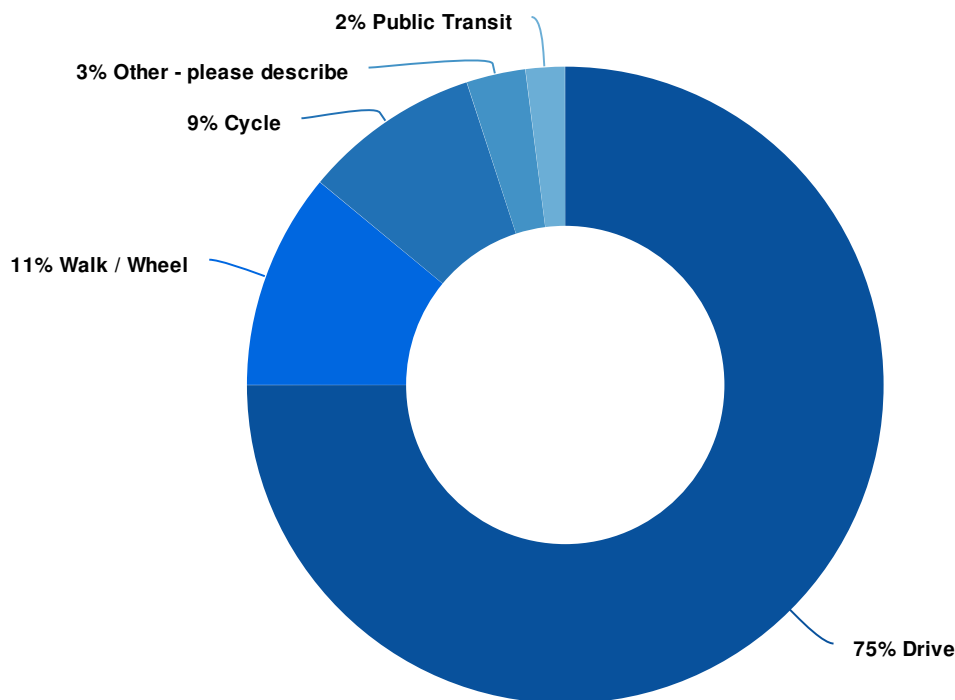
611

What public amenities would support your participation in these activities or services? (select all that apply)



Value		Percent	Responses
Free parking		94%	811
Accessible public washrooms		74%	639
Connection to local trails		54%	469
Kids' playground		46%	397
Bicycle storage		44%	381
Other - please describe		7%	57

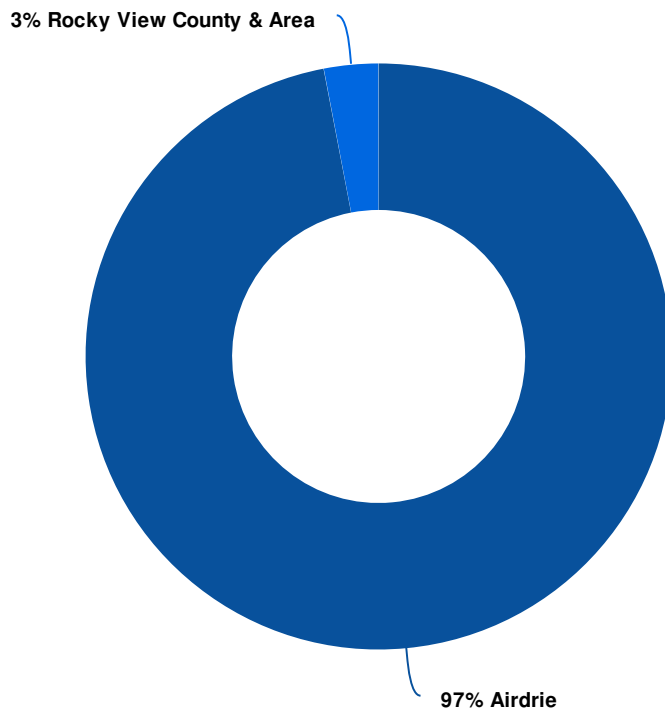
If you were going to visit the site for the new library and multi-use space at the old fire hall site on Main Street, how would you plan to get there?



