WEST KILDONAN LIBRARY

BUILDING CONDITION ASSESSMENT, HERITAGE ASSESSMENT, CODE COMPLIANCE REVIEW, & FEASIBILITY STUDY

Winnipeg, Manitoba
March 2024



Prepared for:
The City of Winnipeg

Prepared by:

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ACKNOWLEDGMENTS
The Consultants would like to acknowledge the generous help and assistance provided by the City of Winnipeg staff.

Respectfully submitted to the City of Winnipeg
March 2024.

Cover Image - West Kildonan Library, View from Jefferson Avenue

Source: City of Winnipeg Engage Winnipeg West Kildonan Library Review Webpage, https://engage.winnipeg.ca/west-kildonan-library-building-review/widgets/160124/photos/34582

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0.1 EXECUTIVE SUMMARY

West Kildonan Library was built in 1967 and is in need of redevelopment to provide the City's target level of service. The City of Winnipeg engaged the consultant team to provide a report summarizing the condition of the facility and to provide recommendations for exterior and interior improvements. This included considerations for three different facility renewal options. Class 4 cost estimates were completed for each option. Option 1 maintains the library's existing level of service, with modifications made only to maintain the building and to address life safety and most accessibility issues. The total project cost for this option is $6.3M. Option 2 resolves accessibility issues with the existing elevator and makes smaller improvements to the library's programs and services. The total project cost for this option is $7.5M. Option 3 is a more extensive upgrade to the library's current level of service, improving programmatic and functional concerns. The total project cost for this option is $10.7M.

The library is currently within the permitted maximum building area for an unsprinklered building built with both combustible and noncombustible construction. The library's structure and exterior walls are noncombustible. Some of the interior partitions are combustible. Its floor assemblies are built using noncombustible open web steel joists and concrete topping. The building structure is in good condition. Exterior concrete (at the landings, stairs, and ramp) requires repairs. Localized repairs are required at the tyndall stone guardrail beside the ramp.

On the exterior, the existing building envelope provides little thermal resistance. Continuous membranes for resistance to air and water infiltration are non-existent. Thermal bridging is present at the precast concrete fins. The original wood window frames have sill damage from condensation. The roof of the library has exceeded its service life - it is recommended that the entire roof system is replaced in the next 12-18 months.

On the interior, the existing plaster board, ceramic tile, vinyl tile, and acoustic ceiling tile finishes are generally in good condition, with only minor repairs required. In the basement, the carpet tile is in very good condition. The main floor carpeting and basement program room carpeting is in poor condition and should be replaced. Many of the existing doors and frames require new hardware or must be replaced in their entirety. Millwork should be replaced throughout the library to meet WADS. Many of the interior finishes are heritage protected. There is asbestos present in some of the interior finishes. Refer to the asbestos report in the appendix..

There are major upgrades required to address life safety issues in the building. This includes: providing fire separations at both exit stairs, the janitor room, and the boiler room ceiling; protecting the barrier-free floor area in the basement; increasing the distance between exits in the basement; increasing the exit width in the program/assembly room; modifying existing guardrails and handrails; modifying the exterior stairs and ramp; protecting exposed foamed plastics; adding firestopping in the boiler room/janitor room/elevator room; replacing the boiler room door with a new fire-rated door that swings outwards; and increasing the width of several corridors. The existing washroom facilities do not meet code health requirements for the occupancy of the building.

There are many accessibility issues within the building and the larger site which need to be addressed to meet the Winnipeg Accessibility Design Standard (WADS). The washroom facilities in the basement are not accessible, and the existing Universal Toilet Room (UTR) does not meet WADS. Existing doors along accessible routes are too narrow. Existing knob-style door hardware must be replaced with accessible hardware. Several of the existing doors do not have WADS compliant ADOs (automatic door operators). The existing ramp, stairs, handrails, and guardrails have many non-compliant conditions. The staff entrance is not accessible. All existing millwork (kitchens, closets, desks) requires replacement. On the exterior, the accessible parking stall needs modifications.

The recommended mechanical upgrades include: providing a domestic hot water re-circulation system, re-balancing ventilation dampers in the outdoor air handler units, replacing the existing boilers with high efficiency boilers within 1-2 years, replacing the outdoor air handling units in the next 2-3 years, and replacing the indoor hydronic air handling unit in the short term.

The recommended electrical upgrades include: providing new emergency lighting, exit signage, audible/visual signaling devices, and smoke/CO detectors throughout the building; relocating fire alarm pull stations and light switches to an appropriate height; running branch circuit wiring in conduit or armoured cables where exposed; demolishing and providing new branch circuit panelboards; and providing new LED lighting throughout the building with new lighting controls.

Two phases of public engagement were completed for this study. Phase 1 was conducted prior to the development of improvement options and consisted of two stakeholder meetings. Input received from stakeholders was considered during design. Phase 2 consisted of an in-person presentation of all three options at a public open house and through the City's Engage Winnipeg West Kildonan Library Review webpage, with feedback received through both a physical and online survey. The online survey had 618 respondents. All design options received positive feedback from the majority of respondents, with Option 3 as the most favored choice. Respondents reacted very positively to new tutorial rooms and the outdoor reading garden. Reactions were more divided on moving the children's area to the main floor. Respondents showed less support for the relocation of the computer workstations to the basement. The selected option will depend on Council review and funding.

0.2 ASSESSMENT METHODOLOGY

Introduction

At the request of The City of Winnipeg, an assessment of architectural, structural, mechanical, and electrical systems was completed at the West Kildonan Library. The on-site assessment took place on May 12, 2023.

The following report details the review methods utilized and provides a summary of our observations and findings, as well as opinions regarding the condition of the building components within each discipline as noted.

Limitations

The assessment is based on a visual examination of representative portions of the building under review which were easily visible, exposed and could be examined. We cannot warrant any different conditions that may exist, but which are covered by finishes, or other materials, or not accessible at the time of the site visit. It should be further acknowledged that our foundation evaluation is based on the present condition only and that we cannot guarantee that future foundation movements will not occur due to movements in the subsoil.

A hazardous materials assessment was not part of the scope of work, however an Asbestos Inventory Control document dated December 5, 2022 was provided indicating that hazardous materials are present on site (attached in the appendix).

A civil assessment was not part of the scope of work.

Scope of Investigation

The purpose of this report is to complete a non-destructive condition assessment of the building components, and provide opinions on immediate, short and long-term repair / replacement considerations. The assessment also includes a comprehensive Building Code assessment, including compliance with the City of Winnipeg Accessibility Design Standards.

The investigation included a review of available documentation such as original construction drawings, renovation drawings and discussions with personnel familiar with the building.

A visual review was completed of representative portions of the building which were exposed and readily accessible. The exterior of the building and roof were reviewed as well.

The results of our investigation are summarized in this report.

0.3 BUILDING OVERVIEW

Building Name and Address:	West Kildonan Library 365 Jefferson Avenue, Winnipeg MB, R2V 0N3
Construction Completed:	1967
Registered Owner:	City of Winnipeg
Building Footprint Area:	+/- 6888 sq.ft. (640 sq.m.)
Property Area:	+/-15630 sq.ft. (1452 sq.m.) library + 517 sq.ft. (48.1 sq.m.) parking = 16146 sq.ft. (1500sqm)

0.4 BUILDING HISTORY

The original one-storey library building was constructed in 1967. Refer to the existing drawings in the appendix.

The main floor of the original building included front and rear entrances, a reception area, a public men's and women's washroom (single washrooms), and a large library area with an adult book section, children's book section, a reference section, and a reading room. There was also a librarian's office, staff room, work room, staff washroom, janitor closet, receiving room, and a small staff hallway. The basement level of the original building included a front and rear stair hall, a basement lobby, a public men's and women's single washroom, a future stack area, an assembly room, multiple storage rooms, a boiler room, an electrical room, and an exterior stair.

Vinyl asbestos floor tiles were used on the main floor level and in the basement (in the basement storage room and stair halls, and on the main floor throughout the main library space and in all other areas except the entrances and public washrooms). These remain in place today in many areas. An asbestos report has been provided and is included in this report. Carpet has been added on the main floor in the main library space - the vinyl tiles are not visible here.

No major additions have been added to the original building since its construction 56 years ago. The largest addition was the elevator added to the west side of the building in 1998. As part of this renovation, the reading room and library office were demolished on the main floor. There were minor modifications to the windows on the west side. An elevator machine room was added in the basement next to the elevator.

In 1999, the main floor reception desk was replaced. Two computer workstations were added. The basement assembly room was divided into a meeting room and staff room, with new millwork provided in both rooms.

In 2009, the exit door to the rear stairs was demolished on the basement level. A new exit door was added closer to the stairs, which keeps the washrooms out of the exit on the basement level. The exterior basement exit stair was decommissioned, with a planter and guardrails added above the stair.

Carpet tile appears to have been more recently added on the basement level.

PART 1
BUILDING SITE

1.1 BUILDING SITE & ZONING OF PROPERTY

Refer to the existing site plan found in the Appendix.

Building Address:	365 Jefferson Avenue, Winnipeg MB, R2V 0N3
Property Area:	+/-16146 sq.ft. (1500sqm)
Zoning By-Law:	Winnipeg Zoning By-law No. 200/2006
Zoning District:	R1-S – Residential, Single Family
Zoning Information:	The site is located within Urban Infill Area, Map 2, Schedule C Off-street parking reductions apply (80% of total) Building foundation landscaping is required. Parking lot landscaping required if > 20 stalls
Current Use:	Public / Institutional - Community Facility - Library
Current # of Parking Stalls:	17 (6 staff, 10 public, 1 accessible stall)

Review of Winnipeg Zoning By-law No. 200/2006

Table 4-1: Principal Use Table - Library & R1 = C (conditional)

Table 4-1: Library = Parking Category 9

Table 5-2: Dimensional Standards for the RR5, RR2, R1, R2 and RMH Zoning Districts:

Min Lot Area = 2500 sqft (**lot is compliant**)
Min Lot Width = 25 ft (**lot is compliant**)
Min Front Yard = 15 ft (**building is compliant**)
Min Rear Yard = 25 ft (**building is <u>not compliant</u> - located within the rear yard**)
Min Side Yard = 3 ft each or 2 & 4 feet (**building is compliant**)
Max Building Height = 35 ft. (**actual building height is compliant** = +/-18'-6")
Max Lot Coverage = 45% (**actual lot coverage is compliant** =6888sqft/16146sqft = 43%)

Table 5-7: Permitted Projections

Incidental building architectural features:
Front yard = max 5 ft **(roof overhang projects slightly into front yard - this is permitted**)

Table 5-9: General Accessory Parking Requirements

Number of Parking Stalls Required: 1 for each 1,000 square feet of gross floor area, but not less than 2 spaces. 6589sqft (main floor) + 6662sqft (basement) = 13251sqft
13251sqft/ 1000sqft = 13.2 = **13 parking stalls required (17 provided, compliant)**

The library exceeds the minimum number of vehicle stalls required by the zoning bylaw.

Bicycle Parking is required (1 per 10 parking stalls = **1 bicycle space**)

The library exceeds the minimum number of bicycle stalls required by the zoning bylaw.

Table 5-10: Minimum Required Accessible Parking Spaces

1 to 25 parking spaces required = **1 accessible parking space required** (no van accessible space required).

The width of each required accessible space must be at least 10 feet. It must be located within 200 feet of major building entrances used by residents, employees, or the public.

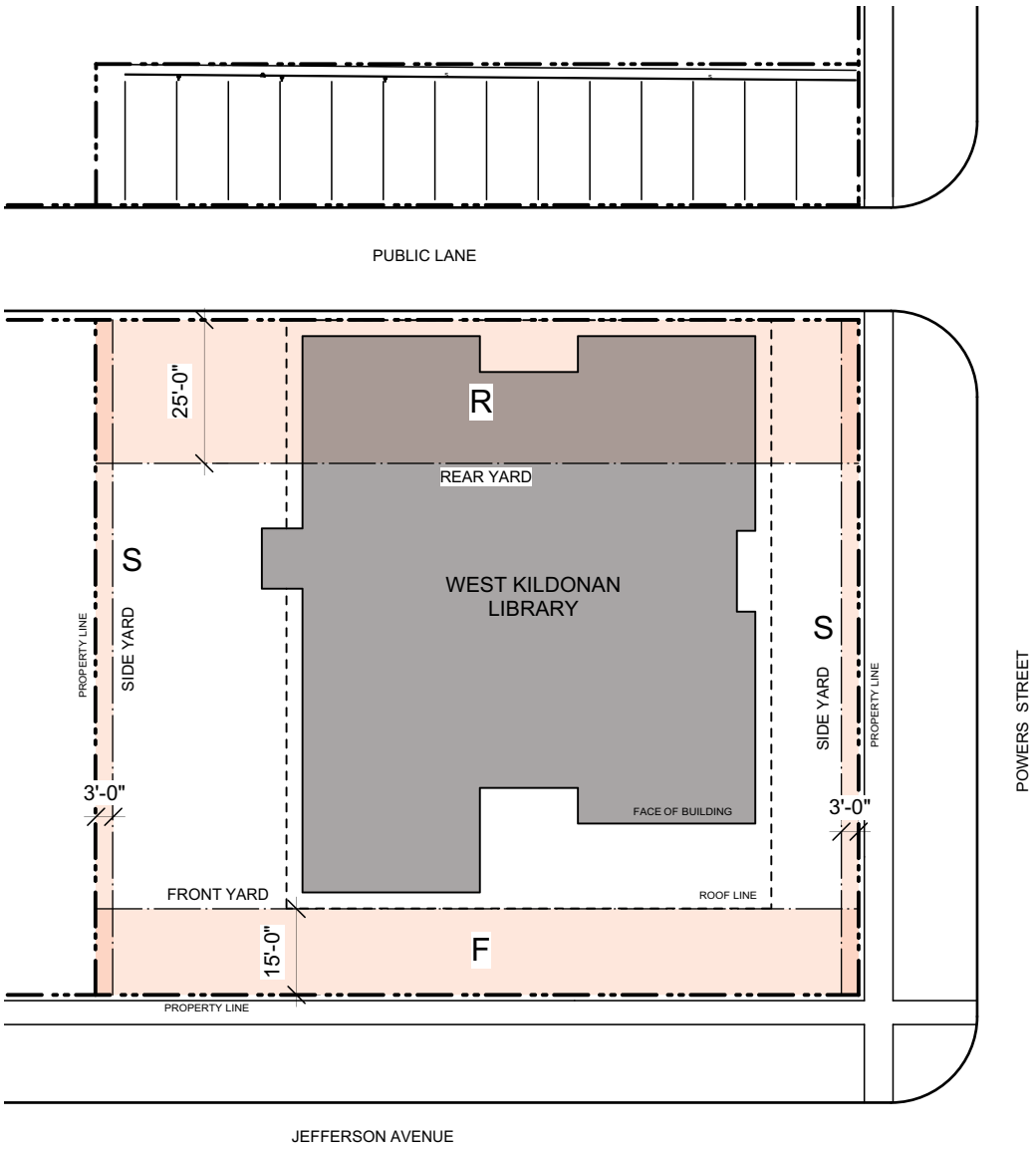
The accessible space is +/-13'-10" wide x 22'-0" long. It is located within 200 feet of the library's accessible entrance. This is compliant. Refer to the Accessibility Review in Part 9.

Table 5-12: Minimum Required Parking Space Dimensions

8 feet wide by 20 feet long; or 10 feet wide by 18 feet long, or any combination in between where the sum of the width and length equals 28 feet. 20 ft aisle required.

Existing parking stalls are +/-9'-0" wide by 20'-0" long. The aisle (public lane) is about 20'-0" wide. These are compliant.

1.1 BUILDING SITE & ZONING OF PROPERTY (cont'd)



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Site Plan with Required Setbacks Shown
(setbacks are shown in orange)

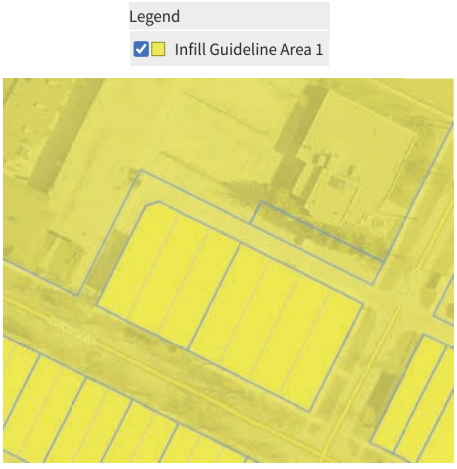
1.1 BUILDING SITE & ZONING OF PROPERTY



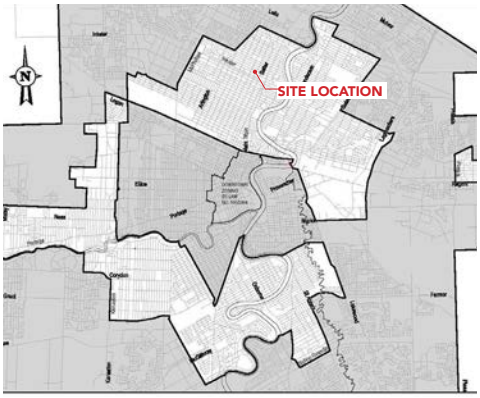
City of Winnipeg Property Map
Zoning Label and Parcel Dimensions Shown
Source: https://legacy.winnipeg.ca/ppd/maps_aerial.stm



City of Winnipeg Property Map
Zoning R1 (yellow) & Zoning PR (green)
Source: https://legacy.winnipeg.ca/ppd/maps_aerial.stm



City of Winnipeg Property Map
Site is part of Infill Guideline Area 1 (light yellow)
Source: https://legacy.winnipeg.ca/ppd/maps_aerial.stm



Winnipeg Zoning By-Law 200/2006
Urban Infill Area Map 2

PART 2
BUILDING STRUCTURE

2.1 STRUCTURAL ASSESSMENT

Crosier Kilgour & Partners Ltd.
CONSULTING STRUCTURAL ENGINEERS

June 12, 2023 Our File No. 2023-0449

1x1 Architecture Inc.
230 Main Street, Suite 310
Winnipeg, Manitoba
R3C 1C7

Attention:

Re: West Kildonan Library, 365 Jefferson Avenue, Winnipeg, MB
Structural Building Condition Assessment

As requested, and in your presence, the West Kildonan Library was visited to perform a review of the visible structural components. The library, constructed in 1967, has been designated as a municipal heritage site for its careful rendition of the modernist architectural style. The purpose of the visit was to assess the condition of the building structure to assist in informing a planning study for the facility. The following summarizes our observations, comments, and recommendations. The enclosed photographs illustrate some of the key observations made during our visit.

The assessment was performed on a walk-through visual basis. Exposed-to-view and accessible structural elements, as well as the interior and exterior finishes over structural elements, were reviewed. No invasive inspection recesses were made during our visit and no destructive testing was performed.

Background Information

The original building drawings were provided for our information, including architectural drawings by George Stewart and structural drawings prepared by Crosier & Greenberg. The review of these drawings provided the following information regarding the structural components. The roofs, main roof area and that over the clerestory, are steel framed with corrugated steel deck on open web steel joists that are supported on wide-flange steel beams. Steel columns for the superstructure bear on square concrete columns or walls within the height of the basement. The main floor has a thin concrete topping on v-rib steel pans on open web steel joists. The basement floor is a 5” thick concrete slab-on-grade. This type of slab does not span to discrete foundation elements, rather it is uniformly supported on prepared subgrade. The foundation is a system of cast-in-place concrete friction piles. Where dictated by the supported loads, double and triple pile groups were used.

The drawings were found to be carefully detailed. For example, the need to provide an allowance for differential movement for the head of basement stud walls is drawn. This accommodates possible movement between the studs supported on the slab-on-grade and the pile-supported main floor. Another example is a continuous steel channel on the flat suspended from beams and joists to support the transom window heads. Design live loads indicated on the structural drawings appear to be suitable.

The drawings also provide information on various exterior elements, including stairs, an entrance ramp, and loading dock that were formed with concrete beams and structural slabs.

2.1 STRUCTURAL ASSESSMENT

Subsequent structural drawings were reviewed, including a 1997/1998 elevator addition and work from 2009 where an exterior stair to the basement on the west side was capped at grade.

Site Observations

The projecting flat roof and fascia with horizontal siding is visible in Photograph No. 1. The recessed building wall had a strip of transom windows. The central clerestory construction is shown in Photograph No. 2. The original drawings appear to show a vertical wood screen all around this construction. No screen is present at this time and the wall has been clad with vinyl siding. The roofing on both the high and main roof have outlived their useful service life.

The capacity of the steel guard rail construction in Photograph No. 3 should be reviewed in regard to Code stipulated guard rail loading forces.

The structural elements in the main floor height of the library are not typically visible. Ceiling and wall finishes hide the wall and roof framing. A typical area is shown in Photograph No. 4.

Glazing adjacent to a change in elevation needs to have the structural capacity to resist guard rail loads. The glass walls with a view to the north and south stairs may require structural reinforcement. See Photograph No. 5.

A small area of the basement ceiling was open allowing a view of the main floor structure. V-rib sheet steel and open web steel joists were confirmed as shown in Photograph No. 6.

The concrete foundation walls were not typically exposed to view. In Photograph No. 7, the west wall of the boiler room is visible at the arrow. Localized efflorescence and water staining was evident. A very small area of the east foundation wall was visible. See Photograph No. 8. This concrete appeared to be in good condition.

The basement slab-on-grade, for the small area that was exposed, was in good condition. The slab surface is visible in Photograph No. 9.

The elevator addition had required cutting of the original foundation wall for the elevator and machine room. The cut concrete face in Photograph No. 10 shows a good variation in aggregate sizes and nominal horizontal reinforcing.

Condensed filing systems, such as that in Photograph No. 11, can exert high floor loads. The basement slab-on-grade would be suitable to support such loads, if this system were to be fully used.

Typical exterior wall construction is shown in Photograph No. 12. The fascia around the flat roof edge project has horizontal siding. The recessed transom window bands are above random ashlar pattern Tyndall Stone cladding. Precast concrete fins act as a brise-soleil at the punched windows.

The various exterior concrete elements were found in fair to poor condition. As shown in Photograph No. 13, the front entrance stairs require durable concrete repairs or replacement. The landing is a 6” structural slab. The cost of structural repairs increases significantly if the damage is allowed to propagate over time. This is because the damage, such as failure of concrete due to the expansive forces from corrosion of reinforcing steel accelerates as time passes. The original stairs were drawn as precast elements supported on a structural haunch.

2.1 STRUCTURAL ASSESSMENT



A close-up of the precast fins is provided in Photograph No. 14. They appear to be in good condition.

The exterior columns are shown on the 1966 drawings to be wide-flange steel. The column in Photograph 15 appears to be concrete at first glance. The base may or may not be a steel plate. While there is no indication that the columns are not suitable for the applied loads, the change since the original drawings is curious.

Photographs No.'s 16 and 17 are of the partial height stone-clad ramp wall. It exhibits step cracking possibly due to moisture infiltration. The steel anchors for the coping stone are corroding and causing spalling of the stone. Repairs will include repointing of the mortar joints and removal of the original pins and replacement with stainless steel anchors.

The loading dock area at the north side of the building exhibits various distress in the concrete elements. Refer to Photographs 18 to 20. The landing level is again a 6" structural slab. The concrete elements in this area require durable concrete repairs or replacement.

The former exterior stair to the basement was covered over in the 2009 work with a detail that left the stair in place under a concrete slab cast on corrugated steel deck on structural steel framing to create a planter. Photograph No. 21 shows the top of this area with the top of the original walls projecting about the soil.

Discussion and Recommendations

Based on our walk-through review, no signs indicating distress or over-loading of the building's main structural elements were observed. No repairs are anticipated within the next 10 years to the primary building structure.

All guard rail construction, including the roof edge rail and the interior glass wall construction to the basement stairs, should be reviewed for ability to resist Code stipulated guard rail loads. It is anticipated that reinforcement or replacement will be required.

Exterior concrete elements require engineered repairs. Postponement of repairs will significantly increase the scope and costs.

The Tyndall Stone cladding on the building is in good condition. The partial height exterior wall requires localized masonry repairs.

The details of the modifications to the abandoned exterior stair on the west side of the building are unusual and have potential for hidden structural distress due to water infiltration and corrosion of the supporting steel. This combined with the signs of water infiltration in the boiler room, suggest that a solution that includes demolition of the abandoned stair and installation of a full height, high-build fluid applied exterior foundation waterproofing membrane should be considered.

Conclusion

From our walk-through review, the building structure of the West Kildonan Library was found to be in good condition. Exterior elements, including concrete and a Tyndall stone stub wall, require repairs. Guard rails require a review of their structural capacity to meet current Code requirements.

2.1 STRUCTURAL ASSESSMENT

We trust that this provides the information that you require at this time. Please do not hesitate to contact us with any questions or comments regarding this report.

Yours truly,

Kathy J. Pratt, C.I.M., LEED AP, P. Eng.
/kjp

https://ckpeng.sharepoint.com/sites/2023-0449/shared documents/general/01 corres/[illegible] structural component.docx

PROVINCE OF MANITOBA
REGISTERED PROFESSIONAL ENGINEER
K. J.
PRATT
Member
6457

APEGM
Certificate of Authorization
Crosier Kilgour & Partners Ltd.
No. 235 Date: 2023-06-12

2.1 STRUCTURAL ASSESSMENT

Photograph #1:

Partial front (south) elevation of library.



Photograph #2:

View of vinyl clad clerestory and main flat roof areas.



Photograph #3:

Light roof guard rail construction.



Photograph #4:

Typical interior view of main floor area.



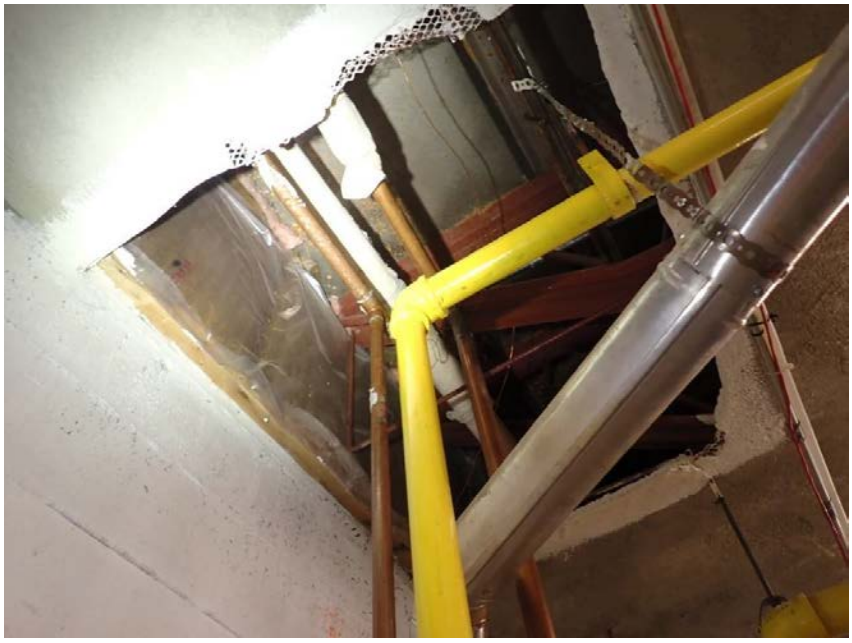
Photograph #5:

Glass/ wood construction required to act as a guard rail.



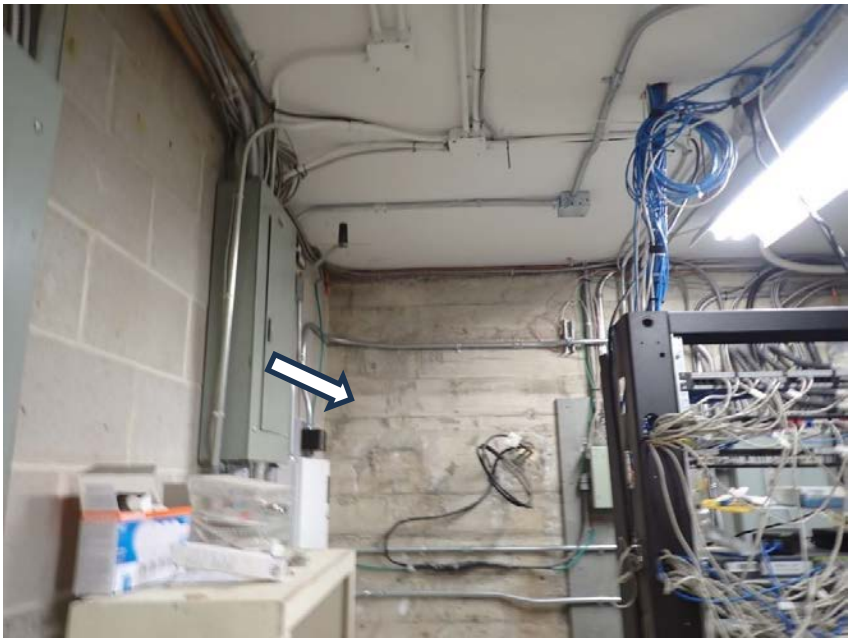
Photograph #6:

View of main floor framing from basement level.



Photograph #7:

Board-formed foundation wall shows some water infiltration at Boiler Room.



Photograph #8:

East foundation wall in good condition where visible.



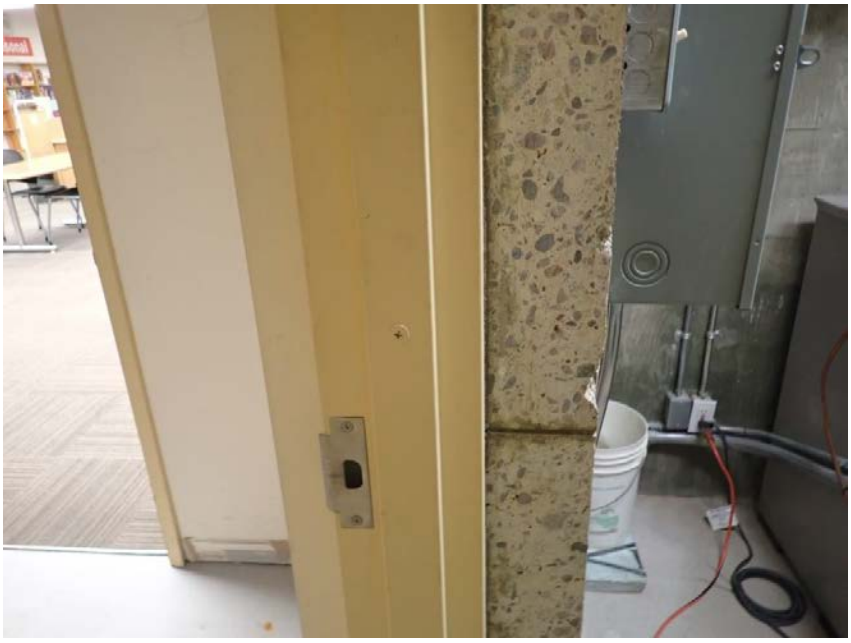
Photograph #9:

Slab-on-grade basement floor in good condition.



Photograph #10:

Cut foundation wall for elevator machine room.



Photograph #11:

Condensed storage unit on basement slab.



Photograph #12:

Typical exterior with Tyndall Stone cladding and precast concrete fins at windows.



Photograph #13:

Front entrance landing and stairs condition.



Photograph #14:

Close-up of concrete fins.



Photograph #15:

Exterior column.



Photograph #16:

Stone clad concrete wall.



Photograph #17:

Coping stone failure at embedded anchor.



Photograph #18:

Rear, north, face of building with loading dock area.



Photograph #19:

Concrete distress including failed repairs and exposed reinforcing steel.



Photograph #20:

Delamination at stair and entrance slab.



Photograph #21:

Area that was previously an exit stair from the basement.



PART 3
BUILDING ENVELOPE

3.1 ROOF ASSESSMENT

Crosier Kilgour & Partners Ltd.
CONSULTING STRUCTURAL ENGINEERS

June 6, 2023

Our File No. 2023-0449

1x1 Architecture Inc.
230 Main Street, Suite
310 Winnipeg, Manitoba
R3C 1A8

Attention:

Dear

Re: West Kildonan Library; Winnipeg, Manitoba
Building Condition Assessment and Feasibility Study Roof Review

A site review of the existing roof system at 365 Jefferson Ave, in Winnipeg was performed on May 12, 2023. The purpose of this review was to assess and comment on the condition of the existing roof system including but not limited to the membrane and insulation condition, roof drainage, related penetrations, tie-ins, and terminations. Our assessment is based on a visual review of the existing conditions. The following summarizes our observations, comments, and recommendations. Photographs of significant findings are included within the report.

Summary Statement

There are 3 roof facets in total at 365 Jefferson Ave, the main roof facet, the clerestory roof, and the west elevator addition roof. The existing roof assembly on 2 roof facets (main and clerestory), is a typical 4-ply built-up asphalt and gravel ballast roof system. The west elevator roof (only 45 sq. ft.), is a SBS 2ply modified bitumen membrane system. All roof systems were observed to be in poor condition and at the end of their useful service life. A Class C budget to replace the existing roof assemblies with a new SBS 2-ply insulated system is approximately $360,000.00 based on a total roof area of 7,500 square feet.

Details

The existing roof details confirmed 365 Jefferson Ave. are as follows:

Total Roof Area	7,488 sq. ft.
Total Roof Facets	3
Predominate Pitch	+/- 0.1/12
Number of Stories	1 storey
Total Perimeter	444ft
Total Penetration Area	581 sq. ft. w/ clerestory
Parapets (all)	(Blocking edge) 0 ft.



The existing roof assembly consists of a conventional 4-ply built-up roof; felt paper integrally bonded with hot asphalt and protected with gravel ballast, fiberboard support panel (2”), 2-ply asphaltic felt paper vapor barrier on the existing roof deck. This roof system was confirmed by existing architectural drawings.

Exact age of the existing roof system could not be confirmed on-site; based on our site observations it appears that repairs and maintenance work have been completed on all roof facets over the past years, indicating that this roof system has been in service for some time. The west SBS roof was likely installed in the past 10 years.

3.1 ROOF ASSESSMENT

No tapered (sloped) insulation was observed to be integrated in the existing roof system at the cut test location. Based on our site observations existing slope to the interior roof drains is minimal and well below the minimum.

Observations
The following summarizes in point form our comments and visual site observations:

- Areas on the roof field showed evidence that repairs/patching of the 4-ply roof system had been completed in the past with temporary mastic products. Roof cover areas have been repaired with a 2-Ply SBS modified membrane roof cover.
- Isolated roof areas had exposed membrane with no sufficient gravel cover. Blistering observed.
- Roof drainage on the main roofs is provided via internal roof drains (3). Secondary drainage provided via metal scuppers (2) each side. Scuppers have been repaired.
- Minimal slope to the roof drain and scupper locations was observed to be present throughout the roof areas. Scuppers are complete with metal hopper and rain leaders, thus acts as primary and secondary drainage, due to zero slope throughout. Observed slopes appear to be minimal and not at the recommend minimum 1% to 2% slope range. Ponding water is apparent by debris.






3.1 ROOF ASSESSMENT

- We observed throughout that the existing membrane has typical blister defects.
- At the roof wall interface the asphalt flashing shows cracking due to age.
- Roof penetrations for mechanical curbs, vents and plumbing stacks are present throughout all roof areas. Deteriorated metal flashings and sealant were observed at a few roof penetration's locations, as shown past repairs with an SBS cap membrane was applied.





Summary and Conclusion
The age of the existing 4-ply built-up roof system is unknown and based on our site observations and numerous signs of past completed repairs throughout the roof asphaltic membrane, the roof system appears to be in overall poor condition.

The typical anticipated life cycle of a conventional 4-ply built-up roof system is 20 years. Localized repairs and patching are unlikely to provide any improved long-term solutions for this building, especially due to the observed deficiencies in the asphaltic membrane. Knowing past repairs for roof leak had occurred, its likely moisture and water are currently in the roof system. The underlying fiber support panel becomes a wick for moisture and holds until saturation. This event leads to further water migration into the building and structural components of the building. Therefore, we believe that replacement of the roof system is warranted and recommended to be completed in the short term of 12-18 months. Due to the condition and moisture in the assembly thermal resistance is low and the system is under performing as a result. We understand, however, that replacement of the roof within the next year may not be feasible from a capital planning perspective. In the meantime, continual monitoring and maintenance are required and recommended to be completed on a bi-annual basis until the full roof system replacement is completed. An ongoing maintenance plan should include:

- Review of all drainage planes,
- Review of the roof penetrations,
- A general overall review of the roof membrane cover,

Additionally, budgeted maintenance costs should include any necessary required minor repairs as determined during the annual review. In the table below we've provided a budget cost estimate for monitoring and minor repairs on a bi-annual basis. It should be noted however that as the project is deferred, the potential for leakage into the building increases and the associated costs for repairs and maintenance may continue to increase until a full replacement of the roof assembly.

3.1 ROOF ASSESSMENT



To enhance the roof drainage profile on roof areas where required, it is recommended to have a sloped insulation system incorporated into a new roof system. Rigid insulation / sloped insulation would be adhered to the roof deck with the new primary roof insulation anchored on-top.

The most appropriate recommended long-term solution is to replace the existing roof assembly on all roof facets with a new conventional 2-ply SBS modified bitumen membrane system. This would involve the following scope of work:

- Completely remove existing membrane, gravel, and insulation down to the roof deck structure on all roof facets.
- Install a continuous self-adhered air/vapour barrier membrane.
- Installing a rigid sloped insulation system to enhance roof drainage at roof areas were required including overflow drainage.
- Install polyisocyanurate insulation boards. Thickness would be installed in order to comply with current Manitoba Building Code/ NECB requirements for thermal resistance; R28 for flat roofs.
- Provide secondary drainage with current Manitoba Building Code requirements.
- Install SBS modified base sheet membrane and SBS modified cap sheet membrane, to provide waterproofing.
- Modify existing roof parapets where required to accommodate new roof system installation. Install new perimeter metal flashing assembly at parapets, new flashing at all transitions and roof penetrations.

Budget Construction Costs

The following costing is based on industry means that our firm has experienced over the last several years. Costing presented below are in 2023 dollars and as indicated in the summary statement. Please understand that the actual cost can vary due to hidden conditions that are exposed upon demolition, mechanical & electrical conditions, phasing of work, work restrictions, and time of year in which the work is being tendered and performed. Finally, please note the costs presented do not include any required asbestos or hazardous material removal professional fees, taxes or other costs that may be incurred by the owner.

Item	Unit Cost	Total Cost
Roof Maintenance (all roof facets):		
• Bi-Annual review of roof areas, including maintenance and any small repairs. Until recommended roof replacement is completed.	Allow	$1,200.00
Roof System Replacement (all roof facets):		
• Removal of existing roof system on all roof areas. Supply and install new R-28 insulated 2-ply SBS modified bitumen membrane system as per recommendation above, including mobilization and general requirements.	Allow $48.00 sq. ft.	$360,000.00
• Design and consulting fees (Est. 7%)		$61,200.00

3.1 ROOF ASSESSMENT

1X1 Architecture Inc
Attention:

We trust the above report provides the information you require. Upon review, please do not hesitate to call if you have any questions or require further clarification.

Yours truly,

George Harrison, Consultant

Kenneth J. Pratt, C.I.M., LEED AP, P. Eng.

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https://ckpeng.sharepoint.com/sites/2023-0449/Shared Documents/General/10 Inspections/2023-0449 Roof Review.docx

APEGM
Certificate of Authorization
Crosier Kilgour & Partners Ltd.
No. 235 Date: 2023-06-12

3.2 BUILDING ENVELOPE ASSESSMENT

Crosier Kilgour & Partners Ltd.
CONSULTING STRUCTURAL ENGINEERS

June 14, 2023 Our File No. 2023-0449

1x1 Architecture Inc.
230 Main Street, Suite 310
Winnipeg, Manitoba
R3C 1C7

Attention:

Re: West Kildonan Library, 365 Jefferson Avenue, Winnipeg, MB
Building Envelope Condition Assessment

As requested, and in your presence, the West Kildonan Library was visited to perform a review of the visible environmental separation components. The library, constructed in 1967, has been designated as a municipal heritage site for its careful rendition of the modernist architectural style.

The purpose of the visit was to assess the condition of the building envelope to assist in informing a planning study for the facility. The following summarizes our drawing review, observations, comments, and recommendations. The appended photographs illustrate some of the key observations made while on site.

The audit was completed in general conformance to the Protocols for Building Condition Assessments, developed by the National Research Council of Canada. A visual examination of representative and accessible areas was completed. On-site staff were queried for any known problems with respect to the building envelope, the details of which were used to help identify specific causes of concern. The audit completed was visual only, no invasive inspection recesses were completed. For reference, a partial view of each of the four building elevations is provided in Photographs No.'s 1 to 4.

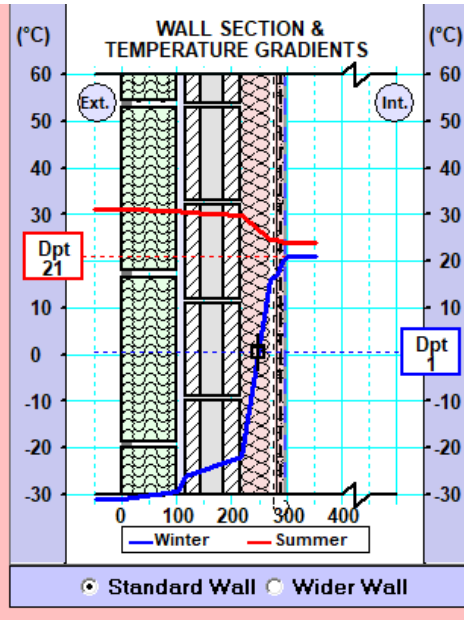
Background Information

The original building drawings were provided for our information, including architectural drawings by George Stewart Architect. The review of these drawings provided the following information regarding the building envelope components.

The main roof is framed with structural steel that cantilevers outward past the plane of the main floor walls. The soffit of the roof lines up with the interior ceiling and is the plane of the head of the rough opening of the transom windows. Only a vertical plywood strip with 2" of rigid insulation glued to the inside face and vapour barrier appears to separate the interior to the exterior in the roof framing depth.

Within the height of the windows, precast concrete fins act as a brise-soleil. These extend upwards into the roof soffit and bear on an 6x4 Hollow Structural Section (HSS) girt, inside the wall.

The construction of the exterior walls below the transom windows is shown, from exterior to interior, as Tyndall Stone cladding, a finger space with mortar fill, 4" concrete block back-up, 2" of rigid insulation, vapour barrier, and 5/8" plaster board. Both the nominal 4" standard pipe section columns and the HSS girt, project to the back of the Tyndall Stone cladding or project into it.



Simple linear thermal resistance modeling suggests the wall's gross thermal resistance to be approximately RSI 1.46 (R8.3). Note the dew point in the insulation which confirms that the block back-up will remain below freezing and experience condensation and/or frost accumulation on its interior facing surface during the heating season. This increases the potential for freeze-thaw damage and produces conditions within the wall assembly conducive to biological growth.

At the basement level, the 10" cast-in-place concrete walls are shown to have strapping and 2" insulation on the inside face. At one location on the east side of the building, an approximately 3' deep by 14' long recessed area is shown to be only an extension of the typical main floor construction to the straight basement wall. The building section shows 2" of insulation on the soffit of the floor plate, extending back to just beyond the window line, and a "silicone water repellant" applied to the slab top surface.

Site Observations

- The projecting flat roof of the south elevation, and fascia with horizontal siding, are visible in Photograph No. 1. This elevation has a wide exposed soffit. The recessed building wall had a strip of transom windows directly below the soffit which are typical around the building.
- The east elevation, in Photograph No. 2, has a recessed area with narrow vertical windows. The precast concrete fins brise-soleil is seen at the windows to the north.
- The original structural drawings indicate that the concrete landings at the north and south entrances are structurally supported but cast on a void and are not above the basement. The north loading dock and stairs are visible in Photograph No. 3.
- The west elevation is the only face with basement windows. Refer to Photograph No. 4.

- As shown in Photographs No.'s 5 and 6, the roofing on both the high clerestory roof and on main building roof has outlived its useful service life.
- The central clerestory construction is shown in Photographs No.'s 7 and 8. The original drawings appear to show a vertical wood screen all around this construction. No screen is present at this time; it is not known if it was installed.
- The clerestory walls have been reclad with horizontal siding, creating deeply recessed windows. No flashings were observed. We were unable to determine if insulation or envelope sealing was included with the siding work which appears to be mounted to the original 2x4 stud walls.
- The stone cladding was typically observed to be in good condition. Photograph No. 9 provides a view of a wall corner and the planes of the stone/ transom windows/ and roof fascia.
- In Photograph No. 10, the recessed area on the east side is shown. The concrete is in fair condition. No base flashings were provided on the stone or wood walls. According to the drawings, this area is over the basement with limited insulation and inadequate resistance to air or moisture infiltration.
- The front transom window construction was reviewed from a ladder, both on the exterior face and on the interior. See Photograph's No.'s 11 to 14. The original glazing appears to have been replaced with dual hermetically sealed units. A date sticker indicated 2019 manufacture. These units were installed in the original wood frames.
- Sill damage from condensation and possibly frost was observed on the interior.
- When the elevator was added on the west side, a bay of three full height windows was reduced to one. This window is shown in Photograph No. 15.
- The precast fins are drawn as extending approximately 12" into the soffit. Photograph No. 16 shows water staining from the interface with the soffit suggestive of air leakage and condensation within the soffit
- The configuration of a typical basement window, with a hopper style operable sash, is apparent in Photograph No. 17.
- Entrance fenestration includes wide horizontal and narrow vertical sashes. Photograph No. 18 shows the south entrance area.
- As shown in Photograph No. 19, a feature of the original architecture is to have the stone cladding at the entrances project through to the interior. According to the drawings, a vertical 2x4 interrupts the stone and provides a connection to the window framing. Still, this detail represents a significant thermal bridge.
- Original doors are indicated as solid wood, 1-3/4" thick. Photograph No. 20 shows one of the exit doors.
- The basement walls were not typically visible. At the Boiler Room, staining and minor efflorescence from some previous water infiltration was observed. See Photograph No. 21.

Discussion

The components of the building envelope of the West Kildonan Library reflect the science of the day and even then, their design took second place to the modernist design aesthetic.

Continuous membranes to provide resistance to air and water infiltration are non-existent. Thermal resistance of the roof systems is, at best, in the order of RSI 1.5 (R8 to R9).

The main wall construction, when considered on its own, has a similar nominal thermal resistance of approximately RSI 1.46 (R8.3). As noted above, the analysis of the cross-section finds that the 4" block is below

freezing for the winter design conditions. This exacerbates the potential for freeze-thaw damage in the block masonry.

However, the head of this wall construction has the strip of transom windows without tie-in details to the wall, and the projecting roof soffit that lacks both suitable insultation and air sealing from the interior to exterior.

Some wall areas include the thermal bridge effects of the 3-1/2" wide precast concrete fins. These at approximately 6' high and 1' full height projection into the interior of the library present a unique challenge.

Some items could be addressed without having too much affect on the appearance of the library. For example, the roof covering requires replacement of the membrane. Removal of the existing roof insulation and installation of new up to R28 could be done.

As another example, the concrete foundation walls could be excavated to receive a fluid-applied high build membrane and exterior insulation. The recessed bay at the east side could have an insulated and drained system installed. But the building walls are problematic in that addressing one or more of the components that contribute to the envelope deficiencies does not provide integration into an overall envelope. Air sealing one area can increase leakage in another.

Consideration could be given to replacing existing wood framed widows and doors with more thermally efficient modern units, which if carefully designed and integrated properly into the wall assembly could result in decreased air leakage, increased thermal resistance, and increased occupant thermal comfort.

Ideally, a continuous line of air and thermal barrier could be created from the roof deck to the foundation wall. Given the steel pipe columns and HSS girts that are, not only embedded in the wall construction, but into the backside of the stone cladding, working on the walls from the exterior could be considered. However, rebuilding walls from the interior may have less effect on the character defining features of the building. Whichever approach is considered, careful hygrothermal modelling of the proposed wall assembly is recommended to evaluate the potential for long-term moisture accumulation within the enclosure and the associated durability risk.

A final, though quite intrusive and cost intensive option, would entail an exterior air barrier retrofit, comprising the complete removal and re-instatement of the exterior cladding over a rainscreen system comprising exterior insulation and continuous air barrier applied to the existing concrete block backup.

Mechanical systems operations will also need to be reviewed when making the building more air tight to ensure that they are able to accommodate increased levels of interior relative humidity.

Conclusion

None of the envelope components at the West Kildonan Library are suitable to meet modern standards. The effects are not only high energy bills but also potential for significant deterioration due to freeze-thaw effects, condensation, moisture infiltration, etc. Addressing localized items without considering continuity of the entire envelope could be additionally detrimental.

We trust that this provides the information that you require at this time. Please do not hesitate to contact us with any questions or comments regarding this report.

Yours truly,

Kathy J. Pratt, C.I.M., LEED AP, P. Eng.
/kjp

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No. 235 Date: 2023-06-14

Photograph #1:

Partial front (south) elevation of library.



Photograph #2:

East building elevation facing Powers Street.



Photograph #3:

North elevation with loading dock area.



Photograph #4:

Partial west elevation with windows from basement level.



Photograph #5:

Main roof area.



Photograph #6:

Edge of clerestory roof.



Photograph #7:

Vinyl siding on clerestory.



Photograph #8:

No rough opening flashings at clerestory windows.



Photograph #9:

Close-up of typical wall construction elements.



Photograph #10:

Exterior concrete finish above interior basement area.



Photograph #11:

Transom window configuration.



Photograph #12:

Replacement sealed units in original wood frames.



Photograph #13:

Transom windows from interior.



Photograph #14:

Close-up of sill condition.



Photograph #15:

Full-height window adjacent to elevator addition modifications.



Photograph #16:

Precast concrete fins meeting soffit. Note drip marks from above.



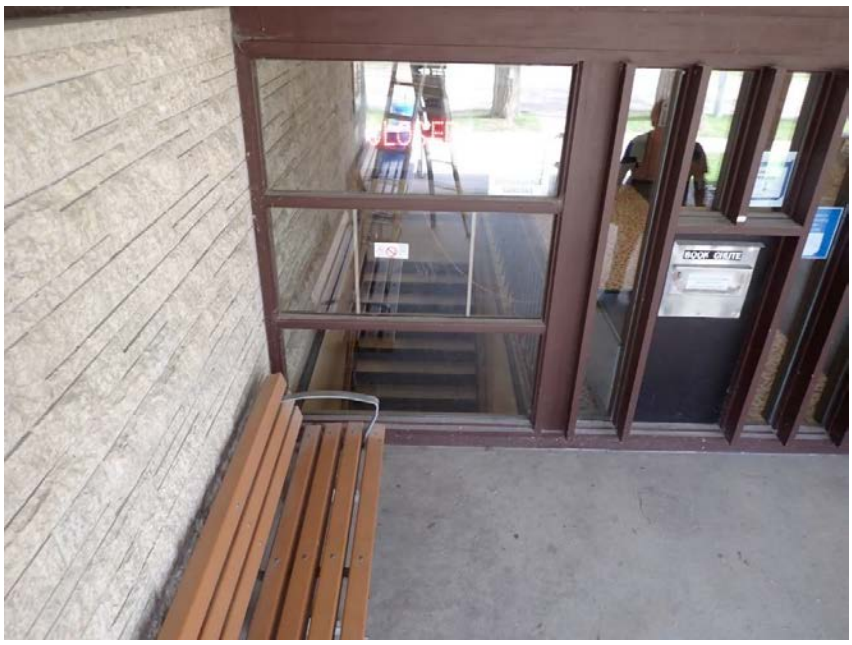
Photograph #17:

Typical basement window.



Photograph #18:

Glazing configurations at the front entrance.



Photograph #19:

Stone clad wall extends from exterior to interior.



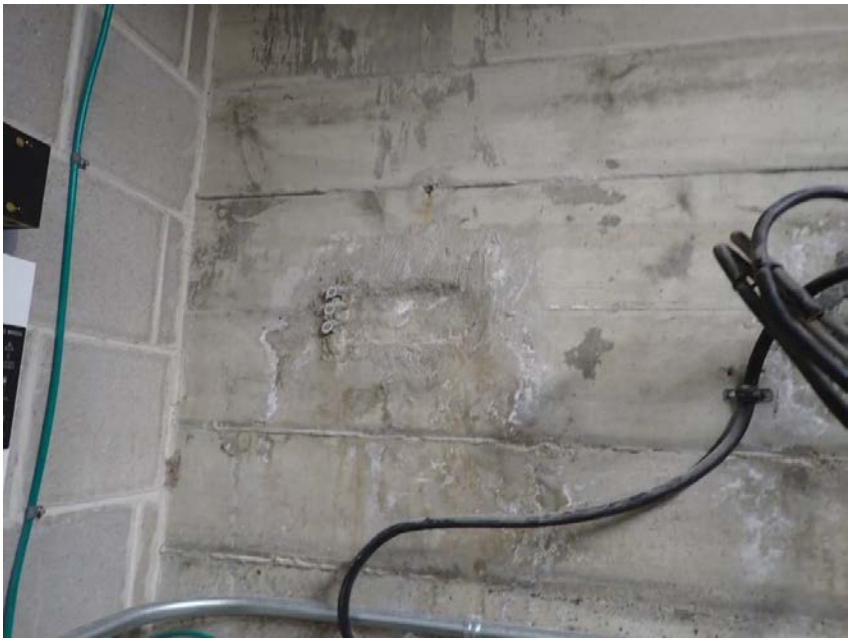
Photograph #20:

Original solid wood door.



Photograph #21:

Water staining on west foundation wall.



PART 4

MECHANICAL & ELECTRICAL SYSTEMS

Mechanical & Electrical Systems Condition Assessment

West Kildonan Library
365 Jefferson Avenue
Winnipeg, MB

CONSULTANT/ENERGY AUDITOR

epp siepman engineering

400-136 Market Avenue
Winnipeg MB R3B 0P4

2023 June

4.1 MECHANICAL & ELECTRICAL SYSTEM ASSESSMENT

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epp siepman engineering

4.1 MECHANICAL & ELECTRICAL SYSTEM ASSESSMENT

I. Introduction:

A. Scope

This report will provide a description of the building components, an assessment of their general condition and recommendations for major repair or intervention. Our recommendations will look forward a maximum of five years.

Also included are observed areas relating to the mechanical and electrical systems that do not comply with NBC 2020.

Our review is based on the following:

1. A visual review of the available documents
2. Visual review of the observed conditions of building components and systems.

Items not included in scope of work:

1. Detailed Life Safety and Fire Code Review
2. Material sampling and testing
3. Inspection of concealed elements, intrusive openings, or opening of system components for internal inspection
4. Verifying operation of systems
5. Engineering design/analysis
6. Detailed breakdown of maintenance and repair tasks and costs.

B. Limitations

The report specifically excludes:

1. Review of concealed elements,
2. Engineering design or analysis.

The Consultant has put forth reasonable professional efforts to comply with applicable laws, codes and regulations in effect as of the date of this report. Design changes made necessary by newly enacted laws, codes and regulations after this date shall entitle the Consultant to a reasonable adjustment in the schedule and additional compensation in accordance with the Additional Services provisions of this Agreement.

The Consultant shall not be held responsible for any errors or omissions that may arise as a result of erroneous or incomplete information provided by the Client and/or the Client's consultants and contractors.

Because evaluation of the existing systems requires that certain assumptions be made regarding existing conditions, and because some of these assumptions cannot be verified without expending additional sums of money or destroying otherwise adequate or serviceable portions of the building, the Client agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Consultant, its officers, directors, employees and subconsultants (collectively, Consultant) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, arising out of or in any way connected with this Project, excepting only those damages, liabilities or costs attributable to the sole negligence or willful misconduct by the Consultant.

4.1 MECHANICAL & ELECTRICAL SYSTEM ASSESSMENT

The recommendations provided assume the continuation of, at minimum, the existing maintenance schedules. Recommendations for continued maintenance of items already determined to be scheduled are not included in the assessment.

C. Team

Andrew Laban, P. Eng.	Mechanical systems review
Ade Sowunmi, P. Eng.	Electrical systems review

II. Description of Systems

A. Mechanical

The building basement is heated/cooled via two Trane air handler units located in the courtyards outside the building (Figures 1,2). Each air handler unit contains a natural gas heating section as well as an integral DX cooling section.

The building main floor is heated/cooled via two Trane air handler units located on the roof (Figure 3,4). Each air handler unit contains a natural gas heating section as well as an integral DX cooling section.

Ventilation is supplied to the building via the air handler units.

The Assembly Room in the basement receives further heating via a Tane Indoor air handling (Figure 5) units that is equipped with hydronic heating coils from the building central boilers.

Two atmospheric AO Smith Boilers (Figure 6) supply hot water to hydronic wall fins on the main floor as well as the hydronic heating coils to the assembly room indoor air handling unit.

Service Hot Water is supplied to the building via a John Wood gas fired storage hot water tank (Figure 7).

B. Electrical

The building is served by a 120/208 3Ph 4W 400A service fed from a pole mounted utility transformer located in the building's parking lot. The service entrance is located in the basement electrical room.

Communications is provided to the building via an exterior routed Coaxial distribution, fed to the basement demark. From this location, communications cabling is routed surface clipped, before transitioning above ceiling spaces and through the floor slab to the upper floor to feed individual outlets.

The building has a fire alarm system with audible/visual alarms, battery-based emergency lighting units and remote lighting heads, and red-letter "EXIT" style exit signage.

Lighting in the building generally comprises linear surface and recessed fluorescent fixtures, controlled via wall mounted manual toggle switches. There does not appear to be automatic occupancy control or daylight harvesting.

Lighting on the building exterior comprises surface mounted halogen fixtures located on the underside of the perimeter soffit.

The building has undergone several renovations since construction, of which the most electrically significant was in 1998. This comprised a service upgrade and revision of the internal distribution.

4.1 MECHANICAL & ELECTRICAL SYSTEM ASSESSMENT

III. Significant Code Deficiencies

A. Mechanical

There are no recirculation pumps for re-circulating domestic hot water to the building. This is a code requirement for this building.

Recommendation:

1. Provide domestic hot water re-circulation system to aid in providing sufficient levels of domestic hot water to the most remote plumbing fixtures.
2. Ventilation dampers in the outdoor air handler units are recommended to be re-balanced to confirm code-required ventilation is being provided to the occupied spaces.

B. Electrical

Emergency lighting is provided throughout the building; however, coverage is insufficient and does not comply with the requirements of NBC 2020.

Emergency lighting was not observed in washrooms.

Existing exit signage is red-letter exit style and does not meet new building code requirements for green pictogram style exits.

Fire alarm audible/visual signaling devices do not appear to be installed in service spaces.

Fire alarm audible/visual signaling devices do not appear to be installed in stairwells.

Coverage of fire alarm audible/visual signaling devices in occupied spaces appears inadequate.

Manual fire alarm initiating devices (pullstations) are not installed in accordance with CAN/ULC S-524 standard requirements.

Smoke detector coverage in stairwells is inadequate.

Carbon monoxide (CO) alarms have been installed, but they do not appear to be interconnected to the fire alarm system as required by NBC 2020.

Branch circuit wiring was observed exposed and not run in raceway or otherwise concealed.

Light switches do not appear to be installed in accordance with the requirements of NBC 2020

Recommendation:

1. Provide new emergency lighting throughout the building to meet code requirements.
2. Provide new green pictogram style exit signage throughout the building to meet code requirements.
3. Provide audible/visual signaling devices in throughout the building to meet code requirements.
4. Install smoke detectors to comply with code requirements.
5. Provide combination smoke/CO detectors to comply with code requirements.
6. Install fire alarm pullstations at appropriate heights to comply with code requirements.
7. Install light switches at appropriate heights to comply with code requirements.

8. Run branch circuit wiring in conduit, or in armoured cable.

IV. Mechanical

A. Plumbing

Storm Drainage

The storm drainage system consists of one internal roof drain as well as a number of roof scuppers spread out throughout the roof. It is unknown how old the storm drainage system is but it is assumed to be installed in 1966. The pipe material, where observed, is cast iron (Figure 8). Based on the GIS Report provided by the City of Winnipeg the storm drainage system is connected to the sanitary sewer prior to leaving the building.

Recommendations:

1. Overall, the systems appear to be in functioning condition for its age. Portions of the system were inaccessible at the time of the review. Cast iron pipe used in this application is generally considered to have a service life expectancy of 35-45 years. In practice, systems if well maintained can last longer than this time frame. Running internal scope down the concealed pipe is recommended if a more accurate estimate of the remaining useful life is required.

Sanitary Drainage

The building 4” sanitary service from the City of Winnipeg enters the building from the south on Jefferson Avenue. The sanitary drainage system consists of underground drainage serving the various plumbing fixtures throughout the building. The sanitary drainage is assumed to be original to the building.

Recommendations:

1. The visible piping observed on site included cast iron (Figure 9), however, the interior condition of the piping is unknown. Visible piping appeared to be in working condition. The remainder of the concealed piping was not visible, and condition could not be confirmed. Cast iron pipe used in this application is generally considered to have a service life expectancy of 35-45 years. In practice, systems if well maintained can last longer than this time frame. Given the age of the building, the sanitary system can be expected to experience failures and a higher level of maintenance. Running internal scope down the concealed pipe is recommended if a more accurate estimate of the remaining useful life is required.

Fixtures and Trim

The plumbing fixtures that were observed were in good working condition and appeared to be well maintained (Figure 10)

4.1 MECHANICAL & ELECTRICAL SYSTEM ASSESSMENT

Domestic Water Systems

Domestic Water Distribution:

The building is served by a 1" domestic water service that enters the building off Powers Street. The service was renewed in 1988 as per the building's city houseflies. The water meter assembly is located in an enclosed metal cabinet in the basement (Figure 11). A 1 ¼" reverse pressure back flow preventer (DCVA) was installed downstream of the water meter in 2016 and maintenance log indicated that the DCVA is serviced once a year. Both the water meter and the DCVA appear to be in good working condition, although condensation is apparent on the DCVA outer surface, causing some dripping inside the cabinet.

Recommendations:

1. Domestic water distribution piping is largely copper. Large portions of the system appear to have been replaced over the years. Copper domestic water systems have a service life expectancy of approximately 50 to 60 years. Overall, the portions of the distribution piping observed on site appear to be in working condition. Portions of the system are assumed to be original and at or approaching end of life.
2. The domestic water pipe insulation appeared to be in poor condition in some areas including at the water meter assembly. A lot of pipe insulation was missing. Recommendation to insulate domestic hot and cold-water piping where possible to minimize undesired heat transfer to or from the water, as well as avoid condensation in occupied spaces.

Hot Water Generation:

A John Wood (Model # JW840S40N-AV1 300) 40 gal gas-fired storage water heater serves the domestic hot water demand of the building (Figure 7). This heater has been in use since 2014. The heater is an atmospheric vent boiler (energy factor of 0.62). Domestic hot water tanks have a service life expectancy of 15 years. The failure of a hot water tank cannot be predicted.

Recommendations:

1. The storage water heater visually appears to be in good working condition. Storage tanks of this type have a service life expectancy of approximately 10-15 years, so replacing the tanks around this service life would help ensure hot water is available for the building with minimal interruption or disruption to building function.

Natural Gas Services

The building is served by a dedicated natural gas 1 1/4" steel riser which extends from the north parking lot (Figure 12). The gas meter at this site is a low pressure 7" wc meter. The service line was activated in 1966.

The natural gas distribution system consists of steel piping with threaded fittings and is routed throughout the building to supply the AO Smith Boilers, John Wood water heater and the four air handling units. In general, the piping visually appears to be in good condition.

B. HVAC

The two AO Smith atmospheric vent natural gas boilers are original to the building (since 1966). The boilers are inspected annually to ensure smooth operation and that they meet department of labor standards. It is not uncommon for boilers like the ones in this building to last 15-25 years or more. The boilers are mid-efficiency boilers (82%).

Where observed, the how water piping appears to be in functioning condition. The condition of the interior of the pipe is not known. The wall fins appeared to be missing the enclosures. Assuming proper maintenance is carried out, the hot water distribution piping and components has a life expectancy of 40-50 years.

The building basement is heated/cooled via two Trane air handler units (Model # YCH048C3H0BF & YCH060C3H0BF) located in the courtyards outside the building (Figures 1,2). Each air handler unit contains a natural gas heating section as well as an integral DX cooling section. The units were installed in 1999. Overall, the air handling units appear to be in good condition. The average life expectancy for packaged units like these is 20-25 years.

The building main floor is heated/cooled via two Trane rooftop units (Model # YCD060C1H0BE & YCD060C1H0BE) (Figure 3,4). Each rooftop unit contains a natural gas heating section as well as an integral DX cooling section. The units were installed in 1997. Overall, the rooftop units appear to be in good condition. The average life expectancy for packaged units like these is 20-25 years.

The Assembly Room in the basement receives further heating via a Tane T8-HR3 Indoor air handling (Figure 5) units that is equipped with hydronic heating coils from the building central boilers. Based on the original building drawings and visual inspection of the unit, it appears to be original to the building (installed in 1966) and controlled via pneumatic controls. The unit appears to be functional but together with the controls and the damper linkages, appears to be very aged and at the end of its service life.

Recommendation:

1. The hot water boilers appear to be in good conditions and the required inspections are maintained. However, it is recommended to consider replacing by boilers within 1-2 years (considering their age) with high efficiency boilers.
2. Non-destructive investigation is required to adequately assess the internal condition of the hot water distribution piping and wall fins.
3. The Trane outdoor air handling units are reaching the end of their life expectancy and a replacement in the next 2-3 years is recommended.
4. The Trane indoor hydronic air handling unit has reached the end of its life expectancy and a replacement in the short term is recommended.

V. Fire Protection & Life Safety Systems

A. Fire Alarm System

The existing fire alarm panel is a Mircom FX 2000 addressable fire alarm system. Audible/visual notification is provided through horn/strobe devices. The system appears to generally be in good condition, however coverage of audible/visual notification devices is inadequate.

Recommendation:

1. Provide new audible/visual notification appliances to meet code requirements.
2. Supplement smoke detector coverage with new devices to meet code requirements.

B. Portable Fire Extinguishers

There are appears to be an adequate quantity of fire extinguishers throughout the main floor and basement.

Recommendation:

1. Full review of the building fire extinguisher coverage to current NFPA 10 requirements.

C. Emergency Power Supply

No emergency power supply was observed on site.

Recommendation:

1. N/A

D. Exit & Emergency Lighting

Emergency lighting is provided throughout the building, utilizing battery banks and remote heads. The batteries appear to have been tested in the last 12 months. Equipment appears to be generally in good condition; however, coverage is insufficient and the existing battery banks do not appear to have capacity for expansion.

Exit signage is red-letter exit style in varying conditions.

Recommendation:

1. Provide new emergency lighting remote heads throughout to meet minimum code requirements.
2. Provide larger battery banks to accommodate increased quantities of remote heads.
3. Provide new green pictogram style exit signage throughout to meet new code requirements.

VI. Security & Communications

A. Security/Intrusion Alarm System

The building has a security/intrusion alarm system comprising door contacts on exterior doors, motion sensors and a security keypad located at the rear of the building.

CCTV cameras are located on the building exterior, connected to a rack mounted NVR located in the basement electrical room.

The security system generally appears to be in good working condition, however individual system components are old and compatible replacements will become increasingly difficult to procure.

B. Communication Systems

A telecoms distribution system comprising network switches and patch panels located in the basement data rack feeds data outlets in the building. There does not appear to be a dedicated riser, rather cabling appears to be fed directly to individual data outlets. From the electrical room to the basement area wiring is run exposed (surface fixed to the wall), and then transitions above the ceiling where it feeds the main level data outlets from below. The basement data outlets are fed from above, with wiring routed in conduit. Where visible, cabling appears generally in good condition.

Recommendation:

1. Reroute all exposed cabling in conduit.

VII. Electrical

A. Power Distribution & Panelboards

Site service is provided at 400A 120/208V,3PH,4W from utility owned pole mounted transformer. The service entrance is located in the basement electrical room.

The service entrance appears to be in good condition; however, it is approaching the end of its service life. There is limited capacity for expansion, however due to the age of the distribution equipment compatible circuit breakers may be difficult to procure.

There are four branch circuit panels located in the building. The panels appear to be in good condition, however they generally appear full and do not have room for additional circuits. In addition, they are obsolete and replacement circuit breakers will be difficult to obtain.

Branch circuit conductors are generally run in conduit or armoured cable, however there are some instances where these conductors appear to be run exposed.

The building has an existing elevator which appears to be in good condition.

Recommendation:

1. Demolish and provide new branch circuit panelboards throughout. Refeed existing branch circuits into new panelboards with new circuit breakers.
2. Where exposed, refeed branch circuit conductors in conduit or armoured cable.

B. Lighting

Lighting observed throughout the building was of varying older vintages in a wide variety of conditions. A material quantity of fixtures included inoperable lamps. Light sources included incandescent, T12 fluorescent, T8 fluorescent, and halogen on the building exterior. Several fixtures in the basement appeared to be missing lenses.

Light levels throughout the building appeared to generally be adequate, however the quality and distribution appeared to be inadequate due to missing bulbs and inoperable lamps.

Exterior light fixtures were not observed in operation, however they appeared to have yellowing and aged lenses.

Recommendation:

1. Provide new LED lighting throughout the building with suitable output to provide improved lighting quality.

C. Lighting Control

Lighting control throughout the building consisted of manual toggle controls. No occupancy or daylighting-based controls were observed. The placement and quantity of the lighting control is adequate, and while the controls are obsolete they are in fair condition.

Recommendation:

1. Provide new lighting controls with occupancy and/or daylight-based controls to meet NECB 2020 requirements.

D. Wiring

Wiring is generally run throughout the building in conduit or armoured cable, however there are a few instances where this is not the case, and the wiring is exposed to damage.

Recommendation:

1. Refeed all exposed wiring in conduit or armoured cable.

E. Wiring Devices

Electrical wiring devices were generally in fair condition, however some obsolete light switches were observed. On the main floor, some devices were fed via floor mounted outlets. Some parking lot receptacles were observed with damaged weatherproof covers.

Recommendation:

1. Provide all new electrical wiring devices throughout the building and in the parking lot.

- End of Document –

Appendix A - Definitions

1. National Building Code 2020
2. CSA C22.1: Canadian Electrical Code (CEC)
3. NFPA 10: Standard for Portable Fire Extinguishers

Appendix B – Photographs

4.1 MECHANICAL & ELECTRICAL SYSTEM ASSESSMENT



Figure 1 HC-6 Serving half of basement



Figure 2 HC-5 serving half of basement



Figure 3 HC-3 Serving half of main floor



Figure 4 HC-4 serving half of main floor



Figure 5: Indoor Heating Unit serving basement assembly room.



Figure 6: Hot Water AO Smith Boilers



Figure 7: Domestic Hot Water Tank



Figure 8: Storm Drainage Service



Figure 9: Sanitary Drainage Service



Figure 10 Plumbing Fixtures

4.1 MECHANICAL & ELECTRICAL SYSTEM ASSESSMENT



Figure 11 Water Meter Assembly



Figure 12 Natural Gas Service



Figure 13 Service Entrance and telecoms demark.



Figure 14 Fire alarm pullstation adjacent to exit door.

4.1 MECHANICAL & ELECTRICAL SYSTEM ASSESSMENT



Figure 15 Exterior light fixtures.



Figure 16 Floor outlets



Figure 17 Existing Panel.



Figure 18 Wires run exposed on wall surface.

PART 5
INTERIOR FINISHES

5.1 CONDITION OF INTERIOR FINISHES

The following pages list the interior finishes found in West Kildonan Library **by location** (i.e. room by room). All interior finishes are listed for each room, including the finish of all walls, floors, ceilings, doors, and miscellaneous interior items.

The condition assessment of the interior finishes covers all of the characteristics and evaluation criteria outlined in the NRC document 'Protocols for Building Condition Assessment', as part of the document's 'Interior Finishes' section. This includes:

- A description of each finish used;
- The suitability of each finish (for the installed location / required use);
- The current condition of each finish (very poor, poor, fair, good, very good, or not accessible);
- An estimated life remaining for each finish (based on the consultant's judgment);
- Recommended repair or replacement items (with approximate quantities listed for costing purposes).

Recommendations in this section are made based on the condition of the finishes and code non-compliance. Refer to the Life Safety (Part 7) or the Accessibility (Part 9) sections for any required modifications due to code or accessibility issues.

Reference is made to heritage protected finishes. More details on this can be found in Part 11: Heritage Assessment.

The following finishes are known to contain asbestos: Vinyl Floor Tiles, Drywall/Plaster Compound (walls & ceilings), Duct Insulation, Pipe Fittings, Mastic, Cement Plaster/Stucco. Refer to the asbestos report in the appendix for more information.

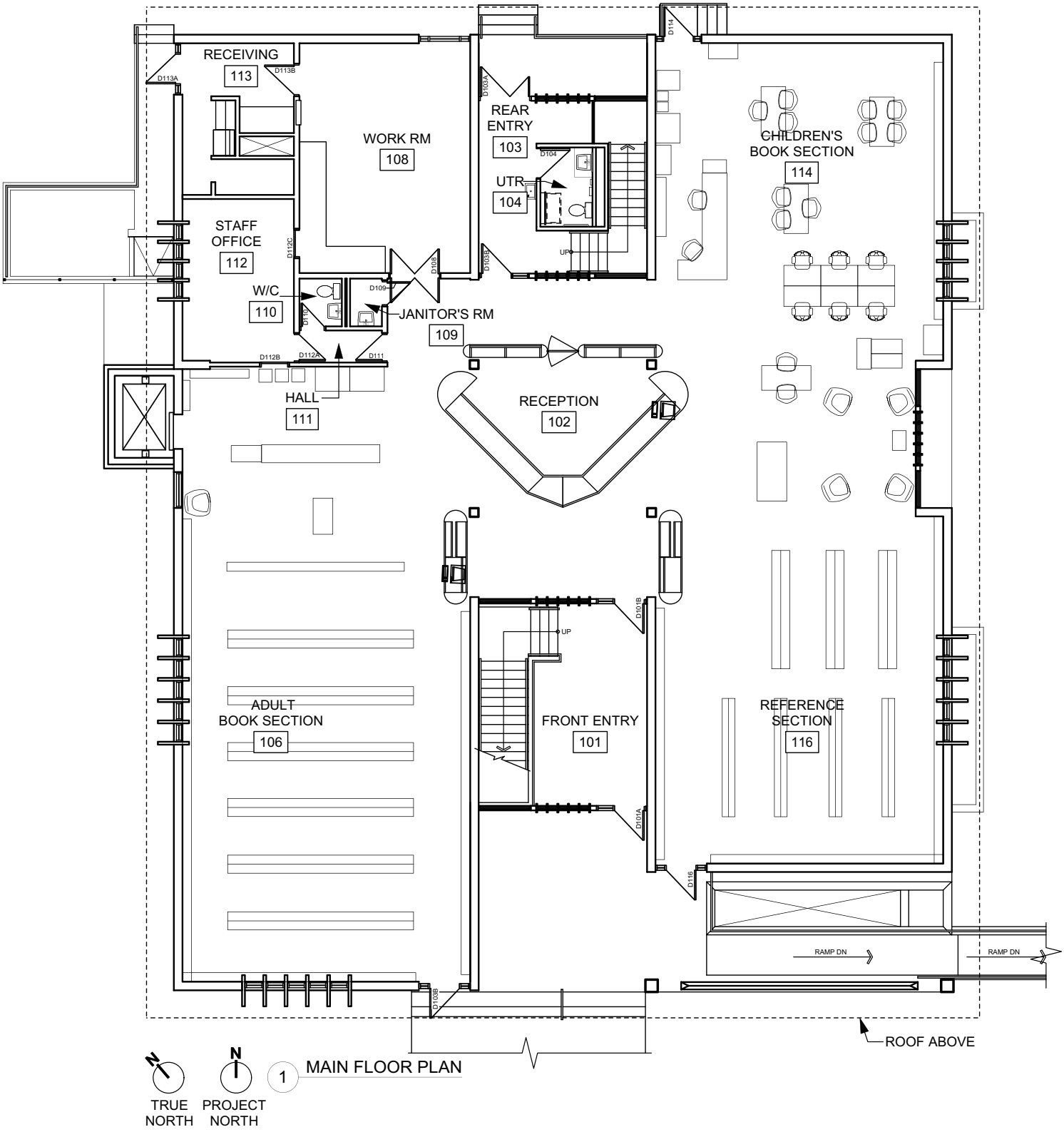
Summary of Finishes - Recommended Replacement:

- Transom Windows - Rooms 101, 103
- Stair Handrails/Guardrails - Rooms 101, 103, B-01, B-03
- Full Height Windows - Rooms 101, 103
- New Doors & Frames - Rooms 108, 109, B-01, B-07, B-08, B-10, B-11, B-12, B-13, B-18, B-19, B-20
- New Door Frame - Room B-14
- New Carpeting - Rooms 102, 106, 111, 112, 114, 116 , B-10
- New Acoustic Ceiling Tile - Rooms 113, B-02, B-04, B-05, B-10
- New Millwork - Rooms 102, 104, 108, 113, B-02, B-06, B-09, B-10, B-17
- New Vinyl Tile - Room B-11
- New Drywall Ceiling - Rooms 109, B-07, B-11, B-12
- New Drywall Walls - Rooms 109, B-01, B-03, B-11, B-12, B-19

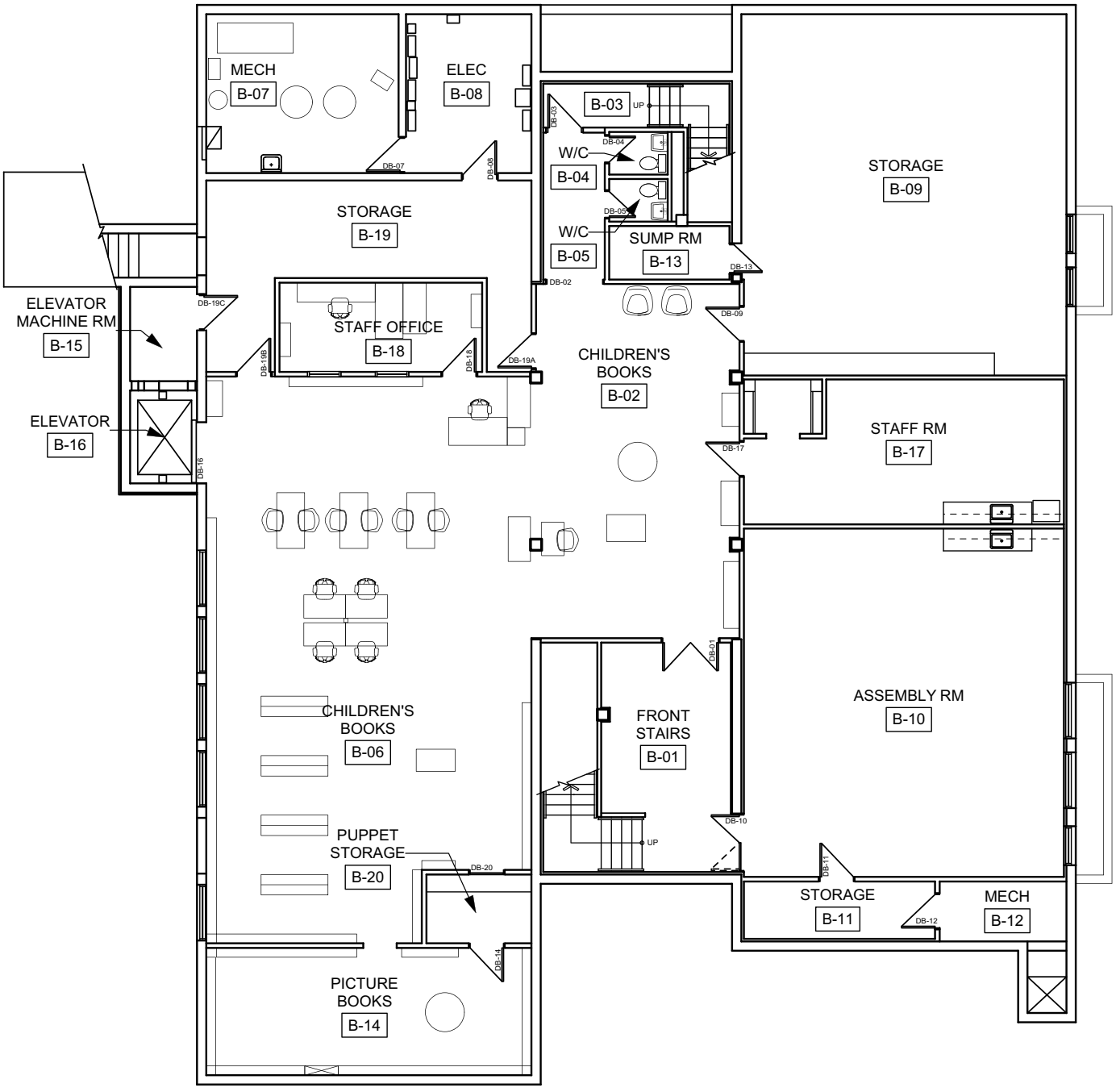
Summary of Finishes - Recommended Repairs:

- New Door Hardware - Rooms 104, 110, 111, 112, B-04, B-05, B-09, B-15
- Acoustic Ceiling Tile Repairs - Rooms 102, 103, 106, 112, 114, 116, B-18
- Ceramic Wall Tile Repairs - Rooms B-04, B-05
- Repaint Interior Doors & Frames - Rooms 101, 103,
- Plaster Board Repairs (walls) - Rooms 102, 106, 108, 111, 113, 114, 116
- Plaster Board Repairs (ceilings) - Rooms B-06, B-08, B-09, B-14
- Vinyl Tile Repair - Room B-09
- Cedar Siding Repairs - Rooms 106, 111, 112
- Firestopping Penetrations - Rooms B-07, B-08, B-15, 109

5.1 CONDITION OF INTERIOR FINISHES - REFERENCE PLANS



5.1 CONDITION OF INTERIOR FINISHES - REFERENCE PLANS



TRUE NORTH PROJECT NORTH

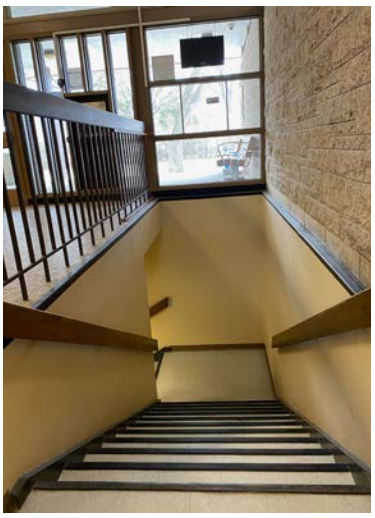
1 BASEMENT FLOOR PLAN

5.1 CONDITION OF INTERIOR FINISHES - MAIN FLOOR

Room: Front Stairs #101	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Tyndall Stone (TS) , Wood Window Frames (WDF), Wired Glass & Aluminum Frames (WGAL), Plaster Board (PB)	Ceramic Tile & Tyndall Stone Base (CT), Vinyl Tile & Rubber Base (VT)	Suspended Acoustic Ceiling Tile & Grid (ACT)	Hollow Metal (HM)	Wood Handrails (HR) Wood & Steel Guardrail (GR)
Finish Suitability	TS - Suitable WDF - Not Suitable WGAL- Not Suitable PB - Suitable	CT - Suitable VT - Suitable	ACT - Suitable	HM - Suitable	HR - Not Suitable GR - Not Suitable
Current Condition of Finish	TS - Very Good WDF - Fair WGAL- Good PB - Good	CT - Good VT - Fair	ACT - Good	HM - Fair	HR - Good GR - Good
Estimated Life Remaining	TS - 25+ years WDF - 5+ years WGAL - 10+ years PB - 10+ years	CT - 15+ years VT - 10+ years	ACT - 10+ years	HM - 10+ years	HR - 20+ years GR - 20+ years
Recommendations	TS - Maintenance[2] WDF - **Replacement**[1] WGAL - **Replacement**[1] PB - Maintenance	CT - Maintenance[2] VT - Maintenance	ACT - Maintenance	HM - **Repair** (repaint)	HR - **Replacement**[1,2] GR - **Replacement**[1,2]
Quantities for Repair or Replacement	WDF - Refer to Part 7 WGAL - Refer to Part 7	n/a	n/a	HM - 1 door & frame	n/a
Additional Comments	[1] Code deficiencies present - Refer to Part 7 [2] Heritage protected - Refer to Part 11	[2] Heritage protected - Refer to Part 11	n/a	n/a	[1] Code deficiencies present - Refer to Part 7 & 9 [2] Heritage protected - Refer to Part 11



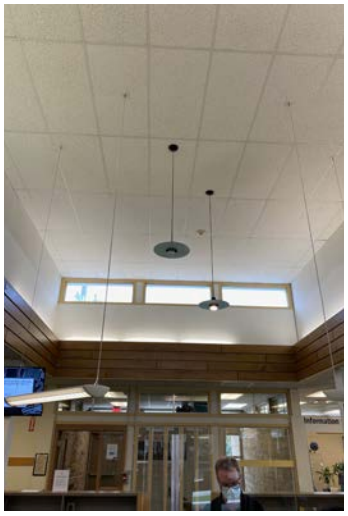




5.1 CONDITION OF INTERIOR FINISHES - MAIN FLOOR

Room: Reception #102	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Plaster Board (PB), Cedar Facing (CF)	Carpet & Rubber Base (CPT)	Suspended Acoustic Ceiling Tile & Grid (ACT)	n/a	Reception Desk Laminate (RD) Computer Desk Laminate (CDs)
Finish Suitability	PB - Suitable CF - Suitable	CPT - Suitable	ACT - Suitable	n/a	RD - Not Suitable CD - Not Suitable
Current Condition of Finish	PB - Fair CF - Good	CPT - Poor	ACT - Fair	n/a	RD - Good CD - Good
Estimated Life Remaining	PB - 10+ years CF - 15+ years	CPT - <5 years	ACT - 10+ years	n/a	RD - 10+ years CD - 10+ years
Recommendations	PB - **Repair** (Patch plaster cracks below clerestory windows) CF - Maintenance[2]	CPT - **Replacement**	ACT - **Repair** (replace damaged tiles)	n/a	RD - **Replacement**[1] CD - **Replacement**[1]
Quantities for Repair or Replacement	PB - patch 4sqm (43sqft)	CPT - replace 78sqm (840 sqft)	ACT - 3 tiles (2'x4')	n/a	RD - Refer to Part 9 CD - Refer to Part 9
Additional Comments	[2] Heritage protected - Refer to Part 11	n/a	n/a	n/a	[1] Code deficiencies present - Refer to Part 9









5.1 CONDITION OF INTERIOR FINISHES - MAIN FLOOR

Room: Rear Stairs #103	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Tyndall Stone (TS) , Wood Window Frames (WDF), Wired Glass & Aluminum Frames (WGAL), Plaster Board (PB)	Ceramic Tile & Tyndall Stone Base (CT), Vinyl Tile & Rubber Base (VT)	Suspended Acoustic Ceiling Tile & Grid (ACT)	Hollow Metal (HM)	Wood Handrails (HR) Wood & Steel Guardrail (GR)
Finish Suitability	TS - Suitable WDF - Not Suitable WGAL- Not Suitable PB - Suitable	CT - Suitable VT - Suitable	ACT - Suitable	HM - Suitable	HR - Not Suitable GR - Not Suitable
Current Condition of Finish	TS - Very Good WDF - Fair WGAL- Good PB - Good	CT - Good VT - Fair	ACT - Fair	HM - Fair	HR - Good GR - Good
Estimated Life Remaining	TS - 25+ years WDF - 5+ years WGAL - 10+ years PB - 15+ years	CT - 15+ years VT - 10+ years	ACT - 10+ years	HM - 10+ years	HR - 20+ years GR - 20+ years
Recommendations	TS - Maintenance[2] WDF - **Replacement**[1] WGAL - **Replacementt**[1] PB - Maintenance	CT - Maintenance[2] VT - Maintenance	ACT - **Repair** (replace damaged tiles)	HM - **Repair** (repaint)	HR - **Replacement**[1,2] GR - **Replacement**[1,2]
Quantities for Repair or Replacement	WDF - Refer to Part 7 WGAL - Refer to Part 7	n/a	ACT - replace 3 tiles (2'x4')	HM - paint 1 door & frame	n/a
Additional Comments	[1] Code deficiencies present - Refer to Part 7 [2] Heritage protected - Refer to Part 11	[2] Heritage protected - Refer to Part 11	n/a	n/a	[1] Code deficiencies present - Refer to Part 7 & 9 [2] Heritage protected - Refer to Part 11









5.1 CONDITION OF INTERIOR FINISHES - MAIN FLOOR

Room: Washroom (UTR) #104	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Ceramic Tile (CT) Plaster Board (PB)	Ceramic Tile & Tile Base (CT)	Plaster Board (PB)	Hollow Metal (HM)	Washroom Accessories (WA), Vanity Millwork Laminate (V)
Finish Suitability	CT - Suitable PB - Suitable	CT - Suitable	PB - Suitable	HM - Suitable	WA - Suitable V - Suitable
Current Condition of Finish	CT - Good PB - Good	CT - Fair	PB - Good	HM - Good	WA - Fair V - Poor
Estimated Life Remaining	CT - 15+ years PB - 15+ years	CT - 10+ years	PB - 15+ years	HM -15+ years	WA -5-10 years V - <5 years
Recommendations	CT - Maintenance PB - Maintenance	CT - Maintenance	PB - Maintenance	HM - **Repair**[1] (replace door knob)	WA - **Replacement**[1] V - **Replacement**[1]
Quantities for Repair or Replacement	n/a	n/a	n/a	HM - replace 1 door hardware set	WA - Refer to Part 9 V - Refer to Part 9
Additional Comments	n/a	n/a	n/a	[1] Code deficiencies present - Refer to Part 7 & 9	[1] Code deficiencies present - Refer to Part 9







5.1 CONDITION OF INTERIOR FINISHES - MAIN FLOOR

Room: Adult Books #106	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Plaster Board (PB), Vertical Cedar Siding (CS),	Carpet & Rubber Base (CPT)	Suspended Acoustic Ceiling Tile & Grid (ACT)	n/a	Wood Book Shelves (WS),
Finish Suitability	PB - Suitable CS - Suitable	CPT - Suitable	ACT - Suitable	n/a	WS - Suitable
Current Condition of Finish	PB - Fair CS - Fair	CPT - Poor	ACT - Fair	n/a	WS - Good
Estimated Life Remaining	PB - 10+ years CS - 10+ years	CPT - <5 years	ACT - 10+ years	n/a	WS - 10+ years
Recommendations	PB - **Repair** (Patch damaged plaster) CS - **Repair**[2] (Replace damaged boards)	CPT - **Replacement**	ACT - **Repair** (replace damaged tiles)	n/a	WS - Maintenance[1,2]
Quantities for Repair or Replacement	PB - patch 4.5sqm (48sqft) CS - replace +/-15 boards (8' high)	CPT - replace 163sqm (1755 sqft)	ACT - replace 5 tiles (2'x4')	n/a	n/a
Additional Comments	[2] Heritage protected - Refer to Part 11	n/a	n/a	n/a	[1] Code deficiencies present - Refer to Part 9 [2] Heritage protected - Refer to Part 11






5.1 CONDITION OF INTERIOR FINISHES - MAIN FLOOR

Room: Work Room #108	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Plaster Board (PB), Wood Window Frames (WDF)	Vinyl Tile & Rubber Base (VT)	Suspended Acoustic Ceiling Tile & Grid (ACT)	Wood Doors (WD)	Work Table (WT), Metal Book Shelves (MS), Upper Cabinets (UC)
Finish Suitability	PB - Suitable WDF - Suitable	VT - Suitable	ACT - Suitable	WD - Suitable	WT - Suitable MS - Suitable UC - Suitable
Current Condition of Finish	PB - Fair WDF - Fair	VT - Good	ACT - Good	WD - Poor	WT - Fair MS - Fair UC - Poor
Estimated Life Remaining	PB - 10+ years WDF - 5+ years	VT - 15+ years	ACT - 10+ years	WD - 5 years	WT - 10+ years MS - <10 years UC - <5 years
Recommendations	PB - **Repair** (Repair damaged plaster board) WDF - Maintenance	VT - Maintenance	ACT - Maintenance	WD - **Replacement**	WT - **Replacement**[1] MS - Maintenance UC - **Replacement**[1]
Quantities for Repair or Replacement	PB - repair 1.1sqm (12 sqft)	n/a	n/a	WD - Replace 2 doors & frames	WT - Refer to Part 9 UC - Refer to Part 9
Additional Comments	n/a	n/a	n/a	n/a	[1] Code deficiencies present - Refer to Part 9









5.1 CONDITION OF INTERIOR FINISHES - MAIN FLOOR

Room: Janitor Room #109	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Plaster Board (PB)	Vinyl Tile & Rubber Base (VT)	Plaster Board (PB)	Wood Doors (WD)	n/a
Finish Suitability	PB - Suitable	VT - Suitable	PB - Suitable	WD - Not Suitable	n/a
Current Condition of Finish	PB - Very Poor	VT - Very poor	PB - Fair	WD - Poor	n/a
Estimated Life Remaining	PB - <5 years	VT - <5 years	PB - 10+ years	WD - 5 years	n/a
Recommendations	PB - **Replacement**[1]	VT - **Replacement**	PB - **Replacement**[1]	WD - **Replacement**[1]	n/a
Quantities for Repair or Replacement	PB - Refer to Part 7	VT - replace 1.5sqm (16 sqft)	PB - Refer to Part 7	WD - Replace 1 door & frame (with Hollow Metal)	n/a
Additional Comments	[1] Code deficiencies present - Refer to Part 7	n/a	[1] Code deficiencies present - Refer to Part 7	[1] Code deficiencies present - Refer to Part 7	n/a









5.1 CONDITION OF INTERIOR FINISHES - MAIN FLOOR

Room: Staff Washroom #110	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Plaster Board (PB)	Vinyl Tile & Rubber Base (VT)	Plaster Board (PB)	Wood Doors (WD)	Washroom Accessories (WA),
Finish Suitability	PB - Suitable	VT - Suitable	PB - Suitable	WD - Suitable	WA - Suitable
Current Condition of Finish	PB - Good	VT - Good	PB -Good	WD - Fair	WA - Good
Estimated Life Remaining	PB - 15+ years	VT - 15+ years	PB - 15+ years	WD - 5+ years	WA - 10+ years
Recommendations	PB - Maintenance	VT - Maintenance	PB - Maintenance	WD - **Repair**[1] Replace door hardware	WA - Maintenance
Quantities for Repair or Replacement	n/a	n/a	n/a	WD - replace 1 door hardware set	n/a
Additional Comments	n/a	n/a	n/a	[1] Code deficiencies present - Refer to Part 7	n/a



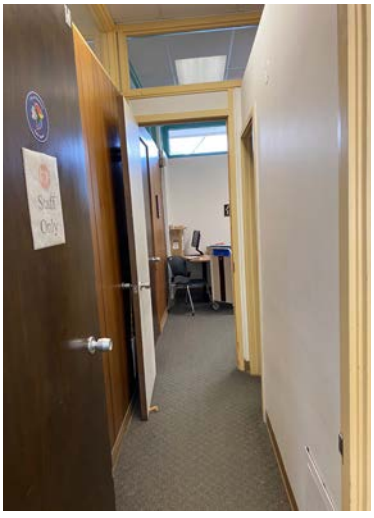


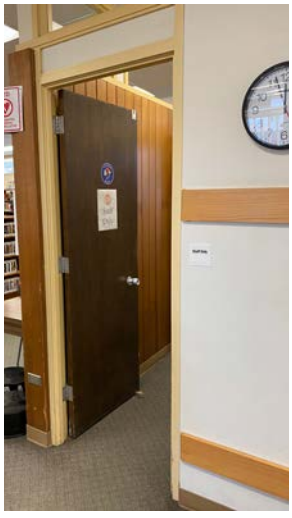


5.1 CONDITION OF INTERIOR FINISHES - MAIN FLOOR

Room: Staff Hallway #111	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Plaster Board (PB), Vertical Cedar Siding (CS), Wood Window Frames (WDF)	Carpet & Rubber Base (CPT)	Suspended Acoustic Ceiling Tile & Grid (ACT)	Wood Doors (WD)	n/a
Finish Suitability	PB - Suitable CS - Suitable WDF - Suitable	CPT - Suitable	ACT - Suitable	WD - Suitable	n/a
Current Condition of Finish	PB - Fair CS - Fair WDF - Fair	CPT - Poor	ACT - Fair	WD - Fair	n/a
Estimated Life Remaining	PB - 10+ years CS - 10+years WDF - 5+ years	CPT - <5 years	ACT - 10+ years	WD - 5+ years	n/a
Recommendations	PB - **Repair** (Patch damaged plaster) CS - **Repair** [2] (Replace damaged boards) WDF - Maintenance[2]	CPT - **Replacement**	ACT - Maintenance	WD - **Repair**[1] Replace door hardware	n/a
Quantities for Repair or Replacement	PB - patch 6sqm (64sqft) CS - replace +/-10 boards (8' high)	CPT - replace 2.5 sqm (27 sqft)	n/a	WD - replace 1 door hardware set	n/a
Additional Comments	[2] Heritage protected - Refer to Part 11	n/a	n/a	[1] Code deficiencies present - Refer to Part 7	n/a



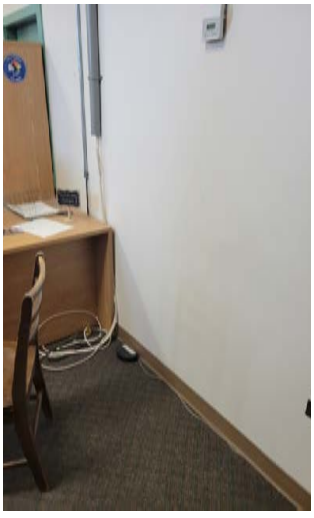




5.1 CONDITION OF INTERIOR FINISHES - MAIN FLOOR

Room: Staff Office #112	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Plaster Board (PB), Vertical Cedar Siding (CS), Wood Window Frames (WDF)	Carpet & Rubber Base (CPT)	Suspended Acoustic Ceiling Tile & Grid (ACT)	Wood Doors (WD)	n/a
Finish Suitability	PB - Suitable CS - Suitable WDF - Suitable	CPT - Suitable	ACT - Suitable	WD - Suitable	n/a
Current Condition of Finish	PB - Good CS - Fair WDF - Fair	CPT - Poor	ACT - Good	WD - Fair	n/a
Estimated Life Remaining	PB - 15+ years CS - 10+years WDF - 5+ years	CPT - <5 years	ACT - 10+ years	WD - 5+ years	n/a
Recommendations	PB - Maintenance CS - **Repair**[2] (Replace damaged boards) WDF - Maintenance	CPT - **Replacement**	ACT - **Repair** (replace damaged tiles)	WD - **Repair**[1] (Replace door hardware)	n/a
Quantities for Repair or Replacement	CS - replace +/-10 boards (8' high)	CPT - replace 17.2 sqm (185 sqft)	ACT - 1 tile (2'x4')	WD - replace 1 door hardware set	n/a
Additional Comments	[2] Heritage protected - Refer to Part 11	n/a	n/a	[1] Code deficiencies present - Refer to Part 7	n/a









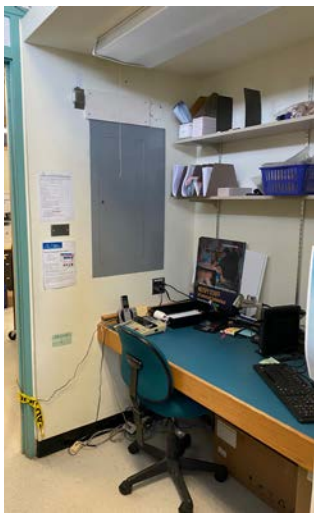
5.1 CONDITION OF INTERIOR FINISHES - MAIN FLOOR

Room: Receiving Hallway #113	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Wood Window Frames (WDF), Plaster Board (PB)	Vinyl Tile & Rubber Base (VT)	Suspended Acoustic Ceiling Tile & Grid (ACT), Plaster Board (PB)	Wood Doors (WD)	Roof Access Ladder (RL), Desk (D), Kitchen Millwork (KM), Closet Millwork (CM)
Finish Suitability	WDF - Suitable PB - Suitable	VT - Suitable	ACT - Suitable PB - Suitable	WD - Suitable	RL - Suitable D - Not Suitable KM - Not Suitable CM - Suitable
Current Condition of Finish	WDF - Fair PB - Fair	VT - Fair	ACT - Poor PB - Good	WD - Fair	RL - Good D - Good KM - Poor CM - Fair
Estimated Life Remaining	WDF - 5+ years PB - 10+ years	VT - 10 years	ACT - 5 years PB - 15+ years	WD - 5+ years	RL - 20+ years D - 10+ years KM - <5 years CM - 10+ years
Recommendations	WDF - Maintenance PB - **Repair** (patch & repaint walls)	VT - Maintenance	ACT - **Replacement** PB - Maintenance	WD - Maintenance	RL - Maintenance D - **Replacement**[1] KM - **Replacement**[1] CM - **Replacement**[1]
Quantities for Repair or Replacement	PB - patch 58sqm (624sqft)	n/a	ACT - replace 14 sqm (150sqf)	n/a	D - Refer to Part 9 KM - Refer to Part 9 CM - Refer to Part 9
Additional Comments	n/a	n/a	n/a	n/a	[1] Code deficiencies present - Refer to Part 7 & 9





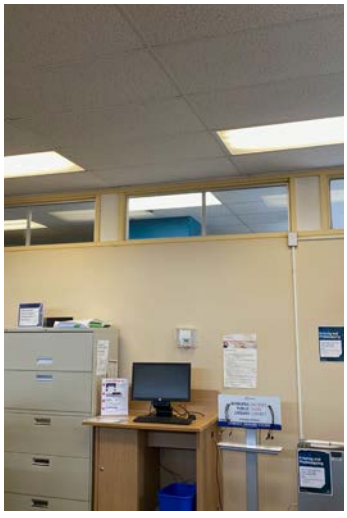




5.1 CONDITION OF INTERIOR FINISHES - MAIN FLOOR

Room: Young Adult Books #114	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Plaster Board (PB),	Carpet & Rubber Base (CPT)	Suspended Acoustic Ceiling Tile & Grid (ACT)	n/a	Wood Book Shelves (WS),
Finish Suitability	PB - Suitable	CPT - Suitable	ACT - Suitable	n/a	WS - Suitable
Current Condition of Finish	PB - Fair	CPT - Poor	ACT - Fair	n/a	WS - Good
Estimated Life Remaining	PB - 10+ years	CPT - <5 years	ACT - 10+ years	n/a	WS - 10+ years
Recommendations	PB - **Repair** (Patch damaged plaster)	CPT - **Replacement**	ACT - **Repair** (replace damaged tiles)	n/a	WS - Maintenance[1,2]
Quantities for Repair or Replacement	PB - patch 20sqm (224 sqft)	CPT - replace 105sqm (1130 sqft)	ACT - replace 5 tiles (2'x4')	n/a	n/a
Additional Comments	n/a	n/a	n/a	n/a	[1] Code deficiencies present - Refer to Part 9 [2] Heritage protected - Refer to Part 11





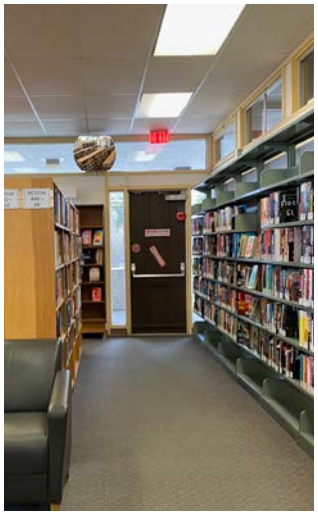


5.1 CONDITION OF INTERIOR FINISHES - MAIN FLOOR

Room: Reference Section #116	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Plaster Board (PB)	Carpet & Rubber Base (CPT)	Suspended Acoustic Ceiling Tile & Grid (ACT)	n/a	Wood Book Shelves (WS),
Finish Suitability	PB - Suitable	CPT - Suitable	ACT - Suitable	n/a	WS - Suitable
Current Condition of Finish	PB - Fair	CPT - Poor	ACT - Fair	n/a	WS - Good
Estimated Life Remaining	PB - 10+ years	CPT - <5 years	ACT - 10+ years	n/a	WS - 10+ years
Recommendations	PB - **Repair** (Patch damaged plaster)	CPT - **Replacement**	ACT - **Repair** (replace damaged tiles)	n/a	WS - Maintenance
Quantities for Repair or Replacement	PB - patch 20sqm (224 sqft)	CPT - replace 109sqm (1173 sqft)	ACT - replace 5 tiles (2'x4')	n/a	n/a
Additional Comments	n/a	n/a	n/a	n/a	n/a







5.2 CONDITION OF INTERIOR FINISHES - BASEMENT

Room: Front Stairs #B-01	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Plaster Board (PB)	Vinyl Tile & Rubber Base (VT)	Plaster Board (PB)	HM Door (HM)	Wood Handrails (HR)
Finish Suitability	PB - Suitable	VT - Suitable	PB - Suitable	HM - Suitable	HR - Not Suitable
Current Condition of Finish	PB - Good	VT - Fair	PB - Good	HM - Fair	HR - Good
Estimated Life Remaining	PB - 15+ years	VT - 10+ years	PB - 15+ years	HM - 10+ years	HR - 20+ years
Recommendations	PB - **Replacement**[1]	VT - Maintenance	PB - Maintenance	HM - **Replacement**	HR - **Replacement**[1,2]
Quantities for Repair or Replacement	PB - Refer to Part 7	n/a	n/a	HM - replace 1 door & frame	n/a
Additional Comments	[1] Code deficiencies present - Refer to Part 7	n/a	n/a	[1] Code deficiencies present - Refer to Part 7	[1] Code deficiencies present - Refer to Part 7 [2] Heritage protected - Refer to Part 11







5.2 CONDITION OF INTERIOR FINISHES - BASEMENT

Room: Children's Reading Room #B-02	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Plaster Board (PB)	Carpet Tile & Rubber Base (CPT)	Suspended Acoustic Ceiling Tile & Grid (ACT)	n/a	Reception Desk (D)
Finish Suitability	PB - Suitable	CPT - Suitable	ACT - Suitable	n/a	D - Suitable
Current Condition of Finish	PB - Good	CPT - Very Good	ACT - Poor	n/a	D - Good
Estimated Life Remaining	PB - 15+ years	CPT - 20+ years	ACT - 5 years	n/a	D - 10+ years
Recommendations	PB - Maintenance	CPT - Maintenance	ACT - **Replacement**	n/a	D - **Replacement**[1]
Quantities for Repair or Replacement	n/a	n/a	ACT - replace 53 sqm (570sqft)	n/a	n/a
Additional Comments	n/a	n/a	n/a	n/a	[1] Code deficiencies present - Refer to Part 9

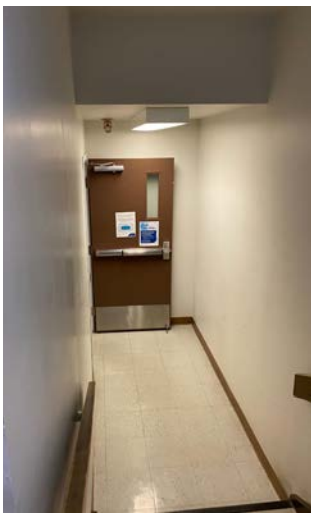
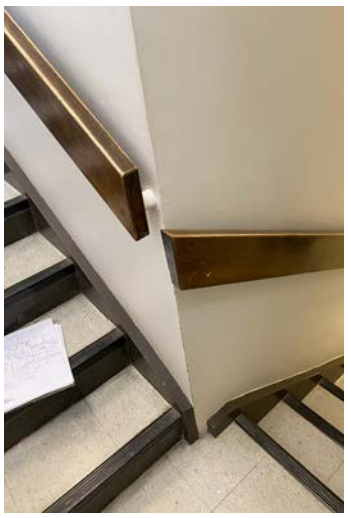






5.2 CONDITION OF INTERIOR FINISHES - BASEMENT

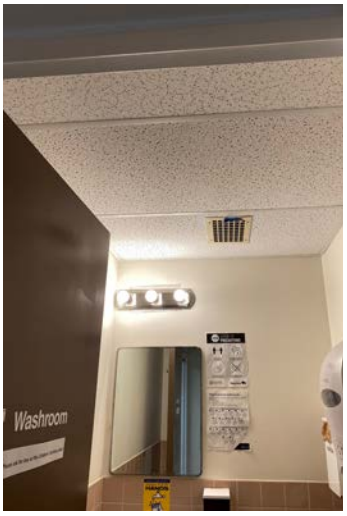
Room: Rear Stairs #B-03	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Plaster Board (PB)	Vinyl Tile & Rubber Base (VT)	Plaster Board (PB)	HM Door (HM)	Wood Handrails (HR)
Finish Suitability	PB - Suitable	VT - Suitable	PB - Suitable	HM - Suitable	HR - Not Suitable
Current Condition of Finish	PB - Good	VT - Fair	PB -Good	HM - Good	HR - Good
Estimated Life Remaining	PB - 15+ years	VT - 10+ years	PB - 15+ years	HM - 15+ years	HR - 20+ years
Recommendations	PB - **Replacement**[1]	VT - Maintenance	PB - Maintenance	HM - Maintenance[1]	HR - **Replacement**[1,2]
Quantities for Repair or Replacement	PB - Refer to Part 7	n/a	n/a	HM - Remove floor stop[1]	n/a
Additional Comments	[1] Code deficiencies present - Refer to Part 7	n/a	n/a	[1] Code deficiencies present - Refer to Part 7	[1] Code deficiencies present - Refer to Part 7 [2] Heritage protected - Refer to Part 11


5.2 CONDITION OF INTERIOR FINISHES - BASEMENT

Room: Washrooms #B-04 & B-05	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Ceramic Tile (CT) , Plaster Board (PB)	Ceramic Tile & Tile Base (CT)	Suspended Acoustic Ceiling Tile & Grid (ACT)	Hollow Metal (HM)	Washroom Accessories (WA),
Finish Suitability	CT - Suitable PB - Suitable	CT - Suitable	ACT - Suitable	HM - Suitable	WA - Suitable
Current Condition of Finish	CT - Fair PB - Fair	CT - Fair	ACT - Poor	HM - Fair	WA - Good
Estimated Life Remaining	CT - 10+ years PB - 10+ years	CT - 10+ years	ACT - 5 years	HM - 10+ years	WA - 10+ years
Recommendations	CT - **Repair** (replace damaged wall tiles) PB - Maintenance	CT - Maintenance	ACT - **Replacement**	HM - **Repair**[1] Replace door hardware	WA - Maintenance
Quantities for Repair or Replacement	CT - replace 10 tiles per washroom (4"x4")	n/a	ACT - replace 1.86sqm (20sqft, per room)	HM - replace 1 door hardware set	n/a
Additional Comments	n/a	n/a	n/a	[1] Code deficiencies present - Refer to Part 7	n/a









5.2 CONDITION OF INTERIOR FINISHES - BASEMENT

Room: Children's Reading Room #B-06	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Plaster Board (PB)	Carpet Tile & Rubber Base (CPT)	Plaster Board (PB)	n/a	Wood Book Shelves (WS)
Finish Suitability	PB - Suitable	CPT - Suitable	PB - Suitable	n/a	WS - Suitable
Current Condition of Finish	PB - Good	CPT - Very Good	PB - Good	n/a	WS - Fair
Estimated Life Remaining	PB - 15+ years	CPT - 20+ years	PB - 15+ years	n/a	WS - 10+ years
Recommendations	PB - Maintenance	CPT - Maintenance	PB - **Repairs** (patch openings)	n/a	WS - **Replacement**[1]
Quantities for Repair or Replacement	n/a	n/a	PB - patch 1.85sqm (20sqft)	n/a	n/a
Additional Comments	n/a	n/a	n/a	n/a	[1] Code deficiencies present - Refer to Part 9







5.2 CONDITION OF INTERIOR FINISHES - BASEMENT

Room: Boiler Room #B-07	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Concrete (C), Concrete Block (CB)	Concrete (C)	Cement Plaster (P)	Hollow Metal (HM)	n/a
Finish Suitability	C - Suitable CB - Suitable	C - Suitable	CP - Not Suitable	HM - Suitable	n/a
Current Condition of Finish	C - Good CB - Good	C - Fair	CP - Poor	HM - Fair	n/a
Estimated Life Remaining	C - 25+ years CB - 25+ years	C - 20+ years	CP - <5 years	HM - 10+ years	n/a
Recommendations	C - Maintenance CB - **Repair**[1]	C - Maintenance	CP - **Replacement**[1]	HM - **Replacement**[1]	n/a
Quantities for Repair or Replacement	CB - Firestop all penetrations[1]	n/a	CP - replace 22.8sqm (245sqft), with 2 layers Type 'X' drywall.[1]	HM - replace 1 door & frame	n/a
Additional Comments	[1] Code deficiencies present - Refer to Part 7	n/a	[1] Code deficiencies present - Refer to Part 7	[1] Code deficiencies present - Refer to Part 7	n/a









5.2 CONDITION OF INTERIOR FINISHES - BASEMENT

Room: Electrical Room #B-08	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Concrete (C), Concrete Block (CB)	Concrete (C)	Plaster Board (PB)	Hollow Metal (HM)	n/a
Finish Suitability	C - Suitable CB - Suitable[1]	C - Suitable	PB - Suitable	HM - Suitable	n/a
Current Condition of Finish	C - Good CB - Good	C - Good	PB - Fair	HM - Poor (frame damaged)	n/a
Estimated Life Remaining	C - 25+ years CB - 25+ years	C - 25+ years	PB - 10+ years[1]	HM - 5+ years	n/a
Recommendations	C - Maintenance CB - **Repair**[1]	C - Maintenance	PB - **Repair**[1] patch openings	HM - **Replacement**[1]	n/a
Quantities for Repair or Replacement	CB - Firestop all penetrations	n/a	PB - Firestop penetrations PB - repair 1 sqm (10 sqft)	HM - replace 1 door & frame	n/a
Additional Comments	[1] Code deficiencies present - Refer to Part 7	n/a	[1] Code deficiencies present - Refer to Part 7	[1] Code deficiencies present - Refer to Part 7	n/a







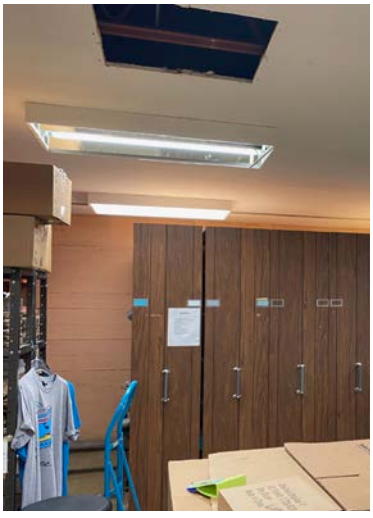


5.2 CONDITION OF INTERIOR FINISHES - BASEMENT

Room: Basement Storage #B-09	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Concrete (C), Plaster Board (PB)	Vinyl Tile & Rubber Base (VT)	Plaster Board (PB)	Wood Door (WD)	Millwork Lower Cabinets (MC), High Density Shelving (HDS), Metal Shelving (MS)[1]
Finish Suitability	C - Suitable PB - Suitable	VT - Suitable	PB - Suitable	WD - Suitable	MC - Suitable HDS - Suitable MS - Suitable
Current Condition of Finish	C - Good PB - Good	VT - Fair	PB - Good	WD - Good	MC - Fair HDS - Fair MS - Fair
Estimated Life Remaining	C - 25+ years PB - 15+ years	VT - 10+ years	PB - 15+ years	WD - 10+ years	MC - 10 years HDS - 10 years MS - Fair
Recommendations	C - Maintenance PB - Maintenance	VT - **Repair** Repair mismatched flooring tiles and missing rubber base	PB - **Repair** Repair openings in ceiling	WD - **Repair** Replace hardware[1]	MC - **Replacement**[1] HDS - Maintenance MS - Maintenance
Quantities for Repair or Replacement	n/a	VT - repair 1 sqm (10 sqft)	PB - repair 1 sqm (10 sqft)	WD - replace 1 door hardware set	MC - Refer to Part 9 MS - Relocate where close to radiators
Additional Comments	n/a	n/a	n/a	[1] Code deficiencies present - Refer to Part 7	[1] Code deficiencies present - Refer to Part 9





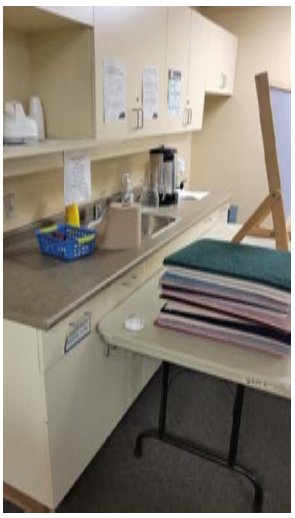


5.2 CONDITION OF INTERIOR FINISHES - BASEMENT

Room: Assembly Room (Program Room) #B-10	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Plaster Board (PB)	Carpet & Rubber Base (CPT)	Suspended Acoustic Ceiling Tile & Grid (ACT)	Hollow Metal (HM)	Kitchen Millwork (KM),
Finish Suitability	PB - Suitable	CPT - Suitable	ACT - Suitable	HM - Suitable	KM - Suitable
Current Condition of Finish	PB - Good	CPT - Poor	ACT - Poor	HM - Fair	KM - Poor
Estimated Life Remaining	PB - 15+ years	CPT - <5 years	ACT - 5 years	HM - 10+ years	KM - <5 years
Recommendations	PB - Maintenance	CPT - **Replacement**	ACT - **Replacement**	HM - **Replacement**[1]	KM - **Replacement**[1]
Quantities for Repair or Replacement	n/a	CPT - replace 84sqm (904sqft)	ACT - replace 84sqm (904sqft)	HM - replace 1 door & frame[1]	KM - Refer to Part 9
Additional Comments	n/a	n/a	n/a	[1] Code deficiencies present - Refer to Part 7	[1] Code deficiencies present - Refer to Part 9







5.2 CONDITION OF INTERIOR FINISHES - BASEMENT

Room: Basement Storage (Program Room) #B-11	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Plaster Board (PB)	Vinyl Tile & Rubber Base (VT)	Plaster Board (PB)	Wood Door & Frame (WD)	n/a
Finish Suitability	PB - Suitable	VT - Suitable	PB - Suitable	WD - Not Suitable	n/a
Current Condition of Finish	PB - Poor	VT - Poor	PB - Poor	WD - Poor	n/a
Estimated Life Remaining	PB - <10 years	VT - 5+ years	PB - <10 years	WD - 5 years	n/a
Recommendations	PB - **Replacement**	VT - **Replacement**	PB - **Replacement**	WD - **Replacement**[1]	n/a
Quantities for Repair or Replacement	PB - replace 34sqm (370sqft)	VT - replace 8.2sqm (88sqft)	PB - replace 8.2sqm (88sqft)	WD - replace 1 door & frame (with Hollow Metal Door)	n/a
Additional Comments	n/a	n/a	n/a	[1] Code deficiencies present - Refer to Part 7	n/a









5.2 CONDITION OF INTERIOR FINISHES - BASEMENT

Room: Mechanical Room (Program Space) #B-12	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Concrete with Wood Studs (C), Plaster Board (PB)	Concrete with No Baseboard (C)	Plaster Board (PB)	Wood Door & Frame (WD)	n/a
Finish Suitability	C - Suitable PB - Suitable	C - Suitable	PB - Suitable	WD - Not Suitable	n/a
Current Condition of Finish	C - Fair PB - Poor	C - Good	PB - Very Poor	WD - Fair	n/a
Estimated Life Remaining	C - 20+ years PB - 5 years	C - 25+ years	PB - <5 years	WD - 5+ years	n/a
Recommendations	C - Maintenance PB - **Replacement**[1]	C - Maintenance	PB - **Replacement**[1]	WD - **Replacement**[1]	n/a
Quantities for Repair or Replacement	PB - replace 33.5sqm (360sqft) PB - Firestop all penetrations	n/a	PB - replace 5.7sqm (61sqft) PB - Firestop all penetrations	WD - replace 1 access door & frame (with rated Hollow Metal door & frame)	n/a
Additional Comments	[1] Code deficiencies present - Refer to Part 7	n/a	[1] Code deficiencies present - Refer to Part 7	[1] Code deficiencies present - Refer to Part 7	n/a









5.2 CONDITION OF INTERIOR FINISHES - BASEMENT

Room: Sump Room #B-13	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Concrete (C), Plaster Board (PB)	Concrete (C)	Plaster Board (PB)	Wood Door & Frame (WD)	Wood Crawlspace Access Hatch (AH), Floor Access Hatch (FH)
Finish Suitability	C - Suitable PB - Suitable	C - Suitable	PB - Suitable	WD - Not Suitable	AH - Suitable FH - Suitable
Current Condition of Finish	C - Good PB - Good	C -Good	PB - Good	WD - Poor	AH - Fair FH - Fair
Estimated Life Remaining	C - 25+ years PB - 15+ years	C - 25+ years	PB - 15+ years	WD - 5 years	AH - <10 years FH - <10 years
Recommendations	C - Maintenance PB - Maintenance	C - Maintenance	PB - Maintenance	WD - **Replacement**[1]	AH - Maintenance FH - Maintenance
Quantities for Repair or Replacement	n/a	n/a	n/a	WD - replace 1 door & frame (with Hollow Metal door)	n/a
Additional Comments	n/a	n/a	n/a	[1] Code deficiencies present - Refer to Part 7	n/a









5.2 CONDITION OF INTERIOR FINISHES - BASEMENT

Room: Picture Books #B-14	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Plaster Board (PB)	Carpet Tile & Rubber Base (CPT)	Plaster Board (PB)	Wood Frame (WD)	Wood Book Shelves (WS)
Finish Suitability	PB - Suitable	CPT - Suitable	PB - Suitable	WD - Suitable	WS - Suitable
Current Condition of Finish	PB - Good	CPT - Very Good	PB - Good	WD - Poor	WS - Fair
Estimated Life Remaining	PB - 15+ years	CPT - 20+ years	PB - 15+ years	WD - 5 years	WS - 10+ years
Recommendations	PB - Maintenance	CPT - Maintenance	PB - **Repair** Patch openings	WD - **Replacement**	WS - Maintenance
Quantities for Repair or Replacement	n/a	n/a	PB - patch 1sqm (10.7sqft)	WD - replace 1 door frame (no door leaf)	n/a
Additional Comments	n/a	n/a	n/a	n/a	n/a







5.2 CONDITION OF INTERIOR FINISHES - BASEMENT

Room: Elevator Machine Room #B-15	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Concrete (C)	Concrete (C)	Concrete (C)	Hollow Metal (HM)	n/a
Finish Suitability	C - Suitable	C - Suitable	C - Suitable	HM - Suitable	n/a
Current Condition of Finish	C - Fair	C - Good	C - Good	HM - Good	n/a
Estimated Life Remaining	C - 20+ years	C - 25+ years	C - 25+ years	HM - 15+ years	n/a
Recommendations	C - **Repair**[1]	C - Maintenance	C - Maintenance	HM - **Repair**[1] Replace hardware	n/a
Quantities for Repair or Replacement	C - Firestop penetrations	n/a	n/a	HM - replace 1 door hardware set	n/a
Additional Comments	[1] Code deficiencies present - Refer to Part 7	n/a	n/a	[1] Code deficiencies present - Refer to Part 7	n/a







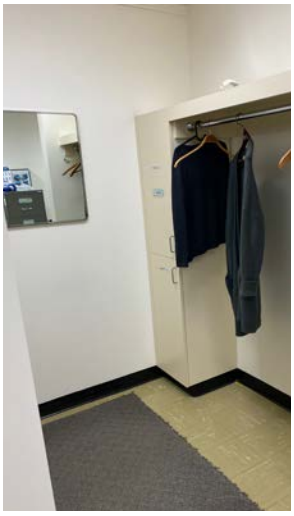


5.2 CONDITION OF INTERIOR FINISHES - BASEMENT

Room: Staff Room #B-17	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Plaster Board (PB)	Vinyl Tile & Rubber Base (VT)	Suspended Acoustic Ceiling Tile & Grid (ACT)	Wood Door & Frame (WD)	Kitchen Millwork (KM)
Finish Suitability	PB - Suitable	VT - Suitable	ACT - Suitable	WD - Suitable	KM - Suitable
Current Condition of Finish	PB - Good	VT - Fair	ACT - Fair	WD - Fair	KM - Poor
Estimated Life Remaining	PB - 15+ years	VT - 10+ years	ACT - 10+ years	WD - 5+ years	KM - <5 years
Recommendations	PB - Maintenance	VT - Maintenance	ACT - Maintenance	WD - Maintenance	KM - **Replacement**[1]
Quantities for Repair or Replacement	n/a	n/a	n/a	n/a	KM - Refer to Part 9
Additional Comments	n/a	n/a	n/a	n/a	[1] Code deficiencies present - Refer to Part 9





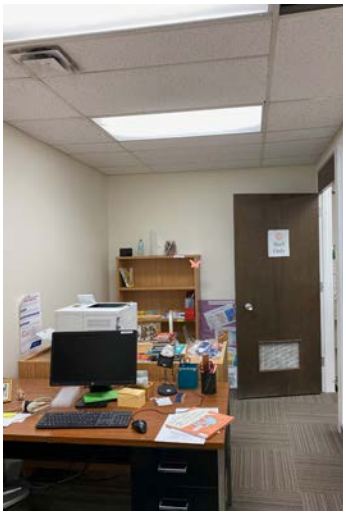




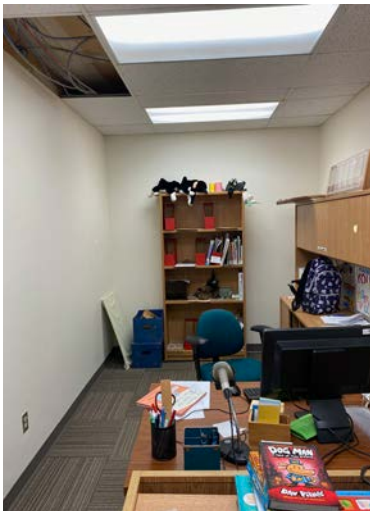
5.2 CONDITION OF INTERIOR FINISHES - BASEMENT

Room: Staff Office #B-18	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Plaster Board (PB)	Carpet Tile & Rubber Base (CPT)	Suspended Acoustic Ceiling Tile & Grid (ACT), Plaster Board (PB)	Wood Door & Frame (WD)	n/a
Finish Suitability	PB - Suitable	CPT - Suitable	ACT - Suitable PB - Suitable	WD - Suitable	n/a
Current Condition of Finish	PB - Good	CPT - Very Good	ACT - Fair PB - Fair	WD - Door Fair, Frame Poor	n/a
Estimated Life Remaining	PB - 15+ years	CPT - 20+ years	ACT - 10+ years PB - 10+ years	WD - 5+ years	n/a
Recommendations	PB - Maintenance	CPT - Maintenance	ACT - **Repair** (replace missing or damaged tiles) PB - Maintenance	WD - **Replacement**[1]	n/a
Quantities for Repair or Replacement	n/a	n/a	ACT - replace 3 tiles (2'x4')	WD - replace 1 door & frame	n/a
Additional Comments	n/a	n/a	n/a	[1] Code deficiencies present - Refer to Part 7	n/a









5.2 CONDITION OF INTERIOR FINISHES - BASEMENT

Room: Basement Storage #B-19	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Plaster Board (PB), Concrete Block (CB)	Concrete with No Baseboard (C)	Plaster Board (PB)	Wood Door & Frame (WD)	n/a
Finish Suitability	PB - Suitable CB - Suitable	C - Suitable	PB - Suitable	WD - Suitable	n/a
Current Condition of Finish	PB - Very Poor CB - Fair	C - Fair	PB - Fair	WD - Door Fair, Frame Poor	n/a
Estimated Life Remaining	PB - <5 years CB - 20+ years	C - 20+ years	PB - 10+ years	WD - 5+ years	n/a
Recommendations	PB - **Replacement**[1] CB - Maintenance	C - Maintenance	PB - Maintenance	WD - **Replacement**[1]	n/a
Quantities for Repair or Replacement	PB - replace 88sqm (954sqft)	n/a	n/a	WD - 1 door & frame	n/a
Additional Comments	[1] Code deficiencies present - Refer to Part 7	n/a	n/a	[1] Code deficiencies present - Refer to Part 7	n/a









5.2 CONDITION OF INTERIOR FINISHES - BASEMENT

Room: Puppet Storage #B-20	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Plaster Board (PB)	Carpet Tile & Rubber Base (CPT)	Plaster Board (PB)	Hollow Metal Frame & Wood Door (HMWD)	Wood Storage Shelving (WS)
Finish Suitability	PB - Suitable	CPT - Suitable	PB - Suitable	HMWD - Suitable	WS - Suitable
Current Condition of Finish	PB - Good	CPT - Very Good	PB - Good	HMWD - Fair	WS - Good
Estimated Life Remaining	PB - 15+ years	CPT - 20+ years	PB - 15+ years	HMWD - 5+ years	WS - 15+ years
Recommendations	PB - Maintenance	CPT - Maintenance	PB - Maintenance	HMWD - **Repair**[1] Replace door hardware	WS - Maintenance
Quantities for Repair or Replacement	n/a	n/a	n/a	HMWD - replace 1 door hardware set	n/a
Additional Comments	n/a	n/a	n/a	[1] Code deficiencies present - Refer to Part 7	n/a









PART 6
ELEVATOR

6.1 CONDITION OF ELEVATOR

The existing elevator was installed in 1998 (it is 25 years old). The elevator was functioning at the time of the site walkthrough, however library staff have noted that there are ongoing issues that require maintenance.

