

APPENDIX B – PROGRAM OF REQUIREMENTS

PROGRAM OF REQUIREMENTS
Library Facilities Renovation Project
St. Vital Library, 6 Fermor Avenue

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September 2015

PROGRAM OF REQUIREMENTS-R1

PART I - INTRODUCTION

This Program of Requirements is the direction of the City of Winnipeg to the Consultant to address the accessibility, operational and functional issues of the library described herein.

The requirements are written in terms of current and anticipated space allocations, requirements, and constraints to achieve an accessible, operational and functional contemporary renovated library facility.

In all cases, the consultant's report will take into consideration all provincial and federal statutes, bylaws of the City of Winnipeg and regulations pursuant to any of the foregoing. It is incumbent upon the Consultant to follow current, applicable codes, bylaws, and regulations.

NOTE: The current St. Vital Library at 6 Fermor Avenue is a historical building according to City of Winnipeg Historical Building standards. This must be taken into consideration in all proposed renovations. The final report will be provided to the successful Consultant for inclusion as part of their work.

SCOPE OF WORK

The facility will serve a population of approximately 66,149 and be capable of holding approximately 40,000 items.

The following principles must be applied:

1. To ensure that the facility meets the City of Winnipeg Universal Accessibility standards.
2. To ensure that the facility meets all operational/maintenance requirements and meets all associated Building Code and Bylaws.
3. To ensure that the facility meets City of Winnipeg green building standards (I.e. LEED Silver or Green Globes).
4. To ensure that the renovated facility addresses the current and future functional requirements of the library.

GENERAL REQUIREMENTS

The overall approach must be to propose a renovation plan for the facility that will ensure the library is accessible, operational, functional and energy efficient.

The design will address:

- Flooring replacement throughout the library. The type and quality of flooring recommended for each area of the library must be considered in consultation with library staff.
- All existing windows are to be replaced with new energy efficient windows. If the budget allows, the preference would be that the new windows utilize triple glazing. Some windows must be able to open with screens. The number and location will be determined in consultation with library staff.
- Swipe card access throughout the library in various locations and be integrated with the existing City of Winnipeg Pegasus systems. The number and location will be determined in consultation with library staff.
- The inclusion of corner and wall guards, or an acceptable alternative, to prevent damage to walls and corners strategically located throughout the library. The number and location will be determined in consultation with library staff.
- All City Council adopted policies; at minimum, be in accordance with the City of Winnipeg Universal Design Policy and Green Building Policy.
- All interior and exterior renovations to use good quality, durable and low maintenance materials.
- Motion sensor lighting to be installed in all areas where staff and public activity is limited and lighting not always needed.
- Wherever new hard surfaces are specified the composition is to be determined in consultation with Library staff.
- Lighting systems must be upgraded to meet the highest energy efficient standards possible in the library. Consideration must be given to the hanging lighting in central area of the library and whether it must be retained/upgraded under historical building recommendations. Where applicable, lighting should be adjustable to natural daylight conditions.
- The number and location of all new computer and telephone cabling and electrical to be designed in consultation with library staff.
- All interior layout and design recommendations must be done in conjunction with library and other civic staff.
- All furniture and shelving will be replaced as part of the building renovation project. The selection and procurement of furniture and shelving for the library is not included in the scope of Consultant services.

PART II - DESCRIPTION OF COMPONENTS

The components of this project have been numerically listed and described in terms of function to be served, requirements needed to achieve functionality in those areas, and any constraints which may influence the renovation proposal of the Consultant. The building components are as follows:

BC-01	Vestibule/ Entrance
BC-02	Library Service Counter & Surrounding Area
BC-03	Library Services Workroom
BC-04	Tutorial Room (new requirement – main floor)
BC-05	Staff Room
BC-06	Staff Washroom (new requirement - lower level)
BC-07	Branch Head Office
BC-08	Multi-Purpose Program Room (new requirement - lower level) Optional depending on budget availability
BC-09	Program Room Storage (new requirement - lower level) Optional depending on budget availability
BC-10	Children's Area
BC-11	Children's Program Room
BC-12	Public Washrooms (2) (new requirement – lower level)
BC-13	Main Library Area
BC-14	Second Level Large Library Area
BC-15	Second Level Small Library Area
BC-16	Universal Toilet Room (new requirement - main level)
BC-17	Electrical Room
BC-18	Mechanical Room
BC-19	Janitor's Closet
BC-20	Building Exterior

BC-01 VESTIBULE/ ENTRANCE

Function

- There currently is a vestibule at the front of the library facing onto Fermor Ave.
- This space cannot be relocated and is required to serve as a staging area for the public and to aid in preventing exterior air from entering directly into the library.

