

Appendix A – Program of Requirements

PROGRAM OF REQUIREMENTS

*Library Facilities Project
Bill and Helen Norrie Library*

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PROGRAM OF REQUIREMENTS

1. Introduction

- 1.1 This Program of Requirements is the directive of the City of Winnipeg to the consultant/contractor to provide the facilities described herein.
- 1.2 The new library will be located at the intersection of Poseidon Bay and Cambridge Street, northwest of the Pan Am Pool, within the Grant Park Campus area. This is a high-visibility, readily accessible location for the library that provides street access and available parking for library customers.
- 1.3 This facility will be a significant civic building serving a population of approximately 52,500 community residents and Pan Am Pool visitors from all areas of the City.
- 1.4 The designated land is City-owned and Zoned PR-3.
- 1.5 The requirements are written in terms of functions, space allocations, requirements and constraints to achieve an integrated, fully functional facility.
- 1.6 The contractor is expected to adhere to the area assignments. Any deviation from the individual area assignments, gross area requirements or allocated funds must be approved in advance by the City of Winnipeg.
- 1.7 In all cases, the work will be executed in accordance with all provincial and federal statutes, City of Winnipeg by-laws and regulations pursuant to any of the foregoing. It is incumbent upon the contractor to follow all applicable codes, bylaws, and regulations and obtain the necessary approvals from appropriate authorities.
- 1.8 For more details on the location and a Class 3 Cost Estimate for the library please refer to the Executive Summary of the Grant Park Campus Plan:

http://winnipeg.ca/cms/projects/grant_park/grant_park_rec_campus_final_report.pdf

- 1.9 There is historical significance to the location of the Library and the Grant Park Campus as it was the former site of Rooster Town.

2. Instructions

All items listed are to be provided by the contractor unless it is indicated that they are provided by the Library/City Services.

3. Scope of Work

The library facility will require approximately 14,000 square feet of floor area. The entire library is to be built on one level on a structural floor that must support itself. Library parking for up to 40 public vehicles including 5 staff vehicles is required. The library must be designed in such a way as to allow for easy pedestrian connection to the Pan Am Pool.

The following principles must form the basis of this project:

- 3.1 The building architecture must be fully integrated with the library's interior design to create a functional, accessible, energy efficient and welcoming public facility that meets the needs of the community.
- 3.2 Interior and exterior aesthetics are important elements of the overall design concept, in keeping with this facility's high-profile in the local community.
- 3.3 The proposed structure must be designed with interior and exterior finishes compatible with a modern public library setting. The quality and standard of both interior and exterior finish materials must meet commercial requirements of high durability.
- 3.4 The design must consider and integrate with the multi-purpose function of the Grant Park Campus, to enhance the surrounding area as part of OurWinnipeg's Complete Communities strategy.

All drawings and specifications are subject to approval by the City of Winnipeg prior to finalization and the beginning of construction.

4. General Requirements

- 4.1 All furniture and equipment is part of the library design, unless specified to be purchased by Library/City staff. There is a specific budget line within the overall project budget for the purchase of these items. This furniture and equipment will be purchased through a Bid Opportunity which will require detailed product/product type specifications.

- 4.2 The library entrance should be placed to ensure easy access from the parking lot.
- 4.3 The facility shall be consistent with Council adopted policies; at minimum, be in accordance with the City of Winnipeg Green Building Policy and City of Winnipeg Universal Design Policy. The desired outcome is to design the building to LEED NC-Canada Silver or Green Globes standards and employ an integrated design process (IDP).
- 4.4 The proposed structure must be designed with interior and exterior finishes that are high quality, durable and low maintenance. The finish schedule must reflect the facility's high-profile in the community.
- 4.5 The entire Library facility must be equipped with a sprinkler system if required.
- 4.6 Lighting systems must be designed to meet the highest energy efficient standards possible and should be adjustable to natural daylight conditions.
- 4.7 The interior design, furniture and finish selection must be prepared in conjunction with library and other civic staff as part of the IDP.
- 4.8 All door widths must be a minimum of 39".
- 4.9 The interior design must incorporate flexible public space to meet future library requirements for changing customer priorities.
- 4.10 The design of the facility will be suitable and adaptable to technological change. The contractor is required to install all computer cabling and electrical wiring necessary for computer work station installation to the Library Services Division specifications and work closely with Library IT staff. This includes CCTV, building automation (Metasys), access control (Pegasys P2000), and intrusion (Bosch – Manitou) and card readers which must work with City of Winnipeg systems. Specification and design of CCTV, building automation, access control, and intrusion cabling, controllers, and sensors must be coordinated and approved by the Facility Systems and Technologies Group, Municipal Accommodations, PP&D, in order to ensure flawless integration into existing building controls and security infrastructure.
- 4.11 A Public Address (PA) system should be installed throughout the building in all staff and public locations to ensure the public and staff can hear messages at all times.