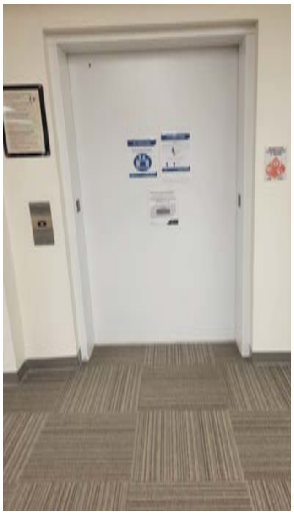
The operating permit for the elevator was up to date during the walkthrough - it expires in 2024.

Elevator components that were inaccessible were not reviewed.

Room: Elevator Car #B-16	Interior Walls & Partitions	Flooring	Ceiling	Interior Doors	Miscellaneous (Blinds, Millwork, etc.)
Finish Description and Abbreviation	Plastic Laminate (PL)	Sheet Vinyl (SV)	Plastic Laminate (PL)	Steel/Painted Metal (S)	Elevator Hardware (EH) including buttons, signage, & bumpers
Finish Suitability	PL - Suitable	SV - Suitable	PL - Suitable	S - Suitable	EH - Suitable
Current Condition of Finish	PL - Good	SV - Fair	PL - Good	S - Good	EH - Good
Estimated Life Remaining	PL - 10+ years	SV - <10 years	PL - 10+ years	S - 20+ years	EH - 15+ years
Recommendations	PL - Maintenance	SV - Maintenance	PL - Maintenance	S - **Repair** (repaint)	EH - Maintenance
Quantities for Repair or Replacement	n/a	n/a	n/a	S - paint 2 doors & frames	n/a
Additional Comments	n/a	n/a	n/a	n/a	n/a









6.2 CODE REVIEW - ELEVATOR / VERTICAL TRANSPORTATION

The NBC 2020 *(article 3.3.17 - Protection on Floor Areas with a Barrier-Free Path of Travel)* requires that every floor area above *or below* the first storey that is not sprinklered throughout and that has a barrier-free path of travel shall either:

1. Be divided into at least 2 zones by 1 hr fire separations,
2. Have an exterior exit at ground level or a ramp leading to ground level, or
3. Be served by an elevator that conforms to Articles 3.2.6.4, 3.2.6.5, and 3.2.6.6, and is protected against fire in conformance with Clause 3.2.6.5 (3b or 3c).
   Note that these articles typically apply to high buildings, but due to the requirements of article 3.3.1.7, these would apply to the library's elevator serving only the basement level.

Refer to the Safety Within Floor Areas section in Part 7 for further analysis (see article 3.3.1.7). The library's basement has a barrier free path of travel. It is not divided into 2 zones by fire separations, and does not have an exterior exit or ramp. The following is an analysis of the existing elevator against the required code articles:

3.2.6.4. Emergency Operation of Elevators

Analysis: In-car emergency service switches are provided in the elevator car - this is required by code. Keys to operate the switches must be provided in a suitably identified box conspicuously located on the outside of an elevator hoistway near the central alarm and control facility. The location of the emergency switch elevator keys appears to be in the main entry (Room 101), but this was not well marked. This is not code compliant.

3.2.6.5. Elevator for Use by Firefighters

Analysis: This article requires that at least one elevator is provided for use by firefighters. This elevator must have a useable platform area not less than 2.2 sqm and must be capable of carrying a load of 900 kg to the top floor that it serves (the main floor in this case). The interior dimensions of the library's elevator car were measured at 4'-4" x 6'-10" (1.32m x 2.08m). Therefore, the area of the platform is 2.75sqm, which is code compliant. The elevator has a weight capacity of 2500lbs (1133kg), which is code compliant.

In order to be protected against fire in conformance with Clause 3.2.6.5 (3b or 3c), the elevator must be protected with either a vestibule or corridor containing no occupancy and separated from the remainder of the floor area. There is no vestibule or corridor at the library's elevator. This is not compliant with this article.

Elevators for use by firefighters must also: have electrical conductors for the operation of the elevator installed in service spaces conforming to Section 3.6 that do not contain other combustible material, or conform to CAN/ULC-S139, "Standard for Fire Test for Circuit Integrity of Fire-Resistive Power, Instrumentation, Control and Data Cables," including the hose stream application, to provide a circuit integrity rating of not less than 1 h. It is unclear from the existing drawings or through a visual inspection of the elevator whether the article's electrical conductor requirements are met. If they are not met by the library's elevator, then it is not compliant with this article.

3.2.6.6. Venting to Aid Firefighting

Analysis: Means of venting each floor area to the outdoors appear to be provided within the library by the fixed windows and the building exhaust system. The elevator hoistway does not appear to be designed for venting - which is code compliant.

Risk to occupant safety: Refer to the risk analysis listed in Part 7 (for article 3.3.1.7).

Recommendations: If the elevator is intended for firefighter use to provide barrier-free protection on the basement level, a vestibule or corridor would need to be added outside of the elevator with a fire separation separating this space from the rest of the library. This would be difficult to achieve on the main floor, since the arrangement is heritage protected. The elevator could be upgraded or replaced as required to meet the electrical conductor requirements stated above. Keys to operate the elevator's emergency service switches must be stored in an obvious location in an identified box as stated in this article.

However, signage is present that indicates that the elevator will be out of service during a fire. It is likely not intended for firefighter use. A different method could be used to provide barrier-free protection in the basement. See the above 3 options, also described in the Part 7 analysis of article 3.3.1.7. Refer also to the recommendations listed in Part 7 (for article 3.3.1.7).

6.2 CODE REVIEW - ELEVATOR / VERTICAL TRANSPORTATION

Vertical Transportation

3.5.2.1. Elevators, Escalators and Dumbwaiters

Analysis: The library's elevator was installed with an elevator permit issued by the Province of MB's Office of the Fire Commissioner, which states that the elevator meets all regulations under The Elevator Act. It appears to be regularly inspected - the current inspection expires in September 2024. This is code compliant.

3.5.3.1. Fire Separations for Elevator Hoistways

Analysis: A vertical service space used as an elevator hoistway must be separated from all other portions of each adjacent storey by a fire separation having a fire-resistance rating conforming to Table 3.5.3.1.

Table 3.5.3.1 - Fire Separation for Vertical Transportation Space
Fire-Resistance Rating of Fire Separation Required = less than 45 min (0 hr, see Building Fire Safety in Part 7, article 3.2.2.25)
Minimum Fire-Resistance Rating of Elevator Hoistway for Floor Assembly = 45 min

The walls at the elevator hoistway are constructed with 10" concrete in the basement and 8" concrete block on the main floor. This would exceed the 45 minute fire separation requirement, and is code compliant. Considering the construction date of the elevator, it can be presumed the elevator doors meet the required fire separation requirements.

3.5.3.3. Fire Separations for Elevator Machine Rooms

Analysis: A room containing elevator machinery must be separated from all other parts of the building by a fire separation having a fire-resistance rating not less than that required for the vertical service space containing the elevator hoistway. A rating of 45 minutes is required.

The walls at the elevator machine room are constructed with 10" concrete. This would exceed the 45 minute fire separation requirement, and is code compliant. The door to the machine room is fire rated. There are penetrations through the fire separation that are not firestopped. This is not code compliant.

Risk to occupant safety: **Medium.** This increases the probability that fire will spread from the room containing elevator machinery to other parts of the building.

Recommendations: Firestop all penetrations through the machine room where firestopping is not present.

3.5.4.1. Elevator Car Dimensions

Analysis: At least one elevator on each storey with access to an elevator shall have inside dimensions that will accommodate and provide adequate access for a patient stretcher 2010mm long and 610mm wide. The interior dimensions of the library's elevator car were measured at 4'-4" x 6'-10" (1.32m x 2.08m). This is code compliant.

An elevator satisfying these requirements must be clearly identified on the main entrance level of the building. The elevator was not well marked

Risk to occupant safety: **Low.** This increases the probability that emergency responders will not be familiar with the location of the elevator that is suitable for stretchers, which could lead to delays in providing medical services.

Recommendations: Provide additional signage to make the elevator locations more clearly visible on both floors.

3.5.4.2. Floor Numbering

Analysis: Arabic numerals indicating the assigned floor number are mounted permanently on both jambs of the passenger elevator hoistway entrances. This is code compliant.

6.3 ACCESSIBILITY REVIEW (WADS) - ELEVATOR



Elevator Hall Call Button

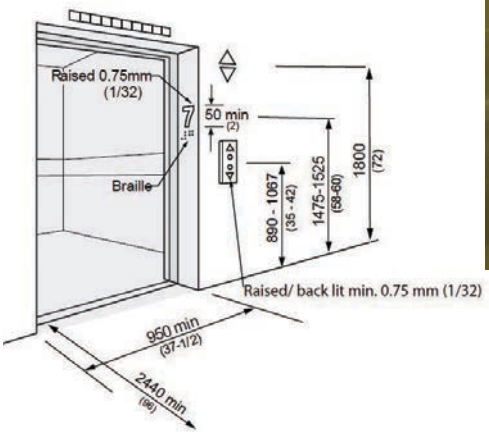


Figure 3.1.5.3 Elevator Entry



Elevator Floor Register Buttons

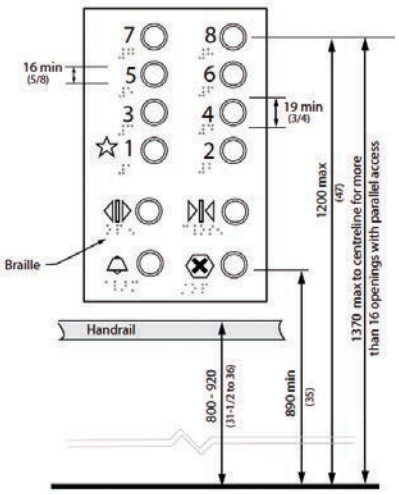
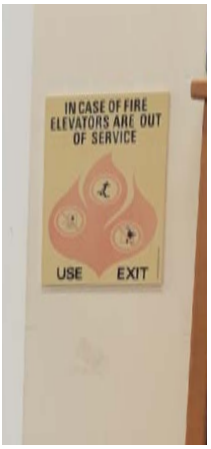


Figure 3.1.5.2 Control Panel



Typical Elevator Entry



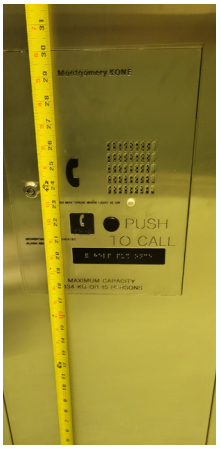
Elevator Signage



Floor Designation



Car Indicator



Emergency Call System



Elevator Machine Room Penetration with no Firestopping

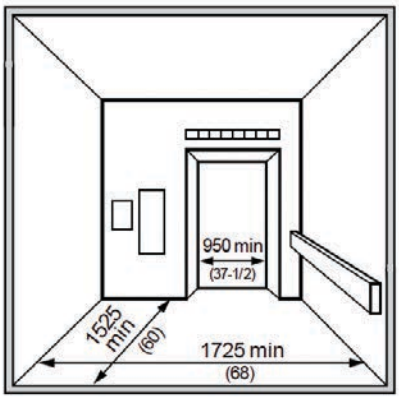


Figure 3.1.5.1 Elevator Cab



Elevator Handrail



In-Car Lantern

6.3 ACCESSIBILITY REVIEW (WADS) - ELEVATOR

3.1.5 Elevators

Analysis: WADS indicates that "the minimum distance between the [elevator] walls and door, excluding return panels, shall not be less than 1725mmx1525mm. In facilities with high public use, such as arenas, libraries or entertainments complexes, the distance between walls or between wall and door shall be 2030mm x 1525mm". The interior of the library's elevator car is 2082x1320mm (82"x52"). This is 8" short of the minimum dimensions in one direction. This is not compliant with WADS.

WADS states that "The clear width for elevator doors shall be at least 950 mm (37-1/2in)". The clear width of the library's elevator doors is 1067mm (42"). This is compliant with WADS.

WADS indicates that "elevator doors shall incorporate pronounced colour contrast, to differentiate them from the surrounding environment. There shall be a pronounced colour contrast between the car sill and the facility floor". The existing elevator doors are approximately the same colour as the adjacent interior walls. This is not compliant with WADS. The car sill is contrasted from the adjacent carpet flooring, which is compliant with WADS.

The floor register buttons exceed the WADS minimum of 19 mm (3/4 in.). All car control buttons are designated by Braille characters and by raised standard alphabet characters exceeding the minimum 1/2" height - this is compliant with WADS.

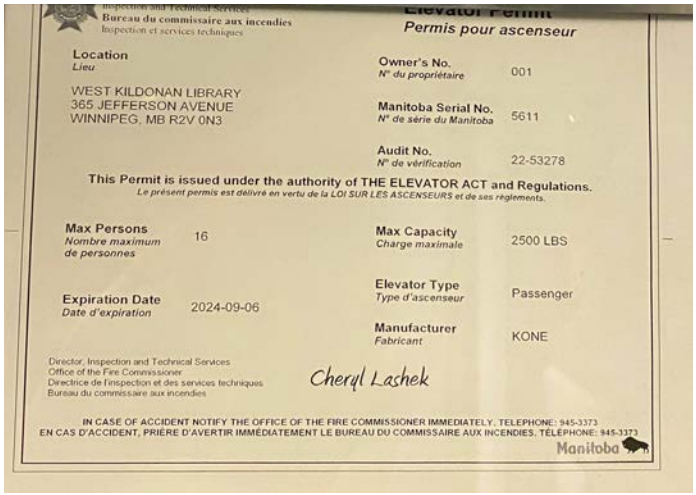
The emergency controls are grouped together at the bottom of the control panel. This is WADS compliant. WADS indicates that "The centreline of the alarm button and the emergency stop switch shall be not less than 890 mm (35") from the floor. The centre line of the highest floor button shall be no higher than 1200 mm (47") from the floor". This is compliant in the existing elevator.

There is an indicator provided in the car to show the position of the car in the hoist way, by illuminating the indicator corresponding to the landing at which the car is stopped or passing. Indication characters shall be consistently located, mounted on a contrasting colour background and a minimum of 16 mm (5/8 in.) high. This is WADS compliant.

The centerline of the hall call buttons are 42" above the floor. There are floor designations on both elevator door jambs with raised Arabic numerals and Braille, however these are located too low. This is not compliant with WADS. There is an indicator in the elevator car showing its position in the hoist way. This is WADS compliant. WADS states that "hall visual indication shall be provided to show each call that is registered and that is extinguished when the call is answered". This is not provided and therefore is not compliant with WADS.

In-car lanterns are provided at a WADS compliant height. There are existing handrails on all non-access walls in the elevator at a WADS compliant height. There is an emergency call system in the elevator, which is less than 1200mm from the floor of the car. This is compliant with WADS.

WADS indicates that "as the car stops at a floor, the floor and direction of travel shall be announced using voice annunciation technology". Voice annunciation technology is not provided at the library elevator. This is not WADS compliant.


Bureau du commissaire aux incendies
Inspection et services techniques

Permis pour ascenseur

Location
Lieu

WEST KILDONAN LIBRARY
365 JEFFERSON AVENUE
WINNIPEG, MB R2V 0N3

Owner's No.
N° du propriétaire
001

Manitoba Serial No.
N° de série du Manitoba
5611

Audit No.
N° de vérification
22-53278

This Permit is issued under the authority of THE ELEVATOR ACT and Regulations.
Le présent permis est délivré en vertu de la LOI SUR LES ASCENSEURS et de ses règlements.

Max Persons
Nombre maximum de personnes
16

Max Capacity
Charge maximale
2500 LBS

Expiration Date
Date d'expiration
2024-09-06

Elevator Type
Type d'ascenseur
Passenger

Manufacturer
Fabricant
KONE

Director, Inspection and Technical Services
Office of the Fire Commissioner
Directrice de l'inspection et des services techniques
Bureau du commissaire aux incendies
Cheryl Lashek

IN CASE OF ACCIDENT NOTIFY THE OFFICE OF THE FIRE COMMISSIONER IMMEDIATELY. TELEPHONE: 945-3373
EN CAS D'ACCIDENT, PRIÈRE D'AVERTIR IMMÉDIATEMENT LE BUREAU DU COMMISSAIRE AUX INCENDIES. TÉLÉPHONE: 945-3373

Manitoba

Elevator Permit

Risk to occupant safety: **Low.** These non-compliant conditions present little risk to occupants, but reduce the accessibility of the space.

Recommendations: Adding voice annunciation to the elevator would provide audible cues for individuals with vision impairments to identify different floor levels and the direction of travel. The elevator doors could be painted to provide more colour contrast - this would help those who are visually impaired to better identify the location of the elevator. To make the elevator dimensions compliant to the current WADS requirements, this would likely involve the demolition of the exterior concrete block wall to increase the dimensions of the shaft, complete with new elevator installation. Given the smaller size of the existing elevator, an angled mirror could be added to assist persons in wheelchairs to back out.

PART 7

ARCHITECTURAL BUILDING CODE REVIEW

BUILDING CODE REVIEW - SUMMARY

Summary of Non-Compliant Conditions (listed by priority of risk):

Low Risk to Occupant Safety:

- Amount of unprotected openings on north wall exceeds the maximum permitted
- Firefighting Access Route - too far away from principal entrance
- Unprotected, exposed foamed plastics are present
- Combustible cladding is present, but not permitted - north exterior walls
- Ramp slope is not uniform

Medium Risk to Occupant Safety:

- Corridors - too narrow (Hallway 111, Receiving Room 113)
- Door hardware - knobs present throughout Library
- Tactile Indicators - No tactile indicators at top of stairs
- Transparent Panels / Safety Glazing - Safety glazing may not be present
- Janitor Room Fire Separation - 45 minute rating is not present
- Landing Dimensions - No landing is present at an exterior door
- Handrails - not code compliant
- Treads/Risers - not uniform at exterior stairs
- Doors - Swing is too close to exterior steps
- Boiler Room - Door swings inwards
- Smoke separation - seal penetrations/openings at vertical service spaces

High Risk to Occupant Safety:

- Integrity of Exits - Washroom is located within an exit
- Exit (stairs) - No fire separation provided
- Guards - not code compliant
- Basement Firefighting Access
- No Protection of Barrier-Free Floor Area (basement)
- Exit Width - Door to Room B-10 is too narrow
- Door Hardware (deadbolt at exit door, kick down door stops)
- Distance between exits - basement level (exits are too close together)
- Boiler Room Fire Separation - 1 hour rating is not present

7.1 CODE REVIEW - OCCUPANT LOAD

Occupant Load

3.1.17.1. Occupant Load Determination (Table 3.1.17.1., Assembly Uses & Other Uses)

- Non-fixed seats = 0.75sqm per person
- Non-fixed seats and tables = 0.95sqm per person
- Standing space = 0.40 sqm per person
- Reading & writing rooms or lounges = 1.85sqm per person
- Dining space = 1.20sqm per person
- Offices = 9.3sqm per person
- Storage = 46 sqm per person

No signs indicating a design occupant load were visible in the building.
There are no fixed seats in the building.
The roof is unoccupied.

Occupant Load Calculation:

Main Floor: Total = 245 + 7 = 252 persons

Reading Rooms:
Reception 102, Adult Book Section 106, Computers 114, Reference Section 116.

Total area: 454sqm / 1.85sqm per person = 245 persons

Offices:
Work Room 108, Staff Room 112, Receiving Room 113
Total area 69sqm / 9.3sqm per person= 7 persons

All other main floor rooms do not contain occupancies.

Basement: Total = 118 + 125 + 2 + 3 = 248 persons

Reading Rooms:
Children's Books B-02, Children's Books B-06, Picture Books B-14.

Total area: 218sqm / 1.85sqm per person = 118 persons

Non-fixed seats and tables:
Assembly Room B-10, Staff Room B-17
Total area: 119sqm / 0.95sqm per person = 125 persons

Offices:
Staff Office B-18
Total area: 14sqm / 9.3sqm per person = 2 persons

Storage:
Storage Rooms B-09, B-11, B-13, B-19, Puppet Room B-20,
Total area: 137sqm / 46sqm per person = 3 persons

All other basement rooms do not contain occupancies.

Total Occupant Load of Building (based on area) : 252 + 248 = **500 persons**

Design Occupant Load:

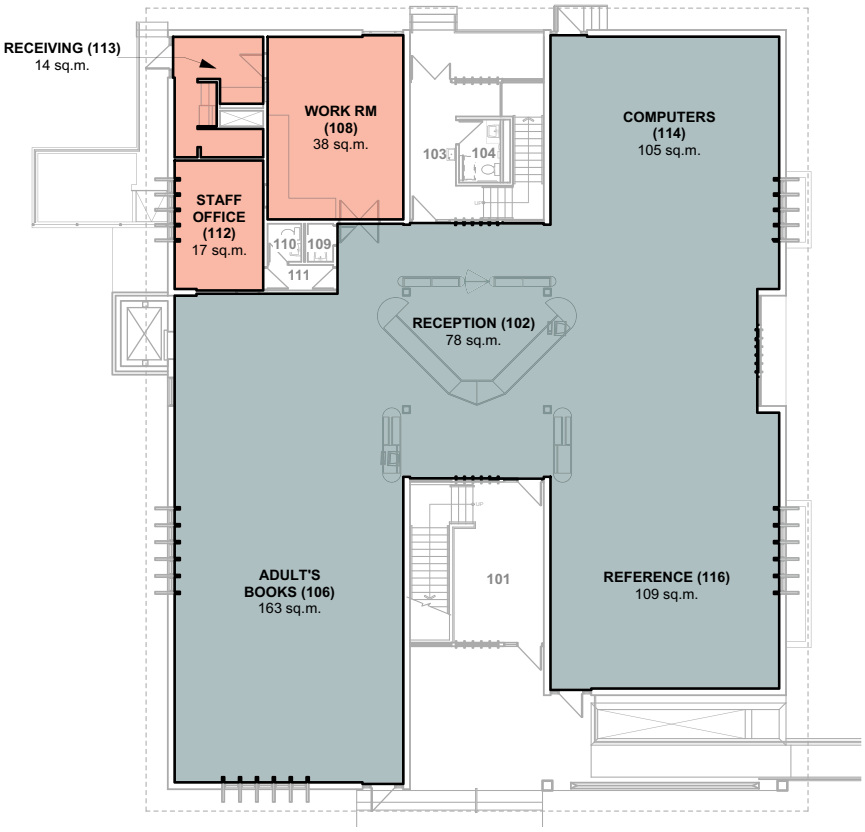
Based on our site visit, the typical occupancy of the building is much less than what the building code specifies based on floor areas.

In discussion with staff from the West Kildonan Library, and using a similar occupant density to Bill & Helen Norrie Library, the following design occupant load is proposed:

Staff	= 6 persons
Open Library (Main Floor)	= 80 persons
Program/Assembly Room (Basement)	= 60 persons (as listed on the City's website)
Open Library (Basement)	= 40 persons
Total Occupancy	= 6 + 80 + 60 + 40 = **186 persons**

Note: If this design occupant load is used to calculate exit and washroom requirements, it must be posted in the building.

7.1 CODE REVIEW - OCCUPANT LOAD (cont'd)



1 MAIN FLOOR PLAN
Scale: N.T.S.

TOTAL OCCUPANT LOAD - MAIN FLOOR:

Reading Rooms:
(Reception 102, Adult Book Section 106, Computers 114, Reference Section 116)

454 sqm / 1.85 sqm per person = 245

Offices:
(Work Room 108, Staff Office 112, Receiving Room 113)

69 sqm / 9.3 sqm per person = 7



1 BASEMENT FLOOR PLAN
Scale: N.T.S.

TOTAL OCCUPANT LOAD - BASEMENT:

Reading Rooms:
(Children's Books B-02, Children's Books B-06, Picture Books B-14)

218 sqm / 1.85 sqm per person = 118

Offices:
(Staff Office B-18)

14 sqm / 9.3 sqm per person = 2

Non-fixed seats and tables:
(Assembly Room B-10, Staff Room B-17)

119 sqm / 0.95 sqm per person = 125

Storage:
(Storage Rooms B-09, B-11, B-19; Puppet Room B-20; Sump Room B-13)

137 sqm / 46 sqm per person = 3

7.2 CODE REVIEW - BUILDING FIRE SAFETY

The following review of West Kildonan Library was completed using the 2020 National Building Code and 2020 National Fire Code, which will soon be adopted by the Province of Manitoba. It is understood by the reviewer that, at this time, there will be no provincial amendments to the 2020 National Building Code. Non-compliant conditions are underlined. The risk of these non-compliant conditions are assessed as **Low, Medium,** or **High.**

The existing building is one storey and is not sprinklered. It faces two streets (Jefferson Ave and Powers Street). The existing building area is 640 sq.m.

Building Construction Article:

A-3.1.2.1.(1) Major Occupancy Classification

Analysis: The building's major occupancy is Group A2 (Library, Assembly Occupany). In terms of 2020 National Building Code, the building would be considered to fall under the following article:

3.2.2.25. Group A, Division 2, up to 2 Storeys (facing 2 streets, max area: 2000 sq.m.)

Article Requirements:

- the building can be built of combustible construction or noncombustible construction
- floor assemblies shall be fire separations and, if of combustible construction, shall have a fire-resistance rating not less than 45 min,
- except as permitted by Article 3.2.2.17, mezzanines shall have, if of combustible construction, a fire-resistance rating not less than 45 min (note - there is no mezzanine in the building)
- except as permitted by Article 3.2.2.17, roof assemblies shall have, if of combustible construction, a fire-resistance rating not less than 45 min, except that in a building not more than 1 storey in building height, the fire-resistance rating is permitted to be waived provided the roof assembly is constructed as a fire-retardant-treated wood roof system conforming to Article 3.1.14.1., and the building area is not more than 1000 m2 if facing 2 streets, and
- loadbearing walls, columns and arches supporting an assembly required to have a fire-resistance rating shall have a fire-resistance rating not less than 45 min, or be of noncombustible construction.

Analysis: The building structure is built using non-combustible construction. The exterior walls are built of non-combustible masonry with steel columns. The roof and main floor are built of non-combustible steel deck, steel joists, and steel beams. 3/4" ceiling furring bars (where used) are built of noncombustible steel. This is code compliant.

The interior partitions are built of combustible construction (2x4 wood studs). This is permitted by the code article, as the building can be built of combustible or noncombustible construction.

The existing drawings indicate that the main floor structure is built of noncombustible construction, so a fire-resistance rating is not required. However, the floor assembly must still be constructed as a fire separation with a 0 hr fire-resistance rating (also known as a smoke separation). The concrete topping over the main floor steel decking would act as an effective smoke seal between floors, however all openings or penetrations through the main floor (for ductwork, conduit, etc) must be sealed to prevent the passage of smoke. The roof assembly is built of noncombustible construction - it is not required to act as a fire separation. This is code compliant.

The columns are built of noncombustible construction and the floor/roof above do not need a fire-resistance rating. No fire-resistance rating is required at the columns - this is code compliant.

Recommendations: All penetrations through the main floor (ductwork, conduit, etc) should be sealed to prevent the passage of smoke.

Combustible / Noncombustible Construction:

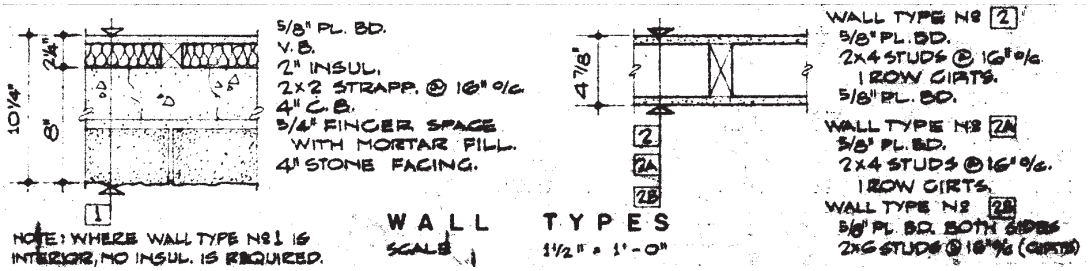
3.1.4.2. & 3.1.5.15. - Protection of Foamed Plastics / Foamed Plastic Insulation

There is a small amount of existing unprotected foamed plastic insulation surrounding some piping in Rm B-06, and some exposed insulation on the exterior of the building on the west side. The flame spread rating of the insulation is unknown.

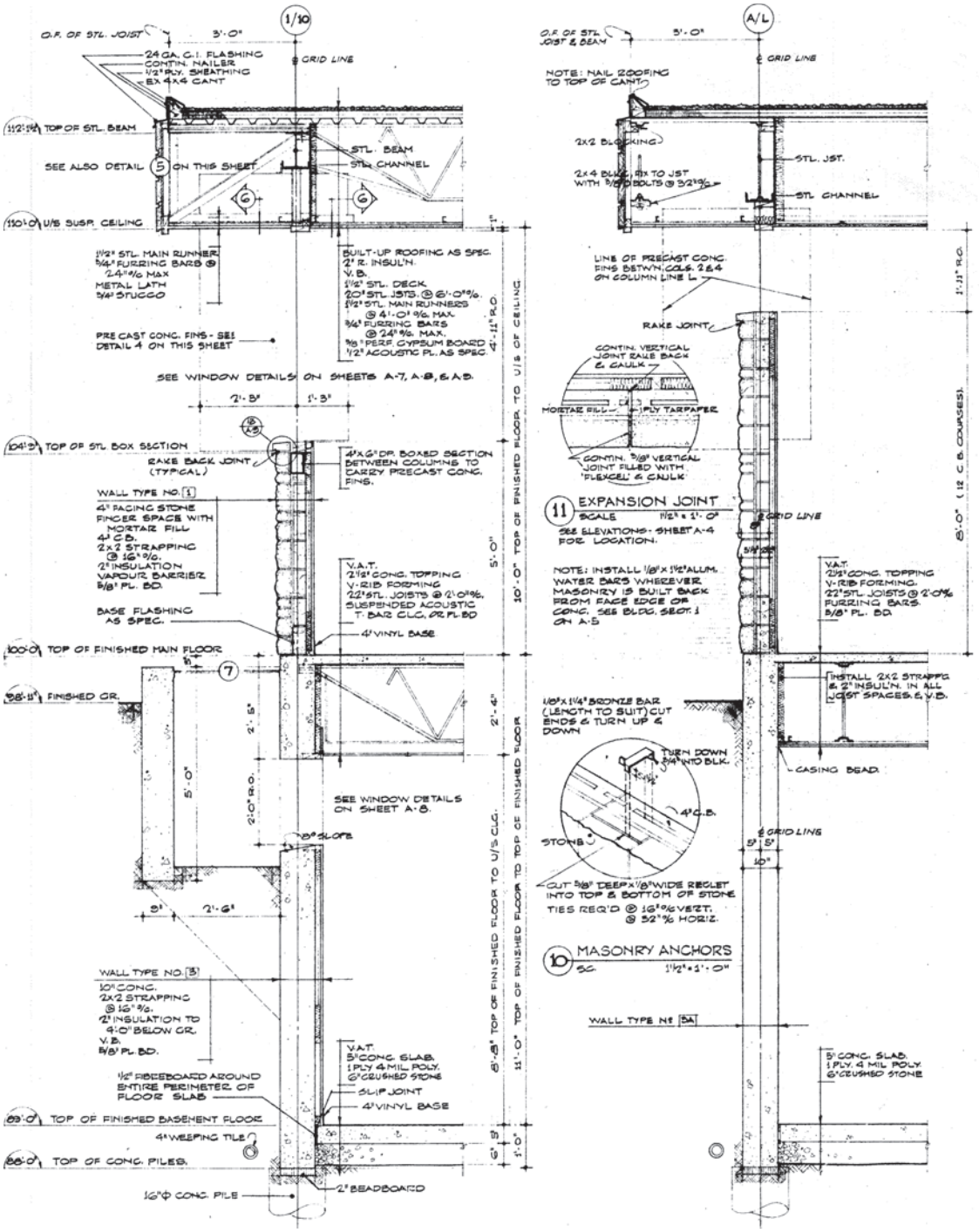
Risk to occupant safety: **Low.** There is some risk that the foamed plastic insulation could become exposed to a fire, which could lead to early fire growth and spread. This would negatively affect the ability of persons to escape from a fire. However, this is a very small amount of exposed foamed plastic. This likely would not contribute greatly to fire spread.

Recommendations: The insulation should be removed or protected by an accepted material (gypsum board for example).

7.2 CODE REVIEW - BUILDING FIRE SAFETY (cont'd)



Typical Construction - Walls



Typical Construction - Roof, Floors



Exposed Foamed Plastic (Exterior, West Side)



Exposed Foamed Plastic (Rm B-06)

7.2 CODE REVIEW - BUILDING FIRE SAFETY (cont'd)

Spatial Separation and Exposure Protection

3.2.3.1. Limiting Distance and Area of Unprotected Openings

Table 3.2.3.1.-B :Unprotected Opening Limits for a Building or Fire Compartment that is not Sprinklered Throughout

Analysis:

North Wall:
- Exposing Building Face, Max area, m2: **100**
- Exposing Building Face, Ratio L/H or H/L: **8.1:1 (3:1 to 10:1)**
- Limiting Distance, m: **4.1**
- Area of permitted unprotected openings for Group A: **18%**
- Actual area of unprotected openings: **38% (non-compliant)**

South Wall:
- Exposing Building Face, Max area, m2: **100**
- Exposing Building Face, Ratio L/H or H/L: **8.1:1 (3:1 to 10:1)**
- Limiting Distance, m: **15.6**
- Area of permitted unprotected openings for Group A: **100%**
- Actual area of unprotected openings: **41% (compliant)**

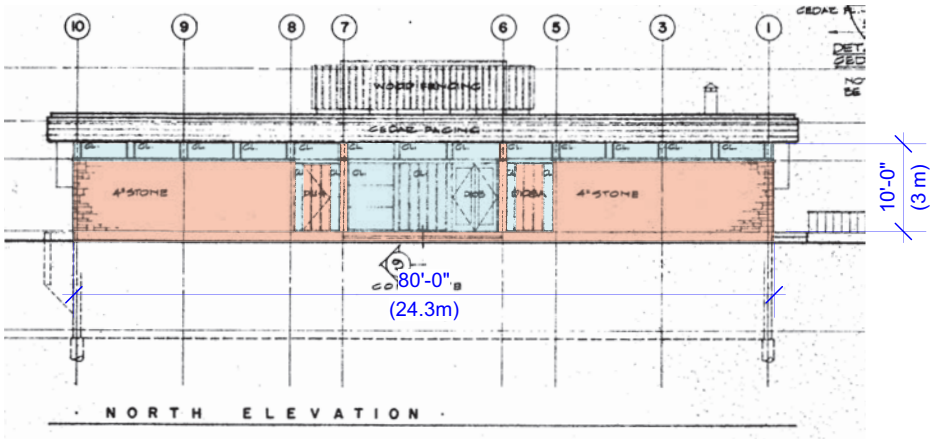
East Wall:
- Exposing Building Face, Max area, m2: **150**
- Exposing Building Face, Ratio L/H or H/L: **10:1 (3:1 to 10:1)**
- Limiting Distance, m: **15.8**
- Area of permitted unprotected openings for Group A: **100%**
- Actual area of unprotected openings: **32% (compliant)**

West Wall:
- Exposing Building Face, Max area, m2: **150**
- Exposing Building Face, Ratio L/H or H/L: **4.8:1 (3:1 to 10:1)**
- Limiting Distance, m: **11** (from closest unprotected opening)
- Area of permitted unprotected openings for Group A: **71%**
- Actual area of unprotected openings: **25% (compliant)**

Risk to occupant safety: **Low.** On the north side of the library, there is a small risk that fire could spread from the building to an adjacent building through the library's unprotected openings, which could lead to damage to adjacent buildings. However, there is a public lane and parking stalls between the library and the adjacent Seven Oaks School Division building.

Recommendations: On the north side of the library, fire shutters or sprinklers could be added at the unprotected openings where they exceed the maximums allowed. However, the expense for this would be great, and as stated above, the adjacent building is not close to the library. It is unlikely that the amount of unprotected openings in the building would be reduced / infilled. The exterior facades are heritage protected.

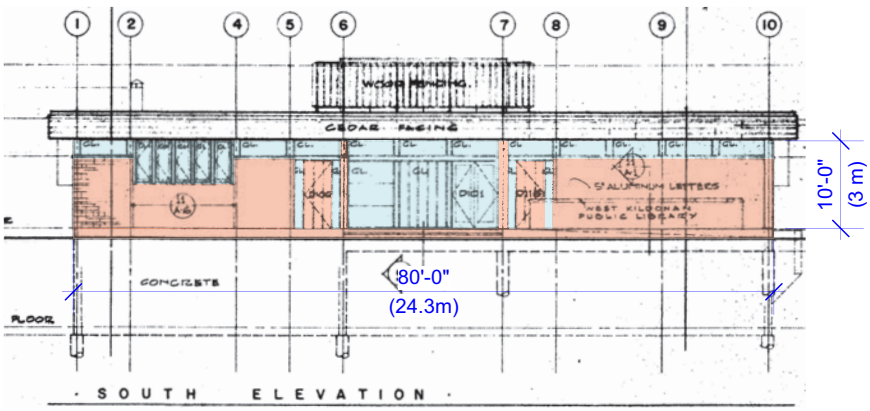
7.2 CODE REVIEW - BUILDING FIRE SAFETY (cont'd)



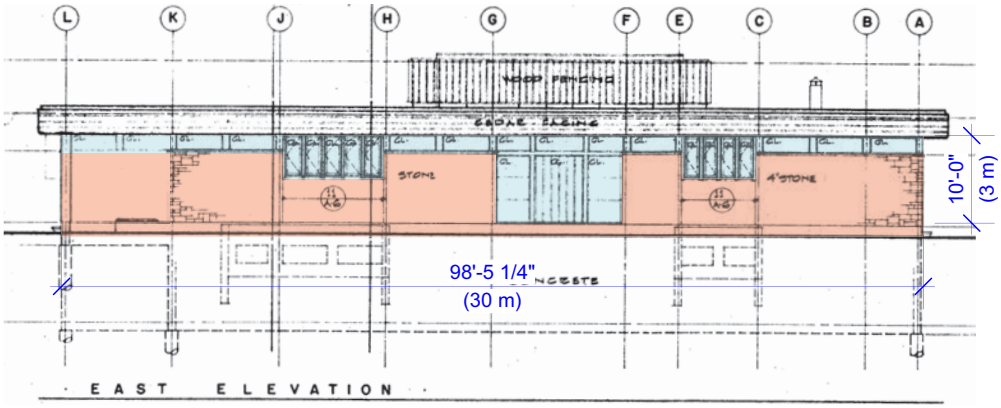
= unprotected openings

+ = exposing building face

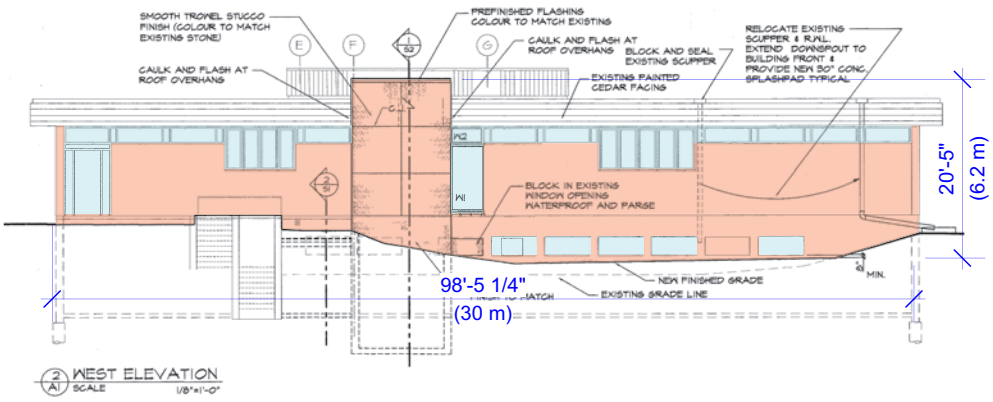
North Elevation:
Exposing Building Face: 82 sqm
Unprotected Openings: 31 sqm
% of Unprotected Openings: 38%
Ratio = 8.1 : 1



South Elevation:
Exposing Building Face: 82 sqm
Unprotected Openings: 34 sqm
% of Unprotected Openings: 41%
Ratio = 8.1 : 1



East Elevation:
Exposing Building Face: 106 sqm
Unprotected Openings: 34 sqm
% of Unprotected Openings: 32%
Ratio = 10 : 1



West Elevation:
Exposing Building Face: 130 sqm
Unprotected Openings: 33 sqm
% of Unprotected Openings: 25%
Ratio = 4.8 : 1

7.2 CODE REVIEW - BUILDING FIRE SAFETY (cont'd)

3.2.3.7. Construction of Exposing Building Face (Table 3.2.3.7, Group A)

Analysis:

North Wall:

Maximum Area of Unprotected Openings Permitted: **18%**
Minimum Required Fire-Resistance Rating: **1 hr**
Fire-Resistance Rating Provided: **1 hr (compliant)**
Type of Construction Required: **combustible or noncombustible**
Type of Construction Provided: **combustible and noncombustible (compliant)**
Type of Cladding Required: **noncombustible**
Type of Cladding Provided: **noncombustible (tyndall stone) & combustible (cedar fascia)**
Cladding is non-compliant.

South Wall:

Maximum Area of Unprotected Openings Permitted: **100%**
Minimum Required Fire-Resistance Rating: **n/a**
Fire-Resistance Rating Provided: **1 hr (compliant)**:
Type of Construction Required: **combustible or noncombustible**
Type of Construction Provided: **combustible and noncombustible (compliant)**
Type of Cladding Required: **combustible or noncombustible**
Type of Cladding Provided: **noncombustible (tyndall stone) & combustible (cedar fascia)**
Cladding is compliant.

West Wall (where limiting distance is 11m):

Maximum Area of Unprotected Openings Permitted: **71%**
Minimum Required Fire-Resistance Rating: **45 min**
Fire-Resistance Rating Provided: **1 hr (compliant)**
Type of Construction Required: **combustible or noncombustible**
Type of Construction Provided: **combustible and noncombustible (compliant)**
Type of Cladding Required: **combustible or noncombustible**
Type of Cladding Provided: **noncombustible (tyndall stone) & combustible (cedar fascia)**
Cladding is compliant.

West Wall (at elevator, limiting distance is 8.8m):

Maximum Area of Unprotected Openings Permitted: **45%**
Minimum Required Fire-Resistance Rating: **45 min**
Fire-Resistance Rating Provided: **1.5 hr (compliant)**
Type of Construction Required: **combustible or noncombustible**
Type of Construction Provided: **noncombustible (compliant)**
Type of Cladding Required: **noncombustible**
Type of Cladding Provided: **noncombustible (stucco). Cladding is compliant.**

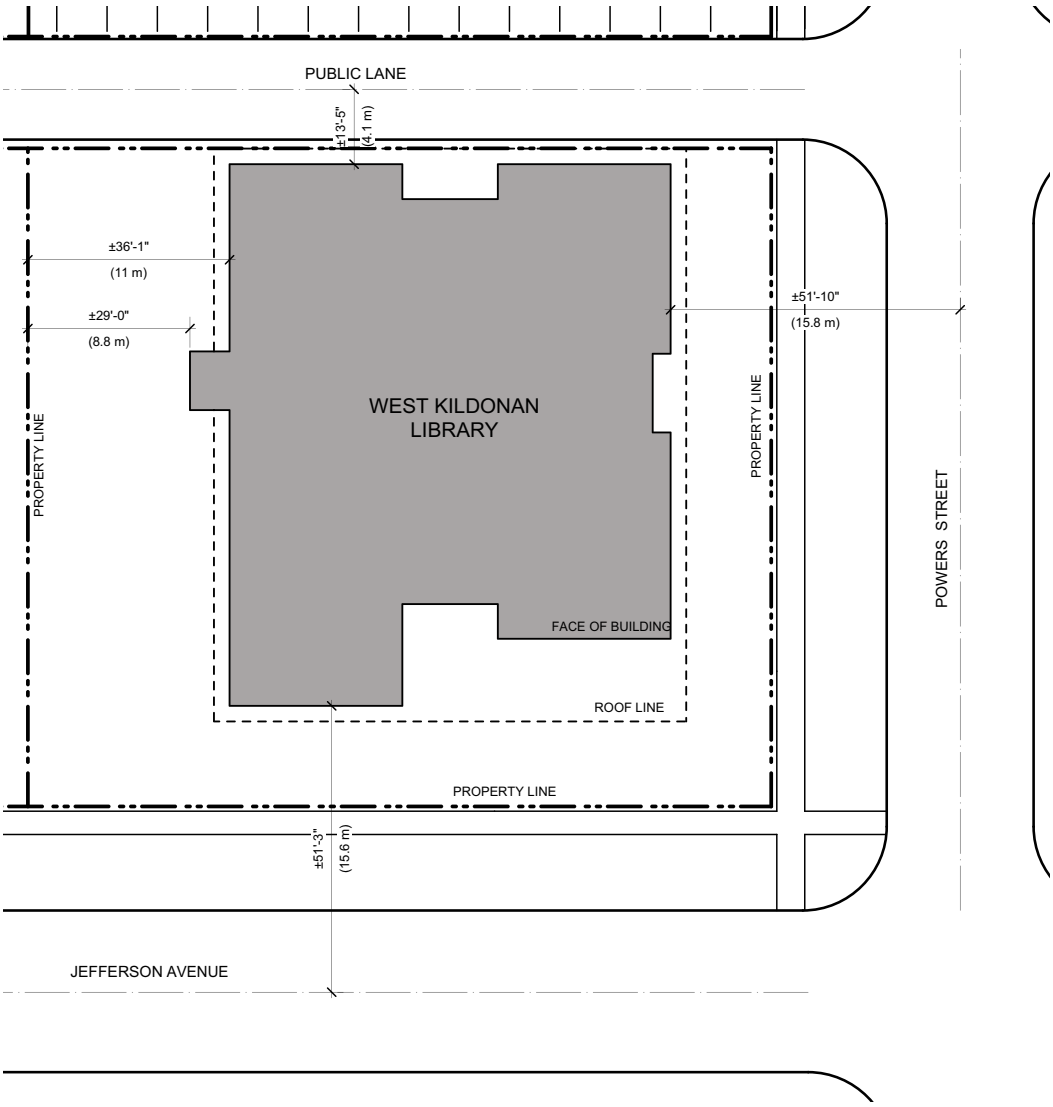
East Wall:

Maximum Area of Unprotected Openings Permitted: **100%**
Minimum Required Fire-Resistance Rating: **n/a**
Fire-Resistance Rating Provided: **1 hr (compliant)**
Type of Construction Required: **combustible or noncombustible**
Type of Construction Provided: **combustible and noncombustible (compliant)**
Type of Cladding Required: **combustible or noncombustible**
Type of Cladding Provided: **noncombustible (tyndall stone) & combustible (cedar fascia)**
Cladding is compliant.

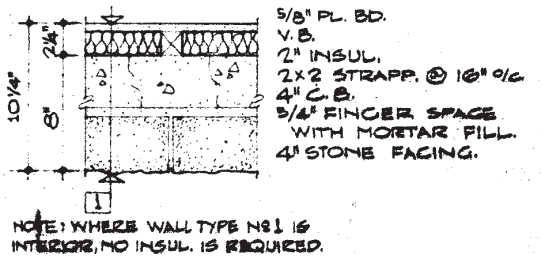
Risk to occupant safety: **Low.** At the fascia on the north side, there is risk that the exposing building face (cedar siding) will have insufficient fire resistance, which could ignite and lead to the spread of fire from the building to an adjacent building.

Recommendations: On the north side, the cedar fascia could be replaced with a non-combustible cladding material. However, the exterior facades are heritage protected, and the adjacent building is not close to the library.

7.2 CODE REVIEW - BUILDING FIRE SAFETY (cont'd)



Site Plan with Limiting Distances Shown



WALL TYPE A

SMOOTH PLASTER FINISH
ON METAL LATH
4" RIGID INSULATION
AIR / VAP. BARRIER
8" CONCRETE BLOCK

Fire-Resistance Rating of Exterior Walls:

Section D-2 Fire Resistance Ratings:

Typical Exterior Wall:

4"tyndall stone facing
4" (90mm) concrete block (assumed to be hollow)
D-1.6 Equivalent thickness = +/-69mm
5/8" (16mm) plaster board x 0.50 (Table D-1.7.1) = 8mm
69+8=77mm thickness = 1 hr (Table D-2.1.1)
Total Fire-Resistance Rating of assembly: 1 hr

Note: This assumes that the existing plaster board contains portland cement-sand plaster or lime sand plaster (which is the most conservative assumption, as this provides the lowest fire-resistance).

Elevator Exterior Wall:

8" (190mm) concrete block (assumed to be hollow)
D-1.6 Equivalent thickness = +/-102mm
Total Fire-Resistance Rating: 1.5 hr (Table D-2.1.1)
Refer also to NBC type B1b - Table 9.10.3.1.-A.

7.2 CODE REVIEW - BUILDING FIRE SAFETY (cont'd)

Provisions for Firefighting

3.2.5.1. Access to Above-Grade Storeys

Analysis: The existing building is required to face 2 streets, as stated in article 3.2.2.25. The library faces Powers Street (east face) and Jefferson Avenue (south face). Since the building is not sprinklered and the floor level is less than 25m above grade, at least one unobstructed window or access panel is required for each 15m of wall along the east and south faces.

The openings for access must have a sill no higher than 900 mm above the inside floor, and be not less than 1100 mm high by not less than 550 mm wide. The building is compliant with this article - the full height windows and doors on the east elevation and south elevation provide the required access for firefighting above-grade.

3.2.5.2. Access to Basements

Analysis:: The building is not sprinklered and the basement has a horizontal dimension more than 25m, so direct access to the basement from at least one street is required to be provided from the outdoors. Basement access is permitted to be provided by doors, windows or other means that provide an opening not less than 1100 mm high and 550 mm wide, with a sill no higher than 900 mm above the inside (basement) floor, or by an interior stairway immediately accessible from the outdoors.

There are basement windows along the east elevation of the library, but these are more than 900mm above the floor, so they do not provide adequate access. The exterior basement stair/door has been decommissioned. The south/ principal entry stairway (interior) is immediately accessible from the outdoors - so this would the requirements of this article. However, this stairway is not fire-rated / protected during a fire. Refer to the analysis of Exits in Part 7 (*3.4.4.1. Fire-Resistance Rating of Exit Separations)*.

Risk to occupant safety: **High.** Refer to the risk analysis of Exits in Part 7 (*3.4.4.1. Fire-Resistance Rating of Exit Separations)*.

Recommendations: The existing exterior stairwell/doorway could be reinstated to provide better firefighting access to the basement level. The interior stairwells should also be fire separated from both floor areas (main floor and basement). Refer to the recommendations stated in Part 7 (*3.4.4.1. Fire-Resistance Rating of Exit Separations)*.

3.2.5.4. Access Routes

Analysis: The building is more than 600 m2 in building area, so it must be provided with access routes for fire department vehicles to the building face having a principal entrance (south), and to each building face having access openings for firefighting as required by Articles 3.2.5.1 and 3.2.5.2 (east). Jefferson Avenue and Powers Street meet this requirement.

3.2.5.5. Location of Access Routes

Analysis: The east face access windows are compliant with this article (they are 12.8m away from Powers Street). The south principal entrance door is 16.7m away from Jefferson Avenue, which exceeds the maximum distance by 1.7m. This is not code compliant.

The library is not provided with a fire department connection. Therefore, the length of the access route from the nearest hydrant to a fire department vehicle plus the length from the vehicle to the building cannot be more than 90 m. The path of travel for the firefighter from the vehicle to the principal entrance of the building cannot be more than 45 m. The library is compliant with this article - the length from the vehicle to the entrance is 16.7m (less than 45m) and the length from the vehicle to the hydrant is 39.8m (total is 16.7m + 39.8m = 56.5m, which is less than 90m).

Risk to occupant safety: **Low.** Since the principal south entrance is too far from the nearest access route/ street, there is risk that fire emergency response operations could be delayed/ineffective, which could lead to delays in evacuation. However, this distance is only 1.6m too long.

Recommendations: The south entrance could be modified and brought closer to the street, however this facade is heritage protected.

3.2.5.6. Access Route Design

Analysis: Both Jefferson Avenue and Powers Street meet the code requirements for the design of roadways provided as a required access route for fire department use (including a clear width not less than 6 m, and a centre-line radius not less than 12 m).

7.2 CODE REVIEW - BUILDING FIRE SAFETY (cont'd)

3.2.5.8. Standpipe Systems

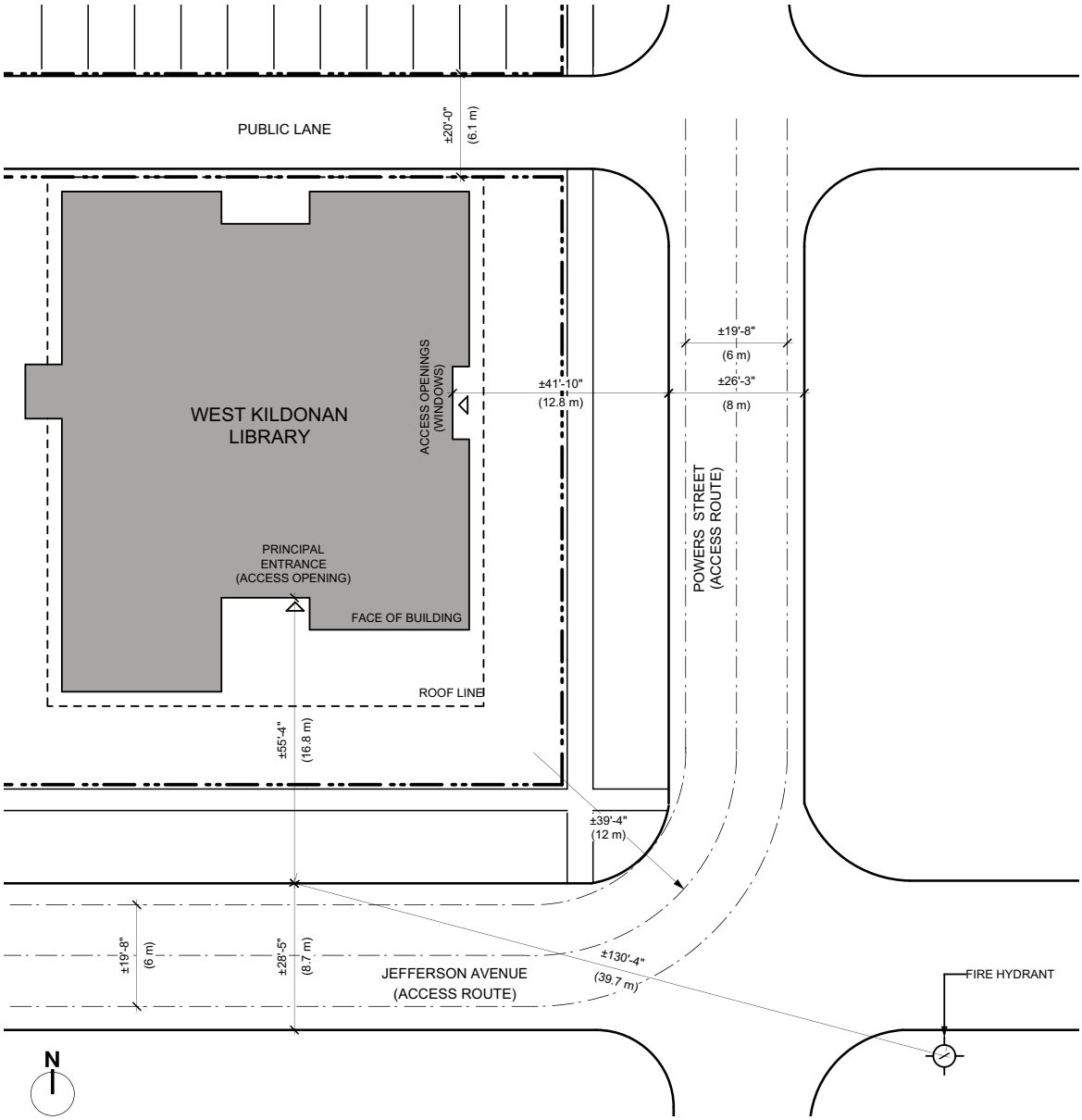
Analysis: The existing building does not have a standpipe system. A standpipe system is not required by the NBC 2020.

3.2.5.12. Automatic Sprinkler Systems

Analysis: The existing building does not have a sprinkler system. A sprinkler system is not required by the NBC 2020.

3.2.5.16. Portable Fire Extinguishers

Analysis: In the library, fire extinguishers were located in the following rooms: Boiler Room B-07, Electrical Room B-08, Children's Books B-02, Program/Assembly Room B-10, Staff Room B-17, Receiving Room 113, Reference 116, Adult Books 106, & Reception 102. These fire extinguishers were all Class A Type, mounted on brackets at a compliant height. The travel distance to any extinguisher is less than 75ft. This is code compliant.



Site Plan - Showing Firefighting Access

7.3 CODE REVIEW - SAFETY WITHIN FLOOR AREAS

Safety within Floor Areas

3.3.1.5. Egress Doorways

Analysis: The travel distance within any room in the library (with a single egress doorway) to the egress door does not exceed 15m. This is code compliant. The area of any room with a single egress doorway does not exceed the maximum, 150sqm - this is code compliant. Refer to Table 3.3.1.5.-A, Group A.

3.3.1.7. Protection on Floor Areas with a Barrier-Free Path of Travel

Analysis: The building is not sprinklered. The basement is not divided into 2 zones by fire separations. There is no exterior exit or ramp leading to ground level (the exterior stair has been decommissioned). The basement level (which contains a barrier-free path of travel) is not served by an elevator that conforms to Sentences 3.2.6.5.(4) to (6) and Article 3.2.6.5 (3b or 3c). Refer to Part 6 for further analysis of this. This is not code compliant.

Risk to occupant safety: **High.** This condition increases the probability that persons with physical or sensory disabilities will not be protected or will be delayed in evacuating or moving to a safe place in a fire situation, which could lead to harm to persons.

Recommendations: There are 3 possible methods that could be used to comply with this article:

1. The basement could be divided into at least 2 zones using 45 minute fire separations. The travel distance from any point in one zone to a doorway leading to another zone must be not more than 30m. Persons with physical disabilities must be able to be accommodated in each zone. Separating each stair on the basement level may meet the requirements of this article - the distance would be less than 30m to each stair 'zone', and persons with physical disabilities could be accommodated at the base of the stairs. This solution would require further review with the AHJ.
2. The elevator could be modified to comply with Article 3.2.6.5. Refer to the Vertical Transportation section in Part 6 for further analysis.
3. Exterior exits or a ramp could be added leading to ground level (for example, the exterior basement stair could be reinstated).

3.3.1.9. Corridors

Analysis: The minimum width of a corridor used by the public must be 1100 mm. Dead end corridors must not exceed 6m. There are no dead-end corridors in the library. This is code compliant. Hallway 111 is only 1000mm wide, and the hallway off of Receiving Room 113 is only 890mm wide - these are not code compliant.

Risk to occupant safety: **Medium.** This condition increases probability that the corridors will have insufficient width to permit efficient egress in an emergency situation, which could lead to delays in the evacuation or movement of persons to a safe place, which could lead to harm to persons. However, the rooms off of these corridors have a small occupant load.

Recommendations: The wall between Hallway 111 and Rm 106 could be removed or relocated to increase the width of this corridor. However, the wood wall finish is heritage protected. In the Receiving Room corridor, the kitchenette millwork and interior walls could be modified to increase the width of the corridor. However, the arrangement of the main floor area is heritage protected.

3.3.1.13. Doors and Door Hardware

Analysis: There are a number of existing egress doorways with knob hardware. These are not code compliant since they require tight grasping.

Risk to occupant safety: **Medium.** This condition increases the probability that persons will be delayed in operating the release hardware of doors in an access to exit, which could lead to delays in the evacuation or movement of persons to a safe place.

Recommendations: All existing door knobs should be replaced with code compliant levers or D pulls.

7.3 CODE REVIEW - SAFETY WITHIN FLOOR AREAS (cont'd)

3.3.1.14. Ramps and Stairways

Analysis: Ramps and stairways that do not serve as exits must conform to the requirements for exit ramps and stairways. This article would apply to the library's exterior stairs and exterior ramp. Refer to Exits for further analysis of the exterior stairs and ramps.

3.3.1.18. Guards

Analysis: A guard has been provided at the roof level beside the access ladder hatch. This is not required by code since the roof is only accessed for maintenance purposes. There are also several guards on the exterior of the building where the height difference to grade is more than 600mm. These guards are all too low and/or have openings larger than 100mm, so they are not code compliant.

Risk to occupant safety: **High.** The exterior guards that are too low increase the probability that persons will fall from a higher level to a lower level. Where there are openings larger than 100mm, persons (ex. children) could push their head or body through the guard and fall or become trapped or asphyxiated.

Recommendations: It is recommended to replace all exterior guardrails that are not code compliant.

3.3.1.19. Tactile Walking Surface Indicators

Analysis: There are no tactile indicators at the top of both existing interior stairs. There are no tactile indicators at the top of the exterior stairs. This is not code compliant.

Risk to occupant safety: **Medium.** This condition increases the risk that persons with vision impairments are not warned of hazards on a circulation path. This increases the risk of falls down interior stairways.

Recommendations: Install tactile indicators at the top of both interior stairs and at the exterior stairs. However, the mosaic tile flooring in the entrances is heritage protected. A removable indicator or minimal indicators (domes) may be able to be installed here with heritage review and approval. Refer also to the accessibility review for stairs in Part 9 (accessibility review).

3.3.1.20. Transparent Doors and Panels

Analysis: Both sets of the front and rear entrance doors are not fully glazed - the doors are clearly visible. The interior doors are constructed with wired glass. On the interior of the entrances, the full height glazed panels are constructed with wired safety glass and have barriers/mullions that make them clearly visible. This is code compliant.

The glazing in the library's doors and sidelights is located lower than 900mm above the floor - this is code compliant. It is unclear from the existing drawings whether the exterior glazing in the entrance doors and sidelights was constructed with safety glass. If not, this is not code compliant. Refer to 3.3.2.17. Safety Glazing and 3.4.6.6. Guards.

Risk to occupant safety: **Medium.** If the exterior doors are not constructed of safety glazing, this increases the probability that the glass will not perform as intended, which could lead to the failure of the glass (ex. breaking or splintering), which could lead to harm.

Recommendations: The glazing in the exterior doors and sidelights could be replaced with safety glazing.

3.3.1.22. Janitors' Rooms

Analysis: A 45 minute separation is required at the main floor Janitor room (since the floor assembly does not require a 1 hr fire separation). The room does not appear to have any existing fire separations. Based on the existing drawings for the building, the janitor room walls are constructed with 5/8" plaster board on either side of 2x4 or 2x6 wood studs, with no insulation. When constructed with 5/8" Type 'X' drywall, this provides an approximate fire-resistance rating of 1hr, which is code compliant. However, there does not appear to be a fire separation at the ceiling level, and there are multiple conduit penetrations through the ceiling that are not firestopped. There are also transom windows above the janitor ceiling level (with wood frames) - these do not provide a fire separation. The door is not fire rated - these conditions are all not code compliant.

Risk to occupant safety: **Medium.** This condition increases the probability that a fire will spread from a janitor's room (where flammable cleaning supplies may be stored) to other parts of the building.

Recommendations: The walls (below the transom windows) and the ceiling of the janitor room could be modified to provide a 45 minute fire separation. The existing plaster board could be removed and Type 'X' gypsum board installed to ensure this requirement is met. The door should be replaced with a fire rated door and frame. All penetrations should be firestopped. In the meantime, cleaning supplies could be stored elsewhere to reduce the risk of fire spread.

7.3 CODE REVIEW - SAFETY WITHIN FLOOR AREAS (cont'd)

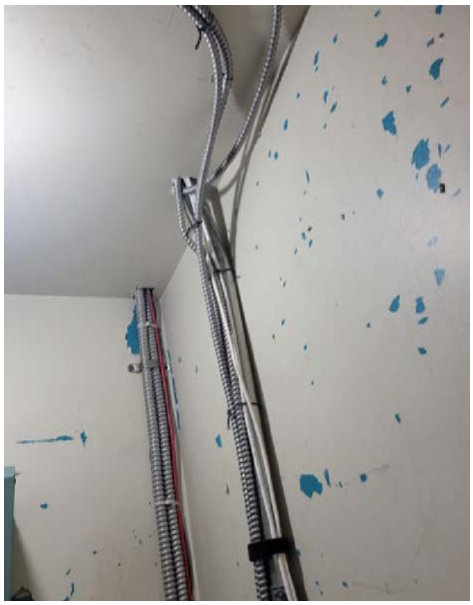


Roof Guardrail - Not Code Compliant



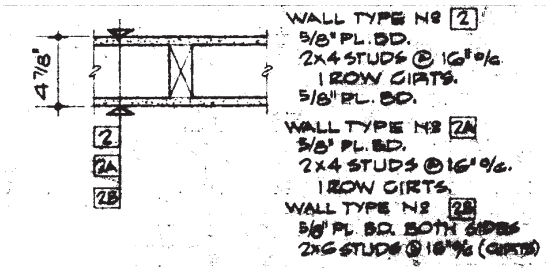


Interior Stair with No Tactile Indicators





Fire Separation - Non-Compliant Condition
Janitor Room



Fire-Resistance Rating of Janitor Room Walls:

Typical Interior Wall: Equivalent Assembly:
ULC W301 (or NBC type W1d - Table 9.10.3.1.-A)
Total Fire-Resistance Rating of assembly: **1 hr**

Note: this is the most equivalent tested assembly available. This assembly requires that Type 'X' gypsum board must be installed on both sides of the assembly. It is unlikely that this was installed (or available) in 1967. To ensure the required rating is provided where required, the existing plaster board should be replaced with 5/8" Type 'X' gypsum board.

7.3 CODE REVIEW - SAFETY WITHIN FLOOR AREAS (cont'd)

Assembly Occupancy

3.3.2.3. Non-fixed Seating

Analysis: Non-fixed seating shall conform to the NFC. The following assembly rooms held non-fixed seating: Children's Books B-02, Children's Books B-06, Staff Room B-17, Program/Assembly Room B-10, Adult Books 106, and Children's Books 114. NFC article *2.7.1.5. Nonfixed Seating* states the following: When nonfixed seats are provided at tables arranged in rows, the spacing between the nearest edges of tables in 2 successive rows shall be not less than 1400 mm where seating is arranged on both sides of tables (back to back). Based on the existing furniture present, there is adequate room to provide the required spacing between tables. This is code compliant.

3.3.2.7. Doors

Analysis: The open library spaces on the main floor and in the basement could hold more than 100 people based on their floor area. If equipped with a latching mechanism, they may require panic hardware. These rooms do not have egress doors, only exit doors. Refer to Exits for further analysis of the door hardware on these doors.

3.3.2.13. Libraries

Analysis: Storage Room B-09 and Storage Room B-19 are book storage rooms not normally accessible to the public. However, these are less than 250sqm in area, so they do not require the 2 hr fire ratings listed in this article.

3.3.2.17. Safety Glazing

Analysis: On the east and west exterior elevations of the library, there are several fully glazed windows that extend to less than 1525mm above the floor. It is unclear from the existing drawings whether these were constructed with safety glass. Refer also to the analysis of article 3.3.1.20.

Risk to occupant safety: **Medium.** If the exterior doors are not constructed of safety glazing, this increases the probability that the glass will not perform as intended, which could lead to the failure of the glass (ex. breaking or splintering), which could lead to harm.

Recommendations: The glazing in the exterior doors and sidelights could be replaced with safety glazing.



Transparent Doors & Panels (entrances)





West Elevation
Full Height Glazing

7.4 CODE REVIEW - EXITS

Exits

3.4.1.8. Transparent Doors and Panels

Analysis: Glass and transparent panels in an exit shall conform to the appropriate requirements of Article 3.3.1.20. for glass and transparent panels in an access to exit. Refer to the Safety within Floor Areas section for further analysis.

3.4.2.1. Minimum Number of Exits

Analysis: The NBC 2020 requires that every floor area intended for occupancy must be served by at least 2 exits, with some exceptions.

In order to be served by only one exit, the total occupant load served by the exit must not be more than 60, and the floor area and the travel distance must not be more than the values in Table 3.4.2.1.-A.

Table 3.4.2.1.-A Criteria for One Exit (Floor Area Not Sprinklered Throughout, Group A):
Maximum Floor Area = 150sqm, Maximum Travel Distance = 15m

There are 8 exits from the library, serving both the main floor and basement floor areas.
These are as follows:

- 2 interior stairs (front and rear stairs, serving the basement floor area).
- 6 exterior doors (serving the main floor area).

Both floor areas (basement and main floor) exceed the 150sqm maximum, so they must be served by at least 2 exits. Both floor areas are served by at least 2 exits. This is code compliant.

It is unclear whether the Program/Assembly Room B-10 is intended for more than 60 people. This room is 83sqm. Based on its area, the room could hold more than 60 people. No design occupant load is posted. Only 1 exit door is provided from this room. If less than 60 people occupy the space at any time, it is compliant with this article.

3.4.2.3. Distance between Exits

Analysis: The NBC 2020 requires that the least distance between 2 exits from a floor area shall be one half the maximum diagonal dimension of the floor area, but not less than 9 m.

The maximum diagonal dimension of the library's basement floor area is 37.2m/2 = 18.7m
The actual distance between the exit doors in the basement = 14.4m (<18.7m, this is not code compliant).
The maximum diagonal dimension of the library's main floor area is 37.2m/2 = 18.7m
The actual distance between main floor exit doors = 22.4m (>18.7, this is code compliant)

Risk to occupant safety: **High.** This condition increases the probability (in the basement) that persons will not have a choice of an alternative egress route in the event that one route to the exits is blocked or obstructed in a fire situation, which could lead to delays in evacuation.

Recommendations: Reinstating the basement level exterior stair would not adequately increase the distance between exits, but it would provide another alternative egress route in the event that both interior stairs are blocked in a fire situation. A new exterior or interior stair could also be added (for example, on the west side of the building, from the picture book room), which would provide adequate distance between exits. However, this would be a more costly solution.

3.4.2.5. Location of Exits

Analysis: Exits must be located so that the travel distance to at least one exit shall be not more than 30 m. Exits shall be located and arranged so that they are clearly visible or their locations are clearly indicated and they are accessible at all times.

The greatest travel distance to an exit from all points in the library is approximately 22m (from the corner of the picture book room in the basement to the nearest exit stair). The exits are clearly visible. This meets the requirement for maximum travel distance (22m<30m), and is code compliant.

3.4.3.2. Exit Width

Analysis: The minimum aggregate required width of exits serving floor areas intended for assembly occupancies must be determined by multiplying the occupant load of the area served by:

- 6.1mm per person for ramps (with a slope of not more than 1 in 8) and for doorways, corridors and passageways
- 8 mm per person for a stair consisting of steps whose rise is not more than 180 mm and whose run is not less than 280 mm
- 9.2 mm per person for ramps with a slope of more than 1 in 8, or stairs, other than stairs listed above (8mm/person)

7.4 CODE REVIEW - EXITS (cont'd)

Using the occupant load calculated by floor area, the required exit widths are as follows:

Main Floor = 252 persons / 6 exits (exterior doors) = 42 people per exit
42 people x 6.1mm = 256mm minimum door width required
The existing exterior doors exceed the 256mm width - they are code compliant.

Basement = 248 persons / 2 exits (stairs) = 124 people per exit
124 people x 8mm = 992mm minimum stair widths required
The existing stairs exceed the 992mm width - they are code compliant.
124 people x 6.1mm = 756mm minimum door width required
The existing doors exceed the 756mm width - they are code compliant.

The minimum widths of exits shall conform to Tables 3.4.3.2.-A (Group A):

- Corridors - minimum 1100mm wide
- Ramps - minimum 1100mm wide
- Stairs - minimum 900mm wide (since they serve not more than 1 storey below the lowest exit level)
- Doors - minimum 850mm wide.

Almost all of the existing exit doors are code compliant - they exceed the 850mm clear width requirement.

In Room B-10 (the Program/Assembly Room) one door is fixed, and one door swings open . The swinging door leaf is only 762mm (30") wide. This is not code compliant. Refer also to the analysis of door hardware.

The existing stairs are 1040mm wide (41", at a minimum) - this is code compliant. The existing ramp is 1245mm wide (49") - this is code compliant.

Risk to occupant safety: **High.** The narrower door to room B-10 increases the probability that this exit will be of insufficient width to permit efficient egress in an emergency situation, which could lead to delays in evacuation. Refer also to the analysis of door in Part 9.

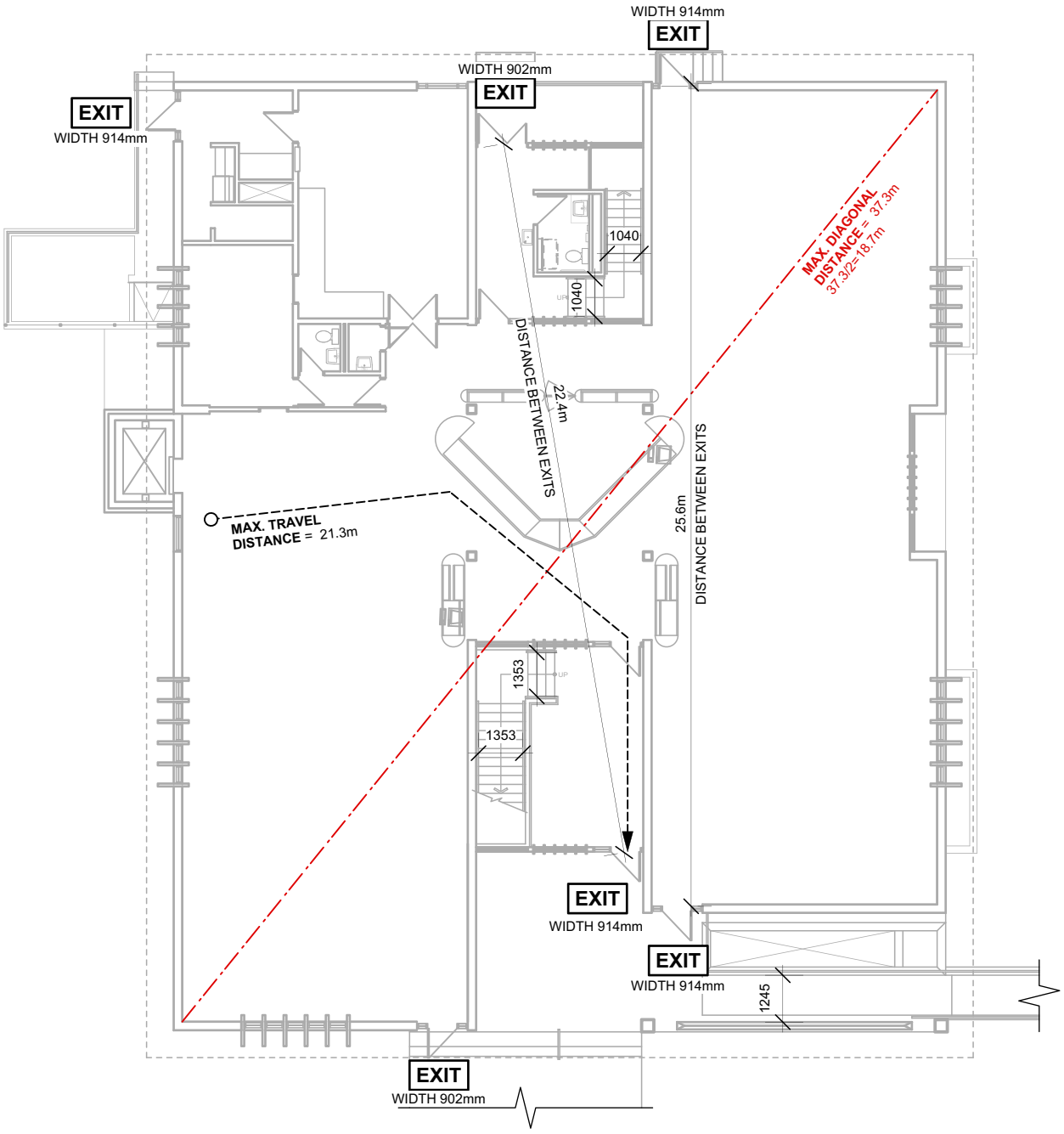
Recommendations: Replace the door and frame at room B-10. The new door could have 2 swinging doors (a double door) or one larger single swinging door.

Review of Fire Safety Plans

The building's fire safety plans should be updated to accurately reflect the locations of fire extinguishers in the building. Two fire extinguishers were not located as shown on the plans on the basement level. There are also additional extinguishers in locations not shown on the plans. Refer to 3.2.5.16. Portable Fire Extinguishers for further analysis.

On the main floor, the door from Room 113 is not shown as an exit. However, there are more exits available than are required on the main floor level (so this is not required to act as an exit) - Refer to the analysis of Exits above.

7.4 CODE REVIEW - EXITS (cont'd)



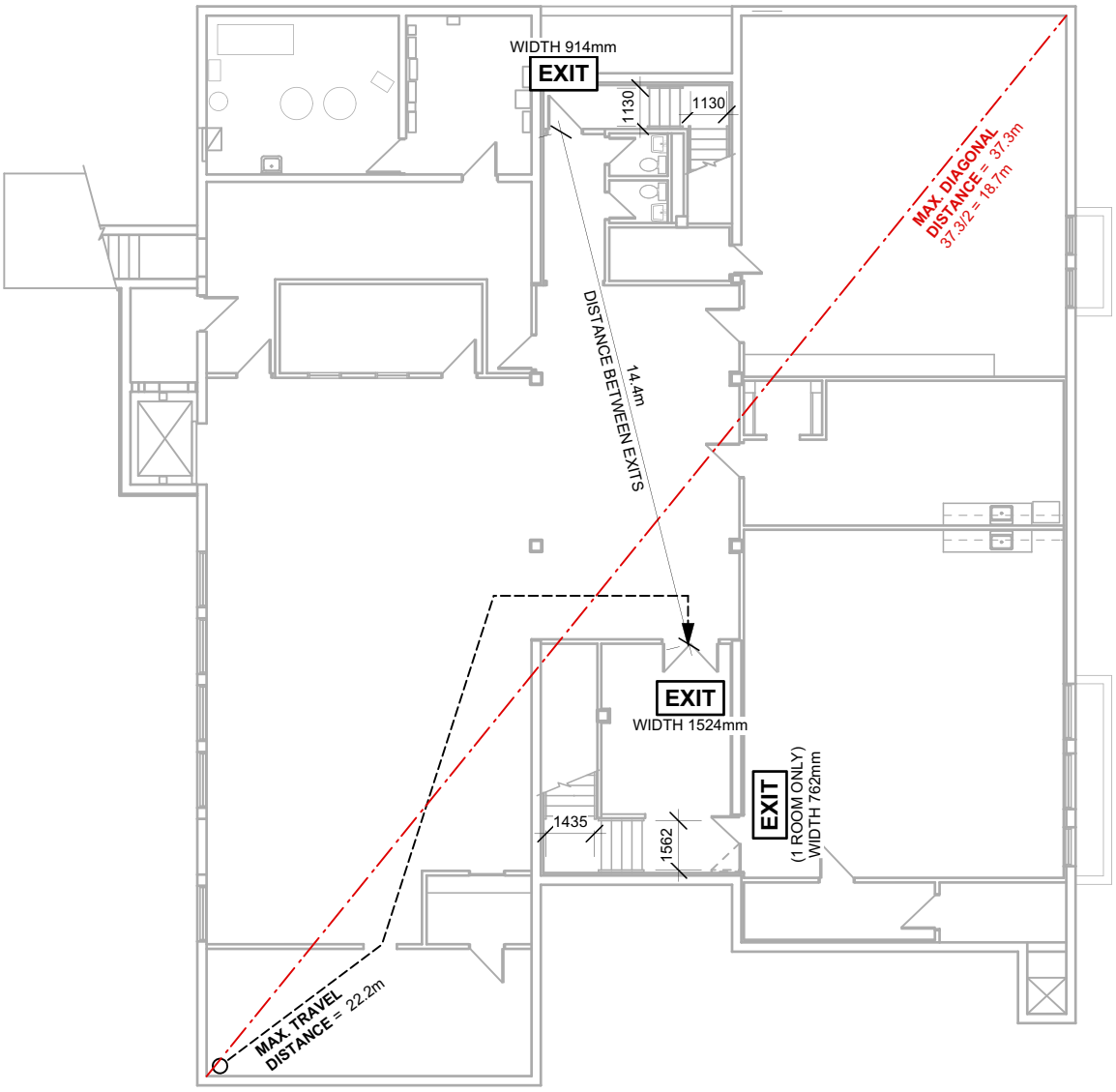
1 MAIN FLOOR PLAN
Scale: N.T.S.

LEGEND:

PATH OF TRAVEL

EXIT (DOOR) EXIT

7.4 CODE REVIEW - EXITS (cont'd)



1 BASEMENT FLOOR PLAN
Scale: N.T.S.

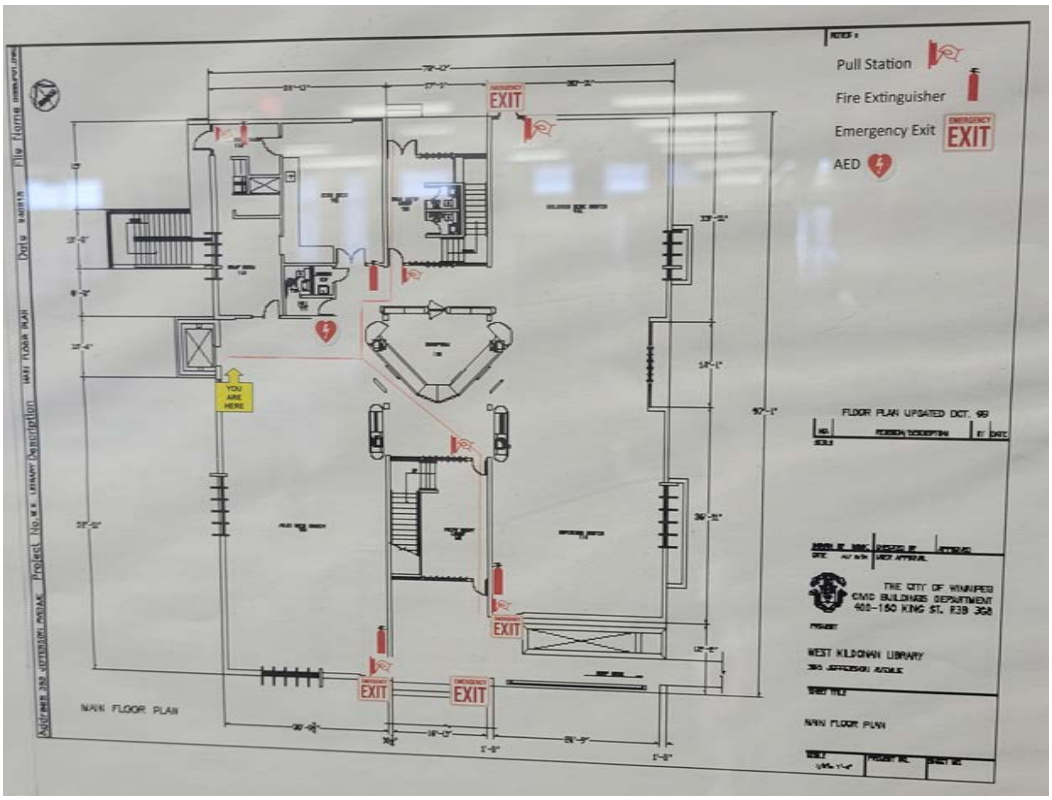
LEGEND:

PATH OF TRAVEL

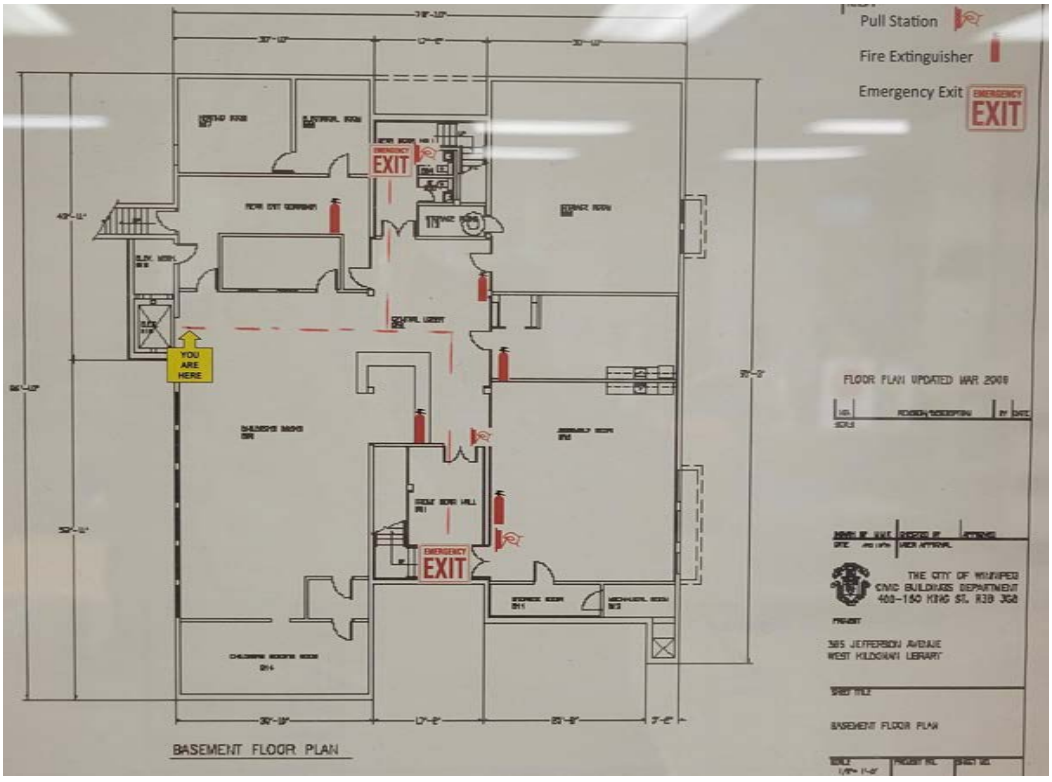
EXIT (DOOR) EXIT

7.4 CODE REVIEW - EXITS (cont'd)

Fire Safety Plan - Main Floor



Fire Safety Plan - Basement



7.4 CODE REVIEW - EXITS (cont'd)

3.4.4.1. Fire-Resistance Rating of Exit Separations

Analysis: Every exit must be separated from the remainder of the building by a fire separation having a fire-resistance rating not less than that required by Subsection 3.2.2. for the floor assembly below the storey (since there is no floor assembly above) **but not less than 45 min.**

The front and rear stairs are required to be separated from the remainder of the building with a 45 minute separation. On the main floor, aluminum frames with wired glass appear to have been retrofitted into the existing wood window frames. This does not provide a code compliant fire separation around the stair on the main floor level. The transom windows on 3 sides of the stair on the main floor do not provide a 45 minute separation. This is not code compliant. The existing doors to the front and rear entry lobbies are fire rated (45 min) - this is code compliant.

In the basement, some of the walls around the stairs are constructed with 10" concrete. This would exceed the 45 minute separation requirement. However, some of the walls around the basement stairs are constructed with 5/8" plaster board on either side of 2x4 wood studs, with no insulation. When constructed with 5/8" Type 'X' drywall, this provides an approximate fire-resistance rating of 1hr, which is code compliant (refer to the analysis of the Janitor Room for more information). The basement door at the rear stair is fire rated (45 min). It is unclear whether the basement double doors to the front stair are rated - there are no ULC labels on these doors.

Risk to occupant safety: **High.** This condition increases probability that fire will spread into the exits (the stairs), which could lead to delays in the evacuation or movement of persons to a safe place. This also increases the probability that a fire will spread from one floor area to another floor area by means of the stairwells. This condition increases the probability that emergency responders are delayed in gaining access to the floor areas, which could lead to both delays in evacuation and also to the spread of fire to other parts of the building.

Recommendations: The stairwells should be separated from the rest of the building by a 45 minute fire separation. On the main floor of the stairwells, the transom windows could be replaced with rated steel window frames and fire rated glazing, or fire shutters/sprinklers could be added. A similar solution could be used at the full height windows on the side of the stairwells facing the reception area. In the basement, doors that are not fire rated should be replaced with rated doors and frames. The non-concrete walls on the basement and main floor should be modified (plaster board replaced with 5/8" Type 'X' drywall) to provide a 45 minute separation.

3.4.4.4. Integrity of Exits

Analysis: An exit shall be designed for no purpose other than for exiting, except that an exit is permitted also to be designed to serve as an access to a floor area. Storage rooms, washrooms, toilet rooms, laundry rooms and similar ancillary rooms shall not open directly into an exit.

The washroom in the rear stairway (104) is not compliant with this article.

Risk to occupant safety: **High.** The washroom located in the rear stairway increases the probability that this exit could be obstructed or not readily available in an emergency, which could lead to delays in evacuation and delays in emergency responder access. However, the existing stairwell is quite wide, and a washroom will likely not lead to a large gathering of people in the stairwell.

Recommendations: This washroom would ideally be relocated to another location outside of the stairwell. The arrangement of the main floor is heritage protected.

3.4.6.1. Slip Resistance of Ramps and Stairs

Analysis: The surfaces of ramps, and landings and treads must have a finish that is slip resistant, and have either a colour contrast or a distinctive pattern to demarcate the leading edge of the treads and the leading edge of the landings, as well as the beginning and end of ramps.

The existing stairs down to the basement level of the library are finished with slip resistant vinyl tile flooring (code compliant). Each tread and the leading edge of the landings are colour and texture contrasting. This is code compliant. The upper landing of these stairs are finished with mosaic tile. The grout lines in this flooring would provide some slip resistance at the upper landings (code compliant).

7.4 CODE REVIEW - EXITS (cont'd)







Fire Separation at Exit Stairs - Glazing



Washroom Located in Exit



No Upper Landing at Exterior Stair

7.4 CODE REVIEW - EXITS (cont'd)

3.4.6.4. Dimensions of Landings

Analysis: A landing shall be at least as wide and as long as the width of the stairway in which it occurs, with the exception of straight stairways and stairways that turn less than 90° - in these instances the length of the landing need not be more than the lesser of the required width of stair, or 1100 mm.

The existing landings of the interior stairs (in Front Lobby 101 & Rear Lobby 103) are code compliant - they meet the length and width requirements of this article. There is one exterior door on the main floor (outside of Room 106) which is missing an upper landing. This is not code compliant. Refer also to 3.4.6.11. Doors. The remaining exterior stairs all have landings which are a code compliant size.

Risk to occupant safety: **Medium.** In this case, the landing condition may lead to tripping and falling outside of the door in an emergency situation. This also increases the probability that there is congestion at landings in an emergency, which could lead to delays in the evacuation. Emergency responders may have insufficient space on a landing to perform their duties.

Recommendations: The stair should be modified, and a landing should be added outside of the door (with a proper guardrail/handrail).

3.4.6.5. Handrails

Analysis: Handrails are provided on both sides of the interior stairs in Front Entry Lobby 101 and Rear Entry Lobby 103, which is code compliant. There is a handrail on only one side of part of the exterior ramp, which is not code compliant. The exterior stair outside of the Receiving Room is more than 1100mm wide, with one handrail, which is not code compliant. The exterior stair at the main entrance is also more than 1100mm wide, with only an intermediate handrail, which is not code compliant.

The exterior handrails have a circular cross section of 2-1/2" (64mm). This is not code compliant (too large). The interior handrails have a non-circular cross section of 1-3/8"(35mm) x 5-1/4"(133mm). This is not code compliant - the perimeter and largest cross-sectional dimension are too large. The existing handrails are free of sharp elements, which is compliant.

The height of the interior handrails is approximately 32" (812mm). The height of the exterior handrails is approximately 32-1/2" high (825mm). These are both too low, and are not code compliant.

There are many conditions in the library where the existing handrails are not continuously graspable, which is not code compliant. The handrails are not continuous on the interior stair landings. At the exterior stairs, some of the handrails do not run the full length of the stair (from the bottom riser to top riser). This is not code compliant.

None of the existing handrails have the required horizontal extensions. This is not code compliant. The distance from the interior stair handrail to the smooth wall surface behind it is 1-3/8" (35mm). This is too close - it is not code compliant.

Risk to occupant safety: **Medium.** These conditions all increase the probability that inadequate aid to balance will lead to falls. These conditions could also lead to inefficient movement in an emergency situation. Difficulty in establishing or maintaining a grip on handrails, or the unexpected discontinuity of handrails, could lead to falls. The absence of horizontal handrail extensions could make it difficult to determine the top and bottom of a stairway or ramp, leading to falls. Inadequate clearance between the handrail and the wall increases the risk of a person's hand becoming wedged or caught between the handrail and the surface behind it, which could lead to harm.

Recommendations: The exterior handrails at the stairs and ramp should be replaced with code compliant handrails. The existing interior handrails are heritage protected. An additional code compliant handrail could be installed above the existing wood handrails at the stairs - however this solution would need to be approved by heritage review. Refer also to the handrail analysis in Part 9.

3.4.6.6. Guards

Analysis: The height of the existing guards vary. On the interior, the guards at the stairs are 41-1/2" (1054mm) high. This is slightly (about 1") too low - it is not code compliant. On the exterior, the guards at the stairs and ramp also act as the handrails (they are the same height). These are too low - they are not code compliant. The tyndall stone guard at the ramp is 36" (914mm) high. This is also too low and is not code compliant. There is no code compliant guard present outside of the full height fixed glazing next to the stairwells. Refer to the structural assessment for the lateral loads required for this glazing. The existing guards at the interior and exterior stairs have openings larger than 4" (100mm). This is not code compliant Plexiglass appears to have been added at the interior guardrails to improve compliance.

7.4 CODE REVIEW - EXITS (cont'd)

Risk to occupant safety: **High.** This condition increases the probability that the absence of proper guards will lead to persons falling from a higher level to a lower level. Openings larger than 100mm increase the probability that persons (ex. children) will push their head or body through a guard and fall or become trapped or asphyxiated.

Recommendations: The exterior guardrails at the stairs and ramp should be replaced with code compliant guardrails. The existing interior guardrails are heritage protected. An additional code compliant (taller) guardrail (perhaps constructed out of glass for a more minimal appearance) could be installed next to the existing wood guardrails at the stairs - however this solution would need to be approved by heritage review. Guards should be added at the full glazing next to the stairwells, or the glazing should be tested as noted in the structural assessment. Refer also to the guardrail analysis in Part 9.



Height of Handrail - Too Low

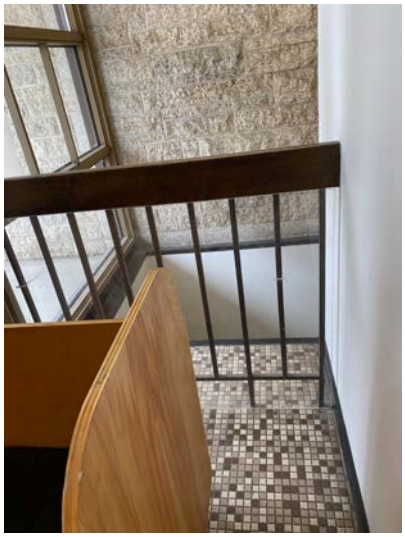






Handrail Not Continuous on Landings
Handrail Too Close to Wall





Guardrail - Interior Stair



Guardrail - Exterior Stair

7.4 CODE REVIEW - EXITS (cont'd)

3.4.6.7. Ramp Slope

Analysis: The existing ramp has two different slopes. The first slopes 8" over 25.5' (1:38) . The second slopes 9" over 19.5' (1:26) . The slope of the ramp is under the maximum slope of 1 in 12. However, the slope is not code compliant, as it is not uniform.

Risk to occupant safety: **Low.** The change in ramp slope could lead to persons tripping or falling, however both slopes are very low.

Recommendations: The ramp could be replaced to provide a uniform slope. An intermediate landing could also be added - refer to the accessibility review of ramps in Part 9 for further analysis.

3.4.6.8. Treads and Risers

Analysis: The existing interior stairs have a run of approximately 11" (305mm) and a rise of approximately 6-5/8" (168mm). This is code compliant. The rise and run of the exterior stairs vary. The rise of the south main entry steps is approx. 6" high (152mm), and the run is approx. 14" (356mm), which is code compliant. On the north side of the library, the exterior stair off of Room 114 has a 7-9" (178-229mm) rise and a 16" (406mm) run. Some of these steps are too steep (not code compliant). The rear entry stairs have a 7" (178mm) rise and 10" (254mm) run - the run is too short (not compliant). The stair outside the Receiving Room has a 7"-10"(178-254mm) rise and 12" (305mm) run. One of these steps is too steep (not code compliant). There are no open risers in the library, which is code compliant. Some of rises/runs at the exterior stairs vary too much - they are not uniform, which is not code compliant.

Risk to occupant safety: **Medium.** These conditions could lead to difficulties in movement in an emergency situation, which could lead to delays in the evacuation. These conditions could lead to persons tripping or falling.

Recommendations: The exterior stairs should be replaced with code compliant treads and risers (where non-compliant). The exterior concrete also requires repairs - refer to the structural assessment.

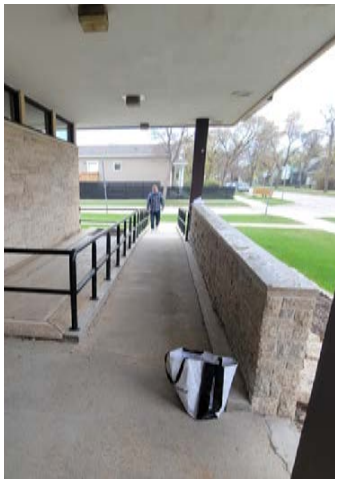
7.4 CODE REVIEW - EXITS (cont'd)



Height of Handrail/Guardrail
Too Low



Handrail is not Full Length of Stair,
No Horizontal Extensions,
Stair Rise Too High / Not Uniform



Handrail on Only
1 Side of Ramp



Height of Exterior Handrail - Too Low



Distance Between Handrails - Too Large

7.4 CODE REVIEW - EXITS (cont'd)

3.4.6.11. Doors

Analysis: The north exit door outside Room 114 and Room 106 is less than 300mm from the nearest stair riser. This is not code compliant.

No door leaf in an exit doorway with more than one leaf shall be less than 610 mm wide. The second leaf in the rear entry doors (Room 103) are 615mm wide. This is code compliant.

Risk to occupant safety: **Medium.** This condition increases the probability that a person on the stairs near the door will be hit by the door when it is opened, or that a person will step through the door down onto a step, which could lead to falling. Falling at this location in an emergency situation could also obstruct other persons using the exit, which could lead to delays in evacuation.

Recommendations: The exterior stairs should be replaced with code compliant landings. The exterior concrete also requires repairs - refer to the structural assessment.

3.4.6.12. Direction of Door Swing

Analysis: All existing exit doors swing in the direction of exit travel, and meet the code article requirements.

3.4.6.13. Self-closing Devices

Analysis: An exit door that is normally required to be kept closed shall be provided with a self-closing mechanism, and shall never be secured in an open position. There are some exceptions for doors with hold-open devices that release when activated by a fire-alarm system.

There are multiple exit doors that should be kept closed, but are currently held open with kick down floor stops. This is not code compliant.

Risk to occupant safety: **High.** This condition increases the probability that the door will be left open and a fire will spread into the exit, which could lead to delays in evacuation and delays or ineffectiveness of emergency response operations.

Recommendations: The kick-down door stops should be removed from any fire-rated doors. These doors should be kept closed.

3.4.6.16. Door Release Hardware

Analysis: All existing doors with knob hardware require more than one releasing operation to open (with a twisting of the wrist), which is not code compliant.

The basement double exit doors to the front stair have D-Pulls and push plates, which is code compliant. However, these doors also have a deadbolt lock. When the lock is engaged, the door will require more than one releasing operation to open (with a twisting of the wrist). There is no panic hardware on these doors, which is not code compliant if the basement library space is intended to hold more than 100 people.

The library has multiple assembly floor areas with an occupant load of more than 100. The exit doors in these areas are required to have panic hardware. Almost all exit doors throughout the library (other than stated above) do have panic hardware. This is code compliant. The exit door from the program room does not have panic hardware, but the occupant load of this room is less than 100 (based on floor area), so this is code compliant. Electromagnetic locks are not present in the library.

Risk to occupant safety: **Medium & High.** This condition increases the probability of delays in opening exit doors in an emergency situation, which could lead to delays in evacuation.

Recommendations: Panic hardware should be added to the double doors from Room B-02 to the front stairs. The deadbolt lock should be removed. All knob hardware should be replaced with code compliant D-pulls and push plates or levers.

7.4 CODE REVIEW - EXITS (cont'd)



Basement Rear Stair
Door - Panic Hardware



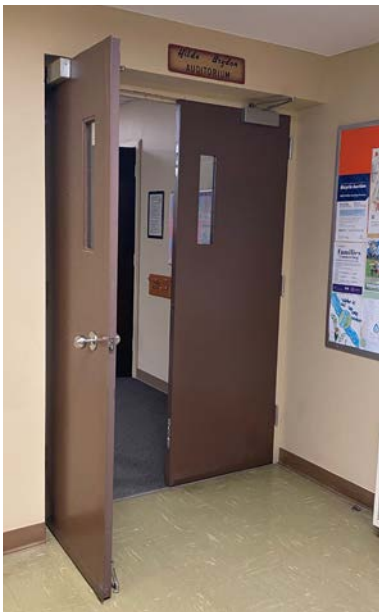
Main Floor Stair
Interior Door
Panic Hardware



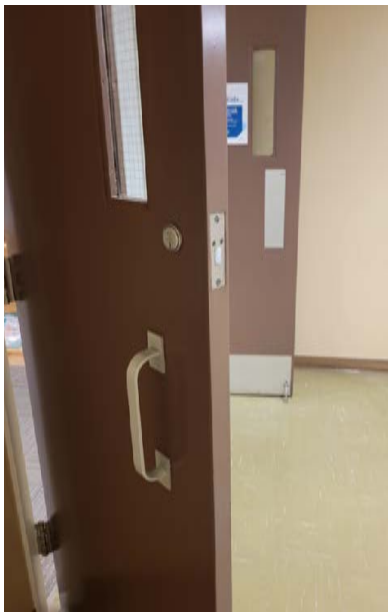
Main Floor Stair Exterior
Door - Panic Hardware



Main Floor Exterior
Exit Door
Panic Hardware



Basement - Program Room
Door to Exit Stair
1 Door - Knob Hardware
1 Door - No Handle/Knob



Basement Front Stair Door
D-Pulls & Push Plates



Basement Front
Stair Door -
Deadbolt Lock



Basement Rear Stair
Door - Kick Down
Door Stop

7.5 CODE REVIEW - SERVICE FACILITIES

Service Facilities

3.6.2.1. Fire Separations around Service Rooms (Boiler Room, Mechanical Room)

Analysis: Fuel fired appliances must be installed in service rooms separated from the remainder of the building by a 1-hour fire separation. This would apply to the existing boiler and mechanical rooms (B-07 & B-12).

Boiler Room B-07 is constructed using 8" concrete block, which meets the 1 hr separation requirement. However, the existing drawings note that the concrete block stops 4" below the main floor slab, so the separation is not continuous to the main floor level. Therefore, the existing cement plaster ceiling must act as the fire separation. Table D-2.3.12. lists fire-resistance ratings for ceiling membranes. The existing cement plaster (on metal lath) is less than 1" thick. The most equivalent listed material in the table is 25 mm gypsum-sand plaster on metal lath, which provides only a 45 minute rating. This is not code compliant. The existing door to boiler room B-07 is fire rated (1.5 hrs). There are openings in the ceiling assembly and penetrations through the walls and ceilings that are not firestopped. This is not code compliant.

In Mechanical Room B-12, the walls are constructed using Wall Type 2. Refer to the analysis of this wall type on the following page of this report. There are openings in the ceiling assembly and penetrations through the walls and ceilings that are not firestopped. The access door to this room is not rated. This is not compliant - a 1 hr rating is not provided.

Risk to occupant safety: **High.** This condition increases the probability that fire will spread from the boiler/mechanical rooms to other parts of the building. A fire originating in a location outside the boiler/mechanical rooms could also spread into the rooms, which could lead to an undue fire hazard in the building.

Recommendations: In Room B-07, the existing cement plaster ceiling should be removed in its entirety and replaced with 2 layers of 15.9 mm Type X gypsum board to provide the 1 hr separation at the ceiling level. Firestopping should be added to all existing wall and ceiling penetrations, and fire dampers should be installed at the existing duct/vent penetrations.

In Room B-12, the plaster board should be replaced with 5/8" Type 'X' drywall on both sides of the wood studs. 2 layers of 15.9 mm Type X gypsum board should be installed at the ceiling level. Firestopping should be added to all existing wall and ceiling penetrations, and fire dampers should be installed at the existing duct/vent penetrations. The access door should be replaced with a fire rated door & frame.

3.6.2.6. Door Swing for Service Rooms (Boiler Room, Mechanical Room)

Analysis: Doors from service rooms containing a boiler should swing outward. The door to the boiler room swings inward from the adjacent electrical room. This condition is not code compliant.

Risk to occupant safety: **Medium.** This condition increases the probability of delays in opening the egress from the boiler room, which could lead to delays in evacuation.

Recommendations: The door to the boiler room should be replaced with an outward swinging, fire-rated door.

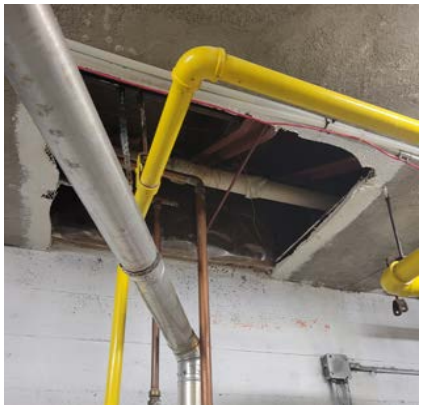
3.6.3.1. Fire Separations for Vertical Service Spaces

Analysis: Since the building's floor assemblies do not need a fire resistance rating, vertical shafts/service spaces do not need a fire-resistance rating. The 0 hr (smoke separation) must be continued at these locations. This article would apply to the walls around the shaft next to the desk in Receiving Room 113, and the walls around the shaft next to the washrooms in the rear stairs. All openings and penetrations through the main floor (for ductwork, conduit, etc) should be sealed to prevent the passage of smoke. It is unclear from the site walkthrough and the existing drawings whether these shafts are constructed as smoke separations.