Requirements

- Accessible entrance on Fermor Avenue via a ramp built to universal building standards
- Sliding doors with automatic openers must be equipped with swipe card locking mechanism as per City Pegasus system
- Electrical for a library patron counter device adjacent to the main entrance area as well as electrical for CLOSED/OPEN sign.
- Heating and ventilation of the area to building code

Constraints

- If double doors (exterior and interior) in the vestibule cannot be achieved, entrance must have 39" width of clearance for a motorized wheelchair to meet City of Winnipeg Accessibility Design Standards.
- This area must be located at the front of the library on Fermor Avenue. Book Return must be relocated to the back of the building to allow for material to be returned into Library Services Workroom.

B-02 LIBRARY SERVICE COUNTER & SURROUNDING AREA

Function

- There is currently a service counter at the front of the library as the public come into the library
- There is a need for a new accessible, multipurpose counter from which all library staff service functions will be done
- The new service counter must be a universally accessible, two-tiered counter where the public will seek assistance from staff on circulation, information and children's services
- The surrounding area must be large enough to accommodate up to 4 automated self-checkout work stations and a self-pickup of holds shelving unit (4 - 5 bays 36" x 5 Shelves – 66" high single sided)
- The counter will accommodate between 2 - 4 staff
- The exact size and location of the counter is part of the redesign process and requires staff input in design and location

Requirements

- Cabling for three computers and three telephone lines (two VoIP telephones/1 MTS debit/fax line) installed in consultation with library staff
- Electrical and cabling for up to 4 self-checkout units (library supplied) to be located in the surrounding area in consultation with library staff

Constraints

- This area must remain near the Vestibule/Entrance area and immediately adjacent to a staff workroom area.

BC-03 LIBRARY SERVICES WORKROOM

Function

- There is currently a staff workroom in the library directly behind the current circulation counter which provides an area where various staff work when off-desk.
- 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, for preparing for children’s programs and performing other collection maintenance functions.
- The space shall allow for a maximum of 5 staff to work at one time in workroom along with book trucks (library provided).
- This area must also have the ability to receive material from the public via an exterior book return.

Requirements

- Cabling and electrical for up to 4 computers and 1 copier/printer/fax machine.
- Cabling and electrical for 2 VoIP telephones plus 1 shared MTS line for photocopier/printer/fax station and debit.
- Open access into this area with 39” entrance.
- At least one window in this area must open and have a screen.

Constraints

- This area must be connected to the Library Service Counter and Surrounding Area.
- This area must be adjacent to the Lobby/Entrance Area.

BC-04 TUTORIAL ROOM (main floor)

Function

- There are currently no tutorial rooms in the library.
- One new small room where one-on-one tutoring with newcomers and students can occur in a small group (4 -6 people) setting.

Requirements

- Room should be sound proof from exterior noise.
- Floor to ceiling glazed wall in front of room or window in door so occupants are visible.

BC-05 STAFF ROOM

Function

- To provide a space where staff can take coffee and meal breaks, and store their personal belongings in lockers (provided by library).
- There is currently a staff room on the main floor that should be relocated to the basement in order to gain valuable floor space on the main floor.

Requirements

- Millwork cupboards, drawers, counter top (laminated surface) and sink.
- Swipe card access.
- Sufficient electrical to allow for use of refrigerator, coffee maker, microwave, toaster oven and other small appliances

Constraints

- This room will be used by up to 15 staff (only three at any one time) and must have space for lockers to serve this staffing level.
- 8 half lockers would be required.