Value	Percent	Responses
Drive	75%	656
Walk / Wheel	11%	92
Cycle	9%	82
Other - please describe	3%	25
Public Transit	2%	15

Totals: 870

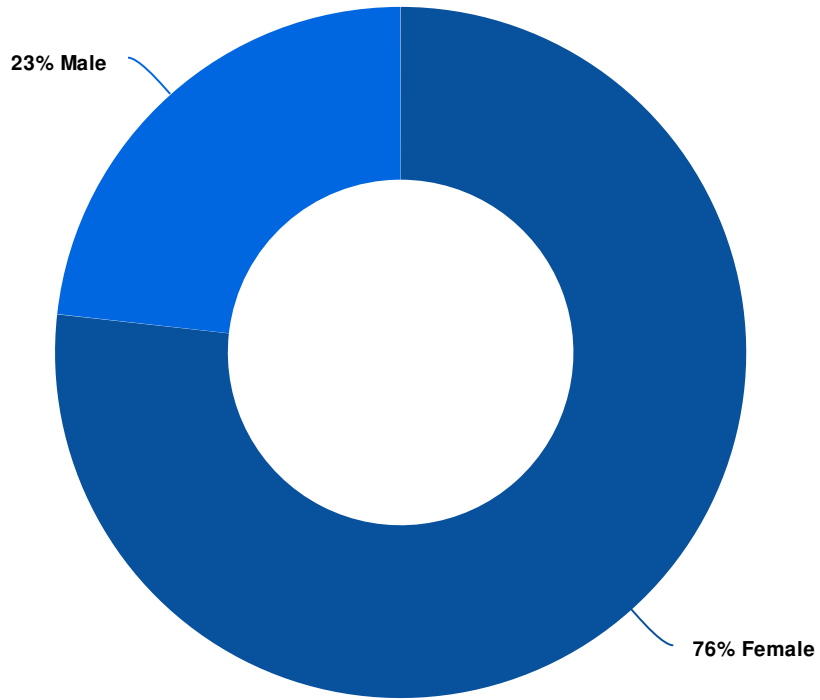
What community are you a resident of?



Value	Percent	Responses
Airdrie	97%	839
Rocky View County & Area	3%	23
Calgary	0%	3
Other	0%	1

Totals: 866

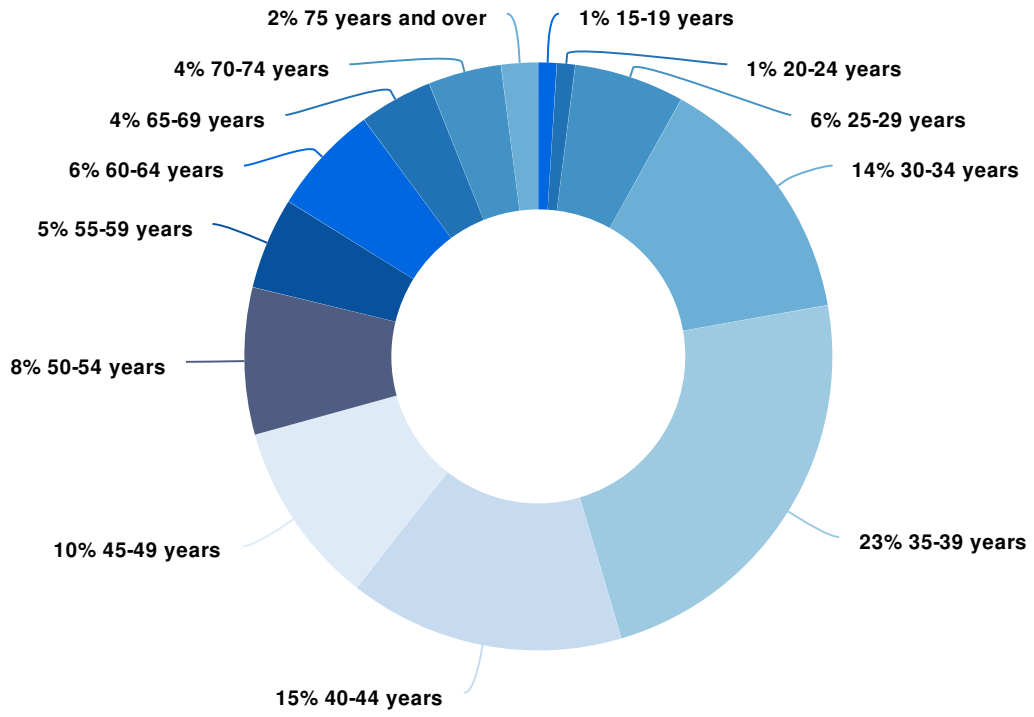
How do you identify with regard to gender?



Value	Percent	Responses
Female	76%	659
Male	23%	202
Another gender	0%	4

Totals: 865

What is your age?



Value		Percent	Responses
14 years or under		0%	4
15-19 years		1%	7
20-24 years		1%	12
25-29 years		6%	54
30-34 years		14%	125
35-39 years		23%	202
40-44 years		15%	131
45-49 years		10%	84
50-54 years		8%	68
55-59 years		5%	40
60-64 years		6%	52
65-69 years		4%	32
70-74 years		4%	36
75 years and over		2%	18

Totals: 865

Is there anything else you would like to tell us about the new library and multi-use space?