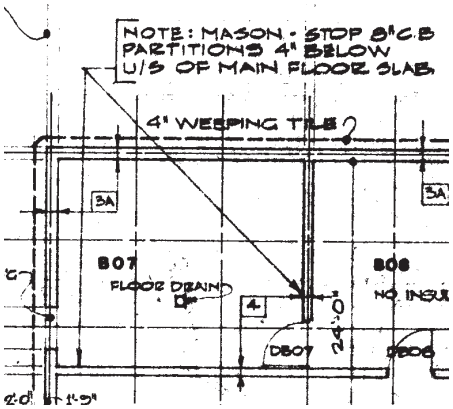
Risk to occupant safety: **Medium.** If not compliant, this condition increases the probability that smoke will spread from one storey to another storey by means of a vertical service space, which could lead to harm to persons in the other storey.

Recommendations: All openings or penetrations through the shaft walls or ceilings (for ductwork, conduit, etc) should be sealed to prevent the passage of smoke.

7.5 CODE REVIEW - SERVICE FACILITIES (cont'd)



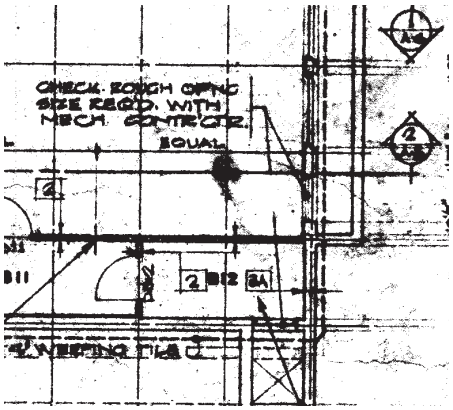




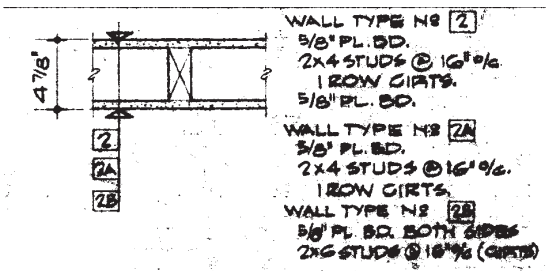
Fire Separation - Non-Compliant Condition
Boiler Room B-07







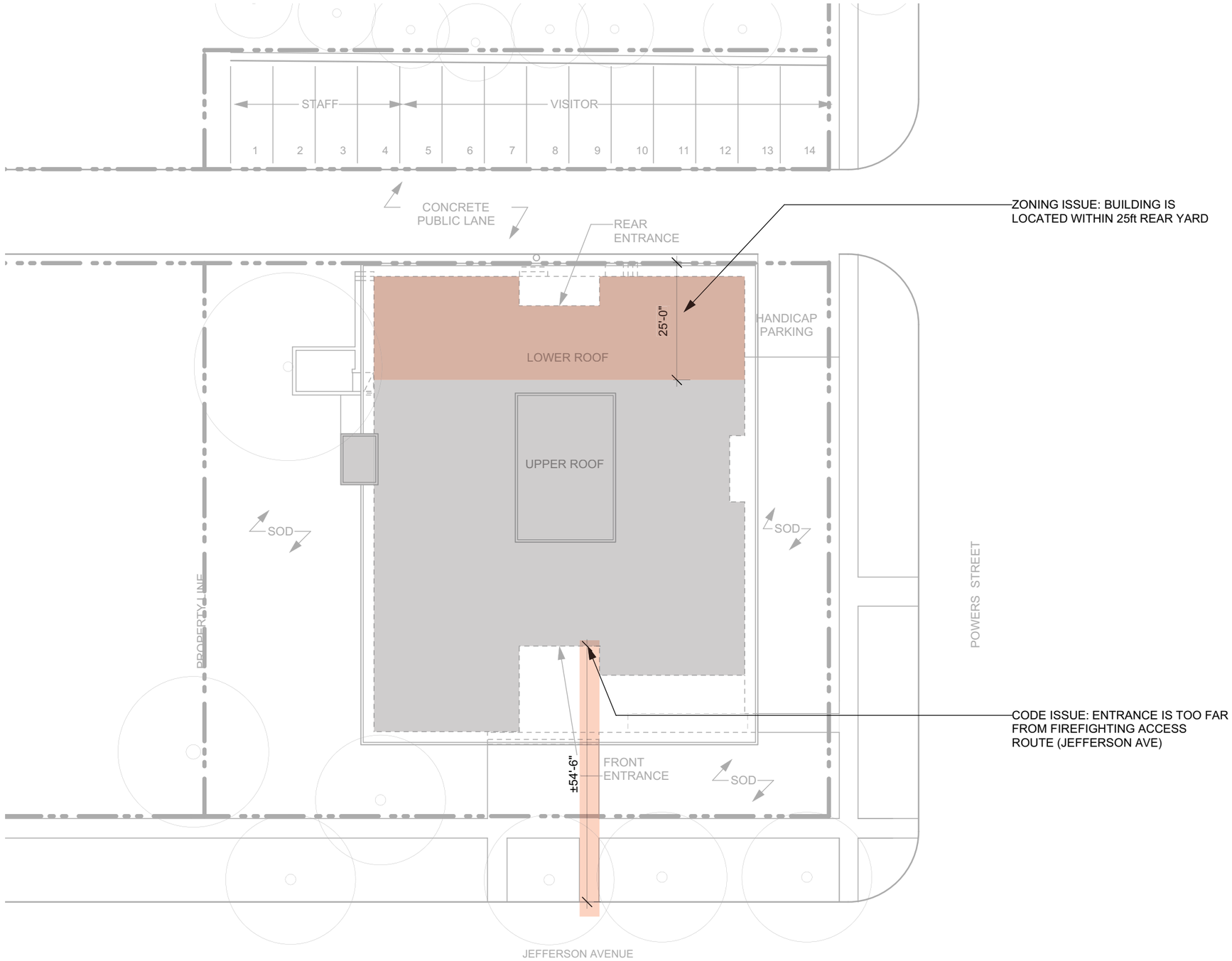
Fire Separation - Non-Compliant Condition
Mechanical Room B-12



Fire-Resistance Rating of Mechanical Room Walls:

Typical Interior Wall: Equivalent Assembly:
ULC W301 (or NBC type W1d - Table 9.10.3.1.-A)
Total Fire-Resistance Rating of assembly: **1 hr**

Note: this is the most equivalent tested assembly available. This assembly requires that Type 'X' gypsum board must be installed on both sides of the assembly. It is unlikely that this was installed (or available) in 1967. To ensure the required rating is provided where required, the existing plaster board should be replaced with 5/8" Type 'X' gypsum board.



1 SITE PLAN - CODE & ZONING ISSUES
Scale: N.T.S.

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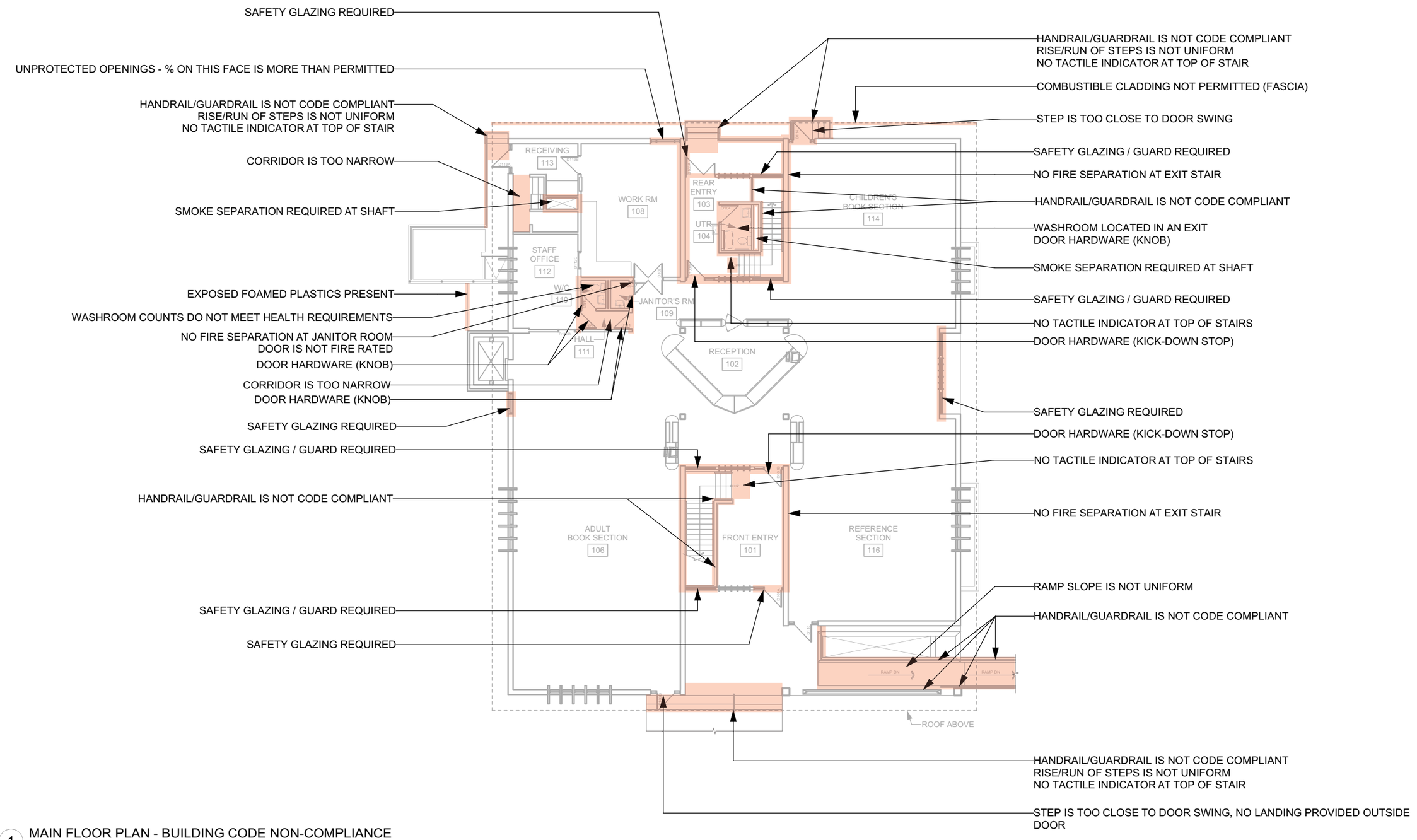
WEST KILDONAN LIBRARY ASSESSMENT

365 JEFFERSON AVE, WINNIPEG, MB R2V 0N3

SITE PLAN - CODE & ZONING NON-COMPLIANCE

2023-06-27

A-1



1 MAIN FLOOR PLAN - BUILDING CODE NON-COMPLIANCE
Scale: 1:200

| x | architecture inc.
230 Main Street, Suite 310 Winnipeg, Manitoba R3C 1A8 204 318 2010

NO. DATE ISSUANCE

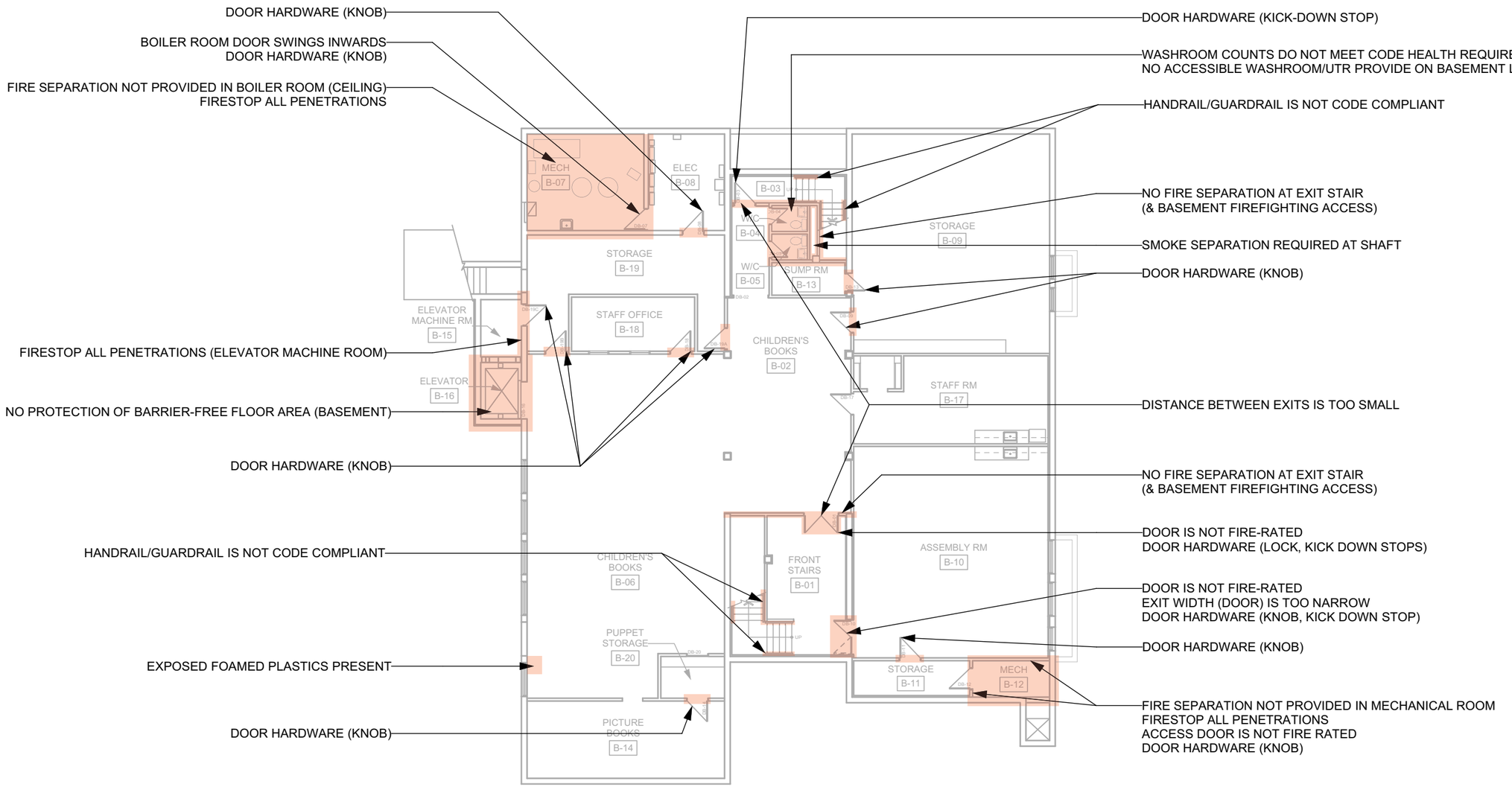
WEST KILDONAN LIBRARY ASSESSMENT

365 JEFFERSON AVE, WINNIPEG, MB R2V 0N3

MAIN FLOOR PLAN - CODE NON-COMPLIANCE

2023-06-27

A-2



1 BASEMENT FLOOR PLAN - BUILDING CODE NON-COMPLIANCE
Scale: 1:200

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230 Main Street, Suite 310 Winnipeg, Manitoba R3C 1A8 204 318 2010

NO. DATE ISSUANCE

WEST KILDONAN LIBRARY ASSESSMENT

365 JEFFERSON AVE, WINNIPEG, MB R2V 0N3

BASEMENT FLOOR PLAN - CODE NON-COMPLIANCE

2023-06-27

A-3

PART 8
HEALTH REQUIREMENTS

8.1 CODE REVIEW - HEALTH REQUIREMENTS

Water Closets

Analysis: There are 4 existing washrooms in the building.

1) Main floor - 1 gender neutral public washroom in the Rear Entry (Rm 104)
   Note: this washroom is assumed to be intended to act as a Universal Toilet Room, however it does not meet current code or WADS requirements. Refer to Part 9 for the accessibility requirements of Toilet Facilities.
2) Main floor - 1 gender neutral staff washroom (Rm 110)
3) Basement - 1 gender neutral staff washroom (Rm B-05)
4) Basement - 1 gender neutral public washroom (Rm B-04)

The NBC 2020 considers that all washrooms are gendered. This code lists a total number of required male and female washrooms. Accepted practice to determine the total amount of required gender neutral washrooms is as follows:

1. Add the amounts of required male and female washrooms.
2. Provide the same total number of gender-neutral washrooms.

Working backwards from the number of existing washrooms determines the maximum occupant load that can be accommodated:

3.7.2. Plumbing Facilities (Table 3.7.2.2.-A, Water Closets for an Assembly Occupancy)
Number of Persons of each sex: 26-50
Number of male washrooms required: 1
Number of female washrooms required: 2
Number of gender neutral washrooms required: 1+2=3
Number of gender neutral washrooms provided = 4
The existing washrooms could serve up to (50 persons of each sex, x2) **= 100 persons.**
Note: 5 gender neutral washrooms would be required to increase the occupant load served.

Analysis: The washroom calculation for the building can either be based on:

1. The occupant load calculation of the building, based on floor area, or
2. A design occupant load, which is posted in the building.

Analysis: Option 1 - Occupant Load Calculation
Refer to the Occupant Load analysis in Part 7.
Total Occupant Load of Building : 252 + 248 = **500 persons / 2 = 250 males, 250 females**

Code Article Requirement: *3.7.2. Plumbing Facilities (Table 3.7.2.2.-A, Water Closets for an Assembly Occupancy)*
Number of Persons of each sex: 201 - 250
Number of male washrooms required: 5
Number of female washrooms required: 9
Number of gender neutral washrooms required: 5+9 = 14
Number of gender neutral washrooms provided = 4
The building would require 10 additional gender neutral washrooms to serve the occupant load of the building based on floor area. <u>This is not compliant.</u>

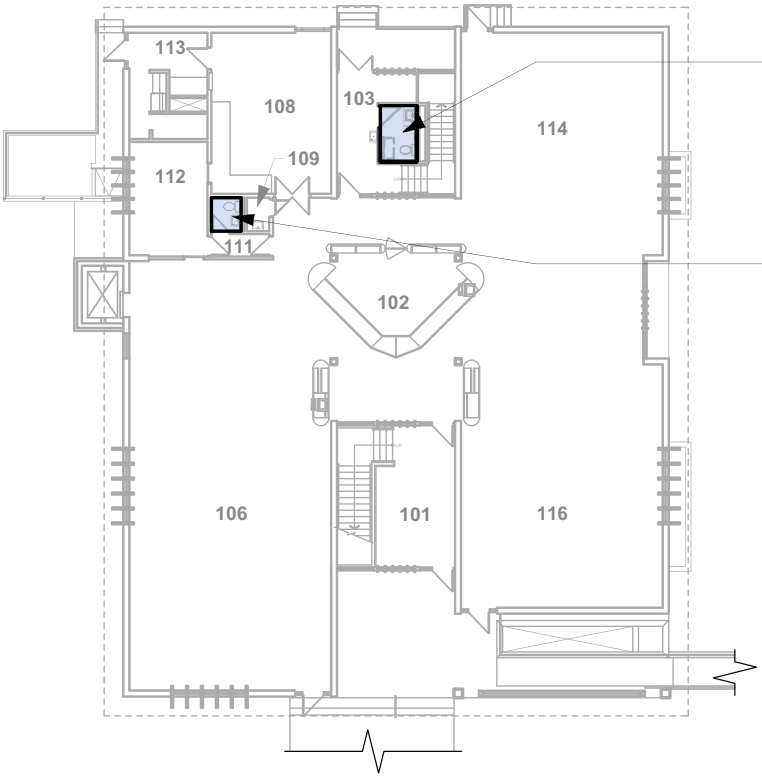
Analysis: Option 2 - Using Design Occupant Load (93 persons per sex):

3.7.2. Plumbing Facilities (Table 3.7.2.2.-A, Water Closets for an Assembly Occupancy)
Number of Persons of each sex: 76-100
Number of male washrooms required: 2
Number of female washrooms required: 4
Number of gender neutral washrooms required: 2+4 = 6
Number of gender neutral washrooms provided = 4
The building would require 2 additional gender neutral washrooms to serve the design occupant load.

Lavatories

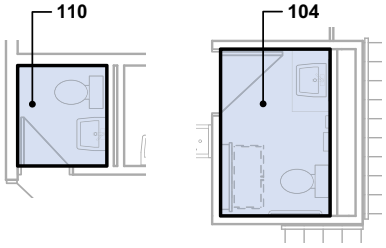
Code Article Requirement: *3.7.2.3 Lavatories*
One lavatory is required for every 2 water closets.
Number of lavatories required: 4 water closets /2 = 2 lavatories
Number of lavatories provided: 4 (1 per water closet)
This is code compliant. Additional lavatories would be required if additional water closets are added, since each lavatory is only accessible from inside each washroom.

8.1 CODE REVIEW - HEALTH REQUIREMENTS (cont'd)

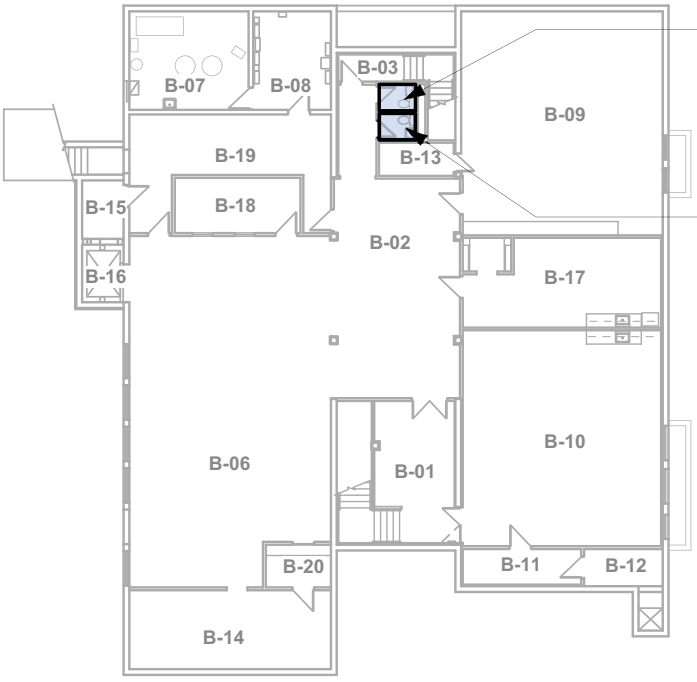


104:
- Gender neutral public washroom
- Note: This washroom is assumed to be intended to act as a Universal Toilet Room.
- Includes: 1 lavatory, 1 water closet, 1 baby changing station

110:
- Gender neutral staff washroom
- Includes: 1 lavatory, 1 water closet

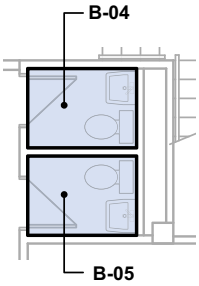


1 MAIN FLOOR PLAN
Scale: N.T.S.



B-04:
- Gender neutral public washroom
- Includes: 1 lavatory, 1 water closet

B-05:
Gender neutral staff washroom
- Includes: 1 lavatory, 1 water closet



2 BASEMENT FLOOR PLAN
Scale: N.T.S.

PART 9
ACCESSIBILITY REVIEW

ACCESSIBILITY REVIEW - SUMMARY

The following accessibility review of West Kildonan Library was completed using the 2015 City of Winnipeg Accessibility Design Standard (WADS), third edition, revised in September 2018. Non-compliant conditions are underlined. The risk of these non-compliant conditions are assessed as **Low, Medium,** or **High.**

Summary of Non-Compliant Conditions (listed by priority of risk):

Low Risk to Occupant Safety:

- Non-compliant Signage - room signage, colour contrast, excess signage
- Non-compliant Drinking Fountain - height, spout, projection into accessible route
- Non-compliant Sidewalks - width, indicator surfaces
- Non-compliant Parking Stall - aisle size, grading, signage
- Non-compliant Windows - height of operators
- Non-compliant Info/Reception Counters - Room 102, B-06 - kneespace, height
- Non-compliant Tables / Work Surfaces - kneespace, height
- Non-compliant Offices - no aisle/clearance in basement level office
- Non-compliant Kitchens - B-10, B-17, 113 - kneespace, sink, height of counters
- Non-compliant Storage / Shelving - height of closet millwork (B-17/113)
- Non-compliant Toilet - in Rm 104 - grab bars, clearances
- Non-compliant Lavatory - in Rm 104 - clearance conflicts with door swing
- Non-compliant Controls - height of light Switches, thermostats, etc.
- No Assistive Listening System or Portable Listening Devices provided
- Non-compliant height of Library Shelving/Book Slots, no accessible Library Computer Workstations

Medium Risk to Occupant Safety:

- Non-compliant Accessible Routes - corridors too narrow
- Non-compliant Ramp - landings, detectable warnings, handrails/guardrails
- No Detectable Warning Surfaces - stairs, ramps, level changes
- Non-compliant Curb Ramps - flared sides, warning surfaces
- Non-compliant Accessible Entrances - staff entrance is not accessible
- Non-compliant Doors - width, hardware, colour contrast, push/pull clearances
- Non-compliant Toilet Facilities - no UTR in the basement
- Non-compliant UTR - turning radius
- Non-compliant Controls - height of fire alarm pull stations

High Risk to Occupant Safety:

- Non-compliant Stairs - non-uniform treads and risers, handrails/guardrails
- Non-compliant Handrails and Guardrails - at stairs, ramps, and level changes
- Non-compliant Emergency Exits / Areas of Refuge - Exits not separated (refer to Part 7)

9.1 ACCESSIBILITY - GENERAL ACCESS & CIRCULATION

1.1.3 Accessible Routes, Paths and Corridors

Refer also to the building code analysis of Safety within Floor Areas.

Analysis: WADS indicates that the minimum clear width is 1100mm for accessible routes. The width of the library's accessible route is not compliant with WADS in the following locations: Hallway 111 is only 1000mm wide, and the hallway off of Receiving Room 113 is only 890mm wide.

Risk to occupant safety: **Medium.** This condition reduces the accessibility of the space. It also makes exiting more difficult for those in wheelchairs or with mobility devices. Refer to the analysis of Corridors in the Safety within Floor Areas section in Part 7.

Recommendations: Refer to the recommendations suggested for Corridors in the Safety within Floor Areas section in Part 7.

1.1.5 Ramps (excluding street curb ramps)

Refer also to the building code analysis of Exits.

Analysis: WADS indicates that the surfaces of ramps and landings shall "have a surface that is slip resistant [and] have a colour contrast to demarcate the leading edge of the landing, as well as the beginning and end of a ramp". It also states that "ramps shall incorporate detectable warning surfaces in compliance with Section 1.2.6 Detectable Warning Surfaces". The exterior library ramp does not have a colour contrasting material at the top or bottom of the ramp or any detectable warning surfaces, which is not WADS compliant.

The slope of the ramp varies - the first portion of the ramp slopes 8" over 25.5' (1:38), and the second portion slopes 9" over 19.5' (1:26). The slopes are WADS compliant - WADS states that a "ramp slope shall be between 1:15 (6.7%) and 1:20 (5%)" and that "more gradual slopes are preferred".

WADS indicates that "The maximum horizontal length between landings shall not exceed 9m (29'-6")". The distance between landings at the exterior ramp is 13.7m (45ft), which is too far, and is not WADS compliant.

The WADS requirements for handrails at ramps are as follows: a ramp "shall have two sets of handrails which: are on both sides; when not continuous, extend horizontally at least 300 mm (12 in) beyond the top and bottom of the ramp and return to the wall, floor, or post; [and] for the first handrail, is located between 865 mm (34 in) and 965 mm (38 in) from the ramp surface to the top of the handrail". There is only one handrail present at the existing ramp (not dual). Part of the ramp has a handrail on only one side. The existing handrails do not have any horizontal extensions. The handrails are 820mm from the ramp surface (this is too low). This is all not compliant with WADS.

WADS indicates that landings shall "have a minimum size not less than 2440 x 2440 mm (96x96 in) if located at the top or bottom of a ramp". The bottom landing where the existing ramp meets the sidewalk is not large enough. This condition is not compliant with WADS.

Risk to occupant safety: **Medium.** The lack of proper handrails/guardrails presents some risk to occupants, reducing support along the ramp and increasing the risk of tripping or falling. The lack of intermediate landing increases the distance someone in a wheelchair needs to travel without a level spot to rest. This reduces the accessibility of the space. Refer to the analysis of Ramps in the Exits section in Part 7.

Recommendations: Refer to the recommendations suggested for Ramps, Handrails and Guards in the Exits section in Part 7. Handrails/guardrails should be replaced with WADS compliant guardrails and handrails (on both sides). Detectable warning surfaces should be added. A new (larger) bottom landing and an intermediate landing could be added.

9.1 ACCESSIBILITY - GENERAL ACCESS & CIRCULATION

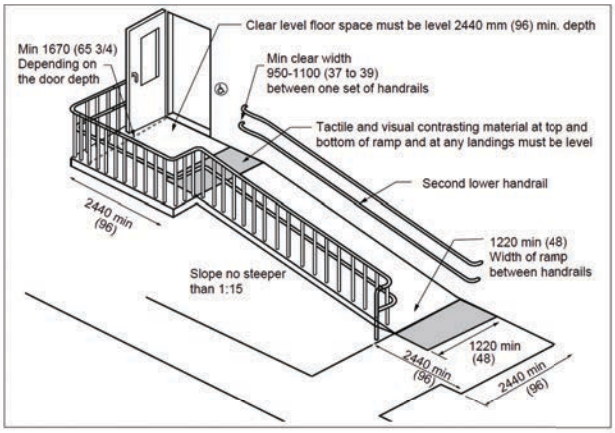


Figure 1.1.5.2 *Ramp* Criteria, for Maneuvering Space at Doors Refer to Figures 3.1.3.6 and 3.1.3.7



Exterior Ramp
View to Sidewalk



Exterior Ramp
View from Sidewalk

1.1.6 Stairs

Refer also to the building code analysis of Exits.

Analysis: WADS indicates that a flight of stairs shall have "uniform riser heights and tread depths; risers not more than 180 mm (7 in) and not less than 125 mm (5 in) high; runs not less than 280 mm (11 in) and not more than 355 mm (14 in) deep, measured from riser to riser; and no open risers". The rise and run of the library's interior stair treads are uniform and are WADS compliant, and there are no open risers. The typical rise and run of the exterior stair treads are WADS compliant, and there are no open risers. However, some of the existing exterior treads have rises that are too tall or runs that are too narrow. Many of the exterior stair rises and runs are not uniform, which is not WADS compliant.

WADS states that "stairs shall incorporate detectable warning surfaces". There are no detectable warning surfaces on the interior or exterior stair landings, which is not WADS compliant.

The interior library stair surfaces are slip resistant, with colour contrasting edges at the treads and landings. At the exterior stairs, there are no colour contrasting edges at the treads or landings, which is not WADS compliant. WADS states that "the surfaces of landings and treads shall have colour and texture contrast to demarcate the leading edge of the tread, the leading edge of the riser nosing, and the leading edge of the landing; and the horizontal and vertical surfaces of the stair nosing shall have a colour and texture contrasting from the remainder of the riser and tread".

WADS states that "stairs shall incorporate two sets of handrails which shall: be installed on both sides; for the first handrail, be of uniform height, located between 860mm (33-1/2 in) and 920mm (36 in) from the stair nosing; for the second handrail, be of uniform height located 690mm (27 in) maximum from the stair nosing; extend at the bottom of the stairs for a distance of one tread depth beyond the first riser, then horizontally not less than 300mm (11-3/4 in); and extend horizontally at the top of the stairs not less than 300mm (11-3/4 in)". The library's interior and exterior stair handrails are not WADS compliant in many aspects - they are not continuous, they do not have horizontal extensions, and there is only one handrail on each side (not dual). In some cases at the exterior stairs, there is only a handrail on one side of the stair, which is also not WADS compliant.

WADS indicates that stair "landings shall have a length not less than 1100 mm and a width not less than the stair". The width of the interior stairs and landings exceed this dimension and so they are compliant with WADS. The width of the some of the exterior stair landings are not compliant with WADS.

Risk to occupant safety: **High.** The lack of proper handrails/guardrails and presence of non-uniform steps presents a risk to occupants, reducing the amount of support along the stairs and increasing the risks of tripping or falling (from a high distance). This condition also makes exiting from the basement more difficult. Handrails and guardrails should be added that are WADS compliant. Refer to the analysis of Stairs in the Exits section in Part 7.

Recommendations: Refer to the recommendations suggested for Stairs, Handrails and Guards in the Exits section in Part 7. On the interior, additional handrails/guardrails could be added to better meet WADS requirements (since the existing handrails and guardrails are heritage protected items). The exterior concrete stairs with non-uniform treads/risers could be replaced and reconfigured to meet WADS requirements.

9.1 ACCESSIBILITY - GENERAL ACCESS & CIRCULATION

1.1.7 Handrails and Guards

Refer also to the building code analysis of Exits, and the accessibility review of stairs and ramps.

Analysis: WADS states that handrails should be dual height, be continuous, and be colour contrasted, with horizontal extensions. They should have a circular section 30 mm- 43 mm (1-3/16" to 1-11/16") in diameter. If they are a non-circular shape, they require a graspable portion that has a perimeter not less than 100 mm (4") and not more than 125 mm (5") whose largest cross-sectional dimension is not more than 45 mm (1-3/4"). Handrails should have a clear space between the handrail and the wall of 45 mm - 60 mm (1 3/4" - 2 3/8") or 60 mm (2 3/8") minimum where the wall has a rough surface.

The library's exterior handrails have a circular cross section of 2-1/2" (64mm). This is not WADS compliant (too large). The interior handrails have a non-circular cross section of 1-3/8"(35mm) x 5-1/4"(133mm). This is not WADS compliant - the perimeter and largest cross-sectional dimension are too large.

The distance from the interior stair handrail to the smooth wall surface behind is 1-3/8" (35mm). This is too close - it is not WADS compliant.

Risk to occupant safety: **High.** See the WADS risk analysis and recommendations for stairs and ramps. Refer to the recommendations provided in Part 7 for handrails.

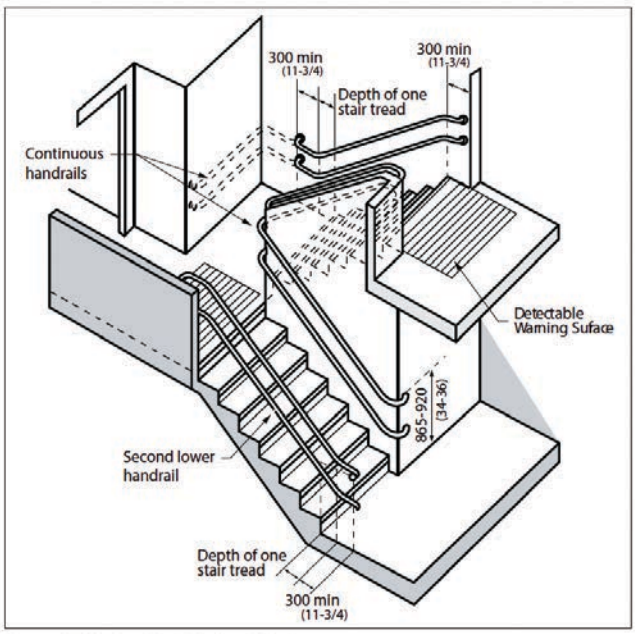


Figure 1.1.6.2 Stair Design Criteria

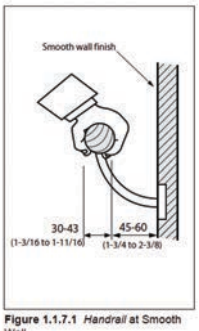


Figure 1.1.7.1 *Handrail* at Smooth Wall

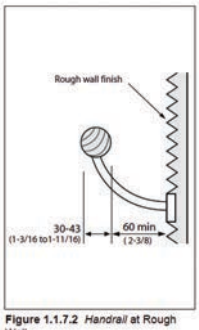


Figure 1.1.7.2 *Handrail* at Rough Wall



Interior Handrail

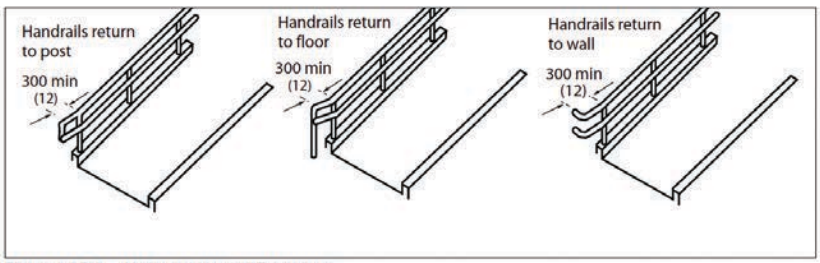


Figure 1.1.5.4 Horizontal *Handrail* Extensions

9.2 ACCESSIBILITY - GENERAL INFO & COMMUNICATION SYSTEMS

1.2.4 Signage

Analysis: WADS states that "signs that designate permanent rooms or spaces shall be wall mounted on the latch side of the entrance where possible", and that "signs shall be colour contrasted to the surface they are mounted upon". Some of the permanent room signage is mounted above or on the existing doors, which is not WADS compliant. The staff areas are designated with white signs with black tactile characters, however the white backgrounds do not contrast well from the wall colour, which is not WADS compliant.

WADS states that "characters, symbols and backgrounds of signs shall have an eggshell, matte or other glare-free finish". Some of the existing signage in the library has a glossy finish with a lot of glare, which is not compliant with WADS.

WADS states that "a proliferation of signage must be avoided as it creates visual noise resulting in confusion and misunderstanding". In general, there is a proliferation of signage in the library which creates confusion, and is not WADS compliant.

A lot of overhead signage is used in the open library areas, which is compliant with WADS. WADS indicates that "overhead signs are not required to be tactile or Brailled".

WADS states that "elements and spaces of accessible facilities that shall be identified by the International Symbol of Accessibility are: parking spaces designated as reserved for individuals with disabilities; accessible passenger loading zones; accessible entrances when included with entrances that are not accessible (inaccessible entrances shall have directional signage to indicate the route to the nearest accessible entrance); accessible toilet facilities when not all are accessible; accessible telephones; accessible elevators and other elevating devices; accessible means of egress; and areas of rescue assistance". The library's accessible parking stall is identified by the International Symbol of Accessibility. However, some of the other accessible elements were not, including the UTR, the accessible (south) entrance, directional signage at the north non-accessible entrance, and the elevator - this is not compliant with WADS.

Risk to occupant safety: **Low.** This condition presents little risk to occupants, but reduces the accessibility of the space.

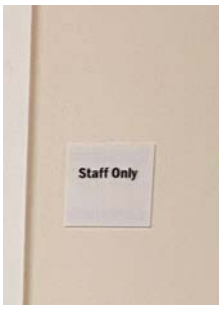
Recommendations: Colour contrasted signs could be added on the latch side of doors where possible. Excess signage could be removed to improve clarity. Signage could be added at the UTR, at the elevators, and at the accessible parking space.



Room Signage Above Door



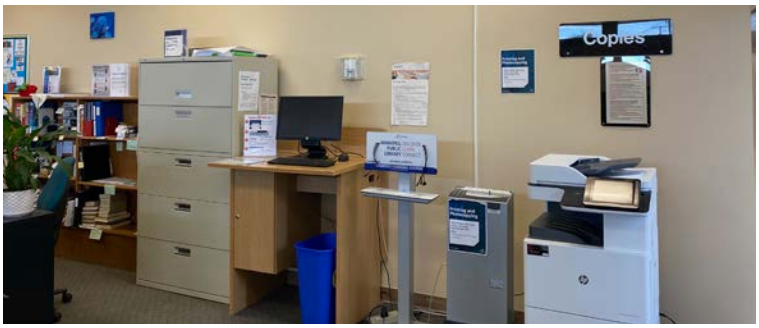
Overhead Signage



Staff Only Signage



North Entrance Signage



Proliferation of Signage
Signage with Glare

9.3 ACCESSIBILITY - GENERAL AMENITIES

1.2.6 Detectable Warning Systems

Refer also to the WADS requirements for stairs, ramps, and sidewalks.

Analysis: WADS states that "all textured surfaces used as detectable warning surfaces shall be cane-detectable and clearly differentiated from the surrounding ground or floor surfaces. Detectable warning surfaces shall contrast visually with adjoining surfaces by a minimum of 70% colour contrast, either light on dark or dark on light. Exterior detectable warning surfaces at roadways and transit ways installed in concrete shall be yellow only. Detectable warning surfaces at stairs shall be provided at the top of the stairs and at landings; and at ramps shall be provided at the top, bottom and each landing of each ramp".

There are no detectable warning systems at the existing interior stairs or exterior stairs. There are no detectable warning systems at the exterior ramp. There are no detectable warnings at the exterior sidewalks. These conditions are not compliant with WADS.

Risk to occupant safety: **Medium.** This condition reduces the accessibility of the building, and presents a risk of falling to occupants with vision impairment (especially at the top of the stairs).

Recommendations: Detectable warning surfaces could be added at the interior and exterior stairs, and at the exterior ramp.

1.3.1 Drinking Fountains and Bottle Fillers

Analysis: WADS indicates that "cantilevered drinking fountains that project into an accessible route shall be identified by a detectable warning surface of at least 300 mm (11-3/4 in) around the object". It also states that accessible drinking fountains shall have a spout that directs the water flow in a trajectory that is parallel or nearly parallel to the front of the unit; and be equipped with controls that are located on the front of the unit, or on both sides of the unit, easily operated from a wheelchair, using one hand, with a force of not more than 22 N (4.9 lb.), or be automatically operable".

The existing drinking fountain in the rear entrance is not compliant with WADS in many aspects. It projects into an accessible route and does not have a detectable warning surface below it. The controls are not easily operated with one hand. The spout directs the water diagonally towards the central drain.

Risk to occupant safety: **Low.** This condition presents little risk to occupants, but reduces the accessibility of the space. There is a minor risk of someone who is visually impaired bumping into the drinking fountain, since there is no warning surface below it.

Recommendations: The drinking fountain could be replaced with an accessible model. A warning surface could be added below the fountain, or the fountain could be relocated so it does not project into the accessible route.

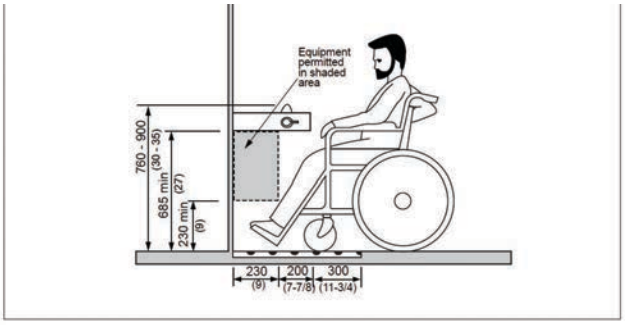


Figure 1.3.1.3 Clearances at Drinking Fountain

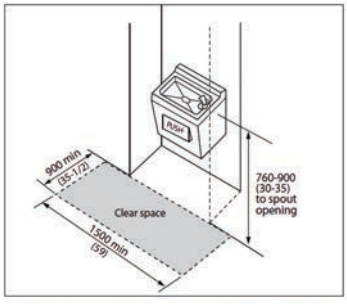


Figure 1.3.1.1 Parallel Approach to Drinking Fountain

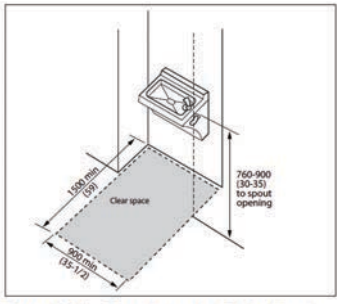


Figure 1.3.1.2 Frontal Approach to Drinking Fountain



Existing Drinking Fountain

9.4 ACCESSIBILITY - EXTERIOR ACCESS & CIRCULATION

2.1.3 Streetscape

Analysis: WADS states that "where sidewalks are provided as part of the public right-of-way, outside Winnipeg's downtown core area as per Winnipeg Zoning By-Law 200-2006, an accessible space at least 1900 mm (75 in) wide shall be maintained along the sidewalk. This includes a accessible route of 1500 mm (59 in) and an indicator surface of a minimum of 200 – 300 mm (7 13/16 in.- 11 13/16 in) in width on either side of the accessible route. The existing sidewalks outside of the library are not WADS compliant. They are not wide enough and do not have indicator surfaces on either side of the accessible route.

Risk to occupant safety: **Low.** This condition presents little risk to occupants, but reduces the accessibility of the site. There is minor risk of tripping on adjacent grass or bumping into adjacent objects if the edges of the sidewalk are more difficult to detect.

Recommendations: Indicator surfaces could be added on either side of the sidewalks. Sidewalks could be replaced and widened.

2.1.5 Curb Ramps and Truncated Dome Detectable Warning Surfaces

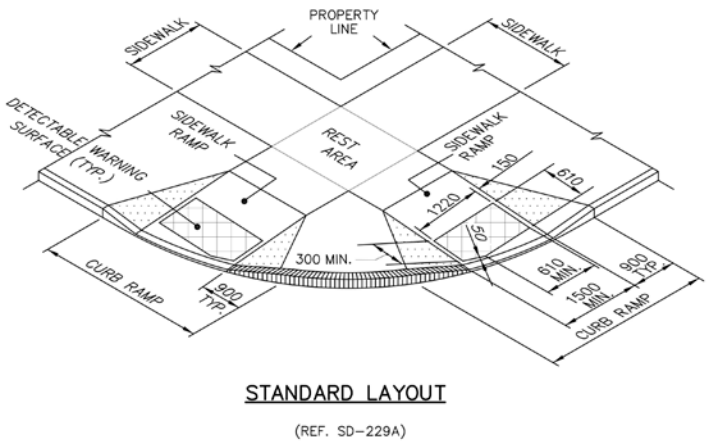
Analysis: WADS states that "curb ramp and sidewalk ramp configuration[s] and truncated dome detectable warning surfaces shall be installed as illustrated in Public Works Standard Detail SD-229 A to E and Standard Construction Specification CW 3326-R2. Truncated dome detectable warning surfaces in exterior curb ramps shall be yellow in colour and shall be orientated perpendicular to the direction of the pedestrian crossing". Where the existing sidewalks outside of the library meet the curb, they do not have flared sides or yellow detectable warning surfaces. This is not WADS compliant.

Risk to occupant safety: **Medium.** This condition reduces the accessibility of the site. It also presents a risk to those with vision impairment, since it is less clear where the sidewalks meet roadways, increasing the risk of a potential car accident / collision.

Recommendations: The existing sidewalks could be modified where they meet existing curbs to add flared sides and warning surfaces.

2.3.1 Parking

Analysis: WADS states that "an accessible route shall be provided from each accessible parking area to an accessible entrance into the facility". It also indicates that "all designated spaces shall be located on the shortest possible circulation route, with minimal traffic flow crossing, to an accessible facility entrance". WADS requires that accessible off-street parking spaces "be at least 2440 mm (96 in) wide and 6100 mm (240 in) long; have a firm, level surface with a maximum of 2% longitudinal grade for drainage; where surfaces are paved, have access aisles clearly indicated by markings; have a maximum cross slope of 1:50 (2%); and have an adjacent access aisle at least 2440 mm (96 in) wide". There are exceptions for retrofit situations where it is technically not feasible to provide the required access aisle - "the aisle may be reduced to 2000 mm (78-3/4 in.)". Signage for accessible parking stalls must incorporate the following components: "a designated disabled parking space sign as specified in the 'Manual of Uniform Traffic Control Devices for Canada', mounted vertically" and an "international symbol of access on a vertical sign at the head of the parking stall and painted [white on a background field of blue] on the horizontal surface of the stall".



Curb Ramp - CoW Standard Detail



Existing Curb Ramps

9.4 ACCESSIBILITY - EXTERIOR ACCESS & CIRCULATION

There is one existing accessible parking stall at the library. The number of required accessible parking spaces is 1 (Table 2.3.1.1, shown below), which is WADS compliant. Refer also to Part 1, Building Site for an analysis of zoning parking requirements for the site.

An accessible route is provided to the accessible library entrance (the south entrance). The distance from the parking stall to the south entrance is relatively short. The existing parking stall is approximately 4.1m wide x 6.5m long, including the parking aisle. The parking aisle is clearly indicated by markings but is only about 850mm wide (this is not compliant). The slope of part of the parking stall appears too steep (>2%). There are no vertical signs for the parking stall. The horizontal sign is painted in yellow. This is not WADS compliant.

Risk to occupant safety: **Low.** This condition presents little risk to occupants, but reduces the accessibility of the site.

Recommendations: Signage could be added to the parking space. A larger aisle would be difficult to accommodate in the existing accessible stall. Some of the existing non-accessible stalls could be replaced with a properly-sized, accessible stall and aisle by re-painting the lines. The parking lot paving could be regraded to comply with WADS.

Total Required Parking Spaces	Minimum Number of Accessible Parking Spaces Required	Minimum Number of Van Accessible Parking Spaces Required
2 to 25	1	0
26 to 50	2	1
51 to 75	3	1
76 to 100	4	2
101 to 150	5	2
151 to 200	6	2
201 to 300	7	2
301 to 400	8	3
401 to 500	9	3
501 to 1,000	2 percent of total	4
1,001 to over	20, plus 1 for each 100 over 1,000	4 plus 1 for each 100 over 1,000

Table 2.3.1.1 *Accessible* Parking *Space* Allocation

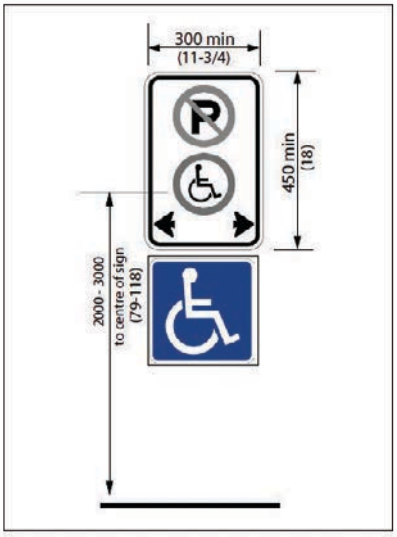


Figure 2.3.1.3 Parking Sign (Sample Sign Only)

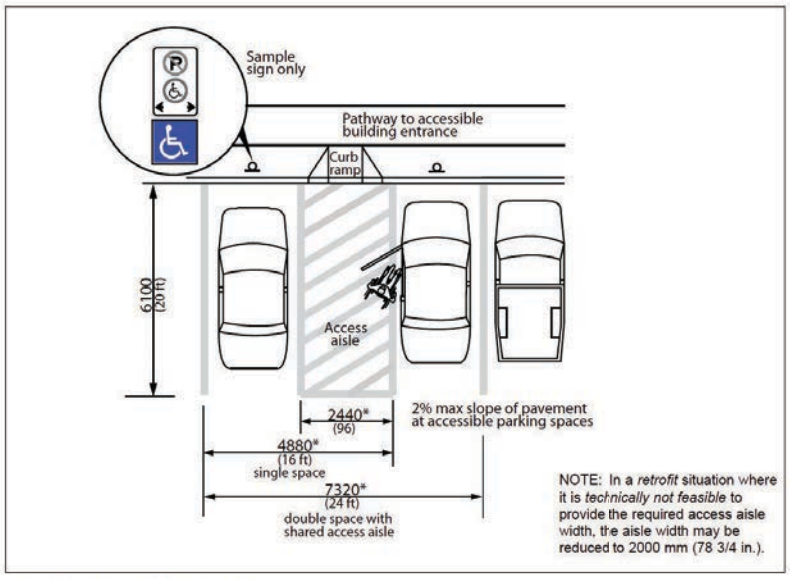


Figure 2.3.1.1 Side-by-side Parking *Space*



Accessible Parking Stall

9.5 ACCESSIBILITY - INTERIOR ACCESS & CIRCULATION

3.1.2 Entrances

Analysis: WADS states that "all entrances used by staff or the public shall be accessible and comply with this section. In retrofit situations where it is technically not feasible to make all staff and public entrances accessible, at least 50% of all staff entrances and 50% of all public entrances shall be accessible and comply with this section. The primary entrances used by staff and the public shall be accessible and comply with this section".

50% of the library's public building entrances are accessible, which is compliant with the retrofit requirements of WADS. The front (south) entrance of the library is accessible (has a ramp). The rear public entrance is not accessible (stairs only), and does not have WADS compliant signage indicating the nearest accessible entrance. Refer to the accessibility review of signage for more information.

It is unclear whether the exterior door from Room 113 is used a staff entrance, or if this door is only used as an exit. If it is used as an entrance - then there is only one staff entrance, an this is not accessible (stairs only). This is not compliant with WADS.

Risk to occupant safety: **Medium.** This condition reduces the accessibility of the space. It also makes exiting more difficult for those in wheelchairs.

Recommendations: If the door from Room 113 is a staff entrance, a ramp would need to be added outside the door to make the building compliant with the WADS requirements.

3.1.3 Doors

Analysis: WADS states that "the minimum clear opening at doorways in accessible door systems shall be 915 mm (36 in)." In order to achieve this minimum clear opening width, WADS states that "the actual door [leaf] must be 1000 mm (39") minimum". "In retrofit situations where it is technically not feasible to provide this clearance, the minimum clear opening at doorways shall be required to meet MBC minimums". It also states that "in a retrofit situation where it is technically not feasible to make all doors accessible, at least one door at each accessible space shall comply with this section". None of the existing library doors exceed 36" in width, which is not compliant with WADS. NBC 2020 minimums are 850mm, which are exceeded in the library. Refer also to the Life Safety section in Part 7 for further analysis of the library's exit and egress doors.

WADS indicates that "power operators shall be provided at the following door locations: entrances required by Section 3.1.2 Entrances; accessible individual washrooms; and intermediate doorways across primary circulation routes within a facility". It also states that power operator controls must "be a single control bar that can be activated from either height (preferred) or; be operable at two heights, one with its centre located 850 - 900 mm (33-1/2 - 35 1/5 in) from the floor and the other with its centre located 225 mm (9 in) from the floor; be mounted on the latch side of the door or on a stand alone pedestal; incorporate controls that are clearly visible which are at least 150 mm (5-7/8") in diameter; and incorporate the International Symbol of Access for Persons with Disabilities". There are existing power door operators at both sets of doors in the main (south) entrance. These are mounted on the latch side of the door. However, they are single buttons approx. 6" in diameter, mounted at a single height (not a push bar). The button has an indentation of the international symbol, but this is not contrasted well / it is not visible enough. This condition is not WADS compliant. There are no power door operators provided at the accessible washroom (104) or at any intermediate doorways across primary circulation routes, which does not meet WADS requirements.

At the entrances, the doors in series have adequate space between them (the space exceeds the WADS minimum of 1525mm), which is compliant.

WADS states that "all doors shall have level wheelchair maneuvering space on both sides of the door, and clear space beside the latch, as described in Table 3.1.3.1". For a side-hinged door with a front approach, this is 600mm on the pull side and 300mm on the push side. Many of the existing doors do not have the required clear wheelchair maneuvering space on the push or pull side. This includes the following doors: D110 (pull side), D111 (pull side), D112A (pull side), D113A (pull side), D113B (pull side), DB-01 (push side), DB-04 (pull side), and DB-05 (push side). This is not compliant with WADS.

WADS requires that "door hardware (operating devices such as handles, pulls, latches, and locks) shall not require fine finger control, tight grasping, pinching, or twisting of the wrist to operate". There are a number of doors with operating devices that require fine finger control (door knobs), which is not compliant with WADS. Refer also to the code review in Part 7 for further analysis of the library's exit and egress door hardware.

9.5 ACCESSIBILITY - INTERIOR ACCESS & CIRCULATION

WADS requires that "on accessible routes, the bottom of doors shall incorporate a smooth, uninterrupted kick plate, at least 300 mm (11-3/4 in) high". Most of the existing library doors on accessible routes do not have a kick plate, which is not WADS compliant.

WADS requires that "doors shall incorporate pronounced colour contrast, to differentiate them from the surrounding environment. Door handles and other operating mechanisms shall incorporate pronounced colour contrast, to differentiate them from the door itself". The existing door operating mechanisms are colour contrasted from the doors, and the doors are generally colour contrasted from the surrounding environment. This is compliant. The door frames are typically not well colour contrasted from the adjacent walls, which is not compliant.

WADS states that "where doors are not equipped with a closing device, the edge of door shall be colour contrasted to the face of the door". The following doors do not have closers: D104, D108, D109, D110, D111, D112A, DB-11, DB-13, DB-14, and DB-18. None of these doors have edges that are colour contrasted from the face of the door, which is not compliant.

Risk to occupant safety: **Medium.** This condition reduces the accessibility of the space. It also makes exiting more difficult for those in wheelchairs or with mobility devices. There is also risk of being hit by a door that is opening if adequate maneuvering space / colour contrast is not provided.

Recommendations: Most existing doors and frames would need to be replaced (and rough openings widened) to comply with this article, which may not be feasible or approved by heritage review. Since this is a retrofit situation, it may be permitted to leave these doors in place. Some door hardware (knobs) need replacement. Kick plates could be added. Doors and frames could be painted to improve colour contrast. A power door operator could be added at the UTR and at doors across primary circulation routes. The entrance operator buttons could be replaced. Where maneuvering space can't be provided on the push or pull side of existing doors, a power operator could be added.

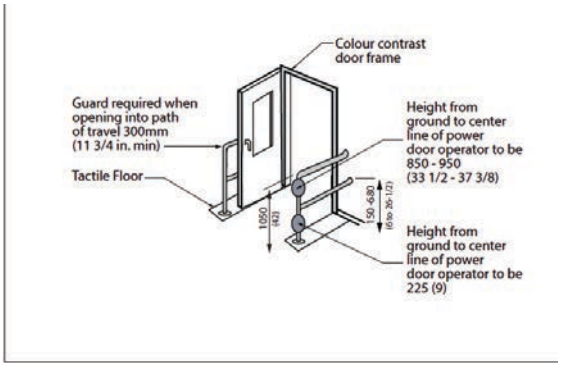


Figure 3.1.3.6 *Colour Contrast* at Doors and Protective Safety Guards

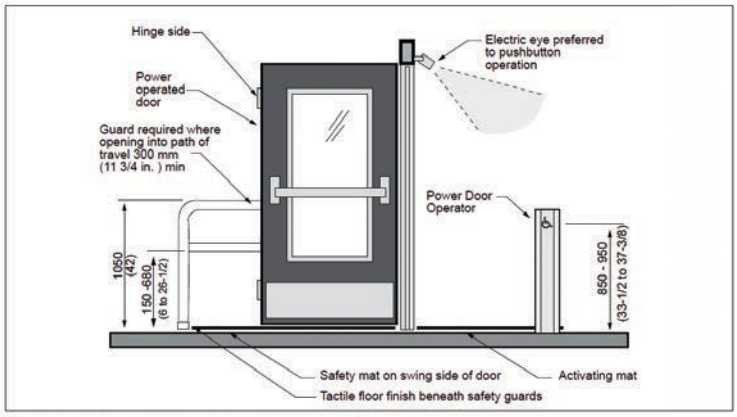


Figure 3.1.3.11 Power Door Features, Also Refer to Figure 3.1.3.7



Hallway 111
Insufficient Space on Pull Side of Doors

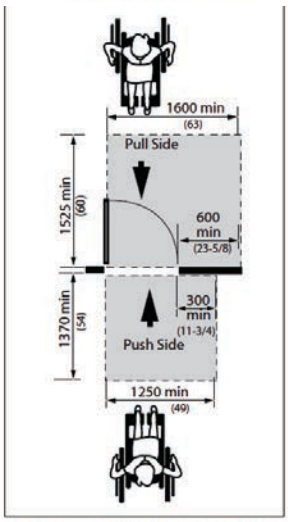


Figure 3.1.3.3 Front Approach at Hinged Doors (at top of ramps landing must be 2440 mm X 2440 mm min.)



Existing Power Door Operator Button

9.5 ACCESSIBILITY - INTERIOR ACCESS & CIRCULATION

3.1.4 Windows, Glazed Screens and Sidelights

Analysis: WADS requires that "fully-glazed sidelights at exterior entrances or vestibules, as well as fully-glazed screens, shall be clearly identified with a horizontal row of decals". There are no fully-glazed sidelights at the entrance vestibules. Decals/stripes are not required.

All existing viewing windows extend to less than 760mm from the floor (the maximum sill height permitted by WADS). There are many clerestory windows in the library, but these do not need to meet this height requirement as they are not designed for viewing.

WADS indicates that "window opening hardware shall: be mounted between 400 mm (15-3/4 in) and 1200mm (47 in) from the floor; be operable using one hand; and not require fine finger control, tight grasping, pinching, or twisting of the wrist to operate". Several of the operable windows have hardware mounted more than 1200mm from the floor that require fine finger control to operate. This includes the window in Staff Office 112, many of the windows in the main floor open library space, and the basement clerestory windows. This is not compliant with WADS.

Risk to occupant safety: **Low.** This condition presents little risk to occupants, but reduces the accessibility of the space. Those in wheelchairs or those without fine finger control cannot operate the windows.

Recommendations: Motorized operation of these windows could be added to comply with this article. Lower operators could be installed. If the windows are not often opened (for security reasons for example), the windows could be replaced with fixed panes. The operators could also remain as a grandfathered condition, as suggested by the City's Universal Design Coordinators.

3.1.8 Emergency Exits, Fire Evacuation and Areas of Rescue and Assistance

Refer also to the code analysis of Fire Safety and Exits.

Analysis: WADS states that "every occupiable level in nonresidential occupancies above or below the first storey (as defined by the MBC) that is accessible, shall: be served by an elevator that has protection features, as specified in Section 3.3.1.7 of the MBC; or be divided into at least two zones by fire separations, as specified in the MBC". The basement level is not divided into two zones by fire separations. It is not served by an elevator that has protection features. This is not compliant with WADS. Refer to Part 6 and Part 7 for further analysis.

WADS notes that "above the main level, where required exits from a floor level are not accessible, the only means of egress will be to an area of rescue assistance". This also applies to the library's basement, where the exits (stairs) are not accessible. Areas of rescue assistance should be provided at both existing



Existing Operable Window - Too High



Window Operators Require Fine Finger Control

stairs on the basement level of the library.

WADS indicates that areas of rescue assistance must "be separated from the floor area by a fire separation having a fire-resistance rating at least equal to that required for an exit". In the library, these areas should be separated by a fire-resistance rating at least equal to the exit (45 minutes) - which they currently are not. This is not compliant with WADS.

The number of rescue spaces must be in accordance with Table 3.1.7.1. Two areas of rescue assistance are required (since 2 exits are required from the basement). Since the basement level has an occupant load less than 400 persons, a minimum of two rescue spaces must be provided. Based on the available space in the current stair layout, one (1) rescue space could be provided at the Rear Stairs (B-03). Multiple (8+) rescue spaces could be provided at the Front Stairs (B-01). See diagrams below.

WADS also states that areas of rescue assistance shall: incorporate a two way voice communication system for use between each area of rescue assistance and the central alarm and control facility; be identified with directional signage stating 'Area of Rescue Assistance' and incorporate the international symbol for accessibility for disabled persons; have a door in compliance with Section 3.1.3 Doors; be of a size that allows a minimum floor space of 850mm (33-1/2 in) x 1370mm (54 in) per non-ambulatory occupant; be served by an exit or firefighter elevator; and be designated as an area of rescue assistance for persons with disabilities on the facility plans [...and] evacuation procedure documents. None of these requirements are met in the library - this is not compliant.

Risk to occupant safety: **High.** This condition presents high risk to occupants. In an emergency situation, if the elevator becomes inoperable, there is no protected area for those in wheelchairs or with mobility devices to wait for assistance during a fire.

Recommendations: Refer to the recommendations provided in Part 7 for Exits and Safety Within Floor Areas.

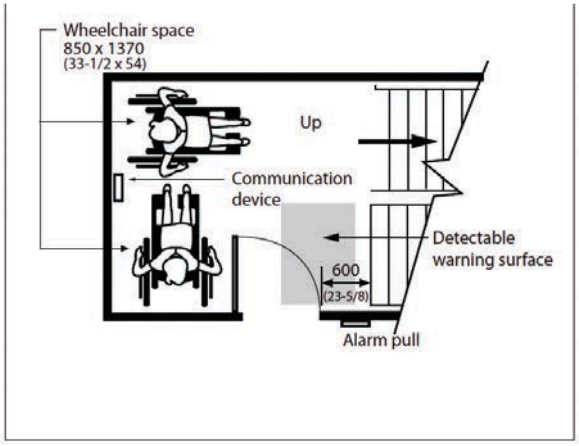
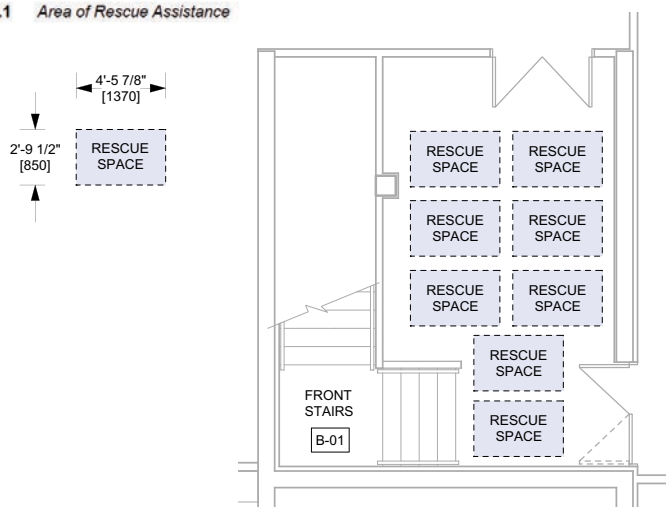


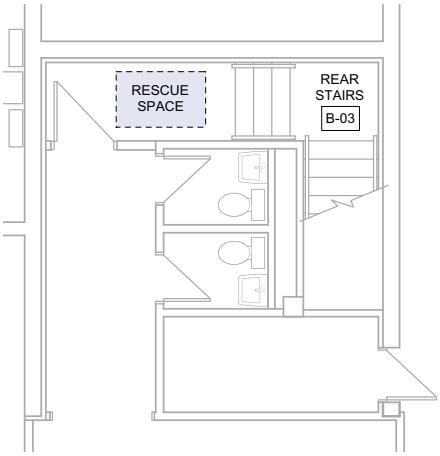
Figure 3.1.7.1 *Area of Rescue Assistance*

Occupant load of the floor area served by the area of rescue assistance	Minimum number of rescue spaces
2 to 400	2
Over 400	3 plus 1 for each additional increment of 200 persons in excess of 400 persons

Table 3.1.7.1 Number of Rescue Spaces



Rescue Spaces that Could be Provided in Front Stair - Basement Level



Rescue Spaces that Could be Provided in Rear Stairs - Basement Level

9.6 ACCESSIBILITY - INTERIOR AMENITIES

3.2.1 Information, Reception and Service Counters

Analysis: WADS requires that "counters for information or service shall incorporate at least one accessible section that is located between 710 mm (28 in) and 865 mm (34 in) above the finished floor or ground". It also states that "accessible sections of information, reception and service counters shall have, on both sides of the counter, knee space below of at least 700mm (27-1/2 in) high by 500 mm (19-5/8 in) deep". The existing reception counter is 1220mm (48") high, with no accessible section. There is no knee space provided below the reception desk. The basement reception counter also does not have an accessible section. This is not compliant with WADS.

Risk to occupant safety: **Low.** This condition presents little risk to occupants, but reduces the accessibility of the space. Those in a wheelchair cannot properly access the reception counters.

Recommendations: The existing millwork would need to be replaced or modified to comply with this article.

3.2.2 Tables and Work Surfaces

Analysis: WADS states that "where a forward approach is used to access a wheelchair seating space, a clear knee space of at least 760 mm (30 in) wide, 500 mm (19-5/8 in) deep and 700 mm (27-1/2 in) high shall be provided". There are multiple fixed tables/work surfaces provided in the library, including the computer stations on the main floor, and the desk in Rm 113. None of these meet the counter/kneespace requirements of an accessible work surface as described in WADS. Refer also to the analysis of Libraries in Part 9, Section 3.6.3.

Risk to occupant safety: **Low.** This condition presents little risk to occupants, but reduces the accessibility of the space. Those in a wheelchair cannot properly access the work surfaces.

Recommendations: The existing millwork would need to be replaced to comply with this article.

3.2.3 Offices, Work Areas and Meeting Rooms

Analysis: WADS states that "if it is technically infeasible to have all offices accessible, at least 25% of the total offices within a floor area shall meet the requirements of this section". WADS requires that offices shall "incorporate a clear space allowing a person in a wheelchair to make a 180 degree turn (See figure 1.1.1.5); and incorporate an accessible route through the space that does not require the person in a wheelchair to travel backwards to enter/leave the space".There are 3 office spaces in the library: Room 108, Room 112, and B-18. To be compliant with WADS, at least one of the offices on the main floor and in the basement must be accessible. On the main floor, Office 112 has the accessible clearances, but Hallway 111 (leading to this office) does not qualify as an accessible route. Office 108 has adequate clearances for accessibility. The only basement office, Room B-18, does not have the required clearances to be accessible, so the building is not compliant with WADS.

Risk to occupant safety: **Low.** This condition presents little risk to occupants, but reduces the accessibility of the space. Those in a wheelchair cannot properly access the basement offices.

Recommendations: An alternate, accessible office could be provided elsewhere in the basement.

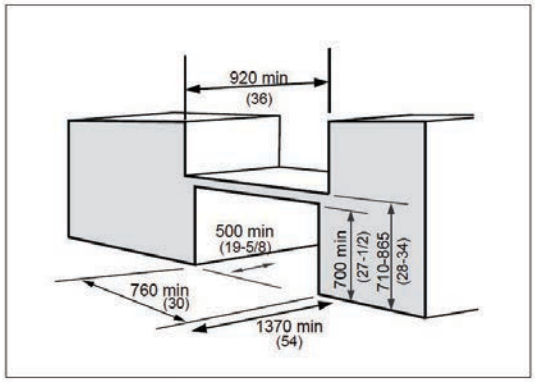
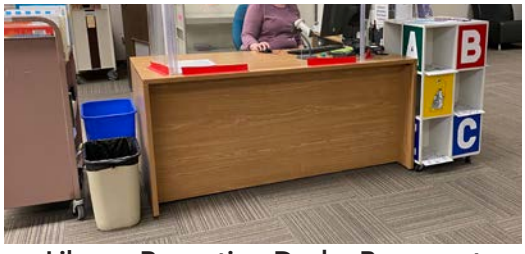
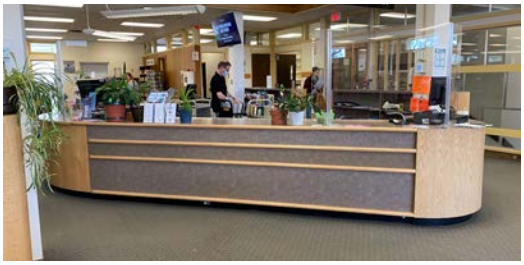


Figure 3.2.1.1 Service Counter



Library Reception Desk - Basement



Library Reception Desk - Main Floor

9.6 ACCESSIBILITY - INTERIOR AMENITIES

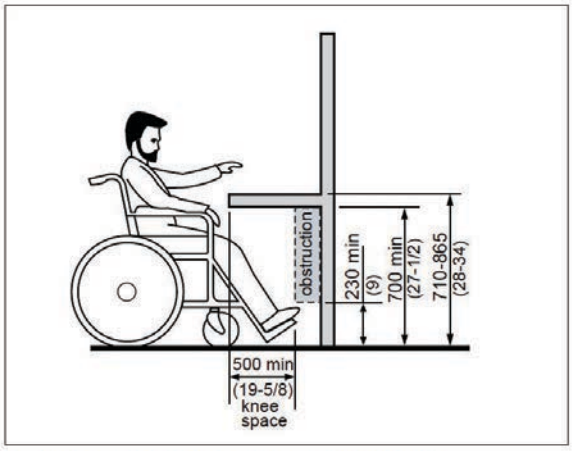
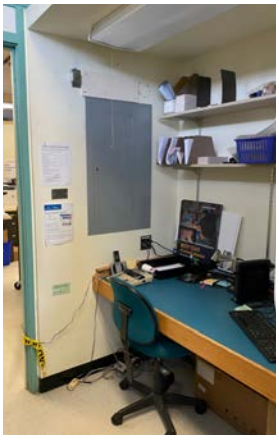


Figure 3.2.2.1 Table, Counter and Work Surface Clearance





Fixed Work Surfaces

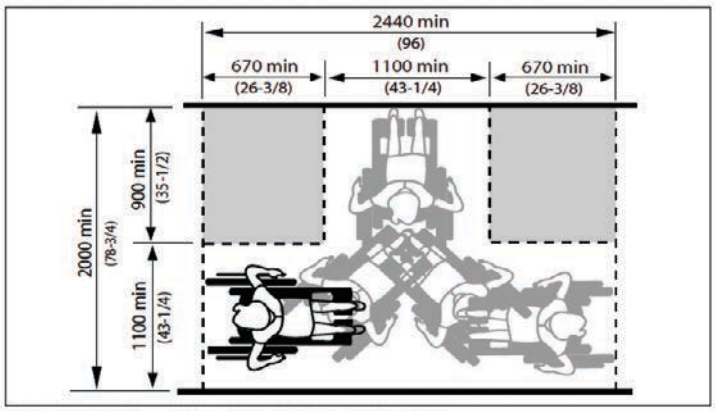
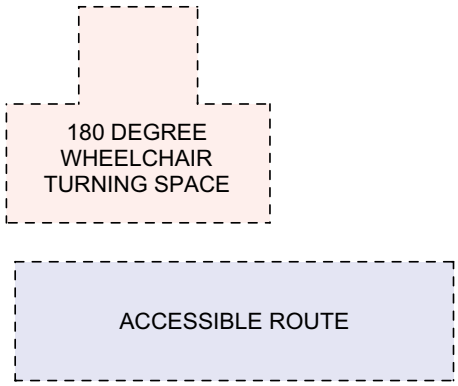
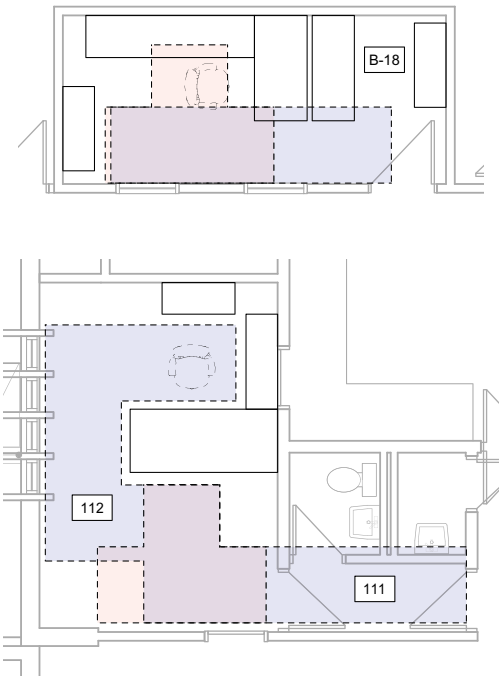


Figure 1.1.1.5 Wheelchair 180° Turning *Space*



Analysis of Offices (for Accessible Clearances)





9.6 ACCESSIBILITY - INTERIOR AMENITIES

3.2.4 Kitchens and Kitchenettes

Analysis: WADS states that: kitchen sinks must "be located on an accessible route with adjacent clear space for a forward approach [with exceptions for a parallel approach, which] is permitted to a kitchen sink where a cook top or conventional range is not provided". "The height of the [sink] rim or the counter top (whichever is higher) [should be] 730 mm – 865 mm (29 in – 34 in) max.". The sink must "incorporate faucets and other controls in compliance with Section 3.5.1 Controls and Operating Mechanisms". "All kitchen elements shall incorporate colour contrast to visually differentiate the cabinets and appliances from adjacent wall and floor surfaces, the countertop from the cabinets and adjacent walls, and operable hardware on cabinets"."Refrigerators/freezers shall be configured with at least 50% of the freezer space maximum 1370 mm (54 in) above the floor".

The existing kitchenettes throughout the library do not have a cook top, range, oven, or dishwasher. In the Receiving Room and Program Room, there are only cupboards and a sink. In the basement Staff Room, there are cupboards, a sink, a fridge, and a microwave. In all kitchenettes, the counter height is too high (36"). In the Receiving Room, the sink knobs require fine finger control. In the Staff Room, more than 50% of the freezer space is too high off of the floor. There is no open knee space below the Staff Room microwave. Throughout the library, there is minimal colour contrast between the cabinets and countertops, between the millwork and the appliances, and between the millwork and the walls/floors/hardware. These conditions are all not compliant with WADS.

Risk to occupant safety: **Low.** This condition presents little risk to occupants, but reduces the accessibility of the space. Those in a wheelchair cannot properly access the kitchenettes.

Recommendations: The existing millwork, the sink in Room 113, and the fridge in Room B-17 would need to be replaced or modified to comply with this article.

3.2.5 Storage, Shelving and Display Units

Analysis: WADS requires that "clothes rods or shelves shall be a maximum of 1370 mm (54 in) above the finished floor for a side approach". The height of the shelves and clothes rods in the closets in Room 113 and B-17 are too high. This not compliant with WADS.

Risk to occupant safety: **Low.** This condition presents little risk to occupants, but reduces the accessibility of the space. Those in a wheelchair cannot properly access the closet.

Recommendations: The existing millwork/rod could be replaced or modified, or a lower shelf and rod could be added.

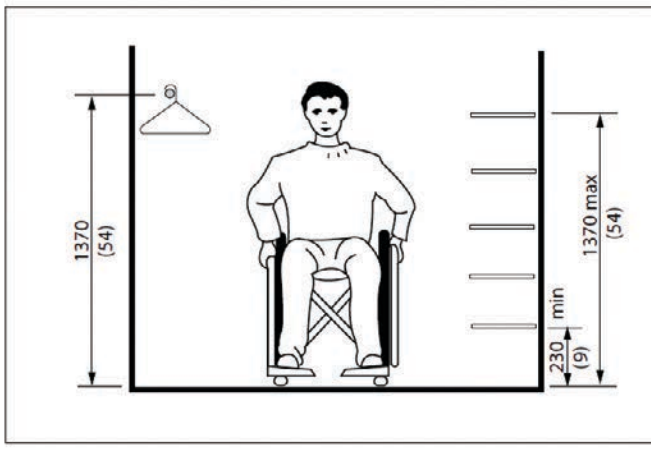
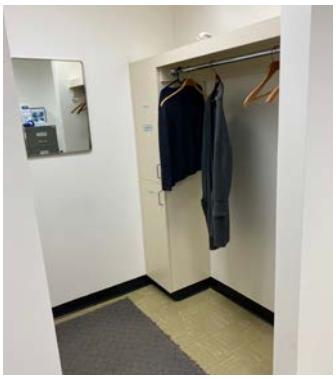


Figure 3.2.5.1 Reach Limits for Storage



Receiving Room Closet (Rm 113)



Staff Room Closet (Rm B-17)

9.6 ACCESSIBILITY - INTERIOR AMENITIES



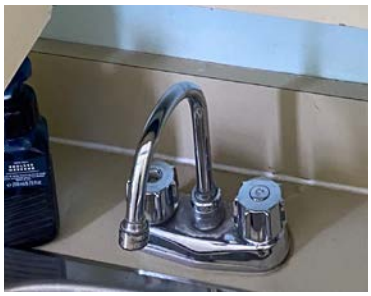
Program Room Kitchenette (Rm B-10)



Receiving Room Kitchenette (Rm 113)



Staff Room Kitchenette (Rm B-17)



Receiving Room Sink (113)

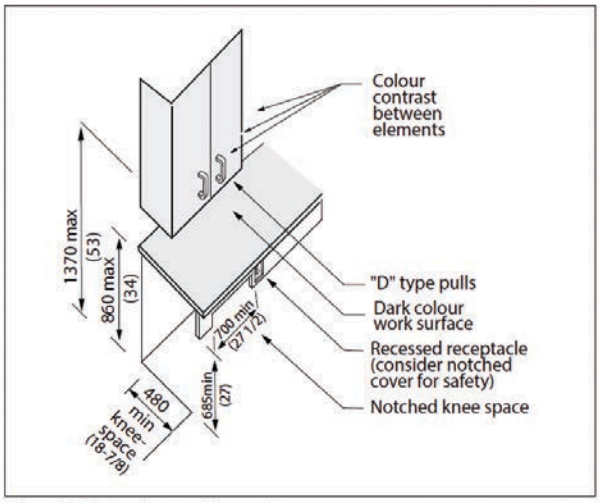


Figure 3.2.4.4 Storage *Elements*

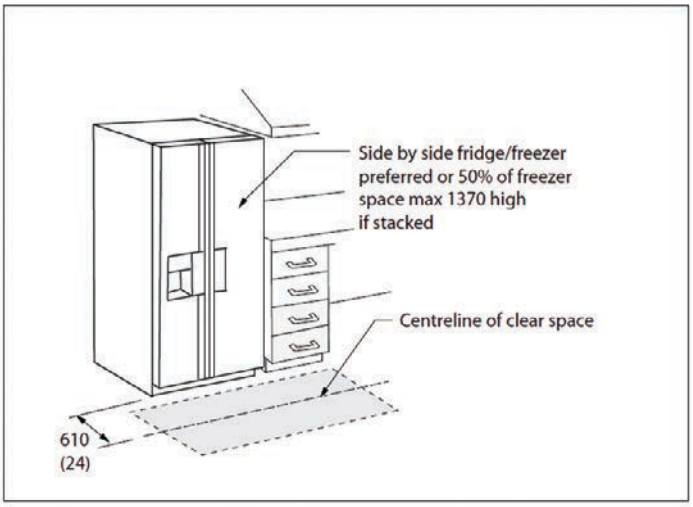


Figure 3.2.4.7 *Accessible* Fridge/Freezer

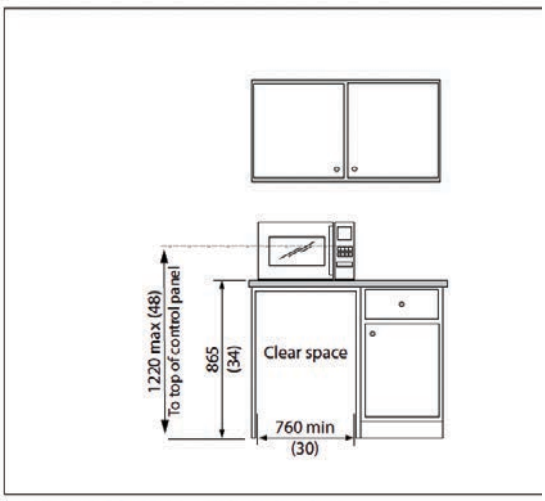


Figure 3.2.4.9 *Accessible* Microwave

9.7 ACCESSIBILITY - WASHROOM FACILITIES

3.3.1 Toilet Facilities

Analysis: Refer also to the Health Requirements section in Part 8 for further analysis of washroom code requirements. WADS states that "in a retrofit situation where it is technically not feasible to make existing public or common use toilet facilities accessible, the installation of at least one individual washroom per floor complying with Section 3.3.7 Individual Washrooms is permitted. This individual washroom should be located adjacent to the other existing toilet facilities. At minimum, MBC must be followed for all washroom facilities in accordance with occupancy load and facility type".

There is one existing Individual Washroom (UTR) in the library, within the rear entrance on the main floor (Room 104). However, there are significant WADS compliance issues with this UTR - clearance for the wheelchair turning radius is not provided. No UTR is provided on the basement level. No other accessible/ barrier-free washrooms are provided elsewhere on the main floor or on the basement level. This does not meet the requirements of WADS (or the NBC 2020, 3.8.2.8. Plumbing Facilities).

WADS states that "doors shall not swing into the clear space required for any fixture. All main washroom doors must include an automatic door operator when accessible stalls or a universal toilet room are present". In the existing Individual Washroom (UTR, Room 104), the door swings into the clear space required for the lavatory. The door is not equipped with an automatic door operator. This is not compliant with WADS. Refer also to the analysis in 3.3.7. Universal Toilet Rooms.

WADS states that "an infant changing area shall be provided in single occupant washrooms if an adult change bench is not provided". A baby changing area is provided in Washroom 104. An adult change bench is not provided. Refer also to the analysis in 3.3.7. Universal Toilet Rooms.

Risk to occupant safety: **Medium.** This condition reduces the accessibility of the space. Those in a wheelchair cannot properly access washrooms throughout the building, increasing the risk of unsanitary conditions.

Recommendations: A UTR would need to be added on the basement level to comply with this article. The existing UTR (Room 104) would need to be significantly modified as described in 3.3.7. Universal Toilet Rooms.

3.3.3 Toilets

Analysis: The toilet in Room 104 has a tank without a tamper proof bolt. It is not securely attached - this is not compliant with WADS. There is a garbage bin located in the transfer space beside the toilet, which is not compliant with WADS. The toilet has a hand-operated lever on the front of the toilet (on the transfer side). This is compliant with WADS. The toilets in the remaining washrooms were not assessed, since these washrooms are not accessible.

The grab bars in Room 104 comply with Figure 3.3.3.1. However, there is no horizontal grab bar on the wall behind the toilet, which is not WADS compliant. See the analysis of Section 3.3.8. The toilet-paper dispenser is wall mounted, is close enough to the toilet, is located below the grab bar, and is not less than 600mm above the floor. However, the dispenser is not located in front of the toilet seat, so it is not compliant with WADS. The toilet paper dispensers in the remaining washrooms were not assessed, since these washrooms are not accessible.

Risk to occupant safety: **Low.** This condition presents little risk to occupants, but reduces the accessibility of the space.

Recommendations: In Room 104, a horizontal grab bar could be added behind the toilet. The tank lid could be replaced with a locking model. The location of the toilet paper dispenser and garbage bin could be adjusted.

3.3.4 Lavatories

Analysis: WADS states lavatories must "be mounted so that the minimum distance between the centre line of the fixture and the side wall is 460 mm (18-1/8 in) and the top [must be] located no more than 865 mm (34 in) from the floor. In Room 104, the lavatory is located 32-1/2" above the floor, and the centerline is 460mm from the side wall. This is compliant with WADS. As mentioned above, the door swings into the clear space for the lavatory, which is not compliant with WADS. The existing pipes are not insulated, which is not compliant with WADS. The lavatories in the remaining washrooms were not assessed, since these washrooms are not accessible.

Risk to occupant safety: **Low.** This condition presents little risk to occupants, but reduces the accessibility of the space. There is some risk of burns to those in a wheelchair since the existing pipes are not insulated.

Recommendations: The existing pipes could be insulated. The washroom would need to be reconfigured to resolve the conflict with the lavatory clearance and the door swing.

9.7 ACCESSIBILITY - WASHROOM FACILITIES

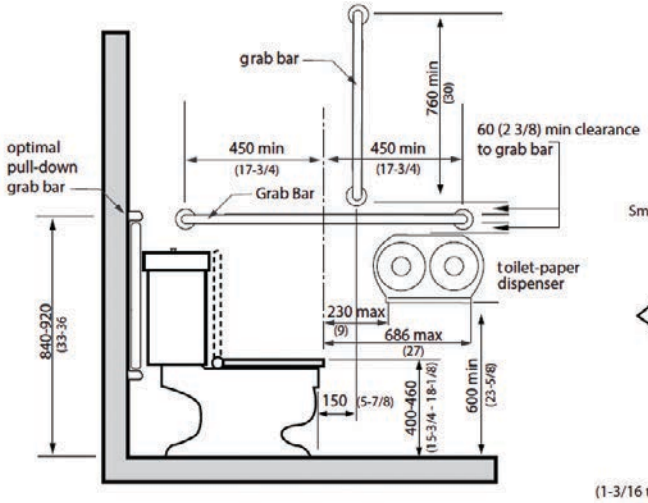


Figure 3.3.3.1 Grab Bar Configuration

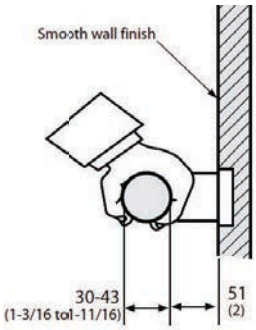


Figure 3.3.8.1 Grab Bars



Washroom 104
Garbage Bin in Transfer Space

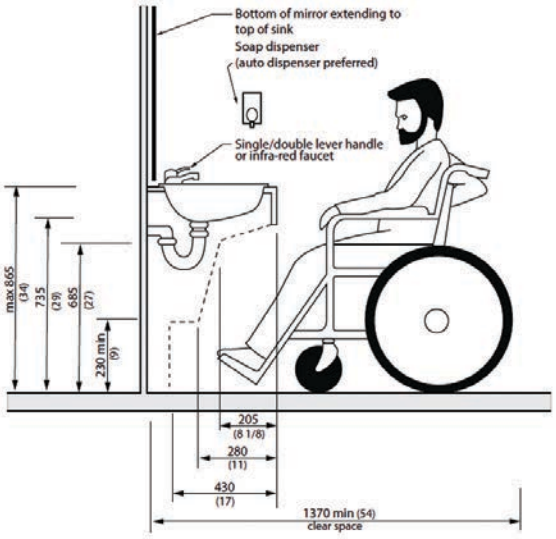
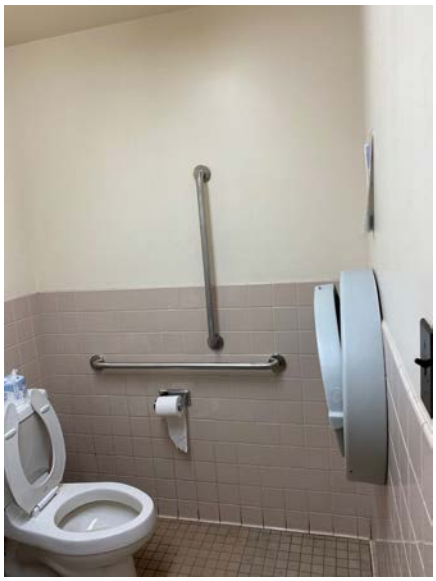


Figure 3.3.4.1 Lavatory Criteria



Washroom 104
Grab Bars, Baby Change Table

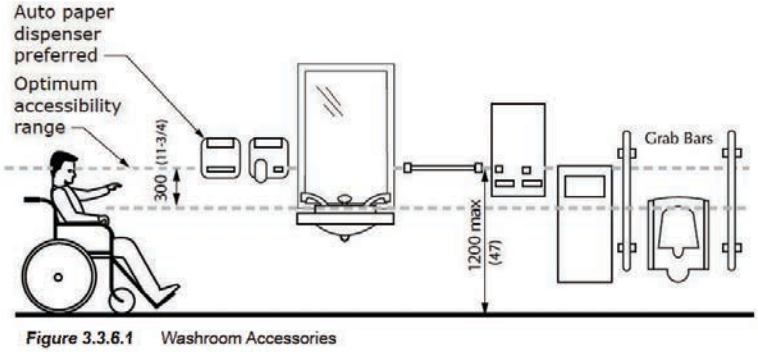


Figure 3.3.6.1 Washroom Accessories

9.1 ACCESSIBILITY - WASHROOM FACILITIES

3.3.6 Washroom Accessories

Analysis: WADS states that "each type of washroom accessory provided [...] shall have operable portions and controls mounted between 900 mm (35in) and 1200 mm (47 in) from the floor". In Room 104, the soap dispenser is mounted at 38" (966mm) above the floor. The paper towel dispenser is mounted at 46" (1168mm) above the floor. WADS states that "hand-operated controls and mechanisms shall be operable with one hand, without tight grasping, pinching, or twisting of the wrist". WADS also states that "washroom accessories and mechanisms often require hand strength and dexterity to operate. As a result, automatic activation dispensers are preferred". The soap and paper towel dispensers can be operated with one hand, but are not automated. These are compliant with WADS. The washroom accessories in the remaining washrooms were not assessed, since these washrooms are not accessible.

WADS requires that "where mirrors are provided, at least one shall be mounted with its bottom edge not more than 1000 mm (39-3/8 in) from the floor". The mirror in Room 104 is 37-1/2" (952mm) from the floor, which is compliant with WADS. The mirrors in the remaining washrooms were not assessed, since these washrooms are not accessible.

3.3.7 Universal Toilet Rooms

Analysis: There is no existing UTR on the basement level or on the main floor that meets the requirements of 3.3.7.2. or 3.3.7.1. See analysis below for more information. This is not compliant with WADS (or the NBC 2020).

There is no adult change bench or emergency call system in the UTR (Room 104). This is not compliant with WADS.

The existing UTR (Room 104) does not have an adequate clear turning diameter of 1930mm. It also does not meet the retrofit minimum diameter of 1700mm. There is no stationary, recessed, or fold-up adult change bench. This does not comply with WADS.

The door of the UTR (Room 104) has a knob style handle, which is not compliant with WADS. Refer to 3.1.3. Doors for more information. The door to Room 104 can be unlocked from the outside with a key in case of emergency, which is compliant with WADS.

WADS states that a toilet in a UTR must "be located so that its centre line is not less than 460 mm (18-1/8in) and not more than 480 mm (18-7/8 in) from an adjacent wall on one side; and so that its centre line is not less than 1060 mm (42 in.) to any wall, fixture or other obstruction on the other side". The centerline of the toilet in Room 104 is 508mm (20") from the adjacent wall and 1029mm (40.5") to the vanity on the other side, which is not compliant with WADS. The toilet is located too close to the vanity.

Risk to occupant safety: **Medium.** This condition reduces the accessibility of the space. Those requiring a change bench and those in a wheelchair cannot properly use the existing UTR. There is a risk that if an occupant were to slip and fall inside the UTR, there is no call button to alert staff.

Recommendations: A UTR would need to be added on the basement level to comply with this article. Washroom 104 could be widened / reconfigured to better comply with WADS. The room would also need to be widened to add a fold-down or stationary adult change bench. However, this would reduce the width of the exit. Refer to the analysis and recommendations for Exits in Part 7 for further information.

The length of the vanity could be reduced to provide more space between the vanity and the toilet. The door hardware could be replaced with a lever style handle. An emergency call button could be added to this room.

3.3.8 Grab Bars

Analysis: WADS states that grab bars shall be "not less than 30 mm (1-3/16 in) and not more than 43 mm (1 5/8 in) in diameter; have a clearance of 51 mm (2 in) from the wall; be free of any sharp or abrasive elements; be colour contrasted with the surrounding environment; and have a slip-resistant surface. Adjacent surfaces shall be free of any sharp or abrasive elements".The type of grab bars provided in Room 104 (UTR) are compliant with WADS.

9.1 ACCESSIBILITY - WASHROOM FACILITIES



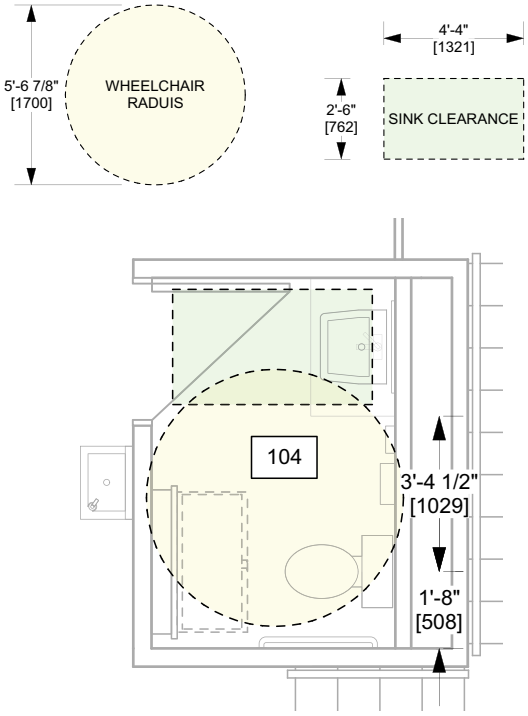
Washroom 104
Toilet Flush Controls



Washroom 104
Lavatory



Washroom 104
Accessory / Vanity Heights



Analysis of Room 104 (UTR)

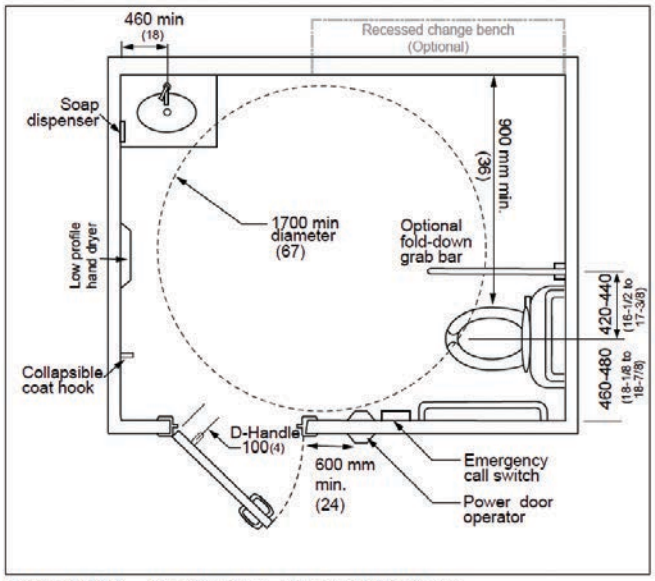


Figure 3.3.7.1 Non-Standard - Universal Toilet Room

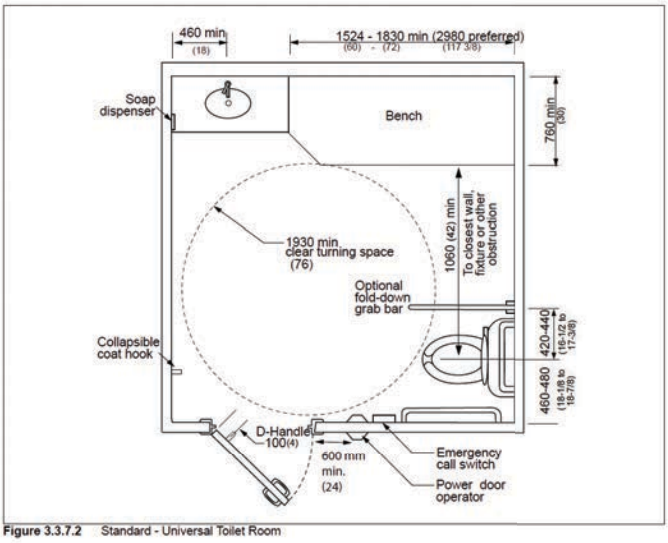


Figure 3.3.7.2 Standard - Universal Toilet Room

9.8 ACCESSIBILITY - INTERIOR COMMUNICATION SYSTEMS, CONTROLS

3.4.2 Assistive Listening Systems

Analysis: WADS requires that "assembly areas greater than 100 sqm (1080 sqft) in area, where audible communications are integral to the use of the space (ex. concert theatres, meeting rooms, classrooms, auditoria, etc.), shall be equipped with an assistive listening system encompassing the entire area". WADS also states that "for other assembly areas, a permanently installed listening system shall be provided. In smaller meeting spaces, supplementary wiring and electrical outlets necessary to support a portable listening system shall be provided. A portable listening device must be made available upon request. [...] Signage and shall be installed to notify patrons of the availability of a listening system". An assistive listening system does not appear to be present in the library. Signage for available portable listening devices was not present. This is not compliant with WADS.

Risk to occupant safety: **Low.** This condition presents little risk to occupants, but reduces the accessibility of the space for those with hearing impairments.

Recommendations: An assistive listening system could be added in the large open library spaces, however this is likely not required since audible communications aren't integral to the use of these spaces. Systems should be added in the program room / all meeting rooms and at the checkout counter.

3.5.1 Controls and Operating Mechanisms

Analysis: Refer to the mechanical and electrical reports for an analysis of existing mechanical and electrical controls. Some of the existing controls are higher than 1200mm from the floor, which is not compliant with WADS. Some of the controls are too close to corners (fire alarm pull stations for example) - this is not compliant with WADS. WADS states that "controls or operating mechanisms shall: be located no closer than 700 mm (27-1/2 in) from an inside corner, for side-access; [and] be located no closer than 400 mm (15-3/4 in) from an inside corner, for front-access".

Risk to occupant safety: **Low & Medium.** Light switches and thermostats present low risk to occupants if they can't be accessed by someone in a wheelchair, but reduces the accessibility of the space. If the fire alarm pull station can't be accessed by someone in a wheelchair, there is a risk that a fire will not be quickly detected by other occupants in the building.

Recommendations: These controls should be relocated where possible to comply with WADS.

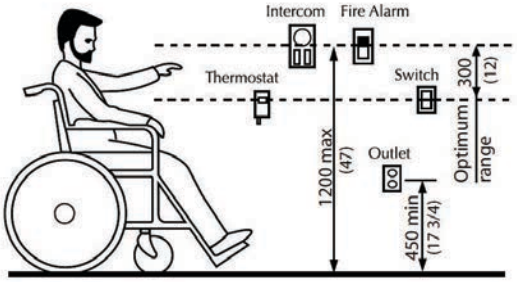


Figure 3.5.1.1 Reach Range for *Accessible* Controls


Light Switch Height (Too Tall)


FA Pull Station (Located in Corner)


FA Pull Station Height (Too Tall)

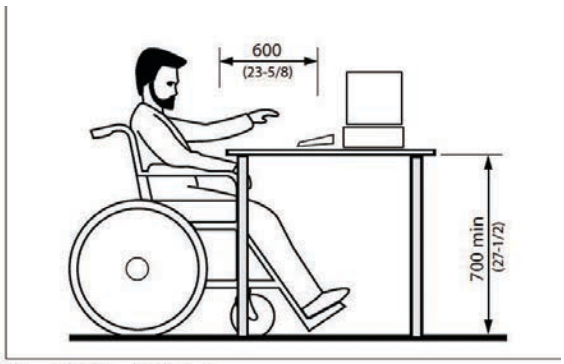


Figure 3.6.3.3 Work Surfaces


Main Floor - Work Surfaces


Typical Work Surfaces & Computers

9.9 ACCESSIBILITY - INTERIOR CONTEXT SPECIFIC REQUIREMENTS

3.6.3 Libraries

Analysis: WADS states that "catalogues, tables and workstations should be provided at a range of heights, to accommodate persons who are standing or sitting, as well as children of many ages and sizes". Existing tables and workstation are provided at a similar height. This is not compliant with WADS.

WADS requires that "Where computer workstations are provided, at least 10% but no less than one shall be accessible". It also states that "where provided, at least one computer workstations shall incorporate: power height adjustment (preferred); knee and toe space below in compliance with 3.2.2 Tables, Counters and Work Areas; [and] a maximum work surface height of 865 mm (34 in). There appear to be no accessible computer workstations available in the library (they do not have adequate knee space). This is not compliant with WADS. At least 10% of the study tables appear to be accessible, which is compliant with WADS. The basement checkout area appears to be accessible.

WADS states that "where shelving is provided at fixed seating, tables or study tables, the shelving shall be no higher than 1370 mm (54 in) from the floor to the bottom of the highest shelf". The existing library shelving/stacks are too high (and too low) on the main floor and in some locations on the basement level. This is not compliant with WADS. The typical clear aisle space between the stacks in the library appears to exceed the 1100mm minimum, and is compliant with WADS.

WADS requires that book return slots "be located adjacent to a 2440 by 2440 mm (96 by 96 in) level platform. In a retrofit situation where it is technically not feasible to create [this platform], the platform may be reduced to 1525 x 1525 mm (60 by 60 in)". A 96"x96" level and clear space is provided outside and inside the main entrance (south) book slot. This is compliant with WADS. At the rear (north) entrance, a 60"x60" platform is provided outside the slot, but not inside. Book returns must also"have a slot that is operable using one hand and a closed fist, located between 860 mm (34 in) and 900 mm (35 in) above the floor". The existing book slots appear to be operable with one hand, but they are too high (48") from the floor. This is not compliant with WADS.

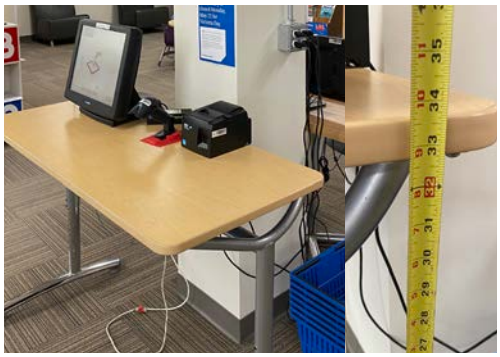
WADS states that "where CDs DVD's, audio books, etc. are available as part of the library resource materials, or for loan purposes, a separate space should be provided for using this material without disturbing other library users. An acceptable alternative would be to provide headphones for use". There are CDs/DVDs/audio books as part of the library's resource materials. There is no separate space provided for listening to these materials. If headphones are not available for public use, this is not compliant with WADS.

Risk to occupant safety: **Low.** This condition presents little risk to occupants, but reduces the accessibility of the space.

Recommendations: Accessible workstations could be added or could replace existing workstations. Height adjustable tables could be added. The existing library stacks could be replaced (if they are not heritage protected items). The location of stacks should be adjusted if the 1100mm aisle requirement is not met. The height of the book slots could be adjusted. The book slot could be relocated (or the washroom size adjusted) to provide the clear platform required in the north entrance. Headphones should be provided for public use at the audio rentals, or a separate, acoustically separated space could be provided for listening.



Book Return Slots



Basement - Checkout



Main Floor - Audio Rentals

9.9 ACCESSIBILITY - INTERIOR CONTEXT SPECIFIC REQUIREMENTS

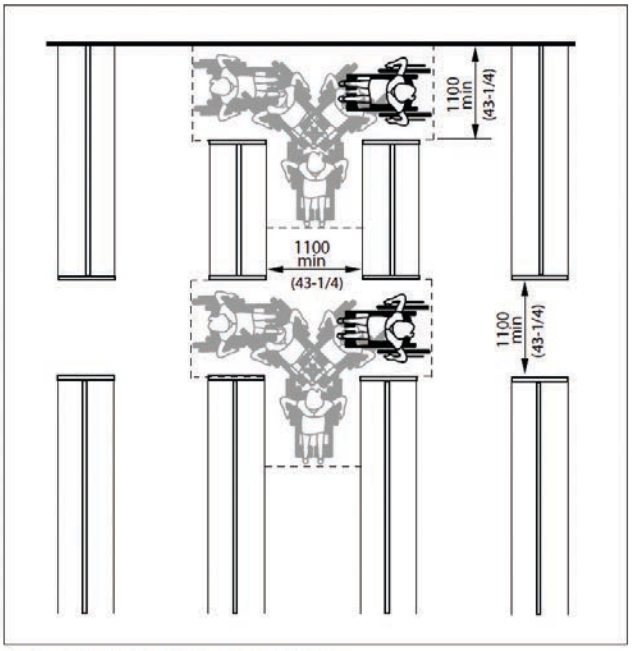


Figure 3.6.3.1 Library Stack Aisle Width

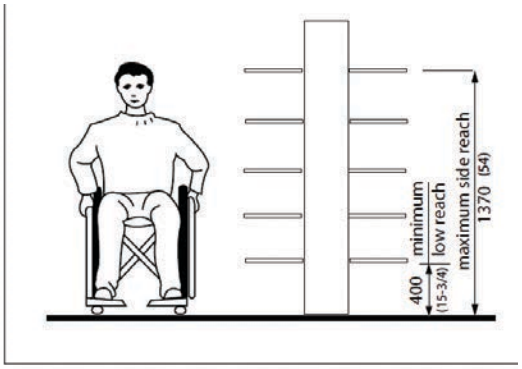


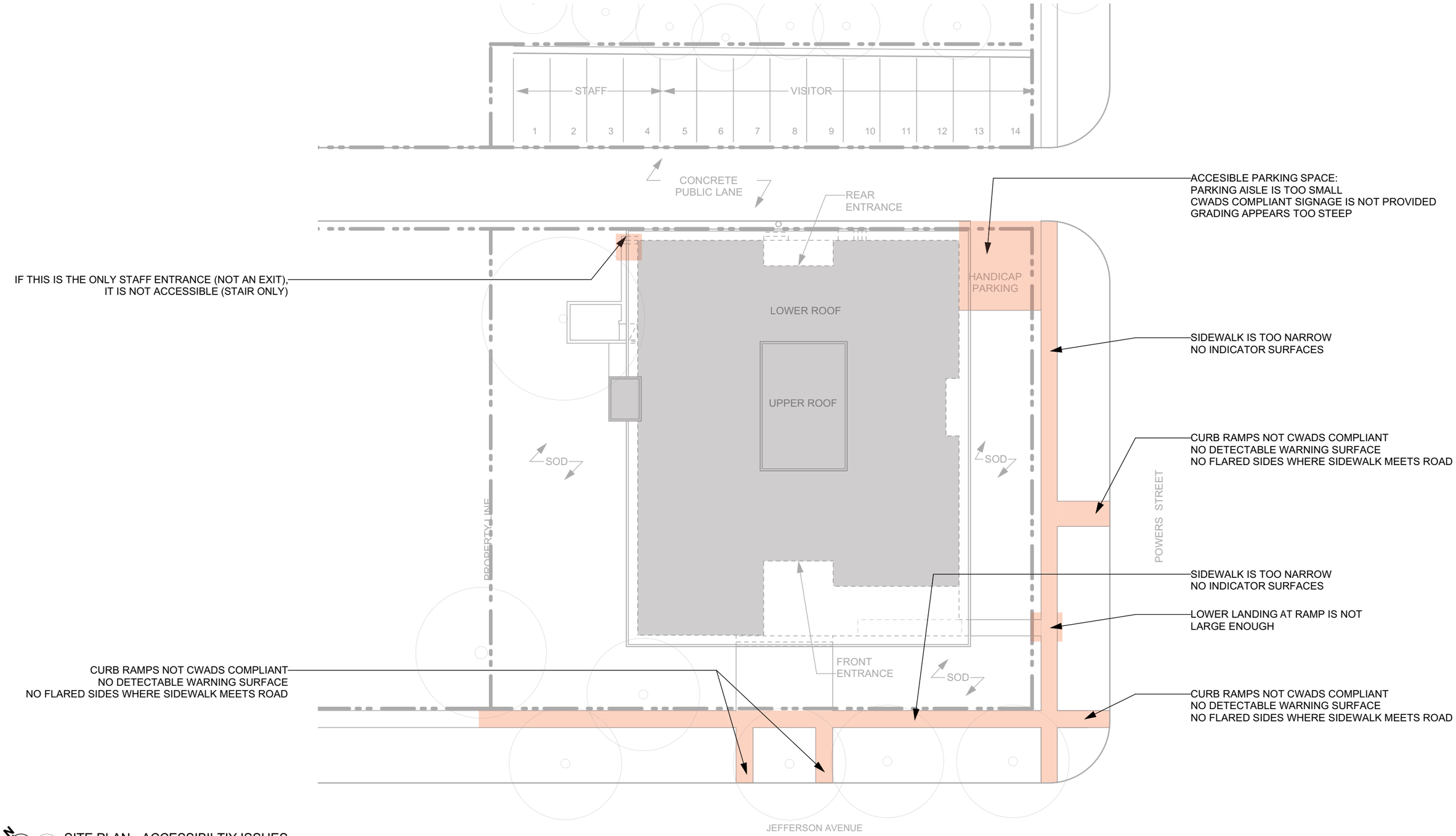
Figure 3.6.3.2 Library Stack Reach Heights





Main Floor
Typical Library Stacks

Basement
Typical Library Stacks



1 SITE PLAN - ACCESSIBILTIY ISSUES
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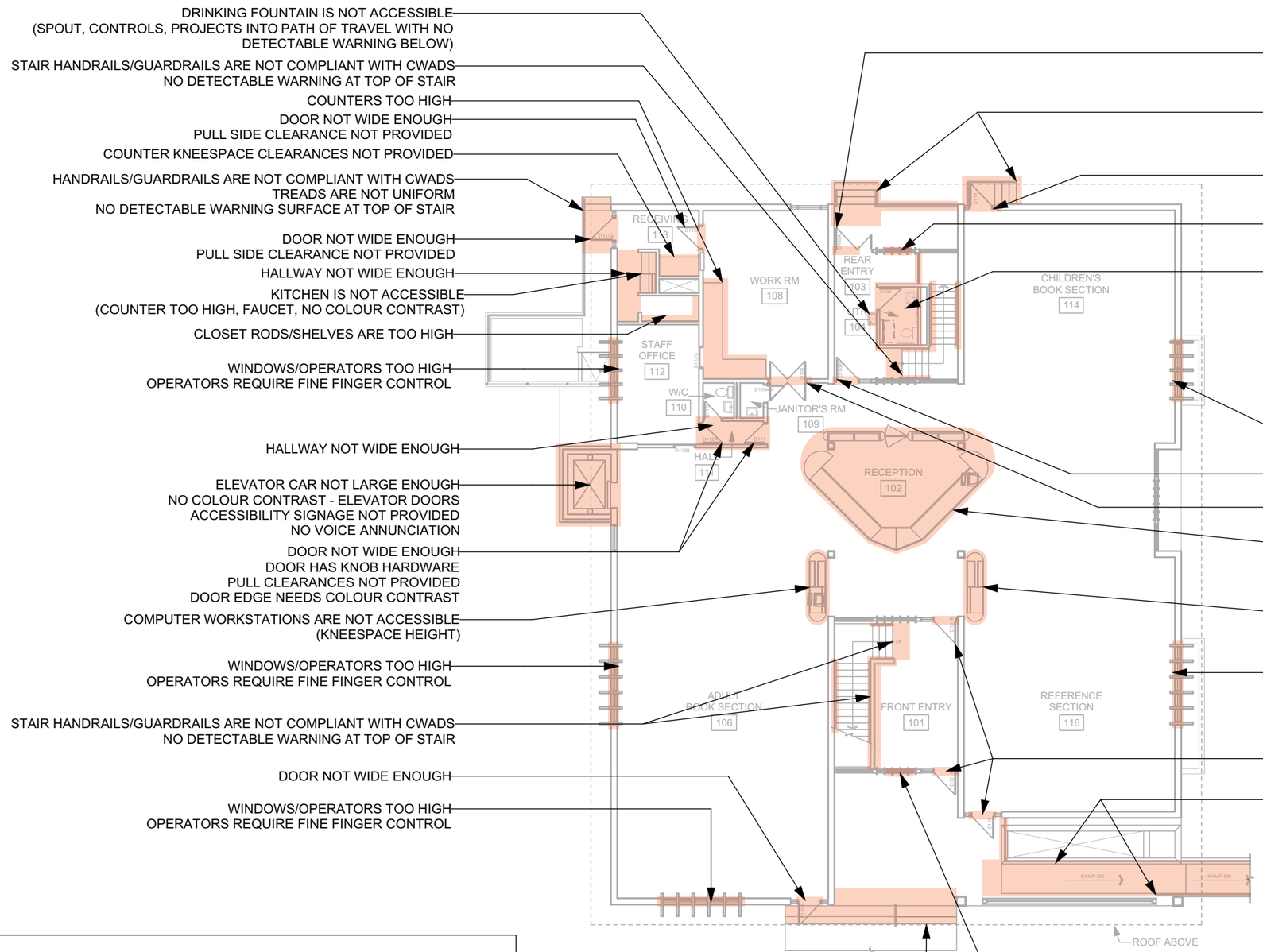
SITE PLAN - ACCESSIBILITY ISSUES

2023-06-27

A-4



DRINKING FOUNTAIN IS NOT ACCESSIBLE
(SPOUT, CONTROLS, PROJECTS INTO PATH OF TRAVEL WITH NO DETECTABLE WARNING BELOW)

STAIR HANDRAILS/GUARDRAILS ARE NOT COMPLIANT WITH CWADS
NO DETECTABLE WARNING AT TOP OF STAIR

COUNTERS TOO HIGH

DOOR NOT WIDE ENOUGH
PULL SIDE CLEARANCE NOT PROVIDED

COUNTER KNEESPACE CLEARANCES NOT PROVIDED

HANDRAILS/GUARDRAILS ARE NOT COMPLIANT WITH CWADS
TREADS ARE NOT UNIFORM
NO DETECTABLE WARNING SURFACE AT TOP OF STAIR

DOOR NOT WIDE ENOUGH
PULL SIDE CLEARANCE NOT PROVIDED

HALLWAY NOT WIDE ENOUGH

KITCHEN IS NOT ACCESSIBLE
(COUNTER TOO HIGH, FAUCET, NO COLOUR CONTRAST)

CLOSET RODS/SHELVES ARE TOO HIGH

WINDOWS/OPERATORS TOO HIGH
OPERATORS REQUIRE FINE FINGER CONTROL

HALLWAY NOT WIDE ENOUGH

ELEVATOR CAR NOT LARGE ENOUGH
NO COLOUR CONTRAST - ELEVATOR DOORS
ACCESSIBILITY SIGNAGE NOT PROVIDED
NO VOICE ANNUNCIATION

DOOR NOT WIDE ENOUGH
DOOR HAS KNOB HARDWARE
PULL CLEARANCES NOT PROVIDED
DOOR EDGE NEEDS COLOUR CONTRAST

COMPUTER WORKSTATIONS ARE NOT ACCESSIBLE
(KNEESPACE HEIGHT)

WINDOWS/OPERATORS TOO HIGH
OPERATORS REQUIRE FINE FINGER CONTROL

STAIR HANDRAILS/GUARDRAILS ARE NOT COMPLIANT WITH CWADS
NO DETECTABLE WARNING AT TOP OF STAIR

DOOR NOT WIDE ENOUGH

WINDOWS/OPERATORS TOO HIGH
OPERATORS REQUIRE FINE FINGER CONTROL

DOOR NOT WIDE ENOUGH
SIGNAGE FOR ACCESSIBLE ENTRANCE LOCATION NOT PROVIDED
ADO BUTTONS ARE NOT COMPLIANT

HANDRAILS/GUARDRAILS ARE NOT COMPLIANT WITH CWADS
TREADS ARE NOT UNIFORM
NO DETECTABLE WARNING SURFACE AT TOP OF STAIR

DOOR NOT WIDE ENOUGH

BOOK SLOT TOO HIGH FROM FLOOR
INTERIOR PLATFORM NOT PROVIDED BESIDE BOOK SLOT

UTR: WHEELCHAIR TURNING RADIUS - CLEARANCE NOT PROVIDED
DOOR HAS KNOB HARDWARE
DOOR OPENS INTO THE SINK CLEARANCE
NO ADO AT DOOR, DOOR EDGE NEEDS COLOUR CONTRAST
NO ADULT CHANGE BENCH PROVIDED
NO EMERGENCY CALL BUTTON PROVIDED
GARBAGE BIN IN TOILET TRANSFER SPACE
NO GRAB BAR BEHIND TOILET
CWADS COMPLIANT SIGNAGE NOT PROVIDED

WINDOWS/OPERATORS TOO HIGH
OPERATORS REQUIRE FINE FINGER CONTROL

DOOR NOT WIDE ENOUGH
ADO BUTTONS ARE NOT COMPLIANT

ADO MAY BE REQUIRED (DOOR IS ACROSS PRIMARY CIRCULATION ROUTE), DOOR EDGE NEEDS COLOUR CONTRAST

RECEPTION DESK IS NOT ACCESSIBLE
(NO KNEESPACE, COUNTER HEIGHT TOO TALL)

COMPUTER WORKSTATIONS ARE NOT ACCESSIBLE
(KNEESPACE HEIGHT)

WINDOWS/OPERATORS TOO HIGH
OPERATORS REQUIRE FINE FINGER CONTROL

DOOR NOT WIDE ENOUGH

HANDRAILS/GUARDRAILS ARE NOT COMPLIANT WITH CWADS
RAMP SLOPE IS NOT UNIFORM
RAMP TOO LONG WITHOUT INTERMEDIATE LANDING
NO DETECTABLE WARNING AT TOP AND BOTTOM OF RAMP

BOOK SLOT TOO HIGH FROM FLOOR

HANDRAILS/GUARDRAILS ARE NOT COMPLIANT WITH CWADS
TREADS ARE NOT UNIFORM
NO DETECTABLE WARNING SURFACE AT TOP OF STAIR

GENERAL NOTE:
- HEIGHT OF CONTROLS (LIGHT SWITCH, THERMOSTAT, FA PULL STATIONS, ETC.) IS NOT COMPLIANT IN MANY LOCATIONS THROUGHOUT THE MAIN FLOOR LEVEL
- ROOM SIGNAGE IS NOT CWADS COMPLIANT THROUGHOUT
- PROLIFERATION OF SIGNAGE CREATES CONFUSION THROUGHOUT

1 MAIN FLOOR PLAN - ACCESSIBILITY ISSUES
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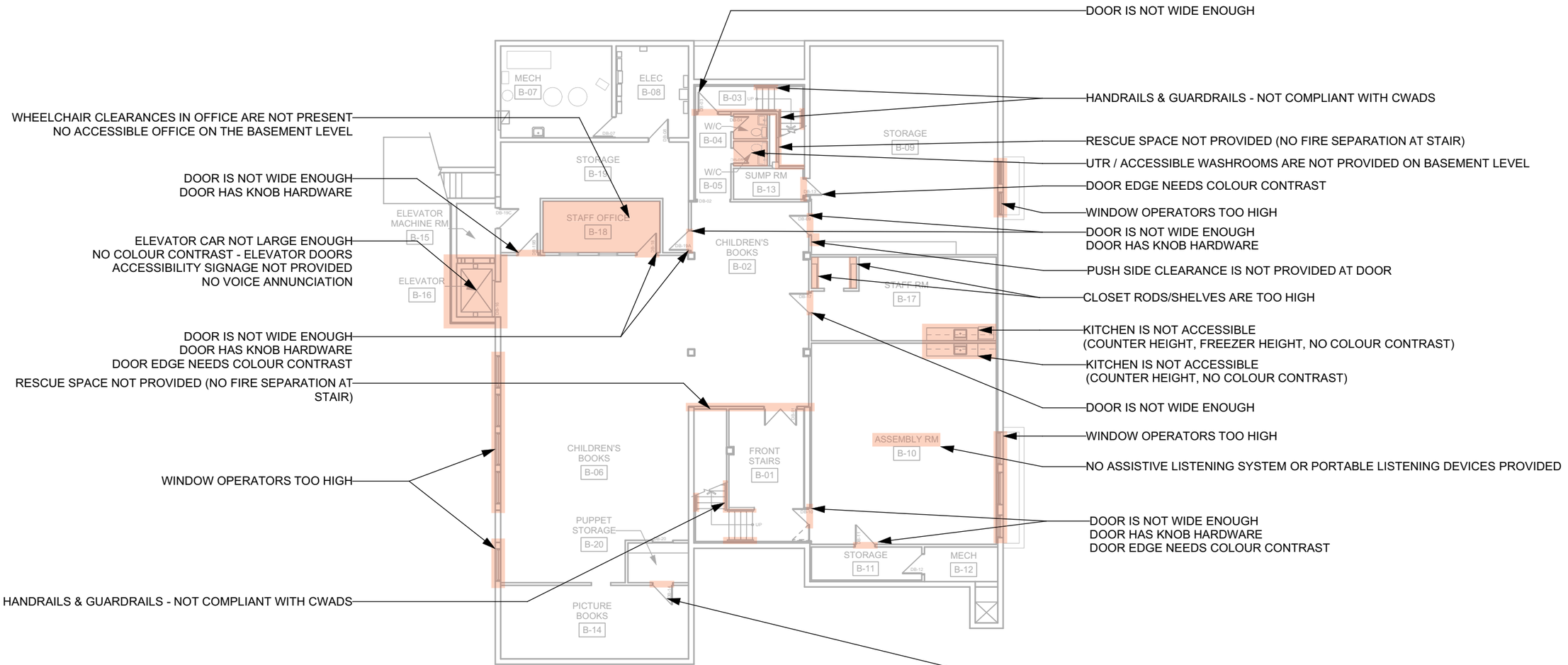
MAIN FLOOR PLAN - ACCESSIBILITY ISSUES

2023-06-27

A-5



GENERAL NOTE:
- HEIGHT OF CONTROLS (LIGHT SWITCH, THERMOSTAT, FA PULL STATIONS, ETC.) IS NOT COMPLIANT IN MANY LOCATIONS THROUGHOUT THE BASEMENT LEVEL
- ROOM SIGNAGE IS NOT CWADS COMPLIANT THROUGHOUT
- PROLIFERATION OF SIGNAGE CREATES CONFUSION THROUGHOUT

1 BASEMENT FLOOR PLAN - ACCESSIBILITY ISSUES
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BASEMENT FLOOR PLAN - ACCESSIBILITY ISSUES

2023-06-27

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PART 10
FUNCTIONAL ASSESSMENT

10.1 FUNCTIONAL EVALUATION

Functional Overview

Safety & Security

During the walkthrough of the library, staff noted that there are issues monitoring the library safely with very few staff members available. An emergency button has been installed next to the reception desk on the basement level. There are also many security mirrors located throughout the library. The layout of spaces could be improved to increase sight lines throughout the building, allowing fewer staff to operate the facility safely.