BC-06 STAFF WASHROOM

Function

- There is currently one small, inaccessible staff washroom located within the staff room.
- This should be relocated and expanded to one fully accessible washroom in the basement level so as to free up valuable floor space on the main floor.

Requirements

- All equipment necessary to provide fully accessible washroom including sink, toilet, soap and paper towel dispenser.
- Toilet should include grab bars and washroom should have accessible design standards for sink with counter top (laminated surface).

Constraints

- In close proximity to Staff Room but not located within the staff room.

BC-07 BRANCH HEAD OFFICE

Function

- There is currently a Branch Head's office on the main floor of the library.
- A new Branch Head's office is required that is large enough for use by the Branch Head, as well as space for small meetings with staff.

Requirements

- Swipe card access
- Cabling and electrical for a computer workstation

Constraints

- Must be adjacent to the public area on the main floor of the library
- Can be relocated from its current location.
- Exterior window with screen that opens would be preferable.

BC-08 MULTI-PURPOSE PROGRAM ROOM (Lower level)

Optional based on budget availability

Function

- This space does not currently exist within the library.
- To provide a public space where library staff and members of the public hold programs for adults, as well as meetings, workshops and other group activities.
- This room must be able to accommodate up to 60 people.
- This would be a new area in the current undeveloped space in the lower level.

Requirements

- Minimum 10 electrical outlets located in room for laptop access when used as study hall (locations to be determined in consultation with library IT staff)
- Dimmable energy efficient lighting.
- Electrical in ceiling etc. for projection unit (projection unit purchased and installed by library)
- Must be lockable with accessible entrance door.
- Emergency Lighting required as there are no windows in the lower level.

Constraints

- This area must be in the lower level of the library in currently undeveloped space.

BC-09 PROGRAM ROOM STORAGE

Optional based on budget availability

Function

- To provide storage space for stacking chairs, folding tables and supplies used in the program room.

Facility Accessories:

- Lockable with key.
- Emergency Lighting required as there are no windows in the lower level.

Constraints

- This room must be attached to the new Multi-purpose Program Room and accessible from inside the room.

BC-10 CHILDREN'S AREA

Function

- This is an existing area in the library located on both the main and second floors of the library.
- All children's collections must be relocated to the main floor of the library to provide a specially designated area for children and their parents or providers on the main floor.
- This area must be able to accommodate up to 10,000 books, small tables and chairs, lounge furniture and an interactive literacy playground (all to be provided by library).

Requirements

- Cabling and electrical requirements for 2 children's computers whose locations will be determined in consultation with library staff

Constraints

- This area must be located on the main floor of the library and adjacent to the Library Service Counter & Surrounding area.

BC-11 CHILDREN'S PROGRAM ROOM

Function

- There is currently a Children's Program room on the lower level that must remain in its current location.
- This area is used for children's and family programming.

Requirements

- Improved exit from the space via an emergency stairwell that meets current building codes.
- Emergency Lighting required as there are no windows in the basement level.
- Must be lockable with accessible entrance

Constraints

- Must remain located in the basement level of the library

BC-12 PUBLIC WASHROOMS (2) (Lower Level - new)

Function

- There are currently two inaccessible washrooms on the lower level that must be replaced and expanded to be fully accessible.

Requirements

- All fixtures necessary to provide fully accessible washrooms including wheelchair accessible sink, urinals, soap dispenser, toilets, and quiet hand dryers.
- Emergency Lighting required as there are no windows in the lower level.

Constraints

- The public washrooms are to be located in close proximity to the Children's and Adult Program rooms in the lower level.
- Washrooms are to be designed so that the entrance way (minimum 39") into washroom must meet City of Winnipeg Accessibility Design Standards.

BC-13 MAIN LIBRARY AREA

Function

- This space is located on the main floor of the library and provides the space for adult and juvenile non-fiction, Adult AV collections and new and express books and magazines (the existing magazine room can be eliminated).
- The layout of collections, shelving and furniture (provided by library) must be designed in consultation with library staff.
- This area must be able to accommodate up to 20,000 books, 8 computer workstations, study tables with chairs, and lounge chairs.