5. Description of Components

The building components are numerically listed and described by function, requirements to achieve fully functional areas, and any constraints which may influence the design of the components. The total building is 14,000 sq. ft. plus Reading Garden

| Number | Component Description | Square Feet |
|---------------|---------------------------------------|--------------------|
| BC-01 | Lobby / Main Entrance | 200 |
| BC-02 | Library Services Counter & Area | 700 |
| BC-03 | Library Services Workroom | 600 |
| BC-04 | Tutorial Room (2 @ 150 sq ft each) | 300 |
| BC-05 | Staff Room | 250 |
| BC-06 | Staff Washroom (UTR?) | 100 |
| BC-07 | Branch Head Office | 150 |
| BC-08 | Multi-Purpose Program Room | 1200 |
| BC-09 | Program Room Storage | 150 |
| BC-10 | Children's Area | 2500 |
| BC-11 | Main Library Area | 6750 |
| BC-12 | Public Washrooms (2 @ 250 sq ft each) | 500 |
| BC-13 | Universal Toilet Room | 100 |
| BC-14 | Equipment / Electrical Room | 100 |
| BC-15 | Mechanical Room | 200 |
| BC-16 | Janitor's Room | 100 |
| BC-17 | Corridor | 100 |
| BC-18 | Reading Garden | 550 |

BC-01 LOBBY / MAIN ENTRANCE

Approximate Square Feet = 200

Function:

To provide a staging area for the public and prevent cold air from directly entering the library.

Requirements:

1. High quality, slip-resistant flooring that reduces tracking of dirt into library must be provided in this area;
2. Each set of double doors (exterior and interior) in the vestibule must have 39" width of clearance for a motorized wheelchair to meet City of Winnipeg Accessibility Design Standards;
3. Both sets of doors must be on a motion sensor opener;
4. Doors must be street level for ease of accessibility;
5. Doors must have proper signage indicating sliding doors and standard disabled signage/wording/labelling;
6. There must be a library people counter device adjacent to the main entrance area to track public traffic entering and leaving the library. People Counters options for no staff intervention requirement is currently investigated, so there is a possibility of having to use data drops or wifi there. Add both power and data at this location.
7. Suitable heating and ventilation must be built into the vestibule;
8. One wall must have space for a SmartLocker with up to 10 lockers that are 18" x18" by 5'7" high (supplied by library). Smartlocker requires duplex power and single data;
9. Electrical for the library people counter and for an Open/Close sign to be hung in the area.
10. An SCKI (self check in) may be located.
11. Temperature Control alarm to be included which will be to Central Control because it will contain Smartlocker and be accessible 24 hours a day.

Constraints:

12. This area must be located at the front entrance to the library and adjacent to the Library Service Workroom;
13. On one wall of the building inside the vestibule area there must be wall space for a book return that allows materials to go into the workroom.
14. This vestibule will be open 24 hours for access by the public to the book return and a SmartLocker.

BC-02 LIBRARY SERVICE COUNTER & SURROUNDING AREA

Approximate Square Feet = 700

Function:

To provide a universally accessible, two-level counter where the public will seek assistance from staff on circulation, information and children's library services

Requirements:

1. Hard surface, slip-resistant flooring;
2. One two-level service counter. Size and shape of counter and drawer/filing requirements to be determined in consultation with Library staff;
3. This is the single service-point in the building and should provide good sightlines to the rest of the library facility, especially to the children's area;
4. The surrounding area must be large enough to accommodate up to 4 automated self-checkout work stations;
5. Electrical and cabling for 4 self-checkout units (units supplied by the library) in the surrounding area. All cabling and electrical for the self-checkout equipment to be designed in consultation with library staff;
6. All cabling, telephones (library supplied), debit machine (library supplied) and electrical required for counter to be installed in consultation with library staff;
7. 2 VoIP phones at either end of the counter and 1 MTS line that services the debit machine on the service counter and the fax/copier/printer located in the staff workroom. All Cat6 cabling will be able to be connected as either voice or data in the network rack so separate phone line cabling is not required;
8. Space and required electrical and network for a large public monitor to display information about library programs, etc. (monitor and software provided by the library).