Use of Library Space

Many of the library spaces did not appear to be used efficiently. Several of the storage rooms in the basement were not well used. There is a lot of unused open space on the main floor near the computer stations.

Acoustics

Typical partitions around the main floor and basement offices are constructed with wood studs and 5/8" plaster board on either side. This achieves an STC rating of approximately 32. This rating could be increased where required by adding resilient channels, additional layer(s) of drywall, or insulation.

Carpet and acoustic ceiling tile appear to provide adequate sound absorptive surfaces throughout the open library spaces.

Staff did not comment on any noise issues throughout the building.

Barrier-Free Access

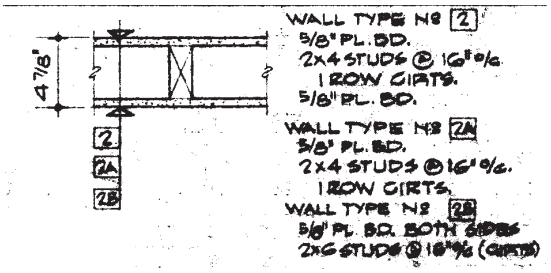
Refer to the Accessibility Review (WADS) in Part 9 for further analysis of the Barrier-Free Access within the library.



Basement Emergency Button



Security Mirror



STC Rating of Interior Walls:

Typical Interior Wall: Equivalent Assembly:
ULC W301 (or NBC type W1d - Table 9.10.3.1.-A)
STC rating of assembly: **32**

Note: this is the most equivalent tested assembly available. This assembly requires that Type 'X' gypsum board must be installed on both sides of the assembly. It is unlikely that this was installed (or available) in 1967. To ensure the required STC rating is provided where required, the existing plaster board should be replaced with 5/8" Type 'X' gypsum board.

PART 11
HERITAGE ASSESSMENT

11.1 REVIEW OF CoW HERITAGE DOCUMENTS & CHARACTER DEFINING ELEMENTS

On Jan. 9, 2023, the West Kildonan Library was added to the City of Winnipeg list of historical resources. According to the Heritage Resources Long Report[1], "this building embodies the following heritage values as described in the Historical Resources By-law, 55/2014 (consolidated update July 13, 2016)":

1. The expansion of library services and the creation of modern spaces for these services, was a theme for post-World War II Winnipeg and the surrounding municipalities, towns and cities, including the City of West Kildonan, where this library was completed in 1967.
2. Library services are an important civic responsibility that required building replacement or significant building upgrades as technology changed and use increased. The West Kildonan Branch remains an important part of Winnipeg's library system.
3. The building was designed by noted local architecture George A. Stewart who also designed the Fort Garry Library, 1360 Pembina Highway (1959) and the St. Vital Library at 6 Fermor Avenue (1963). John Miller and Sons Limited built the structure.
4. The structure is an excellent example of the International Style of modern architecture, with its lack of attached ornamentation, angular lines, flat roofline, slender clerestory windows and projecting mullions.
5. West Kildonan is one of the earliest areas in what became Winnipeg to be settled permanently by non-First Nations peoples and it has played an important role in Manitoba's history.
6. The main façades and the interior do not appear to have suffered significant alteration.

Character Defining Elements of the building that would require approval if alterations were planned include the following:

A. Site:

1. The landscaped and recessed south and east yards with pathway, ramp, and stair entry sequence and low masonry wall.

B. Exterior:

1. The rectilinear, one-storey concrete block and steel structure clad in wood and limestone with flat roofs with its main (south) facade facing Jefferson Avenue, its east facade facing Powers Avenue, its west facade facing a sunken grassed area and its rear (north) facade facing a parking lot;

2. The front (south) facade with raised entrance deeply set under the roof overhang, structural columns, set of slender clerestory windows, entrance ramp, and exit door and large window opening divided by projecting concrete mullions to the west of the main entrance;

3. The east facade with two sets of projecting concrete mullioned windows, large rectilinear window opening and clerestory windows;

4. The west facade with rectilinear basement window openings, exit doors, projecting concrete mullioned window openings, and clerestory windows; and

5. The rear (north) facade with central raised entrance flanked by two exit doors and clerestory windows.

6. The centralized raised roof with clerestory windows.

C. Interior

1. The arrangement, volume, and finishes of the front and rear foyers and main floor area, including the staircase guardrails and handrails, structural columns, the raised ceiling above the circulation desk, projecting concrete window mullions, mosaic tile floor finishes, and wood, glass, and stone wall finishes.

[1] (City of Winnipeg Historical Buildings & Resources Committee Researcher: M. Peterson October 2022, https://legacy.winnipeg.ca/ppd/Documents/Heritage/HeritageResourcesReports/Jefferson-365-long.pdf)

PART 12

PUBLIC ENGAGEMENT
PHASE 1

12.1 PUBLIC ENGAGEMENT OBJECTIVES

The project's public engagement objectives were to achieve the following outcomes:

1. The general public and stakeholders understand the scope of the project, including the condition assessment, compliance review, and renewal plan;
2. The general public and stakeholders understand the opportunities and constraints for the West Kildonan Library renewal;
3. The general public and stakeholders' vision, values, priorities, and concerns for the West Kildonan Library are considered when developing the Facility Renewal Plan; and
4. The general public and stakeholders understand how their input was considered and incorporated (where possible) into the Facility Renewal Plan.

Public engagement for the project was divided into two phases. Phase 1 occurred prior to the development of improvement/renewal options. Two stakeholder meetings were held in this phase - one meeting with internal (City of Winnipeg) stakeholders and the other with key external stakeholders.

12.2 PHASE 1 - STAKEHOLDER MEETINGS

The objectives of the phase 1 stakeholder meetings were as follows:

1. Inform stakeholders by providing summaries of key findings from the assessments related to:
    - Existing code compliance issues;
    - Existing building condition issues and required repairs;
    - The building's character defining elements and the associated constraints on future modifications to the building.
2. Inform stakeholders of the overall public engagement schedule and process including the Phase 2 public open house.
3. Gain input from stakeholders regarding the development of future facility renewal options. Learn about their priorities and vision for renewal.

Refer to the phase 1 public engagement summary in the appendix.

Refer to the phase 1 public engagement stakeholder presentation in the appendix.

PART 13
FEASIBILITY STUDY

13.1 DESCRIPTION OF IMPROVEMENT OPTIONS

The feedback received during the phase 1 stakeholder meetings was considered while developing renewal options for the library building. Three improvement options were developed following these meetings:

- Option 1 (previously titled Option A1) – this option brings the building up to meet current Building Code and most accessibility standards. It maintains the existing building assemblies, finishes, and systems. The existing elevator is maintained. The design maintains existing library programs and services.
- Option 2 (previously titled Option A2) - this option brings the building up to meet current Building Code and accessibility standards and includes a smaller addition on the west side of the library. This addition provides a larger, more accessible elevator, improves basement exiting, and allows the existing south stair to become more open to the main floor of the library. Some modifications are made to improve programs and services. A new service desk and two new tutorial rooms are added on the main floor level. In the basement, walls are removed to make the children's area more open. Computer workstations are relocated to make space for a family literacy playground.
- Option 3 (previously titled Option B) – this option brings the building up to meet current Building Code and accessibility standards and improves the building's overall energy efficiency. It includes a larger addition on the west side of the library that moves the children's area to the main floor level. This addition also provides a larger, more accessible elevator, and a new staircase that improves basement exiting. The existing south staircase is made more open to the main floor of the library. Some improvements allow for better programs and services. A new reading garden is provided on the east side of the library. A new service desk and additional seating are provided on the main floor level. A new meeting room, two tutorial rooms, and a new computer area are provided in the basement.

For more details, refer to the feasibility study drawings and specifications in the appendix.

13.2 COST ESTIMATES

Class 4 cost estimates were developed for each option. The costs for each option were as follows:

- Option 1 - Class 4 estimate of $4.06 M - total project cost of **$6.3 M**
- Option 2 - Class 4 estimate of $4.75 M - total project cost of **$7.5 M**
- Option 3 - Class 4 estimate of $6.75 M - total project cost of **$10.7M**

Refer to the detailed cost estimates in the appendix.

PART 14

PUBLIC ENGAGEMENT
PHASE 2

14.1 PHASE 2 - ENGAGEMENT OBJECTIVES

Phase 2 occurred following the development of the improvement options. A public, in-person open house was held in this phase. Online public engagement was conducted through the City of Winnipeg Engage Winnipeg West Kildonan Library Review webpage. The webpage had over 1,470 unique visitors.

The objectives of phase 2 were as follows:

1. Inform the public of the project background, schedule, overall public engagement process, and next steps;
2. Inform the public by providing summaries of all three design options;
3. Involve the public – based on the materials presented, engage participants through informal discussion and a short survey to share their feedback and concerns about each option. Gain input from stakeholders regarding the development of future facility renewal plans. Learn about their priorities and vision for renewal.

14.2 PHASE 2 - PUBLIC OPEN HOUSE & SURVEY

Open House

An in-person public open house was held at West Kildonan Library on January 9th, 2024. Physical presentation boards were on display to show key features of all three design options. Boards also provided the project background information, context, timeline, and next steps. Consultants, library staff, and Asset Management staff were in attendance to answer questions and to facilitate informal discussions.

There were 49 attendees at the open house.

Survey

The City of Winnipeg Engage Winnipeg West Kildonan Library Review webpage was launched on December 18th, 2023. The presentation boards displayed at the open house were posted to the project webpage on this date. The public was invited to view the boards and to complete a short online survey. The online survey closed on January 22nd, 2024.

The same survey was distributed physically at the in-person open house on January 9th. Participants could choose to submit their feedback online or in person. The feedback received from paper surveys was also included in the survey results.

The survey had 618 respondents.

Refer to the phase 2 public engagement stakeholder presentation in the appendix.

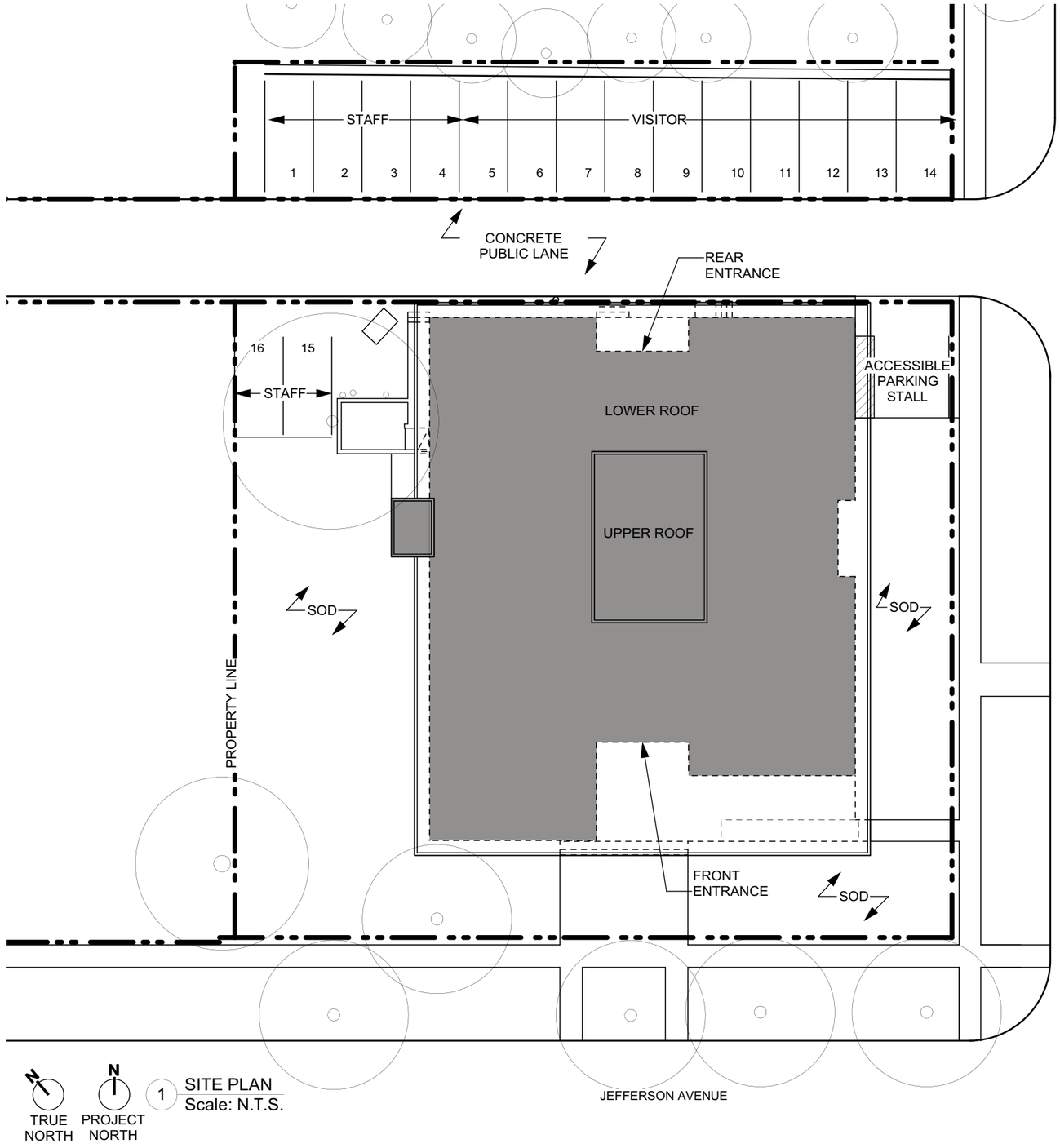
14.3 SUMMARY & CONCLUSIONS

All three options were received positively by the majority of survey respondents. All options bring the building up to meet current Building Code, improve accessibility issues, and maintain the library building's finishes, assemblies, and systems. Options 1 and 2 had similar levels of support - with about 67% of respondents strongly agreeing or agreeing that both options would meet their needs into the future. Option 2 addresses accessibility deficiencies with the existing elevator and makes some improvements to programs offered at the library, such as new tutorial rooms and improved staff sightlines in the children's area. For these reasons, Option 2 has a slightly higher cost than Option 1.

Based on survey feedback, Option 3 was the preferred choice by the public. 78% of respondents strongly agreed or agreed that this option would meet their needs into the future. This is the option with the most improvements made to the library building, and therefore the highest costs. Respondents reacted very positively to the new tutorial rooms and outdoor reading garden. Reactions were more divided on moving the children's area to the main floor. Respondents showed less support for the relocation of the computer workstations to the basement.

Refer to the phase 2 public engagement summary in the appendix.

APPENDIX A:
EXISTING PLANS



| x | architecture inc.
230 Main Street, Suite 310 Winnipeg, Manitoba R3C 1A8 204 318 2010

NO. DATE ISSUANCE

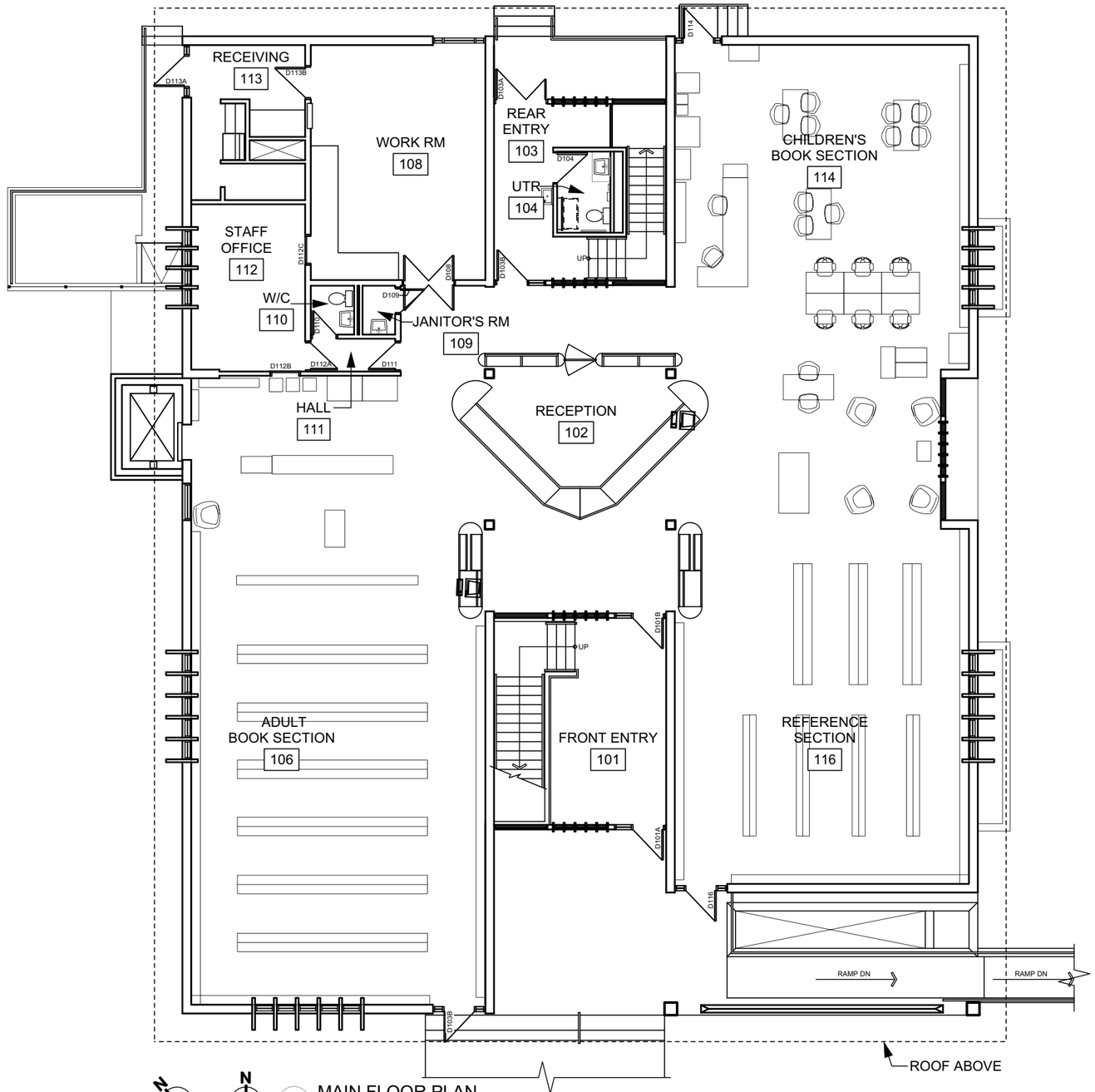
WEST KILDONAN LIBRARY ASSESSMENT

365 JEFFERSON AVE, WINNIPEG, MB R2V 0N3

SITE PLAN - EXISTING

2023-08-22

A-10



| x | architecture inc.
230 Main Street, Suite 310 Winnipeg, Manitoba R3C 1A8 204 318 2010

NO. DATE ISSUANCE

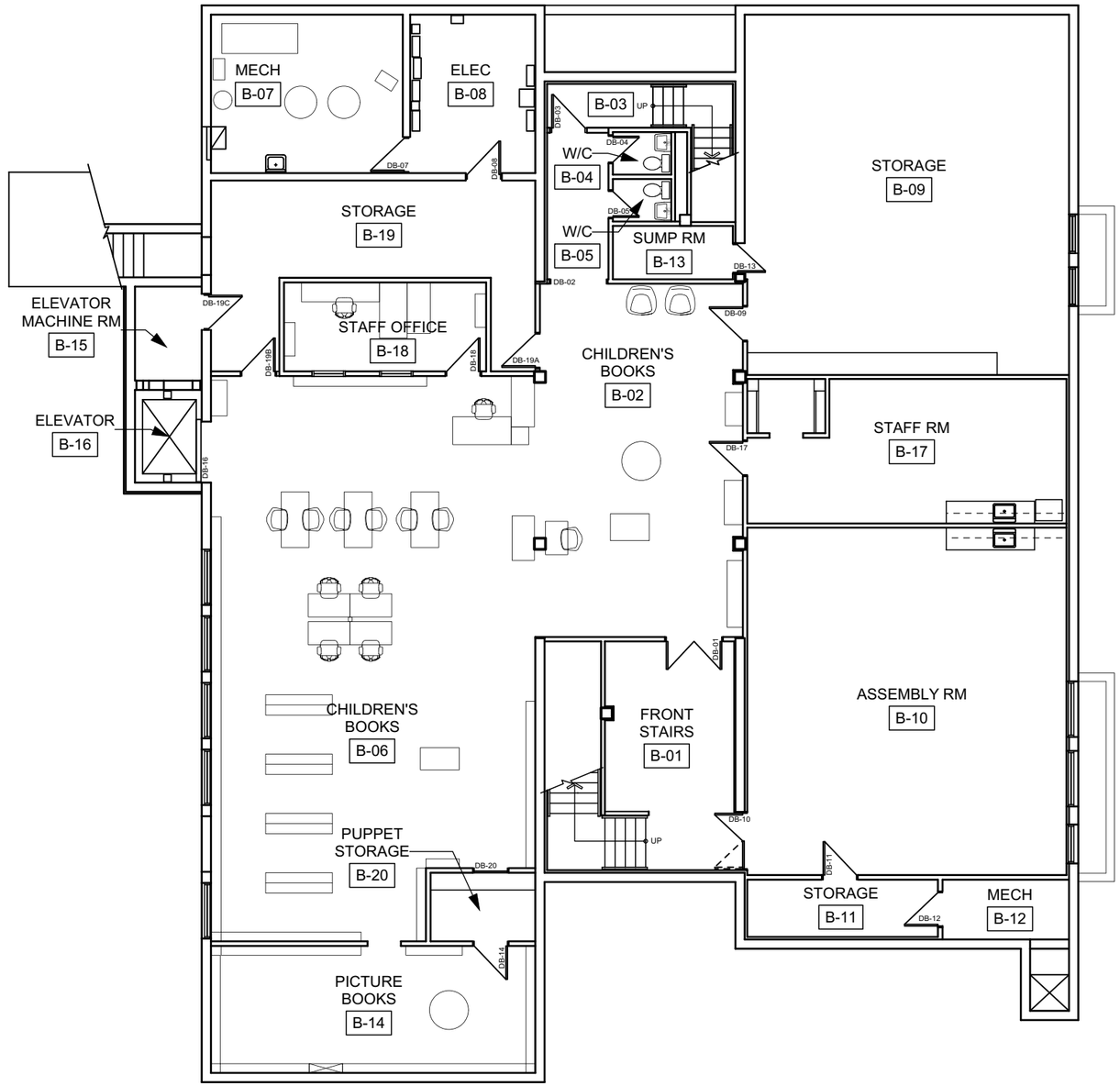
WEST KILDONAN LIBRARY ASSESSMENT

365 JEFFERSON AVE, WINNIPEG, MB R2V 0N3

MAIN FLOOR PLAN - EXISTING

2023-08-22

A-11



TRUE NORTH

PROJECT NORTH

1 BASEMENT FLOOR PLAN
Scale: 1:150

| x | architecture inc.
230 Main Street, Suite 310 Winnipeg, Manitoba R3C 1A8 204 318 2010

NO. DATE ISSUANCE

WEST KILDONAN LIBRARY ASSESSMENT

365 JEFFERSON AVE, WINNIPEG, MB R2V 0N3

BASEMENT FLOOR PLAN - EXISTING

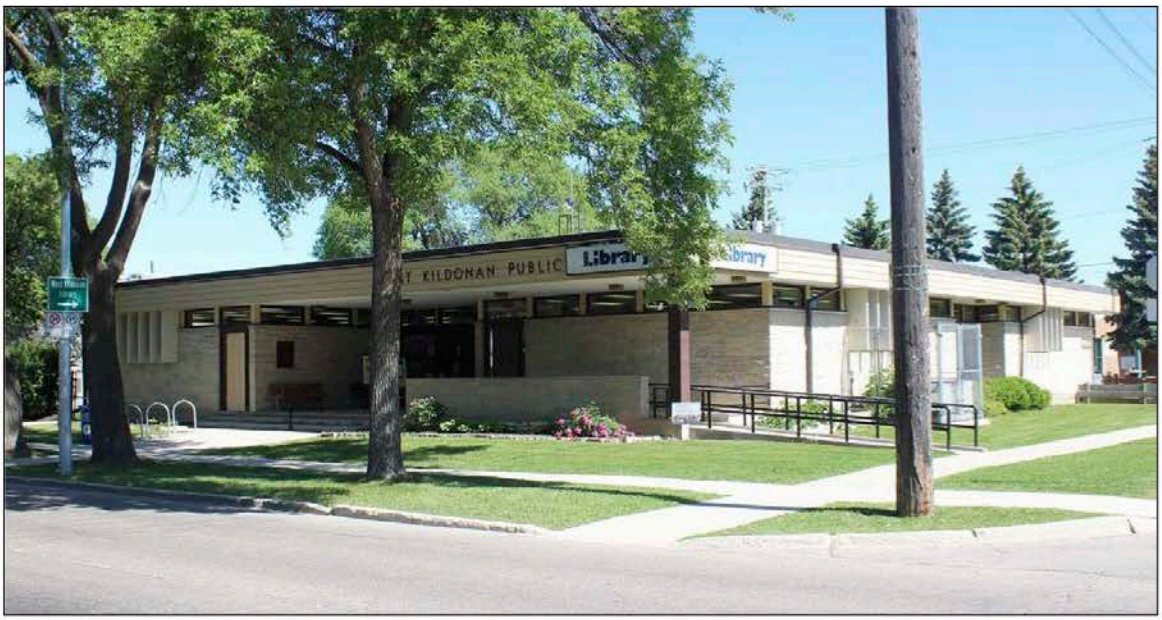
2023-08-22

A-12

APPENDIX B:
HERITAGE DOCUMENTS

365 JEFFERSON AVENUE – WEST KILDONAN PUBLIC LIBRARY

George A. Stewart (1967)



West Kildonan moved from Municipality to City in 1961, underlining the evolution of the area and its need for increased civic services for its citizens. One of the most important and requested services was a public library. The City opened its first facility in 1962 but the steadily increasing usage necessitated the construction of a new, modern building. West Kildonan's "Library and Cultural Centre" opened as a Centennial Project on June 24, 1967.

The library is an excellent example of the International Style, a post-World War II modernist architectural style that found expression in buildings around the City of Winnipeg, often designed by local architects and firms that graduated from the University of Manitoba Architecture Program. The style strove to express the new construction materials and technologies through the use of hard, angular edges, severely plain surfaces, large areas of glass and square or rectangular modules to bring the materials to the fore rather than ornamental elements.

George A. Stewart (1922-1994) was chosen architect for the project. Born in Boissevain, MB and

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receiving his B.Arch form the University of Manitoba in 1948, Stewart's private practice lasted over 20 years before take the role of Director of the University of Manitoba, Physical Planning and Design Office. He designed several outstanding buildings during this career, including the Fort Garry and St. Vital (List of Historical Resources) Public Libraries, the Ellis Building at the University of Manitoba and Harrow United Church.

John Miller and Sons Limited, a local firm, built the library.

The one-storey steel and reinforced concrete structure is clad in Tyndall limestone stone, it's main (south) façade facing Jefferson Avenue with a raised entrance deeply set in an overhang accessed by stairs and a ramp. Encircling the entire structure just below the flat roofline is a set of slender clerestory windows. To the west of the main entrance is an exit door and large window opening with heavy projecting mullions. The façade facing Powers Avenue features two mullioned windows. The rear (north) façade includes a recessed entrance flanked by two exit doors and the west façade is built in a depression in neighbouring greenspace and has seen some alteration – the addition of an elevator shaft.

On the interior, the main floor holds the main desk, book shelves and staircases at the front and rear leading to the basement, which was originally designed as a 200-person assembly hall and offices for the local School Board. Today, it is used as the children's area, meeting and staff rooms, and a small hall. The entrance lobby, which brings the stone cladding into the interior, the staircases and the wood accenting above the main desk are original. Many of the original book cases are still in use.

The building is still used as a busy public library.

© City of Winnipeg 2022

Elements of the building that would require approval if alterations were planned are:

A. Site:

i. The landscaped and recessed south and east yards with pathway, ramp, and stair entry sequence and low masonry wall.

B. Exterior:

i. The rectilinear, one-storey concrete block and steel structure clad in wood and limestone with flat roofs with its main (south) façade facing Jefferson Avenue, its east façade facing Powers Avenue, its west façade facing a sunken grassed area and its rear (north) façade facing a parking lot;

ii. The front (south) façade with raised entrance deeply set under the roof overhang, structural columns, set of slender clerestory windows, entrance ramp, and exit door and large window opening divided by projecting concrete mullions to the west of the main entrance;

iii. The east façade with two sets of projecting concrete mullioned windows, large rectilinear window opening and clerestory windows;

iv. The west façade with rectilinear basement window openings, exit doors, projecting concrete mullioned window openings, and clerestory windows; and

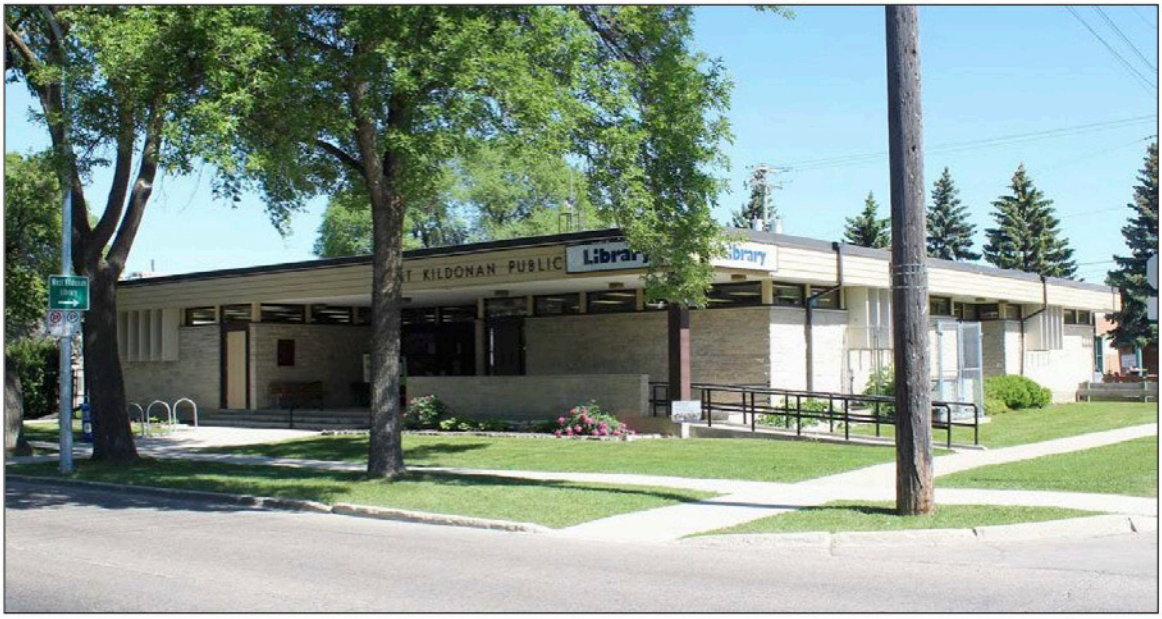
v. The rear (north) façade with central raised entrance flanked by two exit doors and clerestory windows.

vi. The centralized raised roof with clerestory windows.

C. Interior

i. The arrangement, volume, and finishes of the front and rear foyers and main floor area, including the staircase guardrails and handrails, structural columns, the raised ceiling above the circulation desk, projecting concrete window mullions, mosaic tile floor finishes, and wood, glass, and stone wall finishes.

© City of Winnipeg 2022



365 JEFFERSON AVENUE

WEST KILDONAN PUBLIC LIBRARY

City of Winnipeg
Historical Buildings & Resources Committee
Researcher: M. Peterson
October 2022

General contractors were John Miller and Sons Limited. This local firm was organized in the mid-1940s. Sons Jack and Ephram Miller (1925-2007)[19] were part of the firm, Ephram was listed as the vice-president in 1955.[20] The firm is known to have built the following structures:[21]

Clark Leatherdale Building, 232 Kennedy Street (1953) – demolished
Bata Shoe Store, 400 Portage Avenue (1954) – demolished
Northwest Bakery Building, 1466 Arlington Street (1956 remodelling)
Assiniboine Gordon Motor Inn, 1975 Portage Avenue (1961 addition and renovations)
West Kildonan Public Library, 365 Jefferson Avenue (1967)
Dalhousie Elementary School, 262 Dalhousie Drive (1969)

The alteration of the west portion of the basement was completed in 1967, designed by Ward, Macdonald and Partners and completed by contractors John Miller and Sons Limited.[22]

PERSON/INSTITUTION

The City of West Kildonan incorporated in 1961, sought to improve its civic services, wanting to increase its libraries beyond the bookmobile that had been operating since the 1950s.[23]

The first step, a money bylaw for library development, was passed in the early 1960s.[24] The West Kildonan Public Library Board, while it was seeking a permanent home, opened a branch in the Garden City Collegiate in January 1965.[25]

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19 Winnipeg Free Press, March 22, 2007.

20 Henderson's Directory, 1955.

21 Compiled from Winnipeg Free Press (various); and Winnipeg Architecture Foundation.

22 City of Winnipeg Building Permit, #6244/1967.

23 E. Dutton and K. Williams, More Than Books. The History of the Winnipeg Public Library (Winnipeg, MB: Winnipeg Public Library, 2017), p. 133. Bookmobiles would be an important part of the Winnipeg-area library system until the early 1990s.

24 Winnipeg Free Press, October 15, 1960, p. 3.

25 Winnipeg Public Library, West Kildonan Branch, 50th Anniversary Binder.

An architect was hired, George Stewart, who was given the responsibility of not only designing the new library but also choosing its location.[26] He choose a central location on the corner of two main thoroughfares and by June of 1967, the library/cultural centre was officially open. Attempting to make the facility as flexible as possible, the basement was designed with an assembly hall for meetings, film screens, etc. while the west portion of the space was to be used as School Board Offices.

As with all libraries in Winnipeg, the West Kildonan Branch has had to change its programming as the needs of Winnipeggers has changed and the branch continues to serve its community.

EVENT

There is no known significant historic event connected with this building.

CONTEXT

The planning and construction of the West Kildonan Library is part of expansion of services that occurred in the late 1950s and 1960s in Winnipeg and the surrounding municipalities and cities. Civic services required modernization as population grew and the economy expanded. Modern libraries, arenas, administration offices and many other facilities were the result and many of them still serve the communities in which they were built.

LANDMARK

West Kildonan Library is well-known in the neighbourhood.

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[26] Information provided by D. Guenther.

This building embodies the following heritage values as described in the *Historical Resources By-law*, 55/2014 (consolidated update July 13, 2016):

(a) The expansion of library services and the creation of modern spaces for these services, was a theme for post-World War II Winnipeg and the surrounding municipalities, towns and cities, including the City of West Kildonan, where this library was completed in 1967.

(b) Library services are an important civic responsibility that required building replacement or significant building upgrades as technology changed and use increased. The West Kildonan Branch remains an important part of Winnipeg's library system.

(c) The building was designed by noted local architecture George A. Stewart who also designed the Fort Garry Library, 1360 Pembina Highway (1959) and the St. Vital Library at 6 Fermor Avenue (1963). John Miller and Sons Limited built the structure.

(d) The structure is an excellent example of the International Style of modern architecture, with its lack of attached ornamentation, angular lines, flat roofline, slender clerestory windows and projecting mullions.

(e) West Kildonan is one of the earliest areas in what became Winnipeg to be settled permanently by non-First Nations peoples and it has played an important role in Manitoba's history.

(f) The main façades and the interior do not appear to have suffered significant alteration.

365 JEFFERSON AVENUE – WEST KILDONAN PUBLIC LIBRARY

The area known today as West Kildonan is the earliest European permanent, agrarian settlement in Western Canada, begun in 1812 with the arrival of the Selkirk Settlers, a small group of families brought over from the British Isles by Hudson's Bay Company major stock holder Lord Selkirk. After enduring the arduous trip from Hudson Bay, they were met by environmental setbacks – floods, grasshoppers, hail and drought – and by the hostility of many of the local inhabitants who rightly saw the settlement as an attempt to end a way of life that had developed over centuries and generations. The daily challenges of breaking the soil, planting crops, tending livestock and building homes combined to make life extremely trying. The family names of many of these settlers have become familiar to all Winnipeggers - Gunn, Bannerman, MacBeth, Polson, Matheson, McKay, McLeod, Sutherland, Ross, Flett and Inkster - and have been used to name streets throughout East and West Kildonan.

The Settlement survived these early years mainly because of the kindness and support of the area's Indigenous population and Chief Peguis. It evolved and developed and in 1876, the entire area was organized politically into the Municipality of Kildonan, named after the parish in Scotland where many of the original settlers had come from. The area would continue its slow growth, as some of the larger parcels of land were subdivided to give offspring enough land to make a living.

In 1914, the Municipality was split into east and west of the Red River, the east side becoming the East Kildonan, the west became West Kildonan. Both municipalities included more urbanized sections in the south, where subdivision and city-like residential development had taken place, and rural areas in the north. After 1900, the City of Winnipeg also began to expand in all directions and in the north, pushed its border along Main Street from Aberdeen Avenue to Inkster Boulevard (1900) and then to McAdam Avenue in 1906. In 1921, this basic difference between the north and south regions necessitated the creation of the Municipality of Old Kildonan (north) and the Municipality of West Kildonan (south), with Templeton Avenue the approximate boundary (Plate 1).

West Kildonan continued to develop into a modern centre, incorporating as a City in 1961, with new developments like Garden City in the 1950s and 1960s, The Maples (beginning in the late 1960s) and Garden Park (beginning in the late 1970s).

On July 27, 1971, the City of Winnipeg Act received Royal assent, incorporating the rural municipalities of Charleswood, Fort Garry, North Kildonan and Old Kildonan, Town of Tuxedo, and the cities of East Kildonan, West Kildonan, St. Vital, Transcona, St. Boniface, St. James-Assiniboine, Winnipeg and the Metropolitan Corporation of Greater Winnipeg into a unified City of Winnipeg, known as Unicity. The new City came into legal existence on January 1st, 1972.

Like many of the old municipalities, the 1950s and 1960s were marked by wide-spread expansion and growth in West Kildonan and civic services also expanded. Libraries became an important part of these expanding services and with support of the residents, the City of West Kildonan organized its first public library in the Kildonan Shopping Centre on Main Street, opened in 1962.[1] But it soon became obvious that this facility could not keep up with the rapidly growing demand for books.

In January of 1965, Council met with Provincial Secretary Maitland Steinkopf regarding its centennial projects.[2] By-Law 33/65/B[3] was passed on May 27, 1965 supporting the construction of a "Library and Cultural Centre" as West Kildonan's major Centennial Project.

With the financial support from a federal-provincial centennial grants initiative,[4] West Kildonan's Public Library and Cultural Centre was opened on June 24, 1967 (Plates 2-4).

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1 "365 Jefferson Street," Winnipeg Architectural Foundation website, no date.

2 Winnipeg Tribune, January 13, 1965, p. 21.

3 The author wished to thank D. Guenther for his support and research on the Library.

4 Winnipeg Tribune, February 24, 1965.

STYLE

> The Modern era was…considered to encompass the years from about 1930 to about 1975; that is, from the period when a faith in a better future *independent* of the past began to take hold and find expression in a significant number of buildings, to the period when Canadians' faith in a better future untethered to the past began to fade, replaced by the *rooted* architecture of the heritage conservation and post-Modernist movements.[5]

The West Kildonan Library stands as an excellent example of the International Style, a modern architectural movement of the post-World War II era that lasted into the late 1960s. The style is seen as a reaction to the historically based styles of the late 19th and early 20th centuries. The age of machines created a desire for a new aesthetic, one that fully utilized the new construction materials and technologies, especially steel framing and reinforced concrete.[6] Architects could design buildings without the need for load-bearing exterior walls – these elements became "curtains" covering the steel/concrete structural system and could be constructed almost entirely of glass if desired. Through its use of hard, angular edges, severely plain surfaces, large areas of glass and square or rectangular modules, the style stressed material and proportionality over ornamentation.

There are a number of excellent, internationally recognized and award-winning examples of the style in Winnipeg due to the city's place at the forefront of the post-1950 International Style movement through the University of Manitoba's School of Architecture. The City of Winnipeg has placed a number of these outstanding examples on the List of Historical Resources, including: Monarch Life Building, 333 Broadway (Plate 5); J.A. Russell Building (Architecture) - University of Manitoba, 83 Dafoe Road (Plate 6); St. Vital Library, 6 Fermor Avenue (Plate 7); and Winnipeg City Hall, 510 Main Street (Plate 8).

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5 National Historic Sites of Canada System Plan: Commemorating Canada's Built Heritage of the Modern Era (Ottawa, ON: Parks Canada, 2001), p. 4.

6 Identifying Architectural Styles in Manitoba (Winnipeg, MB: Manitoba Department of Culture, Heritage and Citizenship, 1991), pp. 34-35; and L. Maitland, et al., A Guide to Canadian Architectural Styles (Peterborough, ON: Broadview Press, 1992), p. 178.

As well, many of the surrounding municipalities built modernist style libraries in the 1960 including three in St. Boniface (Plates 9-11), and one each in St. Vital (Plate 7) and Fort Garry (Plate 12).

CONSTRUCTION

City Council asked its newly hired architect to assist in choosing the location for the library as well as designing the structure. Stewart chose the corner of Powers Street and Jefferson Avenue (Plate 13) over several City-owned property on Main Street and elsewhere.[7] It was close to Victory Public School and a neighbour of another modernist style structure, the Seven Oaks School Board Offices, which Council had to obtain land from for the new library.

The one-storey building is supported by steel I-beams, reinforced concrete columns; the superstructure is constructed of 10.2 centimetres concrete block clad in Tyndall stone, 10.2 centimetres thick.[8] The main portion of the building measures 9.5 x 29.6 x 7.3 metres, the entire building totals 4,677.7 cubic metres of interior space and rests on a reinforced concrete foundation 25.4 centimetres thick. Cost of construction on the original permit was $180,000[9] and the final cost was $185,816.00.[10]

In 1998, an elevator shaft was added to the west façade.[11]

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7 City of West Kildonan Council Minutes, 1965, courtesy of D. Guenther.

8 City of Winnipeg, Assessment Record, Roll No. 200700, West Kildonan, PC 80. Below as AR.

9 City of Winnipeg, Building Permit (below as BP), #4185/1966; and AR- according to correspondence, the final cost was $187,841.07.

10 "Certificate No. 1," dated September 30, 1966, George A. Stewart.

11 BP # 6038/1998.

DESIGN

The building's main (south) façade faces Jefferson Avenue and includes a raised entrance, deeply set under the overhang created by the flat roof (Plate 14). This entrance rested on concrete slabs.[12] Below the roof is a set of slender clerestory windows that encircle the entire structure. To the east of the main entrance is an entrance ramp (Plate 15), to the west, an exit door and a large window opening divided by heavy projecting mullions. According to early photographs, this ramp was always part of the library (Plate 16), although the original element has been replaced.

Facing Powers Avenue, the east façade includes two mullioned windows and a large rectilinear window opening (Plate 17). The rear (north) façade faces a parking lot and the Seven Oaks School Division No. 10 offices, features a central raised entrance flanked by two exit doors (Plate 18). The west side of the structure was built in a depression, to allow for rectilinear basement window openings (Plate 19). Exit doors, mullioned window openings are also present; the central window opening, similar to the east façade element, has been closed in (Plate 20). Basement stairs were located near the north end of the west façade (Plate 21) but are now closed in.

INTERIOR

According to the City of West Kildonan Pamphlet, the main floor of the library held the stacks, in adult, youth and children's sections, a reference section, research alcoves and study tables and offices and work rooms for staff. The finished portion of the basement (east) held a 200-person assembly hall for meetings, film viewing, Senior Citizens' Recreation and other community events.[13]

---

12 "Main Floor Framing Plan," Architect's Plans #4185/1966, courtesy of City of Winnipeg, Records Management.

13 Winnipeg Public Library, Millennium Branch, Vertical File, "West Kildonan."

The west portion of the basement was completed by separate Building Permit,[14] providing space for the School Board (Plate 22). Cost of this work totalled $15,844.67.[15] By 1977, this area had been converted into children and youth space.

In 1999, basement alterations included a new meeting and staff room.[16]

The finishes and layout of the front foyer and front and rear stairs to the basement appear to be in original condition, including the limestone walls that continue from the exterior (Plates 23 and 24). The wood finishes above the main desk are original (the main desk has been replaced) and many of the original book cases still line the walls of the main floor space. The main floor and basement have undergone alteration to layout and finishes (Plates 24-29).

INTEGRITY

The structure stands on its original site and appears to be in good structural condition. The major alteration to the exterior was the addition of an elevator to the west façade to improve access (Plate 30). Unfortunately, the stucco finish of the addition does not match well with the original cladding.

Interior alterations have been mostly changes in use within the original spaces and have not resulted in a serious loss of original finishes or layout.

STREETSCAPE

The building stands on a busy corner and is highly visible. It is an integral part of the streetscape of both Jefferson Avenue and Powers Street (Plate 31).

---

14 BP #6244/1967.

15 AR, correspondence from Seven Oaks School Board #10 to contractor John Miller and Sons, Ltd., dated November 16, 1967.

16 AR; and BP #137128/1999.

In a letter discussing the building, Mira "Mimi" Locher, Dean, Faculty of Architecture, University of Manitoba said,

> The West Kildonan Public Library is an important example of place-based modernist architecture, as it incorporates local Tyndall stone and is designed to fit its particular site within a neighborhood featuring many modernist houses. While many modernist buildings of the 1960s and 70s were built in a style and with materials that were not tied to a specific place, the West Kildonan Public Library very much is connected to its locale. The building invites visitors with its overhanging canopy, which reaches out toward the street to indicate the entry and provide welcoming shelter. In whole, the building is designed and detailed to function at the human scale and to be an unpretentious component of the fabric of the community – a good neighbor. We have come to equate pretention with good design, but we must realize that it is often the well-designed unassuming buildings, like this one, that provide the most comfortable and hospitable spaces for us.[17]

The building was also designed to match neighbouring buildings, especially the West Kildonan Municipal Health Building, 375 Jefferson Avenue, built in 1961, now the Seven Oaks School Division's Ben Zaidman Educational Resource Centre (Plate 32).

ARCHITECT/CONTRACTORS

West Kildonan City Council met with representatives of six local firms regarding the new library building: Waisman, Ross, Blankstein, Coop; Duncan, Rattray, Peters, Searle; Kurnarsky & Faurer; Green, Blankstein, Russell & Associates; George A. Stewart; and Herman & St. Lawrence.[18] In the end, council chose George A. Stewart (Plate 33 and 34).

Stewart was a University of Manitoba Architecture graduate (see Appendix II for biographical information) who also designed the St. Vital and Fort Garry libraries. He has received 10 points from the Historical Buildings and Resources Committee.

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17 M. Locher letter to the City of Winnipeg, dated July 7, 2022.

18 City of West Kildonan Minutes, 1965, courtesy of D. Guenther.

APPENDIX C:

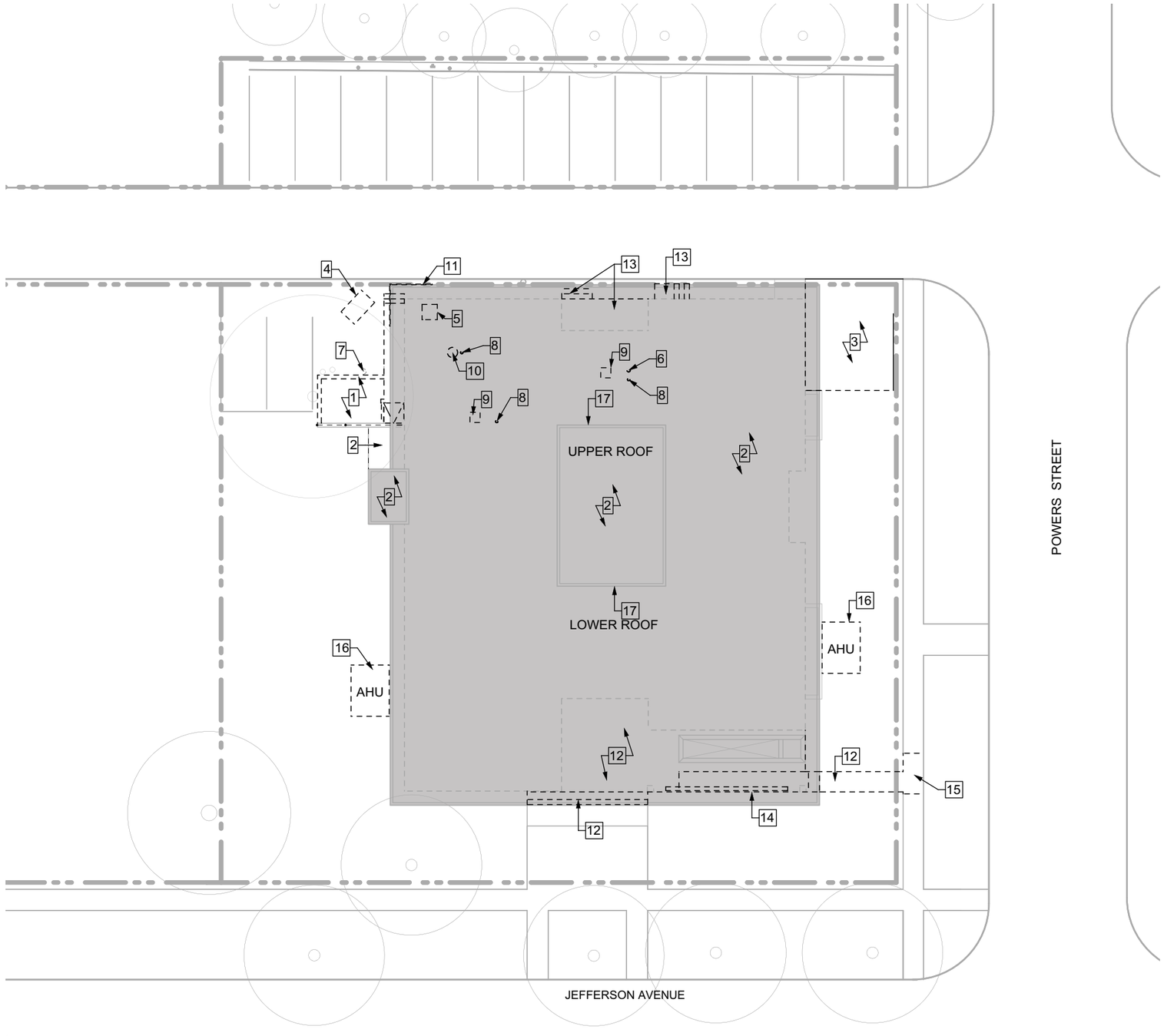
FEASIBILITY STUDY DRAWINGS & SPECIFICATIONS

OPTION 1 (A1)



SITE PLAN DEMOLITION NOTES OPTION A1

1. DEMOLISH EXISTING DECOMMISSIONED EXTERIOR STAIR
2. DEMOLISH EXISTING ROOFING IN ITS ENTIRETY. REMOVE EXISTING MEMBRANE, GRAVEL, AND INSULATION DOWN TO ROOF DECK STRUCTURE ON ALL ROOF FACETS.
3. DEMOLISH ASPHALT AT ACCESSIBLE PARKING STALL
4. RELOCATE GARBAGE BIN
5. DEMOLISH EXISTING ROOF ACCESS HATCH
6. DEMOLISH EXISTING ROOF DRAIN
7. DEMOLISH EXISTING TREE
8. DEMOLISH EXISTING ROOF VENTS
9. MODIFY EXHAUST FAN TO SUIT NEW ROOFING
10. MODIFY CHIMNEY TO SUIT NEW ROOFING
11. DEMOLISH EXISTING ROOF GUARDRAIL
12. DEMOLISH EXISTING SOUTH CONCRETE LANDING, STAIR, AND RAMP.
13. DEMOLISH EXISTING NORTH CONCRETE LANDING AND STAIR.
14. REMOVE EXISTING PARTIAL HEIGHT TYNDALL STONE WALL. STORE TYNDALL STONE FOR REINSTALLATION.
15. DEMOLISH EXISTING SIDEWALK FOR NEW LOWER LANDING.
16. DEMOLISH EXISTING AHU. REFER TO MECH OUTLINE SPEC. EXISTING CONCRETE PAD BELOW TO REMAIN.
17. DEMOLISH EXISTING CLERESTORY WINDOWS.



1 SITE & ROOF PLAN - DEMOLITION - OPTION A1
Scale: N.T.S.

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SITE PLAN DEMO - OPTION A1
2023-10-31

A-4

ZONING REVIEW:

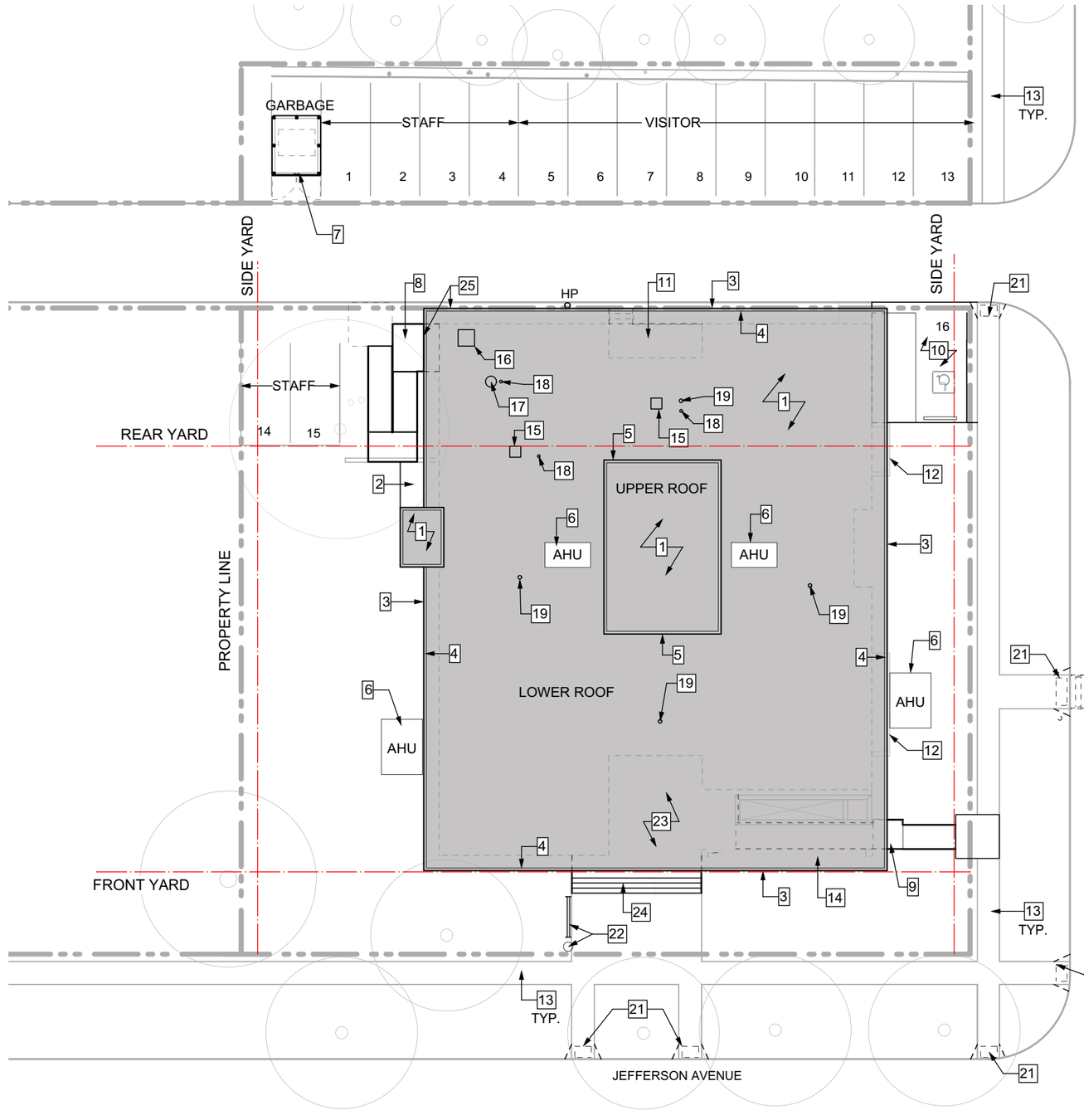
PARKING:
STAFF STALLS - 6
VISITOR STALLS - 9
ACCESSIBLE PARKING - 1
TOTAL PARKING STALLS: 16

BUILDING AREA:
EXISTING BUILDING MAIN FLR: 6590sqft
EXISTING BUILDING BASEMENT: 6660sqft
TOTAL FLOOR AREA: 13250

ZONING REQUIREMENTS:
CATEGORY 9: 1 STALL PER 1000 sqft
13250/1000 = 13.2 = 13 STALLS REQUIRED

URBAN INFILL AREA: REDUCE TO 80% OF REQ'D
13 x 0.8 = 10.4 = **10 STALLS REQ'D**

NOTE: BUILDING PROJECTS INTO REAR YARD
(EXISTING CONDITION)



SITE PLAN KEYNOTES - OPTION A1

1. REPLACE EXISTING ROOFING. INSTALL CONTINUOUS SELF-ADHERED AIR/VAPOUR BARRIER MEMBRANE. INSTALL RIGID SLOPED INSULATION SYSTEM & POLYISOCYANURATE INSULATION BOARDS (R28). INSTALL SBS MODIFIED BASE SHEET MEMBRANE AND SBS MODIFIED CAP SHEET MEMBRANE. INSTALL PERIMETER METAL FLASHING ASSEMBLY AT PARAPETS, ALL TRANSITIONS, AND ALL ROOF PENETRATIONS. INSTALL NEW SCUPPERS AND DOWNSPOUTS (X2 TOTAL)
2. REPLACE EXISTING ROOFING AT EXISTING ELEVATOR MACHINE ROOM. INSTALL CONTINUOUS SELF-ADHERED AIR/VAPOUR BARRIER MEMBRANE. INSTALL RIGID SLOPED INSULATION SYSTEM & POLYISOCYANURATE INSULATION BOARDS (R28). INSTALL SBS MODIFIED BASE SHEET MEMBRANE AND SBS MODIFIED CAP SHEET MEMBRANE. INSTALL PERIMETER METAL FLASHING ASSEMBLY AT PARAPETS, ALL TRANSITIONS, AND ALL ROOF PENETRATIONS. INSTALL NEW SCUPPER.
3. EDGE OF EXISTING ROOF OVERHANG
4. NEW ROOF PARAPET AT EDGE OF EXISTING ROOF
5. INSTALL NEW CLERESTORY WINDOWS C/W NEW WINDOW FLASHINGS
6. REPLACE EXISTING AHU.
7. NEW P.T. WOOD GARBAGE ENCLOSURE
8. INSTALL NEW CONCRETE LANDING AND RAMP.
9. INSTALL NEW CONCRETE RAMP W/ INTERMEDIATE LANDING AND LARGER LOWER LANDING AT SIDEWALK.
10. REGRADE EXISTING PARKING STALL. INSTALL NEW ASPHALT AND PAINT NEW AISLE / STALL LINES / ACCESSIBILITY SYMBOL.
11. INSTALL NEW NORTH CONCRETE LANDING AND STAIR
12. EXISTING WINDOW WELL TO REMAIN
13. EXISTING SIDEWALK TO REMAIN
14. INSTALL NEW SOUTH CONCRETE LANDING, STAIR AND RAMP. RECONSTRUCT PARTIAL HEIGHT TYNDALL STONE WALL.
15. MODIFY EXHAUST FAN TO SUIT NEW ROOFING
16. NEW ROOF ACCESS HATCH TO SUIT NEW ROOFING
17. EXISTING CHIMNEY - MODIFY TO SUIT NEW ROOFING
18. NEW VENT PIPE TO SUIT NEW ROOFING
19. NEW ROOF DRAIN (X4 TOTAL)
20. FUTURE CROSSWALK TO ADJACENT PARKING AT WEST K MEMORIAL COMMUNITY CENTRE (N.I.C.)
21. FUTURE SIDEWALK ACCESSIBILITY UPGRADES BY PUBLIC WORKS (N.I.C.)
22. RELOCATED BIKE RACK / GARBAGE BINS
23. INSTALL NEW SOUTH CONCRETE LANDING, STAIR AND RAMP.
24. INSTALL NEW CONCRETE STAIR
25. NEW ROOF GUARDRAIL

LEGEND
ZONING REQ'D YARD / SETBACK

1 SITE & ROOF PLAN - RENOVATION - OPTION A1
Scale: N.T.S.

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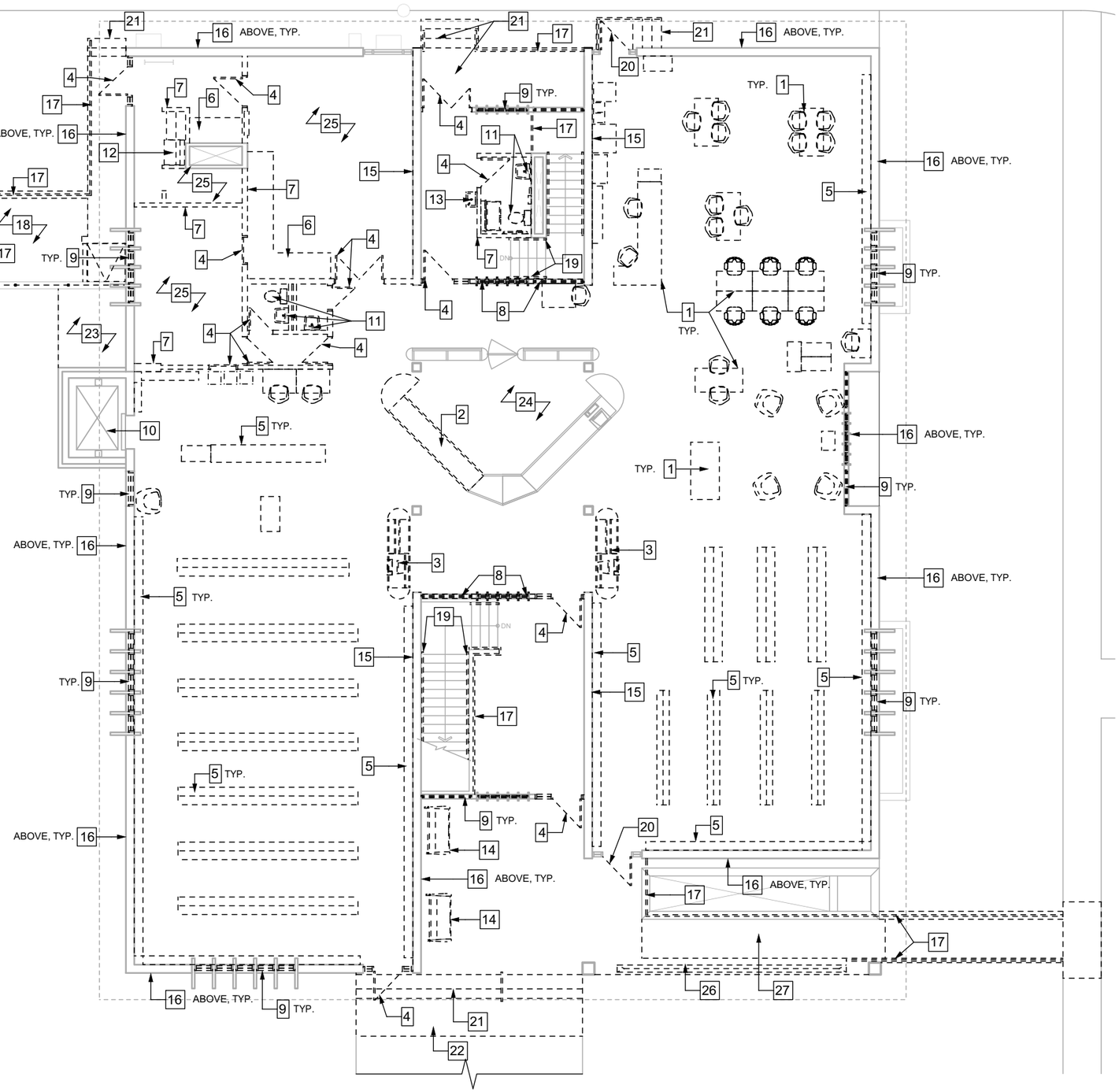
SITE PLAN - OPTION A1
2023-10-31

A-5

MAIN FLOOR PLAN DEMOLITION KEYNOTES

1. REMOVE EXISTING FURNITURE AND RETURN TO OWNER.
2. DEMOLISH PORTION OF EXISTING SERVICE DESK
3. DEMOLISH EXISTING COMPUTER WORKSTATION MILLWORK
4. DEMOLISH EXISTING DOOR & FRAME
5. DEMOLISH EXISTING BOOKSHELVES
6. DEMOLISH EXISTING DESK MILLWORK
7. DEMOLISH EXISTING WALLS
8. DEMOLISH EXISTING GLAZING & ALUMINUM FRAMES
9. DEMOLISH EXISTING WINDOWS
10. MODIFY EXISTING ELEVATOR TO ADD VOICE ANNUNCIATION / MIRROR
11. DEMOLISH EXISTING PLUMBING FIXTURES
12. DEMOLISH EXISTING CLOSET MILLWORK
13. DEMOLISH EXISTING DRINKING FOUNTAIN
14. STORE BENCH FOR REINSTALLATION
15. DEMOLISH EXISTING PLASTER BOARD AT STAIRWELL
16. DEMOLISH EXISTING TRANSOM WINDOWS
17. DEMOLISH EXISTING GUARDRAIL
18. DEMOLISH EXISTING DECOMMISSIONED STAIR. SOUTH WALL TO REMAIN DUE TO TIE-IN AT ELEVATOR MACHINE ROOM.
19. DEMOLISH EXISTING HANDRAILS
20. EXISTING WOOD DOOR LEAF TO BE FIXED IN PLACE - REMOVE EXISTING DOOR HARDWARE AND PROVIDE NEW SEALS AROUND DOOR.
21. DEMOLISH EXISTING CONCRETE LANDING & STAIR
22. DEMOLISH PORTION OF EXISTING SIDEWALK
23. DEMOLISH EXISTING ROOFING OVER ELEVATOR MACHINE ROOM.
24. DEMOLISH EXISTING CARPET FLOORING
25. DEMOLISH EXISTING FLOORING
26. REMOVE EXISTING PARTIAL HEIGHT TYNDALL STONE WALL. STORE TYNDALL STONE FOR REINSTALLATION
27. DEMOLISH EXISTING CONCRETE RAMP



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1 MAIN FLOOR DEMOLITION PLAN - OPTION A1
Scale: 1:150

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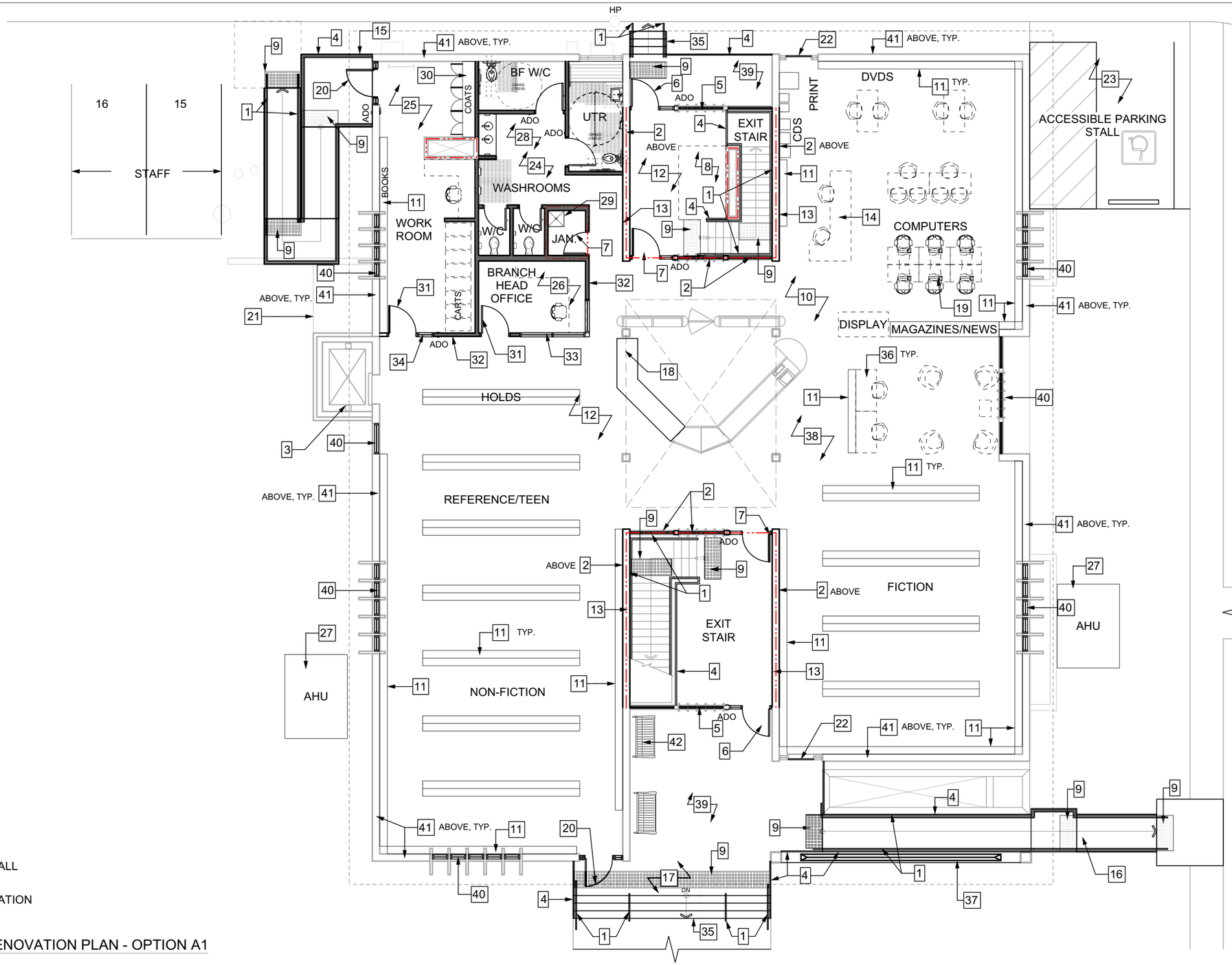
MAIN FLOOR PLAN DEMO - OPTION A1

2023-10-31

A-6



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LEGEND

- EXISTING WALL
- NEW WALL
- FIRE SEPARATION

1 MAIN FLOOR RENOVATION PLAN - OPTION A1
Scale: 1:150

MAIN FLOOR PLAN KEYNOTES - OPTION A1

1. INSTALL NEW DUAL HANDRAILS TO MEET WADS.
2. INSTALL NEW 45MIN FIRE-RATED HOLLOW METAL WINDOW FRAMES W/ WIRED GLASS.
3. UPGRADE EXISTING ELEVATOR TO MEET WADS (ADD CEILING MOUNTED MIRROR, VOICE ANNUNCIATION)
4. INSTALL NEW GUARDRAIL TO MEET WADS.
5. LOWER EXISTING BOOK SLOT. REPLACE EXISTING WINDOW TO SUIT.
6. INSTALL NEW HOLLOW METAL DOOR & FRAME.
7. INSTALL NEW 45 MIN FIRE-RATED HOLLOW METAL DOOR & FRAME
8. INSTALL NEW CERAMIC TILE FLOORING (TO MATCH EXISTING) WHERE WASHROOM DEMOLISHED.
9. INSTALL NEW DETECTABLE WARNING SURFACE TO MEET WADS.
10. INSTALL NEW CARPET TILE FLOORING THROUGHOUT OPEN LIBRARY SPACE.
11. INSTALL NEW WADS COMPLIANT SHELVING. SHELVING TO BE BUILT WITH KICK VENT FOR PERIMETER WALL FIN HEATERS WHERE PRESENT.
12. REPAIR DAMAGED ACT CEILING.
13. INSTALL 2 LAYERS 5/8" TYPE 'X' DRYWALL ON EXISTING STUDS TO PROVIDE 45 MIN. FRR
14. INSTALL NEW ACCESSIBLE INFORMATION DESK TO REPLACE EXISTING. NEW FURNITURE IS N.I.C.
15. INSTALL NEW CONCRETE LANDING AND RAMP.
16. INSTALL NEW CONCRETE RAMP W/ INTERMEDIATE LANDING AND LARGER LOWER LANDING AT SIDEWALK.
17. EXTEND EXISTING CONCRETE LANDING
18. MODIFY EXISTING SERVICE DESK TO PROVIDE ACCESSIBLE HEIGHT WORK SURFACE. PROVIDE ASSISTIVE LISTENING SYSTEM AT SERVICE DESK.
19. NEW ACCESSIBLE COMPUTER WORKSTATIONS. NEW FURNITURE IS N.I.C.
20. NEW WIDENED EXTERIOR WOOD DOOR & FRAME (TO MATCH EXISTING)
21. PROVIDE EXTERIOR FINISH (CEMENT BOARD) TO COVER EXISTING EXPOSED FOAMED PLASTIC INSULATION ON EXTERIOR OF ELEVATOR MACHINE ROOM. INSTALL NEW ROOFING OVER ELEVATOR MACHINE ROOM.
22. EXISTING WOOD DOOR LEAF TO BE FIXED IN PLACE - REMOVE EXISTING DOOR HARDWARE AND PROVIDE NEW SEALS AROUND DOOR.
23. REGRADE EXISTING PARKING STALL. INSTALL NEW ASPHALT AND PAINT NEW AISLE / STALL LINES / ACCESSIBILITY SYMBOL.
24. INSTALL NEW RESILIENT SHEET FLOORING AND GWB CEILING THROUGHOUT NEW WASHROOMS AND JANITOR ROOM
25. INSTALL NEW RESILIENT SHEET FLOORING AND ACT CEILING THROUGHOUT NEW WORK ROOM
26. INSTALL NEW CARPET TILE FLOORING AND ACT CEILING THROUGHOUT BRANCH HEAD OFFICE
27. REPLACE EXISTING AIR HANDLING UNIT
28. NEW GENDER NEUTRAL WASHROOMS. INSTALL FULL HEIGHT WALLS AND HM DOORS & FRAMES (NOT TOILET PARTITIONS). INSTALL NEW PLUMBING FIXTURES, WASHROOM ACCESSORIES, WOOD CHANGE BENCH / EMERGENCY CALL BUTTON (IN UTR ONLY), AND SINK VANITY AS SHOWN.
29. NEW MOP SINK IN JANITOR ROOM
30. INSTALL NEW MILLWORK CABINET
31. NEW WOOD DOOR & FRAME
32. NEW VERTICAL CEDAR SIDING (TO MATCH EXISTING)
33. NEW FULL HEIGHT (FLOOR TO CEILING) GLAZING
34. INSTALL NEW SIDELIGHT
35. INSTALL NEW CONCRETE STAIR.
36. NEW FURNITURE. ALL FURNITURE IS N.I.C.
37. REINSTALL TYNDALL STONE PARTIAL HEIGHT WALL.
38. PATCH DAMAGED PLASTER BOARD WALLS
39. NEW CONCRETE LANDING
40. INSTALL NEW EXTERIOR TRIPLE PANE FIBREGLASS WINDOWS
41. INSTALL NEW EXTERIOR TRIPLE PANE FIBREGLASS TRANSOM WINDOWS
42. REINSTALL BENCHES (2 TOTAL)

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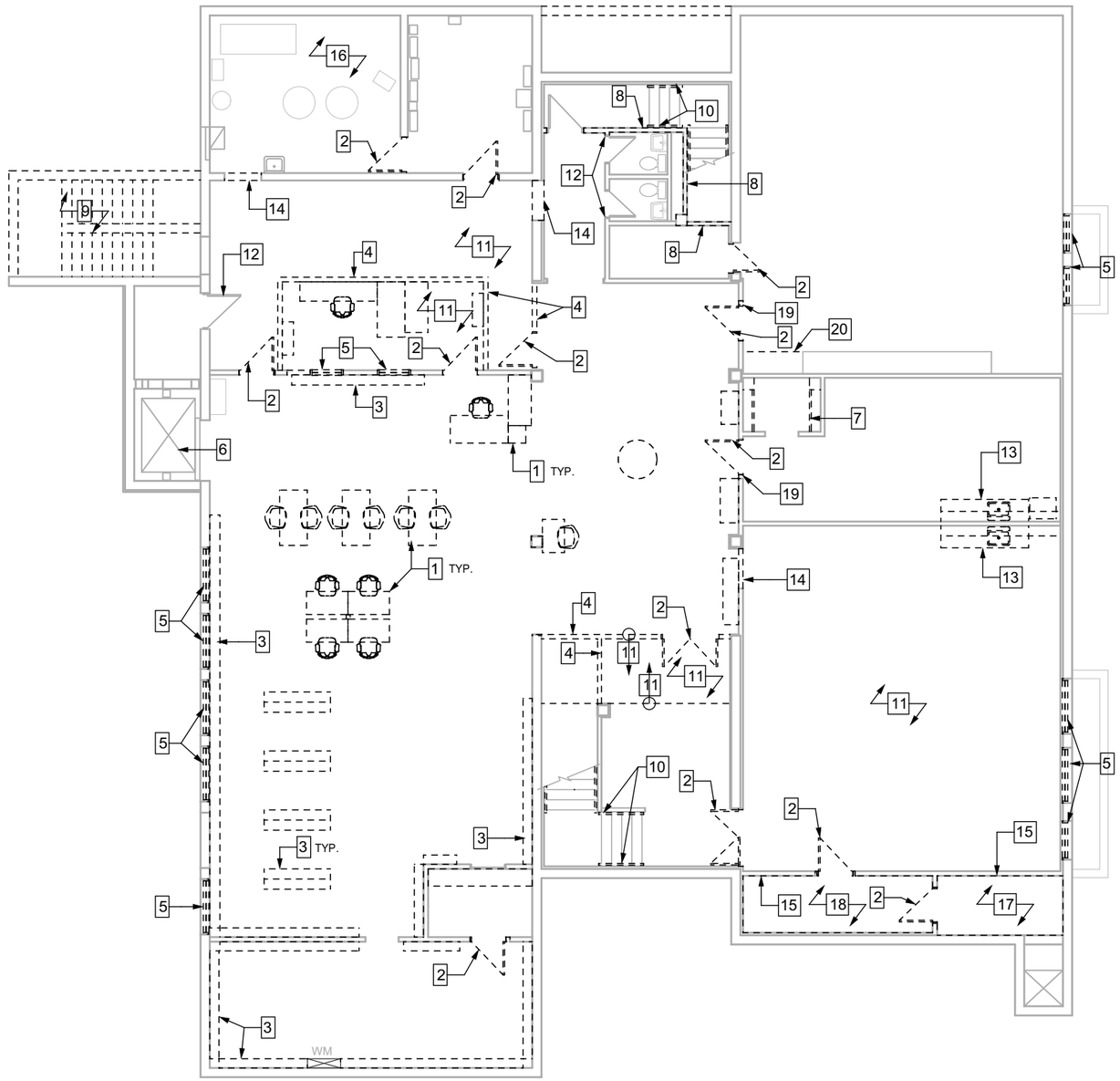
MAIN FLOOR PLAN - OPTION A1

2023-10-31

A-7



BASEMENT DEMOLITION PLAN KEYNOTES

1. REMOVE EXISTING FURNITURE AND RETURN TO OWNER.
2. DEMOLISH EXISTING DOOR & FRAME
3. DEMOLISH EXISTING BOOKSHELVES
4. DEMOLISH EXISTING WALLS
5. DEMOLISH EXISTING WINDOWS
6. MODIFY EXISTING ELEVATOR TO ADD VOICE ANNUNCIATION / MIRROR
7. DEMOLISH EXISTING CLOSET MILLWORK
8. DEMOLISH EXISTING PLASTER BOARD AT STAIRWELL
9. DEMOLISH EXISTING DECOMMISSIONED STAIR. SOUTH WALL TO REMAIN DUE TO TIE-IN AT ELEVATOR MACHINE ROOM.
10. DEMOLISH EXISTING HANDRAILS
11. DEMOLISH EXISTING FLOORING
12. REMOVE EXISTING DOOR HARDWARE (KNOBS)
13. DEMOLISH EXISTING KITCHEN MILLWORK & SINK
14. DEMOLISH OPENING FOR NEW DOOR
15. DEMOLISH EXISTING PLASTER BOARD AT MECH ROOM/STORAGE ROOM
16. DEMOLISH EXISTING STUCCO CEILING
17. DEMOLISH EXISTING GWB CEILING
18. DEMOLISH EXISTING GWB CEILING & FLOORING
19. WIDEN DOOR OPENING TO SUIT NEW DOOR WIDTH
20. DEMOLISH PORTION OF EXISTING MILLWORK TO PROVIDE DOOR CLEARANCE.

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1 BASEMENT DEMOLITION FLOOR PLAN - OPTION A1
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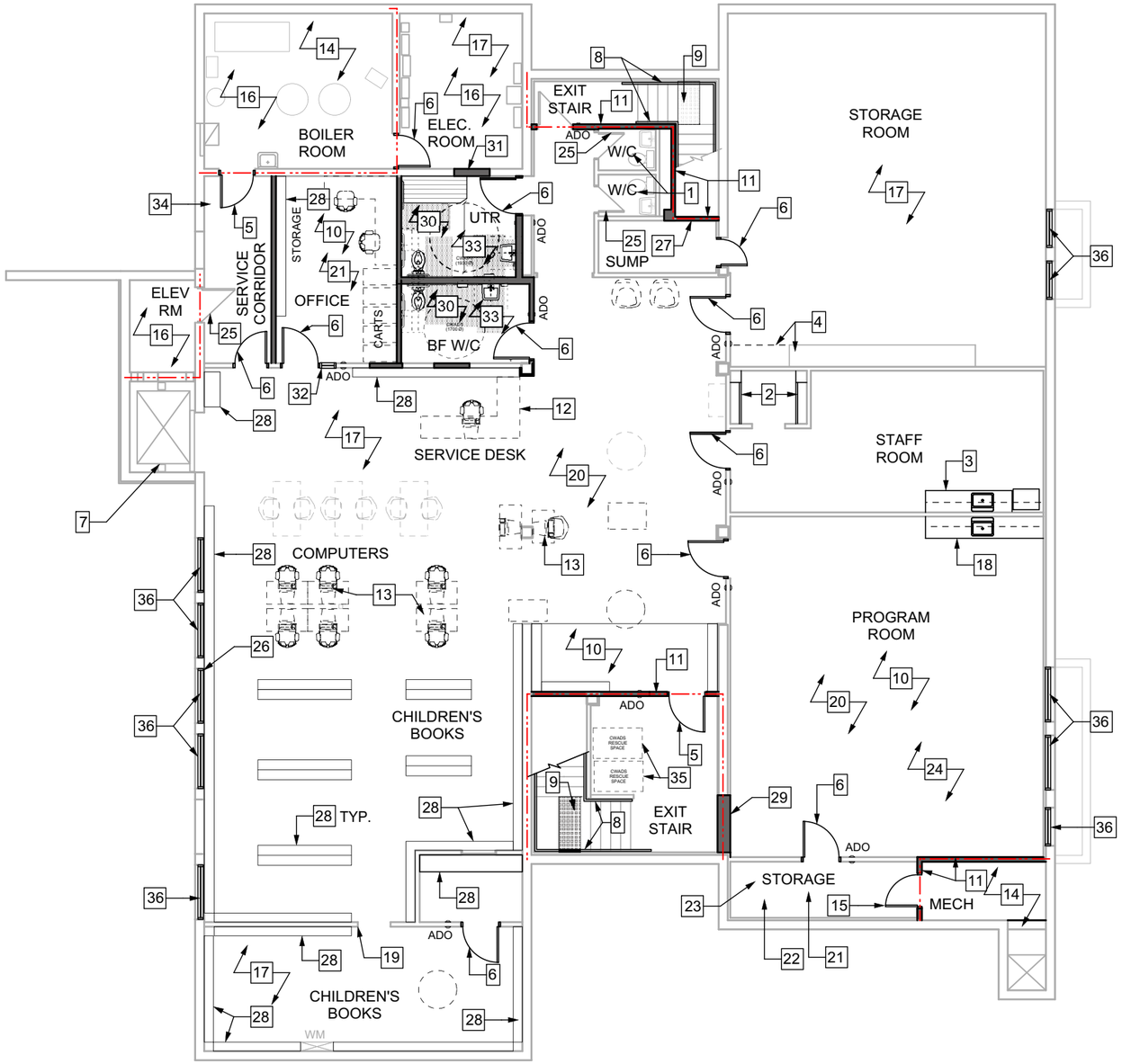
BASEMENT FLOOR PLAN DEMO - OPTION A1

2023-10-31

A-8



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LEGEND

- EXISTING WALL
- NEW WALL
- FIRE SEPARATION

1 BASEMENT RENOVATION FLOOR PLAN - OPTION A1
Scale: 1:150

BASEMENT PLAN KEYNOTES - OPTION A1

1. REPLACE DAMAGED CERAMIC TILES IN EXISTING WASHROOMS. REPLACE ACT CEILINGS.
2. INSTALL NEW ACCESSIBLE HEIGHT CLOSET MILLWORK
3. INSTALL NEW CWADS COMPLIANT KITCHENETTE C/W OPENING FOR FRIDGE/MICROWAVE AND NEW SINK
4. MODIFY EXISTING MILLWORK TO PROVIDE WHEELCHAIR DOOR CLEARANCES.
5. INSTALL NEW FIRE RATED HOLLOW METAL DOOR & FRAME (45MIN).
6. INSTALL NEW HOLLOW METAL DOOR & FRAME
7. UPGRADE EXISTING ELEVATOR TO MEET WADS (ADD CEILING MOUNTED MIRROR, VOICE ANNUNCIATION)
8. INSTALL NEW DUAL HANDRAILS TO MEET WADS.
9. INSTALL NEW DETECTABLE WARNING SURFACE TO MEET WADS.
10. INSTALL NEW CARPET TILE FLOORING
11. INSTALL 2 LAYERS 5/8" TYPE 'X' DRYWALL ON EXISTING STUDS TO PROVIDE 45 MIN. FRR
12. INSTALL NEW ACCESSIBLE SERVICE DESK TO REPLACE EXISTING. ALL NEW FURNITURE IS N.I.C.
13. NEW ACCESSIBLE COMPUTER WORKSTATIONS. ALL NEW FURNITURE IS N.I.C.
14. INSTALL NEW CEILING IN MECH ROOM - 2 LAYERS 5/8" TYPE 'X' DRYWALL.
15. INSTALL NEW FIRE RATED HOLLOW METAL ACCESS DOOR & FRAME (45MIN).
16. FIRESTOP ALL PENETRATIONS IN ROOM WHERE FIRESTOPPING IS NOT ALREADY PRESENT. INSTALL FIRE DAMPERS WHERE NOT PRESENT.
17. PATCH & REPAIR EXISTING OPENINGS/DAMAGE IN PLASTER BOARD CEILING.
18. INSTALL NEW WADS COMPLIANT KITCHENETTE C/W NEW SINK
19. REPLACE DAMAGED WOOD DOOR FRAME WITH NEW HM FRAME.
20. INSTALL NEW ACOUSTIC CEILING TILE THROUGHOUT ROOM.
21. INSTALL NEW RESILIENT SHEET FLOORING THROUGHOUT ROOM
22. INSTALL NEW CEILING IN STORAGE ROOM - 1 LAYER 5/8" TYPE 'X' DRYWALL.
23. REPLACE DRYWALL ON ALL WALLS OF ROOM - 1 LAYER 5/8" TYPE 'X'
24. INSTALL ASSISTIVE LISTENING SYSTEM THROUGHOUT ROOM
25. INSTALL NEW DOOR HARDWARE AT EXISTING DOOR
26. REMOVE EXISTING EXPOSED FOAMED PLASTIC PRESENT AT PIPING.
27. PROVIDE NEW FIRE-RATED ACCESS HATCH INTO CRAWLSPACE BELOW STAIR
28. INSTALL NEW WADS COMPLIANT SHELVING.
29. INFILL EXISTING DOOR OPENING. INFILL BE PART OF EXIT STAIR FIRE SEPARATION
30. NEW GENDER NEUTRAL WASHROOM. INSTALL NEW PLUMBING FIXTURES, WASHROOM ACCESSORIES, AND WOOD CHANGE BENCH / EMERGENCY CALL BUTTON (IN UTR ONLY).
31. INFILL EXISTING DOOR OPENING.
32. INSTALL NEW SIDELIGHT
33. INSTALL NEW RESILIENT SHEET FLOORING AND GWB CEILING IN WASHROOM
34. PATCH EXISTING GWB CEILING
35. NEW DESIGNATED WADS RESCUE SPACE. PROVIDE 2-WAY VOICE COMMUNICATION SYSTEM BETWEEN SPACE AND CENTRAL ALARM. INSTALL SIGNAGE.
36. INSTALL NEW TRIPLE PANE FIBREGLASS WINDOW

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BASEMENT FLOOR PLAN - OPTION A1

2023-10-31

A-9

OUTLINE SPECIFICATION

FEASIBILITY STUDY FOR THE
WEST KILDONAN LIBRARY
365 Jefferson Avenue, Winnipeg MB

Issued for Class 4 Cost Estimate – Option A1

October 2023

Consultant Team:
1x1 architecture inc. (Prime / Architectural)
Crosier Kilgour (Structural & Building Envelope)
Epp Siepman Engineering (Mechanical / Electrical)
GWH Construction Management (Cost Consultant)

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ARCHITECTURAL

1.0 GENERAL REQUIREMENTS

.1 GENERAL

.1 This project consists of alterations to the West Kildonan Library located at 365 Jefferson Avenue in Winnipeg.

.2 The scope of work is as follows:

.1 Option A1:

.1 Interior renovations to the existing +/- 640 sqm (6889sqft) library building built in 1967 (main floor and basement level). Demolition scope as noted on drawings.

.2 Installation of new roofing;

.3 Installation of new windows;

.4 Construction of new exterior concrete landings, ramps, and stairs;

.5 Regrading/new asphalt at accessible parking stall;

.6 Construction of wood garbage enclosure.

.3 The project will be constructed for the City of Winnipeg as the client and all City of Winnipeg standards for their construction to be followed, including City of Winnipeg Accessibility Standards (2018 revision).

.4 The existing library building and was constructed in 1967. Asbestos Containing Materials are present in the existing library (drywall compound, stucco ceiling in boiler room, pipe fittings, mastic, floor tiles, duct insulation). Refer to the asbestos inventory provided by the City of Winnipeg.

.5 Existing building does not need to remain operational during demolition & construction.

.2 REGULATORY ANALYSIS:

.1 The work of this project will be governed by the National Building Code of Canada 2020 including Manitoba Amendments.

.1 The occupancy classification will be Group A-2 Assembly Occupancy.

.2 Building Height (Number of Storeys): 1

.3 Building Facing (Number of Streets): 2

.4 Existing building area: 6889sqft (640sqm)

.5 Total building area:

.1 Option A1: 13250sqft (1230sqm)

.6 The building is not sprinklered.

.7 Construction article: 3.2.2.25 – Group A, Division 2, up to 2 Storeys.

.1 The building is permitted to be of combustible or non-combustible construction used singly or in combination. Max. area not more than 2,000 sq.m.

.8 Design Occupant Load:

.1 Option A1: maximum 250 persons

.2 It is not anticipated that the existing building is expected to meet the Manitoba Energy Code for Buildings, given the building's heritage designation and existing detailing.

.3 CASH ALLOWANCES

.1 Piling and Shoring Inspections – $5,000.00;

.2 Concrete and Compaction Testing - $5,000.00;

.3 Asphalt and Compaction Testing - $5,000.00;

.4 Building Envelope Testing – $2,000.00;

.5 Window Testing – $1,500.00;

.6 Roof Inspections – $2,500.00;

.7 Signage (Interior & Exterior) – $5,000.00;

.4 SCHEDULE:
    .1 For the purpose of the Class-4 cost analysis, it is anticipated that the project will be tendered in March 2025 with construction start scheduled for May 2025.
    .2 Substantial completion is targeted for May 2026.

2.0 SITE WORK

.1 SITE DEMOLITION
    .1 Site demolition including:
        .1 Demolish exterior concrete stairs/ramps where shown.
        .2 Demolish asphalt at accessible parking stall.
        .3 Demolish existing tree at north side of building to suit new ramp.
        .4 Demolish decommissioned stair at northwest corner of library.
        .5 Demolish existing wood-framed windows (and doors, where shown).
        .6 Refer to demolition plans.
.2 EARTHWORK
    .1 A geotechnical investigation has not been undertaken. Refer to structural for general assumptions.
.3 DRAINAGE
    .1 The existing library roof is primarily drained used surface drainage with scuppers / rain water leaders.
        .1 This type of drainage will remain as a secondary system in option A1 but needs replacement in its entirety. Refer to the building envelope / roofing outline specification. The new roof will be primarily internally drained (with 4 new roof drains as shown on the site plans).
.4 SITE DEVELOPMENT
    .1 Repair all surrounding areas damaged as a result of the construction.
    .2 Garbage enclosure: Provide new garbage enclosure c/w HSS vertical members, 2x4 pressure treaded horizontal wood siding, concrete slab below, and wood gate (83" high).
    .3 Asphalt - Provide new asphalt at accessible parking stall. Asphalt to be built to City of Winnipeg Standards. Paint new lines/signage at stall.
    .4 Sod - Sod/seed as required after regrading. Sod/Seed to be built to City of Winnipeg Standards;
.5 APPROXIMATE SERVICE REQUIREMENTS
    .1 Refer to Mechanical and Electrical Outline Specifications.

3.0 DEMOLITION

.1 Demolish existing walls, doors, finishes and fixtures to suit new layout. Refer to Architectural drawings and demolition plans.
.2 Demolish openings in existing concrete/concrete block walls where indicated on drawings. Provide temporary shoring. Refer to Structural.
.3 Demolish and modify existing plumbing & HVAC systems to suit renovation as shown on drawings. Refer to Mechanical outline specifications.
.4 Demolish and modify existing power, data, lighting, fire & life-safety, and building security systems to suit renovation as shown on drawings. Refer to Electrical outline specifications.
.5 Repair damage to adjacent structures, materials or finishes affected by this work.
.6 Refer to asbestos inventory.

4.0 BUILDING STRUCTURE

.1 Existing library: Existing roof structure to remain in place.
    .1 Reinforce roof for new air handling units – refer to Structural outline spec.
.2 Trench existing library basement floor slabs as required for relocation of existing plumbing.
    .1 Patch & make good existing concrete floor in library basement where trenched.

.3 Refer to Structural outline spec.

5.0 EXTERIOR WALLS

.1 Existing exterior walls to remain in Option A1. Refer to building envelope outline spec.
.2 Refer to Doors and Windows.

6.0 ROOFING

.1 Refer to Architectural drawings and building envelope outline specification.
.2 Existing Library roof:
    .1 Refer to site plan.
    .2 Insulation will be min. R-28, comprised of rigid sloped insulation system (Polyiso insulation boards).
    .3 Air/vapour barrier membrane will be self-adhered over existing steel deck.
    .4 SBS modified base sheet membrane and SBS modified cap sheet membrane over insulation.
        .1 Standard of Acceptance: 2-ply SBS modified bitumen roofing system by Soprema.
    .5 Replace existing flashing and all scuppers/rainwater leaders around library building (x3 RWL total). Provide new concrete splash pads at the base of the new rainwater leaders (x3 splash pads). New rainwater leaders to be located on west and north faces of library.

7.0 INTERIOR WALLS

.1 Non-combustible, cold-formed steel stud framing (3-5/8" studs @ 16" O.C. typical, 6" studs for plumbing walls) with gypsum board wall finish.
    .1 Standard of acceptance (gypsum board): CGC Sheetrock Brand
.2 Use moisture & mould resistant board in wet or humid locations.
    .1 Standard of acceptance: CGC Sheetrock Brand Mold Tough
.3 In high-impact locations, use abuse-resistant gypsum board.
    .1 Standard of acceptance: CGC Fibrerock Brand AR Interior Panels
.4 In fire-rated assemblies, use Fire Rated Core Gypsum Board
    .1 Standard of acceptance: CGC Firecode X Gypsum Board
.5 All new interior walls in the existing library are to be full height (to u/s of deck);
.6 Provide Roxul Insulation in all washroom and office locations;
.7 Provide fiberglass matt gypsum backer board or cement backer board at ceramic wall tile locations (typical in all washrooms).

8.0 INTERIOR CEILINGS

.1 Acoustic Ceiling Tile:
    .1 ACT is to match existing where repairs are noted.
    .2 Where new ACT is installed throughout a room:
        .1 Standard of Acceptance: CertainTeed Symphony, 2'x4' size
.2 Gypsum Board Ceilings:
    .1 Use moisture & mould resistant gypsum board in wet or humid locations;
    .2 Use fire rated core gypsum board in all fire-rated ceilings.
    .3 See Interior Walls for acceptable products.
.3 Refer to Finishes and drawings for ceiling types.

9.0 MISCELLANEOUS METALS

.1 Stainless steel corner guards: stainless stl. grade 316, surface adhesive mounted, 2" x 2", 16 gauge. Height to be 48" w/ ½" corner radius. Allow for 10 total.
.2 Provide steel lintels in existing concrete/concrete block walls of library as required for new openings. Refer to drawings (basement level) and Structural outline spec.
.3 Handrails/guardrails:

.1 Steel guardrails c/w pickets at north side of building
.1 Glass guardrails at south side of building (see Glazing in Doors and Windows)
.2 New steel guardrail at roof access hatch.
.3 Steel dual handrails to meet WADS where indicated on drawings.

10.0 DOORS AND WINDOWS

.1 Fibreglass Window Frames:
.1 Exterior:
.1 Thermally broken fibreglass frames with finish and profile to match existing windows. Triple pane. Refer to building envelope outline spec.
.2 Replacement includes transom and clerestory windows. Refer to existing drawings for exterior elevations.
.2 Hollow Metal Window Frames (interior):
.1 Interior, fire-rated frames (45 minutes minimum) at north and south exit stairs.
.1 Includes transom windows (below ceiling) and full height windows/sidelights. As noted on drawings.
.3 Glazing:
.1 Exterior:
.1 Glazing to be high performance, hermetically sealed, triple pane, tempered glass units. Refer to building envelope outline spec.
.2 Interior:
.1 Single pane, ¼" tempered glass, typical;
.2 Wired glass in fire-rated hollow metal window frames, where noted on drawings (at north and south exit stairs).
.3 Visual Warning Strip: Fully glazed sidelights at entrances or vestibules shall be identified by 2 continuous vinyl strips, min. 2" wide. Custom pattern TBD.
.4 Glass Guardrails:
.1 At south entrance ramp and stairs, guardrails to be ½" tempered glass. Polished edges. 42" high.
.1 Standard of Acceptance (mounting hardware): Elite Posts System by Richelieu
.4 Hollow Metal Doors and Frames:
.1 Interior Doors:
.1 Steel doors and frames to be heavy-duty grade, welded construction. Frames - 14 ga. welded, Doors – 16 ga. welded.
.2 Doors to be honeycomb core.
.3 Provide high-performance, low VOC paint finish to doors and frames.
.4 Provide single pane, ½" clear tempered glass lite – 6" x 20" at each location.
.5 Hardware to include: acoustic seals, hinges, stops, closers, kickplates (both sides) and lever hardware. All hardware to be Class-1 Institutional Grade.
.6 Typical door sizes to be 39" x 84" (1000 x 2135mm).
.7 Provide fire-rated doors as required for mechanical/electrical rooms and in all fire separations. As noted on drawings.
.2 Existing Interior HM Doors and Frames:
.1 Re-paint existing doors and frames that are to remain in the existing library (door to elevator room, basement non-accessible washrooms). 3 doors total. Provide new hardware (levers) as noted on drawings.
.5 Exterior Wood Doors:
.1 Custom wood doors and frames to match existing exterior historic doors. 2 doors total.
.2 Typical door sizes to be 39" x 84" (1000 x 2135mm).

.3 Wood frame to include small sidelights on either side of the wood door. Total size to suit existing rough opening.
.4 Hardware to include: weatherstripping/seals, hinges, stops, closers, and lever hardware. All hardware to be Class-1 Institutional Grade.

.6 Interior Wood Doors:
.1 Flush Interior Doors, 1-3/4 inches thick; solid core construction, veneer face rotary cut, maple or equal,
.2 Frames to be painted hollow metal, min. 16-gauge welded seams (mechanical seams not acceptable);
.3 Wood door locations: as noted on drawings.

.7 Auto Door Operators (ADO)
.1 Provide auto door operator c/w vertical, bar-type push buttons located on latch-side of door at locations shown on drawings;
.1 Standard of Acceptance: Stanley Access Technologies or Horton Automatics.
.2 Standard of Acceptance: Ingress'R 136-5 or approved equal

11.0 MILLWORK & FINISH CARPENTRY

.1 All millwork to meet AWMAC custom standards and Manitoba Building Code barrier free standards;
.2 All exposed surfaces of upper and lower cabinets shall be p-lam veneer. Interior surfaces (hidden behind doors) shall be melamine. Edges of cabinet doors and drawers shall be 3mm PVC solid-edge banded. Exposed shelving shall be p-lam veneer with 3mm PVC solid-edge;
.3 Counters to be p-lam veneer c/w 3mm PVC solid-edge banding;
.4 Washroom vanities to be solid surface;
.5 Provide institutional grade hardware throughout;
.6 Refer to drawings for locations;
.7 Schedule:
.1 Library shelving (main floor and basement);
.2 Library circulation desk (main floor);
.3 Washroom vanity (main floor);
.4 Kitchenettes (upper and lower cabinets);
.5 Closet rods/shelves (main floor and basement);
.6 Full height storage cabinets/shelving with lockable doors (work room);
.7 UTR wood benches (main floor and basement).

12.0 FINISHES (refer also to drawings)

.1 MAIN FLOOR:
.1 Open Library Area
.1 Floors: New carpet flooring and rubber base.
.2 Walls: Existing plaster board. Repairs where damaged.
Vertical cedar boards to match existing where noted on drawings.
.3 Ceilings: Existing ACT, repairs where damaged.
.2 Janitor Room
.1 Floors: New resilient sheet flooring and rubber base.
.2 Walls: 2 layers 5/8" Painted Fire-rated Gypsum Wallboard
.3 Ceilings: 2 layers 5/8" Painted Fire-rated Gypsum Wallboard
.3 Branch Head Office
.1 Floors: New carpet flooring and rubber base.
.2 Walls: New 5/8" Gypsum Wallboard
.3 Ceilings: New ACT
.4 Work Room
.1 Floors: Resilient sheet flooring and rubber base

.2 Walls: 5/8" Abuse Resistant Painted Gypsum Wallboard (new walls)
.3 Ceilings: New ACT

.5 **Gender Neutral Washrooms & UTR**
.1 Floors: Resilient sheet flooring and rubber base
.2 Walls: Epoxy Painted 5/8" Moisture Resistant Gypsum Wallboard
.3 Ceilings: Epoxy Painted Gypsum Wallboard

.6 North & South Exit Stairs:
.1 Floors: Existing ceramic tile, new ceramic tile (north stair only)
.2 Walls: Existing Tyndall Stone, 2 layers 5/8" Painted Fire-rated Gypsum Wallboard where noted on drawings.
.3 Ceilings: Existing ACT, repaired where damaged.

.2 BASEMENT:

.1 **Open Library Area / Children's Books**
.1 Floors: Existing carpet tile and rubber base. New carpet tile where noted.
.2 Walls: Existing plaster board
.3 Ceilings: New ACT, plaster Board (repaired where damaged)

.2 **Program Room (aka Assembly Room)**
.1 Floors: New carpet flooring and rubber base
.2 Walls: Existing plaster board
.3 Ceilings: New ACT

.3 **Office**
.1 Floors: New carpet flooring and rubber base
.2 Walls: 5/8" Painted Gypsum Wallboard
.3 Ceilings: New ACT

.4 **Storage Room (Northeast Corner)**
.1 Floors: Existing
.2 Walls: Existing
.3 Ceilings: Existing plaster board, repaired where damaged

.5 **Storage Room (Program Room Table Storage)**
.1 Floors: Resilient sheet flooring and rubber base
.2 Walls: 5/8"Abuse Resistant Painted Gypsum Wallboard
.3 Ceilings: 5/8"Abuse Resistant Painted Gypsum Wallboard

.6 **Mechanical Room (off Program Room)**
.1 Floors: Existing
.2 Walls: 2 Layers 5/8" Fire-rated Gypsum Board
.3 Ceilings: 2 Layers 5/8" Fire-rated Gypsum Board

.7 Service Corridor
.1 Floors: Existing
.2 Walls: Existing plaster board, repaired where damaged
.3 Ceilings: Existing plaster board, repaired where damaged

.8 Boiler Room
.1 Floors: Existing
.2 Walls: Existing
.3 Ceilings: 2 Layers 5/8" Fire-rated Gypsum Board

.9 Electrical Room
.1 Floors: Existing
.2 Walls: Existing
.3 Ceilings: Existing plaster Board, repaired where damaged

.10 Elevator Machine Room
.1 Floors: Existing
.2 Walls: Existing

.3 Ceilings: Existing

.11 **Gender Neutral Washrooms & UTRs**

.1 Floors: Resilient sheet flooring and rubber base

.2 Walls: Epoxy Painted 5/8" Moisture Resistant Gypsum Wallboard

.3 Ceilings: Epoxy Painted Gypsum Wallboard

.12 Staff Room:

.1 Floors: Existing

.2 Walls: Existing

.3 Ceilings: Existing

.13 North & South Exit Stairs:

.1 Floors: Existing

.2 Walls: 2 layers 5/8" Fire-rated Gypsum Board

.3 Ceilings: Existing ACT, repaired where damaged.

13.0 SPECIALTIES

.1 Elevator Upgrades:

.1 Provide new angled mirror on wall opposite door and voice annunciation upgrades at existing elevator.

.2 Assistive Listening System: Install within program room and at service desk.

.3 Install 2-way voice communication system at WADS rescue spaces (basement level, south exit stair)

.4 Washroom accessories to be Bobrick Contoured line commercial grade (or equal by Frost or ASI Watrous) and include: wall mounted grab bars, toilet paper holder, paper towel dispenser and disposal, feminine napkin disposal, soap dispenser, abuse resistant mirror, and soap dispenser.

.1 Provide wall mirror in new washrooms to underside of ceiling/bulkhead, full length of vanity.

.5 Access hatches:

.1 As required for mechanical/electrical equipment access above GWB ceilings

.1 Approximate quantity: (2), size (2'x2'), finish to match ceilings.

.2 Fire-rated access hatch in Sump Room:

.1 Quantity: (1), size (3'x3'), steel, surface-mounted, minimum 45 minute rating.

.3 New fire-rated hollow metal access door in Mech Room (off of Program Room). Size to match existing. Refer to Doors and Frames. Refer to drawings for location.

.4 New roof access hatch to suit new roofing.

.6 Detectable warning surfaces:

.1 Aluminum tactile indicators – 23mm diameter, 3mm profile, layout/spacing to meet WADS (2' deep x width of stair, domes 60mm O.C. minimum)

.7 Interior Furnishings & Appliances

.1 All furnishings & appliances by City of Winnipeg (N.I.C.)

.2 Computer workstations by City of Winnipeg (N.I.C)

.3 Family Literacy Playground furnishings by City of Winnipeg (N.I.C)

CrosierKilgour
Structural Engineering & Building Performance
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Company: 1x1 Architecture Inc.	Attention: Hillary Cohen
cc:	Project Number: 2022-0449
Re: West Kildonan Library Assessment Structural and Building Envelope Outline Specification Option A1	Date: 2023-10-31

1x1 Architecture's Option A1 proposed renovation of the existing West Kildonan Library consists of accessibility upgrades, replacement of the roofing systems, new air handlers and new windows.

Structural

The thin concrete exterior slabs at the main entrances exhibit surface deterioration. Replacement of these structural slabs and their edge beams, while retaining their support locations at the foundation walls and existing piles, will be included. Concrete will be Class C-1, achieving 35MPa at 28 days to CSA A23.1.

The new structural concrete landings and ramps also on the west side will require the same concrete mix and will be supported on friction piles. New structural slabs will be minimum 200 thick. Ramp beams will be a minimum of 250 wide and have a minimum height of 250 below the lowest supported slab.

To achieve the required slope of the structural ramp at the southeast corner, the existing 102mm slab and supporting 10"x24" beams will be removed and new beams and slab cast. The Tyndall stone stub walls that run along the ramp will be recreated from salvaged and new stone pieces.

The south wall of the existing exterior basement exit stair on the west side supports the elevator machine room roof and must remain.

The roof framing will need welded steel rod reinforcement of the existing open web steel joists in the area affected by snow build-up from the two new roof top air handlers.

Building Envelope

Other than the roofing work, the only envelope upgrade in Option A1 involves the existing windows. The new units will be triple glazing in thermally compatible fiberglass frames, tinted to a brown shade.

The rough openings will need to be temporarily opened for the full perimeter to allow tie-in details from the window sashes to the most airtight plane of the existing envelope. The finishes will then be restored.

Roof System

The most appropriate recommended long-term solution is to replace the existing roof assembly on all roof facets with a conventional, insulated 2-ply SBS modified bitumen membrane system. Roof facets are the main roof, upper roof, elevator roof, and mechanical roof, total 7,600 square feet. This would involve the following scope of work. Roof system to meet CSA123.2 for wind uplift resistance.

- Completely remove existing roof system, consisting of gravel, asphalt membrane, insulation, and vapor barrier to expose existing roof deck.

- Supply and install new 2.5mm SBS vapor barrier.
- Supply and install rigid tapered polyisocyanurate insulation at 1% to interior drains.
- Supply and install 2 layers of 1.5” polyisocyanurate insulation.
- Supply and install SBS semi adhered base membrane, directly to the underlying insulation.
- Supply and install SBS granulated traffic cap membrane.
- Supply and install new wood blocking to suit and edge detail, complete with SBS 2-ply modified bitumen base and granulated cap flashing membranes.
- Supply and install 4 new drain assemblies, complete with interior piping. Secondary drainage provided by 4 new overflow open metal scuppers.
- Supply and install 2 new vent / exhaust curb assemblies.
- Supply and install 1 new insulated roof access hatch and curb, complete with guard system.

New fall arrest safety guardrails would be provided in locations determined during detail design.

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OUTLINE SPECIFICATION

MECHANICAL & ELECTRICAL

West Kildonan Library Assessment

The following outline specification is based on a schematic design and intended for preliminary cost projections only.

1 INTRODUCTION

D20 – PLUMBING

.1 D2010 - Plumbing Fixtures

.1 Demolish existing washroom fixtures in the washroom at Rear Entry [103], W/C [110] and Janitor's Room [109] and associated plumbing lines back to main and cap main.

.2 Provide new washroom fixtures and trim for all new fixtures indicated on the architectural plans.

.3 Water closets to be wall mounted manual flush-valve elongated bowl, 4.8 lpf. Barrier-free locations to have 420 mm (16.5") high ADA-compliant bowl.

.4 Lavatories in the UTR and Barrier Free W/C to be wall mount vitreous china, c/w manual faucets, 1.9 lpm (0.5 gpm) low-flow aerators.

.5 Lavatories in the rest of the new washrooms to be counter mounted vitreous china c/w manual faucets, 1.9 lpm (0.5 gpm) low-flow aerators.

.6 All barrier-free lavatories to have hot water supplies insulated.

.7 Provide new Mop sink in new Janitor room: Molded stone with mop sink faucet. Provide 900 mm hose, stainless steel splash surrounds on walls and wall mounted mop and hose holders.

.8 Floor drains for all washrooms (open strainer) Quantity: 10

.9 All floor drains to have trap-seal primers.

.2 D2020 – Domestic Water Distribution

.1 Repair and/or complete missing insulation for domestic hot and cold-water piping throughout the building. Insulation to be fiberglass Paper-free ASJ pipe insulation and of the following thickness throughout the building:

.1 Domestic Cold water up to 50mm (2") – minimum 3mm (1") thick, with jacket.

.2 Domestic Cold water greater than 50mm (2") – minimum 25mm (1 ") thick, with jacket.

.3 Domestic Hot water and recirculation piping up to 50mm (2") – minimum 25mm (1") thick, with jacket.

.4 Vent piping insulated a minimum 3m (10 feet) from penetration of envelope – 50mm (2") thick insulation, jacket required where exposed.