Requirements

- Cabling and electrical for (8) computers (locations to be determined on site with staff)

Constraints

- 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-14 SECOND LEVEL LARGE LIBRARY AREA

Function

- To provide a space for 10,000 adult fiction and teen books, study tables and lounge furniture on one level (currently there is a small set of stairs joining 2 different levels of this area).
- The layout of collections, shelving and furniture (provided by library) must be designed in consultation with library staff

Requirements

- Sufficient electrical outlets should be provided for public use for laptops, etc.

Constraints -

- 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.
- Currently there is a small set of stairs joining 2 different levels of this area

BC-15 SECOND LEVEL SMALL LIBRARY AREA

Function

- The Library is interested in exploring ideas for animating this space.
- This space will not be used for public access.

Requirements

- The staircase should be removed from this area and there is the possibility of additional windows added to the space to bring light into the library.

Constraints

- This area was a later addition to the building.

BC-16 UNIVERSAL TOILET ROOM

Function

- There is currently one accessible, unisex washroom on the main floor of the library that is insufficient for today's building code requirements and library traffic needs.
- One fully accessible Universal Toilet Room needs to be designed and located on the main floor of the library.

Requirements:

- All fixtures necessary to provide fully accessible, battery operated, touch less washroom including wheelchair accessible sink, urinals, soap dispenser, toilets, and quiet hand dryers.
- Baby change table required.
- Emergency Lighting required.
- Tile floor and tile on walls to a minimum 7' AFF

Constraints

- Washrooms are to be designed so that the entrance way (minimum 39") into washroom must meet City of Winnipeg Accessibility Design Standards.

BC-17 EQUIPMENT/ELECTRICAL ROOM

Function

- There is currently an electrical room in the basement of the library that will remain in that space.
- Additional electrical is located on the main floor of the library and may need to be relocated as part of the redesign of space.
- The space must accommodate computer network equipment, electrical panels, telephone panels, etc.
- This space must be temperature controlled.

Requirements:

- Solid Core door with swipe card access
- All interior walls to 8' AFF must have painted ¾" plywood covered over gypsum board

Constraints

- All cable, telephone and electrical to terminate at this room
- Fibre-optic cable to enter this room from street

BC-18 MECHANICAL ROOM

Function

- There are currently two mechanical rooms that must remain in the lower level.
- Work needs to be done to determine if the existing boiler system and HVAC system need to both be maintained to service the building.
- The water heater is currently located in one of these rooms.

Requirements

- Solid Core door with swipe card access

Constraints

- Should be located away from public and main staff work areas

BC-19 JANITOR'S CLOSET

Function

- There is currently a janitor's closet on both floors of the library.
- The main floor one should be considered for removal.

Requirements

- Floor mounted slop sink
- Storage shelving for necessary cleaning supplies, toilet paper, soap, brooms, mops, etc.

Constraints

- Must be near other plumbing and sources of water

BC-20 BUILDING EXTERIOR

Function

- An area that defines the space around the exterior of the library
- This includes parking, landscaping, and signage.

Requirements

- Provide illuminated signage on the building exterior identifying library by name and with City of Winnipeg logo.
- Should be located on the west wall of the library to maximize the identification of the library via Fermor east and be designed in adherence with City Signage Guidelines and library staff.
- Provide for attractive, low maintenance landscaping to enhance the overall building.
- Replace roof c/w engineered fall protection system to satisfy Department of Labour requirements.

- Replace all exterior windows and replace existing skylights with elevated clerestory skylights.

Constraints:

- Durable, low maintenance building finishes must be used on exterior of building.

PART III - DESIGN CRITERIA

SCOPE

The Library and associated parking is located at 6 Fermor Avenue on a constrained site. The land is owned by the City of Winnipeg except for a portion of the parking lot located at the northeast edge of the property next to a Manitoba Hydro substation. The City of Winnipeg leases a portion of this land from Manitoba Hydro for library parking. The library facility is approximately 17,300 square feet on three levels.