Constraints:

9. This area must be located adjacent to the Lobby/Main Entrance Area and immediately adjacent to the Library Services Workroom and be visible to as much of the main library area as possible.

BC-03 LIBRARY SERVICES WORK ROOM

Approximate Square Feet = 600

Function:

To provide an area where material is returned by library customers through the 24-hour book return;

This area will be shared by three work units – Circulation, Children's and Information staff

and be used for receiving and sorting material from the public and via the delivery system; preparing for programs; and performing other collection maintenance functions;

Space for at least 16 book trucks (library provided).

Requirements:

1. Good quality hard surface slip-resistant flooring that is durable and low-maintenance;
2. Cabling and electrical for 5 computers;
3. Cabling and electrical for 3 telephones including 2 VoIP + 1 MTS line for the fax/copier/printer shared with the debit machine on the Service Counter. The staff printer/fax/copier requires duplex Cat6 and duplex power;
4. CCTV viewing monitor with power/HDMI;
5. Windows with at least one that opens with screens;
6. Corner wall guards to be located on corners and a durable wall material on specific walls in this area to prevent book cart damage in consultation with library staff;
7. Motion sensor lighting;
8. This area must include a microphone wired to the Public Address System equipment located on the Electrical Room wiring rack.

Constraints:

9. This area must be connected to the Library Service Counter and Surrounding Area;
10. This area must be adjacent to the Lobby/Main Entrance Area;
11. There must be sufficient space behind the book return wall to support an automated check-in/book return/sorter system in the future;
12. The design of this area must be done in cooperation with the Library staff for workflow concerns;
13. There should be a visible opening to the front counter area so that workroom staff can see and assist at busy times;
14. There should be an open door way at a minimum of 39" to easily move book carts back and forth from the front service counter.

BC-04 TUTORIAL ROOMS (2)

Approximate Square Feet = 300 (2 x 150)

Function:

Two small rooms for one-on-one tutorial sessions, small group meetings or student project work.

Requirements:

1. Carpet tile with 4" rubber baseboards to match other parts of library;

2. Room should be sound proof from exterior noise;
3. Floor to ceiling glazed wall for front of room;
4. Motion sensor energy efficient lighting;
5. Extra power with USB for charging;
6. Door to be solid core with passage set only;
7. Must have power operated door opener for universal access.
8. 4' x 6' magnetic whiteboard on one wall
9. Table with minimum 4 chairs
10. Ensure a good wi-fi signal (or connection).

Constraints:

11. This space should ideally be visible from the Library Services Counter.

BC-05 STAFF ROOM

Approximate Square Footage = 250

Function:

To provide an area where staff can take coffee and meal breaks and store their personal belongings in lockers.

Requirements:

1. Quality hard surface, slip-resistant flooring;
2. Millwork cupboards, drawers, counter top (solid surface) and sink;
3. Keypad (e.g. Unican) lock and power operated door for universal access;
4. Motion sensor lighting;
5. Window(s) and at least one that opens with screen;
6. Sufficient power & electrical outlets to allow for use of kitchen appliances (fridge, microwave, coffee maker, toaster oven – supplied by Library);
7. Must have sufficient counter top (solid surface) - space to be confirmed with library staff;
8. Counter must allow for wheelchair access and have front mounted electrical;
9. Lighting should be controlled by motion sensor;
10. 18 half lockers for staff;
11. Coat rack and space for shoe/boot trays;
12. Lounge chair with nearby electrical outlet;
13. Duplex power with USB for staff charging;
14. Table with minimum 4 chairs.

Constraints:

- 15. This room will be used by up to 15 staff but not more than 4 at one time.
- 16. This component must be in an area that is close to the Library Services Counter and Library Services Workroom

BC-06 STAFF WASHROOM

Approximate Square Feet = 100

Function:

To provide one staff (male/female/non-gender), fully accessible washroom.

Requirements:

- 1. Quality hard surface, slip-resistant flooring;
- 2. All equipment necessary to provide fully accessible washroom fixtures including toilet and quiet hand dryer;
- 3. Lever-operated faucets;
- 4. Push soap dispensers (not battery operated);
- 5. Paper towel dispenser;
- 6. Toilets should include grab bars and washroom should have accessible design standards for sink with counter top (solid surface);
- 7. Motion sensor lighting;
- 8. Door to be solid core with keypad locks, but must have power operated door opener for universal access.

Constraints:

- 9. In close proximity to Staff Room but not located in staff room and be sound proof.