.2 Provide domestic hot water recirculation system complete with re-circulation pump in the mechanical room and associated piping. Re-circulation pump to be complete with manual timer and temperature control.

.3 Water hammer arrestors to be provided at each fixture group.

.4 Chrome plated copper supplies to all fixtures.

D30 - HEATING, VENTILATION, AND AIR CONDITIONING (HVAC)

.3 D3020 – Heating Systems

.1 Demolish existing AO Smith Boiler,

.1 Demolish ancillary equipment piping within boiler room and controls.

.2 Demolish associated controls and breaching.

.3 Demolish Circulator boiler pump #1 and associated controls.

.4 Demolish existing heating loop pumps #2 and #3.

.2 Supply two new boilers, B-1 and B-2, each producing 503 MBH output. Vitocrossal 200-C12-750 or equivalent. Boilers are complete with integral integral circulation pumps.

.1 Connect the boiler injection loop to main piping loop with low loss header.

.2 Provide new building loop circulation pumps.

.3 Run new boiler flue venting up within existing chimney.

.4 Existing combustion and ventilation air shall remain for reuse.

.5 Modify existing and provide new pipng to accommodate new boilers.

.6 Modify existing natural gas piping to accommodate new boilers.

.7 Provide new condensate neutralizers on boiler condensate drains.

.4 D3030 – HVAC Distribution

.1 Modify existing ductwork and provide new where required to accommodate new Air Handling Units.

.2 The mechanical contractor shall include the costs associated with all commissioning of new and renovated equipment and systems.

.5 D3050 - Terminal and Packaged Units

.1 Demolish HC-3 rooftop unit on the roof together with associated controls.

.1 Replace HC-3 with new rooftop unit AHU-1, gas fired and DX cooled. Cooling capacity is 5 tons. Output heating capacity is 121.5 MBH. Trane YSC060G3EHB**D101 or equivalent complete with curb adaptor.

.2 Demolish HC-4 rooftop unit on the roof together with associated controls.

.1 Replace HC-4 with new rooftop unit AHU-2, gas fired and DX cooled. Cooling capacity is 5 tons. Output heating capacity is 121.5 MBH. Trane YSC060G3EHB**D101 or equivalent complete with curb adaptor.

.3 Demolish HC-5 rooftop unit in courtyard together with associated controls.

.1 Replace HC-5 with new rooftop unit AHU-3, gas fired and DX cooled. Cooling capacity is 5 tons. Output heating capacity is 121.5 MBH. Trane YSC060G3EHB**C101 or equivalent complete with curb adaptor.

.4 Demolish HC-6 rooftop unit in courtyard together with associated controls.

.1 Replace HC-6 with new rooftop unit AHU-4, gas fired and DX cooled. Cooling capacity is 4 tons. Output heating capacity is 105.3 MBH. Trane YSC048G3EHB**C001 or equivalent complete with curb adaptor.

.5 Demolish Hydronic air handling unit in basement along with associated controls.

.1 Demolish hot water piping back to main and cap at main.

.2 Demolish existing associated return and supply ductwork.

.6 Demolish existing HRV above W/C [110] and Janitor RM [109] and associated controls and ductwork.

.1 Replace existing HRV with ERV-1. Basis of design is NU1200ERV with defrost option NU1200DL or equivalent.

.2 Exhaust from main floor and basement washrooms and main floor janitor room and route exhaust ductwork to new ERV-1. Connect supply duct work of ERV-1 to return duct of new AHU-1 and AHU-2.

.7 Modify existing and provide new supply and return ductwork to accommodate new air handling units.

.6 D3060 – Controls and Integration

.1 Controls contractor to allow for the supply and installation of all controls wiring, interlocks, gas sensors, and control devices not supplied by the mechanical trade.

.2 Provide Digital Controls to match existing City of Winnipeg standard Johnson Metasys Controls system for connection to Central Building Controls network.

.7 D3080 - Testing, Adjusting and Balancing

.1 Include all air balancing, water balancing, fire damper inspection, piping pressure testing and equipment commissioning.

.2 All new and revised HVAC systems shall be fully balanced by an CAABC certified balancing company.

.3 The mechanical contractor shall include the costs associated with all commissioning of new and renovated equipment and systems.

D50 - ELECTRICAL

D5000 – Common Electrical Requirements

.1 General Electrical:

.1 Unless otherwise noted, the terms “install” or “provide” shall include the complete supply and installation of the items noted including all equipment, materials and commissioning necessary for a fully functional system.

.2 Include all costs associated with electrical permits, fire alarm verification, systems commissioning and systems training.

.3 The work as herein described is preliminary and subject to final design.

.2 Itemized Pricing:

.1 Provide itemized pricing in addition to totalized pricing for all electrical for the following items further identified and clarified within this outline specification:

.1 Lighting:

.1 General lighting.

.2 Exit signage and emergency lighting systems.

.2 Lighting Controls:

.1 Interior lighting control

.2 Exterior lighting control

.3 Miscellaneous Power:

.1 Public area supply and installation. Include all power outlets, equipment connections, mechanical connections, and electric heaters.

.4 Fire Alarm System

D5010 - Electrical Service and Distribution

.3 The existing electrical distribution resides in the basement electrical room. As the intended use of the facility is not changing, we anticipate the existing distribution to have sufficient capacity to support the renovation area electrical requirements.

.4 The existing panelboards, which are located within the main electrical room, shall be reused as required for general lighting and power loads within the space. Provide new breakers as required. Provide typewritten panel directories indicating updated circuiting.

D5020 - Lighting and Branch Wiring

.5 Demolish existing General Electric dial control zone system, including all associated panels, and devices.

.6 Demolish all existing lighting fixtures.

.7 Provide new lighting control throughout the building.

.1 Waiting Area/Reception/Corridors – Ceiling mounted occupancy sensors complete with digital touchscreen time clock override-on such that

luminaires will be on during normal hours, and on occupancy sensor control after hours.

.1 Allow for one (1) digital touchscreen time clock wall station, twenty-five (20) ceiling mounted occupancy sensors, and five (5) ceiling mounted occupancy sensors with daylight harvesting capability.

.2 Assembly room – Low voltage wall station and ceiling mounted occupancy sensors.

.1 Allow for one (1) wall station and two (2) ceiling mounted occupancy sensors.

.3 Washrooms and storage spaces – Wall mounted occupancy sensor. Allow for eight (8) devices.

.4 Service Spaces – Line voltage manual toggle switch.

.1 Allow for five (5) devices.

.8 Emergency and egress lighting shall be provided throughout all means of egress and service spaces to suit code requirements.

.1 Two (2) emergency battery banks shall be provided in building. The emergency battery bank shall be minimum 12 volt with adequate wattage. The battery bank shall be complete with 5 watt MR16 LED lamps, zone sensing to pick up egress lighting circuits and multiple night lighting circuits as required.

.2 All emergency lighting double remote heads shall be surface designer series equal to Lumacell Signature Collection, complete with minimum 5 watt MR16 LED lamps. Remote heads shall be provided in areas in which existing fixtures do not provide adequate coverage, allow for thirty (30) fixtures.

.3 Exit lighting shall be extruded aluminum equal to Lumacell LA Series complete with LED and single/double face pictogram style. All signs shall be universal mount. Allow for twenty (20) exit signs.

.9 Provide new LED lighting throughout the building. Allow for the following:

.1 One hundred (100) 2x4 recessed lighting fixtures.

.2 Forty (40) 2x4 surface mounted fixtures.

.3 Ten (10) 4ft LED strip lights.

.4 Five (5) 8ft LED linear pendant lights.

.10 Existing exterior flush mounted fixtures in entrance canopy shall be replaced with new fixture LED flush mount type, wet location rated. Allow for twelve (12) fixtures.

.11 Minimum wire size shall be #12 AWG. Existing wiring devices shall not be reused.

.12 Wiring devices shall be “standard” style, commercial specification grade complete with stainless steel coverplates. Color of devices to be confirmed by architect.

.1 Provide GFI type receptacles in all locations with 1.5m of sinks. Allow for five (5) receptacles.

.13 All wiring in ceiling spaces shall be run in conduit, with AC90 drops to individual devices as required.

.14 All branch circuit wiring that is not armored or concealed in conduit shall be replaced with suitable conduit/wiring combination. Allow for 50m.

D5030 – Mechanical Equipment

.15 Disconnect and remove all existing electrical services, back to source, supplying mechanical equipment being demolished. Refer to Mechanical outline.

.16 Wire and connect all mechanical equipment requiring electrical connections as indicated by mechanical.

.17 Refer to mechanical outline for further requirements under this heading.

D5080 - Miscellaneous Electrical Systems

.18 Wire and connect barrier free door operators complete with all associated wiring and controls.

D70 - ELECTRONIC SAFETY AND SECURITY

D7050 –Detection and Alarm

.19 The existing fire alarm system is a Mircom FX 2000 addressable fire alarm system by Fire-Tech. Audible/visual notification is provided through horn/strobe devices. The existing system appears to have sufficient capacity to support the additional devices.

.20 All fire alarm pull stations shall be lowered to accessible height. Top of device shall be 1200mm AFF. Allow for five (5) pull stations.

.21 Relocate existing and provide new initiating devices to suit code requirements.

.22 The existing addressable loop shall be expanded to pick up the new devices as required.

.23 Provide visual notification appliances throughout building. Allow for twenty (20) devices.

.24 Provide combination visual/audible notification devices. Allow for five (5) new devices.

.25 Provide smoke detectors in all public corridors. Allow for ten (10) new devices.

.26 Provide carbon monoxide detection in:

.1 Service rooms with fuel-burning appliances.

.2 Rooms adjacent to service rooms with fuel-burning appliances.

.3 Public corridors.

.4 Allow for eight (8) detectors.

.27 Provide duct-type smoke detector for air-handling units. Allow for four (4) detectors.

.28 Provide verification of system for all new and modified devices.

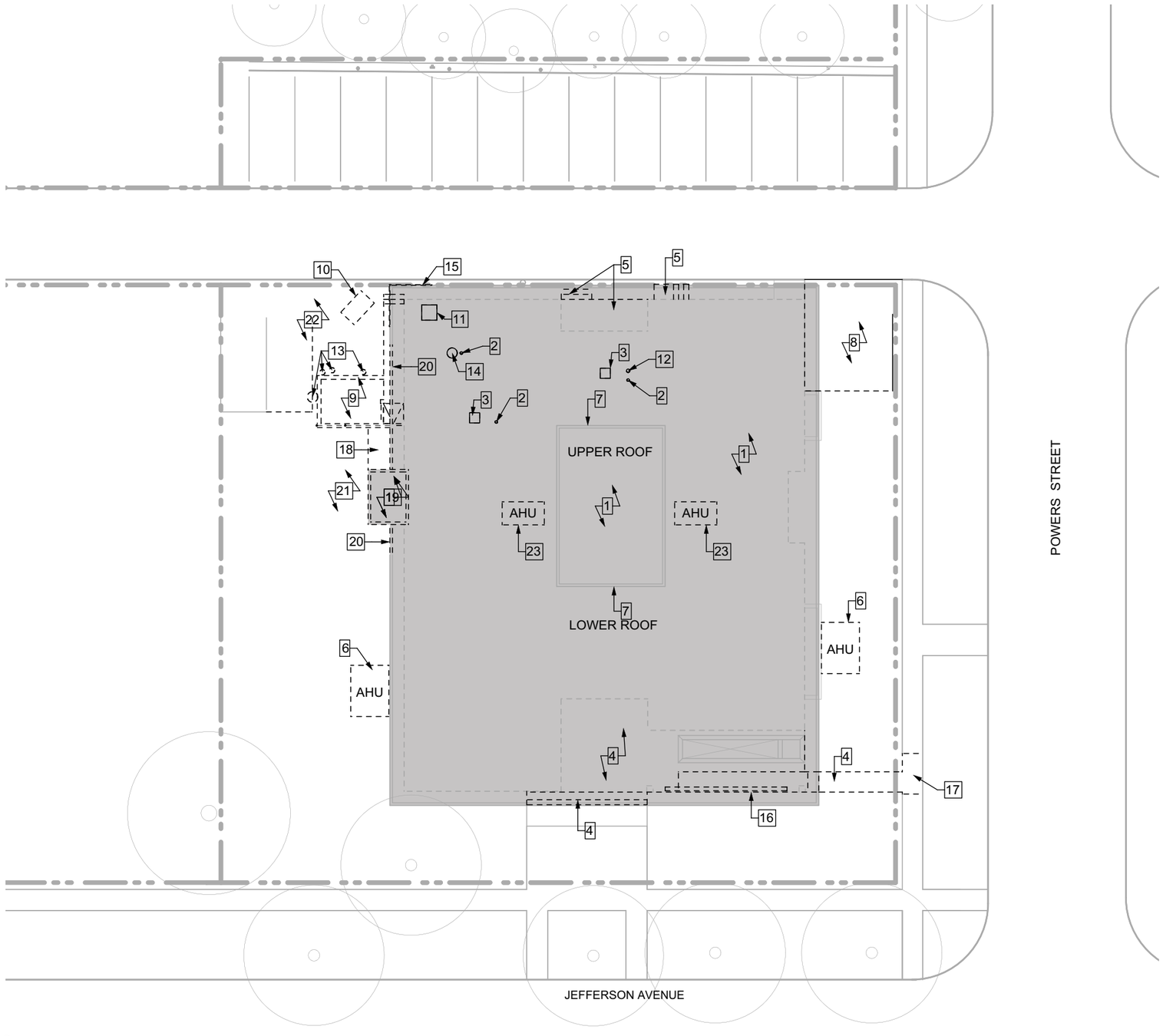
END OF SECTION

OPTION 2 (A2)



SITE PLAN DEMOLITION NOTES OPTION A2

1. DEMOLISH EXISTING ROOFING IN ITS ENTIRETY. REMOVE EXISTING MEMBRANE, GRAVEL, AND INSULATION DOWN TO ROOF DECK STRUCTURE ON ALL ROOF FACETS.
2. DEMOLISH EXISTING ROOF VENTS
3. MODIFY EXHAUST FAN TO SUIT NEW ROOFING
4. DEMOLISH EXISTING SOUTH CONCRETE LANDING, STAIR, AND RAMP.
5. DEMOLISH EXISTING NORTH CONCRETE LANDING AND STAIR.
6. DEMOLISH EXISTING AHU. REFER TO MECH OUTLINE SPEC. EXISTING CONCRETE PAD BELOW TO REMAIN.
7. DEMOLISH EXISTING CLERESTORY WINDOWS.
8. DEMOLISH ASPHALT AT ACCESSIBLE PARKING STALL
9. DEMOLISH EXISTING DECOMMISSIONED EXTERIOR STAIR
10. RELOCATE GARBAGE BIN
11. DEMOLISH EXISTING ROOF ACCESS HATCH
12. DEMOLISH EXISTING ROOF DRAIN
13. DEMOLISH EXISTING TREE
14. MODIFY CHIMNEY TO SUIT NEW ROOFING
15. DEMOLISH EXISTING ROOF GUARDRAIL
16. REMOVE EXISTING PARTIAL HEIGHT TYNDALL STONE WALL. STORE TYNDALL STONE FOR REINSTALLATION.
17. DEMOLISH EXISTING SIDEWALK FOR NEW LOWER LANDING.
18. DEMOLISH EXISTING ELEVATOR MACHINE ROOM
19. DEMOLISH EXISTING ELEVATOR
20. DEMOLISH EXISTING PARAPET/FASCIA FOR TIE-IN OF NEW ROOF TO EXISTING
21. DEMOLISH SOD AND EXCAVATE AREA FOR NEW BUILDING ADDITION.
22. DEMOLISH ASPHALT AND PREPARE AREA FOR NEW RAMP
23. DEMOLISH EXISTING AHU. REFER TO MECH OUTLINE SPEC. REFER TO STRUCTURAL FOR REINFORCING.



1 SITE & ROOF PLAN - DEMOLITION - OPTION A2
Scale: N.T.S.

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SITE PLAN DEMO - OPTION A2
2023-11-09

A-10

ZONING REVIEW:

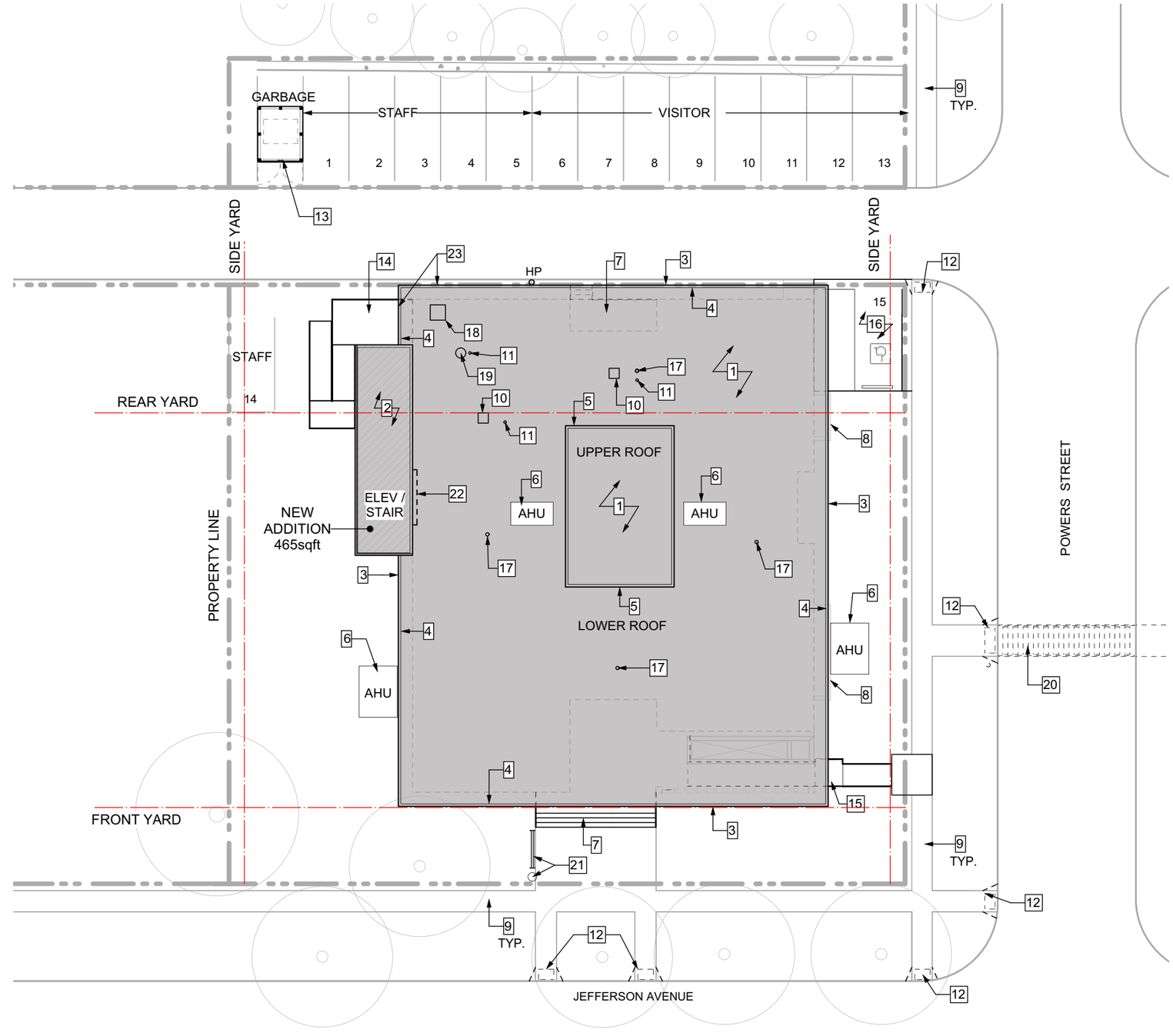
PARKING:
STAFF STALLS - 6
VISITOR STALLS - 8
ACCESSIBLE PARKING - 1
TOTAL PARKING STALLS: 15

BUILDING AREA:
EXISTING BUILDING MAIN FLR: 6590sqft
ADDITION MAIN FLR: 465sqft
EXISTING BUILDING BASEMENT: 6660sqft
ADDITION BASEMENT: 550sqft
TOTAL FLOOR AREA: 14265

ZONING REQUIREMENTS:
CATEGORY 9: 1 STALL PER 1000 sqft
14265/1000 = 14.3 = 14 STALLS REQUIRED

URBAN INFILL AREA: REDUCE TO 80% OF REQ'D
14 x 0.8 = 11.2 = **11 STALLS REQ'D**

NOTE: BUILDING PROJECTS INTO REAR YARD
(EXISTING CONDITION)



SITE PLAN KEYNOTES - OPTION A2

1. REPLACE EXISTING ROOFING. INSTALL CONTINUOUS SELF-ADHERED AIR/VAPOUR BARRIER MEMBRANE. INSTALL RIGID SLOPED INSULATION SYSTEM & POLYISOCYANURATE INSULATION BOARDS (R28). INSTALL SBS MODIFIED BASE SHEET MEMBRANE AND SBS MODIFIED CAP SHEET MEMBRANE. INSTALL PERIMETER METAL FLASHING ASSEMBLY AT PARAPETS, ALL TRANSITIONS, AND ALL ROOF PENETRATIONS. REPLACE ALL DOWNSPOUTS AND SCUPPERS.
2. INSTALL NEW ROOFING AT ADDITION. INSTALL CONTINUOUS SELF-ADHERED AIR/VAPOUR BARRIER MEMBRANE. INSTALL RIGID SLOPED INSULATION SYSTEM & POLYISOCYANURATE INSULATION BOARDS (R28). INSTALL SBS MODIFIED BASE SHEET MEMBRANE AND SBS MODIFIED CAP SHEET MEMBRANE. INSTALL PERIMETER METAL FLASHING ASSEMBLY AT PARAPETS, ALL TRANSITIONS, AND ALL ROOF PENETRATIONS. ROOF OF ADDITION TO BE INTERNALLY DRAINED W/ NEW SCUPPERS AND DOWNSPOUTS
3. EDGE OF EXISTING ROOF OVERHANG
4. NEW ROOF PARAPET.
5. INSTALL NEW CLERESTORY WINDOWS C/W NEW WINDOW FLASHINGS
6. REPLACE EXISTING AHU.
7. INSTALL NEW CONCRETE LANDING AND STAIR
8. EXISTING WINDOW WELL TO REMAIN
9. EXISTING SIDEWALK TO REMAIN
10. NEW EXHAUST FAN TO SUIT NEW ROOFING
11. NEW VENT PIPE TO SUIT NEW ROOFING
12. FUTURE SIDEWALK ACCESSIBILITY UPGRADES BY PUBLIC WORKS (N.I.C.)
13. NEW P.T. WOOD GARBAGE ENCLOSURE
14. INSTALL NEW CONCRETE LANDING AND RAMP.
15. INSTALL NEW CONCRETE RAMP W/ INTERMEDIATE LANDING AND LARGER LOWER LANDING AT SIDEWALK.
16. REGRADE EXISTING PARKING STALL. INSTALL NEW ASPHALT AND PAINT NEW AISLE / STALL LINES / ACCESSIBILITY SYMBOL.
17. NEW ROOF DRAIN (X4 TOTAL)
18. NEW ROOF ACCESS HATCH
19. MODIFY EXISTING CHIMNEY TO SUIT NEW ROOFING
20. FUTURE CROSSWALK TO ADJACENT PARKING AT WEST K MEMORIAL COMMUNITY CENTRE
21. RELOCATED BIKE RACK / GARBAGE BINS
22. REPAIR EXISTING ROOF WHERE ELEVATOR DEMOLISHED
23. NEW ROOF GUARDRAIL AT ACCESS HATCH

LEGEND
ZONING REQ'D YARD / SETBACK

1 SITE & ROOF PLAN - RENOVATION - OPTION A2
Scale: N.T.S.

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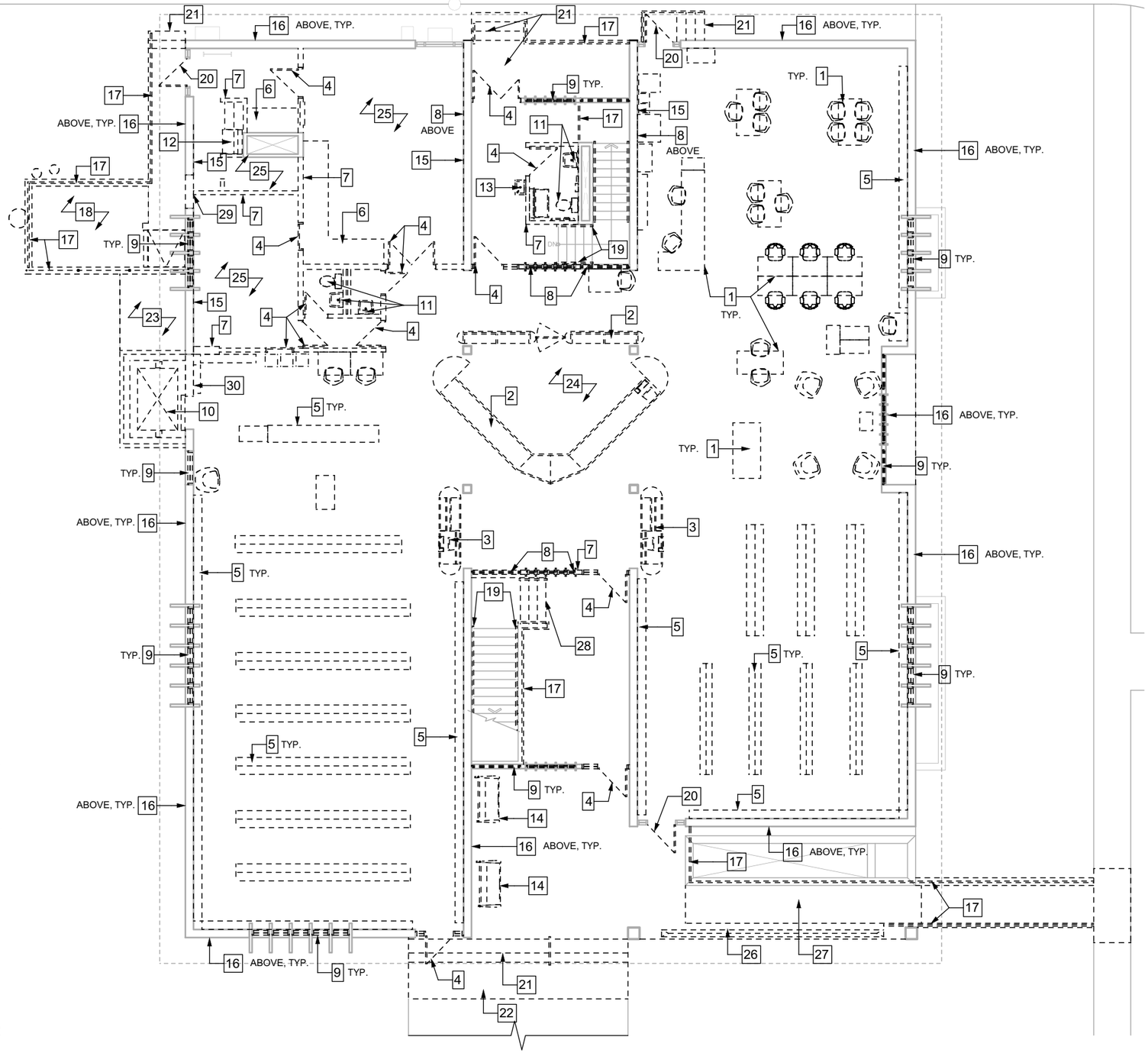
SITE PLAN - OPTION A2
2023-11-09

A-11

MAIN FLOOR PLAN DEMOLITION KEYNOTES - OPT A2

1. REMOVE EXISTING FURNITURE AND RETURN TO OWNER.
2. DEMOLISH EXISTING SERVICE DESK IN ITS ENTIRETY
3. DEMOLISH EXISTING COMPUTER WORKSTATION MILLWORK
4. DEMOLISH EXISTING DOOR & FRAME
5. DEMOLISH EXISTING BOOKSHELVES
6. DEMOLISH EXISTING DESK MILLWORK
7. DEMOLISH EXISTING WALLS
8. DEMOLISH EXISTING GLAZING & ALUMINUM FRAMES
9. DEMOLISH EXISTING WINDOWS
10. DEMOLISH EXISTING ELEVATOR IN ITS ENTIRETY
11. DEMOLISH EXISTING PLUMBING FIXTURES
12. DEMOLISH EXISTING CLOSET MILLWORK
13. DEMOLISH EXISTING DRINKING FOUNTAIN
14. STORE BENCH FOR REINSTALLATION
15. DEMOLISH EXISTING PLASTER BOARD AT STAIRWELL
16. DEMOLISH EXISTING TRANSOM WINDOWS
17. DEMOLISH EXISTING GUARDRAIL
18. DEMOLISH EXISTING DECOMMISSIONED STAIR.
19. DEMOLISH EXISTING HANDRAILS
20. EXISTING WOOD DOOR LEAF TO BE FIXED IN PLACE - REMOVE EXISTING DOOR HARDWARE AND PROVIDE NEW SEALS AROUND DOOR.
21. DEMOLISH EXISTING CONCRETE LANDING & STAIR
22. DEMOLISH PORTION OF EXISTING SIDEWALK
23. DEMOLISH EXISTING ELEVATOR MACHINE ROOM IN ITS ENTIRETY.
24. DEMOLISH EXISTING CARPET FLOORING
25. DEMOLISH EXISTING FLOORING
26. REMOVE EXISTING PARTIAL HEIGHT TYNDALL STONE WALL. STORE TYNDALL STONE FOR REINSTALLATION
27. DEMOLISH EXISTING CONCRETE RAMP
28. DEMOLISH EXISTING STAIR TREADS. MODIFY EXISTING FLOOR TO SUIT NEW STAIR CONFIGURATION. REFER TO RENOVATION PLAN.
29. DEMOLISH OPENING FOR NEW DOOR. PROVIDE STRUCTURE ABOVE AS REQ'D.
30. WIDEN EXISTING OPENING FOR ENTRANCE TO NEW ADDITION. PROVIDE STRUCTURE ABOVE AS REQ'D.



1 MAIN FLOOR DEMOLITION PLAN - OPTION A2
Scale: 1:150

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MAIN FLOOR PLAN DEMO - OPTION A2

2023-11-09

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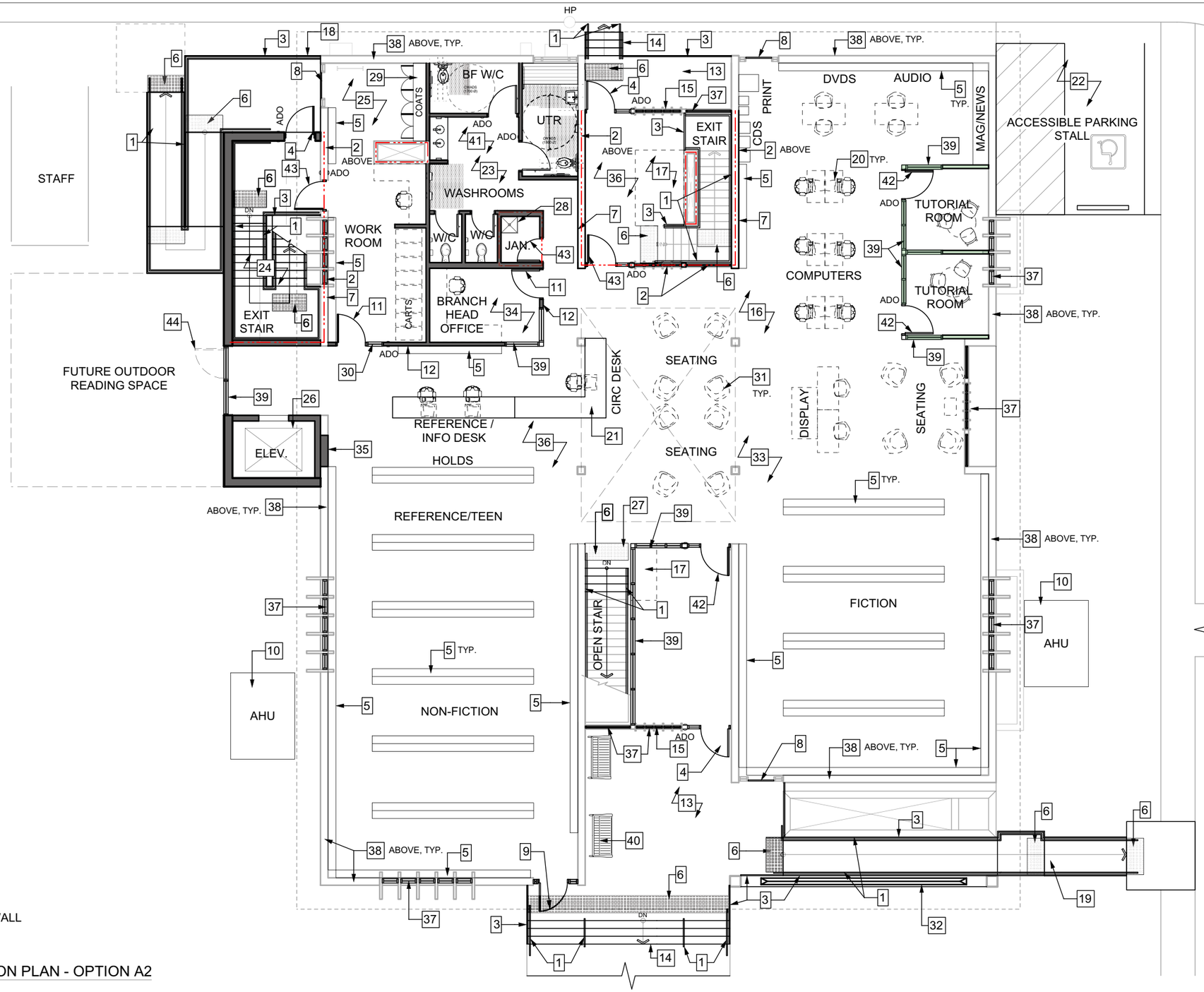

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LEGEND

- EXISTING WALL
- NEW WALL
- NEW DEMOUNTABLE WALL
- FIRE SEPARATION

1 MAIN FLOOR RENOVATION PLAN - OPTION A2
Scale: 1:150

MAIN FLOOR PLAN KEYNOTES - OPTION A2

1. INSTALL NEW DUAL HANDRAILS TO MEET WADS.
2. INSTALL NEW 45MIN FIRE-RATED HOLLOW METAL WINDOW FRAMES W/ WIRED GLASS.
3. INSTALL NEW GUARDRAIL TO MEET WADS.
4. INSTALL NEW HOLLOW METAL DOOR & FRAME.
5. INSTALL NEW WADS COMPLIANT SHELVING. SHELVING TO BE BUILT WITH KICK VENT FOR PERIMETER WALL FIN HEATERS WHERE PRESENT.
6. INSTALL NEW DETECTABLE WARNING SURFACE TO MEET WADS.
7. INSTALL 2 LAYERS 5/8" TYPE 'X' DRYWALL ON EXISTING STUDS TO PROVIDE 45 MIN. FRR
8. EXISTING WOOD DOOR LEAF TO BE FIXED IN PLACE - REMOVE EXISTING DOOR HARDWARE AND PROVIDE NEW SEALS AROUND DOOR.
9. NEW WIDENED EXTERIOR WOOD DOOR & FRAME (TO MATCH EXISTING)
10. REPLACE EXISTING AIR HANDLING UNIT
11. NEW WOOD DOOR & FRAME
12. NEW VERTICAL CEDAR SIDING (TO MATCH EXISTING)
13. NEW CONCRETE LANDING
14. INSTALL NEW CONCRETE STAIR.
15. LOWER EXISTING BOOK SLOT. REPLACE EXISTING WINDOW TO SUIT.
16. INSTALL NEW CARPET TILE FLOORING THROUGHOUT OPEN LIBRARY SPACE.
17. INSTALL NEW CERAMIC TILE FLOORING (TO MATCH EXISTING)
18. INSTALL NEW CONCRETE LANDING AND RAMP.
19. INSTALL NEW CONCRETE RAMP W/ INTERMEDIATE LANDING AND LARGER LOWER LANDING AT SIDEWALK.
20. NEW ACCESSIBLE COMPUTER WORKSTATIONS. NEW FURNITURE IS N.I.C.
21. INSTALL NEW ACCESSIBLE SERVICE DESK (MILLWORK) TO REPLACE EXISTING.
22. REGRADE EXISTING PARKING STALL. INSTALL NEW ASPHALT AND PAINT NEW AISLE / STALL LINES / ACCESSIBILITY SYMBOL.
23. INSTALL NEW RESILIENT SHEET FLOORING AND GWB CEILING THROUGHOUT NEW WASHROOMS AND JANITOR ROOM
24. INSTALL NEW CONCRETE EXIT STAIR C/W COLOUR AND TEXTURE CONTRASTED NOSINGS
25. INSTALL NEW RESILIENT SHEET FLOORING AND ACT CEILING THROUGHOUT NEW WORK ROOM
26. INSTALL NEW WADS COMPLIANT ELEVATOR
27. MODIFY EXISTING STAIR CONFIGURATION (BUILD NEW LANDING AND MODIFY FLOOR STRUCTURE AND CEILING TO SUIT).
28. NEW MOP SINK IN JANITOR ROOM
29. INSTALL NEW MILLWORK CABINET
30. INSTALL NEW SIDELIGHT
31. NEW FURNITURE. ALL FURNITURE IS N.I.C.
32. REBUILD TYNDALL STONE WALL.
33. PATCH DAMAGED PLASTER BOARD WALLS
34. INSTALL NEW CARPET TILE FLOORING AND ACT CEILING THROUGHOUT BRANCH HEAD OFFICE
35. INFILL EXISTING WINDOW OPENING
36. REPAIR DAMAGED ACT CEILING.
37. INSTALL NEW EXTERIOR TRIPLE PANE FIBREGLASS WINDOWS
38. INSTALL NEW EXTERIOR TRIPLE PANE FIBREGLASS TRANSOM WINDOWS
39. NEW FULL HEIGHT (FLOOR TO CEILING) GLAZING
40. REINSTALL BENCHES (2 TOTAL)
41. NEW GENDER NEUTRAL WASHROOMS. INSTALL FULL HEIGHT WALLS AND HM DOORS & FRAMES (NOT TOILET PARTITIONS). INSTALL NEW PLUMBING FIXTURES, WASHROOM ACCESSORIES, WOOD CHANGE BENCH / EMERGENCY CALL BUTTON (IN UTR ONLY), AND SINK VANITY AS SHOWN.
42. NEW ALUMINUM/GLASS DOOR & FRAME
43. INSTALL NEW 45 MIN FIRE-RATED HOLLOW METAL DOOR & FRAME
44. FUTURE DOOR (N.I.C.)

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MAIN FLOOR PLAN - OPTION A2

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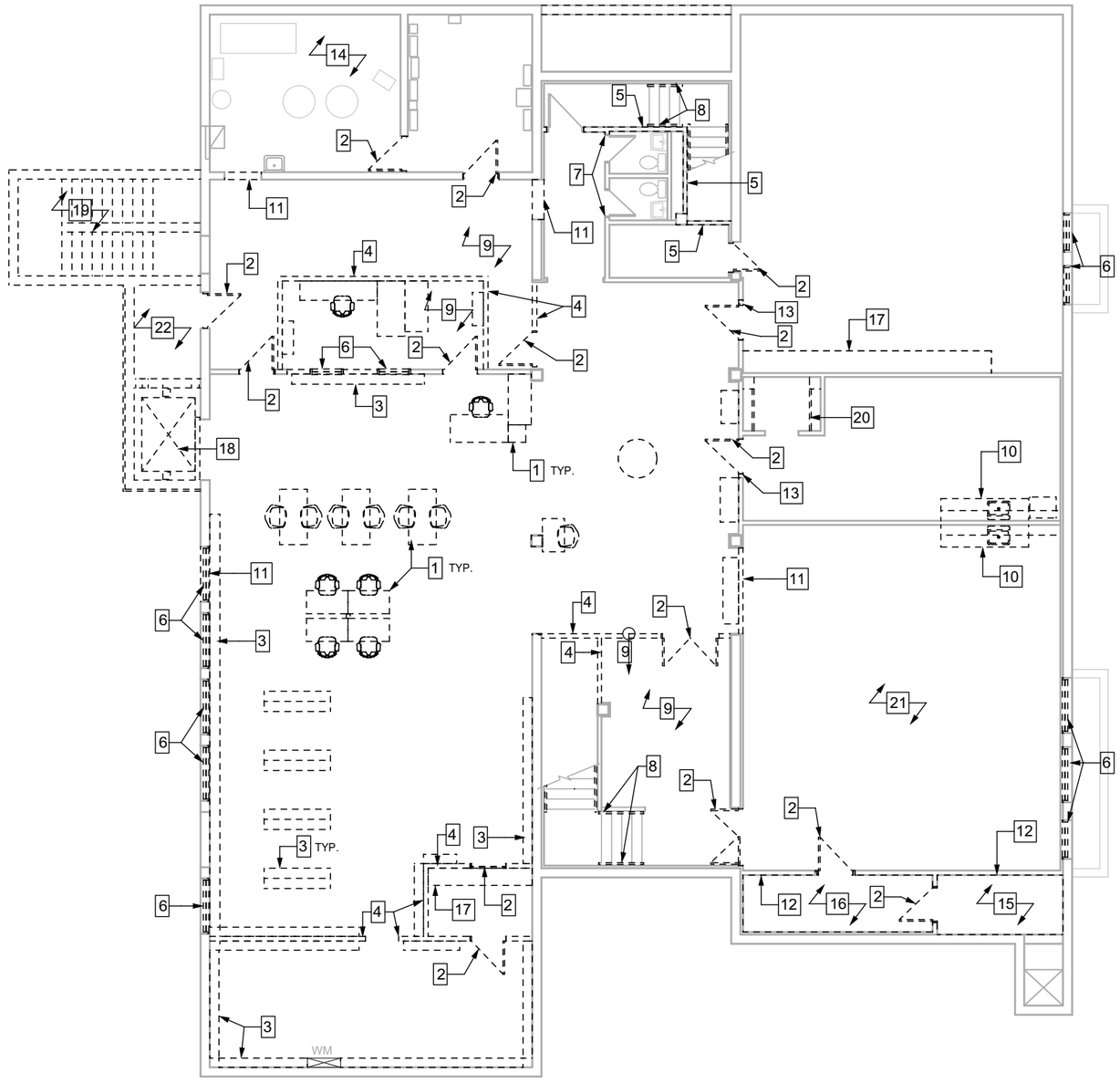
A-13



BASEMENT DEMOLITION PLAN KEYNOTES - OPT A2

1. REMOVE EXISTING FURNITURE AND RETURN TO OWNER.
2. DEMOLISH EXISTING DOOR & FRAME
3. DEMOLISH EXISTING BOOKSHELVES
4. DEMOLISH EXISTING WALLS
5. DEMOLISH EXISTING PLASTER BOARD AT STAIRWELL
6. DEMOLISH EXISTING WINDOWS
7. REMOVE EXISTING DOOR HARDWARE (KNOBS)
8. DEMOLISH EXISTING HANDRAILS
9. DEMOLISH EXISTING FLOORING
10. DEMOLISH EXISTING KITCHEN MILLWORK & SINK
11. DEMOLISH OPENING FOR NEW DOOR
12. DEMOLISH EXISTING PLASTER BOARD AT MECH ROOM/STORAGE ROOM
13. WIDEN DOOR OPENING TO SUIT NEW DOOR WIDTH
14. DEMOLISH EXISTING STUCCO CEILING
15. DEMOLISH EXISTING GWB CEILING
16. DEMOLISH EXISTING GWB CEILING & FLOORING
17. DEMOLISH EXISTING MILLWORK.
18. DEMOLISH EXISTING ELEVATOR IN ITS ENTIRETY INCLUDING ELEVATOR SHAFT WALLS & ROOF.
19. DEMOLISH EXISTING DECOMMISSIONED STAIR.
20. DEMOLISH EXISTING CLOSET MILLWORK
21. DEMOLISH EXISTING FLOORING & CEILING
22. DEMOLISH EXISTING ELEVATOR MACHINE ROOM IN ITS ENTIRETY.

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1 BASEMENT DEMOLITION FLOOR PLAN - OPTION A2
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BASEMENT FLOOR PLAN DEMO - OPTION A2

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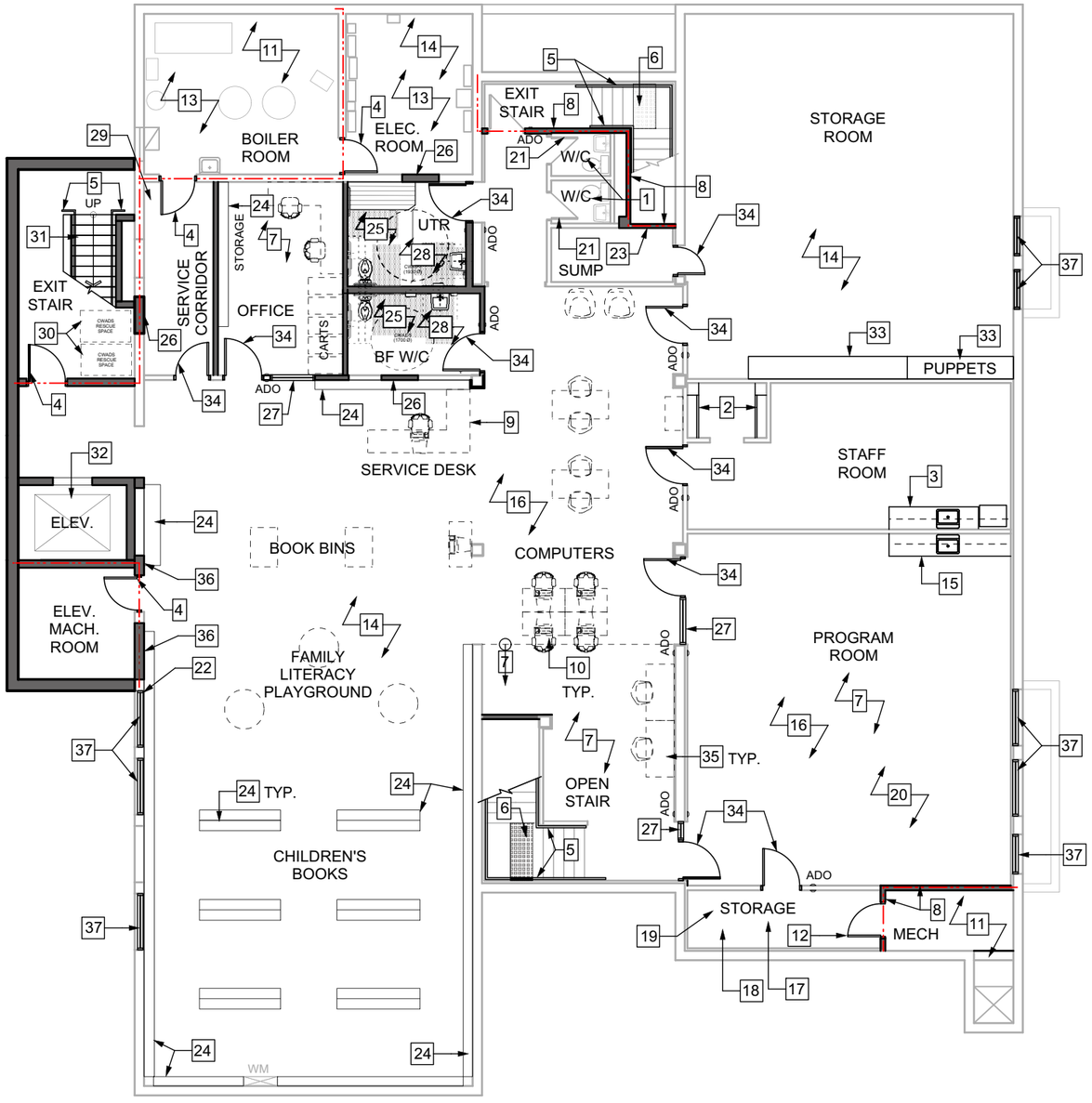
A-14



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LEGEND

- EXISTING WALL
- NEW WALL
- FIRE SEPARATION

1 BASEMENT RENOVATION FLOOR PLAN - OPTION A2
Scale: 1:150

BASEMENT PLAN KEYNOTES - OPTION A2

1. REPLACE DAMAGED CERAMIC TILES IN EXISTING WASHROOMS. REPLACE ACT CEILINGS.
2. INSTALL NEW ACCESSIBLE HEIGHT CLOSET MILLWORK
3. INSTALL NEW CWADS COMPLIANT KITCHENETTE C/W NEW SINK & OPENINGS FOR FRIDGE & MICROWAVE
4. INSTALL NEW FIRE RATED HOLLOW METAL DOOR & FRAME (45MIN).
5. INSTALL NEW DUAL HANDRAILS TO MEET WADS.
6. INSTALL NEW DETECTABLE WARNING SURFACE TO MEET WADS.
7. INSTALL NEW CARPET TILE FLOORING
8. INSTALL 2 LAYERS 5/8" TYPE 'X' DRYWALL ON EXISTING STUDS TO PROVIDE 45 MIN. FRR
9. INSTALL NEW ACCESSIBLE SERVICE DESK TO REPLACE EXISTING. ALL NEW FURNITURE IS N.I.C.
10. NEW ACCESSIBLE COMPUTER WORKSTATIONS. ALL NEW FURNITURE IS N.I.C.
11. INSTALL NEW CEILING IN MECH ROOM - 2 LAYERS 5/8" TYPE 'X' DRYWALL.
12. INSTALL NEW FIRE RATED HOLLOW METAL ACCESS DOOR & FRAME (45MIN).
13. FIRESTOP ALL PENETRATIONS IN ROOM WHERE FIRESTOPPING IS NOT ALREADY PRESENT. INSTALL FIRE DAMPERS WHERE NOT PRESENT.
14. PATCH & REPAIR EXISTING OPENINGS/DAMAGE IN PLASTER BOARD CEILING.
15. INSTALL NEW WADS COMPLIANT KITCHENETTE C/W NEW SINK
16. INSTALL NEW ACOUSTIC CEILING TILE THROUGHOUT ROOM.
17. INSTALL NEW RESILIENT SHEET FLOORING THROUGHOUT ROOM
18. INSTALL NEW CEILING IN STORAGE ROOM - 1 LAYER 5/8" TYPE 'X' DRYWALL.
19. REPLACE DRYWALL ON ALL WALLS OF ROOM - 1 LAYER 5/8" TYPE 'X'
20. INSTALL ASSISTIVE LISTENING SYSTEM THROUGHOUT ROOM
21. INSTALL NEW DOOR HARDWARE AT EXISTING DOOR
22. REMOVE EXISTING EXPOSED FOAMED PLASTIC PRESENT AT PIPING.
23. PROVIDE NEW FIRE-RATED ACCESS HATCH INTO CRAWLSPACE BELOW STAIR
24. INSTALL NEW WADS COMPLIANT SHELVING.
25. NEW GENDER NEUTRAL WASHROOM. INSTALL NEW PLUMBING FIXTURES, WASHROOM ACCESSORIES, AND WOOD CHANGE BENCH / EMERGENCY CALL BUTTON (IN UTR ONLY).
26. INFILL EXISTING DOOR OPENING.
27. INSTALL NEW SIDELIGHT
28. INSTALL NEW RESILIENT SHEET FLOORING AND GWB CEILING IN WASHROOM
29. PATCH EXISTING GWB CEILING
30. NEW DESIGNATED WADS RESCUE SPACE. PROVIDE 2-WAY VOICE COMMUNICATION SYSTEM BETWEEN SPACE AND CENTRAL ALARM. INSTALL SIGNAGE.
31. NEW CONCRETE EXIT STAIR
32. INSTALL NEW WADS COMPLIANT ELEVATOR
33. NEW WADS COMPLIANT MILLWORK (FULL HEIGHT CABINETS W/ SHELVING)
34. INSTALL NEW HOLLOW METAL DOOR & FRAME
35. NEW FURNITURE - ALL NEW FURNITURE IS N.I.C.
36. INFILL EXISTING WINDOW OPENING
37. INSTALL NEW TRIPLE PANE FIBREGLASS WINDOW

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BASEMENT FLOOR PLAN - OPTION A2

2023-11-09

A-15

OUTLINE SPECIFICATION

FEASIBILITY STUDY FOR THE
WEST KILDONAN LIBRARY
365 Jefferson Avenue, Winnipeg MB

Issued for Class 4 Cost Estimate – Option A2

November 2023

Consultant Team:
1x1 architecture inc. (Prime / Architectural)
Crosier Kilgour (Structural & Building Envelope)
Epp Siepman Engineering (Mechanical / Electrical)
GWH Construction Management (Cost Consultant)

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ARCHITECTURAL

1.0 GENERAL REQUIREMENTS

.1 GENERAL

.1 This project consists of alterations and new construction to the West Kildonan Library located at 365 Jefferson Avenue in Winnipeg.

.2 The scope of work is as follows:

.1 Option A2:

.1 Interior renovations to the existing +/- 640sqm (6889sqft) library building built in 1967 (main floor and basement level). Demolition scope to suit proposed renovations;

.2 Construction of a new one-storey +/- 43sqm (465sqft) building addition;

.3 Installation of new roofing (addition and existing building);

.4 Construction of new exterior concrete ramps and stairs;

.5 Regrading/new asphalt at accessible parking stall;

.6 Construction of wood garbage enclosure;

.3 The project will be constructed for the City of Winnipeg as the client and all City of Winnipeg standards for their construction to be followed, including City of Winnipeg Accessibility Standards (2018 revision).

.4 The existing library building and was constructed in 1967. Asbestos Containing Materials are present in the existing library (drywall compound, stucco ceiling in boiler room, pipe fittings, mastic, floor tiles, duct insulation). Refer to the asbestos inventory provided by the City of Winnipeg.

.5 The building addition will be required to meet the Manitoba Energy Code for Buildings (MECB). The addition will be energy modeled to ensure its design meets the Energy Code requirements. The Place of Work for this project falls within Climate Zone 7A.

.6 Existing building does not need to remain operational during demolition & construction.

.2 REGULATORY ANALYSIS:

.1 The work of this project will be governed by the National Building Code of Canada 2020 including Manitoba Amendments.

.1 The occupancy classification will be Group A-2 Assembly Occupancy.

.2 Building Height (Number of Storeys): 1

.3 Building Facing (Number of Streets): 2

.4 Existing building area: 6889sqft (640sqm)

.5 Total building area:

.1 Option A2: 14265sqft (1325sqm)

.6 The building is not sprinklered.

.7 Construction article: 3.2.2.25 – Group A, Division 2, up to 2 Storeys.

.1 The building is permitted to be of combustible or non-combustible construction used singly or in combination. Max. area not more than 2,000 sq.m.

.8 Design Occupant Load:

.1 Option A2: maximum 250 persons

.3 CASH ALLOWANCES

.1 Piling and Shoring Inspections – $5,000.00;

.2 Concrete and Compaction Testing - $5,000.00;

.3 Asphalt and Compaction Testing - $5,000.00;

.4 Building Envelope Testing – $2,000.00;

.5 Window Testing – $1,500.00;

.6 Roof Inspections – $2,500.00;

.7 Signage (Interior / Exterior) – $5,000.00;

.4 SCHEDULE:
- .1 For the purpose of the Class-4 cost analysis, it is anticipated that the project will be tendered in March 2025 with construction start scheduled for May 2025.
- .2 Substantial completion is targeted for May 2026.

2.0 SITE WORK

.1 SITE DEMOLITION
- .1 Site demolition including:
  - .1 Demolish exterior concrete stairs/ramps where shown.
  - .2 Demolish asphalt at accessible parking stall.
  - .3 Demolish existing trees at north side of building to suit new ramp & building addition.
  - .4 Demolish decommissioned stair at northwest corner of library.
  - .5 Demolish existing wood-framed windows (and doors, where shown).
  - .6 Excavate west side of site for new Elevator/Stair addition.
  - .7 Refer to demolition plans.

.2 EARTHWORK
- .1 A geotechnical investigation has not been undertaken. Refer to structural for general assumptions;

.3 DRAINAGE
- .1 The existing library roof is primarily drained used surface drainage with scuppers / rain water leaders.
  - .1 This type of drainage will remain as a secondary system in option A2 but needs replacement in its entirety. Refer to the building envelope / roofing outline specification. The new roof will be primarily internally drained (with 4 new roof drains as shown on the site plan).

.4 SITE DEVELOPMENT
- .1 Repair all surrounding areas damaged as a result of the construction.
- .2 Regrade around new addition.
- .3 Garbage enclosure: Provide new garbage enclosure c/w HSS vertical members, 2x4 pressure treaded horizontal wood siding, concrete slab below, and wood gate (83" high).
- .4 Asphalt - Provide new asphalt at accessible parking stall. Asphalt to be built to City of Winnipeg Standards. Paint new lines/signage at stall.
- .5 Sod - Sod/seed as required after regrading. Sod/Seed to be built to City of Winnipeg Standards;

.5 APPROXIMATE SERVICE REQUIREMENTS
- .1 Refer to Mechanical and Electrical Outline Specifications;

3.0 DEMOLITION

.1 Demolish existing elevator & elevator machine room. Demolish existing fascia for tie-in of new addition roof to the existing library roof.

.2 Demolish existing interior walls, doors, finishes and fixtures to suit new layout. Refer to Architectural drawings and demolition plans.

.3 Demolish top treads at the existing south library stair to suit the new stair configuration. Refer to structural outline specifications.

.4 Demolish openings in existing concrete/concrete block walls where indicated on drawings. Provide temporary shoring. Refer to Structural.

.5 Demolish and modify existing plumbing & HVAC systems to suit renovation as shown on drawings. Refer to Mechanical outline specifications.

.6 Demolish and modify existing power, data, lighting, fire & life-safety, and building security systems to suit renovation as shown on drawings. Refer to Electrical outline specifications.

.7 Repair damage to adjacent structures, materials or finishes affected by this work.

.8 Refer to asbestos inventory.

4.0 BUILDING STRUCTURE

.1 Refer to the Structural outline spec.
.2 Existing library: Existing roof structure to remain in place.
    .1 Reinforce roof for new air handling units – refer to Structural outline spec.
.3 Trench existing library basement floor slabs as required for relocation of existing plumbing.
    .1 Patch & make good existing concrete floor in library basement where trenched.
.4 Modify floor structure at existing south stair to suit new configuration. Refer to the structural outline spec for details.
.5 Structure of Elevator/Stair Addition:
    .1 Provide new friction piles to size and depth as scheduled.
    .2 Provide new 250mm thick concrete walls at basement level.
    .3 Provide new concrete block walls at main floor level.
    .4 Provide new OWSJ roof structure c/w steel decking.
    .5 New main floor level to match elevation of existing library.
    .6 Refer to structural outline spec.

5.0 EXTERIOR WALLS

.1 Refer to building envelope outline spec.
    .1 New walls below grade (Elevator/Stair Addition):
        .1 New 10" concrete foundation walls
        .2 Fluid-applied high build waterproofing membrane
        .3 Exterior insulation – 100mm (min R20) closed-cell SM extruded polystyrene insulation, secured to the wall and extending to the bottom of the wall.
            .1 Standard of Acceptance: Dupont Styrofoam Brand SM Board.
        .4 Areas at top of foundation wall, where exposed above grade shall have cement backer board.
            .1 Standard of Acceptance: Finex Multi-purpose Fiber Cement Panels
    .2 New walls above grade (Elevator/Stair Addition):
        .1 Typical Exterior walls: Concrete block.
        .2 Self-adhered air and vapour barrier membrane applied to exterior face of concrete block.
        .3 Minimum 100mm (R20) rigid insulation will be provided, outboard of the air vapour barrier. Final insulation type and thickness to be determined using energy modelling / hygrothermal modelling.
        .4 Air space and exterior cladding as scheduled.
    .3 New walls - Exterior Cladding (Elevator/Stair Addition) – see drawings for locations:
        .1 Building Addition – Tyndall stone cladding (90mm thick).
            .1 Finish/ Texture: Split-Finish
            .2 Colour: To match existing library Tyndall Stone (Buff)
            .3 Nominal size: Course height/pattern to match existing Tyndall Stone (Random Ashlar pattern)
            .4 Tyndall stone to be installed with shelf angles/wall ties.
.2 Refer to Doors and Windows.

6.0 ROOFING

.1 Refer to Architectural drawings and building envelope outline specification.
.2 Existing Library roof:
    .1 Refer to site/roof plan.

.2 Insulation will be min. R-28, comprised of rigid sloped insulation system & polyiso insulation boards.
.3 Air/vapour barrier membrane will be self-adhered over existing steel deck.
.4 SBS modified base sheet membrane and SBS modified cap sheet membrane over insulation.
.1 Standard of Acceptance: 2-ply SBS modified bitumen roofing system by Soprema.
.5 Replace existing flashing and all scuppers/rainwater leaders around library building (x3 RWL total). Provide new concrete splash pads at the base of the new rainwater leaders (x3 splash pads). New rainwater leaders to be located on west and north faces of the library.

.3 New addition roof:
.1 Refer to site/roof plan.
.2 Insulation will be min. R-28, comprised of rigid sloped insulation system & polyiso insulation boards.
.3 Air/vapour barrier membrane will be self-adhered over existing steel deck.
.4 SBS modified base sheet membrane and SBS modified cap sheet membrane over insulation.
.5 Install scuppers and RWLs at roof of addition (x2) – drain towards new internal roof drains.

7.0 INTERIOR WALLS

.1 Non-combustible, cold-formed steel stud framing (3-5/8" studs @ 16" O.C. typical, 6" studs for plumbing walls) with gypsum board wall finish.
.1 Standard of acceptance (gypsum board): CGC Sheetrock Brand
.2 Use moisture & mould resistant board in wet or humid locations.
.1 Standard of acceptance: CGC Sheetrock Brand Mold Tough
.3 In high-impact locations, use abuse-resistant gypsum board.
.1 Standard of acceptance: CGC Fibrerock Brand AR Interior Panels
.4 In fire-rated assemblies, use Fire Rated Core Gypsum Board
.1 Standard of acceptance: CGC Firecode X Gypsum Board
.5 All new interior walls in the existing library are to be full height (to u/s of deck);
.6 Provide Roxul Insulation in all washroom and office locations;
.7 Provide fiberglass matt gypsum backer board or cement backer board at ceramic wall tile locations (typical in all washrooms).

8.0 INTERIOR CEILINGS

.1 Acoustic Ceiling Tile:
.1 ACT is to match existing where repairs are noted.
.2 Where new ACT is installed throughout a room:
.1 Standard of Acceptance: CertainTeed Symphony, 2'x4' size
.2 Gypsum Board Ceilings:
.1 Use moisture & mould resistant gypsum board in wet or humid locations;
.2 Use fire rated core gypsum board in all fire-rated ceilings.
.3 See Interior Walls for acceptable products.
.3 Refer to Finishes and drawings for ceiling types.

9.0 MISCELLANEOUS METALS

.1 Stainless steel corner guards: stainless stl. grade 316, surface adhesive mounted, 2" x 2", 16 gauge. Height to be 48" w/ ½" corner radius. Allow for 10 total.
.2 Provide steel lintels in existing concrete/concrete block walls of library as required for new openings. Refer to drawings and Structural outline spec.
.3 Steel stair extension at top of existing south stair. Refer to drawings & structural outline spec.
.4 Handrails/guardrails:
.1 Steel guardrails c/w pickets at north side of building
.1 Glass guardrails at south side of building (see Glazing in Doors and Windows)

.2 New steel guardrail at roof access hatch.
.3 Steel dual handrails to meet WADS where indicated on drawings.

10.0 DOORS AND WINDOWS

.1 Fibreglass Window Frames:
  .1 Exterior:
    .1 Thermally broken fibreglass frames with finish and profile to match existing windows. Triple pane. Refer to building envelope outline spec.
    .2 Replacement includes transom and clerestory windows. Refer to existing drawings for exterior elevations.
    .3 New full height windows at addition (between elevator and stair) are 10'-0" high, 8'-0" wide (broken into 2 glazing panels)

.2 Hollow Metal Window Frames (interior):
  .1 Interior, fire-rated frames (45 minutes minimum) at north exit stair.
    .1 Includes transom windows (below ceiling) and full height windows/sidelights. As noted on drawings.

.3 Aluminum Frames:
  .1 Interior Frames (at new full height glazing, floor to ceiling)
    .1 Non-thermally broken storefront system, 1/3/4" x 4 ½" framing.
      .1 Standard of Acceptance: Alumicor Flushglaze TL 1800
      .2 Finish: Custom powder coat – brown colour to match existing window frames.

.4 Glazing:
  .1 Exterior:
    .1 Glazing to be high performance, hermetically sealed, triple pane, tempered glass units. Refer to building envelope outline spec.
  .2 Interior:
    .1 Single pane, ¼" tempered glass, typical;
    .2 Wired glass in fire-rated hollow metal window frames, where noted on drawings (at north exit stair).
  .3 Visual Warning Strip: Fully glazed sidelights at entrances or vestibules shall be identified by 2 continuous vinyl strips, min. 2" wide. Custom pattern TBD.
  .4 Glass Guardrails:
    .1 At south entrance ramp and stairs, guardrails to be ½" tempered glass. Polished edges. 42" high.
      .1 Standard of Acceptance (mounting hardware): Elite Posts System by Richelieu

.5 Aluminum Doors:
  .1 Interior Doors:
    .1 Non-thermal, medium stile aluminium doors with anodized finish, 2" thick.
      .1 Standard of Acceptance: Alumicor Canadiana HD.
    .2 Door Glazing – single pane, ½" clear tempered glass.
    .3 Hardware to include: acoustic seals, hinges, stops, closers, exit devices, pull hardware and automatic operators. All hardware to be Class-1 Institutional Grade.
    .4 Typical door sizes to be 39" x 84" (1000 x 2135mm).
    .5 Finish: Custom powder coat – brown colour to match existing window frames.
    .6 Locations as noted on drawings.

.6 Hollow Metal Doors and Frames:
  .1 Exterior Doors:
    .1 Steel doors and frames to be heavy-duty grade, welded construction. Frames - 14 ga. welded, Doors – 16 ga. welded.

.2 Doors to be insulated with polyurethane core. Frames to be fully insulated with polyurethane foam.
.3 Provide high-performance, low VOC paint finish to doors and frames.
.4 Hardware to include: weather-stripping, thresholds, hinges, stops, closers, exit devices, pull hardware, kickplates (both sides) and security astragrals. All hardware to be Class-1 Institutional Grade.
.5 Typical door sizes to be 39" x 84" (1000 x 2135mm).

.2 Interior Doors:
.1 Steel doors and frames to be heavy-duty grade, welded construction. Frames - 14 ga. welded, Doors – 16 ga. welded.
.2 Doors to be honeycomb core.
.3 Provide high-performance, low VOC paint finish to doors and frames.
.4 Provide single pane, ½" clear tempered glass lite – 6" x 20" at each location.
.5 Hardware to include: acoustic seals, hinges, stops, closers, kickplates (both sides) and lever hardware. All hardware to be Class-1 Institutional Grade.
.6 Typical door sizes to be 39" x 84" (1000 x 2135mm).
.7 Provide fire-rated doors as required for mechanical/electrical rooms and in all fire separations. As noted on drawings.

.3 Existing Interior HM Doors and Frames:
.1 Re-paint existing doors and frames that are to remain in the existing library (basement non-accessible washrooms). 2 doors total. Provide new hardware (levers) as noted on drawings.

.7 Exterior Wood Doors:
.1 Custom wood door and frame to match existing exterior historic doors. 1 door total.
.2 Typical door size to be 39" x 84" (1000 x 2135mm).
.3 Wood frame to include small sidelights on either side of the wood door. Total size to suit existing rough opening.
.4 Hardware to include: weatherstripping/seals, hinges, stops, closers, and lever hardware. All hardware to be Class-1 Institutional Grade.

.8 Interior Wood Doors:
.1 Flush Interior Doors, 1-3/4 inches thick; solid core construction, veneer face rotary cut, maple or equal,
.2 Frames to be painted hollow metal, min. 16-gauge welded seams (mechanical seams not acceptable);
.3 Wood door locations: as noted on drawings.

.9 Auto Door Operators (ADO)
.1 Provide auto door operator c/w vertical, bar-type push buttons located on latch-side of door at locations shown on drawings;
.1 Standard of Acceptance: Stanley Access Technologies or Horton Automatics.
.2 Standard of Acceptance: Ingress'R 136-5 or approved equal

11.0 MILLWORK & FINISH CARPENTRY

.1 All millwork to meet AWMAC custom standards and Manitoba Building Code barrier free standards;
.2 All exposed surfaces of upper and lower cabinets shall be p-lam veneer. Interior surfaces (hidden behind doors) shall be melamine. Edges of cabinet doors and drawers shall be 3mm PVC solid-edge banded. Exposed shelving shall be p-lam veneer with 3mm PVC solid-edge;
.3 Counters to be p-lam veneer c/w 3mm PVC solid-edge banding;
.4 Washroom vanities to be solid surface;
.5 Provide institutional grade hardware throughout;
.6 Refer to drawings for locations;
.7 Schedule:

.1 Library shelving (main floor and basement);
.2 Library circulation desk (main floor);
.3 Washroom vanity (main floor);
.4 Kitchenettes (upper and lower cabinets);
.5 Closet rods/shelves (main floor and basement);
.6 Full height storage cabinets/shelving with lockable doors (work room, basement storage room puppet storage);
.7 UTR wood benches (main floor and basement).

12.0 FINISHES (refer also to drawings)

.1 MAIN FLOOR:

.1 **Open Library Area**

.1 Floors: New carpet flooring and rubber base.
.2 Walls: Existing plaster board. Repairs where damaged.
Vertical cedar boards to match existing where noted on drawings.
.3 Ceilings: Existing ACT, repairs where damaged.

.2 **Janitor Room**

.1 Floors: New resilient sheet flooring and rubber base.
.2 Walls: 2 layers 5/8" Painted Fire-rated Gypsum Wallboard
.3 Ceilings: 2 layers 5/8" Painted Fire-rated Gypsum Wallboard

.3 **Branch Head Office**

.1 Floors: New carpet flooring and rubber base.
.2 Walls: New 5/8" Gypsum Wallboard
.3 Ceilings: New ACT

.4 **Work Room**

.1 Floors: Resilient sheet flooring and rubber base
.2 Walls: 5/8" Abuse Resistant Painted Gypsum Wallboard (new walls)
.3 Ceilings: New ACT

.5 **Gender Neutral Washrooms & UTR**

.1 Floors: Resilient sheet flooring and rubber base
.2 Walls: Epoxy Painted 5/8" Moisture Resistant Gypsum Wallboard
.3 Ceilings: Epoxy Painted Gypsum Wallboard

.6 North Existing Stair:

.1 Floors: Existing ceramic tile, new ceramic tile
.2 Walls: Existing Tyndall Stone, 2 layers 5/8" Painted Fire-rated Gypsum Wallboard where noted on drawings.
.3 Ceilings: Existing ACT, repaired where damaged.

.7 South Existing Stair:

.1 Floors: Existing ceramic tile, new ceramic tile where floor infilled
.2 Walls: Existing Tyndall Stone, new full height glazing
.3 Ceilings: Existing ACT, repaired where damaged and modified to suit new room configuration.

.8 New Addition Exit Stair:

.1 Floors: Concrete
.2 Walls: Concrete Block/Existing Tyndall Stone
.3 Ceilings: Open structure

.2 BASEMENT:

.1 **Open Library Area / Children's Books**

.1 Floors: Existing carpet tile and rubber base. New carpet tile where noted/where damaged.
.2 Walls: Existing plaster board (repaired where damaged)

.3 Ceilings: New ACT, existing plaster board (repaired where damaged)

.2 **Program Room (aka Assembly Room)**
- .1 Floors: New carpet flooring and rubber base
- .2 Walls: Existing plaster board
- .3 Ceilings: New ACT

.3 **New Office**
- .1 Floors: New carpet flooring and rubber base
- .2 Walls: 5/8" Painted Gypsum Wallboard
- .3 Ceilings: New ACT

.4 **Storage Room (Northeast Corner)**
- .1 Floors: Existing
- .2 Walls: Existing
- .3 Ceilings: Existing plaster board, repaired where damaged

.5 **Storage Room (Program Room Table Storage)**
- .1 Floors: Resilient sheet flooring and rubber base
- .2 Walls: 5/8"Abuse Resistant Painted Gypsum Wallboard
- .3 Ceilings: 5/8"Abuse Resistant Painted Gypsum Wallboard

.6 **Mechanical Room (off Program Room)**
- .1 Floors: Existing
- .2 Walls: 2 Layers 5/8" Fire-rated Gypsum Board
- .3 Ceilings: 2 Layers 5/8" Fire-rated Gypsum Board

.7 Service Corridor
- .1 Floors: Existing
- .2 Walls: Existing plaster board, repaired where damaged
- .3 Ceilings: Existing plaster board, repaired where damaged

.8 Boiler Room
- .1 Floors: Existing
- .2 Walls: Existing
- .3 Ceilings: 2 Layers 5/8" Fire-rated Gypsum Board

.9 Electrical Room
- .1 Floors: Existing
- .2 Walls: Existing
- .3 Ceilings: Existing plaster Board, repaired where damaged

.10 New Addition Elevator Machine Room
- .1 Floors: Concrete
- .2 Walls: Concrete
- .3 Ceilings: Open to Structure

.11 **Gender Neutral Washrooms & UTRs**
- .1 Floors: Resilient sheet flooring and rubber base
- .2 Walls: Epoxy Painted 5/8" Moisture Resistant Gypsum Wallboard
- .3 Ceilings: Epoxy Painted Gypsum Wallboard

.12 Staff Room:
- .1 Floors: Existing
- .2 Walls: Existing
- .3 Ceilings: Existing

.13 North Existing Stair:
- .1 Floors: Existing
- .2 Walls: 2 layers 5/8" Fire-rated Gypsum Board
- .3 Ceilings: Existing ACT, repaired where damaged.

.14 South Existing Stair:
- .1 Floors: New Carpet tile and new resilient vinyl stair treads

.2 Walls: Existing
.3 Ceilings: New ACT

.15 New Addition Exit Stair
.1 Floors: Concrete
.2 Walls: Concrete
.3 Ceilings: Open to structure

13.0 SPECIALTIES

.1 New Elevator:
.1 Install new WADS compliant elevator where shown.
.2 Elevator cab size to be: minimum 80"x60" (2030mm x 1525mm)
.3 Door clear width to be minimum 950mm. Door re-opening device with sensor to be provided.
.4 Provide WADS compliant control panel, register buttons, emergency controls, hall indication/signage, floor indicator, and handrails.
.5 Slip-resistant flooring to be provided within elevator cab.
.6 Provide voice annunciation system within the new elevator.

.2 Demountable walls:
.1 Install demountable wall/glazing system at new tutorial rooms on the main floor level c/w glazing and doors where shown.
.2 Standard of acceptance:
.1 Glass walls: DIRTT Double Pane Glass Wall System, Tempered Glass, 3/8" thick
.2 Solid walls: DIRTT 4" Solid Walls, Thermofoil finish

.3 Assistive Listening System: Install within program room and at service desk.

.4 Install 2-way voice communication system at WADS rescue spaces (basement level, new exit stair)

.5 Washroom accessories to be Bobrick Contoured line commercial grade (or equal by Frost or ASI Watrous) and include: wall mounted grab bars, toilet paper holder, paper towel dispenser and disposal, feminine napkin disposal, soap dispenser, abuse resistant mirror, and soap dispenser.
.1 Provide wall mirror in new washrooms to underside of ceiling/bulkhead, full length of vanity.

.6 Access hatches:
.1 As required for mechanical/electrical equipment access above GWB ceilings
.1 Approximate quantity: (2), size (2'x2'), finish to match ceilings.
.2 Fire-rated access hatch in Sump Room:
.1 Quantity: (1), size (3'x3'), steel, surface-mounted, minimum 45 minute rating.
.3 New fire-rated hollow metal access door in Mech Room (off of Program Room). Size to match existing. Refer to Doors and Frames. Refer to drawings for location.
.4 New roof access hatch to suit new roofing.

.7 Detectable warning surfaces:
.1 Aluminum tactile indicators – 23mm diameter, 3mm profile, layout/spacing to meet WADS (2' deep x width of stair, domes 60mm O.C. minimum)

.8 Interior Furnishings & Appliances
.1 All furnishings & appliances by City of Winnipeg (N.I.C.)
.2 Computer workstations by City of Winnipeg (N.I.C)
.3 Family Literacy Playground furnishings by City of Winnipeg (N.I.C)

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Structural Engineering & Building Performance
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Company: 1x1 Architecture Inc.	Attention: Hillary Cohen
cc:	Project Number: 2022-0449
Re: West Kildonan Library Assessment Structural and Building Envelope Outline Specification Option A2	Date: 2023-11-08

1x1 Architecture's Option A2 proposed renovation of the existing West Kildonan Library consists of accessibility upgrades, a new exit stair and elevator on the west side, as well as replacement of the roofing systems, new air handlers and new windows.

Structural

The thin concrete exterior slabs at the main entrances exhibit surface deterioration. Replacement of these structural slabs and their edge beams, while retaining their support locations at the foundation walls and existing piles, will be included. Concrete will be Class C-1, achieving 35MPa at 28 days to CSA A23.1.

The new exterior concrete landings and ramps also on the west side will require the same concrete mix and will be supported on friction piles. New structural slabs will be minimum 200 thick. Ramp beams will be a minimum of 250 wide and have a minimum height of 250 below the lowest supported slab.

To achieve the required slope of the structural ramp at the southeast corner, the existing 102mm slab and supporting 10"x24" beams will be removed and new beams and slab cast. The Tyndall stone stub walls that run along the ramp will be recreated from salvaged and new stone pieces.

The new construction on the west side is assumed to be supported on friction piles; a new geotechnical report is required in order to design the foundation. For this schematic design, 10 - 400 diameter x 11meter long friction piles are to be included. The basement level walls will be 250 thick concrete, reinforced with 2-20M top and bottom and 15M at 300 on center, each way, each face. The roof in the addition will be supported on reinforced concrete masonry unit (CMU) walls which will support corrugated steel roof deck on open web steel joists.

Infill at the east-west return of the south interior stair at the main floor level will be a minimum 150mm concrete slab and downturn wall, reinforced with 15M at 200 on center in the middle. The stair infill will be steel stringer and pans.

The existing roof framing will need welded steel rod reinforcement of the existing open web steel joists in the area affected by snow build-up from the two new roof top air handlers.

Building Envelope

Other than the roofing work, the only envelope upgrade in Option A2 involves the existing windows. The replacement units will be triple glazing in thermally compatible fiberglass frames, tinted to a brown shade.

The rough openings will need to be temporarily opened for the full perimeter to allow tie-in details from the window sashes to the most airtight plane of the existing envelope. The finishes will then be restored.

Roof System

The most appropriate recommended long-term solution is to replace the existing roof assembly on all roof facets with a conventional, insulated 2-ply SBS modified bitumen membrane system. Roof facets are the main roof, upper roof, elevator roof, and mechanical roof, total 7,600 square feet. This would involve the following scope of work. Roof system to meet CSA123.2 for wind uplift resistance.

- Completely remove existing roof system, consisting of gravel, asphalt membrane, insulation, and vapor barrier to expose existing roof deck.
- Supply and install new 2.5mm SBS vapor barrier.
- Supply and install rigid tapered polyisocyanurate insulation at 1% to interior drains.
- Supply and install 2 layers of 1.5" polyisocyanurate insulation.
- Supply and install SBS semi adhered base membrane, directly to the underlying insulation.
- Supply and install SBS granulated traffic cap membrane.
- Supply and install new wood blocking to suit and edge detail, complete with SBS 2-ply modified bitumen base and granulated cap flashing membranes.
- Supply and install 4 new drain assemblies, complete with interior piping. Secondary drainage provided by 4 new overflow open metal scuppers.
- Supply and install 2 new vent / exhaust curb assemblies.
- Supply and install 1 new insulated roof access hatch and curb, complete with guard system.

New fall arrest safety guardrails would be provided in locations determined during detail design.

The new roof area will be a similar two ply SBS modified bitumen membrane system, insulated to R28, with rigid tapered insulation to enhance roof drainage and a continuous SBS air/vapour barrier.

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OUTLINE SPECIFICATION

MECHANICAL & ELECTRICAL

West Kildonan Library Assessment

The following outline specification is based on a schematic design -Option A2 and intended for preliminary cost projections only.

1 INTRODUCTION

D20 – PLUMBING

.1 D2010 - Plumbing Fixtures

.1 Demolish existing washroom fixtures in the washroom at Rear Entry [103], W/C [110] and Janitor's Room [109] and associated plumbing lines back to main and cap main.

.2 Provide new washroom fixtures and trim for all new fixtures indicated on the architectural plans.

.3 Water closets to be wall mounted manual flush-valve elongated bowl, 4.8 lpf. Barrier-free locations to have 420 mm (16.5") high ADA-compliant bowl.

.4 Lavatories in the UTR and Barrier Free W/C to be wall mount vitreous china, c/w manual faucets, 1.9 lpm (0.5 gpm) low-flow aerators.

.5 Lavatories in the rest of the new washrooms to be counter mounted vitreous china c/w manual faucets, 1.9 lpm (0.5 gpm) low-flow aerators.

.6 All barrier-free lavatories to have hot water supplies insulated.

.7 Provide new Mop sink in new Janitor room: Molded stone with mop sink faucet. Provide 900 mm hose, stainless steel splash surrounds on walls and wall mounted mop and hose holders.

.8 Floor drains for all washrooms (open strainer) Quantity: 10

.9 All floor drains to have trap-seal primers.

.2 D2020 – Domestic Water Distribution

.1 Demolish domestic cold and hot water piping from demolished fixtures and cap at main.

.2 Extend domestic cold and hot water piping to new plumbing fixtures.

.1 Domestic cold water piping shall be sized for flush valve fixtures.

.3 Provide domestic hot water recirculation system complete with re-circulation pump in the mechanical room and associated piping. Re-circulation pump to be complete with manual timer and temperature control.

.4 Interior Water Piping (Cold, Hot and Recirculating) (DCW, DHW, DHR)

.1 Type “L” hard temper copper tube

.1 Up to 50 mm (2") diameter with wrought or cast solder fittings and joints.

.2 Over 50 mm (2") diameter with silver braze fittings

.5 Valves:

.1 Ball valves up to 63mm (2.5”): Two piece body, 316 stainless ball and trim, full port, teflon seats and stuffing box ring, blow out proof stem, lever handle, NSF 61 low lead compliant construction.

.2 Ball valves over 75mm (3”): floating-ball design capable of providing bi-directional, tight shutoff in accordance with MSS SP-72, rated at 150# WSP/300# WOG. ductile iron body with raised-face flanges, interior and exterior epoxy-coated, PFA infused stainless steel ball, with a stainless steel blowout-proof stem, and PTFE seats and seals. NSF 61 low lead compliant construction.

.3 Pressure Reducing valves: bronze body, stainless steel and thermoplastic internal parts, fabric reinforced diaphragm, strainer, threaded and double union ends. NSF 61 low lead compliant construction

.4 Double Check Valve Assemblies: Bronze body with corrosion resistant internal parts and stainless steel springs, two independently operating check valves with intermediate atmospheric vent. NSF 61 low lead compliant construction

.6 Repair and/or complete missing insulation for domestic hot and cold-water piping throughout the building. Insulation to be fiberglass Paper-free ASJ pipe insulation and of the following thickness throughout the building:

.1 Domestic Cold water up to 50mm (2”) – minimum 3mm (1”) thick, with jacket.

.2 Domestic Cold water greater than 50mm (2”) – minimum 25mm (1 “) thick, with jacket.

.3 Domestic Hot water and recirculation piping up to 50mm (2”) – minimum 25mm (1”) thick, with jacket.

.4 Vent piping insulated a minimum 3m (10 feet) from penetration of envelope – 50mm (2”) thick insulation, jacket required where exposed.

.7 Isolation valves shall be provided as follows:

.1 At each fixture group,

.2 At every piece of equipment.

.8 Water hammer arrestors to be provided at each fixture group.

.9 Chrome plated copper supplies to all fixtures.

.10 Demolish existing John wood hot water tank and associated controls.

.1 Replace with new condensing high efficiency hot water tank and associated controls. Basis of design: Rheem GHE50SU-76 or equivalent.

.2 Revise gas piping as required to accommodate new hot water tank.

.3 Provide new venting to the exterior of the building as per manufacturer's recommendations.

.3 D2030 - Sanitary Waste

.1 Interior Drain and Vent Piping Above and Below Ground

.1 Up to 62 mm (2½") diameter - Type DWV copper tube with cast solder fittings and joints, drainage pattern, or 50 mm (2") Bibby-St. Croix class 4000 cast iron M.J.

.2 75 mm (3") diameter and over – Bibby-St. Croix class 4000 cast iron mechanical joint soil pipe and fittings with stainless steel M.J. clamps as required to meet latest CSA B70 specifications in sizes up to and including 250 mm (10"). Bibby-St. Croix class 4000 hub and spigot soil pipe and fittings in 300 mm (12") and 375 mm (15") sizes

.2 Provide new elevator floor drain for the new elevator and tie it to existing elevator pit.

.4 D2040 – Rain Water Drainage

.1 Insulation

.1 Roof drain bodies – 50mm (2") thick insulation with jacket.

.2 Roof drain piping concealed above ceilings above the floor within 3m (10') of the exterior – 50mm (2").

.3 Roof drain piping in all exposed areas – 50mm (2"), c/w PVC jacket.

.2 Control flow internal roof drains on the roof of the new elevator/stair addition and thermally insulated internal rainwater leaders. Quantity 2.

.1 Connect new rainwater leaders to existing storm drainage system.

D30 - HEATING, VENTILATION, AND AIR CONDITIONING (HVAC)

.5 D3020 – Heating Systems

.1 Demolish existing AO Smith Boilers

.1 Demolish ancillary equipment piping within boiler room and controls.

.2 Demolish associated controls and breaching.

.3 Demolish Circulator boiler pump #1 and associated controls.

.4 Demolish existing heating loop pumps #2 and #3.

.2 Supply two new boilers, B-1 and B-2, each producing 670 MBH output. Vitocrossal 200-C12-750 or equivalent. Boilers are complete with integral integral circulation pumps.

.1 Connect the boiler injection loop to main piping loop with low loss header.

.2 Provide new building loop circulation pumps.

.3 Run new boiler flue venting up within existing chimney.

.4 Existing combustion and ventilation air shall remain for reuse.

.5 Modify existing and provide new pipng to accommodate new boilers.

.6 Modify existing natural gas piping to accommodate new boilers.

.7 Provide new condensate neutralizers on boiler condensate drains.

.6 D3030 – HVAC Distribution

.1 Modify existing ductwork and provide new where required to accommodate architectural layout.

.2 The mechanical contractor shall include the costs associated with all commissioning of new and renovated equipment and systems.

.7 D3050 - Terminal and Packaged Units

.1 Demolish HC-3 rooftop unit on the roof together with associated controls.

.1 Replace HC-3 with new rooftop unit AHU-1, gas fired and DX cooled. Cooling capacity is 5 tons. Output heating capacity is 122 MBH. Supply air flow 2000 CFM. Voltage shall be 208V/3ph. Basis of Design:Trane YSC060G3EHB**D101 or equivalent complete with curb adaptor.

.2 Demolish HC-4 rooftop unit on the roof together with associated controls.

.1 Replace HC-4 with new rooftop unit AHU-2, gas fired and DX cooled. Cooling capacity is 5 tons. Output heating capacity is 122 MBH. Supply air flow 2000 CFM. Voltage shall be 208V/3ph. Basis of Design: Trane YSC060G3EHB**D101 or equivalent complete with curb adaptor.

.3 Demolish HC-6 rooftop unit in courtyard together with associated controls.

.1 Replace HC-6 with new rooftop unit AHU-3, gas fired and DX cooled. Cooling capacity is 4 tons. Output heating capacity is 105.3 MBH. Supply air flow 1600 CFM. Voltage shall be 208V/3ph. Basis of Design: Trane YSC048G3EHB**C001 or equivalent complete with curb adaptor.

.4 Demolish HC-5 rooftop unit in courtyard together with associated controls.

.1 Replace HC-5 with new rooftop unit AHU-4, gas fired and DX cooled. Cooling capacity is 5 tons. Output heating capacity is 122 MBH. Supply air flow 2000 CFM. Voltage shall be 208V/3ph. Basis of Design: Trane YSC060G3EHB**C101 or equivalent complete with curb adaptor.

.5 Demolish existing Trane hydronic air handling unit in basement along with associated controls.

.1 Demolish hot water piping back to main and cap at main.

.2 Demolish existing associated return and supply ductwork.

.6 Demolish existing HRV above W/C [110] and Janitor RM [109] and associated controls and ductwork.

.1 Replace existing HRV with ERV-1. Locate within ceiling space above washrooms. Basis of design is NU1200ERV with defrost option NU1200DL or equivalent.

.2 Exhaust from main floor and basement washrooms and main floor janitor room and route exhaust ductwork to new ERV-1. Connect

supply duct work of ERV-1 to return duct of new AHU-1 and AHU-2

.7 Modify existing and provide new supply and return ductwork to accommodate new air handling units.

.8 D3060 – Controls and Integration

.1 Controls contractor to allow for the supply and installation of all controls wiring, interlocks, sensors, and control devices not supplied by the mechanical trade.

.2 Provide Digital Controls to match existing City of Winnipeg standard Johnson Metasys Controls system for connection to Central Building Controls network.

.9 D3080 - Testing, Adjusting and Balancing

.1 Include all air balancing, water balancing, fire damper inspection, piping pressure testing and equipment commissioning.

.2 All new and revised HVAC systems shall be fully balanced by an CAABC certified balancing company.

.3 The mechanical contractor shall include the costs associated with all commissioning of new and renovated equipment and systems.

D50 - ELECTRICAL

D5000 – Common Electrical Requirements

.1 General Electrical:

.1 Unless otherwise noted, the terms “install” or “provide” shall include the complete supply and installation of the items noted including all equipment, materials and commissioning necessary for a fully functional system.

.2 Include all costs associated with electrical permits, fire alarm verification, systems commissioning and systems training.

.3 The work as herein described is preliminary and subject to final design.

.2 Itemized Pricing:

.1 Provide itemized pricing in addition to totalized pricing for all electrical for the following items further identified and clarified within this outline specification:

.1 Lighting:

.1 General lighting.

.2 Exit signage and emergency lighting systems.

.2 Lighting Controls:

.1 Interior lighting control

.2 Exterior lighting control

.3 Communications

.4 Miscellaneous Power:

.1 Public area supply and installation. Include all power outlets, equipment connections, mechanical connections, and electric heaters.

.5 Intrusion Detection

.6 CCTV System

.7 Fire Alarm System

D5010 - Electrical Service and Distribution

.3 The existing electrical distribution resides in the basement electrical room. As the intended use of the facility is not changing, we anticipate the existing distribution to have sufficient capacity to support the renovation area electrical requirements.

.4 The existing panelboards, which are located within the main electrical room, shall be reused as required for general lighting and power loads within the space. Provide new breakers as required. Provide typewritten panel directories indicating updated circuiting.

D5020 - Lighting and Branch Wiring

.5 Demolish existing General Electric dial control zone system, including all associated panels, and devices.

.6 Demolish all existing lighting fixtures.

.7 Demolish all electrical devices in Elevator shaft, machine room, and stairs to be demolished.

.8 Demolish all receptacles and electrical devices within areas with revised floor layout.

.9 Demolish all devices in walls to be demolished.

.10 Provide new lighting control throughout the building.

.1 Waiting Area/Reception/Corridors/Stairs – Ceiling mounted occupancy sensors complete with digital touchscreen time clock override-on such that luminaires will be on during normal hours, and on occupancy sensor control after hours.

.1 Allow for one (1) digital touchscreen time clock wall station, thirty (30) ceiling mounted occupancy sensors, and five (5) ceiling mounted occupancy sensors with daylight harvesting capability.

.2 Assembly room – Low voltage wall station and ceiling mounted occupancy sensors.

.1 Allow for one (1) wall station and two (2) ceiling mounted occupancy sensors.

.3 Washrooms and storage spaces – Wall mounted occupancy sensor. Allow for eight (8) devices.

.4 Tutorial Room – Wall mounted occupancy sensor. Allow for two (2) devices.

.5 Service Spaces – Line voltage manual toggle switch.

.1 Allow for seven (7) devices.

.6 Elevator shaft – Line voltage three-way switch.

.11 Emergency and egress lighting shall be provided throughout all means of egress and service spaces to suit code requirements.

.1 Two (2) emergency battery banks shall be provided in building. The emergency battery bank shall be minimum 12 volt with adequate wattage. The battery bank shall be complete with 5 watt MR16 LED lamps, zone sensing to pick up egress lighting circuits and multiple night lighting circuits as required.

.2 All emergency lighting double remote heads shall be surface designer series equal to Lumacell Signature Collection, complete with minimum 5 watt MR16 LED lamps. Remote heads shall be provided in areas in which existing fixtures do not provide adequate coverage, allow for thirty (30) fixtures.

.3 Exit lighting shall be extruded aluminum equal to Lumacell LA Series complete with LED and single/double face pictogram style. All signs shall be universal mount. Allow for twenty (20) exit signs.

.12 Provide new LED lighting throughout the building. Allow for the following:

.1 One hundred (100) 2x4 recessed lighting fixtures.

.2 Forty-three (43) 2x4 surface mounted fixtures.

.3 Ten (10) 4ft LED strip lights.

.4 Five (5) 8ft LED linear pendant lights.

.5 Two (2) 4ft Vapor tight 4ft LED strip light.

.13 Existing exterior flush mounted fixtures in entrance canopy shall be replaced with new fixture LED flush mount type, wet location rated. Allow for (12) fixtures.

.14 Provide one (1) LED wall packs in above each new exterior door. Allow for two (2).

.15 Minimum wire size shall be #12 AWG. Existing wiring devices shall not be reused.

.16 Wiring devices shall be “standard” style, commercial specification grade complete with stainless steel coverplates. Color of devices to be confirmed by architect.

.17 Existing wiring is largely wire-in-conduit. This scheme will be maintained. New wiring and conduit will be provided for all renovated areas from closest suitable branch panel and all new wiring to be run in conduit. Wiring and conduit to areas outside of the renovation area are anticipated to remain and will be re-supported to meet current code requirements.

.18 All branch circuit wiring that is not armored or concealed in conduit shall be replaced with suitable conduit/wiring combination. Allow for 50m.

.19 New receptacles will be provided throughout the renovated areas to suit the new floor plan layouts. Receptacles to be white with stainless steel cover plates.

.20 Typical spaces will be as follows:

.1 Corridors/Open Areas – One (1) 5-20R receptacle in each 10m of length or fraction.

.2 Kitchenette – Two (2) duplex receptacles supplied from two dedicated circuits for microwave and fridge. Two (2) 5-20R GFCI receptacles supplied from two dedicated circuits for other countertop appliances.

.3 Seating Area – Two (2) duplex receptacles.

.4 Washrooms/UTR – One (1) 5-20R GFI duplex receptacle.

.5 Enclosed Office – Three (3) duplex receptacles.

.6 Workstations – Two (2) duplex receptacles.

.7 Support Spaces – Four (4) duplex receptacles on two (2) circuits plus one (1) floor mounted receptacle if required.

.8 Elevator shaft - Two (2) 5-20R GFI duplex receptacles

.21 Provide five (5) floor boxes complete with four (4) 5-15R duplex receptacles in each box. Floor boxes shall be equal to Legrand RFBA series. Floor boxes shall be located below each island type computer workstation furniture.

.22 Provide IPLC parking receptacles for fifteen (15) electrified stalls. IPLC receptacles shall be complete with pedestal and extra-duty while-in -use cover plates.

D5030 – Mechanical Equipment

.23 Disconnect and remove all existing electrical services, back to source, supplying mechanical equipment being demolished. Refer to Mechanical outline.

.24 Disconnect and reconnect all existing to remain mechanical equipment on roof to accommodate roof renovation.

.25 Wire and connect all mechanical equipment requiring electrical connections as indicated by mechanical.

.26 Refer to mechanical outline for further requirements under this heading.

D5080 - Miscellaneous Electrical Systems

.27 Disconnect existing elevator and associated equipment. Demolish feeders back to source.

.28 Wire and connect new elevator and associated equipment.

.29 Wire and connect barrier free door operators complete with all associated wiring and controls.

.30 Provide new 4kW wall fan heater complete with integrated tamperproof thermostat at new northwest entrance.

.31 Wall fan heater shall be equal to Ouellet OAC series.

D60 - COMMUNICATIONS

D6010 - Data Communications

.1 Demolish all data outlets located within areas with revised floor layout.

.2 Provide new patch panel for existing communication rack in basement electrical room to pick up new communication outlets throughout. Patch panels shall be 24-port or larger.

.3 Each communications outlet shall be complete with two (2) CAT6 cables back to the existing rack. All cabling shall be supplied and installed by the electrical contractor including testing and termination.

.4 Utilize the existing communication conduits in ceiling space and modify routing as required to suit the new layout. J-Hooks shall be utilized for individual branch wiring. Conduit shall be used for all non-accessible ceiling spaces, and non-cavity walls.

.5 Provide one (1) dedicated red Cat6 cable in 21mm conduit from elevator controller back to main telecom backboard in basement electrical room.

.6 Provide two (2) communication outlets in each floor box located below computer workstation furniture. Allow for six (6) outlets.

.7 New data outlets will be provided throughout the renovated areas to suit the new floor plan layouts. Typical spaces will be as follow:

.1 Enclosed Office/Rooms – Two (2) 2-port outlets.

.2 Staff Workstations – One (1) 2-port outlets per workstation.

.3 Public Workstations – One (1) 2-port outlets per group of two (2) computers.

.8 If a wireless network is required the contractor will be responsible for supply, installation, and testing of CAT6 cabling to support.

D70 - ELECTRONIC SAFETY AND SECURITY

D7010 - Access Control and Intrusion Detection

.9 The existing access control and intrusion systems shall be maintained. Control panel is located in basement electrical room.

.10 Existing devices will be relocated, and new devices will be added if required to accommodate new layout requirements in all renovated areas.

.11 Provide door contract for each new exit door in northwest of building. Wire and connect to existing intrusion control panel located in basement electrical room.

.12 Provide two (2) egress motion detectors on exterior doors.

.13 Relocate existing keypad to location adjacent to new staff entrance.

D7030 - Electronic Surveillance

.14 The existing CCTV system shall be maintained. System equipment is located in basement electrical room.

.15 Relocate existing exterior CCTV camera in west side of building to accommodate construction of new stair and elevator.

D7050 –Detection and Alarm

.16 The existing fire alarm system is a Mircom FX 2000 addressable fire alarm system by Fire-Tech. Audible/visual notification is provided through horn/strobe

devices. The existing system appears to have sufficient capacity to support the additional devices.

.17 Demolish existing fire alarm devices located in existing machine room, elevator and exit stair to be demolished.

.18 All fire alarm pull stations shall be lowered to accessible height. Top of device shall be 1200mm AFF. Allow for five (5) pull stations.

.19 Provide new fire alarm pull stations at new exit doors. Allow for two (2).

.20 Relocate existing and provide new initiating devices to suit code requirements.

.21 The existing addressable loop shall be expanded to pick up the new devices as required.

.22 Provide visual notification appliances throughout building. Allow for twenty (20) devices.

.23 Provide combination visual/audible notification devices. Allow for ten (10) new devices.

.24 Provide smoke detectors in all public corridors. Allow for ten (10) new devices.

.25 Provide carbon monoxide detection in:

- .1 Service rooms with fuel-burning appliances.
- .2 Rooms adjacent to service rooms with fuel-burning appliances.
- .3 Public corridors.
- .4 Allow for eight (8) detectors.

.26 Provide duct-type smoke detector for air-handling units. Allow for four (4) detectors.

.27 Provide one (1) heat detector moist-proof type in bottom of new elevator shaft.

.28 Provide one (1) smoke detector on top of elevator shaft.

.29 Provide verification of system for all new and modified devices.

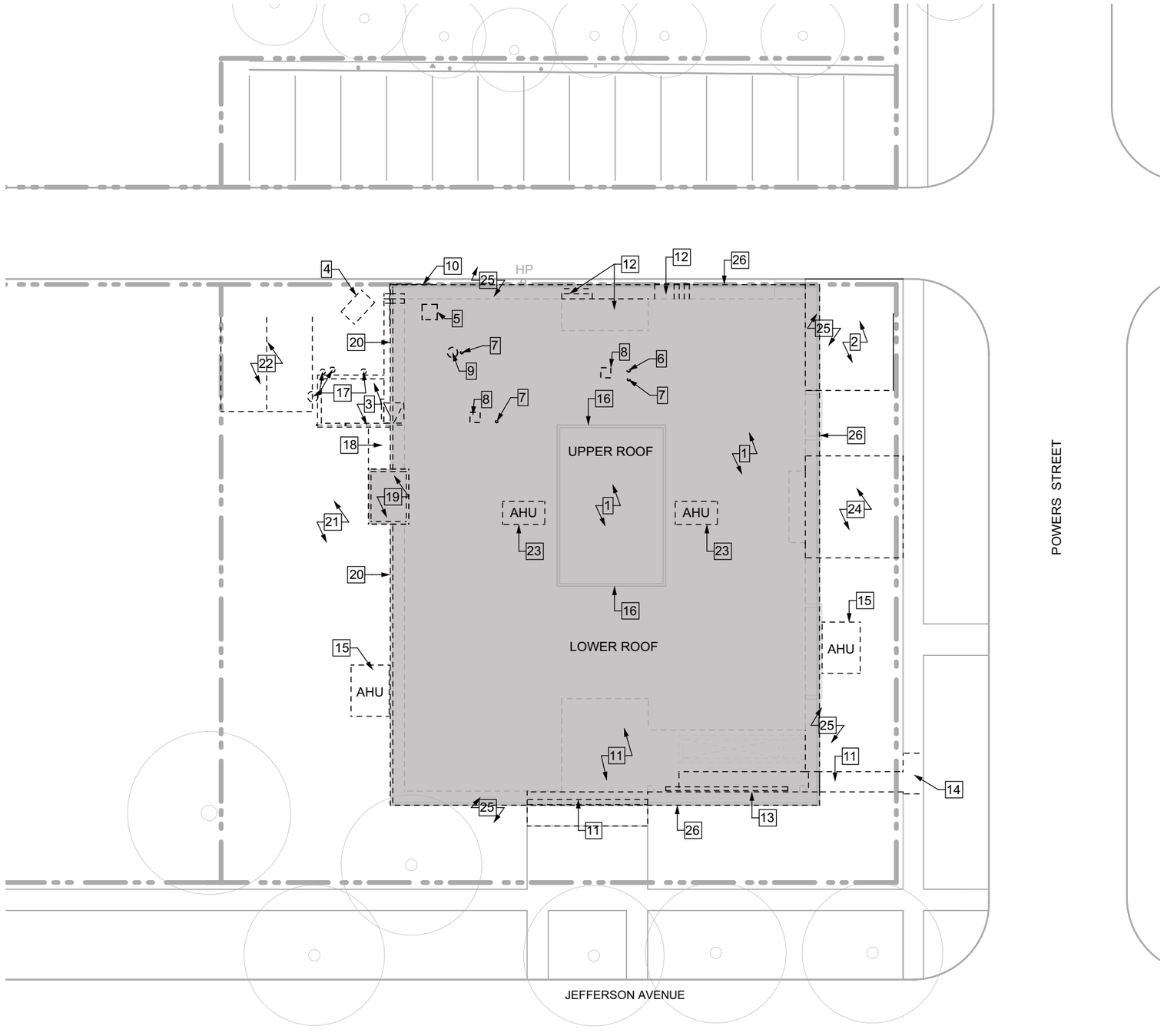
END OF SECTION

OPTION 3 (B)



SITE PLAN DEMOLITION NOTES OPTION B

1. DEMOLISH EXISTING ROOFING IN ITS ENTIRETY. REMOVE EXISTING MEMBRANE, GRAVEL, AND INSULATION DOWN TO ROOF DECK STRUCTURE ON ALL ROOF FACETS.
2. DEMOLISH ASPHALT AT ACCESSIBLE PARKING STALL
3. DEMOLISH EXISTING DECOMMISSIONED EXTERIOR STAIR
4. RELOCATE GARBAGE BIN
5. DEMOLISH EXISTING ROOF ACCESS HATCH
6. DEMOLISH EXISTING ROOF DRAIN
7. DEMOLISH EXISTING ROOF VENTS
8. MODIFY EXHAUST FAN TO SUIT NEW ROOFING
9. MODIFY CHIMNEY TO SUIT NEW ROOFING
10. DEMOLISH EXISTING ROOF GUARDRAIL
11. DEMOLISH EXISTING SOUTH CONCRETE LANDING, STAIR, AND RAMP.
12. DEMOLISH EXISTING NORTH CONCRETE LANDING AND STAIR.
13. REMOVE EXISTING PARTIAL HEIGHT TYNDALL STONE WALL. STORE TYNDALL STONE FOR REINSTALLATION.
14. DEMOLISH EXISTING SIDEWALK FOR NEW LOWER LANDING.
15. DEMOLISH EXISTING AHU. REFER TO MECH OUTLINE SPEC. EXISTING CONCRETE PAD BELOW TO REMAIN.
16. DEMOLISH EXISTING CLERESTORY WINDOWS.
17. DEMOLISH EXISTING TREE FOR NEW ADDITION
18. DEMOLISH EXISTING ELEVATOR MACHINE ROOM
19. DEMOLISH EXISTING ELEVATOR
20. DEMOLISH EXISTING PARAPET/FASCIA FOR TIE-IN OF NEW ROOF TO EXISTING
21. DEMOLISH SOD AND EXCAVATE AREA FOR NEW BUILDING ADDITION.
22. DEMOLISH ASPHALT AND PREPARE AREA FOR NEW RAMP
23. DEMOLISH EXISTING AHU. REFER TO MECH OUTLINE SPEC. REFER TO STRUCTURAL FOR REINFORCING.
24. DEMOLISH SOD AND PREPARE FOR NEW LANDSCAPING
25. EXCAVATE AROUND BUILDING FOR INSTALLATION OF NEW WEEPING TILE, NEW MEMBRANE & NEW EXTERIOR INSULATION.
26. DEMOLISH EXISTING CEDAR FASCIA & STUCCO SOFFIT.