The proposed renovation must be designed with interior and exterior finishes compatible with a contemporary public library setting. The current St. Vital Library at 6 Fermor Avenue has received Historical Building designation. This designation must be taken into consideration in all proposed renovations. The final report will be provided to the successful Consultant for inclusion as part of their work. The quality and standard of both interior and exterior finish materials must meet commercial requirements of high durability.

The overall approach must be to renovate the facility to ensure that it is a functional, attractive, and universally accessible and energy efficient library.

ENVIRONMENTAL

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

- Renovations should incorporate City of Winnipeg Green Building Policy standards where possible
- Maximized use of daylighting technology to reduce the amount of electricity needed to light the space
- Renovations must incorporate the most energy efficient method of heating/cooling the space
- All paints, sealants and adhesives used to have low or no volatile organic compounds (VOC's)
- Low flow fixtures to be used throughout the building
- Carpeting should be manufactured with recycled materials and low emissions
- Landscaping with native plants adapted to our climate that require reduced maintenance and watering
- Replacement of all windows, with some openers is required
- High performance mechanical systems

SITE

The main entrance to the library must remain on Fermor Avenue. Access to the library is via stairs and a ramp. The current ramp needs to be replaced to meet current accessibility standards. The current book return at the front of the building should be removed and relocated to the back of the library off the laneway to the parking lot.

PARKING - No changes to be made

FOUNDATIONS AND FLOORS

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

FENESTRATION

- All existing windows to be replaced with new energy efficient windows with low e-coatings to address direct sunshine issues. See the General Requirements
- Some windows to provide openers c/w screens. To be determined in consultation with library staff
- All window coverings to be provided by the City.

INTERIOR PARTITIONS AND WALLS

- Interior partitions and walls must be located to provide accommodations for the various functions and must be low maintenance finishes.
- The design and layout must maximize sound separation, with sound insulation being provided in walls around the Tutorial room, and Staff and Public Washrooms.
- Washroom walls must be covered with a durable ceramic wall tile to a height of seven feet

CEILING FINISHES AND ACOUSTICS

- The ceiling must have a finished appearance in all areas and rooms unless otherwise stated. Wooden ceilings visible from the main floor are deemed historically significant and cannot be removed.

FLOOR FINISHES

- Good quality ceramic/porcelain tile or acceptable alternative must be provided in the public washrooms.
- Durable, high quality, slip resistant flooring to be used in selected areas as outlined in program.
- High quality carpet tile in all areas except where specifically excluded.

SIGNS AND EMERGENCY EQUIPMENT

- A new illuminated, vandal-resistant overhead sign identifying the name of the library and the City logo to be designed for the east side of the building to replace the existing metal sign. Location to be confirmed on site in consultation with library staff.
- Suitable lights required under the building code must be provided at all entrances and egress points of the building for maximum safety of staff and patrons as well as to light up the existing sign on the south side of the building which is to remain.
- Building to have sprinkler system throughout if required by code.
- Library Building Security system including motion detectors, door contacts etc. for the building intrusion system with communication link to the City Hall. Metasys/Pegasus System to be installed by City staff. Contractor must work in consultation with City staff to determine location of sensors, alarm panels, door contacts, window contacts, etc.
- 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. Appropriate identification signage, labels, etc. must be posted as required. Signs must be internationally accepted symbols. Fire alarm system must incorporate strobe device for persons with hearing disability. Fire Department Direct Access is to be incorporated. Alarm systems must also include assistive audio systems.

- Interior signage recommendations to identify collections, services, and rooms, as well as wayfinding signage, are the responsibility of the City and outside the scope of the contract.

ILLUMINATION

- All lighting in the library must be the most energy efficient lighting available unless otherwise indicated. Some lighting may be deemed to be of historical significance and will need to be factored into the Consultant's recommendations. Daylighting levels must be automatically adjustable to natural lighting levels where practical.
- Emergency lighting must be provided per building code requirements and, in all occupied assembly spaces where there are no exterior windows.
- Lighting style, locations and pattern of layout to be developed by interior designer in consultation with Library staff and designed to be aesthetically attractive and enhance the overall facility while providing proper lighting levels.

BUILDING SERVICES

- Essential services such as sewer, water, heating and electrical upgrades must be designed/adjusted with sufficient quality, size and distribution to provide a fully functioning operational facility for its intended purpose.