BC-07 BRANCH HEAD OFFICE

Approximate Square Feet = 150

Function:

To provide a private office for the Branch Head, as well as a space for the Branch Head to hold small meetings with staff.

Requirements:

- 1. Carpet tile with 4" rubber baseboards;
- 2. Swipe card access;

3. Cabling and electrical for computer workstation;
4. Cabling for VoIP telephone;
5. Swipe card access or Unican lock – to be determined based on location of office
6. Carpet tile with 4” rubber baseboards
7. Solid core door with sidelight and window to view public area
8. Motion sensor lighting
9. Power operated door opener for universal access

Constraints:

10. Must be adjacent to and accessible from the public area;
11. Exterior window with screen that opens would be preferable, but not mandatory.

BC-08 MULTI-PURPOSE PROGRAM ROOM

Approximate Square Feet = 1,200

Function:

To provide a public space where library staff and citizens may hold programs for adults and children, makerspace programs, meetings, workshops and other group activities

Requirements:

1. Carpet tile with 4” rubber baseboards;
2. This room must accommodate up to 60 people seated lecture style;
3. The main entrance to this room should include double-lockable doors that can stay open when required with power operated openers;
4. P.A. system speakers with volume control;
5. Presentation facilities: Screen, speakers, control panel mounted on wall with HDMI/VGA/Network and automated screen controls;
6. Minimum 10 electrical outlets with USB located in room for access when used as study hall (locations to be determined in consultation with library staff);
7. Depending on the location of this room, daylighting or motion sensor lighting is required to control light levels;
8. Must include electrical wiring & cabling for ceiling-installed LCD (or as-specified projector) including VGA, HDMI compatibility. Specific location of wiring and controls to be determined in consultation with library staff. (projector provided by library).
9. An audible technology system is required for this room to meet specifications in the City of Winnipeg 2015 Accessibility Design Standards.

Constraints:

10. This room must be adjacent to and accessible from the Main Library Area.

BC-09 PROGRAM ROOM STORAGE

Approximate Square Feet = 150

Function:

To provide storage space for furniture and supplies used in the program room.

Requirements:

1. Carpet tile with 4" rubber baseboards
2. Double door access to storage room;
3. Motion Sensor Lighting;
4. Keypad (e.g. Unican) lock.

Constraints:

5. This room must be attached to the Multi-Purpose Program Room.

BC-10 CHILDREN'S AREA

Approximate Square Feet = 2,500

Function:

To provide a specially designated area for children and their parents or care-givers.

Requirements:

1. Carpet tile with 4" rubber baseboards;
2. This area must accommodate up to 15,000 books and other library materials, study tables, chairs, lounge furniture, shelving and an interactive literacy playground;
3. Library materials to be supplied by the City of Winnipeg;
4. This area will ideally include a structural or design feature that highlights the nature of this space and creates a sense of welcome and safety for children and their parents/caregivers (to be developed in consultation with library staff);
5. There must be natural light from windows in this area;
6. Lighting must be energy efficient and adjust automatically to natural daylight conditions;
7. Cabling and electrical requirements for 2 public computers whose locations will be determined in consultation with library staff.

Constraints:

8. This area must be located near the Multi-Purpose Program Room, and adjacent to the Main Library Area.
9. There must be good sightlines to this area for staff from the Library Services Counter.

BC-11 MAIN LIBRARY AREA

Approximate Square Feet = 6,750

Function:

To provide a large open area for the main adult and teen book and other material collections of the library

Requirements:

1. Carpet tile with 4" rubber baseboards;
2. The layout of shelving and study furniture must be designed in consultation with library staff;
3. This area must be able to accommodate at a minimum 30,000 library materials, study tables with chairs, lounge chairs and public computer tables (library materials and computers supplied by library);
4. Cabling and electrical for 8 computers in a central hub, 2 computers for teens and 2 computers at the end of shelving units to access the library catalogue only (locations to be determined on site with staff); also Print Station, Printer and Coin Box – quad power/duplex data; Wifi access points - location TBD in consultation with Library Staff, 3-6 Cat6 data drops required; Charging Station: will require power near lounge area; Digital Signage display-location TBD in consultation with Library Staff, requires duplex power and single data;
5. Supply rack in consultation with Library IT;
6. There should be a feature wall in this area for the installation of green wall technology to be researched and incorporated as part of the design process.
7. Study tables will require access to electrical outlets with USB for customer devices, etc.

Constraints:

8. This area should be located near the Multi-Purpose Program Room, and adjacent to the Children's Area;
9. A floor plan of the space should be developed in consultation with the library and contractor to ensure optimum accessibility and functionality of the area.