1 SITE & ROOF PLAN - DEMOLITION - OPTION B
Scale: N.T.S.

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SITE PLAN DEMO - OPTION B
2023-11-09

A-16

ZONING REVIEW:

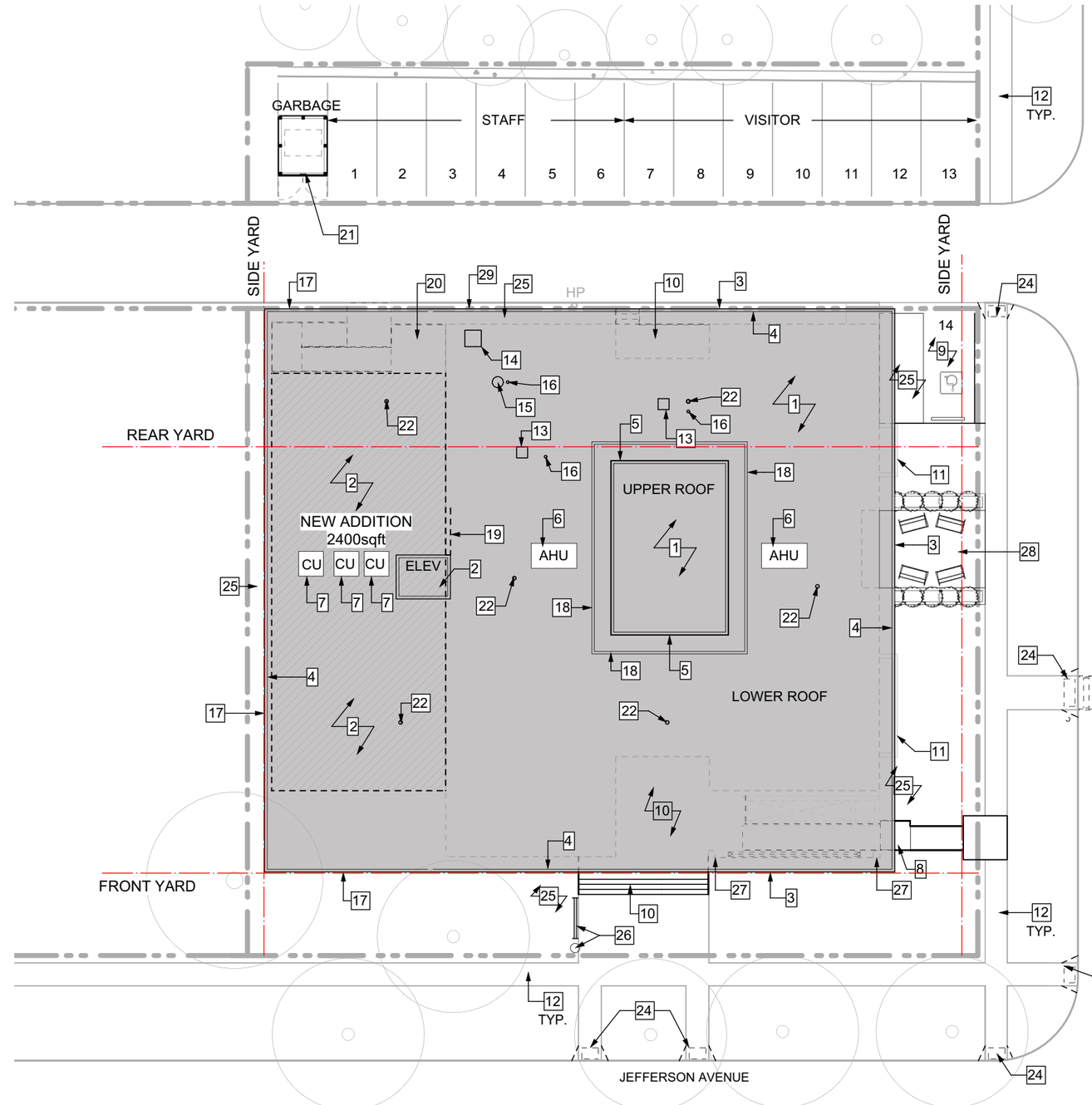
PARKING:
STAFF STALLS - 6
VISITOR STALLS - 7
ACCESSIBLE PARKING - 1
TOTAL PARKING STALLS: 14

BUILDING AREA:
EXISTING BUILDING MAIN FLR: 6590sqft
ADDITION MAIN FLR: 2400sqft
EXISTING BUILDING BASEMENT: 6660sqft
ADDITION BASEMENT (excluding mech room): 390sqft
TOTAL FLOOR AREA: 16040

ZONING REQUIREMENTS:
CATEGORY 9: 1 STALL PER 1000 sqft
16040/1000 = 16.04 = 16 STALLS REQUIRED

URBAN INFILL AREA: REDUCE TO 80% OF REQ'D
16 x 0.8 = 12.8 = **13 STALLS REQ'D**

NOTE: PROPOSED ADDITION PROJECTS INTO REAR YARD (MATCHES EXISTING CONDITION)



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LEGEND
ZONING REQ'D YARD / SETBACK

1 SITE & ROOF PLAN - RENOVATION - OPTION B
Scale: N.T.S.

SITE PLAN KEYNOTES - OPTION B

1. REPLACE EXISTING ROOFING. INSTALL CONTINUOUS SELF-ADHERED AIR/VAPOUR BARRIER MEMBRANE. INSTALL RIGID SLOPED INSULATION SYSTEM & POLYISOCYANURATE INSULATION BOARDS (R28). INSTALL SBS MODIFIED BASE SHEET MEMBRANE AND SBS MODIFIED CAP SHEET MEMBRANE. INSTALL PERIMETER METAL FLASHING ASSEMBLY AT PARAPETS, ALL TRANSITIONS, AND ALL ROOF PENETRATIONS. INSTALL NEW SCUPPERS AND DOWNSPOUTS. ROOF TO BE INTERNALLY DRAINED.
2. INSTALL NEW ROOFING AT ADDITION & ELEVATOR. INSTALL CONTINUOUS SELF-ADHERED AIR/VAPOUR BARRIER MEMBRANE. INSTALL RIGID SLOPED INSULATION SYSTEM & POLYISOCYANURATE INSULATION BOARDS (R28). INSTALL SBS MODIFIED BASE SHEET MEMBRANE AND SBS MODIFIED CAP SHEET MEMBRANE. INSTALL PERIMETER METAL FLASHING ASSEMBLY AT PARAPETS, ALL TRANSITIONS, AND ALL ROOF PENETRATIONS. INSTALL NEW SCUPPERS AND DOWNSPOUTS. ROOF TO BE INTERNALLY DRAINED.
3. EDGE OF EXISTING ROOF OVERHANG. INSTALL NEW HORIZONTAL CEDAR PLANKING AT FASCIA & NEW STUCCO SOFFIT.
4. NEW ROOF PARAPET
5. INSTALL NEW CLERESTORY WINDOWS C/W NEW WINDOW FLASHINGS
6. REPLACE EXISTING AHU.
7. NEW CONDENSING UNIT (ON ROOF OF ADDITION)
8. INSTALL NEW CONCRETE RAMP W/ INTERMEDIATE LANDING AND LARGER LOWER LANDING AT SIDEWALK.
9. REGRADE EXISTING PARKING STALL. INSTALL NEW ASPHALT AND PAINT NEW AISLE / STALL LINES / ACCESSIBILITY SYMBOL.
10. INSTALL NEW CONCRETE LANDING AND STAIR
11. EXISTING WINDOW WELL TO REMAIN
12. EXISTING SIDEWALK TO REMAIN
13. NEW EXHAUST FAN TO SUIT NEW ROOFING
14. NEW ROOF ACCESS HATCH TO SUIT NEW ROOFING
15. MODIFY EXISTING CHIMNEY TO SUIT NEW ROOFING
16. NEW VENT PIPE TO SUIT NEW ROOFING
17. EDGE OF NEW ROOF OVERHANG AT ADDITION. INSTALL NEW CEDAR PLANKING AT FASCIA & STUCCO SOFFIT TO MATCH ORIGINAL DRAWINGS.
18. INSTALL NEW VERTICAL WOOD FENCING (SEE ORIGINAL DRAWINGS)
19. REPAIR EXISTING ROOF WHERE ELEVATOR DEMOLISHED
20. INSTALL NEW CONCRETE LANDING AND RAMP.
21. NEW P.T. WOOD GARBAGE ENCLOSURE
22. NEW ROOF DRAIN (X6 TOTAL)
23. FUTURE CROSSWALK TO ADJACENT PARKING AT WEST K MEMORIAL COMMUNITY CENTRE
24. FUTURE SIDEWALK ACCESSIBILITY UPGRADES BY PUBLIC WORKS (N.I.C.)
25. REPAIR SOD AND ASPHALT AROUND BUILDING FOLLOWING INSTALLATION OF NEW WEEPING TILE, NEW MEMBRANE & NEW EXTERIOR INSULATION.
26. RELOCATED BIKE RACK / GARBAGE BINS
27. PAINT EXISTING EXTERIOR CONCRETE COLUMN
28. NEW OUTDOOR READING AREA C/W NEW BENCHES, PLANTERS, AND HARDSCAPING
29. NEW ROOF GUARD AT ACCESS HATCH

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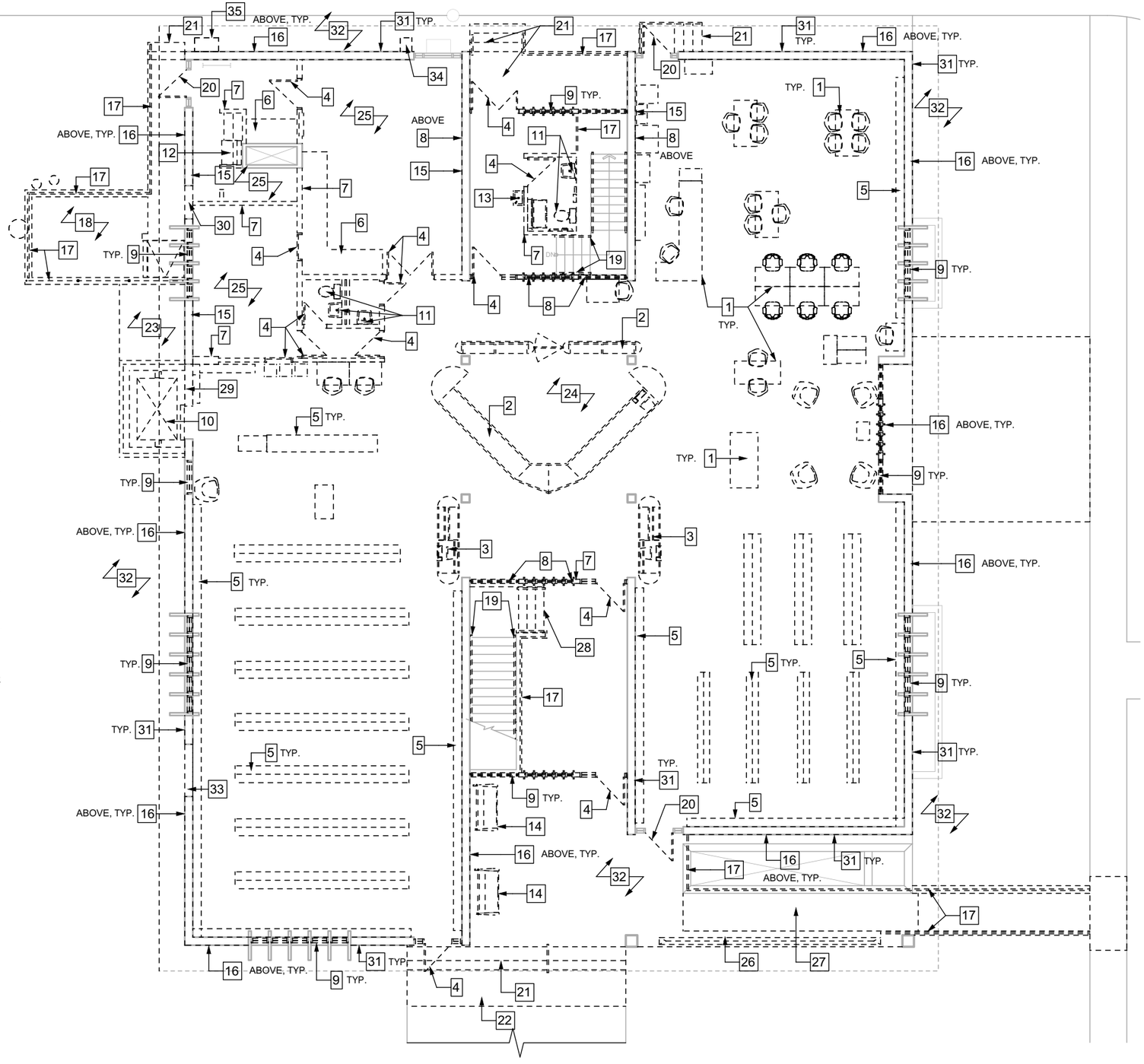
SITE PLAN - OPTION B
2023-11-09

A-17

MAIN FLOOR PLAN DEMOLITION KEYNOTES - OPT B

1. REMOVE EXISTING FURNITURE AND RETURN TO OWNER.
2. DEMOLISH EXISTING SERVICE DESK IN ITS ENTIRETY
3. DEMOLISH EXISTING COMPUTER WORKSTATION MILLWORK
4. DEMOLISH EXISTING DOOR & FRAME
5. DEMOLISH EXISTING BOOKSHELVES
6. DEMOLISH EXISTING DESK MILLWORK
7. DEMOLISH EXISTING WALLS
8. DEMOLISH EXISTING GLAZING & ALUMINUM FRAMES
9. DEMOLISH EXISTING WINDOWS
10. DEMOLISH EXISTING ELEVATOR IN ITS ENTIRETY
11. DEMOLISH EXISTING PLUMBING FIXTURES
12. DEMOLISH EXISTING CLOSET MILLWORK
13. DEMOLISH EXISTING DRINKING FOUNTAIN
14. STORE BENCH FOR REINSTALLATION
15. DEMOLISH EXISTING PLASTER BOARD AT STAIRWELL
16. DEMOLISH EXISTING TRANSOM WINDOWS
17. DEMOLISH EXISTING GUARDRAIL
18. DEMOLISH EXISTING DECOMMISSIONED STAIR.
19. DEMOLISH EXISTING HANDRAILS
20. EXISTING WOOD DOOR LEAF TO BE FIXED IN PLACE - REMOVE EXISTING DOOR HARDWARE AND PROVIDE NEW SEALS AROUND DOOR.
21. DEMOLISH EXISTING CONCRETE LANDING & STAIR
22. DEMOLISH PORTION OF EXISTING SIDEWALK
23. DEMOLISH EXISTING ELEVATOR MACHINE ROOM IN ITS ENTIRETY
24. DEMOLISH EXISTING CARPET FLOORING
25. DEMOLISH EXISTING FLOORING
26. REMOVE EXISTING PARTIAL HEIGHT TYNDALL STONE WALL. STORE TYNDALL STONE FOR REINSTALLATION
27. DEMOLISH EXISTING CONCRETE RAMP
28. DEMOLISH EXISTING STAIR TREADS. MODIFY EXISTING FLOOR TO SUIT NEW STAIR CONFIGURATION. REFER TO RENOVATION PLAN.
29. WIDEN EXISTING OPENING FOR ENTRANCE TO NEW ADDITION. PROVIDE STRUCTURE ABOVE AS REQ'D.
30. DEMOLISH OPENING FOR NEW DOOR. PROVIDE STRUCTURE ABOVE AS REQ'D.
31. REMOVE EXISTING EXTERIOR TYNDALL STONE CLADDING FOR INSTALLATION NEW EXTERIOR INSULATION & AIR BARRIER. CONCRETE BLOCK TO REMAIN. REFER TO BUILDING ENVELOPE OUTLINE SPEC.
32. EXCAVATE AROUND BUILDING FOR INSTALLATION OF NEW WEEPING TILE, NEW MEMBRANE & NEW EXTERIOR INSULATION.
33. NEW OPENING FOR ENTRANCE TO NEW ADDITION. PROVIDE STRUCTURE ABOVE AS REQ'D.
34. REMOVE & REINSTALL ELECTRICAL AS REQ'D FOR TYNDALL STONE REMOVAL
35. REMOVE & REINSTALL HYDRO METER AS REQ'D FOR TYNDALL STONE REMOVAL



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1 MAIN FLOOR DEMOLITION PLAN - OPTION B
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MAIN FLOOR PLAN DEMO - OPTION B

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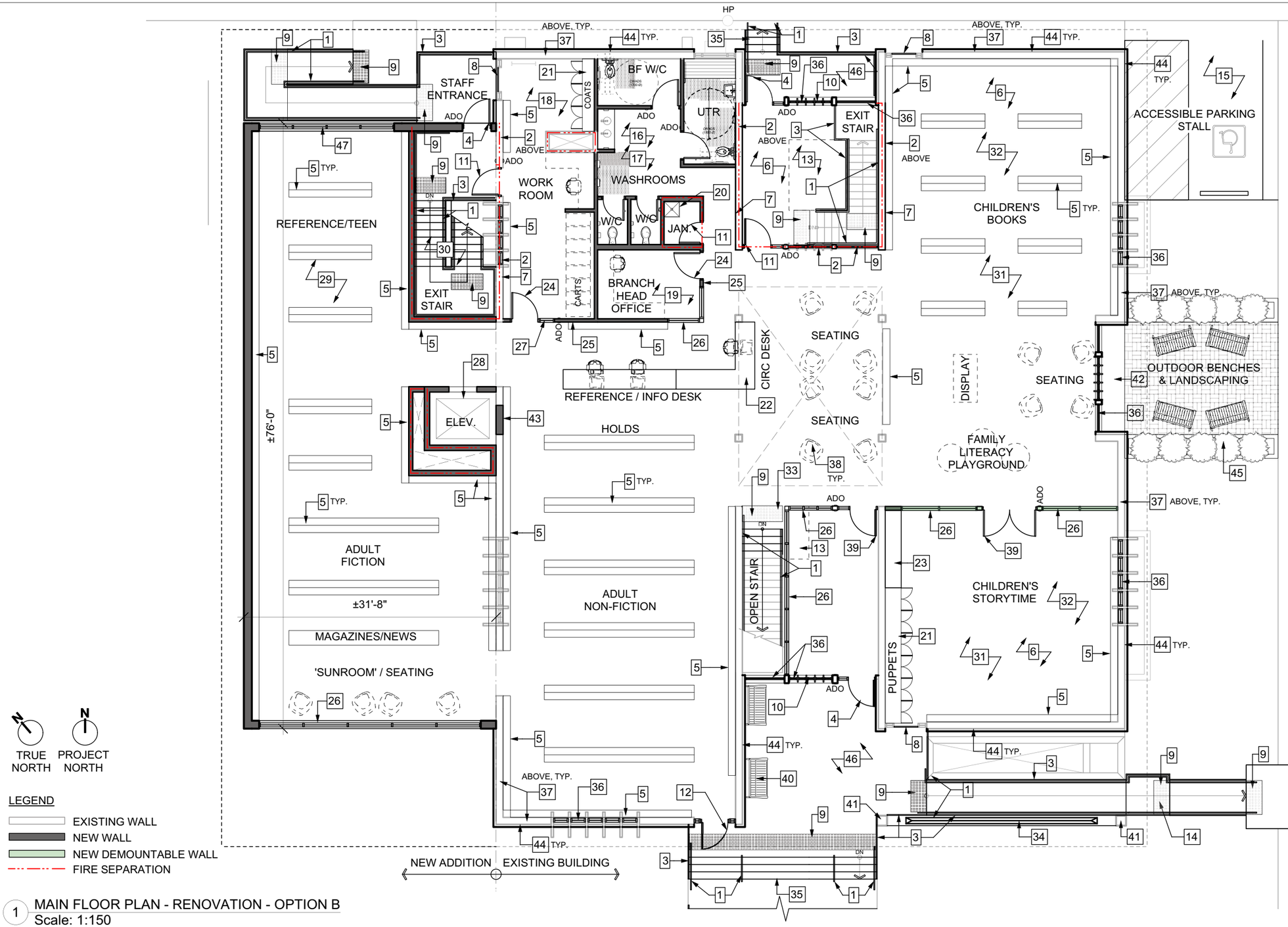

1 MAIN FLOOR PLAN - RENOVATION - OPTION B
Scale: 1:150

MAIN FLOOR PLAN KEYNOTES - OPTION B

1. INSTALL NEW DUAL HANDRAILS TO MEET WADS.
2. INSTALL NEW 45MIN FIRE-RATED HOLLOW METAL WINDOW FRAMES W/ WIRED GLASS.
3. INSTALL NEW GUARDRAIL TO MEET WADS.
4. INSTALL NEW HOLLOW METAL DOOR & FRAME.
5. INSTALL NEW WADS COMPLIANT SHELVING. PROVIDE KICK VENT AT EXISTING WALL FIN HEATERS WHERE PRESENT.
6. REPAIR DAMAGED ACT CEILING.
7. INSTALL 2 LAYERS 5/8" TYPE 'X' DRYWALL ON EXISTING STUDS TO PROVIDE 45 MIN. FRR
8. EXISTING WOOD DOOR LEAF TO BE FIXED IN PLACE - REMOVE EXISTING DOOR HARDWARE AND PROVIDE NEW SEALS AROUND DOOR.
9. INSTALL NEW DETECTABLE WARNING SURFACE TO MEET WADS.
10. LOWER EXISTING BOOK SLOT.
11. INSTALL NEW 45 MIN FIRE-RATED HOLLOW METAL DOOR & FRAME
12. NEW WIDENED EXTERIOR WOOD DOOR & FRAME (TO MATCH EXISTING)
13. INSTALL NEW CERAMIC TILE FLOORING (TO MATCH EXISTING)
14. INSTALL NEW CONCRETE RAMP W/ INTERMEDIATE LANDING AND LARGER LOWER LANDING AT SIDEWALK.
15. REGRADE EXISTING PARKING STALL. INSTALL NEW ASPHALT AND PAINT NEW AISLE / STALL LINES / ACCESSIBILITY SYMBOL.
16. NEW GENDER NEUTRAL WASHROOMS. INSTALL FULL HEIGHT WALLS AND HM DOORS & FRAMES (NOT TOILET PARTITIONS). INSTALL NEW PLUMBING FIXTURES. WASHROOM ACCESSORIES, WOOD CHANGE BENCH / EMERGENCY CALL BUTTON IN UTR, AND SINK VANITY AS SHOWN.
17. INSTALL NEW RESILIENT SHEET FLOORING AND GWB CEILING THROUGHOUT NEW WASHROOMS AND JANITOR ROOM
18. INSTALL NEW RESILIENT SHEET FLOORING AND ACT CEILING THROUGHOUT NEW WORK ROOM
19. INSTALL NEW CARPET TILE FLOORING AND ACT CEILING THROUGHOUT BRANCH HEAD OFFICE
20. NEW MOP SINK IN JANITOR ROOM
21. INSTALL NEW MILLWORK CABINET
22. INSTALL NEW ACCESSIBLE SERVICE DESK (MILLWORK) TO REPLACE EXISTING.
23. INSTALL NEW LOWER MILLWORK CABINET AND COUNTER AT SELF PUBLISH WORKSTATION (TO MEET WADS).
24. NEW WOOD DOOR & FRAME
25. NEW VERTICAL CEDAR SIDING (TO MATCH EXISTING)
26. NEW FULL HEIGHT (FLOOR TO CEILING) GLAZING
27. INSTALL NEW SIDELIGHT
28. INSTALL NEW WADS COMPLIANT ELEVATOR
29. INSTALL NEW CARPET TILE FLOORING AND ACT CEILING THROUGHOUT OPEN LIBRARY SPACE.
30. INSTALL NEW CONCRETE EXIT STAIR C/W COLOUR AND TEXTURE CONTRASTED NOSINGS
31. INSTALL NEW CARPET TILE FLOORING THROUGHOUT OPEN LIBRARY SPACE.
32. PATCH EXISTING PLASTER BOARD WALLS WHERE DAMAGED
33. MODIFY EXISTING STAIR CONFIGURATION (BUILD NEW LANDING AND MODIFY FLOOR STRUCTURE AND CEILING TO SUIT).
34. REBUILD TYNDALL STONE WALL. INSTALL NEW SIGNAGE.
35. INSTALL NEW CONCRETE STAIR.
36. INSTALL NEW EXTERIOR TRIPLE PANE FIBREGLASS WINDOWS
37. INSTALL NEW EXTERIOR TRIPLE PANE FIBREGLASS TRANSOM WINDOWS
38. NEW FURNITURE. ALL NEW FURNITURE IS N.I.C.
39. NEW ALUMINUM/GLASS DOOR & FRAME
40. REINSTALL BENCHES (2 TOTAL)
41. PAINT EXISTING EXTERIOR CONCRETE COLUMN
42. INSTALL INSULATED & DRAINED SYSTEM AT RECESSED EAST BAY. REFER TO BUILDING ENVELOPE OUTLINE SPEC.
43. INFILL EXISTING WINDOW OPENING
44. INSTALL NEW WOOD STRAPPING, EXTERIOR SHEATHING, AIR BARRIER MEMBRANE, EXTERIOR INSULATION, AND RECLAIMED/NEW TYNDALL STONE. REFER TO BUILDING ENVELOPE OUTLINE SPEC.
45. NEW EXTERIOR BENCHES, PLANTERS, & LANDSCAPING/PAVING STONES
46. NEW CONCRETE LANDING
47. NEW PARTIAL HEIGHT GLAZING. REFER TO OUTLINE SPECIFICATION.

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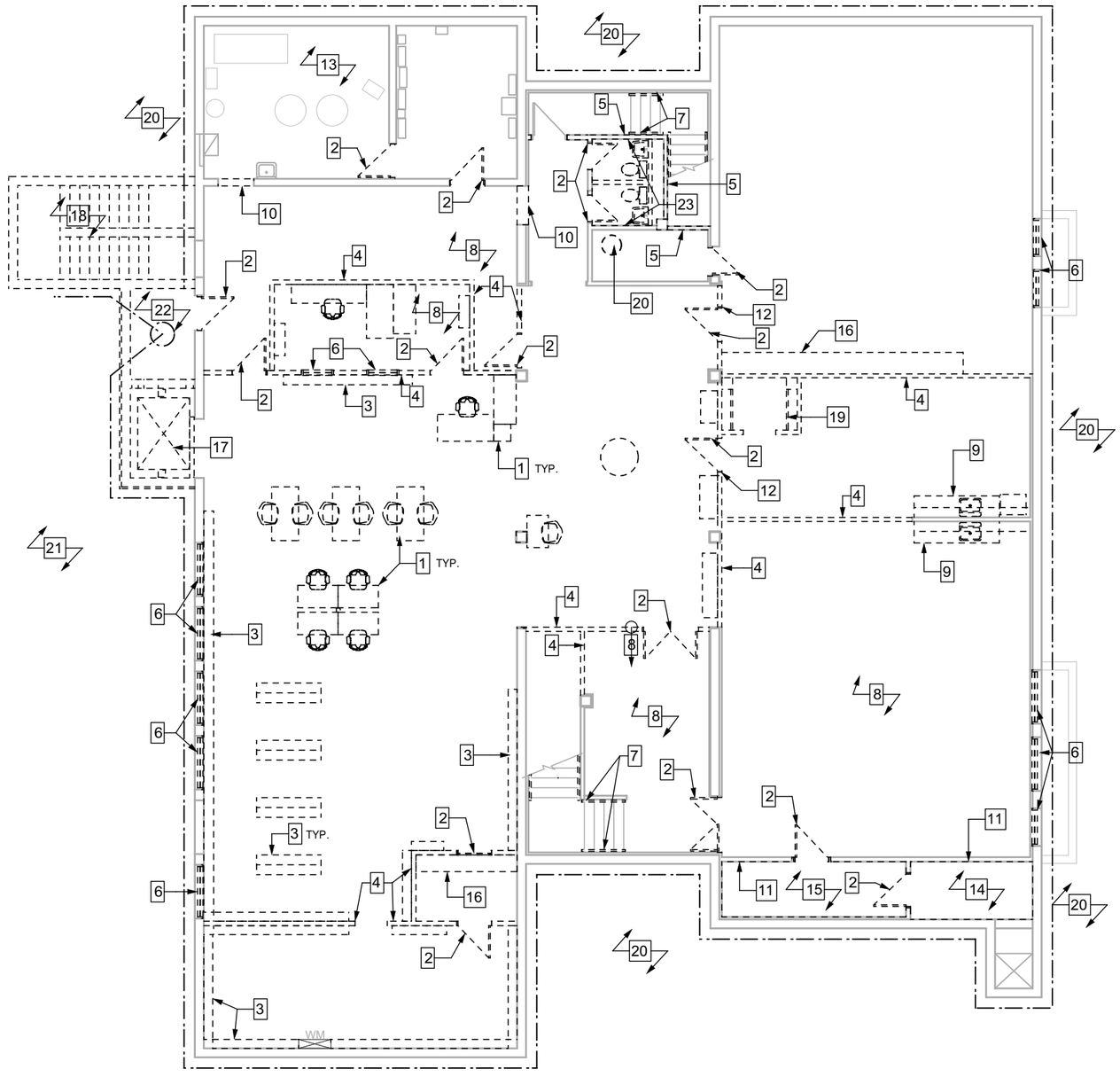
MAIN FLOOR PLAN - OPTION B

2023-11-09

A-19



BASEMENT DEMOLITION PLAN KEYNOTES - OPT B

1. REMOVE EXISTING FURNITURE AND RETURN TO OWNER.
2. DEMOLISH EXISTING DOOR & FRAME
3. DEMOLISH EXISTING BOOKSHELVES
4. DEMOLISH EXISTING WALLS
5. DEMOLISH EXISTING PLASTER BOARD AT STAIRWELL
6. DEMOLISH EXISTING WINDOWS
7. DEMOLISH EXISTING HANDRAILS
8. DEMOLISH EXISTING FLOORING
9. DEMOLISH EXISTING KITCHEN MILLWORK & SINK
10. DEMOLISH OPENING FOR NEW DOOR
11. DEMOLISH EXISTING PLASTER BOARD AT MECH ROOM/STORAGE ROOM
12. WIDEN DOOR OPENING TO SUIT NEW DOOR WIDTH
13. DEMOLISH EXISTING STUCCO CEILING
14. DEMOLISH EXISTING GWB CEILING
15. DEMOLISH EXISTING GWB CEILING & FLOORING
16. DEMOLISH EXISTING MILLWORK
17. DEMOLISH EXISTING ELEVATOR IN ITS ENTIRETY INCLUDING ELEVATOR SHAFT WALLS & ROOF.
18. DEMOLISH EXISTING DECOMMISSIONED STAIR.
19. DEMOLISH EXISTING CLOSET MILLWORK
20. EXCAVATE AROUND BUILDING FOR INSTALLATION OF NEW WEEPING TILE, NEW WATERPROOFING MEMBRANE & NEW EXTERIOR INSULATION. DEMOLISH EXISTING WEEPING TILE, INTERIOR PITS, AND FEEDER LINES.
21. EXCAVATE AREA FOR NEW ADDITION & CRAWLSPACE
22. DEMOLISH EXISTING ELEVATOR MACHINE ROOM IN ITS ENTIRETY.
23. DEMOLISH CERAMIC TILE & PLASTER BOARD AT EXISTING BASEMENT WASHROOMS.

TRUE NORTH PROJECT NORTH

1 BASEMENT DEMOLITION FLOOR PLAN - OPTION B
Scale: 1:150

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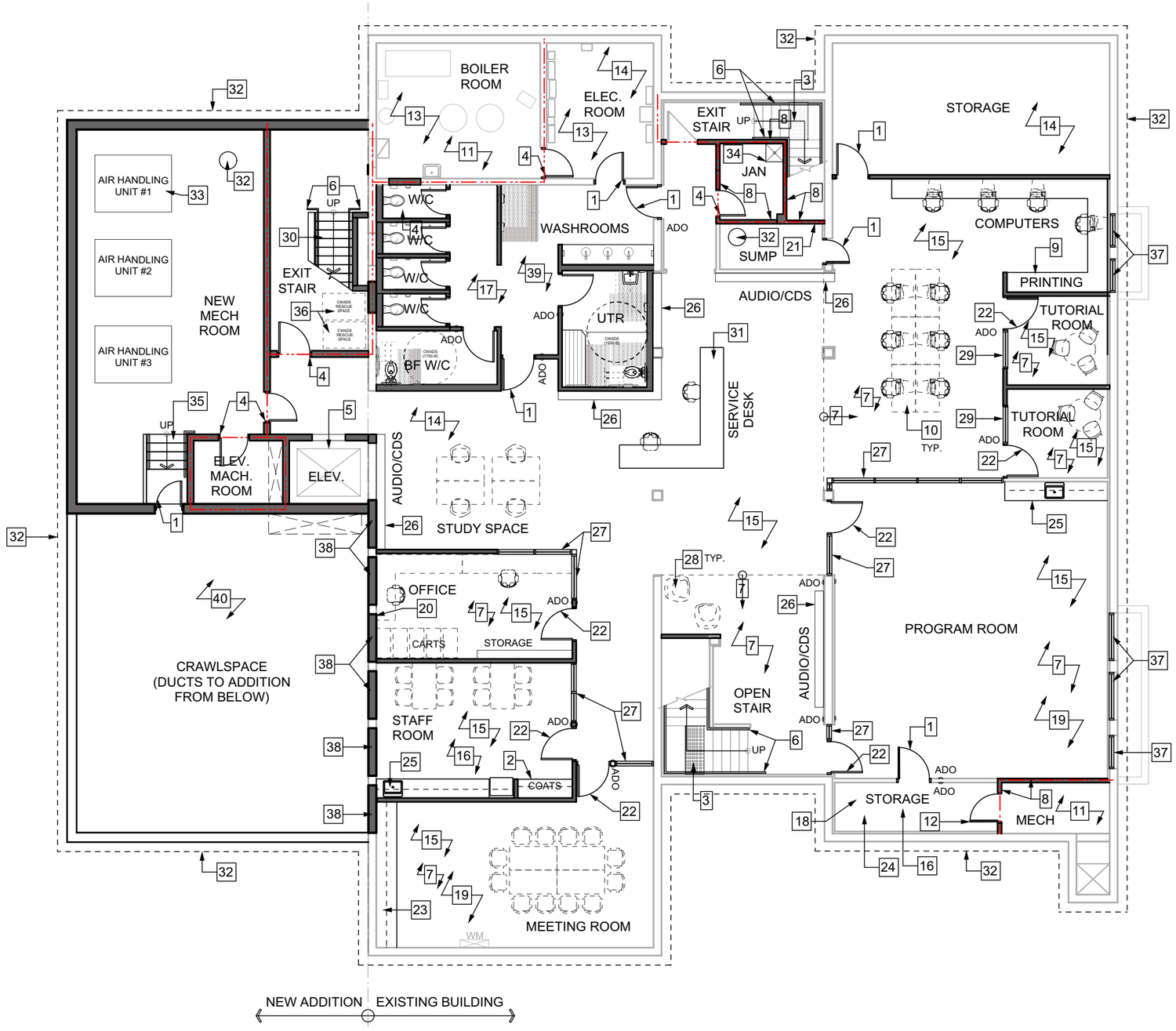
BASEMENT FLOOR PLAN DEMO - OPTION B
2023-11-09

A-20



TRUE NORTH PROJECT NORTH

LEGEND

- EXISTING WALL
- NEW WALL
- FIRE SEPARATION

1 BASEMENT RENOVATION FLOOR PLAN - OPTION B
Scale: 1:150

BASEMENT PLAN KEYNOTES - OPTION B

1. INSTALL NEW HOLLOW METAL DOOR & FRAME
2. INSTALL NEW ACCESSIBLE HEIGHT CLOSET MILLWORK
3. INSTALL NEW DETECTABLE WARNING SURFACE TO MEET WADS.
4. INSTALL NEW FIRE RATED HOLLOW METAL DOOR & FRAME (45MIN).
5. INSTALL NEW WADS COMPLIANT ELEVATOR
6. INSTALL NEW DUAL HANDRAILS TO MEET WADS.
7. INSTALL NEW CARPET TILE FLOORING
8. INSTALL 2 LAYERS 5/8" TYPE 'X' DRYWALL ON EXISTING STUDS TO PROVIDE 45 MIN. FRR
9. NEW WADS COMPLIANT COMPUTER DESK / PRINTING STATION MILLWORK
10. NEW ACCESSIBLE COMPUTER WORKSTATIONS. ALL NEW FURNITURE IS N.I.C.
11. INSTALL NEW CEILING IN MECH ROOM - 2 LAYERS 5/8" TYPE 'X' DRYWALL.
12. INSTALL NEW FIRE RATED HOLLOW METAL ACCESS DOOR & FRAME (45MIN).
13. FIRESTOP ALL PENETRATIONS IN ROOM WHERE FIRESTOPPING IS NOT ALREADY PRESENT. INSTALL FIRE DAMPERS WHERE NOT PRESENT.
14. PATCH & REPAIR EXISTING OPENINGS/DAMAGE IN PLASTER BOARD CEILING.
15. INSTALL NEW ACOUSTIC CEILING TILE THROUGHOUT ROOM.
16. INSTALL NEW RESILIENT SHEET FLOORING THROUGHOUT ROOM
17. NEW GENDER NEUTRAL WASHROOMS. INSTALL FULL HEIGHT WALLS AND HM DOORS & FRAMES (NOT TOILET PARTITIONS). INSTALL NEW PLUMBING FIXTURES, WASHROOM ACCESSORIES, WOOD CHANGE BENCH / EMERGENCY CALL BUTTON IN UTR, AND SINK VANITY AS SHOWN.
18. REPLACE DRYWALL ON ALL WALLS OF ROOM - 1 LAYER 5/8" TYPE 'X'
19. INSTALL ASSISTIVE LISTENING SYSTEM THROUGHOUT ROOM
20. REMOVE EXISTING EXPOSED FOAMED PLASTIC PRESENT AT PIPING.
21. PROVIDE NEW FIRE-RATED ACCESS HATCH INTO CRAWLSPACE BELOW STAIR
22. INSTALL NEW ALUMINUM/GLASS DOOR & ALUMINUM DOOR FRAME.
23. INSTALL NEW WADS COMPLIANT KITCHENETTE
24. INSTALL NEW CEILING IN STORAGE ROOM - 1 LAYER 5/8" TYPE 'X' DRYWALL.
25. INSTALL NEW CWADS COMPLIANT KITCHENETTE C/W NEW SINK
26. NEW WADS COMPLIANT SHELVING
27. INSTALL NEW FULL HEIGHT (FLOOR TO CEILING) GLAZING
28. NEW FURNITURE. ALL FURNITURE IS N.I.C.
29. INSTALL NEW SIDELIGHT
30. NEW CONCRETE EXIT STAIR
31. INSTALL NEW ACCESSIBLE SERVICE DESK (MILLWORK) TO REPLACE EXISTING.
32. FOLLOWING EXCAVATION, INSTALL NEW WEEPING TILE (INCLUDING NEW INTERIOR PITS AND FEEDER LINES), NEW WATERPROOFING MEMBRANE, & NEW EXTERIOR INSULATION AT BASEMENT FOUNDATION WALLS.
33. INSTALL NEW AIR HANDLING UNITS TO REPLACE EXISTING. INSTALL NEW AHU TO SERVE ADDITION. CONNECT REFRIGERANT PIPING THROUGH SHAFT NEXT TO ELEVATOR TO NEW ROOFTOP CONDENSING UNITS.
34. NEW MOP SINK IN JANITOR ROOM
35. NEW STEEL SERVICE STAIR TO CRAWLSPACE LEVEL
36. NEW DESIGNATED WADS RESCUE SPACE. PROVIDE 2-WAY VOICE COMMUNICATION SYSTEM BETWEEN SPACE AND CENTRAL ALARM. INSTALL SIGNAGE.
37. INSTALL NEW TRIPLE PANE FIBREGLASS WINDOW
38. INFILL EXISTING WINDOW OPENING AT CRAWLSPACE
39. INSTALL NEW RESILIENT SHEET FLOORING AND GWB CEILING THROUGHOUT WASHROOMS
40. EXCAVATE CRAWLSPACE. INSTALL NEW POLY V.B. & SAND. DEPTH OF CRAWLSPACE TO SUIT NEW DUCTWORK.

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BASEMENT FLOOR PLAN - OPTION B

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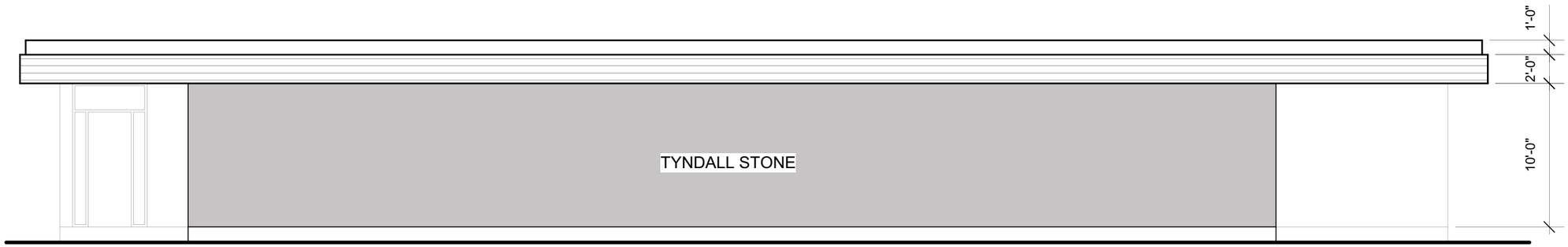
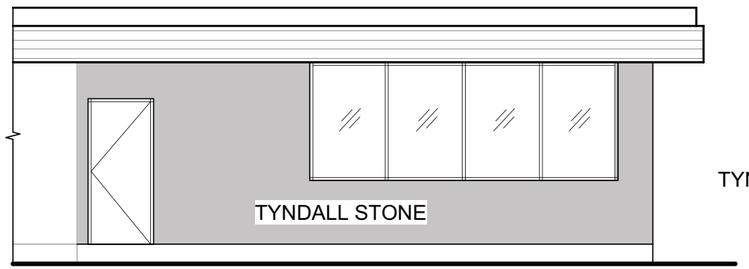
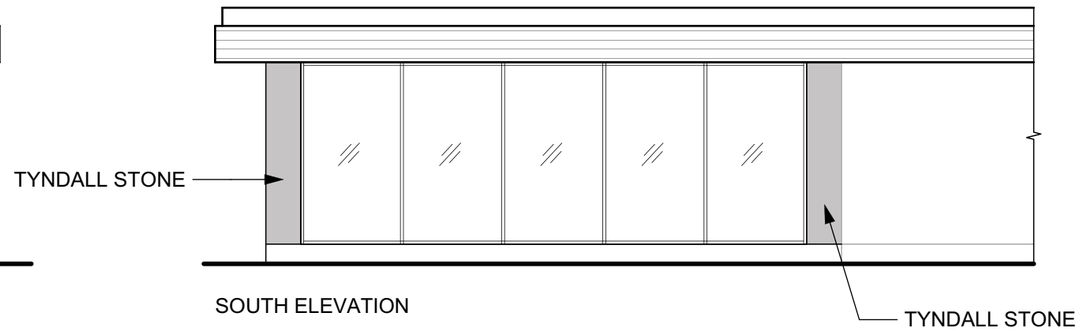
A-21



WEST ELEVATION



NORTH ELEVATION



SOUTH ELEVATION

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OPTION B - EXTERIOR ELEVATIONS

2023-11-09

A-22

OUTLINE SPECIFICATION

FEASIBILITY STUDY FOR THE
WEST KILDONAN LIBRARY
365 Jefferson Avenue, Winnipeg MB

Issued for Class 4 Cost Estimate – Option B

November 2023

Consultant Team:
1x1 architecture inc. (Prime / Architectural)
Crosier Kilgour (Structural & Building Envelope)
Epp Siepman Engineering (Mechanical / Electrical)
GWH Construction Management (Cost Consultant)

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ARCHITECTURAL

1.0 GENERAL REQUIREMENTS

.1 GENERAL

.1 This project consists of alterations and new construction to the West Kildonan Library located at 365 Jefferson Avenue in Winnipeg.

.2 The scope of work is as follows:

.1 Option B:

.1 Interior renovations to the existing +/- 640sqm (6889sqft) library building built in 1967 (main floor and basement level). Demolition scope to suit proposed renovations;

.2 Construction of a new one-storey +/- 223 sqm (2400sqft) building addition;

.3 Installation of new roofing (addition and existing building);

.4 Construction of new exterior concrete ramps and stairs;

.5 Regrading/new asphalt at accessible parking stall;

.6 Construction of wood garbage enclosure;

.7 Building envelope upgrades to the existing library;

.8 Development of an outdoor reading area (benches, landscaping).

.3 The project will be constructed for the City of Winnipeg as the client and all City of Winnipeg standards for their construction to be followed, including City of Winnipeg Accessibility Standards (2018 revision).

.4 The existing library building and was constructed in 1967. Asbestos Containing Materials are present in the existing library (drywall compound, stucco ceiling in boiler room, pipe fittings, mastic, floor tiles, duct insulation). Refer to the asbestos inventory provided by the City of Winnipeg.

.5 The building addition will be required to meet the Manitoba Energy Code for Buildings (MECB). The addition will be energy modeled to ensure its design meets the Energy Code requirements. The Place of Work for this project falls within Climate Zone 7A.

.6 Existing building does not need to remain operational during demolition & construction.

.2 REGULATORY ANALYSIS:

.1 The work of this project will be governed by the National Building Code of Canada 2020 including Manitoba Amendments.

.1 The occupancy classification will be Group A-2 Assembly Occupancy.

.2 Building Height (Number of Storeys): 1

.3 Building Facing (Number of Streets): 2

.4 Existing building area: 6889sqft (640sqm)

.5 Total building area:

.1 Option B: 16040sqft (1490sqm)

.6 The building is not sprinklered.

.7 Construction article: 3.2.2.25 – Group A, Division 2, up to 2 Storeys.

.1 The building is permitted to be of combustible or non-combustible construction used singly or in combination. Max. area not more than 2,000 sq.m.

.8 Design Occupant Load:

.1 Option B: maximum 300 persons

.3 CASH ALLOWANCES

.1 Piling and Shoring Inspections – $5,000.00;

.2 Concrete and Compaction Testing - $5,000.00;

.3 Asphalt and Compaction Testing - $5,000.00;

.4 Building Envelope Testing – $2,000.00;

.5 Window Testing – $1,500.00;

.6 Roof Inspections – $2,500.00;
.7 Signage (Interior / Exterior) – $5,000.00;
.8 Landscape Plantings / Furnishings – $10,000.00.

.4 SCHEDULE:
.1 For the purpose of the Class-4 cost analysis, it is anticipated that the project will be tendered in March 2025 with construction start scheduled for May 2025.
.2 Substantial completion is targeted for May 2026.

2.0 SITE WORK

.1 SITE DEMOLITION
.1 Site demolition including:
.1 Demolish exterior concrete stairs/ramps where shown.
.2 Demolish asphalt at accessible parking stall.
.3 Demolish existing trees at north side of building to suit new ramp & building addition.
.4 Demolish decommissioned stair at northwest corner of library.
.5 Demolish existing wood-framed windows (and doors, where shown).
.6 Excavate around building (addition and existing library) for installation of new below-grade insulation / weeping tile.
.7 Excavate west side of site for new addition.
.8 Demolish sod & regrade at new outdoor reading area.
.9 Refer to demolition plans.

.2 EARTHWORK
.1 A geotechnical investigation has not been undertaken. Refer to structural for general assumptions;

.3 DRAINAGE
.1 The existing library roof is primarily drained used surface drainage with scuppers / rain water leaders.
.1 This type of drainage will remain as a secondary system in option B but needs replacement in its entirety. Refer to the building envelope / roofing outline specification. The new roof will be primarily internally drained (with approximately 6 new roof drains, as shown on the site plan).

.4 SITE DEVELOPMENT
.1 Repair all surrounding areas damaged as a result of the construction.
.2 Regrade around existing library & new addition.
.3 Garbage enclosure: Provide new garbage enclosure c/w HSS vertical members, 2x4 pressure treaded horizontal wood siding, concrete slab below, and wood gate (83" high).
.4 Asphalt - Provide new asphalt at accessible parking stall. Asphalt to be built to City of Winnipeg Standards. Paint new lines/signage at stall.
.5 Sod - Sod/seed as required after regrading. Sod/Seed to be built to City of Winnipeg Standards;
.6 Install new outdoor reading area where shown (benches, paving stones, planters).

.5 APPROXIMATE SERVICE REQUIREMENTS
.1 Refer to Mechanical and Electrical Outline Specifications;

3.0 DEMOLITION

.1 Demolish existing elevator & elevator machine room. Demolish existing fascia for tie-in of new addition roof to the existing library roof.
.2 Demolish existing walls, doors, finishes and fixtures to suit new layout. Refer to Architectural drawings and demolition plans.
.3 Demolish top treads at the existing south library stair to suit the new stair configuration. Refer to structural outline specifications.

.4 Demolish openings in existing concrete/concrete block walls where indicated on drawings. Provide temporary shoring. Refer to Structural.
.5 Demolish and modify existing plumbing & HVAC systems to suit renovation as shown on drawings. Refer to Mechanical outline specifications.
.6 Demolish and modify existing power, data, lighting, fire & life-safety, and building security systems to suit renovation as shown on drawings. Refer to Electrical outline specifications.
.7 Repair damage to adjacent structures, materials or finishes affected by this work.
.8 Refer to asbestos inventory.

4.0 BUILDING STRUCTURE

.1 Refer to the Structural outline spec.
.2 Existing library: Existing roof structure to remain in place.
    .1 Reinforce roof for new air handling units – refer to Structural outline spec.
.3 Trench existing library basement floor slabs as required for relocation of existing plumbing and installation of new weeping tile.
    .1 Patch & make good existing concrete floor in library basement where trenched.
.4 Modify floor structure at existing south stair to suit new configuration. Refer to the structural outline spec for details.
.5 Structure of New Addition:
    .1 Provide new friction piles to size and depth as scheduled.
    .2 Provide new 250mm thick concrete walls at basement level.
    .3 Provide new concrete block walls & steel columns/beams at main floor level.
    .4 Provide new OWSJ roof structure c/w steel decking.
    .5 New main floor level to match elevation of existing library.
    .6 Refer to structural outline spec.

5.0 EXTERIOR WALLS

.1 Refer to building envelope outline spec.
    .1 Existing walls below grade:
        .1 Existing basement concrete walls to be treated with a fluid-applied high build waterproofing membrane and will be insulated on the exterior using 100mm (min R20) closed-cell SM extruded polystyrene insulation, secured to the wall and extending to the bottom of the wall.
            .1 Standard of Acceptance; Dupont Styrofoam Brand SM Board.
        .2 Areas at top of foundation wall, where exposed above grade, shall have cement backer board.
            .1 Standard of Acceptance: Finex Multi-purpose Fiber Cement Panels
    .2 New walls below grade (New Addition):
        .1 New 10” concrete foundation walls
        .2 Fluid-applied high build waterproofing membrane
        .3 Exterior insulation – 100mm (min R20) closed-cell SM extruded polystyrene insulation, secured to the wall and extending to the bottom of the wall.
            .1 Standard of Acceptance: Dupont Styrofoam Brand SM Board.
        .4 Areas at top of foundation wall, where exposed above grade shall have cement backer board.
            .1 Standard of Acceptance: Finex Multi-purpose Fiber Cement Panels
    .3 Existing walls above grade:
        .1 Existing main floor walls to be insulated from the exterior side. Existing tyndall stone finish to be removed with care, allowing for reinstallation where possible. New wood strapping & exterior grade gypsum board sheathing to be installed at the exterior side of the existing concrete block.

.2 Sheathing be sealed on the exterior side with a self-adhered air barrier membrane (vapour permeable).
.3 Minimum 100mm (R20) rigid insulation to be provided, outboard of the air barrier. Final insulation type and thickness to be determined using energy modelling / hygrothermal modelling.
.4 Existing tyndall stone to be reinstalled with new shelf angles/wall ties to create an air space behind. New tyndall stone (to match existing) will be installed where required, where existing tyndall stone cannot be reused.
.5 Above the new transom windows, new wood framing and exterior grade gypsum board sheathing will be installed inside the roof overhang (above the existing exterior walls). Sheathing to be sealed on the exterior side with a self-adhered air barrier membrane (vapour permeable). Minimum 100mm (R20) rigid insulation to be provided, outboard of the air barrier. Final insulation type and thickness to be determined using energy modelling / hygrothermal modelling.

.4 New walls above grade (New Addition):
.1 Typical exterior walls: Non-combustible, 20-gauge cold-formed steel stud framing (6"studs @ 16" O.C. typical) with abuse-resistant gypsum board on the interior face of the studs.
.1 Elevator shaft / exit stair walls: concrete block.
.2 Refer to structural outline spec.
.2 Exterior grade gypsum board sheathing installed on the exterior face of the exterior steel stud walls.
.3 Exterior sheathing/concrete block to be sealed with a self-adhered air and vapour barrier membrane.
.4 Minimum 100mm (R20) rigid insulation will be provided, outboard of the air vapour barrier. Final insulation type and thickness to be determined using energy modelling / hygrothermal modelling.
.5 Air space and exterior cladding as scheduled.

.5 New walls - Exterior Cladding (New Addition) – see drawings for locations:
.1 Building Addition – Tyndall stone cladding (90mm thick).
.1 Finish/ Texture: Split-Finish
.2 Colour: To match existing library Tyndall Stone (Buff)
.3 Nominal size: Course height/pattern to match existing Tyndall Stone (Random Ashlar pattern)
.4 Tyndall stone to be installed with shelf angles/wall ties.

.2 Fascia & Soffit of Existing Library:
.1 New wood cedar fascia (to match existing, see original drawings)
.2 New white stucco soffit to match existing (following envelope upgrades).

.3 Fascia & Soffit of New Addition:
.1 New wood cedar fascia (to match existing, see original drawings)
.2 New white stucco soffit to match existing

.4 Refer to Doors and Windows.

6.0 ROOFING

.1 Refer to Architectural drawings and building envelope outline specification.

.2 Existing Library roof:
.1 Refer to site/roof plan.
.2 Insulation will be min. R-28, comprised of rigid sloped insulation system & polyiso insulation boards. Final insulation thickness to be determined using energy modelling / hygrothermal modelling.
.3 Air/vapour barrier membrane will be self-adhered over existing steel deck.

.4 SBS modified base sheet membrane and SBS modified cap sheet membrane over insulation.
.1 Standard of Acceptance: 2-ply SBS modified bitumen roofing system by Soprema.
.5 Replace existing flashing and all scuppers/rainwater leaders around library building (x3 RWL total). Provide new concrete splash pads at the base of the new rainwater leaders (x3 splash pads). New rainwater leaders to be located on west and north faces of library.

.3 New addition roof:
.1 Refer to site/roof plan.
.2 Insulation will be min. R-28, comprised of rigid sloped insulation system & polyiso insulation boards. Final insulation thickness to be determined using energy modelling / hygrothermal modelling.
.3 Air/vapour barrier membrane will be self-adhered over existing steel deck.
.4 SBS modified base sheet membrane and SBS modified cap sheet membrane over insulation.
.5 Roof to be internally drained. Interior roof drains to be control-flow type. Coordinate with Mechanical. Install scuppers and RWLs at roof of addition as noted above.

7.0 INTERIOR WALLS

.1 Non-combustible, cold-formed steel stud framing (3-5/8" studs @ 16" O.C. typical, 6" studs for plumbing walls) with gypsum board wall finish.
.1 Standard of acceptance (gypsum board): CGC Sheetrock Brand

.2 Use moisture & mould resistant board in wet or humid locations.
.1 Standard of acceptance: CGC Sheetrock Brand Mold Tough

.3 In high-impact locations, use abuse-resistant gypsum board.
.1 Standard of acceptance: CGC Fibrerock Brand AR Interior Panels

.4 In fire-rated assemblies, use Fire Rated Core Gypsum Board
.1 Standard of acceptance: CGC Firecode X Gypsum Board

.5 All new interior walls in the existing library are to be full height (to u/s of deck);

.6 Provide Roxul Insulation in all washroom and office locations;

.7 Provide fiberglass matt gypsum backer board or cement backer board at ceramic wall tile locations (typical in all washrooms).

8.0 INTERIOR CEILINGS

.1 Acoustic Ceiling Tile:
.1 ACT is to match existing where repairs are noted.
.2 Where new ACT is installed throughout a room:
.1 Standard of Acceptance: CertainTeed Symphony, 2'x4' size

.2 Gypsum Board Ceilings:
.1 Use moisture & mould resistant gypsum board in wet or humid locations;
.2 Use fire rated core gypsum board in all fire-rated ceilings.
.3 See Interior Walls for acceptable products.

.3 Refer to Finishes and drawings for ceiling types.

9.0 MISCELLANEOUS METALS

.1 Stainless steel corner guards: stainless stl. grade 316, surface adhesive mounted, 2" x 2", 16 gauge. Height to be 48" w/ ½" corner radius. Allow for 10 total.

.2 Provide steel lintels in existing concrete/concrete block walls of library as required for new openings. Refer to drawings (basement level) and Structural outline spec.

.3 Steel stair extension at top of existing south stair. Refer to drawings & structural outline spec.

.4 Install steel service stair to crawlspace access opening in basement c/w code compliant steel handrails & guardrails.

.5 Handrails/guardrails:
.1 Steel guardrails c/w pickets at north side of building

.1 Glass guardrails at south side of building (see Glazing in Doors and Windows)
.2 New steel guardrail at roof access hatch.
.3 Steel dual handrails to meet WADS where indicated on drawings.

10.0 DOORS AND WINDOWS

.1 Fibreglass Window Frames:
  .1 Exterior:
    .1 Thermally broken fibreglass frames with finish and profile to match existing windows. Triple pane. Refer to building envelope outline spec.
    .2 Replacement includes transom and clerestory windows. Refer to existing drawings for exterior elevations.
    .3 New addition:
      .1 South glazing total size – 10'-0" high, 28'-0" wide (broken into 5 glazing panels)
      .2 North glazing total size – 6'-6" high (base of window 3'-6" AFF), 17'-0" wide (broken into 4 glazing panels)
.2 Hollow Metal Window Frames (interior):
  .1 Interior, fire-rated frames (45 minutes minimum) at north exit stair.
    .1 Includes transom windows (below ceiling) and full height windows/sidelights. As noted on drawings.
.3 Aluminum Frames:
  .1 Interior Frames (at new full height glazing, floor to ceiling)
    .1 Non-thermally broken storefront system, 1/3/4" x 4 ½" framing.
      .1 Standard of Acceptance: Alumicor Flushglaze TL 1800
      .2 Finish: Custom powder coat – brown colour to match existing window frames.
.4 Glazing:
  .1 Exterior:
    .1 Glazing to be high performance, hermetically sealed, triple pane, tempered glass units. Refer to building envelope outline spec.
  .2 Interior:
    .1 Single pane, ¼" tempered glass, typical;
    .2 Wired glass in fire-rated hollow metal window frames, where noted on drawings (at north exit stair).
  .3 Visual Warning Strip: Fully glazed sidelights at entrances or vestibules shall be identified by 2 continuous vinyl strips, min. 2" wide. Custom pattern TBD.
  .4 Glass Guardrails:
    .1 At south entrance ramp and stairs, guardrails to be ½" tempered glass. Polished edges. 42" high.
      .1 Standard of Acceptance (mounting hardware): Elite Posts System by Richelieu
.5 Aluminum Doors:
  .1 Interior Doors:
    .1 Non-thermal, medium stile aluminium doors with anodized finish, 2" thick.
      .1 Standard of Acceptance: Alumicor Canadiana HD.
    .2 Door Glazing – single pane, ½" clear tempered glass.
    .3 Hardware to include: acoustic seals, hinges, stops, closers, exit devices, pull hardware and automatic operators. All hardware to be Class-1 Institutional Grade.
    .4 Typical door sizes to be 39" x 84" (1000 x 2135mm).
    .5 Finish: Custom powder coat – brown colour to match existing window frames.
    .6 Locations as noted on drawings.

.6 Hollow Metal Doors and Frames:
    .1 Exterior Doors:
        .1 Steel doors and frames to be heavy-duty grade, welded construction. Frames - 14 ga. welded, Doors – 16 ga. welded.
        .2 Doors to be insulated with polyurethane core. Frames to be fully insulated with polyurethane foam.
        .3 Provide high-performance, low VOC paint finish to doors and frames.
        .4 Hardware to include: weather-stripping, thresholds, hinges, stops, closers, exit devices, pull hardware, kickplates (both sides) and security astragrals. All hardware to be Class-1 Institutional Grade.
        .5 Typical door sizes to be 39" x 84" (1000 x 2135mm).
    .2 Interior Doors:
        .1 Steel doors and frames to be heavy-duty grade, welded construction. Frames - 14 ga. welded, Doors – 16 ga. welded.
        .2 Doors to be honeycomb core.
        .3 Provide high-performance, low VOC paint finish to doors and frames.
        .4 Provide single pane, ½" clear tempered glass lite – 6" x 20" at each location.
        .5 Hardware to include: acoustic seals, hinges, stops, closers, kickplates (both sides) and lever hardware. All hardware to be Class-1 Institutional Grade.
        .6 Typical door sizes to be 39" x 84" (1000 x 2135mm).
        .7 Provide fire-rated doors as required for mechanical/electrical rooms and in all fire separations. As noted on drawings.
.7 Exterior Wood Doors:
    .1 Custom wood door and frame to match existing exterior historic doors. 1 door total.
    .2 Typical door sizes to be 39" x 84" (1000 x 2135mm).
    .3 Wood frame to include small sidelights on either side of the wood door. Total size to suit existing rough opening.
    .4 Hardware to include: weatherstripping/seals, hinges, stops, closers, and lever hardware. All hardware to be Class-1 Institutional Grade.
.8 Interior Wood Doors:
    .1 Flush Interior Doors, 1-3/4 inches thick; solid core construction, veneer face rotary cut, maple or equal,
    .2 Frames to be painted hollow metal, min. 16-gauge welded seams (mechanical seams not acceptable);
    .3 Wood door locations: as noted on drawings.
.9 Auto Door Operators (ADO)
    .1 Provide auto door operator c/w vertical, bar-type push buttons located on latch-side of door at locations shown on drawings;
        .1 Standard of Acceptance: Stanley Access Technologies or Horton Automatics.
        .2 Standard of Acceptance: Ingress'R 136-5 or approved equal

11.0 MILLWORK & FINISH CARPENTRY

.1 All millwork to meet AWMAC custom standards and Manitoba Building Code barrier free standards;
.2 All exposed surfaces of upper and lower cabinets shall be p-lam veneer. Interior surfaces (hidden behind doors) shall be melamine. Edges of cabinet doors and drawers shall be 3mm PVC solid-edge banded. Exposed shelving shall be p-lam veneer with 3mm PVC solid-edge;
.3 Counters to be p-lam veneer c/w 3mm PVC solid-edge banding;
.4 Washroom vanities to be solid surface;
.5 Provide institutional grade hardware throughout;
.6 Refer to drawings for locations;
.7 Schedule:

.1 Library shelving (main floor and basement);
.2 Library circulation desk (main floor and basement);
.3 Washroom vanity (main floor and basement);
.4 Kitchenettes (upper and lower cabinets);
.5 Closet rods/shelves (main floor and basement);
.6 Full height storage cabinets/shelving with lockable doors (work room, main floor puppet storage);
.7 UTR wood benches (main floor and basement);
.8 Basement meeting room millwork (upper and lower cabinets);
.9 Basement computer/printing desk millwork (desk surface only);
.10 Main floor self-publish station (children's area, lower millwork only).

12.0 FINISHES (refer also to drawings)

.1 MAIN FLOOR:

.1 **Open Library Area (Existing Library)**
- .1 Floors: New carpet flooring and rubber base.
- .2 Walls: Existing plaster board. Repairs where damaged.
  Vertical cedar boards to match existing where noted on drawings.
- .3 Ceilings: Existing ACT, repairs where damaged.

.2 **Open Library Area (Addition)**
- .1 Floors: New carpet flooring and rubber base.
- .2 Walls: New 5/8" Gypsum Wallboard
- .3 Ceilings: New ACT

.3 **Janitor Room**
- .1 Floors: New resilient sheet flooring and rubber base.
- .2 Walls: 2 layers 5/8" Painted Fire-rated Gypsum Wallboard
- .3 Ceilings: 2 layers 5/8" Painted Fire-rated Gypsum Wallboard

.4 **Branch Head Office**
- .1 Floors: New carpet flooring and rubber base.
- .2 Walls: New 5/8" Gypsum Wallboard
- .3 Ceilings: New ACT

.5 **Work Room**
- .1 Floors: Resilient sheet flooring and rubber base
- .2 Walls: 5/8" Abuse Resistant Painted Gypsum Wallboard (new walls)
- .3 Ceilings: New ACT

.6 **Gender Neutral Washrooms & UTR**
- .1 Floors: Resilient sheet flooring and rubber base
- .2 Walls: Epoxy Painted 5/8" Moisture Resistant Gypsum Wallboard
- .3 Ceilings: Epoxy Painted Gypsum Wallboard

.7 North Existing Stair:
- .1 Floors: Existing ceramic tile, new ceramic tile
- .2 Walls: Existing Tyndall Stone, 2 layers 5/8" Painted Fire-rated Gypsum Wallboard where noted on drawings.
- .3 Ceilings: Existing ACT, repaired where damaged.

.8 South Existing Stair:
- .1 Floors: Existing ceramic tile, new ceramic tile where floor infilled
- .2 Walls: Existing Tyndall Stone, new full height glazing
- .3 Ceilings: Existing ACT, repaired where damaged and modified to suit new room configuration.

.9 New Addition Exit Stair:
- .1 Floors: Concrete

.2 Walls: Concrete Block/Existing Tyndall Stone
.3 Ceilings: Open structure

.2 BASEMENT:

.1 Open Library Area / Children's Books
.1 Floors: Existing carpet tile and rubber base. New carpet tile where noted/where damaged.
.2 Walls: Existing plaster board (repaired where damaged)
.3 Ceilings: New ACT, existing plaster board (repaired where damaged)

.2 New Computer & Printing Area
.1 Floors: New carpet flooring and rubber base
.2 Walls: 5/8" Painted Gypsum Wallboard
.3 Ceilings: New ACT

.3 New Tutorial Rooms
.1 Floors: New carpet flooring and rubber base
.2 Walls: 5/8" Painted Gypsum Wallboard
.3 Ceilings: New ACT

.4 Program Room (aka Assembly Room)
.1 Floors: New carpet flooring and rubber base
.2 Walls: Existing plaster board
.3 Ceilings: New ACT

.5 New Office
.1 Floors: New carpet flooring and rubber base
.2 Walls: 5/8" Painted Gypsum Wallboard
.3 Ceilings: New ACT

.6 Storage Room (Northeast Corner)
.1 Floors: Existing
.2 Walls: Existing
.3 Ceilings: Existing plaster board, repaired where damaged

.7 Storage Room (Program Room Table Storage)
.1 Floors: Resilient sheet flooring and rubber base
.2 Walls: 5/8"Abuse Resistant Painted Gypsum Wallboard
.3 Ceilings: 5/8"Abuse Resistant Painted Gypsum Wallboard

.8 Mechanical Room (off Program Room)
.1 Floors: Existing
.2 Walls: 2 Layers 5/8" Fire-rated Gypsum Board
.3 Ceilings: 2 Layers 5/8" Fire-rated Gypsum Board

.9 Boiler Room
.1 Floors: Existing
.2 Walls: Existing
.3 Ceilings: 2 Layers 5/8" Fire-rated Gypsum Board

.10 Electrical Room
.1 Floors: Existing
.2 Walls: Existing
.3 Ceilings: Existing plaster Board, repaired where damaged

.11 New Addition Elevator Machine Room
.1 Floors: Concrete
.2 Walls: Concrete
.3 Ceilings: Open to Structure

.12 Gender Neutral Washrooms & UTRs
.1 Floors: Resilient sheet flooring and rubber base
.2 Walls: Epoxy Painted 5/8" Moisture Resistant Gypsum Wallboard

.3 Ceilings: Epoxy Painted Gypsum Wallboard

.13 **New Janitor Room**
- .1 Floors: Resilient sheet flooring and rubber base
- .2 Walls: 2 Layers 5/8" Fire-rated Gypsum Board
- .3 Ceilings: 2 Layers 5/8" Fire-rated Gypsum Board

.14 **New Meeting Room**
- .1 Floors: New carpet tile flooring and rubber base
- .2 Walls: 5/8" Painted Gypsum Board
- .3 Ceilings: New ACT

.15 New Staff Room:
- .1 Floors: Resilient sheet flooring and rubber base
- .2 Walls: 5/8" Painted Gypsum Wallboard
- .3 Ceilings: New ACT

.16 North Existing Stair:
- .1 Floors: Existing
- .2 Walls: 2 layers 5/8" Fire-rated Gypsum Board
- .3 Ceilings: Existing ACT, repaired where damaged.

.17 South Existing Stair:
- .1 Floors: New Carpet tile and new resilient vinyl stair treads
- .2 Walls: Existing
- .3 Ceilings: New ACT

.18 New Addition Exit Stair
- .1 Floors: Concrete
- .2 Walls: Concrete
- .3 Ceilings: Open to structure

.19 Mechanical Room (Addition)
- .1 Floors: Concrete
- .2 Walls: Concrete
- .3 Ceilings: Open to Structure

.20 Crawlspace (Addition)
- .1 Floors: n/a (poly vapour barrier & sand)
- .2 Walls: Concrete
- .3 Ceilings: n/a

13.0 SPECIALTIES

.1 New Elevator:
- .1 Install new WADS compliant elevator where shown.
- .2 Elevator cab size to be: minimum 80"x60" (2030mm x 1525mm)
- .3 Door clear width to be minimum 950mm. Door re-opening device with sensor to be provided.
- .4 Provide WADS compliant control panel, register buttons, emergency controls, hall indication/signage, floor indicator, and handrails.
- .5 Slip-resistant flooring to be provided within elevator cab.
- .6 Provide voice annunciation system within the new elevator.

.2 Demountable walls:
- .1 Install demountable wall/glazing system at new children's area on the main floor level c/w glazing and doors where shown.
- .2 Standard of acceptance:
  - .1 Glass walls: DIRTT Double Pane Glass Wall System, Tempered Glass, 3/8" thick
  - .2 Solid walls: DIRTT 4" Solid Walls, Thermofoil finish

.3 Assistive Listening System: Install within program room (basement), meeting room (basement), and at service desks (main floor and basement).

.4 Install 2-way voice communication system at WADS rescue spaces (basement level, new exit stair)

.5 Washroom accessories to be Bobrick Contoured line commercial grade (or equal by Frost or ASI Watrous) and include: wall mounted grab bars, toilet paper holder, paper towel dispenser and disposal, feminine napkin disposal, soap dispenser, abuse resistant mirror, and soap dispenser.
    .1 Provide wall mirror in new washrooms to underside of ceiling/bulkhead, full length of vanity.
.6 Access hatches:
    .1 As required for mechanical/electrical equipment access above GWB ceilings
        .1 Approximate quantity: (2), size (2'x2'), finish to match ceilings.
    .2 Fire-rated access hatch in Sump Room:
        .1 Quantity: (1), size (3'x3'), steel, surface-mounted, minimum 45 minute rating.
    .3 New fire-rated hollow metal access door in Mech Room (off of Program Room). Size to match existing. Refer to Doors and Frames. Refer to drawings for location.
    .4 New roof access hatch to suit new roofing.
.7 Detectable warning surfaces:
    .1 Aluminum tactile indicators – 23mm diameter, 3mm profile, layout/spacing to meet WADS (2' deep x width of stair, domes 60mm O.C. minimum)
.8 Interior Furnishings & Appliances
    .1 All furnishings & appliances by City of Winnipeg (N.I.C.)
    .2 Computer workstations by City of Winnipeg (N.I.C)

    Family Literacy Playground furnishings by City of Winnipeg (N.I.C)

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Structural Engineering & Building Performance
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Company: 1x1 Architecture Inc.	Attention: Hillary Cohen
cc:	Project Number: 2022-0449
Re: West Kildonan Library Assessment Structural and Building Envelope Outline Specification Option B	Date: 2023-10-31

1x1 Architecture's Option B proposed renovation of the existing West Kildonan Library consists of accessibility upgrades and a two-storey addition on the west side. A total envelope retrofit, is included to improve the durability of the wall construction materials and the Library's energy consumption.

Structural

The thin concrete exterior slabs at the main entrances exhibit surface deterioration. Replacement of these structural slabs and their edge beams, while retaining their support locations at the foundation walls and existing piles, will be included. Concrete will be Class C-1, achieving 35MPa at 28 days to CSA A23.1. New structural concrete ramps at the southwest corner will be minimum 200 thick. Foundations are included in the pile count below.

To achieve the required slope of the structural ramp at the southeast corner, the existing 102mm slab and supporting 10"x24" beams will be removed and new beams and slab cast. The Tyndall stone stub walls that run along the ramp will be recreated from salvaged and new stone pieces.

The new construction on the west side is assumed to be supported on friction piles; a new geotechnical report is required in order to design the foundation. For this schematic design Option B, a total of 28 - 400 diameter x 9 meter average length friction piles are to be included. Eight of these piles will be under double caps to support columns in the basement or crawlspace.

The basement level walls and the elevator pit walls will be 250 thick concrete, reinforced with 2-20M top and bottom and 15M at 300 on center, each way, each face. The basement floor will be a 200 thick structural slab cast on void form with top mats at interior pile locations. Stair and elevator walls will be concrete masonry units full height.

The main floor in the addition will be 76mm concrete on 38mm composite steel floor deck, total thickness of 114mm, spanning to open web steel joists. A north-south line of steel beams will support the joists. Interior columns in both levels will be Hollow Structural Steel (HSS) sections. The addition roof will be framed with structural steel columns and beams. These, and the masonry walls, will support corrugated steel roof deck on open web steel joists.

All levels of the new construction will be required to cantilever to the existing west wall as it is assumed there will not be excess capacity in the existing foundations.

Infill at the east-west return of the south interior stair at the main floor level will be a minimum 150mm concrete slab and downturn wall, reinforced with 15M at 200 on center in the middle. The stair infill will be steel stringer and pans.

Building Envelope

Initial steps towards an energy retrofit, will include a thermographic scan to ascertain areas of existing thermal anomalies, including air exfiltration and thermal bridging. As options are developed, total building energy modeling with the various design options, will be performed. While they create complications for the design, the heritage defining characteristics of the building will be top of mind for all options. This type of upgrade has been successfully implemented to reduce the carbon footprint on other mid-century modern buildings in the City of Winnipeg.

It is anticipated that the exterior wall finishes of the perimeter walls will be removed with care, allowing reinstallation where possible. A scenario is to have the existing wall framing strapped and sheathed in preparation for the installation of a continuous self-adhered air barrier membrane. Continuity of the membrane will be a key consideration, with detailed tie-ins to the roof, foundations, and door and window rough openings.

The large cantilevered roof overhang above the exterior walls is anticipated to currently be not suitably air sealed or insulated. To create a cold soffit for the overhang, framing and sheathing will need to be introduced inside the roof overhang, above the exterior walls, to support air barrier and insulation components and the roof framing supplemented to allow an air barrier tie-in. Another option would be to seal the envelope around the overhang creating a warm conditioned soffit; however, this option may require supplemental heat and should be examined further with a mechanical consultant.

Exterior insulation on the walls and a method to reinstall the existing finishes and/ or replicate them in the new outboard plane, will be required. The thickness of exterior insulation will be optimized through energy and hygrothermal modelling of the assemblies. Additional details will be required at specific locations. Examples are for the roof top clerestory and where exterior structural concrete elements meet the building walls.

Mechanical systems will require review and modifications to service the increased air tightness of the building.

Energy code compliance will be best demonstrated through energy and hygrothermal modelling of the modified envelope. It also allows that, where some existing conditions cannot be suitably upgraded, other retrofit design components can be demonstrated to offset their impact.

Thus, the envelope upgrades for Option B will include all components of the envelope from foundation waterproofing of the basement walls, new windows and doors, up to increased insulation on the exterior walls and roofs. The work on the exterior walls will be closely detailed to reflect the original architectural characteristics.

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OUTLINE SPECIFICATION

MECHANICAL & ELECTRICAL

West Kildonan Library Assessment

The following outline specification is based on a schematic design -Option B and intended for preliminary cost projections only.

1 INTRODUCTION

D20 – PLUMBING

.1 D2010 - Plumbing Fixtures

.1 Demolish existing washroom fixtures in the washroom at Rear Entry [103], W/C [110] and Janitor's Room [109] and associated plumbing lines back to main and cap main.

.2 Provide new washroom fixtures and trim for all new fixtures indicated on the architectural plans.

.3 Water closets to be wall mounted manual flush-valve elongated bowl, 4.8 lpf. Barrier-free locations to have 420 mm (16.5") high ADA-compliant bowl.

.4 Lavatories in the UTR and Barrier Free W/C to be wall mount vitreous china, c/w manual faucets, 1.9 lpm (0.5 gpm) low-flow aerators.

.5 Lavatories in the rest of the new washrooms to be counter mounted vitreous china c/w manual faucets, 1.9 lpm (0.5 gpm) low-flow aerators.

.6 All barrier-free lavatories to have hot water supplies insulated.

.7 Provide new Mop sink in new Janitor room: Molded stone with mop sink faucet. Provide 900 mm hose, stainless steel splash surrounds on walls and wall mounted mop and hose holders.

.8 Floor drains for all washrooms (open strainer) Quantity: 10

.9 All floor drains to have trap-seal primers.

.2 D2020 – Domestic Water Distribution

.1 Demolish domestic cold and hot water piping from demolished fixtures and cap at main.

.2 Extend domestic cold and hot water piping to new plumbing fixtures.

.1 Domestic cold water piping shall be sized for flush valve fixtures.

.3 Provide domestic hot water recirculation system complete with re-circulation pump in the mechanical room and associated piping. Re-circulation pump to be complete with manual timer and temperature control.

.4 Interior Water Piping (Cold, Hot and Recirculating) (DCW, DHW, DHR)

.1 Type “L” hard temper copper tube

.1 Up to 50 mm (2") diameter with wrought or cast solder fittings and joints.

.2 Over 50 mm (2") diameter with silver braze fittings

.5 Valves:

.1 Ball valves up to 63mm (2.5”): Two piece body, 316 stainless ball and trim, full port, teflon seats and stuffing box ring, blow out proof stem, lever handle, NSF 61 low lead compliant construction.

.2 Ball valves over 75mm (3”): floating-ball design capable of providing bi-directional, tight shutoff in accordance with MSS SP-72, rated at 150# WSP/300# WOG. ductile iron body with raised-face flanges, interior and exterior epoxy-coated, PFA infused stainless steel ball, with a stainless steel blowout-proof stem, and PTFE seats and seals. NSF 61 low lead compliant construction.

.3 Pressure Reducing valves: bronze body, stainless steel and thermoplastic internal parts, fabric reinforced diaphragm, strainer, threaded and double union ends. NSF 61 low lead compliant construction

.4 Double Check Valve Assemblies: Bronze body with corrosion resistant internal parts and stainless steel springs, two independently operating check valves with intermediate atmospheric vent. NSF 61 low lead compliant construction

.6 Repair and/or complete missing insulation for domestic hot and cold-water piping throughout the building. Insulation to be fiberglass Paper-free ASJ pipe insulation and of the following thickness throughout the building:

.1 Domestic Cold water up to 50mm (2”) – minimum 3mm (1”) thick, with jacket.

.2 Domestic Cold water greater than 50mm (2”) – minimum 25mm (1 “) thick, with jacket.

.3 Domestic Hot water and recirculation piping up to 50mm (2”) – minimum 25mm (1”) thick, with jacket.

.4 Vent piping insulated a minimum 3m (10 feet) from penetration of envelope – 50mm (2”) thick insulation, jacket required where exposed.

.7 Isolation valves shall be provided as follows:

.1 At water main,

.2 Base of each riser,

.3 At each fixture group,

.4 At every piece of equipment.

.8 Water hammer arrestors to be provided at each fixture group.

.9 Chrome plated copper supplies to all fixtures.

.10 Demolish existing John wood hot water tank and associated controls.

.1 Replace with new condensing high efficiency hot water tank and associated controls. Basis of design: Rheem GHE50SU-76 or equivalent.

.2 Revise gas piping as required to accommodate new hot water tank.

.3 Provide new venting to the exterior of the building as per manufacturer's recommendations.

.3 D2030 - Sanitary Waste

.1 Interior Drain and Vent Piping Above and Below Ground

.1 Up to 62 mm (2½") diameter - Type DWV copper tube with cast solder fittings and joints, drainage pattern, or 50 mm (2") Bibby-St. Croix class 4000 cast iron M.J.

.2 75 mm (3") diameter and over – Bibby-St. Croix class 4000 cast iron mechanical joint soil pipe and fittings with stainless steel M.J. clamps as required to meet latest CSA B70 specifications in sizes up to and including 250 mm (10"). Bibby-St. Croix class 4000 hub and spigot soil pipe and fittings in 300 mm (12") and 375 mm (15") sizes

.2 Provide new elevator floor drain and tie to new elevator pit in the basement new mechanical room.

.1 Elevator pit: - Little Giant WS50 1/2 hp submersible pump, 52 gpm @ 20' T.H.P., c/w Duplex controller with mercury-free automatic mechanical float switch, high water alarm and oil sensor. Sump discharge complete with back flow protection shall tie into building sanitary system. Quantity: 1 complete pits/ pumps and controls.

.2 Provide new sump pit within new mechanical room, poly or fiberglass. Pit lid must be sealed and gasketed, installed at appropriate depth to accommodate elevator pit drain.

.4 D2040 – Rain Water Drainage

.1 Insulation

.1 Roof drain bodies – 50mm (2") thick insulation with jacket.

.2 Roof drain piping concealed above ceilings above the floor within 3m (10') of the exterior – 50mm (2").

.3 Roof drain piping in all exposed areas – 50mm (2"), c/w PVC jacket.

.2 Control flow internal roof drains on the roof of the new addition and thermally insulated internal rainwater leaders. Quantity 2.

.1 Connect new rainwater leaders to existing rainwater leader from existing roof.

D30 - HEATING, VENTILATION, AND AIR CONDITIONING (HVAC)

.5 D3020 – Heating Systems

.1 Demolish existing AO Smith Boilers

.1 Demolish ancillary equipment piping within boiler room and controls.

.2 Demolish associated controls and breaching.

.3 Demolish Circulator boiler pump #1 and associated controls.

.4 Demolish existing heating loop pumps #2 and #3.

.2 Supply two new boilers, B-1 and B-2, each producing 670 MBH output. Vitocrossal 200-C12-750 or equivalent. Boilers are complete with integral integral circulation pumps.

.1 Connect the boiler injection loop to main piping loop with low loss header.

.2 Provide new building loop circulation pumps.

.3 Run new boiler flue venting up within existing chimney.

.4 Existing combustion and ventilation air shall remain for reuse.

.5 Modify existing and provide new pipng to accommodate new boilers.

.6 Modify existing natural gas piping to accommodate new boilers.

.7 Provide new condensate neutralizers on boiler condensate drains.

.8 Supply new brazed plate heat exchanger HX-1 in the existing boiler room. Source side is hot water (160-130F) coming from the new boilers. Load side is 35% PG (155-125F) and serving AHU-3,4,5 in the addition basement mechanical room. Capacity shall be 312 MBH. Basis of Design: B&G BP422-103 or equivalent.

.9 Supply new 35%PG hydronic pumps P-1 & P-2 in parallel operation and locate in the existing boiler room to serve AHU-3,4,5. Total flow is 23 GPM and total head is 60 ft.H_20. Voltage shall be 208V/3ph. Basis of Design: B7G ecocirc XL or equivalent.

.6 D3030 – HVAC Distribution

.1 Modify existing ductwork and provide new where required to accommodate architectural layout.

.2 Modify existing and provide new supply and return ductwork to accommodate new air handling units.

.3 Fresh air intake and exhaust outlets on the roof should be at least 10 ft apart. Distribute the fresh air and outside air ductwork accordingly in the main floor ceiling before terminating at the roof.

.4 The mechanical contractor shall include the costs associated with all commissioning of new and renovated equipment and systems.

.5 Hydronics:

.1 Materials:

.1 Hot Water Heating and Chilled Water Piping shall be:

.1 Sizes 13 mm (½") to 50 mm (2") inclusive shall be schedule 40 black, stretch reduced, continuous weld, steel pipe to A.S.T.M. Specification A-53 with 150 lb. malleable screwed fittings and 150 lb. malleable iron ground-joint unions, or Type "L" hard temper copper tube.

.2 Sizes 63 mm (2½") to 150 mm (6") inclusive shall be schedule 40 black, electric resistance weld, open hearth, steel pipe to

A.S.T.M. Specification A-53 with 150 lb. welding fittings and 150 lb. forged steel welding flanges, or Type "L" hard temper copper tube with Emco smoothbore silver brass fittings.

.2 Hot Water Heating Insulation shall be:

.1 Insulation - Insulate all heating water, steam and condensate piping with Fibreglass 455°C (850°F). Pipe insulation 80 kg per cubic meter (5 lb. per cubic foot) density. Pipe insulation to be held in place with flare type staples.

Iron Pipe Size	Insulation Thickness
13 mm to 50 mm (½" to 2")	38 mm (1½")
63 mm to 350 mm (2½" to 14")	50 mm (2")

Copper Tubing	Insulation Thickness
10 mm to 50 mm (3/8" to 2")	38 mm (1½")
63 mm to 100 mm (2½" to 4")	50 mm (2")

.3 Refrigerant Piping

.1 Shall be Type “L”, hard drawn, degreased, scaled-at-the-mill copper tubing, cleaned sealed at the mill. Pre-charged refrigerant piping are not to be used.

.2 Refrigerant pipe insulation shall be flexible foamed plastic closed cell pipe insulation, with UV resistant PVC jacketing.

.2 Ductwork

.1 Materials:

.1 Galvanized Steel Ducts: ASTM A653 galvanized steel sheet, lock-forming quality, having G60 zinc coating to ASTM A90.

.2 Sealant shall be Duro-Dyne - Non-hardening, water resistant, fire resistive, compatible with mating materials; liquid used alone or with tape, or heavy mastic.

.3 Hanger Rod: ASTM A36; steel, galvanized; threaded both ends, threaded one end, or continuously threaded.

.2 Fabrication, support and installation shall be to SMACNA HVAC Duct Construction Standards - Metal and Flexible, and as indicated. Unless otherwise indicated fabrication shall conform to standards for duct pressure class rating of +2” w.g. Provide duct material, gauges, reinforcing, and sealing for operating pressures indicated.

.3 Provide new fire stopping and fire dampers between each floor and through walls as indicated by architectural on air handlers supply and return ducting.

.7 D3050 – Terminal and Packaged Units

.1 Demolish HC-3 rooftop unit on the roof together with associated controls.

.1 Replace HC-3 with new rooftop unit AHU-1, gas fired and DX cooled. Cooling capacity is 5 tons. Output heating capacity is 122 MBH. Supply air flow 2000 CFM. Voltage shall be 208V/3ph. Basis of Design:Trane YSC060G3EHB**D101 or equivalent complete with curb adaptor.

.2 Demolish HC-4 rooftop unit on the roof together with associated controls.

.1 Replace HC-4 with new rooftop unit AHU-2, gas fired and DX cooled. Cooling capacity is 5 tons. Output heating capacity is 122 MBH. Supply air flow 2000 CFM. Voltage shall be 208V/3ph. Basis of Design: Trane YSC060G3EHB**D101 or equivalent complete with curb adaptor.

.3 Demolish HC-6 rooftop unit in courtyard together with associated controls.

.1 Replace HC-6 with new hydronic indoor unit AHU-3, complete with hydronic heating coil (35%PG) and DX cooling, located in the addition basement mechanical room. Cooling capacity is 4 tons. Output heating capacity is 105.3 MBH. Supply airflow 1600 CFM. Voltage shall be 208V/3ph. Basis of Design: Daikin BCHD0301 or equivalent.

.2 Connect hydronic heating coil to new glycol heating loop from boiler room.

.3 Connect AHU-3 to new condensing unit CU-3 on the addition roof. Voltage shall be 208V/3ph. Basis of Design: Aaon CFA-007-A-A-8-DA00H or equivalent.

.4 AHU-3 supply ductwork to be routed through new crawlspace and then tie into existing HC-6 supply duct distribution in the basement.

.5 Ceiling space of library basement shall be used as a return air plenum for areas served by AHU-3. Return air shall be collected above the addition basement mechanical room door before returning to AHU-3 via a dedicated return duct in the basement mechanical room.

.6 Dedicated economizer ducting for AHU-3 shall run through crawlspace and tie into main economizer riser in the shafts around the new elevator. See architectural for exact shaft location and size.

.7 Dedicated relief ducting from AHU-3 shall run through crawlspace and tie into main relief riser in the shafts around the new elevator. See architectural for exact shaft location and size.

.4 Demolish HC-5 rooftop unit in courtyard together with associated controls.

.1 Replace HC-5 with new hydronic indoor unit AHU-4, complete with hydronic heating coil (35%PG) and DX cooling, located in the addition basement mechanical room. Cooling capacity is 5 tons. Output heating capacity is 122 MBH. Supply airflow 2000 CFM. Voltage shall be 208V/3ph. Basis of Design: Daikin BCHD0401 or equivalent.

.2 Connect hydronic heating coil to new glycol heating loop from boiler room.

.3 Connect AHU-4 to new condensing unit CU-4 on the addition roof. Voltage shall be 208V/3ph. Basis of Design: Aaon CFA-009-B-A-9-DA00N or equivalent.

.4 AHU-4 supply ductwork to be routed through new crawlspace and then tie into existing HC-5 supply duct distribution in the basement.

.5 Ceiling space of library basement shall be used as a return air plenum for areas served by AHU-4. Return air shall be collected above the addition basement mechanical room door before returning to AHU-4 via a dedicated return duct in the basement mechanical room.

.6 Dedicated economizer ducting for AHU-4 shall run through crawlspace and tie into main economizer riser in the shafts around the new elevator. See architectural for exact shaft location and size.

.7 Dedicated relief ducting from AHU-4 shall run through crawlspace and tie into main relief riser in the shafts around the new elevator. See architectural for exact shaft location and size.

.5 Provide new air handling unit AHU-5 to serve new addition main floor. New unit complete with hydronic heating coil (35%PG) and DX cooling, located in the addition basement mechanical room. Cooling capacity is 5 tons. Output heating capacity is 85 MBH. Supply airflow 1770 CFM. Voltage shall be 208V/3ph. Basis of Design: Daikin BCHD0401 or equivalent.

.1 Connect hydronic heating coil to new glycol heating loop from boiler room.

.2 Connect AHU-5 to new condensing unit CU-5 on the addition roof. Voltage shall be 208V/3ph. Basis of Design: Aaon CFA-007-A-A-8-DA00H or equivalent.

.3 AHU-5 supply ductwork to be routed through new crawlspace all around the addition perimeter and rise to serve the addition main floor using floor registers.

.4 A common return grille in the addition main floor shall collect return air and connect to a return air riser to be routed in the shafts around the new elevator. See architectural for exact shaft location and size.

.5 Dedicated economizer ducting for AHU-5 shall run through crawlspace and tie into main economizer riser in the shafts around the new elevator. See architectural for exact shaft location and size.

.6 Dedicated relief ducting from AHU-5 shall run through crawlspace and tie into main relief riser in the shafts around the new elevator. See architectural for exact shaft location and size.

.6 Demolish existing Trane Hydronic air handling unit in basement along with associated controls.

.1 Demolish hot water piping back to main and cap at main.

.2 Demolish existing associated return and supply ductwork.

.7 Demolish existing HRV above W/C [110] and Janitor RM [109] and associated controls and ductwork.

.1 Replace existing HRV with ERV-1 and locate in addition basement mechanical room. Basis of design is NU1200ERV with defrost option NU1200DL or equivalent.

.2 Exhaust from main floor and basement washrooms and main floor janitor room and route combined exhaust ductwork to new ERV-1 using the duct shafts around the new elevator. See architectural for shaft location and sizes.

.3 Exhaust ductwork out of ERV-1 to be routed to roof using the duct shafts around the new elevator. See architectural for shaft location and sizes.

.4 Fresh air ductwork into ERV-1 to be routed from roof using the duct shafts around the new elevator. See architectural for shaft location and sizes.

.5 Supply branch ducting from from ERV-1 to AHU-3. Balance to 175 CFM.

.6 Supply branch ducting from from ERV-1 to AHU-4. Balance to 175 CFM.

.7 Supply branch ducting from from ERV-1 to AHU-5. Balance to 175 CFM.

.8 D3060 – Controls and Integration

.1 Controls contractor to allow for the supply and installation of all controls wiring, interlocks, gas sensors, and control devices not supplied by the mechanical trade.

.2 Provide Digital Controls to match existing City of Winnipeg standard Johnson Metasys Controls system for connection to Central Building Controls network.

.9 D3080 - Testing, Adjusting and Balancing

.1 Include all air balancing, water balancing, fire damper inspection, piping pressure testing and equipment commissioning.

.2 All new and revised HVAC systems shall be fully balanced by an CAABC certified balancing company.

.3 The mechanical contractor shall include the costs associated with all commissioning of new and renovated equipment and systems.

D50 - ELECTRICAL

D5000 – Common Electrical Requirements

.1 General Electrical:

.1 Unless otherwise noted, the terms “install” or “provide” shall include the complete supply and installation of the items noted including all equipment, materials and commissioning necessary for a fully functional system.

.2 Include all costs associated with electrical permits, fire alarm verification, systems commissioning and systems training.

.3 The work as herein described is preliminary and subject to final design.

.2 Itemized Pricing:

.1 Provide itemized pricing in addition to totalized pricing for all electrical for the following items further identified and clarified within this outline specification:

.1 Lighting:

.1 General lighting.

.2 Exit signage and emergency lighting systems.

.2 Lighting Controls:

.1 Interior lighting control

.2 Exterior lighting control

.3 Communications

.4 Miscellaneous Power:

.1 Public area supply and installation. Include all power outlets, equipment connections, mechanical connections, and electric heaters.

.5 Intrusion Detection

.6 CCTV System

.7 Fire Alarm System

D5010 - Electrical Service and Distribution

.3 The existing electrical distribution resides in the basement electrical room. As the intended use of the facility is not changing, we anticipate the existing distribution to have sufficient capacity to support the renovation area electrical requirements.

.4 The existing panelboards, which are located within the main electrical room, shall be reused as required for general lighting and power loads within the space. Provide new breakers as required. Provide typewritten panel directories indicating updated circuiting.

D5020 - Lighting and Branch Wiring

.5 Demolish existing General Electric dial control zone system, including all associated panels, and devices.

.6 Demolish all existing lighting fixtures.

.7 All existing receptacles within renovated spaces shall be demolished.

.8 Disconnect and remove all existing electrical devices, equipment, and wiring back to source where not being reused.

.9 Provide new lighting control throughout the building.

.1 Waiting Area/Reception/Corridors/Stairs – Ceiling mounted occupancy sensors complete with digital touchscreen time clock override-on such that luminaires will be on during normal hours, and on occupancy sensor control after hours.

.1 Allow for one (1) digital touchscreen time clock wall station, forty (40) ceiling mounted occupancy sensors, and seven (7) ceiling mounted occupancy sensors with daylight harvesting capability.

.2 Rooms larger than 25m^2 – Low voltage wall station and ceiling mounted occupancy sensors.

.1 Allow for one (1) wall station and two (2) ceiling mounted occupancy sensors.

.3 Rooms smaller than 25m^2 – Line voltage wall mounted occupancy sensor.

.4 Service Spaces – Line voltage manual toggle switch.

.5 Elevator shaft – Line voltage three-way switch.

.10 Emergency and egress lighting shall be provided throughout all means of egress and service spaces to suit code requirements.

.1 Two (2) emergency battery banks shall be provided in building. The emergency battery bank shall be minimum 12 volt with adequate wattage. The battery bank shall be complete with 5 watt MR16 LED lamps, zone sensing to pick up egress lighting circuits and multiple night lighting circuits as required.

.2 All emergency lighting double remote heads shall be surface designer series equal to Lumacell Signature Collection, complete with minimum 5 watt MR16 LED lamps. Remote heads shall be provided in areas in which existing fixtures do not provide adequate coverage, allow for forty (40) fixtures.

.3 Exit lighting shall be extruded aluminum equal to Lumacell LA Series complete with LED and single/double face pictogram style. All signs shall be universal mount. Allow for twenty-five (25) exit signs.

.11 Provide new LED lighting throughout the building. Allow for the following:

.1 120 2x4 recessed lighting fixtures.

.2 Sixty (60) 2x4 surface mounted fixtures.

.3 Twenty-five (25) 4ft LED strip lights.

.4 Five (5) 8ft LED linear pendant lights.

.5 Eight (8) 4ft Vapor tight 4ft LED strip light.

.12 Existing exterior flush mounted fixtures in entrance canopy shall be replaced with new fixture LED flush mount type, wet location rated. Allow for (12) fixtures.

.13 Provide one (1) LED wall packs in above each new exterior door. Allow for two (2).

.14 Minimum wire size shall be #12 AWG. Existing wiring devices shall not be reused.

.15 Wiring devices shall be “standard” style, commercial specification grade complete with stainless steel coverplates. Color of devices to be confirmed by architect.

.16 Existing wiring is largely wire-in-conduit. This scheme will be maintained. New wiring and conduit will be provided for all renovated areas from closest suitable branch panel and all new wiring to be run in conduit. Wiring and conduit to areas outside of the renovation area are anticipated to remain and will be re-supported to meet current code requirements.

.17 New receptacles will be provided throughout the renovated areas to suit the new floor plan layouts. Receptacles to be white with stainless steel cover plates.

.18 Typical spaces will be as follows:

.1 Corridors/Open Areas – One (1) 5-20R receptacle in each 10m of length or fraction.

.2 Kitchenette – Two (2) duplex receptacles supplied from two dedicated circuits for microwave and fridge. Two (2) 5-20R GFCI receptacles supplied from two dedicated circuits for other countertop appliances.

.3 Seating Area – Two (2) duplex receptacles.

.4 Washrooms/UTR – One (1) 5-20R GFI duplex receptacle.

.5 Enclosed Office – Three (3) duplex receptacles.

.6 Workstations – Two (2) duplex receptacles.

.7 Support Spaces – Four (4) duplex receptacles plus one (1) floor mounted receptacle if required.

.8 Elevator shaft - Two (2) 5-20R GFI duplex receptacles.

.9 Service spaces - Two (2) 5-20R duplex receptacles.

.19 Provide four (4) floor boxes complete with four (4) 5-15R duplex receptacles in each box. Floor boxes shall be equal to Legrand RFBA series, and shall be provided in the following rooms: Meeting Room, Program Room, Study Space, Computer Workstations area in Basement.

.20 Provide IPLC parking receptacles for fifteen (15) electrified stalls. IPLC receptacles shall be complete with pedestal and extra-duty while-in -use cover plates.

.21 Provide 5-20R roof equipment maintenance receptacles complete with extra-duty while-in use cover plate. Allow for four (4) receptacles.

D5030 – Mechanical Equipment

.22 Disconnect and remove all existing electrical services, back to source, supplying mechanical equipment being demolished. Refer to Mechanical outline.

.23 Disconnect and reconnect all existing to remain mechanical equipment on roof to accommodate roof renovation.

.24 Wire and connect all mechanical equipment requiring electrical connections as indicated by mechanical.

.25 Refer to mechanical outline for further requirements under this heading.

D5080 - Miscellaneous Electrical Systems

.26 Disconnect existing elevator and associated equipment. Demolish feeders back to source.

.27 Wire and connect new elevator and associated equipment.

.28 Wire and connect barrier free door operators complete with all associated wiring and controls.

.29 Provide new 4kW wall fan heater complete with integrated tamperproof thermostat at new northwest entrance.

.30 Wall fan heater shall be equal to Ouellet OAC series.

.31 Relocate existing data rack UPS to new rack.

D60 - COMMUNICATIONS

D6010 - Data Communications

.32 Demolish all existing communication outlets within building.

.33 Replace existing data rack located in basement electrical room, with new 2-post data rack, complete with patch panels, horizontal and vertical cabling management, and shelves.

.34 Relocate all existing owner supplied equipment from existing rack to new.

.35 Each communications outlet shall be complete with two (2) CAT6 cables back to the existing rack. All cabling shall be supplied and installed by the electrical contractor including testing and termination.

.36 Utilize the existing communication conduits in ceiling space and modify routing as required to suit the new layout. J-Hooks shall be utilized for individual branch wiring. Conduit shall be used for all non-accessible ceiling spaces, and non-cavity walls.

.37 Provide one (1) dedicated red Cat6 cable in 21mm conduit from elevator controller back to main telecom backboard in basement electrical room.

.38 Provide two (2) communication outlets in each floor box. Allow for eight (8) outlets.

.39 New data outlets will be provided throughout the renovated areas to suit the new floor plan layouts. Typical spaces will be as follow:

.1 Enclosed Office/Rooms – Two (2) 2-port outlets.

.2 Staff Workstations – One (1) 2-port outlets per workstation.

.3 Public Workstations – One (1) 2-port outlets per group of two (2) computers.

.40 If a wireless network is required the contractor will be responsible for supply, installation, and testing of CAT6 cabling to support.

.41 Provide new telecommunication grounding busbar. Ground new data rack and all EMT conduits longer than 1m if serving as pathway for data cabling.

D70 - ELECTRONIC SAFETY AND SECURITY

D7010 - Access Control and Intrusion Detection

.42 Existing to remain Intrusion Detection system control panel is located in basement electrical room.

.43 Demolish door contact associated with northwest exit door.

.44 Provide door contract for each new exit door in northwest of building. Wire and connect to existing intrusion control panel located in basement electrical room.

.45 Provide two (2) egress motion detectors on exterior doors.

.46 Relocate existing keypad to location adjacent to new staff entrance.

D7030 - Electronic Surveillance

.47 Existing to remain CCTV system is located in basement electrical room.

.48 Relocate existing exterior CCTV camera in west side of building to accommodate construction of new stair and elevator.

D7050 –Detection and Alarm

.49 The existing fire alarm system is a Mircom FX 2000 addressable fire alarm system by Fire-Tech. Audible/visual notification is provided through horn/strobe devices. The existing system appears to have sufficient capacity to support the additional devices.

.50 Demolish existing fire alarm devices located in existing machine room, elevator and exit stair to be demolished.

.51 All fire alarm pull stations shall be lowered to accessible height. Top of device shall be 1200mm AFF. Allow for five (5) pull stations.

.52 Relocate existing and provide new initiating devices to suit code requirements.

.53 The existing addressable loop shall be expanded to pick up the new devices as required.

.54 Provide combination visual/audible notification appliances throughout building. Allow for twenty-five (25) devices.

.55 Provide combination visual/audible notification devices. Allow for ten (10) new devices.

.56 Provide smoke detectors in all public corridors. Allow for twelve (12) new devices.

.57 Provide carbon monoxide detection in:

- .1 Service rooms with fuel-burning appliances.
- .2 Rooms adjacent to service rooms with fuel-burning appliances.
- .3 Public corridors.
- .4 Allow for ten (10) detectors.

.58 Provide duct-type smoke detector for air-handling units. Allow for four (4) detectors.

.59 Provide one (1) heat detector moist-proof type in bottom of new elevator shaft.

.60 Provide one (1) smoke detector on top of elevator shaft.

.61 Provide verification of system for all new and modified devices.

END OF SECTION

APPENDIX D:
COST ESTIMATES

GWH

Construction Management Services Ltd.

1 x 1 Architecture Inc.

Class 4 Costing Services

Class “4” Estimate

West Kildonan Library Assessment

365 Jefferson Avenue

Winnipeg, Manitoba

Based on Drawings from 1 x 1 Architecture Inc. “Issued for Class 4 Cost Estimate Option A1” Drawings

and Outline Specifications Dated October, 2023

Final Estimate November 24, 2023

1 x 1 Architecture Inc.
230 Main Street, Suite 310
Winnipeg, Manitoba
R3C 1A8
Attention: Hillary Cohen MAA, MRAIC

GWH
Construction Management Services Ltd.
419 Laidlaw Boulevard
Winnipeg, Manitoba
R3P 0K8

Telephone 204-661-9492
Cellular 204-296-8916

1 x 1 Architecture Inc.
230 Main Street, Suite 310
Winnipeg, Manitoba
R3C 1A8

November 24, 2023

Attention: Hillary Cohen MAA, MRAIC

Dear Hillary;

Re: West Kildonan Library Assessment Option A1 Class 4 Construction Estimate 365 Jefferson Avenue, Winnipeg, Manitoba

Brief Project Description: Interior Renovation of 13,180sf floor area including demolition, roofing, windows exterior doors, ramps railings and stairs, interior flooring, partitions, doors and frames, millwork, painting, specialties, mechanical and electrical works.

Scope of Work Provided by GWHCMS Ltd. and Documents Received from Client:
We are pleased to provide our class 4 construction budget estimate based on your Issued for Class 4 Estimate drawings and outline specifications issued October, 2023, for West Kildonan Library Assessment Option A1 renovation.

West Kildonan Library Assessment Option A1 13,180sf Total Renovation Cost:
The overall estimated cost is $4,061,979.00 + GST. We have included a 15% Design Contingency Allowance in the estimate, for further design and drawings enhancements and items needing additional clarity. **See Appendix A for Estimate and Detailed Breakdown.**

Estimate Accuracy:
The accuracy of this estimate at level “4” should range between -30% to +60%. We never estimate to be low bid rather mid bid in a tender grouping of at least 5 bidders.

Exclusions and Clarifications:
The following list of exclusions should be considered by all parties while reviewing the estimate.

Exclusions and Clarifications are as follows:

- Project Administration costs. NIC
- Architecture and engineering fees. NIC
- Furnishings, Appliances and Furniture NIC
- All costs are based on current month and year. NIC
- Move Management Not Included
- Without additional estimates we are unable to guarantee the accuracy of this estimate as the drawings progress to tender ready documents.
- GST Extra
- Market Conditions. Not Considered.

- All work is assumed to be handled by a Prime General Contractor under a CCDC-2 2006 Contract or equal with support from a General Contractor.
- Cash Allowances. As Noted,

Explanation of Allowances Used in this Estimate, (Not all will Apply):

Design Contingency: Used at all levels of estimate 4, 3, 2 and 1 depending on drawings completeness, example; Schematic design, Design and Development, Working Drawings of Pretender. Values typically range from 25%, 15%, 10% 7%, and 5%. Will be used when drawings and overall project design are developing also when we are not certain if project will be tendered within 30 to 60 days once the estimate is completed. As the estimate costs are based on the day the estimate is completed.

Market Condition Contingency: Used when we anticipate weak or poor tender / bidder turnout, also for specialized or unique projects, small projects under $500,000.00 in value, also if the market is saturated with work and builders are very busy. Values typically range from 5%, 10% to 20%.

Estimate Contingency: Used when the risk in our estimate is above a tolerance which is higher than the normal tolerance we develop as we progress through the design process. Perhaps if only 1 estimate is called for, or we unable to connect with the market place as the design package is too vague and subject to changes or early on in design. Values typically range from 5% to 10%.

Location Factor Contingency: Used when the project has the following conditions.

- Room, Board, Travel, Labour when traveling. The cost is applied typically for trades as our general requirements usually cover these costs for the GC only.
- Overtime or lost production due to either loner or shorter days to make-up for lost travel time.
- Or, out of town Living Costs and Travel and Related Labour Costs.
- Material shipping costs and related packing and storage costs.
- Low bidder turnout due to location and nature of work.
- Project and schedule delay risk die to supply chain or labour shortage issues.

Normal factor would be 5% to 100% of project cost, special circumstances could brin this from 100% to 300% of project cost depending on remoteness of the project location in Canada.

Ownership and accuracy of the estimates, provided by GWHCMS Ltd.:

All estimates, reports, and similar documents prepared by GWHCMS Ltd. Shall remain the property of GWHCMS Ltd. The client will have access to all documents and worksheets related to the project and they shall be made available upon request.

Pricing by GWHCMS Ltd. reflects probable construction costs obtainable in the location of the project as of the date of the report and is a determination of fair market value for the construction of this project and should not be taken as a prediction of low bid.

This pricing assumes competitive bidding for every portion of the construction work including all subcontractors as well as the general contractor, and assumes a minimum of five (5) general bidders. If fewer bids are received, the bid results can be expected to be higher.

It is recognized, however that GWHCMS Ltd. does not have control over the cost of labor, materials or equipment, over a contractor's methods of determining bid prices, or over competitive bidding, market or negotiation conditions.

Accordingly, GWHCMS Ltd. cannot and does not warrant or represent that bids or negotiated prices will not vary from this nor any subsequent estimate of construction cost or evaluation prepared by or agreed to by GWHCMS Ltd.

Trusting you will find the attached information helpful, please feel free to contact us at your convenience should you have any questions or concerns.

Respectfully yours,



Gerhard Hoppenheit C.E.T., P.Q.S., G.S.C.
President
GWH Construction Management Services Ltd.

GH/sh

Appendix A

West Kildonan Library Assessment Option A1, 365 Jefferson Avenue, Winnipeg, Manitoba

Contents:

Overall Cost Estimate with Architectural, Structural, Mechanical and Electrical

GWH Construction Management Services Ltd. 24-Oct-23

Class "4" Construction Estimate Anticipated Accuracy -30% to + 50% Project # 2023-33

Project: Option A1 West Kildonan Library Assessment, Winnipeg, Manitoba

Main Floor Renovation Area 6590 sf GFA
Basement Renovation Area 6590 sf GFA
Client: 1x1 Architecture Total Base Area = 13,180 sf GFA

Divisional Cost Breakdown: Interior Renovation

Item #	Activity	Cost	Subtotal	% of Overall Cost	Cost / sf / Element
1	General Requirements				
	Cash Allowances	$26,000	$26,000	0.64%	$1.97
	Clean-up, Dewatering, Tools, Survey and Layout	Included			
	Travel, Room and Board, Freight and Cartage	Included			
	Project Coordination & General Superintendent	Included			
	Temporary Facilities, Heat Closed-In Building	Included			
	Temp. Power and Light, Signage, Safety, Snow Removal etc.	Included			
		$263,194	$263,194	6.48%	$19.97
2	Site and Selective Interior Demolition, Stairs, Ramps and Railings	$221,142	$221,142	5.44%	$16.78
	Asbestos abatement	$100,000	$100,000	2.46%	$7.59
3	Concrete Work & Reinforcing Steel	$169,125	$169,125	4.16%	$12.83
4	Masonry	$7,500	$7,500	0.18%	$0.57
5	Structural Steel, Miscellaneous Metal	$14,150	$14,150	0.35%	$1.07
6	Rough Carpentry & Fasteners				
	Finish Carpentry & Millwork	$366,670	$366,670	9.03%	$27.82
7	Thermal & Moisture Protection				
	Roofing, Flashings, Fire Stopping Etc.	$492,100	$492,100	12.11%	$37.34
8	Doors, Frames, Hardware, Windows				
	Windows, Doors, Frames, Hardware	$389,450	$389,450	9.59%	$29.55
9	Drywall Bulkheads, Partitions and GB and Acoustic Ceilings	$75,580			
	Ceramic, Sheet Vinyl, Carpet Tile Flooring and Rubber Base	$84,041			
	Painting	$85,785	$245,406	6.04%	$18.62
10	Specialties				
	Elevator Upgrades, Janitor Room and Washroom Accessories	$12,240	$12,240	1.48%	$0.93
11	Mechanical and Fire Suppression	$562,625	$562,625	13.85%	$42.69
12	Electrical	$367,035	$367,035	9.04%	$27.85
	Subtotal	$3,236,636	$3,236,636	79.68%	$245.57
13	Bonds, Insurance, Permits, GC Overhead & Fee 10.5% + 15% Project Design Contingency Allowance	$825,342	$825,342	20.32%	$62.62
	Total	$4,061,979	$4,061,979	100.00%	$308.19
	Base Building Work Cost Based on 13,180sf = $308.19 per sf	GST Extra			

Estimate Sheet | Option A1 West Kildonan Library Assessment Winnipeg, Mb. | GWHCMS Ltd. | 24-Oct-23

Project # 2023-33

Class 4 Estimate

Item	Description	Qty.	Unit	Rate	Cost	Total
1	**General Requirements**	1	ls	$263,194	$263,194	$263,194
	Asbestos Abatement Removal and Testing Allowance	1	ls	$100,000	$100,000	$100,000
	Cash Allowances (Piling, Asphalt, Compaction, Concrete, Envelope, Window and Roof and Signage)	1	ls	$26,000.00	$26,000	$26,000
2	**Site Works and Selective Demolition (Main Floor and Basement)**					
	Remove Decommissioned West Stair and Haul Out Rubble	1	ls	$3,500.00	$3,500	
	Remove Small Tree and Stump	1	ls	$650.00	$650	
	Remove Exterior Doors and Frames Temp. Cover to Opening (Includes Doors to be Repaired only)	6	each	$475.00	$2,850	
	Remove Roof to Deck	8745	sf	$8.00	$69,960	
	Remove East Parking Stall and Asphalt and Haul Out Materials	1	ls	$500.00	$500	
	Remove Clerestory Windows (6) and Modify Roof Curbs (6) and Remove Roof Hatch (1)	1	ls	$3,500.00	$3,500	
	Remove South Landing Stair and Ramp, Railings, Sidewalk and Tyndall Stone Haul-out Rubble	1	ls	$6,000.00	$6,000	
	Remove North Stair, Landing and Railings	1	ls	$3,000.00	$3,000	
	Remove Windows Includes Interior	130	each	$200.00	$26,000	
	Relocate Bike Rack and Waste Can	2	each	$150.00	$300	
	Regrade Parking Stall and Create New with Signage Marking and Wheel Stop	1	ls	$2,750.00	$2,750	
	New Garbage Enclosure with 2 Gates	44	lf	$123.00	$5,412	
	Reinstall Benches	2	each	$150.00	$300	
	Garbage Enclosure Bollards	4	each	$1,750.00	$7,000	
	Modify Chain Link Fence for West Ramp	1	ls	$3,750.00	$3,750	
	Selective Interior Demolition Main and Basement Levels	13180	sf	$6.50	$85,670	
						$221,142
3	**Concrete Work**					
	Basement Floor Cutting and Repair Allowance @ Plumbing Drains	60	sf	$100.00	$6,000	
	New West Ramp Beams, Slab, Tactile Warning and Railings New Piles as well	250	sf	$200.00	$50,000	
	New South Stair, Beams, Slab, Tactile Warning and Landing and Railings Reuse Piles	188	sf	$125.00	$23,500	
	New South Landing Slab Tactile Warning and Ramp and Rails and Beams and Sidewalk Reuse Piles	672	sf	$125.00	$84,000	
	New North Stair, Landing and Railing Tactile Warning Reuse Existing Piles	45	sf	$125.00	$5,625	
						$169,125
4	**Masonry**					
	Rebuild Tyndall Stone Wall, Reuse Stone	1	ls	$7,500.00	$7,500	
						$7,500
5	**Metals**					
	Corner Guards	10	each	$125.00	$1,250	
	Roof Joist Reinforcing at New AHU's	2	each	$3,000.00	$6,000	
	Main Floor Stair Guard Rails	24	lf	$100.00	$2,400	
	New Bsmt. To Main Stair Hand Railings	60	lf	$75.00	$4,500	
						$14,150
6	**Carpentry**					
	Reconstruct and Raise Parapets	521	lf	$45.00	$23,445	
	Millwork:					
	Library Wall and Free Standing Shelving, Main 732' BSMT. 291'	1023	lf	$300.00	$306,900	
	Bsmt. Staff Room and Program Room U and L	22	lf	$700.00	$15,400	
	Bsmt. Closet	8	lf	$75.00	$600	
	Bsmt. Modify Millwork Storage Room	2	md	$600.00	$1,200	
	Bsmt. and Main UTR Wood Bench and Brackets	2	each	$1,100.00	$2,200	
	Main Modify and Revise Service Desk	13	lf	$700.00	$9,100	
	Main New Coat Closet with Doors	8.75	lf	$500.00	$4,375	
	Main Floor Washroom Vanity Top Solid Surface	5	lf	$350.00	$1,750	
	Cedar Siding to Interior Walls	100	sf	$17.00	$1,700	
						$366,670

Item	Description	Qty.	Unit	Rate	Cost	Total
7	**Thermal and Moisture**					
	New Roof R28 SBS, Flashing, Overflow Scuppers and Downspouts, Internal Drainage x 4	8745	sf	$55.00	$480,975	
	Roof Guard Rail	33	lf	$125.00	$4,125	
	Foundation Insulation Cover at Elevator Mach. Room Wall at Grade	1	ls	$2,500.00	$2,500	
	Misc. Fire Stopping (Allowance)	1	ls	$4,500.00	$4,500	$492,100
8	**Doors and Windows**					
	Repair Existing Exterior Wood Doors and Add Seals and Hardware	2	each	$750.00	$1,500	
	New Clerestory Windows and Flashings and Trims	6	each	$2,800.00	$16,800	
	Bsmt. Crawlspace Access Hatch incl. Removal of Old and Floor Repairs	1	each	$5,000.00	$5,000	
	New Roof Access Hatch	1	each	$3,500.00	$3,500	
	ADO's	17	each	$3,750.00	$63,750	
	Basement Windows	10	each	$1,750.00	$17,500	
	Main Floor Windows (Transom)	58	each	$1,500.00	$87,000	
	Main Floor Windows Slit	43	each	$1,750.00	$75,250	
	Lower Book Drop-Off Box	2	each	$500.00	$1,000	
	Remove and Install New Basement Door Frame	1	each	$300.00	$300	
	Basement Upgrade Washroom Door Hardware	3	each	$500.00	$1,500	
	Bsmt. Fire Rated Doors and Frames Label Premium	3	each	$200.00	$600	
	Bsmt. Doors, Frames and Hardware	14	each	$2,200.00	$30,800	
	Bsmt. Door Window Kits	9	each	$700.00	$6,300	
	Bsmt. Door Lite	1	each	$1,100.00	$1,100	
	Main Floor Windows at Stair Rated HM and GPW Glass	48	lf	$500.00	$24,000	
	Main Floor Windows at Stair Rated Transom HM and GPW Glass	80	lf	$250.00	$20,000	
	Branch Head Office Aluminum Storefront Glazing	11	lf	$750.00	$8,250	
	Main Fire Rated Doors and Frames Label Premium Lites Incl.	5	each	$200.00	$1,000	
	Main Door Lite	3	each	$1,100.00	$3,300	
	Main Wood Doors Frames and Hardware	2	each	$2,100.00	$4,200	
	Main HM Doors Frames and Hardware	7	each	$2,200.00	$15,400	
	Main Door Window Kits	2	each	$700.00	$1,400	
						$389,450
9	**Finishes**					
	Bsmt. Existing Washroom Tile and Ceiling Replacement	1	ls	$3,500.00	$3,500	
	Main Patch and Repair Damaged Plasterboard Ceiling (Allowance)	500	sf	$7.00	$3,500	
	Bsmt. Patch and Repair Damaged Plasterboard Ceiling (Allowance)	625	sf	$7.00	$4,375	
	Bsmt. Infill Partitions	9	lf	$150.00	$1,350	
	Bsmt. Partitions	50	lf	$150.00	$7,500	
	Bsmt. Add 2 Layers type X to Existing Partitions	78	lf	$100.00	$7,800	
	Main Add 2 Layers type X to Existing Partitions	80	lf	$100.00	$8,000	
	Main Floor Partitions	65	lf	$150.00	$9,750	
	Bsmt. New ACT 60% of Basement Balance Exist. and Repair GB	4134	sf	$6.75	$27,905	
	Bsmt. New GB Ceiling 1 and 2 Layers	380	sf	$5.00	$1,900	$75,580
	Bsmt. Reuse Mostly New Carpet Tile and Base	1160	sf	$11.00	$12,760	
	Detectable Surfaces and New Stair Treads and Risers	2	sets	$3,500.00	$7,000	
	Main Floor Ceramic Tile Repair	50	sf	$13.00	$650	
	Main SV Floor and Coved Base Work and Washrooms	765		$8.50	$6,503	
	Main Floor Carpet Tile and Base	4981	sf	$11.00	$54,791	
	BSMT. SV Flooring and Coved Base UTR's and Storage	275	sf	$8.50	$2,338	$84,041
	Exterior Painting: Exterior Painting Allowance, Rails, Fascia, Soffit, Window Mullions	1	ls	$10,000.00	$10,000	
	Painting: Walls, Ceilings, Doors and Frames	13180	sf	$5.75	$75,785	$85,785
10	**Specialties & Equipment**					
	Elevator Upgrades, Mirror and Voice Annunciation	1	ls	$5,000.00	$5,000	$5,000
	Bsmt. UTR WR Accessories	1	ls	$2,500.00	$2,500	$2,500
	Main Janitor Room SS Backsplash and Shelving and Hanging Rack	1	ls	$1,200.00	$1,200	$1,200
	Main Floor UTR and Standard Washroom Accessories	1	ls	$3,540.00	$3,540	$3,540
12	**Plumbing, HVAC and Controls**	13180	sf	$42.69	$562,625	
						$562,625
13	**Fire Protection**					
	Fire Extinguishers	0	each	$225.00	$0	
						$0
14	**Electrical**					
	Distribution, Power, Voice, Data, Life Safety, Emergency and Exit and Alarms	13180	sf	$27.85	$367,035	
						$367,035
				Total	$3,236,636	$3,236,636
					Check	

Option A1 West Kildonan Library Assessment 24-Oct-23

General Requirements

Prepared for: 1 x 1 Architecture 12 Month Schedule

Prepared By; GWHCMS Ltd Class 4

Item Name	Quantity	Unit	Rate	Total
General Clean-up	12	Month	$750.00	$9,000
Snow Removal	0	month	$1,000.00	$0
Garbage Bins 1	0	month	$350.00	$0
Haul Waste and Recycle	16	trips	$450.00	$7,200
Final Clean-up	13180	sf	$0.80	$10,544
Dewatering	0	month	$250.00	$0
Tools and Barricades	12	Month	$1,000.00	$12,000
Heavy Equipment Rentals				
Bob Cat	0	month	$1,200.00	$0
Man Lift	0	month	$850.00	$0
Scissor Lift	0	month	$850.00	$0
Scaffolding Allowance	1	ls	$1,000.00	$1,000
Silt Fence	0	lf	$1.50	$0
Site Fence and Gates	0	lf	$22.00	$0
Temp. Site Office (Inside Existing Assumed)	0	month	$1,950.00	$0
Temp. Sanitary	12	month	$1,200.00	$14,400
Cell Phone, PC, Site Com.	12	month	$450.00	$5,400
Security Clearances (Team)	1	ls	$5,000.00	$5,000
Temp. Power (By Owner)	0	ls	$1,500.00	$0
Temp. Panels and Feeders	10	month	$100.00	$1,000
Temp. Lights	1	ls	$2,000.00	$2,000
Hoardings (Protect Existing Floor Finishes)	1	ls	$6,000.00	$6,000
Temp. Hoarding Heat	0	month	$4,500.00	$0
Heat Closed in Building	0	sf	$5.00	$0
Ventilation	0	month	$500.00	$0
Superintendent	12	month	$8,500.00	$102,000
Project Manager 1/2 time	12	month	$3,800.00	$45,600
Foreman	0	month	$7,500.00	$0
LEED Specialist	0	month	$1,800.00	$0
Safety Coordinator and Sanitation Specialist	12	month	$1,500.00	$18,000
Cartage and Freight	12	month	$200.00	$2,400
Courier	12	month	$150.00	$1,800
Misc. Fuel and Travel Time	12	month	$200.00	$2,400
Safety Equipment, Railings,				
Fall Protection	4	month	$250.00	$1,000
Signage	1	ls	$450.00	$450
As-Builts	1	ls	$4,500.00	$4,500
O & M's	3	each	$750.00	$2,250
Warranty	1	ls	$2,500.00	$2,500
Site Reports and Images	12	month	$250.00	$3,000
Demobilization	1	ls	$3,750.00	$3,750
				$263,194

QSM Mechanical and Electrical Quantity Surveying 8-Nov-23
West Kildonan - option A1
Class 4 Estimate

	Building Area		13180	sf		
C1 Mechanical						
C11 Plumbing & Drainage						
1	Fixtures		13180	sf	0.96	12,650
	Water closet		4	ea.	900.00	3,600
	Water closet B/F		2	ea.	950.00	1,900
	Lavatory single		4	ea.	800.00	3,200
	Lavatory B/F		1	ea.	850.00	850
	Janitor sink		1	ea.	1,400.00	1,400
	Sink - single		2	ea.	850.00	1,700
2	Domestic Water		13180	sf	2.12	27,925
	Connect to existing		1	sum	500.00	500
	Domestic hot water heaters		0	no	17,500.00	0
	Domestic water pipe 32/25mm		60	m	115.00	6,900
	Domestic water pipe 19/12mm		75	m	85.00	6,375
	Thermal pipe insulation / repair		200	m	35.00	7,000
	Trap primer		10	no	295.00	2,950
	Fixture rough in water		14	ea.	300.00	4,200
3	Sanitary Waste and Vents		13180	sf	4.39	57,800
	Sanitary drain & vents - buried 100/75mm		40	m	165.00	6,600
	Sanitary drain & vents - above grade 100/75mm		25	m	175.00	4,375
	Sanitary drain & vents - above grade 50/35mm		95	m	115.00	10,925
	Fixture rough in drains		14	ea.	300.00	4,200
	Excavation and backfill		40	m	40.00	1,600
	Concrete cut and patch		40	m	300.00	12,000
	Scan, core drill and fire stop		12	no	450.00	5,400
	Floor drain		10	ea.	185.00	1,850
	Internal Roof Drains and Piping		4	ea.	2,500.00	10,000
	Cleanout fitting		10	ea.	85.00	850
4	Demolition		13180	sf	0.06	750
	Remove fixture		5	no	150.00	750
5	Natural gas		12	sf	1,170.83	14,050
	Natural gas pipe		1	sum	10,000.00	10,000
	RTU connection		4	no	450.00	1,800
	Disconnect boiler		1	no	750.00	750
	Connect boiler		2	no	750.00	1,500
	C11 Plumbing & Drainage	Total : $	13180	sf	8.59	113,175

C13 HVAC

1	Heating	13180	sf	13.66	180,000
	Remove boiler	1	sum	2,500.00	2,500
	Remove Pumps	1	sum	1,500.00	1,500
	Remove pipe	1	sum	4,000.00	4,000
	Boiler B-1/B-2	2	no	55,000.00	110,000
	Circulator	2	no	7,500.00	15,000
	Connections	6	no	1,000.00	6,000
	Heating system water make up / expansion	1	ls	4,500.00	4,500
	Water treatment	1	ls	3,500.00	3,500
	Low loss header	1	ls	7,500.00	7,500
	Heating and cooling pipe 100/75mm	50	m	165.00	8,250
	Heating and cooling pipe 50/35mm	50	m	125.00	6,250
	Heating and cooling pipe 25/19mm	50	m	85.00	4,250
	Thermal insulation	150	m	35.00	5,250
	Connect to existing	1	sum	1,500.00	1,500
2	Air distribution Equipment	13180	sf	6.26	82,500
	Rooftop unit # HC-3, 4 and 5 - gas heating, package cooling 5 ton	3	no	20,000.00	60,000
	ERV-1	1	no	5,000.00	5,000
	Rooftop unit # HC-6 - gas heating, package cooling 4 ton	1	no	17,500.00	17,500
	Includes hoisting				
3	Air distribution ductwork	13180	sf	5.52	72,750
	Galvanized ductwork	1500	kg	30.00	45,000
	Thermal insulation	400	sm	35.00	14,000
	Air diffuser	40	no	235.00	9,400
	Return air grill	20	no	155.00	3,100
	Exhaust grill	10	no	125.00	1,250
4	Balancing & commissioning	13180	sf	1.90	25,000
	Air and water balancing	1	ls	20,000.00	20,000
	Commissioning	1	nil	5,000.00	5,000
5	Miscellaneous	13180	sf	2.88	38,000
	Remove roof top unit	4	no	1,500.00	6,000
	Remove HRV	1	no	1,000.00	1,000
	Remove AHU c/w coil pipe	1	no	3,500.00	3,500
	Cutting and patching	1	ls	7,500.00	7,500
	Fire stopping	1	ls	10,000.00	10,000
	Boiler vent	2	no	5,000.00	10,000

	C13 HVAC	Total : $	13180	sf	30.22	398,250
C14 Controls						
1	Controls		13180	sf	3.88	51,200
	Heating water plant		1	no	20,000.00	20,000
	Demolition		1	sum	5,000.00	5,000
	Roof top unit		4	no	5,000.00	20,000
	ERV		1	no	1,200.00	1,200
	Reconnect existing		1	sum	5,000.00	5,000
	C14 Controls	Total : $	13180	sf	3.88	51,200
	Mechanical	Total : $	13180	sf	42.69	562,625

QSM Mechanical and Electrical Quantity Surveying 8-Nov-23
West Kildonan - option A1
Class 4 Estimate

	Building Area		13180	sf		
C2 Electrical						
C21 Service and Distribution			13180	sf	0.20	2,600
1	Re-use existing distribution		1	nil	0.00	0
2	New breakers and panel directory		1	sum	2,600.00	2,600
C21 Service and Distribution		Total	13180	sf	0.20	2,600
C22 Lighting, devices and heating						
1	Light fixtures		13180	sf	13.81	181,980
	Light fixture - 2 by 4		140	no	550.00	77,000
	Light fixture - strip		10	no	350.00	3,500
	Light fixture - pendant		5	no	300.00	1,500
	Light fixture - exterior		12	no	295.00	3,540
	Emergency battery		2	no	550.00	1,100
	Emergency head		30	no	225.00	6,750
	Exit sign		20	no	400.00	8,000
	Wall switch		5	no	145.00	725
	Wall station/dimmer		2	no	950.00	1,900
	Occupancy sensor		27	ea.	295.00	7,965
	Branch wiring		1	sum	50,000.00	50,000
	Demolition remove fixture		1	sum	20,000.00	20,000
2	Power outlets, devices and connections		13180	sf	5.43	71,620
	15A wall receptacle		101	no	145.00	14,645
	20A wall receptacle Tee		20	no	155.00	3,100
	15A GFI weatherproof		1	no	175.00	175
	IPLC receptacle		9	no	350.00	3,150
	GFI receptacle		5	no	160.00	800
	B/F door opener		13	no	750.00	9,750
	Branch wiring		1	sum	40,000.00	40,000

3	Mechanical power		13180	sm	3.03	40,000
	Demolition		1	sum	5,000.00	5,000
	Roof top unit		4	no	3,500.00	14,000
	Heating boilers		2	no	450.00	900
	4kw Force Flow Heater		1	no	1,400.00	1,400
	Boiler circulators		2	no	300.00	600
	Circulator		6	no	350.00	2,100
	Branch wiring		1	sum	16,000.00	16,000
	C22 Lighting, devices & heating	Total	13180	sf	22.28	293,600
C23 Systems & Ancillaries						
1	Fire Alarm		13180	sf	3.42	45,035
	Re-use FAP		1	nil	0.00	0
	Relocate device		20	no	200.00	4,000
	Smoke detector		10	no	395.00	3,950
	CO Detector		8	no	395.00	3,160
	Horn		5	no	425.00	2,125
	Strobe		20	no	255.00	5,100
	Duct smoke detector		4	no	425.00	1,700
	Verification		1	sum	5,000.00	5,000
	Wiring		1	sum	20,000.00	20,000
2	Voice and data		13180	sf	1.96	25,800
	Data outlet		26	no	175.00	4,550
	WAP		5	no	750.00	3,750
	Conduit and wire		1	sum	17,500.00	17,500
	C23 Systems & Ancillaries		13180	sf	5.37	70,835
	Electrical		13180	sf	27.85	367,035

GWH

Construction Management Services Ltd.