TELEPHONES

The City of Winnipeg now uses a VoIP telephone service rather than the Centrex telephone technology. Therefore the renovated facility may only require land lines for the debit/ fax line at the Service Counter and the photocopier/ printer/ fax station in the Library Services Workroom. The location of the land lines and the location of conduit, cabling and electrical supply for the VoIP telephone system is to be determined in consultation with library staff. The cost for the supply of telephones is the responsibility of the City.

FIXTURES AND FITTINGS

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

- Low flush toilets should be installed throughout all washrooms. Toilets will be touchless operation.
- 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.
- All hardware and fittings must be of sufficient quality to ensure prolonged, maintenance-free operations.
- All sinks in all public washrooms shall be single lever operations.
 - Urinals should be equipped with motion sensor, touchless operation flushing.
- A doorless entry is preferred but may not be possible due to space constraints. If doors are required, the main entrance must include automatic power door operators activated by motion sensor and have back up to work when the electrical power is

down.

- All door locking mechanisms (keys and swipe cards) to be determined in consultation with city staff.
- Touchless, quiet hand dryers and soap dispensers in public washrooms required.

COLOUR AND SELECTION

- All proposed colour schemes, millwork, and finishing materials, both interior and exterior, to be reviewed and approved by library staff.

UNIVERSAL ACCESS AND FACILITIES

- The recommended renovations must adhere to the City's most current Accessibility Standards and incorporate universal access requirements for, both staff and the public.

AUTOMATION AND COMPUTER SYSTEMS

- All recommended automation cabling and electrical must be reviewed by library IT staff.

BUILDING SECURITY SYSTEMS

The Municipal Accommodations Division monitors the Pegasus security system from City Hall Central Control Office, including the building Fire Alarm system. The BAS system will monitor fire alarm, mechanical equipment failure, electrical supply and power failure, standby generator plant, H.V.A.C. (as determined), space temperatures and building security intrusion. This system must be installed in the library. The Consultant will work with the Municipal Accommodations Division to ensure the proper BAS system for incorporation into the recommended renovations. The Metasys/ Pegasus System is to be installed by City staff. Contractor must work in consultation with City staff to determine location of sensors, alarm panels, door contacts, window contacts, etc.

- Ensure fire detection, fire alarm monitoring and Building Security intrusion monitoring systems are all connected, operational and tested prior to changeover of responsibility to the City.
- Provide all electronic security including motion detectors, door alarms, etc.

MECHANICAL

- 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 current "Ventilation for Acceptable Indoor Air Quality" standards. Special attention should be given to ensuring the electrical room where computer network system is located has sufficient cooling to prevent damage or malfunction of all equipment in the room.
- All Zone controls must be new digital and installed to control heating, ventilating and air conditioning, HVAC equipment. Controls must include thermostat function indicating space temperature. Controls must have clear plastic lockable covers in public areas. Zone configuration must be approved in consultation with library staff to determine which areas are controlled on zone controls.
- All heating units must be commercial type of sufficient size and adequate digital controls to suit the conditions of the various rooms and areas. All units must be high

energy efficiency. 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. Provisions must be made for the introduction of fresh air to the HVAC system. Heating or cooling units must not be located on walls in a manner to interfere with library shelving.

- Consideration must be given to ease of equipment maintenance when locating equipment - i.e. - heating, purifying equipment. Adequate space for maintenance must be provided around all equipment.
- 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.
- 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.
- All new air conditioning systems that are installed will utilize an HFC refrigerant. No CFC or HCFC equipment acceptable.
- The building humidification system must provide optimal humidification for staff and the public.

ELECTRICAL

- Exact number, type and location of electrical outlets to be confirmed with City and Library IT staff. All work must be done in conjunction with City staff to their specifications.
- It is preferred that all electrical will be run in walls where possible.
- Floor outlets to be run below floor or in crawlspace where possible. All floor outlets (electrical and data) must have protective covers to keep dust and dirt out when not in use. Electrical and computer cables will not be run in concrete floor slab unless in adequate dedicated raceways.