BC-12 PUBLIC WASHROOMS

Approximate Square Feet = 500 (2 x 250)

Function:

To provide required public washroom facilities for library customers

Requirements:

1. Ceramic tile floor and on walls to a minimum of 7' high

2. All fixtures necessary to provide fully accessible washroom including wheelchair accessible sink, urinals, soap dispenser, toilets, and quiet hand dryers;
3. Baby change table and refuse containers
4. Partitions to be floor mounted, high quality, vandal resistant finish
5. Emergency Lighting required in washrooms
6. One washroom to be designated & equipped for men; the other washroom to be designated & equipped for women
7. Water fountain for drinking and filling water bottles to be located near the washrooms

Constraints:

8. To be located in close proximity to the Main Library Area;
9. Washrooms are to be designed so that the entrance way (minimum 39") into washroom does not require doors.

BC-13 UNIVERSAL TOILET ROOM (UTR)

Approximate Square Feet = 100

Function:

To provide required universal toilet room for library customers.

Requirements:

1. Ceramic tile floor and on walls to a minimum of 7' high
2. All fixtures necessary to provide fully accessible washroom including wheelchair accessible sink, soap dispenser, toilet, and quiet hand dryer;
3. Baby change table and refuse containers
4. Emergency Lighting required in washrooms

Constraints:

5. The UTR should be located in close proximity to the Public Washrooms (BC-12)

BC-14 EQUIPMENT / ELECTRICAL ROOM

Approximate Square Feet = 100

Function:

To provide required space to accommodate computer network equipment, wiring rack, electrical and telephone panels, etc.

Requirements:

1. Painted concrete floor;
2. Solid Core door with secure swipe card access;
3. All interior walls to 8' AFF must have painted 3/4" plywood covered over gypsum board;
4. One dedicated duplex circuit for SRST line for VoIP;
5. 3 quad circuits near network rack;
6. All Cat6 cabling from work stations, printers or phone positions should be routed to the Network rack and terminated on a patch panel (Station Panel). All Cat 6 cabling between the telecom demarcation point (BIX Block) should be routed to the Network rack where it is terminated in a patch panel (Telecom Panel). The Telecom Patch panel should be mounted in the highest position in the Network Rack. All Cat 6 cabling between the Network interfaces (routers/switches) should be routed to the Network Rack and terminated in a patch Panel (Network Panel). The Network Patch Panel should be mounted below the Station Panel.

Constraints:

7. Must be close to Library Service Counter;
8. All cable, telephone and electrical to terminate at this room;
9. Fibre-optic cable to enter this room from outside building (to be designed with input from library staff).

BC-15 MECHANICAL ROOM**Approximate Square Feet = 200****Function:**

To provide space to accommodate building mechanical systems that needs to be inside the building.

Requirements:

1. Painted concrete floor;
2. Solid-core door with swipe card access;
3. Water heater located in this room.

Constraints:

4. Should be located away from public and main staff work areas;
5. No roof-mounted HVAC equipment unless specified, including AC condensers.

BC-16 JANITOR'S CLOSET

Approximate Square Feet = 100

Function:

To provide required space for janitorial services and storage for contract cleaner's equipment and supplies.

Requirements:

1. Painted concrete floor;
2. Solid-core door with swipe card access;
3. Floor mounted slop sink;
4. Storage shelving for cleaning supplies, toilet paper, soap, brooms, mops, etc.;
5. Protective water proof type finish around floor mounted slop sink.

Constraints:

6. Must be located near plumbing and water supply lines.

BC-17 CORRIDOR

Approximate Square Feet = 100

Function:

Required space to allow pathways and corridors throughout the library building.

Requirements:

1. Durable, high quality, slip-resistant flooring.

Constraints:

2. Located throughout the library building.

BC-18 READING GARDEN

Approximate Square Feet = 550

Function:

An area that provides an outdoor space for library customers to sit and read and allows library staff to provide outdoor programs.

Requirements:

1. The reading garden will be directly accessible from within the library.
2. This area to be fully or partially fenced as required for safety;
3. The reading garden will include sufficient space for benches and/or outdoor all-weather lounge furniture that needs to be anchored to the ground
4. Illuminated exterior signage must be designed to provide good visibility to the public, coordinate with other signage on the Grant Park Campus and meet all code requirements.
5. Provide attractive landscaping for the space in conjunction with Library/City staff;
6. Durable, low maintenance exterior building finishes.

Constraints:

7. Design consideration for partial shade
8. If this entrance is also an emergency exit, ease of snow clearing is critical.