1 x 1 Architecture Inc.

Class 4 Costing Services

Class “4” Estimate

West Kildonan Library Assessment

365 Jefferson Avenue

Winnipeg, Manitoba

Based on Drawings from 1 x 1 Architecture Inc. “Issued for Class 4 Cost Estimate Option “A2” Drawings and Outline Specifications Dated November 9, 2023

Final Estimate December 1, 2023

1 x 1 Architecture Inc.
230 Main Street, Suite 310
Winnipeg, Manitoba
R3C 1A8
Attention: Hillary Cohen MAA, MRAIC

GWH
Construction Management Services Ltd.
419 Laidlaw Boulevard
Winnipeg, Manitoba
R3P 0K8

Telephone 204-661-9492
Cellular 204-296-8916

1 x 1 Architecture Inc.
230 Main Street, Suite 310
Winnipeg, Manitoba
R3C 1A8

December 1, 2023

Attention: Hillary Cohen MAA, MRAIC

Dear Hillary;

Re: West Kildonan Library Assessment Option A2 Class 4 Construction Estimate 365 Jefferson Avenue, Winnipeg, Manitoba

Brief Project Description: Interior Renovation of 14,110 sf floor area including basement work includes demolition, roofing, windows exterior doors, ramps railings and stairs, interior flooring, partitions, doors and frames, millwork, painting, specialties, new elevator and machine room addition with basement 930 sf, mechanical and electrical works.

Scope of Work Provided by GWHCMS Ltd. and Documents Received from Client:
We are pleased to provide our class 4 construction budget estimate based on your Issued for Class 4 Estimate drawings and outline specifications issued November 9, 2023, for West Kildonan Library Assessment Option A2 renovation and elevator addition.

West Kildonan Library Assessment Option A2 14,110sf Total Renovation Cost:
The overall estimated cost is $4,753,684.00 + GST. We have included a 15% Design Contingency Allowance in the estimate, for further design and drawings enhancements and items needing additional clarity. **See Appendix A for Estimate and Detailed Breakdown.**

Estimate Accuracy:
The accuracy of this estimate at level “4” should range between -30% to +60%. We never estimate to be low bid rather mid bid in a tender grouping of at least 5 bidders.

Exclusions and Clarifications:
The following list of exclusions should be considered by all parties while reviewing the estimate.

Exclusions and Clarifications are as follows:

- Project Administration costs. NIC
- Architecture and engineering fees. NIC
- Furnishings, Appliances and Furniture NIC
- All costs are based on current month and year.
- Move Management Not Included
- Without additional estimates we are unable to guarantee the accuracy of this estimate as the drawings progress to tender ready documents.
- GST Extra
- Market Conditions. Not Considered.

- All work is assumed to be handled by a Prime General Contractor under a CCDC-2 2006 Contract or equal with support from a General Contractor.
- Cash Allowances. As Noted,

Explanation of Allowances Used in this Estimate, (Not all will Apply):

Design Contingency: Used at all levels of estimate 4, 3, 2 and 1 depending on drawings completeness, example; Schematic design, Design and Development, Working Drawings of Pretender. Values typically range from 25%, 15%, 10% 7%, and 5%. Will be used when drawings and overall project design are developing also when we are not certain if project will be tendered within 30 to 60 days once the estimate is completed. As the estimate costs are based on the day the estimate is completed.

Market Condition Contingency: Used when we anticipate weak or poor tender / bidder turnout, also for specialized or unique projects, small projects under $500,000.00 in value, also if the market is saturated with work and builders are very busy. Values typically range from 5%, 10% to 20%.

Estimate Contingency: Used when the risk in our estimate is above a tolerance which is higher than the normal tolerance we develop as we progress through the design process. Perhaps if only 1 estimate is called for, or we unable to connect with the market place as the design package is too vague and subject to changes or early on in design. Values typically range from 5% to 10%.

Location Factor Contingency: Used when the project has the following conditions.

- Room, Board, Travel, Labour when traveling. The cost is applied typically for trades as our general requirements usually cover these costs for the GC only.
- Overtime or lost production due to either loner or shorter days to make-up for lost travel time.
- Or, out of town Living Costs and Travel and Related Labour Costs.
- Material shipping costs and related packing and storage costs.
- Low bidder turnout due to location and nature of work.
- Project and schedule delay risk die to supply chain or labour shortage issues.

Normal factor would be 5% to 100% of project cost, special circumstances could brin this from 100% to 300% of project cost depending on remoteness of the project location in Canada.

Ownership and accuracy of the estimates, provided by GWHCMS Ltd.:

All estimates, reports, and similar documents prepared by GWHCMS Ltd. Shall remain the property of GWHCMS Ltd. The client will have access to all documents and worksheets related to the project and they shall be made available upon request.

Pricing by GWHCMS Ltd. reflects probable construction costs obtainable in the location of the project as of the date of the report and is a determination of fair market value for the construction of this project and should not be taken as a prediction of low bid.

This pricing assumes competitive bidding for every portion of the construction work including all subcontractors as well as the general contractor, and assumes a minimum of five (5) general bidders. If fewer bids are received, the bid results can be expected to be higher.

It is recognized, however that GWHCMS Ltd. does not have control over the cost of labor, materials or equipment, over a contractor's methods of determining bid prices, or over competitive bidding, market or negotiation conditions.

Accordingly, GWHCMS Ltd. cannot and does not warrant or represent that bids or negotiated prices will not vary from this nor any subsequent estimate of construction cost or evaluation prepared by or agreed to by GWHCMS Ltd.

Trusting you will find the attached information helpful, please feel free to contact us at your convenience should you have any questions or concerns.

Respectfully yours,



Gerhard Hoppenheit C.E.T., P.Q.S., G.S.C.
President
GWH Construction Management Services Ltd.

GH/sh

Appendix A

West Kildonan Library Assessment Option A2, 365 Jefferson Avenue, Winnipeg, Manitoba

Contents:

Overall Cost Estimate with Architectural, Structural, Mechanical and Electrical

GWH Construction Management Services Ltd. 01-Dec-23

Class "4" Construction Estimate Anticipated Accuracy -30% to + 50% Project # 2023-33

Project: Option A2 West Kildonan Library Assessment, Winnipeg, Manitoba

Main Floor Renovation Area	6590	sf GFA
Basement Renovation Area	6590	sf GFA
Elevator Addition Main and Bsmt.	930	sf GFA
Total Base Area =	14,110	sf GFA

Client: 1x1 Architecture

Divisional Cost Breakdown: Interior Renovation

Item #	Activity	Cost	Subtotal	% of Overall Cost	Cost / sf / Element
1	General Requirements				
	Cash Allowances	$26,000	$26,000	0.55%	$1.84
	Clean-up, Dewatering, Tools, Survey and Layout	Included			
	Travel, Room and Board, Freight and Cartage	Included			
	Project Coordination & General Superintendent	Included			
	Temporary Facilities, Heat Closed-In Building	Included			
	Temp. Power and Light, Signage, Safety, Snow Removal etc.	Included			
		$263,194	$263,194	5.54%	$18.65
2	Site and Selective Interior Demolition, Stairs, Ramps and Railings	$452,667	$452,667	9.52%	$32.08
	Asbestos abatement	$100,000	$100,000	2.10%	$7.09
3	Concrete Work & Reinforcing Steel	$83,836	$83,836	1.76%	$5.94
4	Masonry	$94,314	$94,314	1.98%	$6.68
5	Structural Steel, Miscellaneous Metal	$79,525	$79,525	1.67%	$5.64
6	Rough Carpentry & Fasteners				
	Finish Carpentry & Millwork	$380,900	$380,900	8.01%	$27.00
7	Thermal & Moisture Protection				
	Roofing, Flashings, Fire Stopping Etc.	$524,440	$524,440	11.03%	$37.17
8	Doors, Frames, Hardware, Windows				
	Windows, Doors, Frames, Hardware	$391,800	$391,800	8.24%	$27.77
9	Drywall Bulkheads, Partitions and GB and Acoustic Ceilings	$81,992			
	Ceramic, Sheet Vinyl, Carpet Tile Flooring and Rubber Base	$101,920			
	Painting	$91,133	$275,045	5.79%	$19.49
10	Specialties				
	Elevator, Janitor Room and Washroom Accessories	$101,740	$101,740	10.53%	$7.21
11	Mechanical and Fire Suppression	$597,935	$597,935	12.58%	$42.38
12	Electrical	$416,400	$416,400	8.76%	$29.51
	Subtotal	$3,787,796	$3,787,796	79.68%	$268.45
13	Bonds, Insurance, Permits, GC Overhead & Fee 10.5% + 15% Project Design Contingency Allowance	$965,888	$965,888	20.32%	$68.45
	Total	$4,753,684	$4,753,684	100.00%	$336.90
	Base Building Work Cost Based on 14,110sf = $336.90 per sf	GST Extra			

Estimate Sheet | Option A2 West Kildonan Library Assessment Winnipeg, Mb. | GWHCMS Ltd. | 01-Dec-23

Project # 2023-33

Class 4 Estimate

Item	Description	Qty.	Unit	Rate	Cost	Total
1	**General Requirements**	1	ls	$263,194	$263,194	$263,194
	Asbestos Abatement Removal and Testing Allowance	1	ls	$100,000	$100,000	$100,000
	Cash Allowances (Piling, Asphalt, Compaction, Concrete, Envelope, Window and Roof and Signage)	1	ls	$26,000.00	$26,000	$26,000
2	**Site Works and Selective Demolition (Main Floor and Basement)**					
	Remove Decommissioned West Stair and Haul Out Rubble, Remove Elevator Machine Room and Elevator Shaft and Elevator	1	ls	$25,000.00	$25,000	
	Remove Small Tree and Stump	1	ls	$650.00	$650	
	Remove Exterior Doors and Frames Temp. Cover to Opening	6	each	$475.00	$2,850	
	Remove Roof to Deck	8745	sf	$8.00	$69,960	
	Remove East Parking Stall and Asphalt and Haul Out Materials	1	ls	$500.00	$500	
	Remove Clerestory Windows (6) and Modify Roof Curbs (6) and Remove Roof Hatch (1)	1	ls	$3,500.00	$3,500	
	Remove South Landing Stair and Ramp, Railings, Sidewalk and Tyndall Stone Haul-out Rubble	1	ls	$6,000.00	$6,000	
	Remove North Stair, Landing and Railings	1	ls	$3,000.00	$3,000	
	Remove Windows Includes Interior	130	each	$200.00	$26,000	
	Relocate Bike Rack and Waste Can	2	each	$150.00	$300	
	Regrade Parking Stall and Create New with Signage Marking and Wheel Stop	1	ls	$2,750.00	$2,750	
	New Garbage Enclosure with 2 Gates	44	lf	$123.00	$5,412	
	Reinstall Benches	2	each	$150.00	$300	
	Garbage Enclosure Bollards	4	each	$1,750.00	$7,000	
	Modify Chain Link Fence for West Ramp	1	ls	$3,750.00	$3,750	
	Excavate New 465 sf Addition with Basement and Haul out Materials	1	ls	$4,500.00	$4,500	
	New West Addition Piles 400mm Diam. X 11m	10	each	$1,900.00	$19,000	
	West Addition Wall and Roof Tie-In Demolition Work	42	lf	$150.00	$6,300	
	Weeping Tile and Sump Pit and Lid	1	ls	$4,500.00	$4,500	
	New West Landing and Ramp and Railings and Tactile Warnings all on new Piles	298	sf	$200.00	$59,600	
	New South Stair, Beams, Slab, Tactile Warning and Landing and Railings Reuse Piles	188	sf	$125.00	$23,500	
	New South Landing Slab Tactile Warning and Ramp and Rails and Beams and Sidewalk Reuse Piles	672	sf	$125.00	$84,000	
	New North Stair, Landing and Railing Tactile Warning Reuse Existing Piles	45	sf	$125.00	$5,625	
	Selective Interior Demolition Main and Basement Levels	13180	sf	$6.73	$88,670	
						$452,667
3	**Concrete Work**					
	New Basement Addition Slab	448	sf	$22.00	$9,856	
	Exist. Basement Wall Demolition and Infill Work for New Addition	1	ls	$7,500.00	$7,500	
	New Addition Basement Walls	69	lf	$800.00	$55,200	
	Addition Concrete Stair Pan Fill	18	each	$175.00	$3,150	
	Infill Stair Main Floor Landing South Side	15	sf	$12.00	$180	
	Main Floor Topping Slab at Addition	325	sf	$6.00	$1,950	
	Basement Floor Cutting and Repair Allowance @ Plumbing Drains	60	sf	$100.00	$6,000	
						$83,836
4	**Masonry**					
	New CMU Walls for Addition and elevator Shaft	1372	sf	$22.00	$30,184	
	Modifications at Entries and Doorways and Window Deletions	1	ls	$3,500.00	$3,500	
	New Tyndall Stone Veneer, Insulation Ties AVB	966	sf	$55.00	$53,130	
	Rebuild Tyndall Stone Wall, Reuse Stone	1	ls	$7,500.00	$7,500	
						$94,314
5	**Metals**					
	Corner Guards	10	each	$125.00	$1,250	
	New Addition Metal Pan Stair and Landing Railings Basement to Main	1	ls	$20,000.00	$20,000	
	New Addition Main Floor Slab Steel Frame and Decking	325	sf	$15.00	$4,875	
	New Addition Elevator Hoist Beam and Roof Frame and Deck	465	sf	$25.00	$11,625	
	Brick Support Ledge	68	lf	$125.00	$8,500	
	Roof Joist Reinforcing at New AHU's	2	each	$3,000.00	$6,000	
	Main Floor Stair Guard Rails	24	lf	$100.00	$2,400	
	Main To Basement Stair Floor Infill Frame and Deck	15	sf	$25.00	$375	
	New Building Addition Steel Pan Steel Stringer Stair and Rails	1	ls	$20,000.00	$20,000	
	New Bsmt. To Main Stair Hand Railings	60	lf	$75.00	$4,500	
						$79,525

Item	Description	Qty.	Unit	Rate	Cost	Total
6	**Carpentry**					
	Reconstruct and Raise Parapets and New Addn. Parapets	625	lf	$45.00	$28,125	
	Roof and Wall Repairs at Demolished Elevator Shaft	1	ls	$4,000.00	$4,000	
	Millwork:					
	Library Wall and Free Standing Shelving, Main 692' BSMT. 271'	963	lf	$300.00	$288,900	
	Bsmt. Staff Room and Program Room U and L	22	lf	$700.00	$15,400	
	Bsmt. Closet	8	lf	$75.00	$600	
	New Shelving Storage Room	25	lf	$300.00	$7,500	
	Bsmt. and Main UTR Wood Bench and Brackets	2	each	$1,100.00	$2,200	
	Main: Replace Service Desk	33	lf	$700.00	$23,100	
	Main New Coat Closet with Doors	8.75	lf	$500.00	$4,375	
	New Exterior Doors, Frames and Lites and Hardware	1	each	$3,250.00	$3,250	
	Main Floor Washroom Vanity Top Solid Surface	5	lf	$350.00	$1,750	
	Cedar Siding to Interior Walls	100	sf	$17.00	$1,700	
						$380,900
7	**Thermal and Moisture**					
	New Roof R28 SBS, Flashing, Overflow Scuppers and Downspouts, Internal Drainage x 4	9193	sf	$55.00	$505,615	
	Roof Guard Rail	33	lf	$125.00	$4,125	
	Foundation Insulation, Damproofing at New Addition	680	sf	$15.00	$10,200	
	Misc. Fire Stopping (Allowance)	1	ls	$4,500.00	$4,500	$524,440
8	**Doors and Windows**					
	Repair Existing Exterior Wood Doors and Add Seals and Hardware	3	each	$750.00	$2,250	
	New Clerestory Windows and Flashings and Trims	6	each	$2,800.00	$16,800	
	Bsmt. Crawlspace Access Hatch incl. Removal of Old and Floor Repairs	1	each	$5,000.00	$5,000	
	New Roof Access Hatch	1	each	$3,500.00	$3,500	
	ADO's	17	each	$3,750.00	$63,750	
	Basement Windows	8	each	$1,750.00	$14,000	
	Main Floor Windows (Transom)	58	each	$1,500.00	$87,000	
	Main Floor Windows Slit	43	each	$1,750.00	$75,250	
	New Addition Exterior Window System	83	sf	$125.00	$10,375	
	Lower Book Drop-Off Box	2	each	$500.00	$1,000	
	Remove and Install New Basement Door Frame	1	each	$300.00	$300	
	Basement Upgrade Washroom Door Hardware	2	each	$500.00	$1,000	
	Bsmt. Fire Rated Doors and Frames Label Premium	3	each	$200.00	$600	
	Bsmt. Doors, Frames and Hardware	15	each	$2,200.00	$33,000	
	Bsmt. Door Window Kits	10	each	$700.00	$7,000	
	Bsmt. Door Lite	3	each	$1,100.00	$3,300	
	Main Floor Windows at Stair Rated HM and GPW Glass	12	lf	$500.00	$6,000	
	Main Floor Store Front Glazing and Aluminum Door	45	lf	$350.00	$15,750	
	Main Floor Windows at Stair Rated Transom HM and GPW Glass	60	lf	$250.00	$15,000	
	Branch Head Office Aluminum Storefront Glazing	7.5	lf	$750.00	$5,625	
	Main Fire Rated Doors and Frames Label Premium Lites Incl.	5	each	$200.00	$1,000	
	Main Door Lite	3	each	$1,100.00	$3,300	
	Main Wood Doors Frames and Hardware	2	each	$2,100.00	$4,200	
	Main HM Doors Frames and Hardware	7	each	$2,200.00	$15,400	
	Main Door Window Kits	2	each	$700.00	$1,400	
						$391,800

Item	Description	Qty.	Unit	Rate	Cost	Total
9	**Finishes**					
	Bsmt. Existing Washroom Tile and Ceiling Replacement	1	ls	$3,500.00	$3,500	
	Main Patch and Repair Damaged Plasterboard Ceiling (Allowance)	500	sf	$7.00	$3,500	
	Bsmt. Patch and Repair Damaged Plasterboard Ceiling (Allowance)	625	sf	$7.00	$4,375	
	Bsmt. Infill Partitions	9	lf	$150.00	$1,350	
	Bsmt. Partitions	50	lf	$150.00	$7,500	
	Bsmt. Add 2 Layers type X to Existing Partitions	78	lf	$100.00	$7,800	
	Main Add 2 Layers type X to Existing Partitions	80	lf	$100.00	$8,000	
	Main Floor Partitions	83	lf	$150.00	$12,450	
	Main: Addition New GB Ceiling	350	sf	$6.75	$2,363	
	Bsmt. New ACT 60% of Basement Balance Exist. and Repair GB	4334	sf	$6.75	$29,255	
	Bsmt. New GB Ceiling 1 and 2 Layers	380	sf	$5.00	$1,900	$81,992
	Bsmt. Reuse Mostly New Carpet Tile and Base	1160	sf	$11.00	$12,760	
	Detectable Surfaces and New Stair Treads and Risers	3	sets	$3,500.00	$10,500	
	Main Floor Ceramic Tile Repair	85	sf	$13.00	$1,105	
	Main SV Floor and Coved Base Work and Washrooms	765		$8.50	$6,503	
	Main Floor and Basement Carpet Tile and Base	6015	sf	$11.00	$66,165	
	BSMT. SV Flooring and Coved Base UTR's and Storage, Addition	575	sf	$8.50	$4,888	$101,920
	Exterior Painting: Exterior Painting Allowance, Rails, Fascia, Soffit, Window Mullions	1	ls	$10,000.00	$10,000	
	Painting: Walls, Ceilings, Doors and Frames	14110	sf	$5.75	$81,133	$91,133
10	**Specialties & Equipment**					
	New 2 Stop Holeless Hydraulic Elevator	1	ls	$70,000.00	$70,000	$70,000
	Bsmt. UTR WR Accessories	1	ls	$2,500.00	$2,500	$2,500
	Demountable Partitions Glass Tutorial Rooms	35	lf	$700.00	$24,500	$24,500
	Main Janitor Room SS Backsplash and Shelving and Hanging Rack	1	ls	$1,200.00	$1,200	$1,200
	Main Floor UTR and Standard Washroom Accessories	1	ls	$3,540.00	$3,540	$3,540
12	**Plumbing, HVAC and Controls**	14110	sf	$42.38	$597,935	$597,935
13	**Fire Protection**					
	Fire Extinguishers	0	each	$225.00	$0	$0
14	**Electrical**					
	Distribution, Power, Voice, Data, Life Safety, Emergency and Exit and Alarms	14110	sf	$29.51	$416,400	$416,400
				Total	$3,787,796	$3,787,796
					Check	

Option A2 West Kildonan Library Assessment 01-Dec-23

General Requirements

Prepared for: 1 x 1 Architecture 12 Month Schedule

Prepared By; GWHCMS Ltd Class 4

Item Name	Quantity	Unit	Rate	Total
General Clean-up	12	Month	$750.00	$9,000
Snow Removal	0	month	$1,000.00	$0
Garbage Bins 1	0	month	$350.00	$0
Haul Waste and Recycle	16	trips	$450.00	$7,200
Final Clean-up	13180	sf	$0.80	$10,544
Dewatering	0	month	$250.00	$0
Tools and Barricades	12	Month	$1,000.00	$12,000
Heavy Equipment Rentals				
Bob Cat	0	month	$1,200.00	$0
Man Lift	0	month	$850.00	$0
Scissor Lift	0	month	$850.00	$0
Scaffolding Allowance	1	ls	$1,000.00	$1,000
Silt Fence	0	lf	$1.50	$0
Site Fence and Gates	0	lf	$22.00	$0
Temp. Site Office (Inside Existing Assumed)	0	month	$1,950.00	$0
Temp. Sanitary	12	month	$1,200.00	$14,400
Cell Phone, PC, Site Com.	12	month	$450.00	$5,400
Security Clearances (Team)	1	ls	$5,000.00	$5,000
Temp. Power (By Owner)	0	ls	$1,500.00	$0
Temp. Panels and Feeders	10	month	$100.00	$1,000
Temp. Lights	1	ls	$2,000.00	$2,000
Hoardings (Protect Existing Floor Finishes)	1	ls	$6,000.00	$6,000
Temp. Hoarding Heat	0	month	$4,500.00	$0
Heat Closed in Building	0	sf	$5.00	$0
Ventilation	0	month	$500.00	$0
Superintendent	12	month	$8,500.00	$102,000
Project Manager 1/2 time	12	month	$3,800.00	$45,600
Foreman	0	month	$7,500.00	$0
LEED Specialist	0	month	$1,800.00	$0
Safety Coordinator and Sanitation Specialist	12	month	$1,500.00	$18,000
Cartage and Freight	12	month	$200.00	$2,400
Courier	12	month	$150.00	$1,800
Misc. Fuel and Travel Time	12	month	$200.00	$2,400
Safety Equipment, Railings,				
Fall Protection	4	month	$250.00	$1,000
Signage	1	ls	$450.00	$450
As-Builts	1	ls	$4,500.00	$4,500
O & M's	3	each	$750.00	$2,250
Warranty	1	ls	$2,500.00	$2,500
Site Reports and Images	12	month	$250.00	$3,000
Demobilization	1	ls	$3,750.00	$3,750
				$263,194

QSM Mechanical and Electrical Quantity Surveying 20-Nov-23
West Kildonan - option A2
Class D Estimate

	Building Area		14110	sf		
C1 Mechanical						
C11 Plumbing & Drainage						
1	Fixtures		14110	sf	0.80	11,250
	Water closet		2	ea.	900.00	1,800
	Water closet B/F		4	ea.	950.00	3,800
	Lavatory single		0	ea.	800.00	0
	Lavatory B/F		3	ea.	850.00	2,550
	Janitor sink		1	ea.	1,400.00	1,400
	Sink - single		2	ea.	850.00	1,700
2	Domestic Water		14110	sf	3.18	44,825
	Connect to existing		1	sum	500.00	500
	Domestic hot water heaters WH-1		1	no	17,500.00	17,500
	Domestic water pipe 32/25mm		60	m	115.00	6,900
	Domestic water pipe 19/12mm		75	m	85.00	6,375
	Thermal pipe insulation / repair		200	m	35.00	7,000
	Trap primer		10	no	295.00	2,950
	Fixture rough in water		12	ea.	300.00	3,600
3	Sanitary Waste and Vents		14110	sf	3.59	50,625
	Sanitary drain & vents - buried 100/75mm		40	m	165.00	6,600
	Sanitary drain & vents - above grade 100/75mm		25	m	175.00	4,375
	Sanitary drain & vents - above grade 50/35mm		95	m	115.00	10,925
	Fixture rough in drains		14	ea.	300.00	4,200
	Excavation and backfill		40	m	40.00	1,600
	Concrete cut and patch		40	m	300.00	12,000
	Scan, core drill and fire stop		12	no	450.00	5,400
	Supm Pump, Alarm and Piping		1	no	2,500.00	2,500
	Floor drain		10	ea.	185.00	1,850
	Scupper drain		1	ea.	325.00	325
	Cleanout fitting		10	ea.	85.00	850
4	Storm drain		1	m2	10,000.00	10,000
	New roof drain		4	no	2,500.00	10,000
5	Demolition		14110	sf	0.11	1,500
	Remove fixtures		1	sum	1,500.00	1,500
6	Natural gas		12	m2	1,170.83	14,050
	Natural gas pipe		1	sum	10,000.00	10,000
	RTU connection		4	no	450.00	1,800
	Disconnect boiler		1	no	750.00	750
	Connect boiler		2	no	750.00	1,500
	C11 Plumbing & Drainage	Total : $	14110	sf	9.37	132,250

C13 HVAC

1	Heating		14110	sf	12.76	180,000
	Remove boiler		1	sum	2,500.00	2,500
	Remove Pumps		1	sum	1,500.00	1,500
	Remove pipe		1	sum	4,000.00	4,000
	Boiler B-1/B-2		2	no	55,000.00	110,000
	Boiler circulator		0	no	6,500.00	0
	Circulator		2	no	7,500.00	15,000
	Connections		6	no	1,000.00	6,000
	Heating system water make up / expansion		1	ls	4,500.00	4,500
	Water treatment		1	ls	3,500.00	3,500
	Low loss header		1	ls	7,500.00	7,500
	Heating and cooling pipe 100/75mm		50	m	165.00	8,250
	Heating and cooling pipe 50/35mm		50	m	125.00	6,250
	Heating and cooling pipe 25/19mm		50	m	85.00	4,250
	Thermal insulation		150	m	35.00	5,250
	Connect to existing		1	sum	1,500.00	1,500
2	Air distribution Equipment		14110	sf	5.85	82,500
	Rooftop unit # HC-3, 4 and 5 - gas heating, package cooling 5 ton		3	no	20,000.00	60,000
	Rooftop unit # HC-6 - gas heating, package cooling 4 ton		1	no	17,500.00	17,500
	ERV		1	no	5,000.00	5,000
	Includes hoisting					
3	Air distribution ductwork		14110	sf	5.92	83,485
	Galvanized ductwork		1750	kg	30.00	52,500
	Thermal insulation		450	sm	35.00	15,750
	Air diffuser		45	no	235.00	10,575
	Return air grill		22	no	155.00	3,410
	Exhaust grill		10	no	125.00	1,250
4	Balancing & commissioning		14110	sf	1.95	27,500
	Air and water balancing		1	ls	22,500.00	22,500
	Commissioning		1	nil	5,000.00	5,000
5	Miscellaneous		14110	sf	2.73	38,500
	Remove roof top unit and HRV		5	no	1,500.00	7,500
	Remove AHU c/w coil pipe		1	no	3,500.00	3,500
	Cutting and patching		1	ls	7,500.00	7,500
	Fire stopping		1	ls	10,000.00	10,000
	Boiler vent		2	no	5,000.00	10,000
	C13 HVAC	Total : $	14110	sf	29.20	411,985

C14 Controls

1	Controls		14110	sf	3.81	53,700
	Heating water plant		1	no	20,000.00	20,000
	Demolition		1	sum	5,000.00	5,000
	Roof top unit		4	no	5,000.00	20,000
	ERV		1	no	1,200.00	1,200
	Reconnect existing		1	sum	7,500.00	7,500
	C14 Controls	Total : $	14110	sf	3.81	53,700
	Mechanical	Total : $	14110	sf	42.38	597,935

QSM Mechanical and Electrical Quantity Surveying 20-Nov-23
West Kildonan - option A2
Class D Estimate

	Building Area		14110	sf		
C2 Electrical						
C21 Service and Distribution			14110	sf	0.18	2,500
1	Re-use existing distribution		1	nil	0.00	0
2	New breakers and panel directory		1	sum	2,500.00	2,500
C21 Service and Distribution		Total	14110	sf	0.18	2,500
C22 Lighting, devices and heating						
1	Light fixtures		14110	sf	13.92	196,450
	Light fixture - 2 by 4		140	no	550.00	77,000
	Light fixture - strip		20	no	350.00	7,000
	ElevatorVapor Tight Lights		2	no	375.00	750
	Light fixture - exterior		14	no	295.00	4,130
	Emergency battery		2	no	550.00	1,100
	Emergency head		30	no	225.00	6,750
	Exit sign		20	no	400.00	8,000
	Wall switch		9	no	145.00	1,305
	Wall station/dimmer		10	no	950.00	9,500
	Occupancy sensor		37	ea.	295.00	10,915
	Branch wiring		1	sum	50,000.00	50,000
	Demolition remove fixture		1	sum	20,000.00	20,000
2	Power outlets, devices and connections		14110	sf	6.50	91,700
	15A wall receptacle		100	no	145.00	14,500
	20A wall receptacle Tee		20	no	155.00	3,100
	15A GFI weatherproof		1	no	175.00	175
	Floor outlet		5	no	425.00	2,125
	ILPC		15	no	350.00	5,250
	GFI receptacle		5	no	160.00	800
	Wall heater		1	no	1,500.00	1,500
	Elevator Disconnect and Fee and Breaker		1	ls	5,000.00	5,000
	B/F door opener		19	no	750.00	14,250
	Branch wiring		1	sum	45,000.00	45,000

3	Mechanical power		14110	sf	2.66	37,600
	Demolition		1	sum	5,000.00	5,000
	Roof top unit		4	no	3,500.00	14,000
	Heating boilers		2	no	450.00	900
	Boiler circulators		2	no	300.00	600
	Circulator		6	no	350.00	2,100
	Branch wiring		1	sum	15,000.00	15,000
	C22 Lighting, devices & heating	Total	14110	sf	23.09	325,750
C23 Systems & Ancillaries						
1	Fire Alarm		14110	sf	3.94	55,525
	Re-use FAP		1	nil	0.00	0
	Relocate device		20	no	200.00	4,000
	Pull station		7	no	225.00	1,575
	Smoke detector		10	no	395.00	3,950
	Heat detector		2	no	395.00	790
	CO Detector		8	no	395.00	3,160
	Horn		10	no	425.00	4,250
	Strobe		20	no	255.00	5,100
	Duct smoke detector		4	no	425.00	1,700
	Verification		1	sum	6,000.00	6,000
	Wiring		1	sum	25,000.00	25,000
2	Voice and data		14110	sf	1.75	24,750
	Data outlet		30	no	175.00	5,250
	48 port Patch Panel		1	no	750.00	750
	WAP		5	no	750.00	3,750
	Conduit and wire		1	sum	15,000.00	15,000
3	Security		2	sm	3,907.50	7,815
	Relocate CCTV		1	no	500.00	500
	Digital Time Clack		1	no	1,100.00	1,100
	Motion detector		2	no	395.00	790
	Keypad		1	no	425.00	425
	Conduit and wire		1	sum	5,000.00	5,000
	C23 Systems & Ancillaries		14110	sf	6.24	88,090
	Electrical		14110	sf	29.51	416,340

GWH

Construction Management Services Ltd.

1 x 1 Architecture Inc.

Class 4 Costing Services

Class "4" Estimate

West Kildonan Library Assessment

365 Jefferson Avenue

Winnipeg, Manitoba

Based on Drawings from 1 x 1 Architecture Inc. "Issued for Class 4 Cost Estimate Option "B" Drawings and Outline Specifications Dated November 9, 2023

Final Estimate December 1, 2023

1 x 1 Architecture Inc.
230 Main Street, Suite 310
Winnipeg, Manitoba
R3C 1A8
Attention: Hillary Cohen MAA, MRAIC

GWH
Construction Management Services Ltd.
419 Laidlaw Boulevard
Winnipeg, Manitoba
R3P 0K8

Telephone 204-661-9492
Cellular 204-296-8916

1 x 1 Architecture Inc.
230 Main Street, Suite 310
Winnipeg, Manitoba
R3C 1A8

December 1, 2023

Attention: Hillary Cohen MAA, MRAIC

Dear Hillary;

Re: West Kildonan Library Assessment Option B Class 4 Construction Estimate 365 Jefferson Avenue, Winnipeg, Manitoba

Brief Project Description: Interior Renovation of 17,980 sf floor area including demolition, roofing, windows exterior doors, ramps railings and stairs, interior flooring, partitions, doors and frames, millwork, painting, specialties, 2,400 sf main and basement level addition with half basement and half crawlspace and new elevator and program space, mechanical and electrical works.

Scope of Work Provided by GWHCMS Ltd. and Documents Received from Client:
We are pleased to provide our class 4 construction budget estimate based on your Issued for Class 4 Estimate drawings and outline specifications issued November 9, 2023, for West Kildonan Library Assessment Option B renovation and addition.

West Kildonan Library Assessment Option B 17,980 sf Total Renovation Cost:
The overall estimated cost is $6,751,824.00 + GST. We have included a 15% Design Contingency Allowance in the estimate, for further design and drawings enhancements and items needing additional clarity. **See Appendix A for Estimate and Detailed Breakdown.**

Estimate Accuracy:
The accuracy of this estimate at level “4” should range between -30% to +60%. We never estimate to be low bid rather mid bid in a tender grouping of at least 5 bidders.

Exclusions and Clarifications:
The following list of exclusions should be considered by all parties while reviewing the estimate.

Exclusions and Clarifications are as follows:

- Project Administration costs. NIC
- Architecture and engineering fees. NIC
- Furnishings, Appliances and Furniture NIC
- All costs are based on current month and year.
- Move Management Not Included
- Without additional estimates we are unable to guarantee the accuracy of this estimate as the drawings progress to tender ready documents.
- GST Extra
- Market Conditions. Not Considered.

- All work is assumed to be handled by a Prime General Contractor under a CCDC-2 2006 Contract or equal with support from a General Contractor.
- Cash Allowances. As Noted,

Explanation of Allowances Used in this Estimate, (Not all will Apply):

Design Contingency: Used at all levels of estimate 4, 3, 2 and 1 depending on drawings completeness, example; Schematic design, Design and Development, Working Drawings of Pretender. Values typically range from 25%, 15%, 10% 7%, and 5%. Will be used when drawings and overall project design are developing also when we are not certain if project will be tendered within 30 to 60 days once the estimate is completed. As the estimate costs are based on the day the estimate is completed.

Market Condition Contingency: Used when we anticipate weak or poor tender / bidder turnout, also for specialized or unique projects, small projects under $500,000.00 in value, also if the market is saturated with work and builders are very busy. Values typically range from 5%, 10% to 20%.

Estimate Contingency: Used when the risk in our estimate is above a tolerance which is higher than the normal tolerance we develop as we progress through the design process. Perhaps if only 1 estimate is called for, or we unable to connect with the market place as the design package is too vague and subject to changes or early on in design. Values typically range from 5% to 10%.

Location Factor Contingency: Used when the project has the following conditions.

- Room, Board, Travel, Labour when traveling. The cost is applied typically for trades as our general requirements usually cover these costs for the GC only.
- Overtime or lost production due to either loner or shorter days to make-up for lost travel time.
- Or, out of town Living Costs and Travel and Related Labour Costs.
- Material shipping costs and related packing and storage costs.
- Low bidder turnout due to location and nature of work.
- Project and schedule delay risk die to supply chain or labour shortage issues.

Normal factor would be 5% to 100% of project cost, special circumstances could brin this from 100% to 300% of project cost depending on remoteness of the project location in Canada.

Ownership and accuracy of the estimates, provided by GWHCMS Ltd.:

All estimates, reports, and similar documents prepared by GWHCMS Ltd. Shall remain the property of GWHCMS Ltd. The client will have access to all documents and worksheets related to the project and they shall be made available upon request.

Pricing by GWHCMS Ltd. reflects probable construction costs obtainable in the location of the project as of the date of the report and is a determination of fair market value for the construction of this project and should not be taken as a prediction of low bid.

This pricing assumes competitive bidding for every portion of the construction work including all subcontractors as well as the general contractor, and assumes a minimum of five (5) general bidders. If fewer bids are received, the bid results can be expected to be higher.

It is recognized, however that GWHCMS Ltd. does not have control over the cost of labor, materials or equipment, over a contractor's methods of determining bid prices, or over competitive bidding, market or negotiation conditions.

Accordingly, GWHCMS Ltd. cannot and does not warrant or represent that bids or negotiated prices will not vary from this nor any subsequent estimate of construction cost or evaluation prepared by or agreed to by GWHCMS Ltd.

Trusting you will find the attached information helpful, please feel free to contact us at your convenience should you have any questions or concerns.

Respectfully yours,



Gerhard Hoppenheit C.E.T., P.Q.S., G.S.C.
President
GWH Construction Management Services Ltd.

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GWH

Construction Management Services Ltd. December 1, 2023

Appendix A

West Kildonan Library Assessment and Addition
Option B, 365 Jefferson Avenue, Winnipeg, Manitoba

Contents:

Overall Cost Estimate with Architectural, Structural, Mechanical and Electrical

GWH Construction Management Services Ltd. 01-Dec-23

Class "4" Construction Estimate Anticipated Accuracy -30% to + 50% Project # 2023-33

Project: Option B West Kildonan Library Assessment, Winnipeg, Manitoba

Main Floor Renovation Area	6590	sf GFA
Basement Renovation Area	6590	sf GFA
Addition Main Level	2400	sf GFA
Addition Crawlspace and Basement Level	2400	sf GFA
Total Base Area =	17,980	sf GFA

Client: 1x1 Architecture

Divisional Cost Breakdown: Interior Renovation

Item #	Activity	Cost	Subtotal	% of Overall Cost	Cost / sf / Element
1	General Requirements				
	Cash Allowances	$26,000	$26,000	0.39%	$1.45
	Clean-up, Dewatering, Tools, Survey and Layout	Included			
	Travel, Room and Board, Freight and Cartage	Included			
	Project Coordination & General Superintendent	Included			
	Temporary Facilities, Heat Closed-In Building	Included			
	Temp. Power and Light, Signage, Safety, Snow Removal etc.	Included			
		$301,038	$301,038	4.46%	$16.74
2	Site and Selective Interior Demolition, Stairs, Ramps and Railings	$656,009	$656,009	9.72%	$36.49
	Asbestos abatement	$100,000	$100,000	1.48%	$5.56
3	Concrete Work & Reinforcing Steel	$172,440	$172,440	2.55%	$9.59
4	Masonry	$202,232	$202,232	3.00%	$11.25
5	Structural Steel, Miscellaneous Metal	$305,120	$305,120	4.52%	$16.97
6	Rough Carpentry & Fasteners				
	Finish Carpentry & Millwork	$507,043	$507,043	7.51%	$28.20
7	Thermal & Moisture Protection				
	Roofing, Flashings, Fire Stopping Etc.	$768,825	$768,825	11.39%	$42.76
8	Doors, Frames, Hardware, Windows				
	Windows, Doors, Frames, Hardware	$539,366	$539,366	7.99%	$30.00
9	Drywall Bulkheads, Partitions and GB and Acoustic Ceilings	$144,196			
	Ceramic, Sheet Vinyl, Carpet Tile Flooring and Rubber Base	$131,531			
	Painting	$103,095	$378,821	5.61%	$21.07
10	Specialties				
	Elevator, Janitor Room and Washroom Accessories	$88,440	$88,440	6.45%	$4.92
11	Mechanical and Fire Suppression	$844,575	$844,575	12.51%	$46.97
12	Electrical	$490,030	$490,030	7.26%	$27.25
	Subtotal	$5,379,940	$5,379,940	79.68%	$299.22
13	Bonds, Insurance, Permits, GC Overhead & Fee 10.5% + 15% Project Design Contingency Allowance	$1,371,885	$1,371,885	20.32%	$76.30
	Total	$6,751,824	$6,751,824	100.00%	$375.52
	Base Building Work Cost Based on 17,980sf = $375.52 per sf	GST Extra			

Estimate Sheet | Option B West Kildonan Library Assessment Winnipeg, Mb. | GWHCMS Ltd. | 01-Dec-23

Project # 2023-33

Class 4 Estimate

Item	Description	Qty.	Unit	Rate	Cost	Total
1	**General Requirements**	1	ls	$301,038	$301,038	$301,038
	Asbestos Abatement Removal and Testing Allowance	1	ls	$100,000	$100,000	$100,000
	Cash Allowances (Piling, Asphalt, Compaction, Concrete, Envelope, Window and Roof and Signage)	1	ls	$26,000.00	$26,000	$26,000
2	**Site Works and Selective Demolition (Main Floor and Basement)**					
	Remove Decommissioned West Stair and Haul Out Rubble, Remove Elevator Machine Room and Elevator Shaft and Elevator	1	ls	$25,000.00	$25,000	
	Remove Small Tree and Stump	1	ls	$650.00	$650	
	Remove Exterior Doors and Frames Temp. Cover to Opening	6	each	$475.00	$2,850	
	Create New or Widen Door Openings In Existing Bldg.	3	each	$450.00	$1,350	
	Remove Roof to Deck	8745	sf	$8.00	$69,960	
	Remove East Parking Stall and Asphalt and Haul Out Materials	1	ls	$500.00	$500	
	Remove Clerestory Windows (6) and Modify Roof Curbs (6) and Remove Roof Hatch (1)	1	ls	$3,500.00	$3,500	
	Remove South Landing Stair and Ramp, Railings, Sidewalk and Tyndall Stone Haul-out Rubble	1	ls	$6,000.00	$6,000	
	Remove North Stair, Landing and Railings	1	ls	$3,000.00	$3,000	
	Remove Windows Includes Interior	130	each	$200.00	$26,000	
	Relocate Bike Rack and Waste Can	2	each	$150.00	$300	
	Regrade Parking Stall and Create New with Signage Marking and Wheel Stop	1	ls	$2,750.00	$2,750	
	New Garbage Enclosure with 2 Gates	44	lf	$123.00	$5,412	
	Reinstall Benches	2	each	$150.00	$300	
	Garbage Enclosure Bollards	4	each	$1,750.00	$7,000	
	Modify Chain Link Fence for West Ramp	1	ls	$3,750.00	$3,750	
	Excavate New 2400 sf Addition with Crawlspace and Basement	900	cy	$45.00	$40,500	
	Crawlspace Sand, Poly and Wood Nailer and Sealant	1200	sf	$8.00	$9,600	
	Excavate Out West Parking Stalls	1	ls	$500.00	$500	
	Excavate Existing Bldg. Perimeter for Envelope Upgrades 300lf	458	cy	$65.00	$29,770	
	Remove Existing Wall Finish Salvage Tyndall for Reuse 4 Person Crew 3 Weeks + Tools and Equipment	1	ls	$40,000.00	$40,000	
	New West Addition Piles 400mm Diam. X 9m	28	each	$1,900.00	$53,200	
	West Addition Wall and Roof Tie-In Demolition Work	100	lf	$150.00	$15,000	
	Remove Existing Fascial Parapet and Soffit	150	lf	$100.00	$15,000	
	Addn. Weeping Tile and Sump Pit and New Weeping tile and Gravel at Existing	1	ls	$16,500.00	$16,500	
	New West Ramp Beams, Slab, Tactile Warning and Railings New Piles as well	300	sf	$200.00	$60,000	
	New South Stair, Beams, Slab, Tactile Warning and Landing and Railings Reuse Piles	188	sf	$125.00	$23,500	
	New South Landing Slab Tactile Warning and Ramp and Rails and Beams and Sidewalk Reuse Piles	672	sf	$125.00	$84,000	
	New North Stair, Landing and Railing Tactile Warning Reuse Existing Piles	45	sf	$125.00	$5,625	
	Selective Interior Demolition Main and Basement Levels	13180	sf	$6.73	$88,701	
	Sod Restoration Allowance	1	ls	$7,500.00	$7,500	
	New Outdoor Benches	4	each	$650.00	$2,600	
	New Paver Stone Patio	277	sf	$15.00	$4,155	
	New at Grade Planting Beds and Shrubs (10)	96	sf	$16.00	$1,536	
						$656,009
3	**Concrete Work**					
	Basement Floor Cutting and Repair Allowance @ Plumbing Drains	60	sf	$100.00	$6,000	
	Infill Existing Basement Windows (Concrete and Rebar)	6	each	$1,200.00	$7,200	
	Infill Stair Main Floor Landing South Side	15	sf	$12.00	$180	
	Stair Pan Infill	18	each	$75.00	$1,350	
	Basement Structural Slab 200mm on Void	1200	sf	$22.00	$26,400	
	Addn House Keeping Pads for AHU's	3	each	$1,200.00	$3,600	
	Main Floor Topping Slab 76mm	2340	sf	$6.50	$15,210	
	Crawlspace Grade Beam 3' deep	66	lf	$300.00	$19,800	
	Basement Walls 11.5' deep	103	lf	$900.00	$92,700	
						$172,440
4	**Masonry**					
	Rebuild Tyndall Stone Wall, Reuse Stone	1	ls	$6,000.00	$6,000	
	Misc. Existing Masonry Repairs	1	ls	$5,000.00	$5,000	
	Masonry CMU Walls Basement and Elevator Shaft	828	sf	$19.00	$15,732	
	Repurposed Tyndall Veneer and AVB, Ties, Insulation and Flashings	3900	sf	$45.00	$175,500	
						$202,232

Item	Description	Qty.	Unit	Rate	Cost	Total
5	**Metals**					
	Corner Guards	10	each	$125.00	$1,250	
	Brick Ledge	670	lf	$125.00	$83,750	
	Addition Floor Joists and Steel Deck	2340	sf	$28.00	$65,520	
	Addition Roof Joists and Columns, Deck and Perimeter Angle	2400	sf	$35.00	$84,000	
	Elevator Hoist Beam	1	ls	$750.00	$750	
	Exist Roof Joist Reinforcing at New AHU's	2	each	$3,000.00	$6,000	
	Main To Basement Stair Floor Infill Frame and Deck	15	sf	$25.00	$375	
	New Addition Landing, Stairs and Railings and Guard Rails	1	ls	$30,000.00	$30,000	
	New Building Steel Pan Steel Stringer Stair and Rails	1	ls	$20,000.00	$20,000	
	Crawlspace Access Stair and Landing	1	ls	$8,000.00	$8,000	
	Main Floor Stair Guard Rails	12	lf	$100.00	$1,200	
	New Bsmt. To Main Stair Hand Railings	45	lf	$95.00	$4,275	
						$305,120
6	**Carpentry:**					
	New and Exist. Raise Parapets	710	lf	$45.00	$31,950	
	Roof Repairs at Old Elevator Shaft	1	ls	$4,000.00	$4,000	
	New Cedar Siding at Fascia and Misc. False Work	900	sf	$38.00	$34,200	
	Misc. Cedar Siding and AVB and Insulation at Areas of Wall where no Tyndall Stone Is as well as Misc. Flashings at Door Frames, Window Frames and Brick Ledge	1	ls	$15,000.00	$15,000	
	Roof Fence at Clerestory	135	lf	$100.00	$13,500	
	Millwork:					
	Library Wall and Free Standing Shelving, Main 958' BSMT. 69'	1027	lf	$300.00	$308,100	
	Bsmt. Staff Room and Program Room U and L	24	lf	$700.00	$16,800	
	Staff Bsmt. Closet	4	lf	$125.00	$500	
	Bsmt. Service Desk	20.5	lf	$700.00	$14,350	
	Bsmt. Computer Desk and Printer Station	36	lf	$185.00	$6,660	
	Basement Meeting Rm Kitchenette	15.6	lf	$700.00	$10,920	
	Bsmt. and Main UTR Wood Bench and Brackets	2	each	$1,100.00	$2,200	
	Main New Service Desk	33	lf	$700.00	$23,100	
	Main Computer Desk and Printer Station	9.8	lf	$185.00	$1,813	
	Main New Coat Closet with Doors	8.75	lf	$500.00	$4,375	
	Bsmt. and Main Floor Washroom Vanity Top Solid Surface	14.5	lf	$350.00	$5,075	
	Misc. Backing and Blocking	1	ls	$5,000.00	$5,000	
	Puppet Storage Cabinets	15.6	lf	$500.00	$7,800	
	Cedar Siding to Interior Walls	100	sf	$17.00	$1,700	
						$507,043
7	**Thermal and Moisture**					
	New Roof R28 SBS, Flashing, Overflow Scuppers and Downspouts, Internal Drainage x 6	11760	sf	$55.00	$646,800	
	Waterproof Exist. and New Foundation, New Insulation and Protection Board and Backfill	6300	sf	$13.00	$81,900	
	Stucco Soffit	2500	sf	$11.00	$27,500	
	Roof Guard Rail	33	lf	$125.00	$4,125	
	Misc. Non-M and E Fire Stopping (Allowance)	1	ls	$8,500.00	$8,500	$768,825

Item	Description	Qty.	Unit	Rate	Cost	Total
8	**Doors and Windows**					
	Repair Existing Exterior Wood Doors and Add Seals and Hardware	3	each	$750.00	$2,250	
	New Clerestory Windows and Flashings and Trims	6	each	$2,800.00	$16,800	
	Bsmt. Crawlspace Access Hatch incl. Removal of Old and Floor Repairs	1	each	$5,000.00	$5,000	
	New Roof Access Hatch	1	each	$3,500.00	$3,500	
	Crawlspace Access Door	1	each	$2,200.00	$2,200	
	ADO's	19	each	$3,750.00	$71,250	
	Basement Windows	5	each	$1,750.00	$8,750	
	Main Floor Windows (Transom)	58	each	$1,500.00	$87,000	
	Main Floor Windows Slit	43	each	$1,750.00	$75,250	
	Main Floor Addition Windows	212	sf	$125.00	$26,500	
	Lower Book Drop-Off Box	2	each	$500.00	$1,000	
	Basement Aluminum Doors and Full Ht. Glazing (Storefront)	67	lf	$798.00	$53,466	
	Bsmt. Fire Rated Doors and Frames Label Premium	6	each	$200.00	$1,200	
	Bsmt. Doors, Frames and Hardware	18	each	$2,200.00	$39,600	
	Bsmt. Door Window Kits	3	each	$700.00	$2,100	
	Main Floor Windows at Stair Rated HM and GPW Glass	46	lf	$800.00	$36,800	
	Main Floor Windows at New & Exist. Stair Rated Transom HM and GPW Glass	48	lf	$400.00	$19,200	
	Main Branch Head Office, South Entry Aluminum Storefront Glazing	34	lf	$750.00	$25,500	
	Main Aluminum Doors Entry Vest. and Childrens Story	3	each	$1,750.00	$5,250	
	Main Fire Rated Doors and Frames Label Premium Lites Incl.	5	each	$200.00	$1,000	
	Main Wood Doors Frames and Hardware and Lite (1)	7	each	$2,243.00	$15,701	
	Main New Exterior HM Door and Frame, Lite (2) and Hardware	3	each	$3,433.00	$10,299	
	Main Widen Exterior Door Opening and Provide New Door Frame. Hardware. with Side Lite	1	ls	$3,500.00	$3,500	
	Main Interior Aluminum Doors, Frames	3	each	$1,750.00	$5,250	
	New Exterior Doors, Frames and Lites and Hardware	4	each	$3,250.00	$13,000	
	Main HM Doors Frames and Hardware	3	each	$2,200.00	$6,600	
	Main Door Window Kits	2	each	$700.00	$1,400	
						$539,366
9	**Finishes**					
	Partitions and Ceilings:					
	Bsmt. Existing Washroom Tile and Ceiling Replacement	1	ls	$3,500.00	$3,500	
	Main Patch and Repair Damaged Plasterboard Ceiling (Allowance)	500	sf	$7.00	$3,500	
	Bsmt. Patch and Repair Damaged Plasterboard Ceiling (Allowance)	625	sf	$7.00	$4,375	
	Bsmt. Partitions	50	lf	$150.00	$7,500	
	Bsmt. Add 2 Layers type X to Existing Partitions	55	lf	$100.00	$5,500	
	Main Add 2 Layers type X to Existing Partitions	40	lf	$100.00	$4,000	
	Main Floor Partitions	85	lf	$150.00	$12,750	
	Addition Main Floor Exterior BU Walls and Interior Partitions	356	lf	$130.00	$46,280	
	Main GB Ceiling	375	sf	$5.50	$2,063	
	Addition Main New ACT	1800	sf	$6.75	$12,150	
	Main Existing New Act	485	sf	$6.75	$3,274	
	Main Repairs to Existing ACT	1	ls	$3,500.00	$3,500	
	Bsmt. New ACT 60% of Basement Balance Exist. and Repair GB	4134	sf	$6.75	$27,905	
	Bsmt. New GB Ceiling 1 and 2 Layers	1580	sf	$5.00	$7,900	$144,196
	Flooring:					
	Bsmt. Reuse Mostly New Carpet Tile and Base	2245	sf	$11.00	$24,695	
	Addn. Bsmt. Concrete Floor Sealer	1050	sf	$3.00	$3,150	
	Bsmt. Floor Repairs and Wall Removal (Allowance)	1	ls	$1,500.00	$1,500	
	Bsmt. SV Flooring and Base	880	sf	$8.50	$7,480	
	BSMT. SV Flooring and Coved Base UTR's and Storage	275	sf	$8.50	$2,338	
	Detectable Surfaces and New Stair Treads and Risers	3	sets	$3,500.00	$10,500	
	Main Floor Ceramic Tile Repair North and South Stair	86	sf	$13.00	$1,118	
	Main SV Floor and Coved Base Work and Washrooms, Office and Work Ro	854	sf	$8.50	$7,259	
	Main Floor Carpet Tile and Base	6681	sf	$11.00	$73,491	
						$131,531
	Painting:					
	Exterior Painting: Exterior Painting Allowance, Rails, Fascia, Soffit, Window Mullions	1	ls	$15,000.00	$15,000	
	Painting: Walls, Ceilings, Doors and Frames	16780	sf	$5.25	$88,095	$103,095

Item	Description	Qty.	Unit	Rate	Cost	Total
10	**Specialties & Equipment**					
	New 2 Stop Hydraulic Holeless Elevator	1	ls	$70,000.00	$70,000	$70,000
	Bsmt. UTR and Std. WR Accessories	1	ls	$3,500.00	$3,500	$3,500
	Demountable Partitions Glass Childrens Area	12	lf	$750.00	$9,000	$9,000
	Bsmt. & Main Janitor Room SS Backsplash and Shelving and Hanging Rack	2	ls	$1,200.00	$2,400	$2,400
	Main Floor UTR and Standard Washroom Accessories	1	ls	$3,540.00	$3,540	$3,540
12	**Plumbing, HVAC and Controls**	17980	sf	$46.97	$844,575	
						$844,575
13	**Fire Protection**					
	Fire Extinguishers	0	each	$225.00	$0	
						$0
14	**Electrical**					
	Remove Hydro Service for Tyndall Stone Replacement Comm. Demark Etc.	1	ls	$3,500.00	$3,500	
	Distribution, Power, Voice, Data, Life Safety, Emergency and Exit and Alarms	17980	sf	$27.06	$486,530	
						$490,030
				Total	$5,379,940	$5,379,940
					Check	

Option B West Kildonan Library Assessment 01-Dec-23

General Requirements

Prepared for: 1 x 1 Architecture 14 Month Schedule

Prepared By; GWHCMS Ltd Class 4

Item Name	Quantity	Unit	Rate	Total
General Clean-up	14	Month	$750.00	$10,500
Snow Removal	0	month	$1,000.00	$0
Garbage Bins 1	0	month	$350.00	$0
Haul Waste and Recycle	18	trips	$450.00	$8,100
Final Clean-up	17980	sf	$0.60	$10,788
Dewatering	0	month	$250.00	$0
Tools and Barricades	14	Month	$1,000.00	$14,000
Heavy Equipment Rentals				
Bob Cat	0	month	$1,200.00	$0
Man Lift	0	month	$850.00	$0
Scissor Lift	0	month	$850.00	$0
Scaffolding Allowance	1	ls	$1,000.00	$1,000
Silt Fence	0	lf	$1.50	$0
Site Fence and Gates	0	lf	$22.00	$0
Temp. Site Office (Inside Existing Assumed)	0	month	$1,950.00	$0
Temp. Sanitary	14	month	$1,200.00	$16,800
Cell Phone, PC, Site Com.	14	month	$450.00	$6,300
Security Clearances (Team)	1	ls	$5,000.00	$5,000
Temp. Power (By Owner)	0	ls	$1,500.00	$0
Temp. Panels and Feeders	12	month	$100.00	$1,200
Temp. Lights	1	ls	$2,000.00	$2,000
Hoardings (Protect Existing Floor Finishes)	1	ls	$6,000.00	$6,000
Temp. Hoarding Heat	0	month	$4,500.00	$0
Heat Closed in Building	0	sf	$5.00	$0
Ventilation	0	month	$500.00	$0
Superintendent	14	month	$8,500.00	$119,000
Project Manager 1/2 time	14	month	$3,800.00	$53,200
Foreman	0	month	$7,500.00	$0
LEED Specialist	0	month	$1,800.00	$0
Safety Coordinator and Sanitation Specialist	14	month	$1,500.00	$21,000
Cartage and Freight	14	month	$200.00	$2,800
Courier	14	month	$150.00	$2,100
Misc. Fuel and Travel Time	14	month	$200.00	$2,800
Safety Equipment, Railings,				
Fall Protection	6	month	$250.00	$1,500
Signage	1	ls	$450.00	$450
As-Builts	1	ls	$4,500.00	$4,500
O & M's	3	each	$750.00	$2,250
Warranty	1	ls	$2,500.00	$2,500
Site Reports and Images	14	month	$250.00	$3,500
Demobilization	1	ls	$3,750.00	$3,750
				$301,038

QSM Mechanical and Electrical Quantity Surveying 20-Nov-23
West Kildonan - option B
Class D Estimate

	Building Area		17980	sf		
C1 Mechanical						
C11 Plumbing & Drainage						
1	Fixtures		17980	sf	0.99	17,750
	Water closet		6	ea.	900.00	5,400
	Water closet B/F		4	ea.	950.00	3,800
	Lavatory single		4	ea.	800.00	3,200
	Lavatory B/F		3	ea.	850.00	2,550
	Janitor sink		2	ea.	1,400.00	2,800
	Sink - single		0	ea.	850.00	0
2	Domestic Water		17980	sf	2.98	53,550
	Connect to existing		1	sum	500.00	500
	Domestic hot water heaters WH-1		1	no	17,500.00	17,500
	Domestic water pipe 32/25mm		80	m	115.00	9,200
	Domestic water pipe 19/12mm		95	m	85.00	8,075
	Thermal pipe insulation / repair		275	m	35.00	9,625
	Trap primer		10	no	295.00	2,950
	Fixture rough in water		19	ea.	300.00	5,700
3	Sanitary Waste and Vents		17980	sf	3.97	71,300
	Sanitary drain & vents - buried 100/75mm		40	m	165.00	6,600
	Sanitary drain & vents - above grade 100/75mm		45	m	175.00	7,875
	Sanitary drain & vents - above grade 50/35mm		125	m	115.00	14,375
	Fixture rough in drains		21	ea.	300.00	6,300
	Excavation and backfill		40	m	40.00	1,600
	Concrete cut and patch		40	m	300.00	12,000
	Scan, core drill and fire stop		18	no	450.00	8,100
	Floor drain		10	ea.	185.00	1,850
	Elevator sump c/w oil sensor		1	ea.	10,000.00	10,000
	Pumped drain		15	m	95.00	1,425
	Scupper drain		1	ea.	325.00	325
	Cleanout fitting		10	ea.	85.00	850
4	Storm drain		1	sf	15,000.00	15,000
	New roof drain		6	no	2,500.00	15,000
5	Demolition		17980	sf	0.08	1,400
	Remove fixture		1	sum	1,400.00	1,400
6	Natural gas		18	sf	780.56	14,050
	Natural gas pipe		1	sum	10,000.00	10,000
	RTU connection		4	no	450.00	1,800
	Disconnect boiler		1	no	750.00	750
	Connect boiler		2	no	750.00	1,500
	C11 Plumbing & Drainage	Total : $	17980	sf	9.62	173,050

C13 HVAC

1	Heating	17980	sf	13.71	246,500
	Remove boiler	1	sum	2,500.00	2,500
	Remove Pumps	1	sum	1,500.00	1,500
	Remove pipe	1	sum	4,000.00	4,000
	Boiler B-1/B-2	2	no	55,000.00	110,000
	Boiler circulator	0	no	6,500.00	0
	Circulator	4	no	7,500.00	30,000
	Heat exchanger HX-1 / glycol	1	no	35,000.00	35,000
	Connections	9	no	1,000.00	9,000
	Heating system water make up / expansion	1	ls	4,500.00	4,500
	Water treatment	1	ls	3,500.00	3,500
	Low loss header	1	ls	7,500.00	7,500
	Heating and cooling pipe 100/75mm	75	m	165.00	12,375
	Heating and cooling pipe 50/35mm	75	m	125.00	9,375
	Heating and cooling pipe 25/19mm	50	m	85.00	4,250
	Thermal insulation	200	m	35.00	7,000
	AHU coil connection	1	no	4,500.00	4,500
	Connect to existing	1	sum	1,500.00	1,500
2	Air distribution Equipment	17980	sf	5.28	95,000
	AHU Unit 3, 4 and 5 - hot water heating, package cooling 4 ton	3	no	30,000.00	90,000
	ERV	1	no	5,000.00	5,000
	Includes hoisting				
3	Air distribution ductwork	17980	sf	9.91	178,125
	Galvanized ductwork	4200	kg	30.00	126,000
	Thermal insulation	1000	sm	35.00	35,000
	Air diffuser	50	no	235.00	11,750
	Return air grill	25	no	155.00	3,875
	Exhaust grill	12	no	125.00	1,500
4	Balancing & commissioning	17980	sf	1.95	35,000
	Air and water balancing	1	ls	30,000.00	30,000
	Commissioning	1	nil	5,000.00	5,000

5	Miscellaneous		17980	sf	2.12	38,200
	Remove roof top unit		4	no	1,500.00	6,000
	Eremove HRV		1	no	1,200.00	1,200
	Remove AHU c/w coil pipe		1	no	3,500.00	3,500
	Cutting and patching		1	ls	7,500.00	7,500
	Fire stopping		1	ls	10,000.00	10,000
	Boiler vent		2	no	5,000.00	10,000
	C13 HVAC	Total : $	17980	sf	32.97	592,825
C14 Controls						
1	Controls		17980	sf	4.38	78,700
	Heating water plant		1	no	20,000.00	20,000
	Demolition		1	sum	5,000.00	5,000
	Roof top unit		3	no	5,000.00	15,000
	AHU 3		1	no	15,000.00	15,000
	AHU-5		1	no	15,000.00	15,000
	ERV		1	no	1,200.00	1,200
	Reconnect existing		1	sum	7,500.00	7,500
	C14 Controls	Total : $	17980	sf	4.38	78,700
	Mechanical	Total : $	17980	sf	46.97	844,575

QSM Mechanical and Electrical Quantity Surveying 20-Nov-23
West Kildonan - option B
Class D Estimate

	Building Area		17980	sf		
C2 Electrical						
C21 Service and Distribution			17980	sf	0.14	2,500
1	Re-use existing distribution		1	nil	0.00	0
2	New breakers and panel directory		1	sum	2,500.00	2,500
C21 Service and Distribution		Total	17980	sf	0.14	2,500
C22 Lighting, devices and heating						
1	Light fixtures		17980	sf	13.58	244,210
	Light fixture - 2 by 4		180	no	550.00	99,000
	Light Fixture 8ft linear pendants		5	no	575.00	2,875
	Light fixture - strip		38	no	350.00	13,300
	Light fixture - canopy		12	no	400.00	4,800
	Light fixture - exterior		2	no	295.00	590
	Emergency battery		2	no	550.00	1,100
	Emergency head		35	no	225.00	7,875
	Exit sign		25	no	400.00	10,000
	Wall switch		9	no	145.00	1,305
	Wall station/dimmer		10	no	950.00	9,500
	Occupancy sensor		47	ea.	295.00	13,865
	Branch wiring		1	sum	60,000.00	60,000
	Demolition remove fixture		1	sum	20,000.00	20,000
2	Power outlets, devices and connections		17980	sf	5.81	104,550
	15A wall receptacle		110	no	145.00	15,950
	20A wall receptacle Tee		25	no	155.00	3,875
	15A GFI weatherproof		7	no	175.00	1,225
	Floor outlet		4	no	425.00	1,700
	ILPC		15	no	350.00	5,250
	GFI receptacle		5	no	160.00	800
	Wall heater		1	no	1,500.00	1,500
	Elevator Power Disconnect and Feeder and Breaker		1	no	5,000.00	5,000
	B/F door opener		19	no	750.00	14,250
	Branch wiring		1	sum	55,000.00	55,000

3	Mechanical power		17980	sf	2.13	38,300
	Demolition		1	sum	5,000.00	5,000
	Roof top unit		4	no	3,500.00	14,000
	Heating boilers		2	no	450.00	900
	Boiler circulators		2	no	300.00	600
	Circulator		8	no	350.00	2,800
	Branch wiring		1	sum	15,000.00	15,000
	C22 Lighting, devices & heating	Total	17980	sf	21.53	387,060
C23 Systems & Ancillaries						
1	Fire Alarm		17980	sf	3.56	63,930
	Re-use FAP		1	nil	0.00	0
	Relocate device		20	no	200.00	4,000
	Pull station		5	no	225.00	1,125
	Smoke detector		12	no	395.00	4,740
	Heat detector		2	no	395.00	790
	CO Detector		10	no	395.00	3,950
	Horn		10	no	425.00	4,250
	Strobe		25	no	255.00	6,375
	Duct smoke detector		4	no	425.00	1,700
	Verification		1	sum	7,000.00	7,000
	Wiring		1	sum	30,000.00	30,000
2	Voice and data		17980	sf	1.40	25,225
	Data outlet		30	no	175.00	5,250
	2 Post Data Rack		1	no	475.00	475
	48 Port Parch Panel		1	no	750.00	750
	WAP		5	no	750.00	3,750
	Conduit and wire		1	sum	15,000.00	15,000
3	Security		2	sm	3,907.50	7,815
	Relocate CCTV		1	no	500.00	500
	Digital Time Clock Station		1	no	1,100.00	1,100
	Motion detector		2	no	395.00	790
	Keypad		1	no	425.00	425
	Conduit and wire		1	sum	5,000.00	5,000
	C23 Systems & Ancillaries		17980	sf	5.39	96,970
	Electrical		17980	sf	27.06	486,530

APPENDIX E:
PUBLIC ENGAGEMENT SUMMARIES

PUBLIC ENGAGEMENT SUMMARY
PHASE #1

WEST KILDONAN LIBRARY REVIEW

Phase 1 Stakeholder Engagement Summary

Background

The West Kildonan Library was built in 1967. Improvements are required so the library can continue to meet the community's needs into the future.

The City is assessing the building to understand what improvements are needed and how much they will cost. It will look at:

- the site (including parking);
- the building condition;
- heritage elements;
- building code and accessibility compliance; and
- services and amenities.

Engagement

The City reached out to stakeholder organizations to gather early input. The input helped the City design three improvement options. A list of stakeholder organizations is available in Appendix A. Stakeholders were invited to attend a meeting at the West Kildonan Library.



Image 1: Stakeholders discuss issues and opportunities for the library

The meeting began with a short presentation on the findings of the building review completed by the architect. The presentation was followed by a group discussion. Stakeholders were asked to provide input on current use, issues, and opportunities for the West Kildonan Library.

Stakeholder meeting details are in Table 1.

Table 1: Stakeholder Engagement Opportunities

Date	Activity	Participation
August 8, 2023	Stakeholder Meeting #1	8 attendees Notes in Appendix B
August 9, 2023	Stakeholder Meeting #2	7 attendees Notes in Appendix C

What We Heard

Table 2 summarizes the input from the stakeholder organizations and provides examples of comments. How the City considered the input when creating the three improvement options is explained for each comment.

Table 2: Input from stakeholder organizations

What we heard	How it was considered
The children's section in the basement is great because parents do not have to worry about children disrupting the rest of the library.	Options 1 and 2 propose keeping the children's area in the basement.
The children's section in the basement requires library staff and supervision on both levels. Move the children's section upstairs to address staffing and security issues.	Option 3 proposes a building addition so that the adult and children's areas can be located on the main floor. The adult and children's areas are located on opposite sides of the library to minimize disruptions.
A better pedestrian crossing is needed on Powers Street to connect the shared community centre parking to the library.	All three options propose a crosswalk on Powers Street to provide a safe connection from the library to the shared community centre parking.
Outdoor reading spaces are well-used at the other libraries. The West Kildonan Library should have an outdoor reading space.	Option 3 proposes a small outdoor reading space off Powers Street.
The library needs more collaborative spaces for meetings, community gatherings, and school projects.	Option 3 proposes two small tutorial rooms and one large meeting room for collaborations.
The elevator is not reliable and breaks down from time to time.	Option 2 and Option 3 propose a new elevator as part of building additions on the side of the library.
The design is still current, modern, and functional, despite it being from the 1960s.	All three options will respect the heritage elements of the building.
There used to be vertical cedar slats around pop-out on the roof. This feature should be restored if work is being done to the roof.	Option 3 proposes a new wood screen around the roof pop-out and new cedar siding on the fascia. These features will help restore the exterior of the building to its original style.

Next Steps

Stakeholder input and the building review helped inform three proposed options. Cost estimates for each proposed option were also developed. The three proposed options will be presented to the stakeholders and residents in Phase 2 public engagement.

What we hear from stakeholder and residents will help the City refine the proposed options. A recommended option will be considered through future multi-year budget processes. Council approval and funding are required before construction.

Appendices

Appendix A – Stakeholder Organization List
Appendix B – Meeting #1 Notes
Appendix C – Meeting #2 Notes
Appendix D - Phase 1 Presentation Boards

Appendix A – List of Stakeholder Organizations

List of Stakeholder Organizations

The City met with representatives from the following organizations as part of Phase 1 stakeholder engagement for the West Kildonan Library Review:

Friends of the West Kildonan Library
Garden City Residents Association
Heritage Winnipeg
Library Advisory Committee
West Kildonan Library staff
Winnipeg Public Library Board

Appendix B – Stakeholder Meeting #1 Notes

West Kildonan Library Building Review – Stakeholder Meeting #1

Location: West Kildonan Library
356 Jefferson Ave.
Date: August 8, 2023
Time: 6 p.m. – 7:30 p.m.
Attendees: 8

Meeting Minutes

Functional Issues

Parking

- It is a long distance to get to the front entrance from the parking lot
    - Accessibility issues
    - Why was the back entrance closed?
    - Accessible parking was added to Powers Street when the back entrance was closed
    - The back entrance is right against the property line so putting a ramp from accessibility would be a challenge
- Parking is sufficient right now because there is the community centre parking lot right across the street
- Could there is a better crossing across Powers Street?
- Parking is not a major concern

Shelving

- The original shelving is great because there is so much content to look at
- The original shelving is beautiful
- Love the original shelving but the sightlines are limited
    - It is difficult to see around the shelving so smaller shelving or something that is a bit more open would improve sightlines
    - Some libraries have made shelving so low that it becomes more decorative and less about the content

Levels

- The children's section in the basement is a great place for children
- Children love the basement because they can talk and just be kids
- The library needs a separate space where kids can be kids and can run around
    - Parents will feel more at ease that kids aren't disrupting the whole library
- If the children's section is in the basement, you need staff monitoring both floors
    - Could there be CCTV in the library so the staff on the main floor could monitor the basement?
    - Move as much content as possible to the main level and to use the basement for meetings and multipurpose rooms
- It would be great to have the children's sections moved into an addition on the main level

Circulation desk

- Was the circulation desk always that large?
    - The desk used to be two sections where library visitors would walk through
- The desk seems like a waste of space

Building Site/Exterior

Dedicated outdoor reading space

- There were alternate plans in the 1960s for a library on Main Street that had outdoor reading space
- It would be great to have an outdoor reading space at West Kildonan Library
- The outdoor reading space at the Bill and Helen Norrie Library is well used
    - If outdoor reading space works at a library in a car-oriented area like Bill and Helen Norrie Library, it should work well at the West Kildonan Library which is located in a historically walkable neighbourhood
    - There are always people walking down the streets
- Is there any reason why an outdoor reading space was ever developed?

Heritage

- Is an addition to the building no longer feasible now that the West Kildonan Library is a heritage building and the façade is protected?
    - There are some opportunities that were left in heritage designation in case a building addition was pursued

Travel

- Could the back lane be closed and used as library property?
    - The back lane is well used and provides parking, access to other buildings, and garbage pickup
    - Maybe there are alternatives for parking, access to other buildings and garbage pickup that could be explored
- Does the Winnipeg Public Library keep any data on how people travel to the library?
    - What is the mode split between pedestrian, cyclists, drivers, transit riders, etc.?
    - The City does track this information.

Main Floor

Circulation desk

- I assume the logic of having the circulation desk in the centre is so people cannot walk out with books
    - A central circulation desk was a design trend in the 1980s
- If the circulation desk isn't protected, it could be smaller

    - You still need enough space for all the different functions like getting library cards and taking out books
    - Is the current circulation desk sufficient for the library?
- The circulation desk needs to be ergonomic so staff are comfortable

Mobile printing

- Printing from your own device and not through the desktop computers would be great
- There have been a lot of challenges with mobile printing, although it seems to be working better now at the Millennium Library
- Residents print a lot of passport applications, government documents, and resumes
    - Government webpages are now directing people to the public library to print documents
    - It is becoming more common that people do not have a home printer
- The library is using significant resources to help people print these documents
    - Resident's devices automatically log into their emails but they cannot remember their passwords to log into their emails to print from the public computers

Digital resources

- The West Kildonan Library has more computers than get used on a regular basis
    - On a busy day, maybe five of the eight computers are in use
    - Lower computer use is a trend everywhere
    - Most people have their own electronic devices so there are less demand for computers
    - Demand for the free wifi is high as people use their own devices.
- A lot of residents still borrow CDs and DVDs but most residents aren't using the available technology to listen to music and view films at the library.
    - The library is getting less CDs and DVDs in their collection as time goes on.
- There are a lot of unique spaces and equipment at Millennium Library that are very well used like sound studios, VHS to DVD equipment, maker-space, 3D printing, etc.
    - Is there a need?
    - If you build it they will come
    - Those services would be fabulous but they would require staffing

Collaborative spaces

- A lot of people need collaborative spaces for board meetings, community gatherings, or students working together on a school project
- Microsoft Teams hubs are much easier than projectors
- Smart Screens would be an expensive upgrade that would be worth thinking about
- Do libraries still need to be a quiet space?
    - Libraries are not as quiet as they once were
    - Visitors still need to concentrate but the library does not need to be immensely quiet
    - Librarians aren't 'shhhing' people anymore

- The Bill and Helen Norrie Library have meeting rooms but they are all glass so they can be monitored by staff

Basement

Heritage

- The lower level seems underutilized
- Why does heritage protection not cover the basement?
    - The basement is not original
    - It is mostly drywall and carpet, which are not heritage-defining features

Programming

- There seems to be less programs offered at the Library
    - The lower level could be a great place for Leisure Guide programming
    - Fort Rouge Library seems to offer lots of Leisure Guide programs
- Quilting, gardening, cooking classes, sports card exchange, EAL programs would work well in the basement
    - Libraries are trying to attract visitors so whatever programming works would be a benefit
- Diversity, equity, and inclusion spaces could be added to the basement
    - Spaces for mental health space, prayer, meditation, smudging, etc.
    - Make sure spaces are well ventilated for smudging
    - Could be supported by the community with the current levels of immigration
- A music room could be added to the basement
    - A place where a band could practice, or even music for children's programming
    - The room would need to be well-insulated so it could allow for louder activities

Other

- The Friends of the West Kildonan Library did outreach with nearby schools and talked to kids
- The goal was to find out what kids would like to see in the library and how they would like to use the library
    - Kids wanted the library to be a place for books/reading and a community gathering space
    - Kids wanted a place to display things that are important to them
    - Kids wanted an opportunity to self-publish books and share with other kids
    - Kids wanted a place to be creative and be themselves
- Pembina Trails School Division used to have a program were kids could print books in a duo-tang folder or binders
    - The books would be put on a shelf for other kids to read

Appendix C – Stakeholder Meeting #2 Notes

West Kildonan Library Building Review – Stakeholder Meeting #2

Location:	West Kildonan Library 356 Jefferson Ave.	**Date:** **Time:**	August 9, 2023 5:30 p.m. – 7 p.m.
Attendees:	7		

Meeting Minutes

Functional Issues

Accessibility

- The library is challenging from an accessibility perspective
    - The layout is functional from an abled-bodied perspective but falls short for accessibility
    - There are elevator issues at least once a month
    - Sometimes the elevator can be reset but other times it requires servicing by a repair person

Parking

- Parking never seems to be an issue
    - If the parking lot is full, there is also parking on the street and a shared parking lot with community centre.
- A raised cross walk over the neighbourhood greenway on Powers Street could improve connectivity between the library and the shared parking lot at the community centre
    - Powers Street is now 30 km/h and cyclists are using the greenway a lot
- Parking is an issue
    - Could there be more parking on the east side off Powers Street?
    - Possibly diagonal street parking before the intersection of Powers Street and Jefferson Avenue?
    - Diagonal parking probably would not work because it would cut into the grass boulevard
- Parking issues could be solved simply by installing a sign that says more parking at the community centre and raising awareness

Design

- The design is still current, modern, airy, and functional, despite it being from the 1960s
- The building feels open and modern
- Breezeway and stacks are a waste of space
- There much storage and lots of little hidden rooms that aren't really used
- The deliveries come through the back door (new books, inter-library loans, etc.)

Levels

- Parents and kids love the basement space that is exclusive to kids
    - Some residents will drive to the West Kildonan library specifically for the children's area despite having closer libraries
    - Some kids are noisy so parents feel like they don't have to shhh their kids if they are in the basement
    - Some kids are runners so having the children's section in the lower level it works better for those kids
    - It is safer to have kids downstairs instead of adults because require more supervision
- Could the children's section move upstairs and the adult space downstairs?
    - The basement would be quiet for the adults and the upstairs would be more lively
    - Then you wouldn't need as much supervision in the basement if it is adults
    - If the adult collection doesn't fit downstairs, we would need to split the collection, which will result in staffing issues
    - Staircases can be concerning for kids but there haven't been too many issues with kids hurting themselves on the stairs
    - The elevator reliability needs to improve if the adult's section is moved downstairs
- Library Services wants to move to a one-level layout
    - There are line of sight issues in the children's section
    - Librarians want to keep an eye on the children for safety reasons
    - There is a rule that lone adults are not allowed in the children's section so if the children's and adult's section become mixed, that could make enforcement difficult
    - If all the collections were located upstairs, the basement would be good for computers, study spaces, unique program rooms, and tutorial rooms
    - Would still require two staff if computers and printing were moved downstairs
    - If all the collection is moved upstairs, perhaps the City can partner with a community organization to use the space downstairs
    -
- Could all collections (adult and children) be located on the main level?
    - The library might need to be expanded to hold all collections on the main level
    - The best of both worlds would be children's section on the main level in a glass sound-proof room

Location

- West Kildonan Library is so close to St. Johns that it might make sense to separate the functions so one building is a children's library and the other building is for adults

Building Site/Exterior

Heritage

- There used to be vertical cedar slats around pop-out on the roof the building that lines up with the mullions
    - If the roof needs replacement, could those heritage elements be restored?

- The current library sign on the building does not align with the heritage aesthetics

Dedicated outdoor reading space

- An outdoor reading garden was part of the original library plans but that never materialized because the site changed
    - An outdoor reading space would be a great addition.
- The landscaping is usually quite nice
- Summers are short so a huge outdoor reading space is probably not necessary, but something small would be nice
- There is mechanical equipment on the east side of the library (Powers Street) that could be relocated to free up space for an outdoor reading area
    - The east side of the building is bright, open, and can easily be accessed from the sidewalk

Building addition

- The community has been talking about an addition to the library
- West Kildonan Library would be an ideal location for an addition if Library Services determines more space is needed
- If there was an addition, you have to be careful not to block the windows and make the basement dark.
- St. Johns Library has an addition with a second entry
    - The second entry has become an issue

Windows

- The windows are an issue
    - It is difficult to control the temperature because of the windows

Main Floor

Circulation Desk

- The circulation desk is out of place with the era of the building
- The circulation desk is too large and takes up a lot of prime real estate in the library
- The circulation desk is currently large but maybe not if it can also be used as a reference desk
    - The reference desk could be incorporated into the circulation desk
    - Different heights of the desk could distinguish between the circulation and reference functions
    - The lower part of the desk would be for reference (sitting at the computer doing a search) and the higher part of the desk would be for circulation (moving around)
- The circulation desk is good
    - It is very central and easy to see if anyone needs help

Digital Resources

- The computer space on the main floor is underused
- The computers always seem to be in use
- On a normal day, the computers are really well used. 6-7 people at a time.
- More electrical outlets for laptop charging and device charging are needed
- Staff need to be in eyesight of the computer and printing area
    - Staff are spending a lot of time helping people with printing

Heritage

- The original shelves are mahogany
- Are the shelves heritage protected?
- The mahogany shelves would be worth saving at all costs because they are more expensive that what the City would replace them with
- From a sustainability stand point, why take the shelves out just to replace them with something new?
- If carpet is replaced, the new flooring should be something that is appropriate, neutral, and of the time
    - Don't force contemporary finishes in a mid-century modern building
    - Finishes must be timeless
    - Make this an example of what a modernist building can be

Collaborative spaces

- There is an imbalance between study space and seating space
    - The seating space is always taken.
    - More private seating areas are needed on the main floor
    - The current seating is often full.
- The seating area upstairs by the window is very popular because people like the natural light
- The study tables upstairs are really well used
    - People often double up when there is no extra space
    - Self-check outs could be used for study space instead
- There are a lot of big open tables, but some people might want more division/privacy like study carols
    - Six study carols would be ideal
- The library receives requests for tutorial rooms, but there are none at West Kildonan Library
    - Rooms need glass for transparency
    - Two tutorial rooms would be ideal but would settle for one
    - Transcona library is a good example

Manager's office

- The location of Branch Manager's office is good
- Maybe a window wall to see out in case someone needs to get the Branch Manager's attention
    - The Charleswood Library is a good example.
- Some privacy is needed in the odd occasion that HR issues arises

- In other libraries, the Branch Manager needs to book a tutorial room to deal with HR issues
- It becomes obvious to everyone in those libraries when HR issues arise

Basement

Layout

- The basement layout is chunky and awkward
  - Opening up the basement would be nice
  - Adding more natural light to the basement would be nice
  - There is often only one staff downstairs so if it is busy or there is an incident it becomes a challenge.

Multipurpose room

- The multipurpose room space is a good size
- The kitchenet is handy for the adult baking club
- The library has hosted musicians, underground opera, magic shows, children's reading program
  - A total of 18 programs this summer
- It would be useful to have meeting space for multiple groups at once
  - Could there be dividers to a meeting room to provide more flexibility (one big room or two smaller rooms)
- The library does not have staff capacity to run multiple programs at once

Other

- Kids would like to have opportunities for book publishing
- Kids are frustrated that they cannot suggest books while at the library and need to do it online
  - Kids want a greater say of what books are in the library
  - There should be a physical box so kids can suggest books in the moment
  - Kids will often forget by the time they go home

Appendix D - Phase 1 Presentation Boards

West Kildonan Library Review

Phase 1 - Stakeholder Meeting
West Kildonan Library
August 8th & 9th, 2023

winnipeg.ca/westkildonanlibrary

Winnipeg

Project Background and Scope

- The review will help the City determine potential options for renewal and will help prioritize funding. Renewal work at the West Kildonan Library is subject to Council approval and funding.

- The City is now reaching out to community stakeholders early on in the project to gather input before potential renewal options are developed.



winnipeg.ca/westkildonanlibrary

Winnipeg

Project Background and Scope

- The West Kildonan Library was built in 1967. Upgrades are required so that the library can continue to meet the community's needs into the future.

- The City is reviewing the building to understand what upgrades are needed and how much they will cost. The review is looking at:
    1. The exterior site;
    2. The current building condition;
    3. A heritage assessment;
    4. A building code compliance review;
    5. An accessibility review; and
    6. Any potential functional improvements that will serve to create a welcoming library with contemporary services and amenities.

winnipeg.ca/westkildonanlibrary

Project Schedule

- Project start - April 2023
- Site walkthrough - May 2023
- Assessment completed - June 2023
- **Phase 1 public engagement - stakeholder meetings - summer 2023**
- Development of renewal options - winter 2023
- Cost estimates of renewal options - winter 2023
- Phase 2 public engagement - public open house - winter 2023
- Final report - expected to be complete spring 2024

winnipeg.ca/westkildonanlibrary

Key Findings of Assessment

- The building's structure is generally in good condition. Some exterior concrete repairs are required.
- The existing roofing needs to be replaced in its entirety.
- The building's exterior walls, windows, and doors do not meet today's standards for energy efficiency and water resistance. The exterior finishes are heritage protected.





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Key Findings of Assessment

- There are many building code compliance issues within the library. Upgrades will be required to improve the building's fire and life safety. The existing boiler room, stairs, and washrooms will need significant modifications.
- Upgrades will be required to improve the accessibility of the library. The existing kitchens, washrooms, stairs, ramp, and doors will need major modifications.





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Key Findings of Assessment

- The interior finishes are generally in good condition, with some minor repairs required. The main floor carpeting is in poor condition and needs replacement. Many of the finishes contain asbestos. Some are heritage protected.

- Recommended mechanical upgrades include the replacement of existing boilers and air handling units. Recommended electrical upgrades include modifications to emergency lighting and exit signs, and the installation of new LED lighting throughout the building.





winnipeg.ca/westkildonanlibrary

Winnipeg

Group Discussion

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Winnipeg

Functional Issues

- **What are the current functional issues with the library building and the exterior site?**
- **Which spaces are working well, and why?**
- **Which spaces are most challenging, and why?**
- **Which spaces are underused? Why?**





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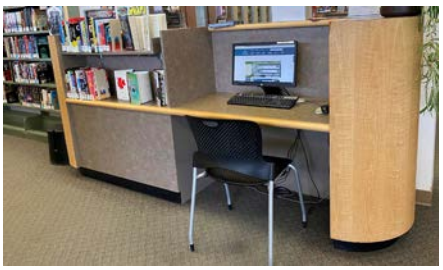
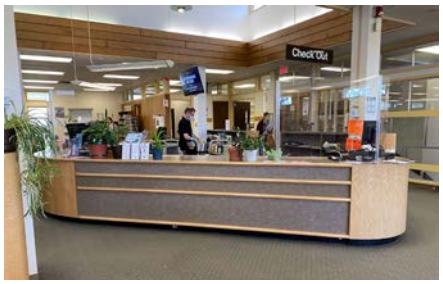
Opportunities - Main Floor

- The library's main floor layout is heritage protected, so modifications are very limited. Changes could be made to existing furniture and equipment.
- The service desk and computer workstations are not heritage protected items, so these could be changed.
- **How could the existing service desk be improved? Should it be relocated?**





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Opportunities - Building Site / Exterior

- The library's building faces are heritage protected, so exterior modifications are limited.
- The biggest opportunity for improvement is on the west side of the library. **What are activities that could be accommodated by improvements to the landscaping, or by a building addition?**
- **Examples of improvements include: more seating, more library collection space, an outdoor patio, garden boxes or flowerbeds, and a reading garden.**



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Opportunities - Main Floor

- **How could the existing furniture and equipment on the main floor be improved?**
- **Examples include: changes to seating configurations, more private seating areas, more collaborative areas, more shelving, or more computers.**
- **What activities should be accommodated by new furniture and equipment?**



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Opportunities - Basement

- The basement layout is not heritage protected. The layout, walls, and finishes in the basement can be modified.
- **What activities should be accommodated in the basement?**
- **Examples include: meeting rooms, more flexible multipurpose space, a listening room for music and audiobooks, learning/classrooms, or private study rooms.**





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Next Steps

- **Development of two renewal options**
  - Option A - maintain and renew
  - Option B - upgrades and betterments
- Completion of cost estimates for both options
- Public engagement phase 2: public open house
  - Receive public feedback on both renewal options
- Completion of final report
- Council review and funding

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PUBLIC ENGAGEMENT SUMMARY
PHASE #2

WEST KILDONAN LIBRARY REVIEW

Phase 2 Public Engagement Summary

Background

West Kildonan Library was built in 1967. Improvements are required so the library can continue to meet the community's needs into the future.

The City assessed the building to understand what improvements are needed and how much they will cost. The review looked at:

- the site (including parking);
- the building condition;
- assessment of heritage elements;
- building code and accessibility compliance; and
- services and amenities.

Three improvement options were developed for the library building and site. A cost estimate was completed for each option.

Engagement

In engagement Phase 1, the City reached out to stakeholder organizations to gather early input. This input helped the City design three improvement options. More information is available in the Phase 1 Stakeholder Engagement Summary.

In engagement Phase 2, residents and stakeholders were invited to provide feedback on the improvement options. An open house and survey gathered feedback on potential changes and whether they would meet the community's needs. The survey was available online and at the open house.

Table 1 provides an overview of all public engagement opportunities.

Promotion

Public engagement opportunities were promoted using the following methods:

- News release – December 18, 2023
- Posters at West Kildonan Library – December 18, 2023;
- Email to project subscribers – December 18, 2023
- Facebook posts with over 39,000 followers - December 18 & 29, 2023 and January 19, 2024;
- X posts with over 124,000 followers – December 18 & 29, 2023 and January 19, 2024;
- Over 4,300 postcards mailed to households – December 19, 2023;
- City of Winnipeg public engagement newsletter with over 5,300 recipients – January 2 & 16, 2024

Examples of promotional materials are included in Appendix A.



Image 1. Residents attend an open house.

Table 1: Public Engagement Opportunities

Date	Activity	Details
December 18, 2023 – January 22, 2024	Webpage	Over 1,470 unique visitors
December 18, 2023 – January 22, 2024	Online survey	618 respondents
January 9, 2024	Open House	49 attendees

Key findings

Survey respondents were shown each option and asked if it would meet their/their family's needs into the future. Figures 1-3 show the responses. Option 3 had the largest percentage of respondents who strongly agreed (53%). The majority of respondents agreed or strongly agreed that all three design options would meet their needs into the future.

Figure 1: Will option 1 meet you and your family's needs into the future?
(595 responses)

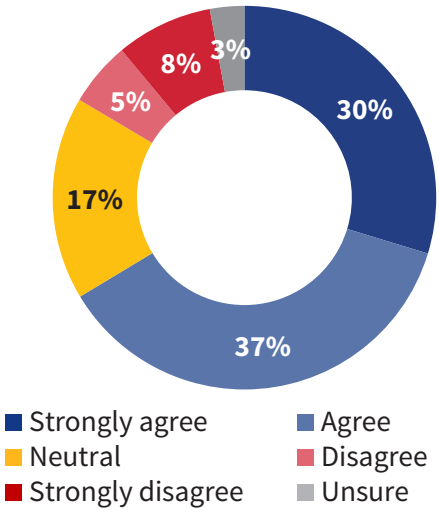


Figure 2: Will option 2 meet you and your family's needs into the future?
(585 responses)

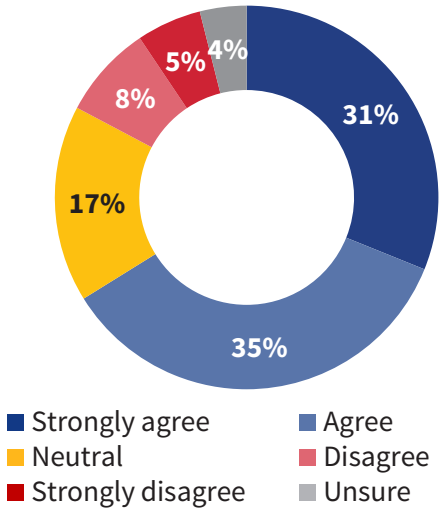
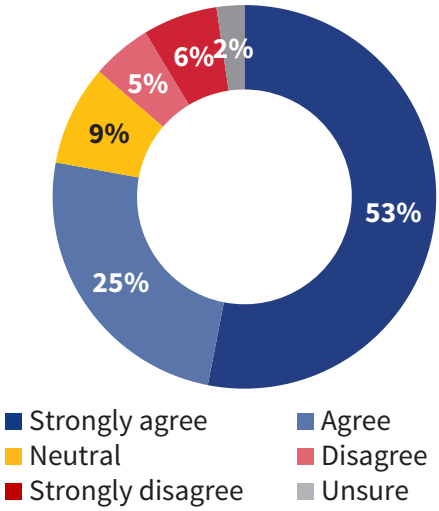


Figure 3: Will option 3 meet you and your family's needs into the future?
(556 responses)



Survey respondents were asked to rate their support for the new features proposed in Option 3. The new tutorial rooms had the most support from respondents (76%). Moving the computer area to the basement had the least support (36%).

New tutorial rooms	**76%**	Strongly supported or supported this change
New outdoor reading garden	**74%**	Strongly supported or supported this change
New meeting room	**67%**	Strongly supported or supported this change
Children's area moved to the main floor	**54%**	Strongly supported or supported this change
Computer area moved to the basement	**36%**	Strongly supported or supported this change

Survey respondents were asked if they had any concerns about the project. The top concerns were:

- Renovation costs (26 comments)
- Moving the children's area upstairs (22 comments)
- Accessibility of the designs (10 comments)
- Protecting mid-century modern heritage (10 comments)
- Prefer a new location (10 comments)

Detailed survey results and responses can be found in Appendix C.

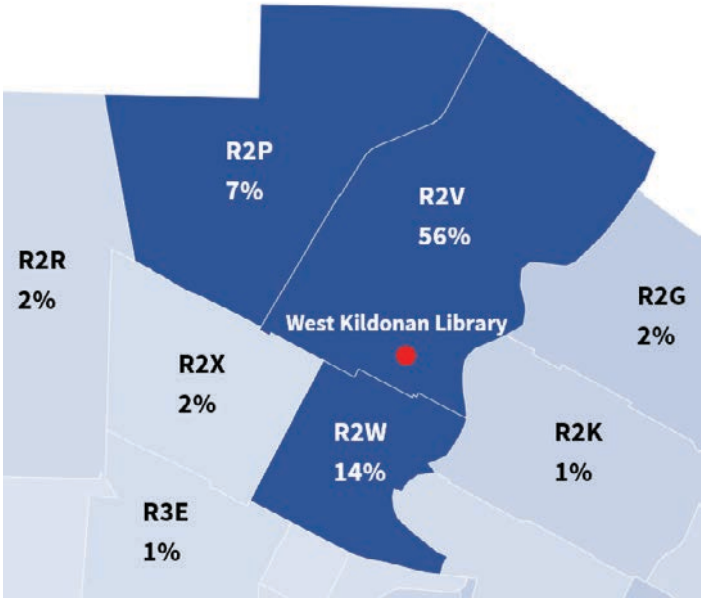
Who we heard from

There was a total of 618 survey participants.

56% of survey respondents live in the **R2V** postal code
14% of survey respondents live in the **R2W** postal code
7% of survey respondents live in the **R2P** postal code

Figure 4 provides a map of respondents. **77%** of respondents (as noted by postal code above) live in the **Old Kildonan or Mynarski wards** in Winnipeg. The remaining 23% of respondents live in other wards or live outside of Winnipeg (3 respondents live outside Winnipeg).

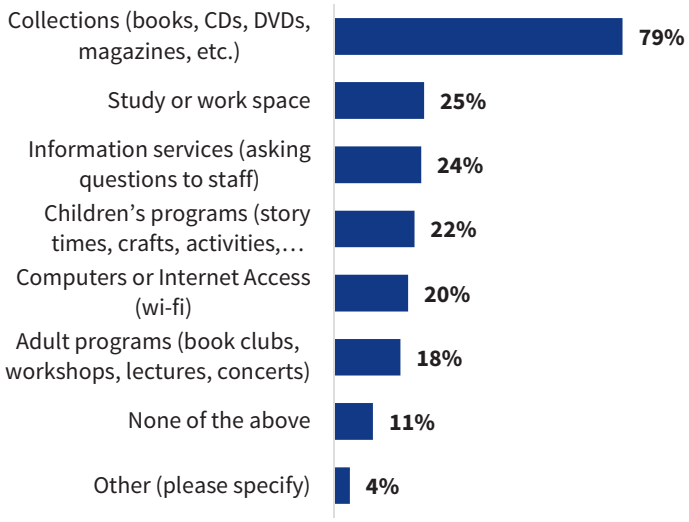
Figure 4: Map of survey respondents



Less than 1% of respondents were under 18 years old
20% of respondents were 18-34 years old
48% of respondents were 35-54 years old
30% of respondents were 55-74 years old
2% of respondents were 75+ years old

Participants were asked what services they use at West Kildonan Library. Collections (books, CDs, DVDs, magazines, etc.) were used most frequently (79% of respondents). Other services provided by the library were used relatively equally by respondents.

Figure 5: What services do you use at the West Kildonan Library? (Check all that apply)
(618 responses)



What we heard

Table 2 provides examples of feedback received and how it was considered.

Table 2: What we heard and how it was considered

What we heard	How it was considered
Children's area	
The children's area must not decrease in size.	Options 1 and 2 proposed keeping the children's area in the basement so the size of the area would remain unchanged in both of these options. In Option 3, the size of the proposed children's area has increased. The combined area of the proposed children's book section, seating area, literacy playground, and storytime room is larger in Option 3 than the existing children's space in the basement.
Moving the children's area upstairs with the adult's area will invite adults who shouldn't be in the children's area. Currently, only children and caregivers are allowed in the basement for safety reasons.	Options 1 and 2 propose keeping the children's area in the basement. In Option 3, the children's area is very visible from the circulation desk so this space can be monitored by staff.
The children's play area must be accessible to children with disabilities.	Options 1 and 2 include new barrier-free and universal washrooms in the basement next to the children's space. New children's bookshelves are proposed to increase the aisle space between shelves and to improve shelving heights. Doors are widened and automatic door operators are added. Option 2 also includes a new elevator to improve accessibility to the basement level children's area. Option 3 moves the children's area to the main floor, which reduces the need for elevator or stair use.
The children's area is currently uninviting. It's so important to move it to the main floor where it's bright, friendly, and accessible.	Option 3 moves the children's area to the main floor where there is more natural lighting.
Moving the children's area upstairs in Option 3 will increase noise and disruptions in the adult's area.	The children's area remains in the basement in Options 1 and 2. Option 3 includes an enclosed storytime area to that provides an acoustically separated 'noisy' zone for children. The reading playground could be moved within the enclosed children's space if required for acoustic separation.
Basement	

What we heard	How it was considered
Moving the computers downstairs in Option 3 may encourage inappropriate use. Computers need a lot of supervision.	In Option 3, the computer workstations are positioned so that they are out in the open and highly visible. Additional programming in the basement will increase the number of visitors on this floor for natural surveillance. There will continue to be staff in the basement to assist and supervise computer use.
Computers in the basement would not have natural lighting. That makes it hard on the eyes.	Options 1, 2, and 3 propose new lighting throughout the building, which would improve lighting levels in the basement. In Option 3, existing windows openings in the basement are maintained near the new computer area to provide some natural lighting.
Two floor libraries tend to have more challenges with staffing. It would be nice to be able to have a single floor option, perhaps having staff/workroom areas in the basement.	The basement could be used by staff only, but this would require a reduction in public space within the library. For these reasons, this option was not considered. The main floor staff/workroom areas have been made smaller in all options. As many staff/workroom functions are move to the basement as possible.
Traffic and parking	
The library needs more parking.	All three options propose a new crosswalk on Powers Street to provide a safe connection from the library to the shared community centre parking. No additional parking is planned.
Secure bicycle parking is important. A bicycle maintenance area would be valuable to the community.	All three options maintain the existing bicycle racks on site, but do not include secure bicycle parking. Secure bicycle parking and a maintenance area could be considered as the design of the project progresses, subject to Council approval and funding.
Heritage elements	
Mid-century heritage needs to be respected and preserved during renovations**.**	The design will be subject to review by heritage experts at the City's Historical Buildings and Resources Committee. A heritage permit will be required before renovations begin. Option 3 proposes a new wood screen around the upper/clerestory roof and new cedar siding on the fascia to replace the existing painted boards. The columns will be painted white. These upgrades will help restore the exterior of the building to its original design.
The open concept of the main floor would be impacted by adding walls to house new tutorial rooms in Option 2.	The tutorial rooms in Option 2 are proposed to be constructed using adjustable walls, which can be removed in the future without any damage to the building. Glass demountable partitions can be used to maintain natural lighting throughout the library.
Outdoor reading garden / exterior	
The outdoor reading garden in Option 3 is too small.	The City will consider a larger reading area in later design stages if Option 3 moves forward.

What we heard	How it was considered
Trees may be cut down if the library is expanded. The shady tree canopy and greenery is an important part of the library.	Option 1 has minimal impact on the existing trees on site. In Options 2 and 3, most of the existing trees on site are not impacted by the proposed additions. Only the trees in the northwest corner of the library (next to the staff parking stalls) would be impacted. Any trees cut down will be replaced with trees of equal value.
An all-year sunroom would make more sense than an outdoor reading garden that can only be used in the summer.	In Option 3, a sunny reading area is provided in the new addition. It faces south to maximize winter sun. In the summer, the overhang in front of this area will block unwanted sun.
The outdoor reading garden is near Jefferson Avenue, which is a busy and noisy street. Features are needed block noise.	The City will plant new vegetation around the outdoor reading garden.
Accessibility	
The design must be accessible.	The design of each option follows the City's current *Accessibility Design Standard*. This document applies to all City-owned facilities as part of the City's Universal Design Policy. The project team met on site with representatives from the City's Universal Design group to review existing accessibility deficiencies and to discuss solutions. The City's Universal Design Coordinator was consulted during the feasibility study.
Make the front and back accessible for elderly with mobility issues.	A ramp cannot be proposed at the back of the library because of the proximity to the back lane and property line. In all Options, a new ramp is proposed for the front entry.
Reading areas similar to cubicles are important for people with sensory issues.	The new tutorial rooms proposed in Options 2 and 3 would provide an acoustically separated room which could be used as a reading space.
Washrooms	
Gender-neutral washrooms are needed.	Gender neutral and barrier-free washrooms are proposed on both floors in all design options.
Gender-neutral washrooms should not be included in the library renovations	Gender-neutral washrooms are encouraged by the City's Universal Design Policy. The proposed gender-neutral washrooms are constructed using full height walls and metal doors (not washroom partitions). Only the sink areas are shared by library visitors.
Construction impacts	
Minimize impacts to the library during construction.	The City will consider a phased approach to keep part of the library open during construction. However, this would increase project costs and delay the overall construction schedule. If the library is fully closed during construction, alternate locations could be explored for book pick-up.
Sustainability	

What we heard	How it was considered
The City should prioritize sustainability and reducing the construction's carbon footprint.	In all design options, the existing roofing and windows are replaced to improve the building's overall energy efficiency. New energy efficient LED lighting and HVAC upgrades are proposed. Options 2 and 3 use a local material (Tyndall stone) for the cladding of the additions. Option 3 also proposes added insulation.
Library location	
Keep the library in its current location close to the school.	All options keep the library at its current location.
Move the library to a different location in a higher-traffic area with better transit.	The City explored moving the library to a new location. Council has directed the City to keep the West Kildonan Library in its current location.

Next steps

The feedback received through public engagement helped the City refine the designs. The project and funding are being considered within the City's annual budget process. Funding will help the City select a preferred option. Additional design work of the preferred option is required before construction begins.

Appendices

Appendix A – Promotional Material
Appendix B – Open House Presentation Boards
Appendix C – Survey Results

Appendix A – Promotional Material

Facebook post example



X (Twitter) post example

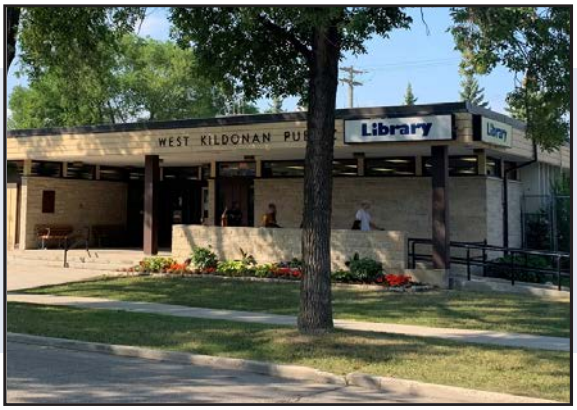


Postcard

West Kildonan Library Review

The West Kildonan Library was built in 1967. The library needs improvements to continue to meet the community's needs into the future. We developed three options to improve the building.

Join us at an open house to learn about the proposed options and provide feedback or tell us what you think through a survey open until January 21, 2024.



Open House

Date: Tuesday, January 9, 2024

Time: 4 p.m. – 7 p.m.

Location: West Kildonan Library, 365 Jefferson Ave.

Format: Drop-in (come and go)

For inquiries or for those who require alternate formats or interpretation to participate, please contact **204-986-4243** or **city-engage@winnipeg.ca.**

Scan here for more information or visit:
winnipeg.ca/westkildonanlibrary

Winnipeg

West Kildonan Library Review

Open House & Survey

Date: Tuesday, January 9, 2024

Time: 4 p.m. – 7 p.m.

Location: West Kildonan Library, 365 Jefferson Ave.

Format: Drop-in (come and go)



The West Kildonan Library was built in 1967. The library needs improvements to continue to meet the community's needs into the future. We developed three options to improve the building.

Join us at an open house to learn about the proposed options and provide feedback or tell us what you think through a survey open until January 21, 2024.

Scan here for more information or visit:
winnipeg.ca/westkildonanlibrary

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Appendix B – Open House Presentation Boards

West Kildonan Library Review

Open House
West Kildonan Library
January 9, 2024

winnipeg.ca/westkildonanlibrary

Project Background and Scope

- The West Kildonan Library was built in 1967. Upgrades are required so that the library can continue to meet the community's needs into the future.
- The City reviewed the building to understand what upgrades are needed and how much they will cost. The City found that the building does not meet today's standards for energy efficiency and building codes. Upgrades are also required to the kitchens, washrooms, stairs, ramp, and doors for accessibility.
- The City reached out to stakeholders to gather input before improvement options were developed (summer 2023). Three improvement options have been developed.
- **The City is now asking for public feedback on all improvement options.**
- Improvements to the West Kildonan Library are subject to Council approval and funding.

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Timeline



*Construction is subject to Council approval and funding.

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Winnipeg

Option 1

- Option 1 will bring the building up to current building codes and most accessibility standards. The design will maintain existing programs and services.
- The Class 4 (-30% to +60%) cost estimate for this option is **$6.3 million**.

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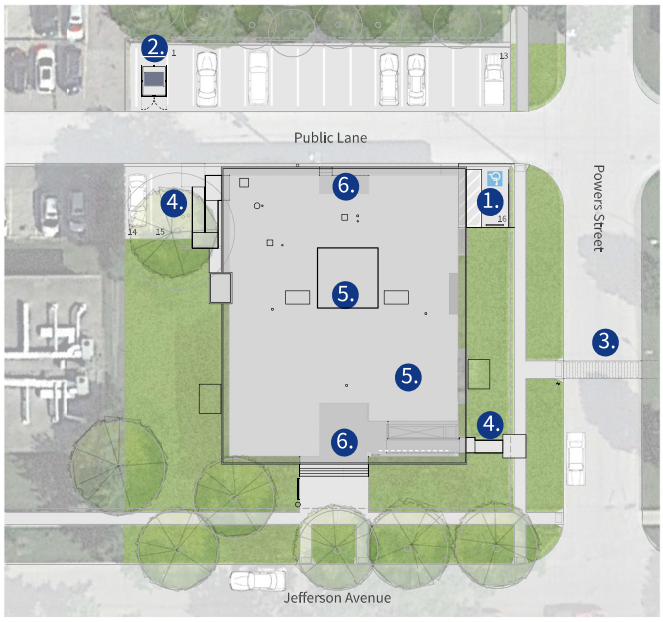
Winnipeg

Option 1 - Exterior Upgrades



Site Plan



*Images shown are representative only

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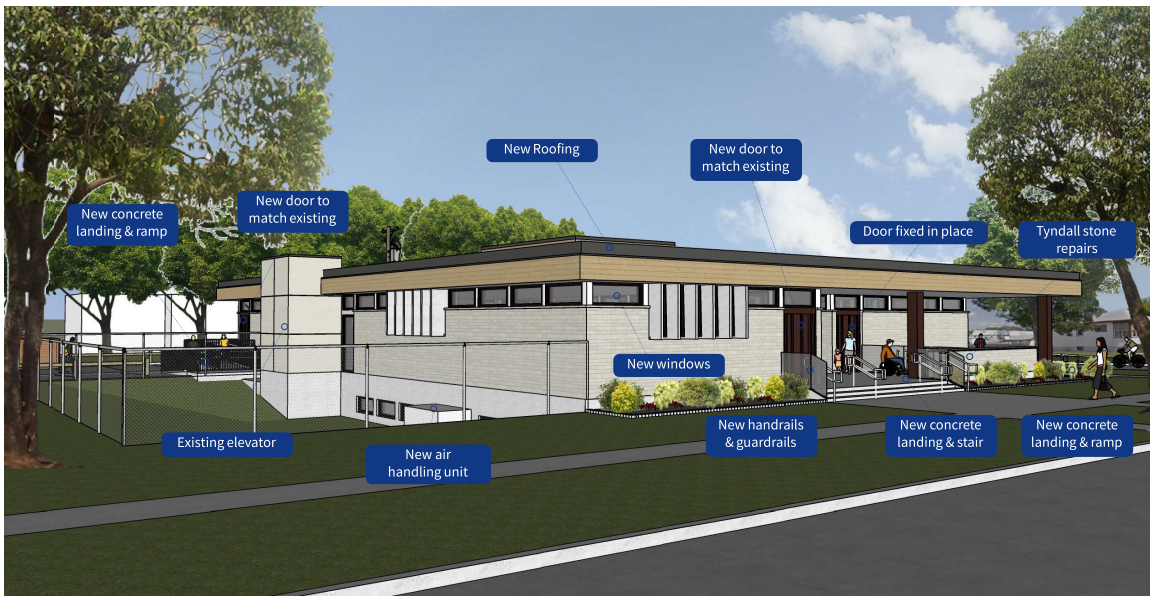
Option 1 - Exterior View



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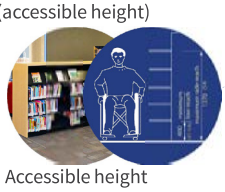
Option 1 - Interior Upgrades



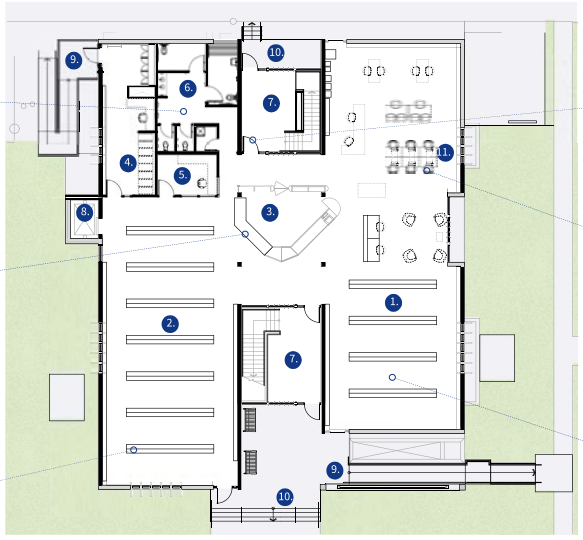
Gender neutral & accessible washrooms



Modified service desk (accessible height)



Accessible height bookshelves



Main Floor

1. Adult Fiction
2. Adult Non-Fiction
3. Service Desk
4. Staff Work Room
5. Staff Office
6. Washrooms
7. Existing Exit Stair
8. Existing Elevator
9. New Landing & Ramp
10. New Landing & Stair
11. Computer Area



Accessible, wider doors



Accessible computer workstations



New carpeting

*Images shown are representative only

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Option 1 - Interior Upgrades



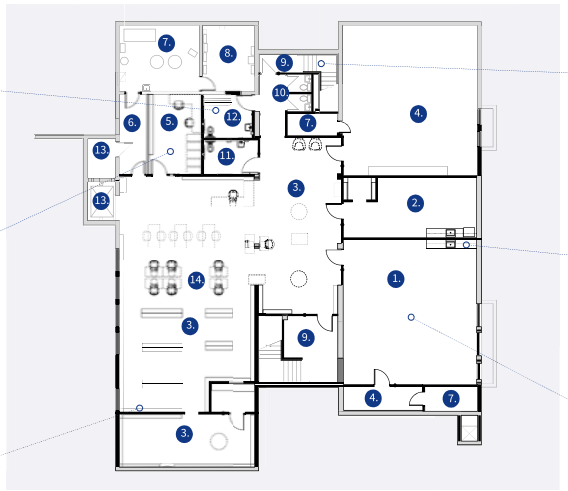
Universal and barrier-free washrooms



Staff office



Accessible children's bookshelves



Basement

1. Program Room
2. Staff Room
3. Children's Area & Books
4. Storage Room
5. Staff Office
6. Service Corridor
7. Mechanical Room
8. Electrical Room
9. Existing Exit Stair
10. Existing Washrooms
11. Barrier-free Washroom
12. Universal Toilet Room
13. Existing Elevator
14. Computer Area



Stair safety upgrades



Accessible kitchenettes & closets



New carpeting

*Images shown are representative only

winnipeg.ca/westkildonanlibrary

Option 2

- Option 2 will bring the building up to current building codes and accessibility standards.
- This option includes an addition on the west side of the library. This addition provides a larger, more accessible elevator, improves the basement exit, and allows the existing south stair to become more open to the main floor of the library.
- Some improvements allow for better programs and services. A new service desk and two new tutorial rooms are added on the main floor level. In the basement, walls are removed to make the children's area more open. Computer workstations are relocated to make space for a reading playground.
- The Class 4 (-30% to +60%) cost estimate for this option is **$7.5 million**.

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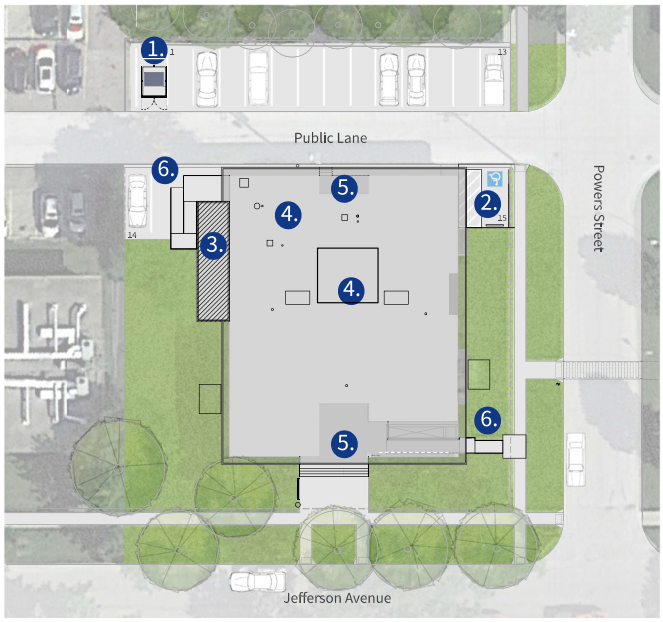
Option 2 - Exterior Upgrades



Site Plan



1. Garbage enclosure



2. Accessible parking stall upgrades



3. Elevator & stair addition



4. New roofing



5. New concrete landings & stairs



6. New concrete landings & ramp

*Images shown are representative only

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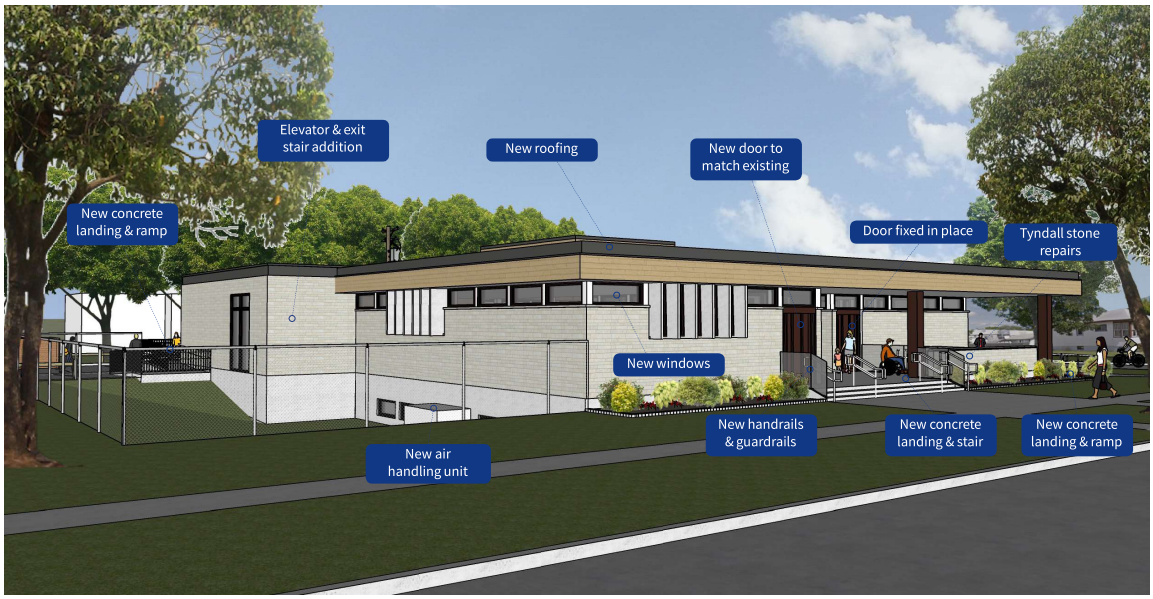
Option 2 - Exterior View



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Option 2 - Interior Upgrades



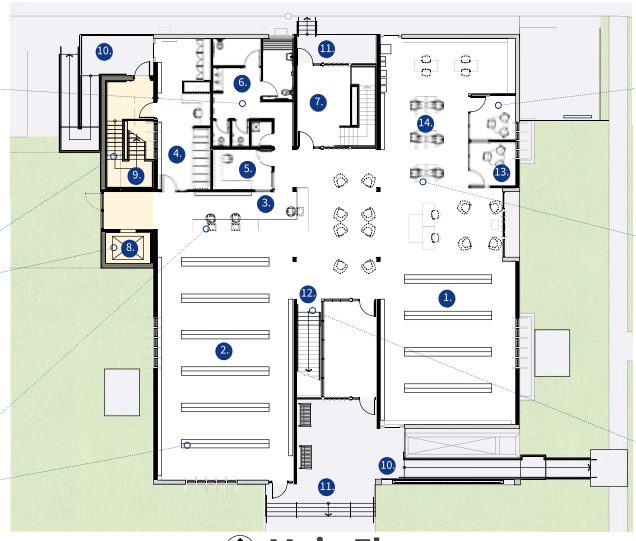
Gender neutral & accessible washrooms



New addition: elevator | New addition: exit stair



Accessible service desk | Accessible height bookshelves



Main Floor

1. Adult Fiction
2. Adult Non-Fiction
3. Service Desk
4. Staff Work Room
5. Staff Office
6. Washrooms
7. Existing Exit Stair
8. New Elevator
9. New Exit Stair
10. New Landing & Ramp
11. New Landing & Stair
12. Open Stair
13. New Tutorial Rooms
14. New Computer Area



Tutorial rooms



Accessible computer workstations



Secure south entry & open stair

*Images shown are representative only

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Option 2 - Interior Upgrades



Staff office

Universal and barrier-free washrooms



New addition: elevator



New addition: exit stair



Future reading playground



Basement

1. Program Room
2. Staff Room
3. Children's Area & Books
4. Storage Room
5. Staff Office
6. Service Corridor
7. Mechanical Room
8. Electrical Room
9. Existing Exit Stair
10. Existing Washrooms
11. Barrier-free Washroom
12. Universal Toilet Room
13. New Elevator
14. New Exit Stair
15. Open Stair
16. Computer Area
17. Future Literacy Playground



Stair safety upgrades



Accessible kitchenettes & closets



Secure south entry & open stair

*Images shown are representative only

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Winnipeg

Option 3

- Option 3 will bring the building up to current building codes and accessibility standards. This option improves the building's overall energy efficiency.
- Option 3 includes a larger addition on the west side of the library that moves the children's area to the main floor level. This addition also provides a larger, more accessible elevator, and a new staircase that improves the basement exit. The existing south staircase is made more open to the main floor of the library.
- Some improvements allow for better programs and services. A new reading garden is provided on the east side of the library. A new service desk and additional seating are provided on the main floor level. A new meeting room, two tutorial rooms, and a new computer area are provided in the basement.
- The Class 4 (-30% to +60%) cost estimate for this option is **$10.7 million**.

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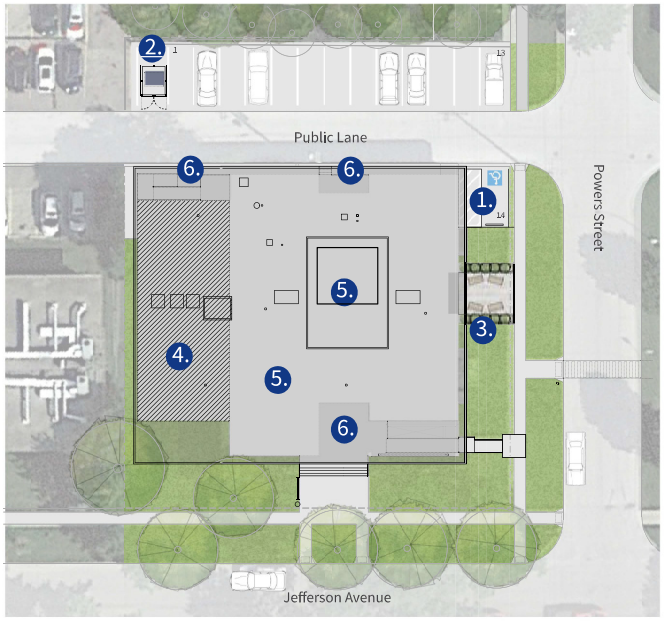
Winnipeg

Option 3 - Exterior Upgrades



Site Plan



1. Accessible parking stall upgrades



2. Garbage enclosure



3. Outdoor reading garden



4. Library addition



5. New roofing & wood screen



6. New concrete landings, ramps / stairs

*Images shown are representative only

winnipeg.ca/westkildonanlibrary

Option 3 - Exterior View



winnipeg.ca/westkildonanlibrary

Option 3 - Interior Upgrades

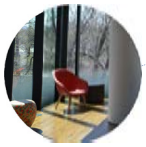


Gender neutral & accessible washrooms



New addition: elevator

New addition: exit stair



New addition: sunny seating area & bookshelves



Main Floor

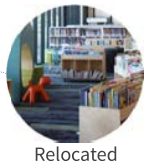
1. Adult Fiction
2. Adult Non-Fiction
3. Service Desk
4. Staff Work Room
5. Staff Office
6. Washrooms
7. Existing Exit Stair
8. New Elevator
9. New Exit Stair
10. New Landing & Ramp
11. New Landing & Stair
12. Children's Storytime
13. Children's Books
14. Open Stair
15. Literacy playground



New carpeting



Secure south entry & open stair



Relocated children's area

*Images shown are representative only

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Option 3 - Interior Upgrades



Gender neutral & accessible washrooms



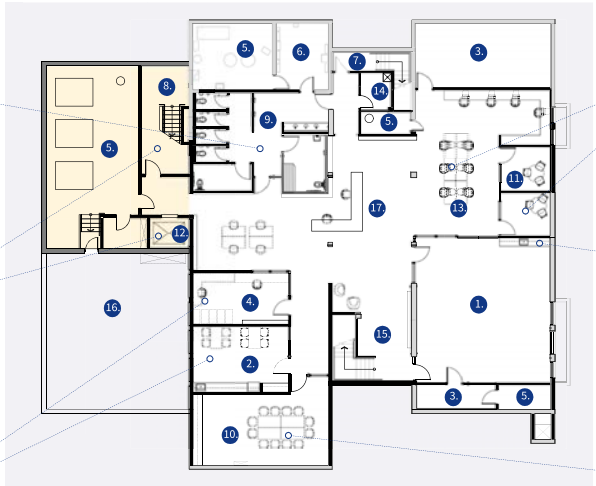
New addition: elevator

New addition: exit stair



Staff office

Staff lunch room



Basement

1. Program Room
2. Staff Room
3. Storage Room
4. Staff Office
5. Mechanical Room
6. Electrical Room
7. Existing Exit Stair
8. New Exit Stair
9. Washrooms
10. Meeting Room
11. Tutorial Rooms
12. New Elevator
13. Computer Area
14. Janitor Room
15. Open Stair
16. Crawlspace
17. Service Desk



Tutorial rooms & computer area



Accessible kitchenettes & closets



Meeting room

*Images shown are representative only

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Next Steps

Recommended option
The City updates the options with the help of public feedback. A recommended option is selected.

Budget
The recommended option is considered through future multi-year budget processes.

Construction
Council approval and funding is required before construction begins.

How to provide your feedback:

Ask us a question
The project team is here to answer your questions.

Take the survey
Surveys are available at the welcome table or on the project webpage.

Scan the QR Code
to visit the project webpage.

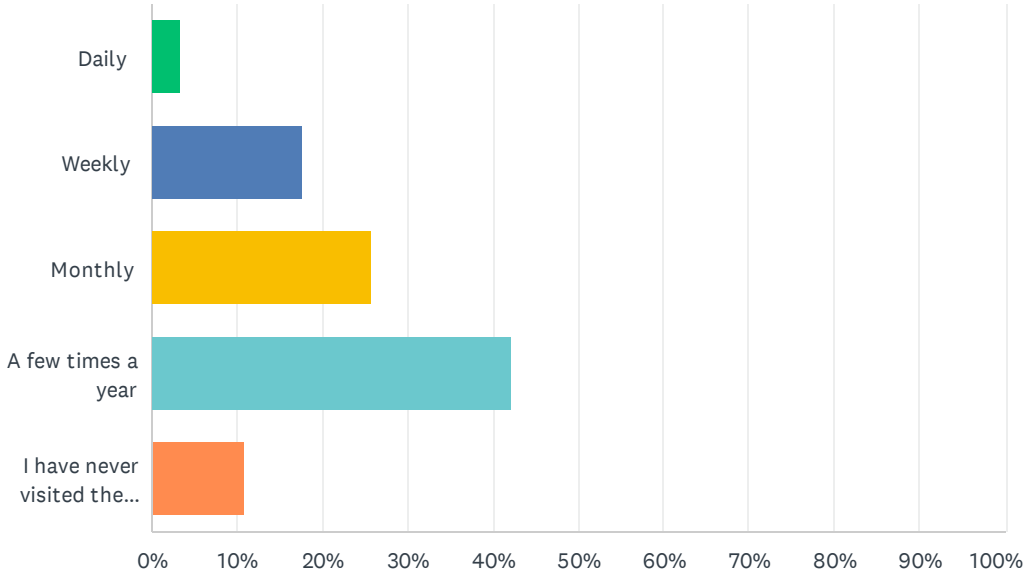
winnipeg.ca/westkildonanlibrary

Appendix C – Survey Results

Please note: the views expressed in the verbatim survey comments are those of residents and are not those of the City of Winnipeg. The City of Winnipeg reviews comments to analyze feedback and remove comments that are inconsistent with our moderation policy.

Q1 How often do you visit the West Kildonan Library?

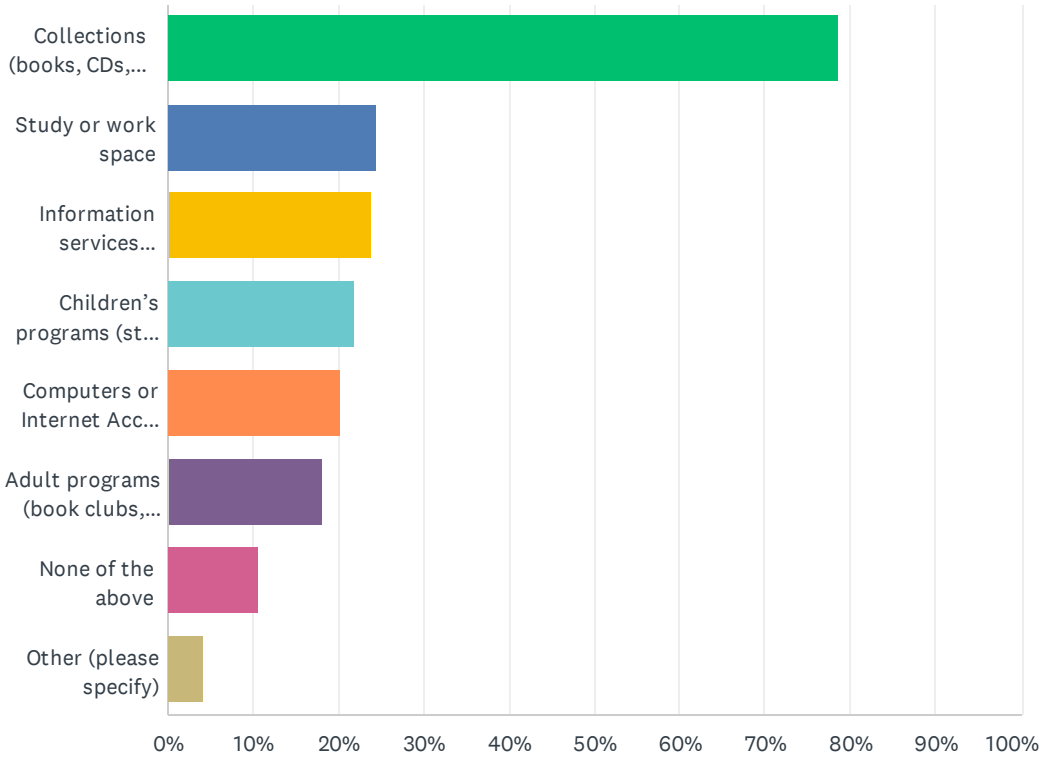
Answered: 618 Skipped: 0



ANSWER CHOICES	RESPONSES	
Daily	3.40%	21
Weekly	17.64%	109
Monthly	25.89%	160
A few times a year	42.23%	261
I have never visited the West Kildonan Library	10.84%	67
TOTAL		618

Q2 What services do you use at the West Kildonan Library? (Check all that apply)

Answered: 618 Skipped: 0



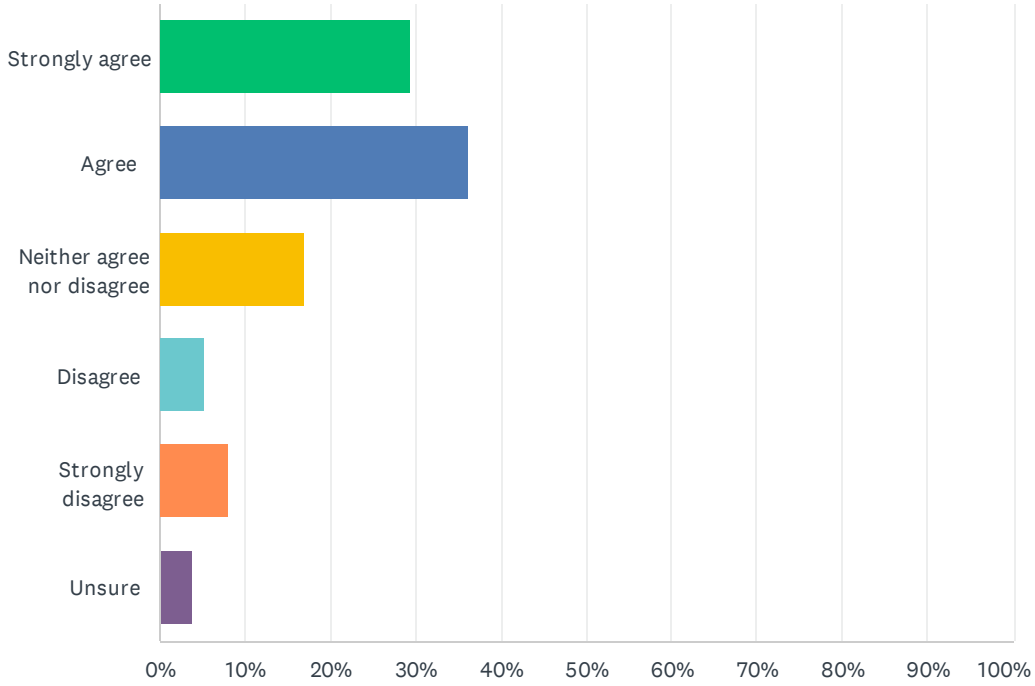
ANSWER CHOICES	RESPONSES	
Collections (books, CDs, DVDs, magazines, etc.)	78.64%	486
Study or work space	24.60%	152
Information services (asking questions to staff)	23.79%	147
Children's programs (story times, crafts, activities, performers)	22.01%	136
Computers or Internet Access (wi-fi)	20.23%	125
Adult programs (book clubs, workshops, lectures, concerts)	18.12%	112
None of the above	10.68%	66
Other (please specify)	4.37%	27
Total Respondents: 618		

#	OTHER (PLEASE SPECIFY)	DATE
1	German literature and magazines	1/19/2024 3:01 PM
2	volunteer for see spot read program	1/18/2024 12:08 PM
3	Community events	1/13/2024 3:27 PM

4	Book pick up to avoid Downtown security checks	1/10/2024 1:12 PM
5	Meetings: formerly LAC and LAB member	1/10/2024 11:26 AM
6	Read magazines	1/10/2024 11:23 AM
7	homey feeling and place to read and see other people from my community	1/10/2024 10:35 AM
8	Online pick-up	1/10/2024 10:28 AM
9	Printing emails and photo copying	1/9/2024 8:24 PM
10	I check bulletin boards (every visit) for programs across the city	1/9/2024 6:08 PM
11	pick up books not at Sir William Stephason Library	1/9/2024 12:20 PM
12	pick up inter-library loans	1/4/2024 10:40 PM
13	Check out books	1/4/2024 11:10 AM
14	Digital downloads, most reading now done on my phone.	1/4/2024 10:11 AM
15	Return movies through return drop slot	1/4/2024 8:29 AM
16	Printing services	12/29/2023 11:15 AM
17	40 years ago I did and perhaps my children 20 years ago	12/29/2023 11:03 AM
18	Pick up books for my Mum	12/25/2023 7:40 AM
19	Kids colouring table	12/20/2023 5:50 AM
20	Video games	12/19/2023 11:53 AM
21	Covid test pickup	12/19/2023 12:13 AM
22	Puzzle exchange	12/18/2023 9:20 PM
23	Printing and copying	12/18/2023 8:37 PM
24	Washroom	12/18/2023 3:25 PM
25	Family outing	12/18/2023 3:23 PM
26	puzzles / summer TD reading contest	12/18/2023 2:23 PM
27	Zerox	12/18/2023 2:16 PM

Q3 Will option 1 meet you and your family's needs into the future?

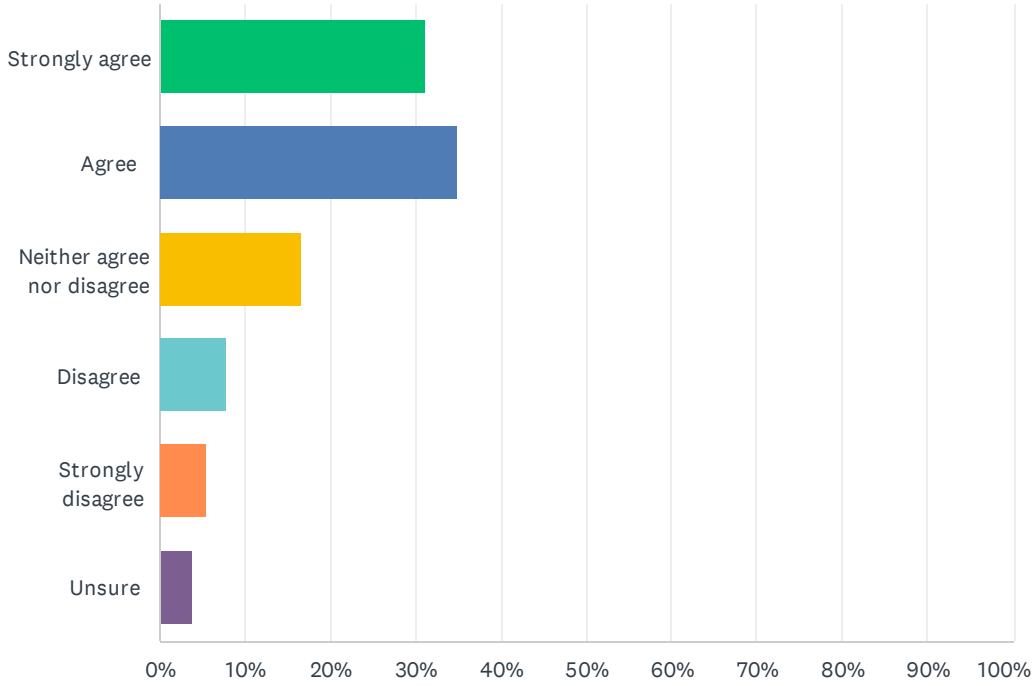
Answered: 595 Skipped: 23



ANSWER CHOICES	RESPONSES	
Strongly agree	29.41%	175
Agree	36.30%	216
Neither agree nor disagree	16.97%	101
Disagree	5.38%	32
Strongly disagree	8.07%	48
Unsure	3.87%	23
TOTAL		595

Q4 Will option 2 meet you and your family's needs into the future?

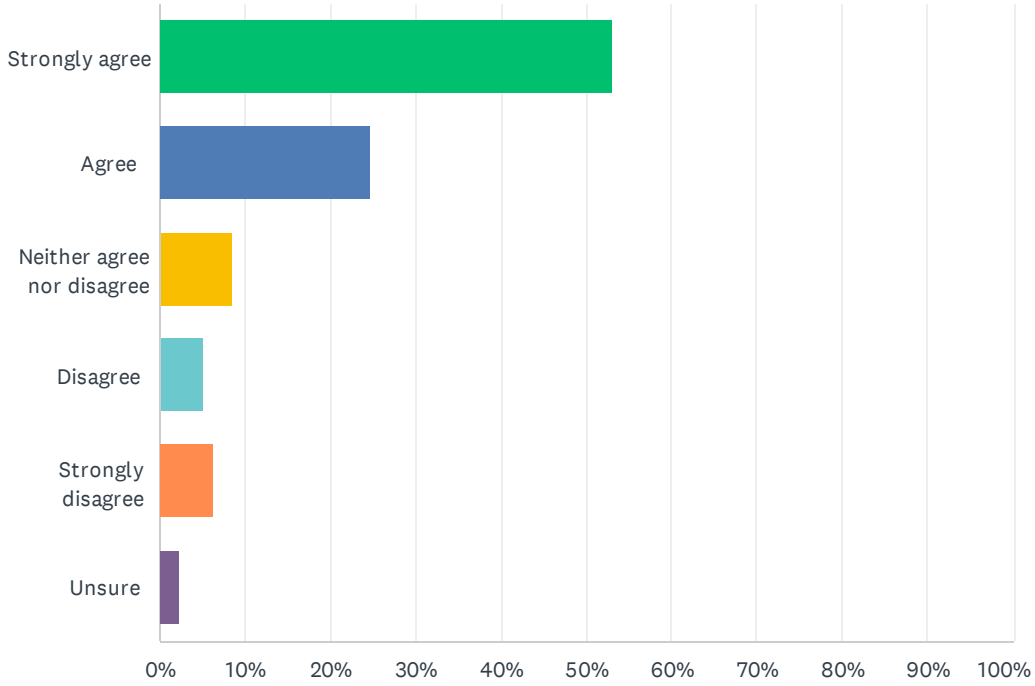
Answered: 585 Skipped: 33



ANSWER CHOICES	RESPONSES	
Strongly agree	31.11%	182
Agree	35.04%	205
Neither agree nor disagree	16.58%	97
Disagree	7.86%	46
Strongly disagree	5.47%	32
Unsure	3.93%	23
TOTAL		585

Q5 Will option 3 meet you and your family's needs into the future?

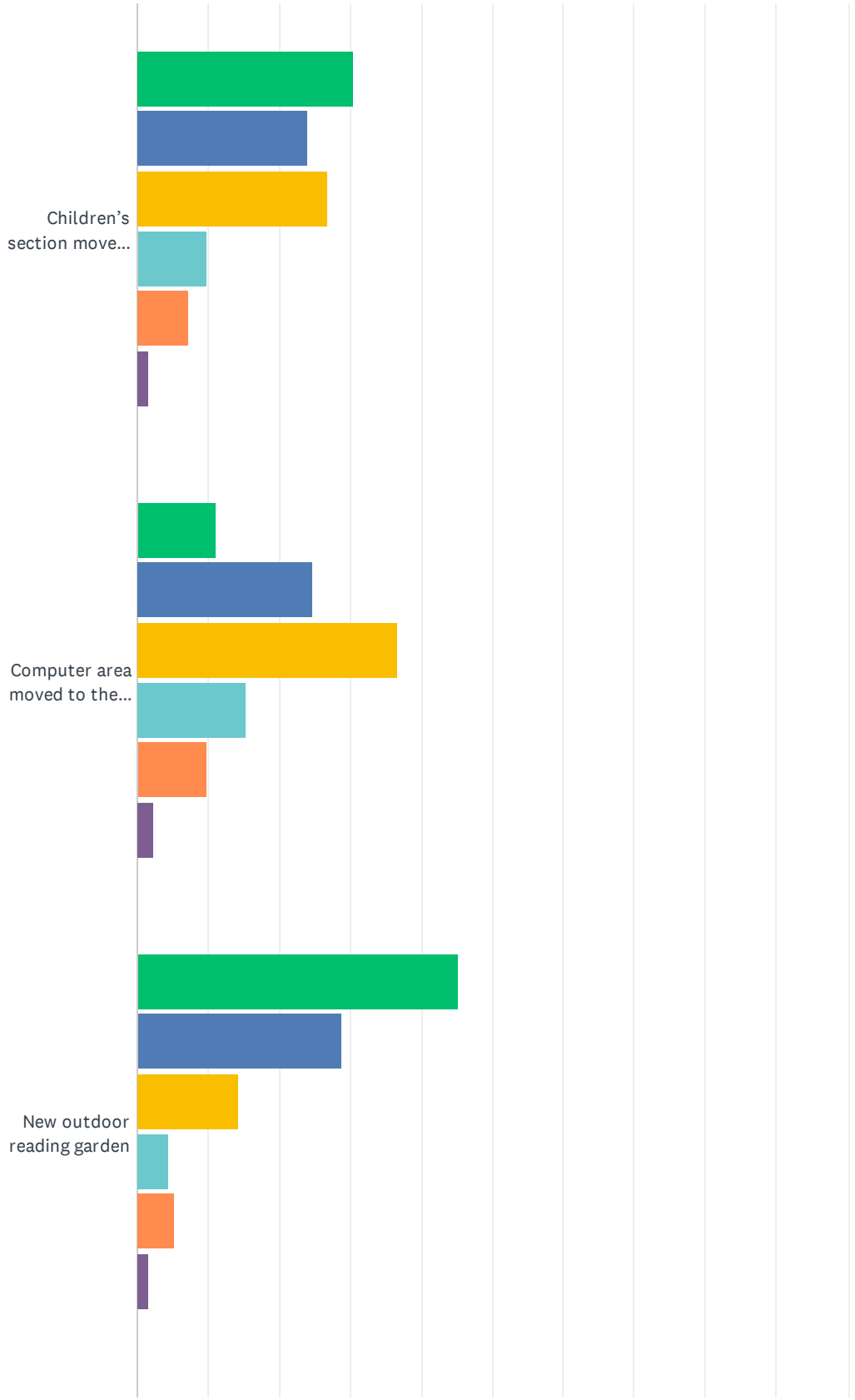
Answered: 556 Skipped: 62

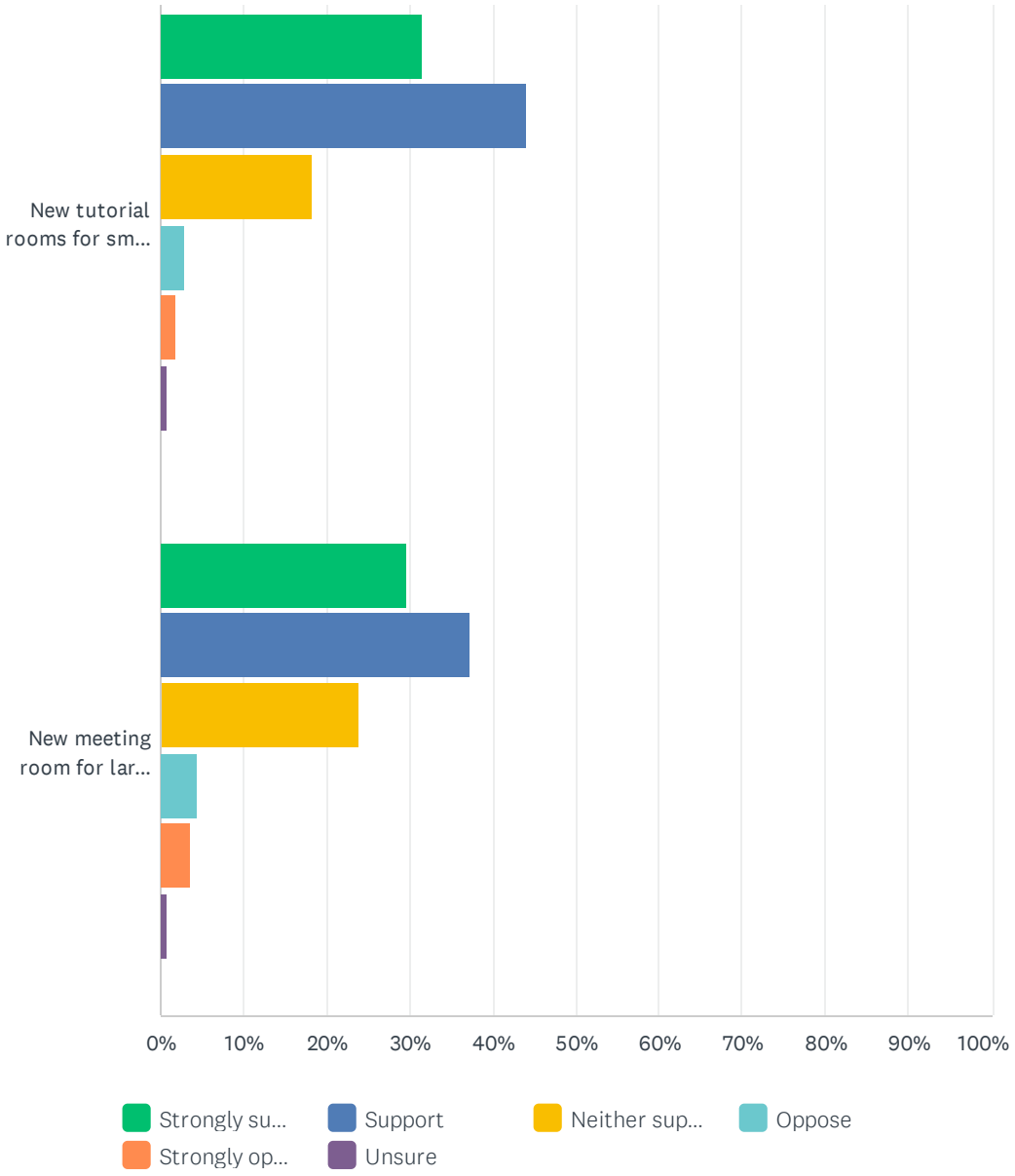


ANSWER CHOICES	RESPONSES	
Strongly agree	53.06%	295
Agree	24.82%	138
Neither agree nor disagree	8.45%	47
Disagree	5.04%	28
Strongly disagree	6.29%	35
Unsure	2.34%	13
TOTAL		556

Q6 Please rate your support for the following changes in option 3:

Answered: 556 Skipped: 62





	STRONGLY SUPPORT	SUPPORT	NEITHER SUPPORT NOR OPPOSE	OPPOSE	STRONGLY OPPOSE	UNSURE	TOTAL
Children's section moved to the main floor	30.40% 169	24.10% 134	26.80% 149	9.89% 55	7.19% 40	1.62% 9	556
Computer area moved to the basement	11.15% 62	24.82% 138	36.69% 204	15.29% 85	9.71% 54	2.34% 13	556
New outdoor reading garden	45.14% 251	28.78% 160	14.39% 80	4.50% 25	5.40% 30	1.80% 10	556
New tutorial rooms for small groups to tutor, study, or have small meetings	31.65% 176	44.06% 245	18.35% 102	3.06% 17	1.98% 11	0.90% 5	556
New meeting room for large groups	29.68% 165	37.41% 208	23.92% 133	4.50% 25	3.60% 20	0.90% 5	556

Q7 If you have any concerns with this project, please explain. (Optional)

Answered: 153 Skipped: 465

#	RESPONSES	DATE
1	Seven Oaks schools need scheduled, when students is using. Don't use as a daycare..not schools/teachers, parents, siblings. Supervision at all time	1/20/2024 6:56 PM
2	My only concern would be the placement of the handicap parking stall in option 3. It seems like there is enough space in the current lot to house this and it would take away green space. I don't know if there would be less lot parking due to the addition though.	1/20/2024 2:32 PM
3	would like to have seen an estimate of the cost	1/20/2024 11:08 AM
4	Cost	1/19/2024 3:46 PM
5	Project should not be too expensive simply because of the [redacted] that spend their day there, coughing without covering their mouths, laughing and singing while on the computer, not blowing their noses with tissue, etc. It should be a place for all but, honestly, what type of people is it really for when people who [redacted] are tolerated?	1/19/2024 12:48 PM
6	I'm very happy it isn't getting moved to a mall!	1/19/2024 12:28 PM
7	Not sure if it is a good idea to have the children's dept. in the same area as the Adult's. It may be difficult for those trying to study etc.	1/19/2024 9:29 AM
8	A gender neutral bathroom is unacceptable. Women need safe single sex spaces. This is misogynistic.	1/18/2024 8:41 PM
9	Why do we need libraries in this day and sge	1/18/2024 3:47 PM
10	Garden reading area not a good idea. Would encourage homeless to squat	1/18/2024 1:05 PM
11	Ktichenettes in a library shows a blatant abuse of city funds. This is not a restaurant. This is a library. Gender neutral bathrooms requires small one person bathrooms. Again, not a bar or restaurant. This shows just how blatantly poor the city is with managing the city's taxes. You either don't want to do this project, or you're going to make it so costly the taxpayers will regret approving it. Zero fiscal responsibility.	1/18/2024 12:48 PM
12	I've heard a number of internal library staff and patrons mention they love the nostalgic feel of WKDN library. Updates are always welcome, but it seems like there will also be something lost (e.g. nostalgia) if the kids section is moved entirely from the basement.	1/18/2024 12:12 PM
13	Currently the library is noisy. Option 3 will help to fix this issue. Also I'm concerned moving children's area upstairs will make it more noisy than what it is now. Just need quiet places to read and study.	1/18/2024 11:46 AM
14	No concerns, let's keep this a vibrant and thriving community space for all!	1/18/2024 11:21 AM
15	Needs are more important than wants... Just because it would be "nice" to have certain things does not make them a wise use of resources	1/18/2024 10:16 AM
16	Windows should have some coverings on, e.g. curtains.	1/17/2024 11:15 AM
17	The open-air concept of the main floor would be compromised by adding walls to house 'tutorial rooms'. What would be accomplished in these rooms that couldn't be done at existing tables? Would these walled rooms block natural light from the east?	1/14/2024 8:57 PM
18	I want to see West Kildonan Library renovated and expanded. It's a fantastic location and a great building. While it's closed during renovations, it would be best to have a local pick up or temporary branch option. Perhaps space in one of the local schools is available?	1/13/2024 3:32 PM
19	I strongly encourage the City of Winnipeg to proceed with this important work to enhance this library branch	1/12/2024 8:46 PM

20	I am concerned the children's area will decrease in size. As well I am concerned that the public computer area will not be monitored if it is moved to the basement. Will there be any additional parking provided?	1/10/2024 7:46 PM
21	staff alone in the basement with people using the computers is not a good idea based on issues i have seen at other libraries	1/10/2024 3:22 PM
22	Spend the extra money! Its not that much in the whole scheme of things. Our neighbourhood needs these kinds of services. Don't move the library to the mall - this was suggested earlier. The northwest part of Winnipeg is so under-served as compared to the south end of the city.	1/10/2024 1:09 PM
23	None	1/10/2024 11:44 AM
24	No	1/10/2024 11:24 AM
25	Love the garden reading area. Children need to be moved from the basement.	1/10/2024 11:02 AM
26	Being sustainable and making decisions to move towards a carbon neutral footprint should be prioritized.	1/10/2024 10:53 AM
27	I hope there are not any hostile architecture features added	1/10/2024 10:50 AM
28	How long the closure would be and will we still have a close pick up and drop off place.	1/10/2024 10:37 AM
29	No	1/10/2024 10:30 AM
30	Funding?	1/10/2024 10:29 AM
31	Have you consulted with disability groups and/or occupational therapist about true accessibility vs. perceived accessibility?	1/10/2024 10:13 AM
32	Projected time of closure or partial closure?	1/10/2024 10:10 AM
33	None. Well presented options.	1/10/2024 10:03 AM
34	No	1/10/2024 10:02 AM
35	I strongly disagree with the addition in option 3 for the historical significance of the library and it's rich history and want to preserve the architectural beauty of the library.	1/10/2024 10:00 AM
36	I think option 3offers the best changes and upgrades for community access and group activities. The garden/sun room areas would be great.	1/10/2024 9:54 AM
37	Ensure the children's play area is accessible to children with disabilities.	1/10/2024 9:49 AM
38	I would worry that if we don't add a lot this time (option 3) it will never be added. This may be the only opportunity for many decades to renovate this library. I believe the reading garden is quite small in the blueprints and it would be ideal if it could be expanded.	1/9/2024 10:17 PM
39	The plans look amazing. Parking is always the issue around the library.	1/9/2024 7:30 PM
40	Option 3) would make this a state of the art facility where the community would be able to utilize to a greater extent. Parking and better accessibility is a high priority.	1/9/2024 7:04 PM
41	This is such a stunning building as is (clealy) it really deserves thoughtful, glorious landscaping (indigenous, keystone species) and NOT lawn worked into plans as well as interpretive info on this front for visitors. It deserves to pop and stand out on this road! If a wall of windows is being installed anywhere I'd like to see bird-strike planning (zen curtains, or treated glass).	1/9/2024 6:21 PM
42	I have extreme concerns about Option 1. The fact that it does not bring the library up to all accessibility standards is absolutely ridiculous. All spaces - but especially public spaces which are publicly funded - should be accessible to all people and should be designed with that in mind. To say that in 2024, a major city has done extensive renovations to a building without making it fully accessible is absolutely disgusting. The fact that this is even an option being presented is horrific; City of Winnipeg, you should be absolutely embarrassed of yourselves, shame on you!	1/9/2024 5:22 PM
43	Na	1/9/2024 4:42 PM
44	Expanded facility hours of operation are more important that most improvements.	1/9/2024 3:51 PM

45	They need 2 washrooms upstairs	1/9/2024 3:15 PM
46	Moving the children's area to the main floor- currently the children's area allows for a space that is only available to children and their caregivers. This provides a safe space for families who don't need to worry about children bothering others with noise, having space to move around, and without the opportunity to have a adults in the space who shouldn't be there. Additionally, moving all the computers downstairs, which tend to be the areas with more incidents, introduces safety concerns for the staff person at the desk downstairs. Families tend to visit for shorter periods then people studying, so having studying spaces in the basement, with limited natural lighting, is not ideal.	1/9/2024 12:57 PM
47	Don't waste money. Keep it simple! Pie in the sky ideas are what the City dies, because it doesn't treat the money in a responsible manner. It's a library, not a social hall.	1/9/2024 12:16 PM
48	Location is terrible. Why not move to Garden City Shopping center area? Would be far easier to access with transit	1/8/2024 8:03 PM
49	We do love having the children’s area separate so that I never feel like we’re being too loud for the library.	1/8/2024 7:04 PM
50	Andrews Early Learning Daycare on Andrews Street uses this facility in the summer for the children. Option 3 would help tremendously in this.	1/8/2024 6:30 PM
51	Costs staying on budget, and timeline...	1/8/2024 6:26 PM
52	Discussion of timelines and availability of collections while renovations are underway.	1/7/2024 10:28 PM
53	As a child, I enjoyed having the basement children’s section as a kids only special place. As an adult, the stairs make my knees hurt. Why would you put the most able population on the top floor? An elevator is ideal for accessibility no matter what is on each floor and I think should be a priority.	1/7/2024 1:09 AM
54	Basement computers, bad activities hiden away? They feel like they can do THINGS without being caught then a child walks in and sees	1/6/2024 12:41 PM
55	Why didn't you just build a new library? It's frustrating that a small group of people killed the new library project, for a building that is outdated and an eyesore.	1/5/2024 6:07 PM
56	Closing the Library for the renovations will be negative for me, since I would then need to move my patronage to another location.	1/5/2024 3:58 PM
57	The cost of invest in a library that is already close to the St John's library. Further concerns are the security and safety elements of having the computer and tutorial rooms in the basement how that might be effectively staffed.	1/5/2024 3:55 PM
58	Do not support gender neutral washrooms. Do not feel comfortable with my 11 year old daughter using a washroom beside a male stranger. It feels unsafe.	1/5/2024 12:01 AM
59	I like the upgrades. It needs an elevator to help the disabled. carpet needs to be changed. Option 3 looks amazing and the reading outside is an amazing addition	1/4/2024 11:46 PM
60	None of these are a good use of funds. Would be better to shutter the library and expand/improve St. John's Library, barely a mile away.	1/4/2024 10:45 PM
61	The purpose of this survey is unclear. Does it mean there will be kitchens installed?! Does it mean that people with disabilities will be able to use the library, but at the expense of children and families?! An outdoor reading garden sounds great in theory, but is it realistic in our climate extremes and will it be abused after hours?	1/4/2024 6:44 PM
62	Na	1/4/2024 6:13 PM
63	No option included Smart Lockers. I only use the library on a limited basis because I am uncomfortable with lack of privacy having my holds available for anyone to see what I am borrowing.	1/4/2024 5:04 PM
64	I want to see a new library built in the Garden City Mall that was proposed earlier. The one at west Kildonan is outdated and is far from residents living in the newer areas of development more north and westerly.	1/4/2024 4:38 PM
65	I have no concerns, I want to see this done. This is an underserved part of the city and deserves a great library space to serve to community in the same way the Norrie library serves	1/4/2024 2:19 PM

	River Heights.	
66	Close this old library and either build new or lease space in the area. It’s a complete waste of money to upgrade the existing structure.	1/4/2024 2:17 PM
67	Whichever intervention is proceeded with should be in-keeping with the era of the original library's design. Mid century structures such as these should be respected similarly to heritage buildings if not already designated.	1/4/2024 2:05 PM
68	cost	1/4/2024 1:49 PM
69	I’m concerned about follow through and time the library is closed. All these options are great but due to cost cutting and poor leadership from Eadi, hours have been cut, staff and resources have been cut. I don’t think this renovation is big enough. It needs to include a creative space - such as a maker space with technology equipment like cameras, green screens, recording space, etc.	1/4/2024 1:29 PM
70	I have concerns about the outdoor garden. It sounds great, but it is vulnerable to vandalism as long as it has an outdoor component. We do not use gardens in the winter, so maybe it is wasted space when it could be used for meeting rooms and such.	1/4/2024 12:20 PM
71	Do not damage or remove existing materials on the exterior of the building. Consult an expert on modernist architecture for all changes. This also applies to any carpet selection. Don't put up white drywall everywhere, pick colours and textures, this shouldn't be a corner you're willing to cut. Keep children away from study areas and make special affordances for ensuring sound does not travel. You severly missed that with the Transcona library and the space is virtually unusuable. Also, consider adding one or multiple fountains or water effects to make the ambience in certain areas more pleasant. Improve internet access speeds when multiple people are using it. Finally, consider 24/7 operation.	1/4/2024 11:51 AM
72	No	1/4/2024 11:30 AM
73	The library not too long ago went under renovations to meet code. There doesn't seem to be any reason to expand except maybe the students from middle school will be able to use new indoor rooms rather than sit outside to gain access to wifi.	1/4/2024 11:18 AM
74	Children seem to be safer, in the lower level	1/4/2024 10:56 AM
75	Control the spend! Set a realistic budget to meet minimal improvements and stick to it. There are many other options for people to use to obtain information and use facilities.	1/4/2024 10:15 AM
76	Cost over run guaranteed	1/4/2024 10:14 AM
77	Tax payer cost	1/4/2024 10:09 AM
78	Computer area and children’s area need to be highly visible to discourage any types of abuse/etc toward children and inappropriate (for public setting especially where children are present) viewing on computers	1/4/2024 9:47 AM
79	The children's area currently feels like a basement, and is difficult to access with a stroller or with an infant and toddler. It's so important to move it to the main floor where it's bright, friendly, and accessible.	1/4/2024 9:40 AM
80	No concerns and happy to hear that the City has made the decision to keep this library open and operating and is looking to spend some money to update and improve the library.	1/4/2024 9:19 AM
81	Not the time to spend tax dollars on this project	1/4/2024 8:55 AM
82	This library is vital to West Kay	1/4/2024 8:44 AM
83	Having a children’s area downstairs was nice because the children had their own space to roam, make noise if they needed and washrooms were close by for quick bathroom emergencies when needed.	1/4/2024 8:25 AM
84	In option 2 and 3 why not add some accessibility also verses all in option 1. It should be diverse in all options and accessible!!!	1/4/2024 7:54 AM
85	YES. Please build the library near Garden City Shopping Center	1/3/2024 4:00 PM
86	Renovating another library is a poor use of funds. It is a disservice to the residents of the City of Winnipeg. This area already has a renovated library near by.	1/3/2024 2:59 AM

87	Outdoor areas require upkeep. How will this be factored into the cost and operating expenses? Outdoor areas are also underutilized in Winnipeg due to weather. How can natural elements be incorporated into the design instead? (Eg think “the leaf”)	1/2/2024 9:50 PM
88	I am concerned that if there is any addition, that the surrounding trees may be cut down. A big part of why I loved going to the library was because of the shady tree canopy and greenery that surrounds the neighborhood.	12/30/2023 8:44 PM
89	Will the addition of outdoor space negate the parking lot?	12/30/2023 4:37 PM
90	computers in the basement would not have natural lighting. That makes it hard on the eyes.	12/30/2023 12:12 PM
91	Feel like large meeting rooms would be a poor use of the limited space.	12/29/2023 5:04 PM
92	Na	12/29/2023 3:06 PM
93	Where are you going to get the space and it sounds like parking will be an issue. You are going to put an outside garden in a mainly in winter climate. Poor use. Poor use of my money. This will take away from parking. the library is already on a busy street.	12/29/2023 11:27 AM
94	Just don't disfigure the original design. However new addition and space is welcome including more parking.	12/29/2023 11:21 AM
95	Garden City Shopping Mall would have been a better relocation for the library. Easier for access by anyone by any means. Less money spent badly!!	12/29/2023 11:13 AM
96	It’s a burden on tax payers, for a service that hardly gets used anymore. It’s irrational spending and should be privatized, if it can stand on its own than it was mean to be.	12/29/2023 11:11 AM
97	I would want to see the heritage of the building preserved and keeping the children's section to the basement for consideration of the noise levels for those attending and needing a quiet space. I would also like to see the flowers and a garden space preserved and secure so people can not come in after hours and vandalize or damage the space.	12/28/2023 11:06 AM
98	I doubt any of these ideas will bring many more people to this branch, I go at least once a week, different times, hardly anybody there.	12/26/2023 8:00 PM
99	Accessibility to the downstairs with people with mobility issues. A large/larger elevator perhaps?	12/26/2023 9:27 AM
100	Computers in based dont offer for lighting. Please reconsifer	12/25/2023 4:26 PM
101	I love that our library is finally getting an upgrade! The outdoor reading area makes use of currently unusable space and it’s a wonderful spot to curl up with a book. You could have gardening classes at the library and patrons could plant and care for flowers or have a community garden! I also like the improvements to the meeting spaces and a reading area in the kids section. Great!!!	12/25/2023 1:31 PM
102	I am so relieved to see positive ideas put forward to maintain this vital pillar of our community for years to come. It is especially reassuring to see consideration for the large children’s area being maintained, as this is such an important part of the library for the surrounding schools and daycares.	12/24/2023 2:31 PM
103	None. Don’t worry about the cost. Increased property taxes is not an issue. I believe this is the only library in Seven Oaks School Division.	12/24/2023 1:40 PM
104	How much will it cost and who pays.	12/24/2023 1:36 PM
105	Moving the children's department to the main floor would cause many disturbances for both the children and families who access those services, as well as the patrons that use the facilities upstairs. The children's department and the adult department should be kept separate to ensure that everyone feels comfortable at the library.	12/23/2023 2:31 PM
106	A children's playground would be too disruptive to the library environment, in my opinion. Moving the children's area upstairs would also cause a disturbance and I believe that some adults should be separated from the kids.	12/22/2023 2:47 PM
107	What is the plan for relocating staff during the project?	12/21/2023 12:22 PM
108	Moving the Children's department upstairs with the adult section seems like asking for trouble. Not only are you risking kids falling prey to unsavory characters, you're putting kids in a	12/21/2023 11:20 AM

	position where they will be constantly shushed. I can see a lot of conflict happening. Also, where will all the books go? It looks like the Children's section will have many cuts to the books in order to make things fit. I don't want any cuts to the children's area at all, it's already a wonderful place to take my family.	
109	Children like using elevators - I think it's actually not a great move to bring their space upstairs.	12/21/2023 9:42 AM
110	This library building should be decommissioned and a new facility built.	12/21/2023 9:28 AM
111	Although a mid-century classic design, it is wholly unsuited for a modern library. In order to be fiscally responsible the branch should be closed and re-located in a brand new building. The cost to renovate will be astronomical and not fix inherent flaws in its design.	12/21/2023 9:28 AM
112	It's a very small building. Will there be enough room without losing the collection.	12/20/2023 6:24 PM
113	Love option 3. More resources are needed for our growing community.	12/20/2023 2:36 PM
114	Intially, the plan was to move the library to Garden City Mall - the price tag was approximately 3 million. A band aid fix is pegged at 6.3 million. Any real upgrade or change in a positive, moving forward to benefit library users would be 10.7 million. Why is renovating even being thought of. Let's move the library into another space.	12/20/2023 2:09 PM
115	I don't like the current open concept. Each section, i.e. computers, newspaper reading area, study area, etc. should be enclosed in separate glassed in areas. This would avoid the library becoming comparable to a coffee shop or a pub, where everyone just shouts back and forth disturbing everyone in between, as it currently is.	12/20/2023 12:49 PM
116	Please do not move the library!	12/20/2023 11:43 AM
117	No concerns	12/19/2023 8:19 PM
118	No concerns	12/19/2023 7:06 PM
119	I hope the character of the building will not be compromised.	12/19/2023 6:22 PM
120	I don’t feel this space should be renovated. We need a new location.	12/19/2023 6:00 PM
121	A gender neutral washroom Is a must. It would be great to have one in the kids area too.	12/19/2023 4:43 PM
122	My daughter enjoys going downstairs to the children’s section.	12/19/2023 2:20 PM
123	My concerns are the fact council listened to the 20 people who wanted to remain open. A new and larger facility near Garden City Shopping Centre would have been ideal, and brought so many new patrons to the library. The area right now needs more lightening outside if it's going to remain. But I strongly feel that revisiting the new library in Garden City would be beneficial and not listening to the 10% that advised against it. The north side of the city is growing and needs more. I live right next to the library right now and would rather walk to a new one.	12/19/2023 2:06 PM
124	How is additional parking addressed? There is only so much space to accommodate expansion and parking.	12/19/2023 1:48 PM
125	Cost breakdown	12/19/2023 12:42 PM
126	the location itself isn't meeting the community needs. St Johns library has already been renovated, the plan to relocate to Garden City would be beneficial for the population density, and cramming so much into the existing small space at the current and past its prime West Kildonan library is a waste of money. As an example, in the third option it's ridiculous to have the adults who read the papers sitting right beside the proposed children's section, a section which should be in a safer and less disruptive space (bookstores such as Chapters have the building layout for this accommodation). It's also less disruptive to move to another location, if there are renovations then the existing location will be closed during the potentially lengthy time period.	12/19/2023 12:26 PM
127	I do worry that other areas of the city need a library more.	12/19/2023 11:15 AM
128	I think that families really enjoy having the basement to themselves. Having computers in the basement does not seem like a good idea.	12/19/2023 10:44 AM
129	I hope every effort will be made to preserve the late mid-century/brutalist aspects of the exterior	12/19/2023 10:14 AM

130	Two floor libraries tend to have more challenges with staffing. It would be nice to be able to have a single floor option, perhaps having staff/workroom areas in the basement.	12/19/2023 10:06 AM
131	Children need to be in safe area	12/19/2023 9:51 AM
132	My only concern would be for the hours the library is open. Having a nicer facility that is not open and accessible for more hours is kind of pointless.	12/19/2023 9:33 AM
133	No need for massive changes	12/19/2023 7:11 AM
134	Moving the children's area will mean reducing both the adult and the children's collections. It will also mean that children's programming will be de-emphasized.	12/18/2023 10:30 PM
135	I remember there being a big deal about saving this library but I honestly haven't gone since my kids were little. My youngest is now ten and that was for your rhyme time programs. We may or may not have up to date library cards. I think money would be better spent on upgrading city rinks then any money towards libraries. St. John's library was just redone. Don't even know how much more use if any is happening by making it more accessible.	12/18/2023 10:25 PM
136	I have 2 small children and like that they have a separate area downstairs for kids books. Kids can be loud and I would feel bad having to share a space with adults studying and trying to read in silence.	12/18/2023 9:39 PM
137	DEI and woke [redacted] will be favored over genuine community benefit and affordability.	12/18/2023 9:36 PM
138	No Gender Neutral Washrooms.	12/18/2023 9:17 PM
139	Having children's area in main area will be noisy, distracting and disruptive to those who attend the library for a quiet space, the elderly, those and with disabilities. The lower space is best option for children.	12/18/2023 8:58 PM
140	Additional lighting at each desk for people who need it! Some people have vision issues and the lights above are not enough. Also for people with sensory issues having reading areas that are almost like cubical	12/18/2023 8:49 PM
141	The West Kildonan Library is an understated midcentury masterpiece, an architectural wonder that needs to be respected and maintained.	12/18/2023 8:46 PM
142	N/A	12/18/2023 8:15 PM
143	I think it would be prudent to tell residents how long each proposed project is anticipated to take. How long will we lose access to the library for? That is a factor many residents would like to consider too.	12/18/2023 7:32 PM
144	Not really as long as other options are also considered as well.	12/18/2023 7:13 PM
145	Keep the children area in the basement as they are louder then adults and more adults with disabilities would find it hard to go downstairs	12/18/2023 6:45 PM
146	please don't remove the children's section in the basement, it is a delightful space	12/18/2023 5:15 PM
147	A larger expansion and outdoor reading seem like unnecessary extra expenses and a larger area of land needed. As well as unused space during our cold and very hot seasons. A sunroom where an outdoor area would go would make more sense and be a nice winter place to get some light.	12/18/2023 4:40 PM
148	Please keep this library long term	12/18/2023 4:24 PM
149	Long time waiting for something positive to occur in the neighborhood.	12/18/2023 4:06 PM
150	My son is 6 and he love the children library. He really appreciate the friendly staff and the space for the kids section. My friends grandmother takes her two grand children to the library too and all three have a great time going on an outing.	12/18/2023 3:29 PM
151	I dont, i feel like as a parent of a teen and a school age they both use the library with friends and myself and i feel like it is in need of an upgrade.	12/18/2023 2:49 PM
152	I like the new space options included with option 3 as it would provide new versatility to a classic neighborhood fixture	12/18/2023 2:46 PM
153	try to get the best value for the money you are going to spend	12/18/2023 2:20 PM

Q8 Are there any additional comments you would like to share? (Optional)

Answered: 179 Skipped: 439

#	RESPONSES	DATE
1	Great LOCATION	1/20/2024 6:56 PM
2	I hope in the front entranceway of the library a clearly defined spot for returns is looked at. Thank you for helping west k library meet the growing needs of the community.	1/20/2024 2:32 PM
3	I would favor a move to the GC Shopping Centre.	1/19/2024 3:46 PM
4	Ensuring safety and security for staff and visitors is important seeing the stabbing which happened in the downtown location.	1/19/2024 3:07 PM
5	Some staff should be rotated to other branches, or fired. They think, having been working here for so long, it is THEIR branch. I don't like getting "dirty" looks when I walk in, or being rudely asked "What do you want?!!" when I patiently wait for service to get change for the photocopier.	1/19/2024 12:48 PM
6	i like the addition of more places to sit and read especially by a window or seasonably outdoors. maybe the outdoor section could be made into a year round area with screens for air flow in the summer. nothing better than reading in natural light. i have visited the new reading area at cornish library and liked it and have used the small meeting rooms at st john's. nice for studying or quiet reading. i have been coming to this library almost since it first opened and it feels like home or at least a safe comfortable place to be. a lot of that is due to the fabulous staff that is there now. I hope they stay for a long time.	1/18/2024 5:20 PM
7	In any of the 3 options there should be NO carpeting. Umhealthy as great place for dust, dirt, spills, etc. Alternate flooring should be considered. Such as laminate, vinyl plank. Easier to clean, longer life span than carpet.	1/18/2024 1:05 PM
8	When jokes abound regarding how blatantly over-inflated civil salaries are, and how corrupt project award processes are, it is time for serious investigation of corruption within. The whole thing smalls of corruption, not dissimilar to the WFPS new HQ.	1/18/2024 12:48 PM
9	Option 3 is best since it will be providing extra study and reading spaces as right now the library doesn't have too many.	1/18/2024 11:46 AM
10	The library is fine like that	1/18/2024 9:35 AM
11	>A "Quiet Please!" sign is needed at entrance and inside library. >Don't like staff treating members of the public differently. There should be no discrimination, or talking about visitors behind their backs, like I often hear.	1/17/2024 11:15 AM
12	Who would benefit from moving the children's area upstairs? The existing stairs are wide and not of great height. These are the safest for kids. How would that be improved upon?	1/14/2024 8:57 PM
13	Option 3 is my preferred option. An expansion of the library, while respecting the original branch, is a wonderful investment in the community. I also like that the project includes a crosswalk to the shared parking with the arena. Parking never seems to be a concern for me or my family, but it would be nice to have a renewed parking lot for both city facilities. Option 3 does the best job restoring the heritage structure to it's original design, including the cedar fascia siding/trim and the wood lattice screening on the upper windows. Option 3 will serve the immediate and wider communities for years to come and seems like a wise and sensible financial cost, especially considering what newer library branches and renovations have cost elsewhere in the city. Proceed with option 3 and make the community and library users very happy!	1/13/2024 3:32 PM
14	NO	1/13/2024 11:22 AM
15	I strongly agree that the children's and adult's section need to be on the same level	1/12/2024 8:46 PM
16	Please ensure ample bicycle parking, and consider installing a bicycle maintenance area.	1/11/2024 11:21 PM

17	I am glad to see the care & concern for a space that provides a wonderful enviroment for the community. Thank you	1/11/2024 9:26 AM
18	We are happy that this library will remain open.	1/10/2024 7:46 PM
19	i like the idea of the children's area separate from where adults congregate. There are noise issues at the Bill and Helen Norrie library that i visit because everything is on one floor	1/10/2024 3:22 PM
20	Given the costs, option 2 is a waste of money. Either option 1 or option 3. Even option 1 is a poor use of the money in my opinion. Options 3 will be far better for the community.	1/10/2024 1:14 PM
21	Add a secure and visible (to staff and the public) bike lock-up area. Encourage people to ride here.	1/10/2024 1:09 PM
22	None	1/10/2024 11:44 AM
23	Also a volunteer with WAF (Winnipeg Architecture Foundation). I am happy to see the mid century modern/brutalist look of the building has been taken into consideration.	1/10/2024 11:28 AM
24	It would be great to see a second and third floor added mirroring the architecture appearance of the mail floor to accommodate future population growth.	1/10/2024 11:20 AM
25	Excited for the area - libraries are the future.	1/10/2024 11:02 AM
26	Just move to this area and am looking forward to seeing the library.	1/10/2024 10:53 AM
27	I like the gender neutral bathrooms	1/10/2024 10:50 AM
28	Strong roots in the community. Needs to stay and be upgraded so we have it around for another 57 years. Option #3. Do it properly (please).	1/10/2024 10:37 AM
29	It is better to go all in than do a half-hearted job that would have to be redone soon.	1/10/2024 10:33 AM
30	No	1/10/2024 10:30 AM
31	I'd like the outdoor space to be larger. I'd like to still be living when this project is finished (70 years old now).	1/10/2024 10:13 AM
32	Have good bike parking around the library - we need it.	1/10/2024 10:03 AM
33	No	1/10/2024 10:02 AM
34	I'm very pleased that I get a say in the outcome of the library.	1/10/2024 10:00 AM
35	I use both St. John's and West K libraries regularly. It is great to have both libraries in this area as many people do not have cars or computers and access to more community areas is essential.	1/10/2024 9:54 AM
36	Add a room on main floor for children who are neurodiverse and can have space near their peers on main floor	1/10/2024 9:49 AM
37	After going to the open house and talking to the staff I agree with moving the children’s area to the main floor. I would like an additional makers space.	1/9/2024 10:17 PM
38	I believe this library is important to the community. I’m happy to see it remain open and becomore accessible for all.	1/9/2024 8:16 PM
39	These building and programming upgrades are exciting and appreciated. My family's use of the new facilities will increase following these positive changes.	1/9/2024 7:09 PM
40	Parking and accessibility is a high priority.	1/9/2024 7:04 PM
41	This library is a community gem. I am so glad to see community initiatives and hard work (from all) paying off for many many years of future users. Looking forward to some serious upgrades! Any spaces with flex use in mind or community group use at the forefront seem brilliant at this time.	1/9/2024 6:21 PM
42	West K is such a small building that it makes sense to expand it as there are not a lot of libraries in the area and it would be able to provide more services to more of the community.	1/9/2024 5:22 PM
43	Investing in libraries is extremely important. Though this is not my local library, I strongly support the investments to accessibility, programming and enhanced space for the community.	1/9/2024 4:42 PM

44	I hope that part of these upgrades will include extended hours(library being opened on Sundays, etc)	1/9/2024 4:28 PM
45	Not at this time	1/9/2024 3:15 PM
46	WKDN is one of the last libraries to have a separate children's area and it is loved by families visiting the space.	1/9/2024 12:57 PM
47	Parking was great, when back door was open. It's cold n slippery, many months. The city chose to close it, with new scanners. Cud have staffed appropriately.	1/9/2024 12:16 PM
48	Current location awkward to get to by bus. Have to take 2 to get there. Expensive to upgrade this location	1/8/2024 8:03 PM
49	We love toddler time at the library- a nicer room would be beautiful!	1/8/2024 7:04 PM
50	I might use this library more if parking were improved and the weird smell goes. It's just really tired looking and uninviting.	1/8/2024 6:30 PM
51	All libraries are important in promoting literacy in our children, even more importantly for new immigrants and refugees. They may not have the financial benefit to buy books, so the ability to borrow and absorb is crucial. I used to practically live in the library when I was a child, and new to Canada. It was fantastic there was one about 5 blocks from my home.	1/8/2024 6:26 PM
52	I think that it's important to maintain a public library footprint at this location. It's already in the area of a reduced speed zone and close to the rec centre.	1/8/2024 6:24 PM
53	i have been a west kildonan library patron for over 40 years as have my children and grandchildren - i am pleased that the library will have any upgrades that are deemed necessary - this library is a good, busy and important part of the community and is something even more needed now	1/8/2024 2:26 PM
54	We love going to this library and part of the enjoyment for me is the old school format and the kids area in the basement. When I take the kids I don’t feel the pressure of keeping the quiet for all the adults and they love being able to roam freely and look	1/8/2024 11:05 AM
55	I feel it was a mistake to not move the library to the Garden City Mall as had been planned. That would have automatically provided a more modern facility without the delay and additional expense. Instead City Council caved in to a small vocal minority.	1/8/2024 10:28 AM
56	None.	1/7/2024 10:28 PM
57	I think the garden is a lovely idea. I’d really like a 3-D printer like they have downtown. One of my main issues with this library is that it is completely outclassed by others in the city with poor book stock and less services.	1/7/2024 1:09 AM
58	I like the children's play/reading area. Somewhere they can be a little louder and maybe have reading groups	1/6/2024 12:41 PM
59	There also needs to be an increase in the number of books available	1/6/2024 10:02 AM
60	I absolutely love the idea of moving the children's area to the main floor! A huge barrier for us coming there is that both of my children at different times have always ran towards the stairs once they're downstairs in the basement where the children's area is. it is so difficult to keep them away from going up and down the stairs that it takes away from being at the library so we just leave. It's also really dark down there and doesn't seem very kid friendly. My kid's prefer other libraries Childrens areas.	1/5/2024 5:32 PM
61	If it is agreed that the present structure has some heritage value, the City ought to find another use for the building. Meaning, close it as a library but preserve it. The branch ought to be relocated to someplace like Garden City Mall. I visit the Henderson branch often, and the lay-out of that space is user friendly and allows for future reconfiguration as needs evolve.	1/5/2024 3:58 PM
62	So glad it’s being upgraded.It is used by many people in the area , some with challenging disabilities, it will be a modern welcoming safe building. A huge asset to them West Kildonan area.	1/5/2024 7:56 AM
63	This established community in proximity to a number of schools is needed. The upgrades will serve current and new generations in this family-friendly community. Please invest in upgrades to serve thr community for the next few decades.	1/5/2024 5:40 AM

64	I go to the library regularly, once or twice a month. It's great to hear some investments are being made to upgrade the building.	1/5/2024 12:01 AM
65	I actually like that the childrens area moved upstairs. Hoping that it is a more secure area. Would love to learn more about reading time with children and maybe a mother child event.	1/4/2024 11:46 PM
66	The local outcry over moving the library served the immediate neighbourhood well, but served the greater city extremely poorly - NIMBYism in reverse, I suppose.	1/4/2024 10:45 PM
67	I am surprised that Option 1 costs as much as $6 million, which makes Option 3 much more desirable in my view.	1/4/2024 7:05 PM
68	Na	1/4/2024 6:13 PM
69	I was in favour of the library moving to Garden City Shopping Centre and am disappointed that is not one of the options.	1/4/2024 5:04 PM
70	Please build a new library in garden city mall. The advantages to have a new library built there far outweigh expensive upgrades to an old building.	1/4/2024 4:38 PM
71	New immigrant services should be extended to the various city libraries and more outreach needs to be done by library staff to engage the community and highlight all of the programs/services available to citizens/visitors.	1/4/2024 2:19 PM
72	It’s time to quit listening to the minority, vocal special interest group and start concentrating on the needs of the actual users of the facilities.	1/4/2024 2:17 PM
73	This library is always busy and needs any help it can get.	1/4/2024 1:45 PM
74	While I have indicated in the first series of questions that I have not attended or used this library, the questions or, more specifically the available answers, did not allow me to indicate I have used the library many times in my youth.	1/4/2024 12:44 PM
75	kids are loud, the play places should always be in the basement, with the upstairs remaining a calm and quiet location for people who just want to come sit down and read.	1/4/2024 12:28 PM
76	Sounds like the redeveloped library will meet the needs of the varying needs of the surrounding community.	1/4/2024 12:20 PM
77	Transcona library needs to be expanded and redesigned so that it isn't just one big loud, cold box.	1/4/2024 11:51 AM
78	No	1/4/2024 11:30 AM
79	Just wondering if the city can use the excess money for projects that would benefit the needy instead of upgrading libraries that have already been upgraded.	1/4/2024 11:18 AM
80	this is an excellent library, right next to a school	1/4/2024 10:56 AM
81	Are there plans to keep people that are not using the library as a library out?	1/4/2024 10:53 AM
82	Stop dithering and "Just Do It" If you build it they will come, cheaper to do it today than tomorrow or further into the future.	1/4/2024 10:37 AM
83	Minimal budget for basic improvements, do not go over the moon to make it all things for all people, that is not required today!	1/4/2024 10:15 AM
84	Cost	1/4/2024 10:14 AM
85	Having a Library is a necessity and essential for this community. This is a region of Winnipeg that has a large lower socioeconomic population and significant Indigenous, POC, and multicultural/multilingual groups which deserve a great allotment of resources (since free resources such as the library are in demand). This type of a building is key in encouraging children and teens, adults and seniors to positively connect with a wealth of reading material and computer resources (email, internet,etc). Libraries help to encourage us all to be readers whether in print or on a device, to read multiple types of materials (fiction, nonfiction, graphic novels, newspapers, periodical, online news, email, etc).	1/4/2024 9:47 AM
86	Our family lives in Garden City and we would like to see a library closer to our neighbourhood. We have relatives living in Amber Trails and they expressed interest in using a library, but don't have any in their area.	1/4/2024 9:41 AM

87	Though I do not live in the area or use the library, I strongly believe that city investment in local libraries is good for the city as a whole. Improving this library can only make things better for us all.	1/4/2024 9:09 AM
88	I like the option of keeping the library closer to the people it serves.	1/4/2024 8:42 AM
89	I think investing in our libraries is a great thing to do as they are free accessible community spaces that benefit everyone.	1/4/2024 8:38 AM
90	Move the library to Garden City Mall. I think a library in the mall can benefit from the mall's security staff.	1/4/2024 8:35 AM
91	I live in the Riverbend area. Neither the West Kildonan or Henderson libraries are very accessible by bike/walk. I wish there was a location closer... at least something where I can pick up/return movies I put on hold.	1/4/2024 8:34 AM
92	i have never visited this library as it isn't in my neighborhood but i am all for maintaining and or improving these services.	1/4/2024 8:27 AM
93	Outside reading garden sounds lovely! It is beside Jefferson so you will get a lot of traffic noise, so some thought needs to go into trying to block that extra noise out. The reading space in a sunny window location sounds great for a kids space.	1/4/2024 8:25 AM
94	It's sad that the councilors listened to those few who protested and not what's best for the community as a whole. I would have liked a vote or a survey on building a new facility.	1/3/2024 4:00 PM
95	The library should be relocated to expand service to an under serviced area or just shut down. The city does not need to small libraries located close to each other. It would be a better use of money and would serve more Winnipeggers to relocate to an under served area.	1/3/2024 2:59 AM
96	What is the cost of a new building be vs retrofitting this one? The location is poor. Can a cafe be included?	1/2/2024 9:50 PM
97	Please give lots of love to this library. It is such an important space to us. I'd even be willing to volunteer if needed to help keep this space going!	12/30/2023 8:44 PM
98	Parking in and around the library is difficult now, how will any of these changes affect the parking around the library?	12/30/2023 4:37 PM
99	Keep photocopier access. It's a small but important service.	12/30/2023 10:47 AM
100	How about a small herb garden?	12/29/2023 5:04 PM
101	Longer hours would be the most important thing over physical changes.	12/29/2023 3:28 PM
102	Na	12/29/2023 3:06 PM
103	Option 3 is the best as the current library is quite dark and dingy. Very uninviting. The proposed sunny room and outdoor reading areas are definitely a great idea and will help to liven up the library. Fully support option 3	12/29/2023 1:29 PM
104	Option 3 is best for our community. It will ensure that our library can continue serving the growing neighbourhood well into the future.	12/29/2023 1:21 PM
105	I want to know how long it will take to do this plan and if the Library will be open when doing the updates. Do you have a date in mind. also it seems that you are trying to do too much in such a small space. You want space in a library.	12/29/2023 11:27 AM
106	Update the Library to modern standards maintaining all building codes is ideal.	12/29/2023 11:21 AM
107	There is nothing beautiful architecturally with this building. Just a money pit.	12/29/2023 11:13 AM
108	Read #7	12/29/2023 11:11 AM
109	Option 1 is sufficient	12/28/2023 9:44 PM
110	Protect the mid century modern architecture. Restore the wood facia surrounding the roof which was unfortunately painted over some time ago.	12/28/2023 11:41 AM
111	I look forward to seeing the improvements made.	12/28/2023 11:06 AM
112	There was an option a year ago, about moving it into the newer area of the city,where there are	12/26/2023 8:00 PM

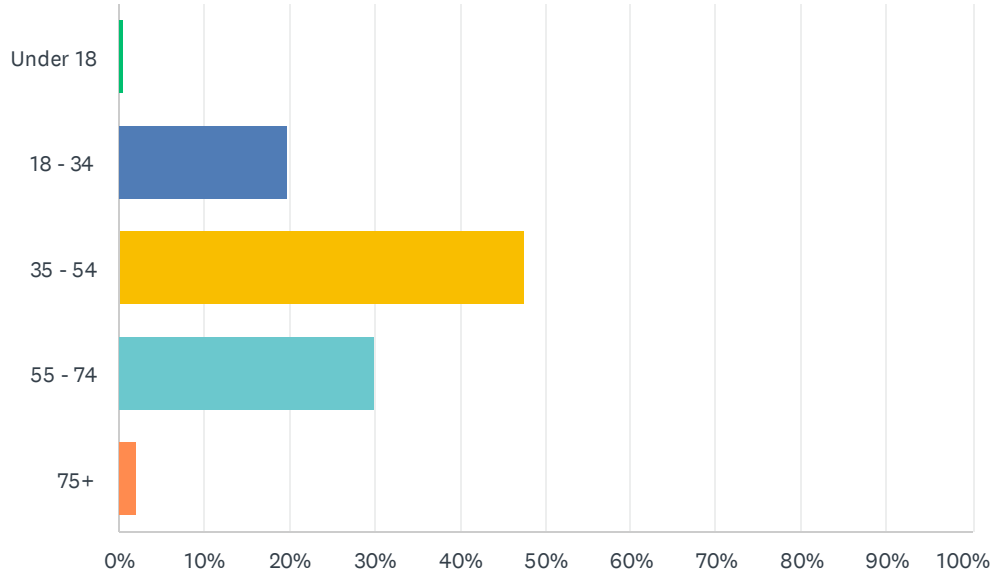
	many young families, but a few people only though they are closing my library, we must stop at all costs, there is a branch about 12 blocks away but that isn't good enough, this is my library. I have gone to the west Kildonan library since it opened in 1967; but maybe it needs to move where more people are residing and easier to get to. This building has a great elevator, I use it when I go to baking club, I have a disability and I can easily get in and out of the building, parking is fine and washrooms are okay.	
113	Warm color scheme fireplace (artificial)comfortable couches and a coffee bar. Make the environment inviting.	12/26/2023 3:09 PM
114	The outdoor garden space would be so ideal for everyone's mental and overall well being.	12/26/2023 9:27 AM
115	The third option is the best. I hope the city will put some money into the north end for a change and actually complete a project instead of just talking about it for years.	12/25/2023 1:31 PM
116	I've seen a lot of people from this area go to transcona or newer libraries and it would be great to have a space for the community that works for everyone	12/25/2023 12:03 PM
117	Can you repurpose the building beside. Ben Zaidman??? Think outside the box. I think you present another option. Are you allowed solicit high end donors? There has to be someone with money who can help.	12/24/2023 1:40 PM
118	2 secure entrances for sure.	12/24/2023 1:36 PM
119	more diverse selection of books, better layout of categories. comfortable seating area. well appointed physical surroundings, colours, more open inviting areas. currently too disconnected and frenetic space.	12/24/2023 9:04 AM
120	this project sounds wonderful! I love my library especially the amazing staff & hope it continues forever with a beautiful new face.	12/22/2023 10:44 AM
121	I'd like secured bike parking. Maybe bike lockers?	12/22/2023 8:25 AM
122	I believe that the library should have been moved as originaly planned to the gartden city mall. Bigger space, everything on one floor, easy to access. Brand new space. So disappointed!!!!!	12/21/2023 8:32 PM
123	I appreciate that the West Kildonan Library will remain as a community resource after these renovations.	12/21/2023 9:42 AM
124	This library building should be decommissioned and a new facility built.	12/21/2023 9:28 AM
125	The building should be re-purposed for another use or sold. Its use as a library facility should end.	12/21/2023 9:28 AM
126	Would be interesting to have one of the rooms be occasionally used for movie viewing for those in the area that can't afford or aren't able to get out much to give them something to do.	12/20/2023 8:30 PM
127	More empty desks to work at, for individual uses (ex: bringing our own laptops to work at the desk)	12/20/2023 7:06 PM
128	Maybe empty individual desks to work as well. It would be nice if before the renovations a video of the library is taken, to capture the past interior and exterior to refer back to in future years.	12/20/2023 7:00 PM
129	Just want to say how happy I am that we have saved this valuable resource.	12/20/2023 2:36 PM
130	I'm so glad this library is staying in the community. I support any measures that make the library more accessible and anything that inspires a love of reading in children and adults!	12/20/2023 2:22 PM
131	Moving the library north to a facility like Garden City mall would not just benefit the West Kildonan neighborhood, but the expanding neighborhoods west of Garden City. Can the citiy not look forward to what's best for this area as a whole and not just 'fixing' an already outdated building, especially when there is an exisitng, renovated Library 5 minutes away (St John's Library).	12/20/2023 2:09 PM
132	Children areas should be kept separate from adult areas, and there should be a back door for public use.	12/20/2023 12:49 PM
133	Please do not move the library!	12/20/2023 11:43 AM
134	Consider adding more washrooms, brining the building up to code , spend the money on	12/20/2023 6:01 AM

	expanding the area to add more books / seating areas	
135	This survey is misleading. It solicits preemptive positive responses for options involving the least investment by presenting them first, unfairly weighting them against the best option.	12/19/2023 10:56 PM
136	I believe investing in community libraries is beneficial for the whole of the community as the library can offer a place for children to feel comfortable, and can create a safe welcoming space for all ages. Literacy is the gateway to future success.	12/19/2023 8:19 PM
137	Ver exciting and nice to see these options!	12/19/2023 7:06 PM
138	I just moved into Winnipeg from outside the city in 2020, and finally recently got my library card. I've always loved libraries, used them extremely often throughout my education, and am so excited to be living close to this location. Happy it will be getting some important upgrades, and looking forward to visiting the library a ton more!	12/19/2023 6:13 PM
139	Would really like to see the entire Winnipeg library system increase its holdings. There is always a long wait for books.	12/19/2023 5:42 PM
140	Please open it on weekends!!	12/19/2023 4:43 PM
141	It feels like a new location would better serve the community. Modern libraries should be put in areas that see higher traffic in order to serve those with lower income and with less options for transportation.	12/19/2023 1:07 PM
142	I like the idea of adding an outdoor space, especially during the summer months and could be a great addition for the neighbourhood. Adding new spaces and more books to the collection might help bring in more people as well.	12/19/2023 1:06 PM
143	Libraries in this city are VASTLY underfunded. Make this happen.	12/19/2023 12:09 PM
144	Even though the ramp is not to code, I think it functions perfectly well. It's a waste of money to replace it.	12/19/2023 10:44 AM
145	There should be private bathrooms for children and caregivers only	12/19/2023 9:51 AM
146	At the architectural meeting, the possibility of restoring the original skylight lattice above the circulation desk was raised. I think this would be worth pursuing.	12/19/2023 8:47 AM
147	I really hope we can get a version of Option 3. This library is a community hub for many and only upgrading to accessibility standards doesn't invest in this space by seeing its potential. When I found out the community downvoted the move to the shopping centre I hoped that we'd still be able to get new features like other renovated libraries have and not the bare minimum.	12/19/2023 8:38 AM
148	This library is heavily used by the children that go to school and daycare between powers and andrews. There are always kids waiting here after school, a safer, more child friendly outdoor area will be a big improvement. The location of this library is really important to the area and ideal for the school community around it. Improving the children's zone and moving it upstairs would be awesome. I know there are many challenges upgrading a building of this age but I do believe the investment into this facility will continue to provide huge community benefits. We are thankful that this library was saved despite the issues with its age and accessibility. Overall its location is so very important to us.	12/19/2023 12:23 AM
149	Add more books!!! Larger selection of books at the library! Please and thank you. Also more programs. Groups etc. Make it a hub for the community.	12/18/2023 10:41 PM
150	Enhance the collections. Get programming going. Staff the building properly to have positive, appealing programming.	12/18/2023 10:30 PM
151	We would love to see these improvements! Exciting things!!	12/18/2023 10:27 PM
152	All these options seem nice. Again I would focus on the rhyme time groups. I don't know if any other groups besides schools that may ever use them. Again more money into rinks and getting kids to be more active should be the focus of city programming.	12/18/2023 10:25 PM
153	Just, PLEASE don't move the library to the mall.	12/18/2023 9:55 PM
154	Please tell the public exactly who at city hall they will be suing when there's a sexual assault in a "Gender neutral" bathroom.	12/18/2023 9:36 PM
155	I am happy you are planning on staying in the same location.	12/18/2023 9:23 PM

156	No Gender Neutral Washrooms.	12/18/2023 9:17 PM
157	More children’s and family programming (reading time, sing along a)	12/18/2023 9:09 PM
158	Make the front and back accessible for elderly with mobility issues.	12/18/2023 8:58 PM
159	Please keep my local library open! I’ve been going there my entire life (33 years) as it is very close to walk or bus to (I don’t drive), is comfy and friendly, small but still has a good collection!	12/18/2023 8:48 PM
160	Any additions or modifications should respect and enhance the existing architecture.	12/18/2023 8:46 PM
161	More Ukrainian language materials please.	12/18/2023 8:40 PM
162	N/A	12/18/2023 8:15 PM
163	Love the addition of an outdoor reading space as well as the sunny indoor reading addition in option 3. The north end deserves a library that is as beautiful as libraries in the south end. The north end is already short changed hugely in children’s (City of Winnipeg) Leisure Guide programs. Please make this library desirable for our families to use well into the future!	12/18/2023 7:32 PM
164	Perhaps decrease the size of the circulation desk and modernize the area allocated for computers.	12/18/2023 7:13 PM
165	I love this library	12/18/2023 7:06 PM
166	Update the bathrooms, carpet and open the north doors to the public who chose to park in the back	12/18/2023 6:45 PM
167	Glad to see some updates to this library. I prefer option 3 the best. I always thought the space a bit small and would welcome the addition.	12/18/2023 6:42 PM
168	I would like to see a larger and more updated collection of books. A little more light snd comfortable seating.	12/18/2023 5:58 PM
169	My family and I have just recently in the past year and a half begin to use the library. We are grand parents and take our children regularly. We use this one when our “home library is closed. With the cost of living, the libraries can help achieve equity. Keep this library open	12/18/2023 4:42 PM
170	Keeping a modest budget to get the building more accessible year round seems like a nice balance to me.	12/18/2023 4:40 PM
171	I think the children especially with the school being there should have priority. Yes to play area yes to more stuff for the children and elderly.	12/18/2023 3:29 PM
172	Please continue to consider having a big area for kids. thanks	12/18/2023 3:29 PM
173	Waste of tax money.Everything you need is online.	12/18/2023 3:27 PM
174	I would like to see the library open on weekends too.	12/18/2023 3:22 PM
175	Gender neural washrooms should be just singular washrooms.	12/18/2023 3:17 PM
176	Adding sunlit and outdoor areas will make it a much more inviting space for the whole community	12/18/2023 2:36 PM
177	Love this library, big UP to the staff !	12/18/2023 2:26 PM
178	try to get the best use of the library for the $ you are going to spend . So spend on the kids books and computer equipment meeting rooms and forget about the outdoor reading area ! can read anywhere	12/18/2023 2:20 PM
179	Just don't close this library.	12/18/2023 1:46 PM

Q9 What is your age?

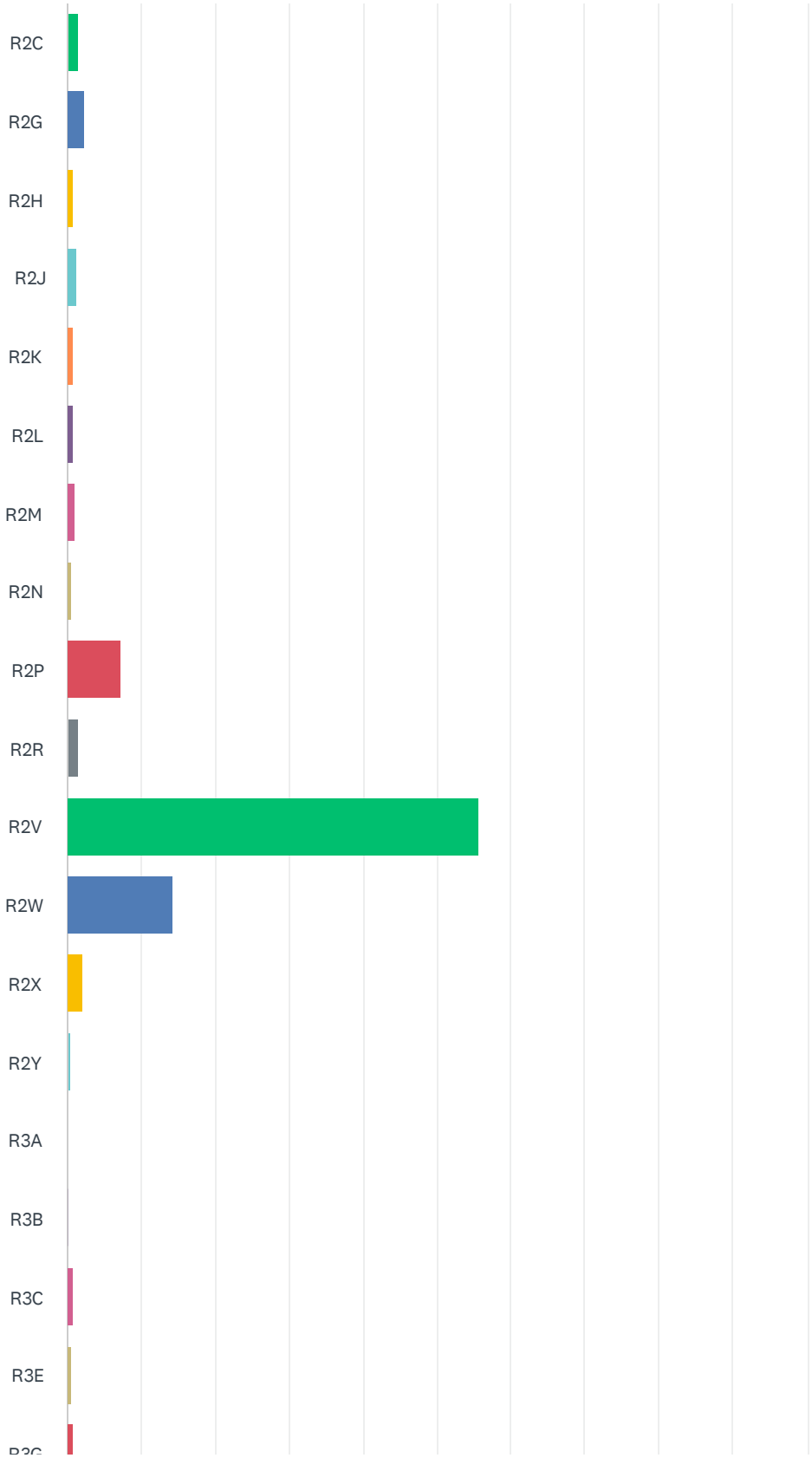
Answered: 537 Skipped: 81

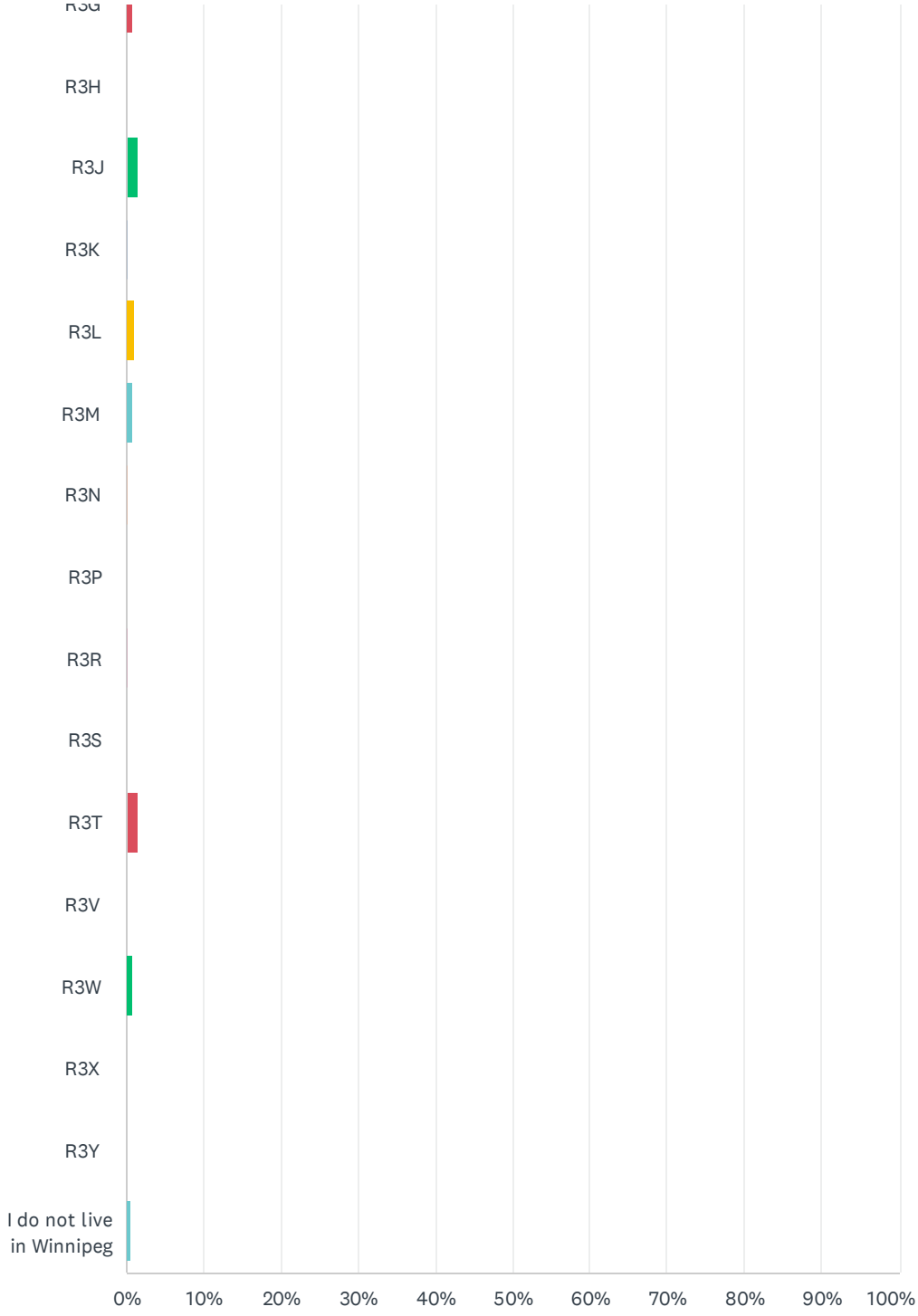


ANSWER CHOICES	RESPONSES	
Under 18	0.56%	3
18 - 34	19.74%	106
35 - 54	47.49%	255
55 - 74	29.98%	161
75+	2.23%	12
TOTAL		537

Q10 Please provide the first three characters of your postal code.

Answered: 527 Skipped: 91




R3G
R3H
R3J
R3K
R3L
R3M
R3N
R3P
R3R
R3S
R3T
R3V
R3W
R3X
R3Y
I do not live in Winnipeg
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%

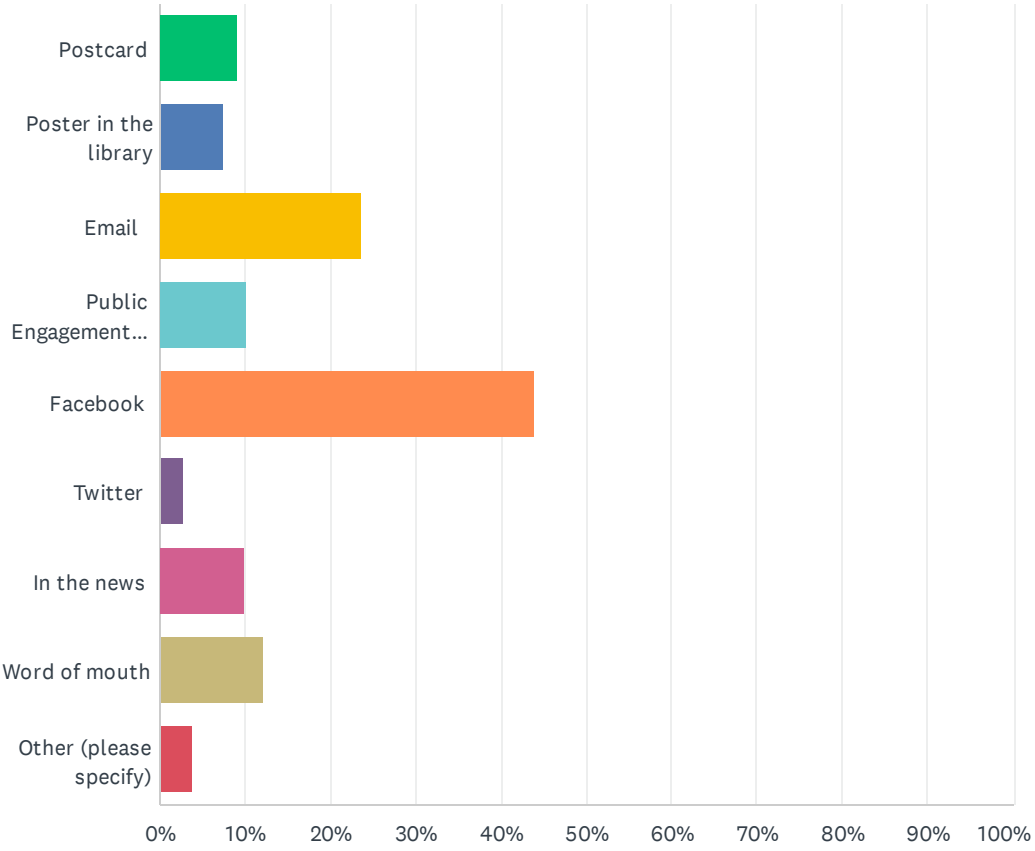
ANSWER CHOICES	RESPONSES	
R2C	1.52%	8
R2G	2.28%	12
R2H	0.95%	5
R2J	1.33%	7
R2K	0.95%	5
R2L	0.95%	5
R2M	1.14%	6
R2N	0.57%	3
R2P	7.21%	38
R2R	1.52%	8
R2V	55.60%	293
R2W	14.23%	75
R2X	2.09%	11
R2Y	0.38%	2
R3A	0.00%	0
R3B	0.19%	1
R3C	0.95%	5
R3E	0.57%	3
R3G	0.76%	4
R3H	0.00%	0
R3J	1.52%	8
R3K	0.19%	1
R3L	1.14%	6
R3M	0.76%	4
R3N	0.19%	1
R3P	0.00%	0
R3R	0.19%	1
R3S	0.00%	0
R3T	1.52%	8
R3V	0.00%	0
R3W	0.76%	4
R3X	0.00%	0

R3Y	0.00%	0
I do not live in Winnipeg	0.57%	3
TOTAL		527

#	I DO NOT LIVE IN WINNIPEG	DATE
1	R4A	12/30/2023 12:14 PM
2	West Saint Paul	12/26/2023 4:11 PM
3	R4A	12/19/2023 3:03 PM

Q11 How did you hear about this project? (Check all that apply)

Answered: 532 Skipped: 86



ANSWER CHOICES	RESPONSES	
Postcard	9.21%	49
Poster in the library	7.52%	40
Email	23.68%	126
Public Engagement Newsletter	10.15%	54
Facebook	43.98%	234
Twitter	2.82%	15
In the news	9.96%	53
Word of mouth	12.22%	65
Other (please specify)	3.76%	20
Total Respondents: 532		

#	OTHER (PLEASE SPECIFY)	DATE
1	Just going through things on internet	1/20/2024 6:58 PM

2	Informed by library staff while picking up books on hold	1/11/2024 6:39 PM
3	From visiting the library.	1/11/2024 9:27 AM
4	Librarians	1/10/2024 1:09 PM
5	Winnipeg Architecture Foundation	1/10/2024 11:46 AM
6	Library staff	1/10/2024 10:48 AM
7	from library staff	1/8/2024 2:27 PM
8	I have a library membership	12/30/2023 12:14 PM
9	Staff	12/26/2023 8:01 PM
10	Website	12/24/2023 6:10 PM
11	I am part of the Save the Library Group	12/20/2023 2:37 PM
12	Lecture by Winnipeg Architecture Foundation about the history of the library talked about this project	12/19/2023 3:26 PM
13	Instagram, but your link didn't work	12/19/2023 2:07 PM
14	Annabel sent me the link	12/19/2023 11:18 AM
15	LAC member email	12/19/2023 11:02 AM
16	WPL Instagram	12/19/2023 8:48 AM
17	Community Facebook page	12/18/2023 11:10 PM
18	Instagram	12/18/2023 5:47 PM
19	Instagram	12/18/2023 2:50 PM
20	Instagram	12/18/2023 1:47 PM

Q12 If you have time, please tell us what you thought of this survey.How would you rate your experience (1 star is a poor experience and five stars is an excellent experience)

Answered: 220 Skipped: 398

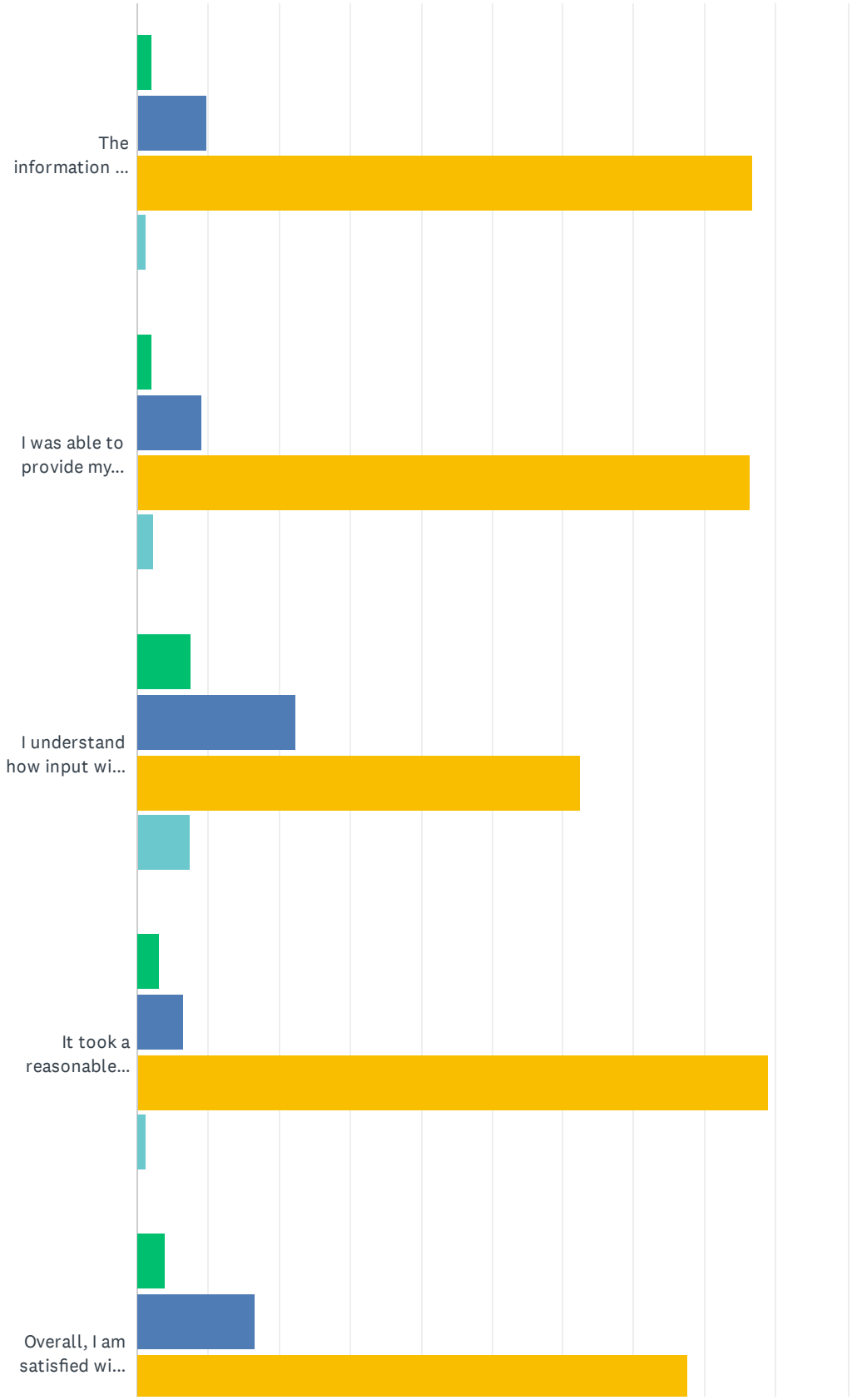
4.2★
average rating



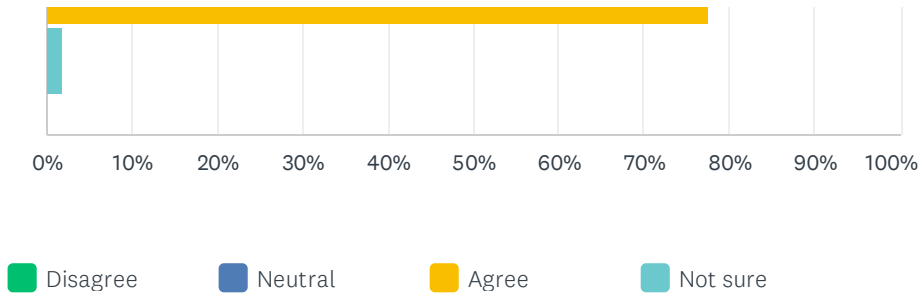
	1	2	3	4	5	TOTAL	WEIGHTED AVERAGE
☆	2.27% 5	3.64% 8	16.82% 37	31.36% 69	45.91% 101	220	4.15

Q13 What did you think of the engagement?

Answered: 380 Skipped: 238



West Kildonan Library Review



	DISAGREE	NEUTRAL	AGREE	NOT SURE	TOTAL	WEIGHTED AVERAGE
The information was clear and easy to understand	2.11% 8	9.74% 37	86.84% 330	1.32% 5	380	2.87
I was able to provide my opinion	2.11% 8	9.23% 35	86.28% 327	2.37% 9	379	2.89
I understand how input will be used	7.65% 29	22.43% 85	62.53% 237	7.39% 28	379	2.70
It took a reasonable amount of time to complete	3.17% 12	6.61% 25	88.89% 336	1.32% 5	378	2.88
Overall, I am satisfied with how I was engaged	3.97% 15	16.67% 63	77.51% 293	1.85% 7	378	2.77

APPENDIX F:
ASBESTOS REPORT

ASBESTOS INVENTORY CONTROL

Planning, Property and Development Department
Municipal Accommodations Division
4th Floor - 185 King Street • Winnipeg, MB • R3B 1J1

Building Name:	West Kildonan Library	**Inspection Date:**	December 5, 2022
Building Code:	LB-11	**Inspected By:**	Ryan Matthews
Building Address:	365 Jefferson Avenue	**Construction Date:**	1967

NOTES:

1. Asbestos inspections and inventory updates are conducted annually.
2. There may be asbestos containing materials present that were not located during asbestos inspections.
3. Floor tile and sheet flooring installed before 1990 may contain asbestos and must be treated as an asbestos containing material.
4. Vermiculite insulation may contain pockets of asbestos. All vermiculite insulation must be treated as an asbestos containing material.
5. **For asbestos related inquiries, call Central Control at 986-2382**

LB-11

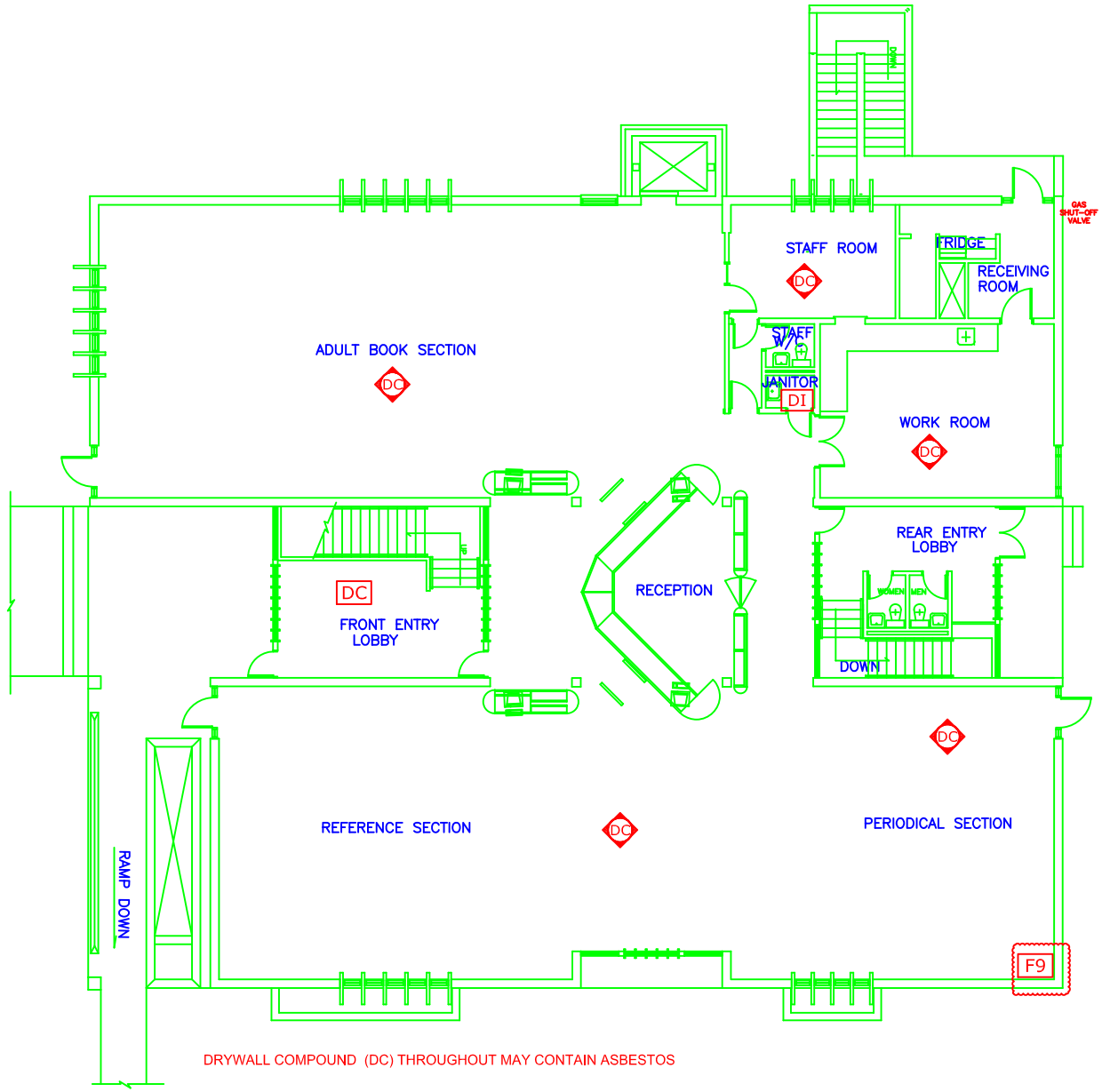
Material Location	Material Description	Drawing Label	Material Condition	Testing Status	Lab Report #	Date M/Y	Test %	Est. %
Drywall Compound throughout may contain asbestos								3
Exterior								
Soffit	Textured Coating Potential ACM		Good					
Main Floor								
Entire Main Floor	Textured Ceiling	PL	**Removed/96**					
Periodical Section	9x9 Floor Tile Remnant in NE Corner	F9	Good					
Janitor Room	9x9 Floor Tile	F9	**Removed**					
Staff Washroom	9x9 Floor Tile	F9	**Removed**					
HVAC Duct above Janitor Room	Duct Insulation	DI	Good					
Basement								
North Stairwell	12x12 Floor Tile -Newer	F12	Good	**TESTED**	253062	Apr/'21	0	
Entrance Lobby	9x9 Floor Tile	F9	Good					
Auditorium	24x48 Ceiling Tile	C48	Good	**TESTED**	103877	Sep/'11	0	
	Drywall Compound	DC	Good	**TESTED**		Sept'14	3	
	Pipe Fitting Insulation - Above Ceiling	PF	Good					
South Storage Room	Pipe Fitting Insulation - Above Ceiling	PF	Good					
	9x9 Floor Tile	F9	Good					
Mechanical Room	Pipe Fitting Insulation - Inside Confined Space (L1)	PF	Good					
	9x9 Floor Tile (Loose under cabinet)	F9	Good					
Lunch Room	Pipe Fitting Insulation - Above Ceiling	PF	Good	**TESTED**	139481	Apr/'14	20	
	9x9 Floor Tile	F9	Good					
Stack Room	Pipe Fitting Insulation	PF	**Removed**	**TESTED**	106557	Nov/'11	2-15	

Material Location	Material Description	Drawing Label	Material Condition	Testing Status	Lab Report #	Date M/Y	Test %	Est. %
	Drywall Compound - Ceiling	DC	Good	TESTED	106557	Nov/'11	3	
	12x12 Floor Tile	F12	Good	TESTED	171804	Jun/'16	3	
	Floor Mastic (Black)	MA	Good	TESTED	171804	Jun/'16		
	12x12 Floor Tile	F12	**Needs Repair**	TESTED	253062	Apr/'21	0	
	Floor Mastic (Black)	MA	Good	TESTED	253062	Apr/'21	0	
	12x12 Floor Tile	F12	Good	TESTED	103877	Sep/'11	0	
	Floor Mastic (Black)	MA	Good	TESTED	103877	Sep/'11	0	
North Storage Room	Pipe Fitting Insulation	PF	Good					20
Crawlspace	Pipe Fitting Insulation	PF	Good					20
	Mastic - Pipe	MA	Good					
Central Lobby	Pipe Fitting Insulation - Above Ceiling	PF	Good					20
	9x9 Floor Tile - Under Carpet	F9	**Removed'19**					
	Floor Leveller		Good	TESTED	213874	Jan/'19	0	
Supervisor's Office	9x9 Floor Tile - Under Carpet	F9	**Removed'19**					
Children's Book	Pipe Joint Insulation - On North Wall	PF	Good	TESTED	106557	Nov/'11	0	
	9x9 Floor Tile - Under Carpet	F9	**Removed'19**					
	Drywall Compound	DC	Good	TESTED	153146	Mar/'15	0	
Electrical Room	Pipe Fitting Insulation - Above Ceiling	PF	Good					20
Boiler / Furnace Room	Stucco - Ceiling	ST	Good	TESTED	L362430	Jan/'06	1-5	
Breeze Way	9x9 Floor Tile	F9	**Removed'19**					
Puppet Room	9x9 Floor Tile	F9	**Removed'19**					
Teacher Book Room	Pipe Fitting Insulation	PF	Good	TESTED	103877	Sep/'11	0	
	9x9 Floor Tile - Under Carpet	F9	**Removed'19**					

NOTES:

1. Asbestos inspections and inventory updates are conducted annually.
2. There may be asbestos containing materials present that were not located during asbestos inspections.
3. Floor tile and sheet flooring installed before 1990 may contain asbestos and must be treated as an asbestos containing material.
4. Vermiculite insulation may contain pockets of asbestos. All vermiculite insulation must be treated as an asbestos containing material.
5. **For asbestos related inquiries, call Central Control at 986-2382**

LB-11



N

Main Floor Plan

SCALE: NTS

LEGEND

GENERAL LABELS	ON CEILING	ABOVE CEILING	UNDER FLOORING	WALL DETAIL	ENCAPSULATED ASBESTOS
??	??	??	??	??	

?? =

AF: ASBESTOS FABRIC	F9: 9X9 FLOOR TILE	SC: STIPPLE CEILING
BR: BOILER REFRACTORY	F12: 12X12 FLOOR TILE	SO: SPRAY ON
CA: CAULKING	HB: HARDBOARD	ST: STUCCO
C12: 12X12 CEILING TILE	MA: MASTIC	TI: TANK INSULATION
C24: 24X24 CEILING TILE	PF: PIPE FITTING	TP: TRANSITE PIPE
C48: 24X48 CEILING TILE	INSULATION	VE: VERMICULITE
DC: DRYWALL COMPOUND	PI: PIPE INSULATION	
DI: DUCT INSULATION	PL: PLASTER	
FS: SHEET FLOORING	RD: ROOF DRAIN	

NOTES:

1. THERE MAY BE ASBESTOS CONTAINING MATERIALS PRESENT THAT WERE NOT LOCATED DURING BUILDING INSPECTIONS
2. REFER TO THE ASBESTOS INVENTORY SURVEY SHEET FOR MORE INFORMATION
3. DO NOT DISTURB ASBESTOS. FOR HANDLING PROCEDURES CALL CENTRAL CONTROL AT 986-2382

ASBESTOS LOCATIONS

BUILDING: West Kildonan Library
LB - 11
365 Jefferson Avenue
Winnipeg, Manitoba

REVISED BY:	DATE:	SCALE:	SHEET #:
REM	October 29, 2021	N.T.S.	1/2

Winnipeg
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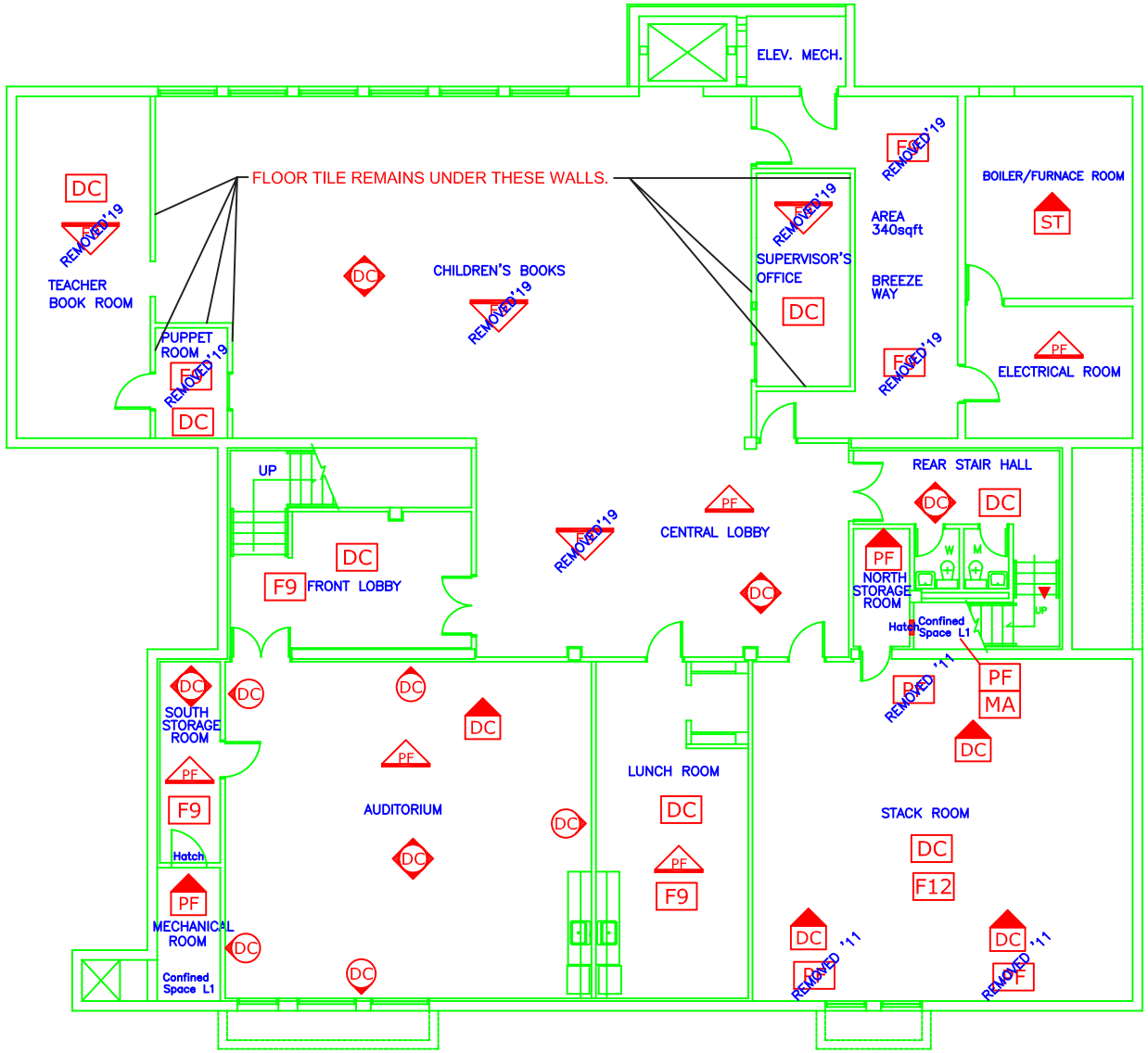
CITY OF WINNIPEG
PLANNING, PROPERTY & DEVELOPMENT DEPARTMENT
MUNICIPAL ACCOMMODATIONS DIVISION
4th FLOOR - 185 KING STREET
WINNIPEG, MANITOBA R3B 1J1
PHONE: (204) 986-7266
FAX: (204) 986-7311



Basement Plan

SCALE: NTS

LEGEND

GENERAL LABELS ?? | ON CEILING ?? | ABOVE CEILING ?? | UNDER FLOORING ?? | WALL DETAIL ?? | ENCAPSULATED ASBESTOS

?? =

- AF: ASBESTOS FABRIC
- BR: BOILER REFRACTORY
- CA: CAULKING
- C12: 12X12 CEILING TILE
- C24: 24X24 CEILING TILE
- C48: 24X48 CEILING TILE
- DC: DRYWALL COMPOUND
- DI: DUCT INSULATION
- FS: SHEET FLOORING
- F9: 9X9 FLOOR TILE
- F12: 12X12 FLOOR TILE
- HB: HARDBOARD
- MA: MASTIC
- PF: PIPE FITTING INSULATION
- PI: PIPE INSULATION
- PL: PLASTER
- RD: ROOF DRAIN
- SC: STIPPLE CEILING
- SO: SPRAY ON
- ST: STUCCO
- TI: TANK INSULATION
- TP: TRANSITE PIPE
- VE: VERMICULITE

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