6. Additional Design Criteria

6.1 ENVIRONMENTAL:

The following guiding principles should be incorporated into the design of the facility:

- 6.1.1 Maximized use of daylighting technology to reduce the amount of electricity needed to light the space
- 6.1.2 Incorporate Green Wall technology
- 6.1.3 Incorporate the most energy efficient method of heating/cooling the space
- 6.1.4 All paints, sealants and adhesives used to have low or no volatile organic compounds (VOC's)
- 6.1.5 Low flow fixtures used throughout the building
- 6.1.6 Carpet tile and other flooring to be made from recyclable materials
- 6.1.7 Landscape with native plants adapted to our climate that require less maintenance and watering (in consultation with City of Winnipeg)
- 6.1.8 Green roof concept to be explored. Based on budget ability.
- 6.1.9 Use local materials wherever possible to reduce greenhouse gas emissions by reduced shipping distances.
- 6.1.10 Southern exposure for maximum light exposure
- 6.1.11 Extensive use of windows, with some that open, required

6.1.12 Energy efficient to a LEED NC-Canada Silver standard or Green Globe standard.

6.1.13 High performance mechanical systems

6.1.14 Bike posts provided to promote alternate transportation and active transportation.

6.2 PARKING FOR CARS AND BICYCLES:

6.2.1 The site must provide up to 40 public parking stalls and 5 staff stalls. Staff stalls must have dedicated separate circuit receptacles with timer control from the electrical room in the library. Staff stalls must be signed as staff stalls only and numbered individually.

6.2.2 Staff and public parking must be well lit for safety with appropriate drainage. Parking lot must have curbs to contain the parking lot and have appropriate markings on parking lot pavement to identify stalls, disabled stalls, and traffic direction arrows.

6.2.3 Parking lot must be paved. The surrounding areas must be landscaped.

6.2.4 Provide a minimum of 2 designated parking stalls for persons with disabilities. Signage must be designated by paint on stall as well as free standing upright signage for visibility.

6.2.5 Design consideration for ease of snow clearing to limit curb and landscape damage.

6.2.6 Provide space for or easy access to an exterior bicycle shelter to be provided by the City / Public Works Active Transportation;

6.2.7 Up to 10 individual bicycle posts at the front of the library;

6.3 FOUNDATIONS AND FLOORS:

6.3.1 Floors will be structurally capable of library floor loadings for all components. 150 psf design live load in library stack areas and open library areas.

6.4 FENESTRATION:

6.4.1 Located in those areas where it would promote the appearance, functionality, and most energy efficient results. Use good quality glazing specified for the rigors of the local climate, and installed in a manner that will minimize the effects of potential vandalism.

- 6.4.2 All window coverings (blinds, drapes, etc.) to be as required, in consultation with library staff.
- 6.4.3 Some windows to open and c/w screens. To be determined in consultation with library staff or as identified in program.
- 6.4.4 All new windows must be triple glazed with low e-coatings for addressing sunward side issues.

6.5 INTERIOR PARTITIONS AND WALLS:

- 6.5.1 Interior partitions and walls must be located to provide accommodations for the various functions and must be low maintenance finishes.
- 6.5.2 A minimum finished ceiling height of 3.0 M at suspended ceilings and 3.6 meters open ceilings is required unless noted otherwise.
- 6.5.3 All partition walls must be full height.
- 6.5.4 The design and layout must maximize sound separation, with sound insulation being provided in walls around the Tutorial room, Multipurpose Program Room, and Staff and Public Washrooms.
- 6.5.5 Washroom walls must be covered with a durable ceramic wall tile.

6.6 CEILING FINISHES AND ACOUSTICS:

- 6.6.1 The ceiling must have a finished appearance in all areas and rooms unless otherwise stated.
- 6.6.2 Acoustic treatment must be considered in all cases, unless otherwise stated.

6.7 FLOOR FINISHES

- 6.7.1 Good quality ceramic/porcelain tile or acceptable alternative must be provided in the public washrooms.
- 6.7.2 Durable, high quality, slip resistant flooring to be used in selected areas as outlined in program.

6.7.3 High quality carpet tile in all areas except where specifically excluded.

6.8 SIGNAGE AND SECURITY / EMERGENCY EQUIPMENT:

6.8.1 An illuminated, vandal-resistant overhead sign identifying the name of the library and the City logo are to be designed and installed above the front entrance of the library building and/or other suitable location for maximum exposure and identification of the library. Specific location to be confirmed on site in consultation with library staff.

6.8.2 Suitable lights meeting building code and CPTED requirements must be installed at all entrances and egress points of the building for maximum safety of staff and patrons.

6.8.3 Building to have sprinkler system throughout if required by code.

6.8.4 Library Building Security system encompasses the combination of access control (Pegasys P2000), intrusion alarm (Bosch – Manitou), and VMS CCTV systems. The systems utilize network of security sensors and user interface devices such as motion and door position sensors, keypads, card readers, electric strikes, CCTV cameras, etc. Building security systems are designed and built as extensions of existing security systems framework and should flawlessly integrate into it over the corporate network infrastructure for centralized monitoring and control from Central Control Office located in City Hall. Specification and design of building security systems including cabling, controllers, and sensors must be coordinated and approved by the Facility Systems and Technologies Group, Municipal Accommodations, PP&D and meet the provided specifications and standards.

6.8.5 Library Building Automation system (Metasys) monitors and controls mechanical and HVAC equipment (as determined), space temperatures, electrical supply and power distribution systems, standby generator plant, UPS systems, gas and life-safety systems, etc. Fire Alarm System is centrally monitored via Bosch – Manitou monitoring station. These systems must be installed in the new library and incorporated into the new layout. The building automation and fire alarm systems are designed and built as the extension of existing BAS and fire monitoring frameworks and should flawlessly integrate into it over the corporate network infrastructure for centralized monitoring and control from Central Control Office located in City Hall. Specification and design of building automation and fire alarm systems including cabling, controllers, and sensors must be coordinated and approved by the Facility Systems and Technologies Group, Municipal

Accommodations, PP&D and meet the provided specifications and standards.

- 6.8.6 Ensure fire detection, fire alarm monitoring and building automation and security systems are connected for central monitoring, operational and tested prior to changeover of responsibility to the City.
- 6.8.7 The facility will have a Public Address (P.A.) system in the wiring rack and microphone located in the Library Services Workroom with speakers located throughout the library.
- 6.8.8 The PA system to be installed must be located in all rooms noted in program of requirements. The controls for the system will be located in the wiring closet, with the microphone in the Library Services Workroom and be located in consultation with Library IT Staff.
- 6.8.9 Emergency equipment including emergency lighting, fire detection, alarm and suppression including portable fire extinguishers, standpipes, fire hydrants, etc. must be provided and installed in accordance with all local fire and building code regulations.
- 6.8.10 Appropriate identification signage, labels, etc. must be posted as required.
- 6.8.11 Signs must use internationally accepted symbols.
- 6.8.12 Fire alarm system must incorporate strobe system for persons with hearing disability.
- 6.8.13 Fire Department Direct Access.
- 6.8.14 Alarm systems need to include visual alarm and assistive listening systems.
- 6.8.15 Interior signage to identify collections, services, and rooms, as well as wayfinding signage, is the responsibility of the City

6.9 ILLUMINATION:

- 6.9.1 All lighting in the library must be energy efficient LED lighting.
- 6.9.2 Lighting must be installed in a manner to eliminate the possibility of glare or shadows.

- 6.9.3 Daylighting levels must be automatically adjustable to natural lighting levels.
- 6.9.4 Provide suspended LED fixtures throughout open areas and recessed fixtures in suspended ceiling areas of the library, unless otherwise specified.
- 6.9.5 Lighting style and pattern of layout to be developed by interior designer in consultation with Library staff and designed to be esthetically attractive and enhance the overall facility while providing proper lighting levels.

6.10 BUILDING SERVICES:

- 6.10.1 Essential building services such as sewer, water, heating and electrical will be required and must be of sufficient quality, size and distribution to provide a fully functioning operational facility for its intended purpose. These services must meet all relevant regulation requirements and as far as possible, be underground installations from the Utility connection points.

6.11 TELEPHONES:

- 6.11.1 Provide conduit, boxes and electrical for telephones as outlined in the Program of Requirements at service points and work/staff areas as designated in program of requirements. Cost of the telephones and installation of same is the responsibility of the City.
- 6.11.2 The facility will incorporate the City of Winnipeg's VoIP telephone system as well as 2 MTS lines: a dedicated fax/interac line and an emergency SRST line.
- 6.11.3 Telephone panel (bix) should be located in the same room as the network rack, on an adjacent wall.

6.12 FIXTURES AND FITTINGS

The basis for selection of fixtures and fittings in washrooms must be their ability to withstand heavy use while providing easy cleaning and maintenance characteristics. Selection must meet the approval of the Municipal Accommodations Division Operations Branch. Washrooms fixtures, equipment and dimensions to meet the City's Accessibility Design Standards.

Additionally:

- 6.12.1 Low flush toilets should be installed throughout all washrooms. Toilets will be touchless operation.
- 6.12.2 Toilet partitions will be selected as an integral part of the overall interior design colour scheme, in consultation with Library staff. Toilet partitioning system will be durable, graffiti resistant, and complete with barrier free hook, lockable toilet paper dispenser and palm operable latch.
- 6.12.3 All hardware and fittings must be of sufficient quality to ensure prolonged, maintenance-free operations.
- 6.12.4 Urinals should be equipped with motion sensor, touchless operation flushing.
- 6.12.5 Main entrance should be automatic sliding doors that operate with motion sensors.
- 6.12.6 Locking mechanisms (keys, keypads and swipe cards) to be determined in consultation with City staff. Exterior doors to be B.E.S.T. core Locksets.

6.13 COLOUR AND SELECTION:

- 6.13.1 All colour schemes, millwork, and finishing materials, both interior and exterior, to be developed, designed and approved in consultation with library staff.

6.14 UNIVERSAL ACCESS AND FACILITIES:

- 6.14.1 The building must adhere to The City's most current Accessibility Standards document in accordance with conceptual drawings, shop drawings, and final drawings.
- 6.14.2 Incorporate universal access requirements for both staff and the public.

6.15 AUTOMATION AND COMPUTER SYSTEMS:

- 6.15.1 Computer cabling, electrical, required wiring conduit and connectors, and all grommet locations must be supplied and installed by the Contractor to the City of Winnipeg Specifications.
- 6.15.2 The termination points of all cabling and electrical connections to library public and staff computers will be done in consultation with library IT staff.

6.15.3 Floor pedestals for power/network should be located in consultation with furniture layout to ensure they will not be underfoot when customers are using public computers.

6.16 MECHANICAL:

6.16.1 Central HVAC air conditioning must be provided to all rooms and areas, and must be energy efficient. * All rooms and spaces will be properly ventilated and conditioned for heating and cooling adhering to ASHRAE 62.1 "Ventilation for Acceptable Indoor Air Quality" standard.

6.16.2 All Zone controls must be new digital and installed to control heating, ventilating and air conditioning, HVAC equipment.

6.16.3 Controls must include thermostat function indicating space temperature.

6.16.4 Controls located in public areas must have clear plastic lockable covers

6.16.5 Zone configuration and definition must be approved in consultation with library staff.

6.16.6 All heating units must be commercial type of sufficient size and adequate digital controls to suit the conditions of the various new rooms and areas. All units must be high energy efficiency.

6.16.7 Consideration must be given to: conservation of energy, location of units in proximity to service counter and workstations, quietness of operation, and low air velocity to avoid drafts.

6.16.8 Provisions must be made for the introduction of fresh air to the HVAC system.

6.16.9 Heating units must not be located on walls in a manner to interfere with library shelving.

6.16.10 Consideration must be given to ease of equipment maintenance when locating equipment - i.e. - heating, purifying equipment.

6.16.11 Adequate space for maintenance must be provided around all equipment.

6.16.12 Contractor will conform to the requirements and recommendations of the latest edition of all local, municipal, provincial and federal by-laws and ordinances, codes

or standards and make application and pay for all necessary permits.

6.16.13 Upon completion of all construction, all duct work and ventilation equipment must be serviced with a power vacuum system to ensure cleanliness before substantial completion and turnover of building to owner.

6.16.14 Throughout the facility, the temperature will be controlled by strategically placed thermostats to be located in consultation with library staff. In open areas, the thermostats will be centrally located within the zone.

6.16.15 Minimum 1 thermostat for each HVAC unit.

6.16.16 All new air conditioning systems that are installed will utilize an HFC refrigerant. No CFC or HCFC equipment acceptable.

6.17 ELECTRICAL:

6.17.1 Provide 25% more electrical power system capacity for future service needs

6.17.2 Exact number, type and location of electrical outlets to be confirmed with City staff at the time working drawings are developed. Work to be designed and installed in consultation with Library staff.

6.17.3 All work must be done in conjunction with City staff to their specifications.

6.17.4 It is preferred that all electrical will be run in walls where possible, however, where unavoidable, all electrical and communications equipment will be run in the ceiling space. Floor outlets to be run below floor or in crawlspace where necessary. Style of floor outlets to be confirmed with City. Power poles will not be used. Electrical and computer cables will not be run in concrete floor slab unless in adequate dedicated raceways.