



FACILITY EVALUATION REPORT

Main Library

36 Van Horne Avenue, Dryden, ON

Facility Details

Gross Area (Sq. m.):	755		
Construction Year:	1996		
Replacement Cost:	\$ 3.16 million		
Previous Evaluation:	2010	By:	Stantec
Date of Evaluation:	09-Aug-22	Project #:	22091
Evaluator:	Quartek Group Inc. architects, engineers, planners		

Repair/Maintenance Events **See attached breakdown of action items by period.*

0-5 year Recommended Event Action Budget	\$	94,040.00
6-10 year Recommended Event Action Budget	\$	256,410.00
11-20 year Recommended Event Action Budget	\$	225,270.00

General Summary:

The facility is a connected part of the City Hall complex and part of the mechanical system is housed in the basement of the City Hall. The Part of the complex containing the library functions is classified as Group D use. The electrical utility service for the entire complex tied into the library and therefore the immediate replacement action is a new service, meter box, disconnect and main switch gear. The collective age of mechanical and electrical equipment, fixtures and systems, the facility will require a schedule of progressive replacement over the next twenty years in order to maintain reliable operation and energy efficiency.

Structural Summary (Superstructure):

The library is a combination of wood and OWSJ roof framing supported on perimeter masonry walls. The east main floor is a slab-on-grade construction with only a partial basement under the main floor mezzanine. This floor appears to be a pre-stress concrete plank floor system. The overall structure is generally sound.

Envelope Summary (Shell):

There are two phases in the library configuration but both envelope treatments are near to identical, being a brick veneer outer material with masonry support. Key components include roofing which is in fair condition but will require replacement within the horizon of this study. Localized leaks appear to be confined to strut penetrations requiring repair. Windows and glazing, would warrant a study to evaluate the scheduled replacement and budgeting.

Interior Summary:

Nearly all the interior is original to the construction with only minor alterations. A power wheelchair lift was added at some juncture to access the upper level of the main floor.

Mechanical Summary:

The library area is serviced by a force-air furnace with ducted air distribution. The air handling system includes a split system with cooling coils. Due to the overall age of system installation, the theoretical life of various mechanical systems (piping, drains, ducting, etc.) are likely to require partial or whole replacement within the event horizon of the study (20 years) that should be budgeted.

Electrical Summary:

With a shared main electrical service, the primary replacement event would be the electrical service as noted in the detailed list of 0-5 years. The emergency lighting batteries will require routine replacement. Due to the overall age of system installation, the theoretical life of various electrical systems are likely to require partial or whole replacement within the event horizon of the study (20 years) that should be budgeted.

Study References and Methodology:

The study provides a snapshot of the physical condition and age of building components or systems of the facility at the time of the site visit conducted for evaluation. The site visit is a brief visual, non-invasion walk-through survey of the readily accessible aspects of the building and its site. The survey should not be considered technically exhaustive. The study team also reviews any technical drawings and or other reports and/or building records that are supplied to the evaluator by the facility owner/operator. A brief interview is conducted with maintenance personnel or building users, when possible, to further ascertain known issues for the facility assessment.

The study follows the Uniformat II method for categorizing building components and identifies a potential repair or replacement event. Such an event is provided with an approximate estimate of quantities and cost to maintain the building and not necessarily create an improvement of building feature or performance. The events are organized into potential risk of occurrence over three periods starting with the next five years, years 6 to 10 thereafter and for a period not exceeding a horizon of 20 years from the visit date. In each period, the variables affecting repair or replacement events diminish in accuracy of event cost the further this action is undertaken from the date of the report.

The methodology used in this study is based on the contract scope and the terminology/limitations of ASTM E2018-15 Standard Guide for Property Assessments. Event estimates provided herein are represented in 2022 Canadian dollars. Future periods referred to in this report should be indexed based on several factors affecting future costs, of which may include inflation indexing, regional changes in labour or material availability in the construction industry. The reader would apply these accordingly.

Extra Study: In context to a Uniformat II item, our report may on occasion make a recommendation for the City to engage an expert to conduct addition investigation and/or study concerning an existing building component. This is because a determination could not be reasonably ascertained by Quartek within the parameters of our study scope or because the study/investigation will afford the City more latitude as to the best remedial action other than simply a repair/replacement option. The study/investigation recommendation is in itself an event and we identify a potential cost amounts for budgeting this action. As a function of a proposed allowance, the City may consider the following:

Window (and door) Condition Study: This is a situation we find commonly with window frames and glazing conditions. Glazing may have been replaced or glazing replacement may be one of the options for the City to consider instead of whole window (frame) replacement often at considerably less cost and with improved performance. Where we have recommended a study, this precedes any budgeting exercise. So in the case where we proposed

We may determine that as a follow-up after implementing a recommended study/investigation, the result (findings) are likely to facilitate a cost for replacement, remediation or other action, a budgetary amount in the form of an allowance has been noted. The findings of the recommended study may exceed this allowance depending on the outcome, but some funding will presumably be allocated to cover a portion of the action.

Theoretical Life: (References provided from RE Capp and Other M/E reference documents) We have provided selective examples of typical operational/functional life for various building components as a general guide to readers:

Electrical Components

Electrical Switch gear	40 years
Electrical Light Fixtures	20 - 30 years + *Efficiency Obsolescence
Radiant Electrical Heating	20 years + *Efficiency Obsolescence
Main Conductors	60 – 70 years
Transformers	30 - 40 years + *Efficiency Obsolescence

Mechanical Components

Plumbing Piping (Copper)	50 - 60 years
Hydronic Piping (galv.Iron)	70 - 90 years + *Efficiency Obsolescence
Washroom Fixtures	30 years + *Efficiency Obsolescence
San.Waste Piping (Iron)	60 – 70 years
Gas Furnaces(combustion)	20 - 30 years + *Efficiency Obsolescence

Air handling with H/C coils	50 years + *Efficiency Obsolescence
Light Metal Ducting	60 – 70 years
<u>Enclosure Components</u>	
Window Units (Alum.Frame)	40 - 50 years + *Efficiency Obsolescence
Flat Roofing Membranes	30 - 40 years + *Efficiency Obsolescence
Sloped Roofs (Shingles)	20 - 40 years
San. Waste piping (Iron)	30 - 70 years
Standard Brick (Veneer)	80 - 100 years
Conventional EIFS wall	40 - 60 years
Exterior Metal Siding	40 - 60 years
<u>Superstructure Components</u>	
Concrete Foundations	40 - 50 years + *Efficiency Obsolescence
Structural Steel Framing	30 - 40 years + *Efficiency Obsolescence
Masonry Walls	20 - 40 years
San. Waste piping (Iron)	30 - 70 years

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General Report Disclaimer:

The report should be reviewed in context to any prior hazardous building materials assessment studies as to further budgeting considerations beyond the limited repair/replacement events described in this report. The intended use of the report is for assistance with long-range asset management planning for a facility under its current state so ideally adequate budgeting can be provided.

The repair replacement events identified in the report are not intended to capture routine maintenance of various components of the facility that would be generally anticipated as part of the day-to-day operations. Deferred maintenance can lead to earlier than predicted failure of equipment, systems, materials, etc. Notwithstanding the described methodology, the study findings are only as accurate as the available information provided, the allowable time to conduct a site visit to properly document findings and the level of access afforded the surveyors by the owner's representative. Costing accuracy may vary due to our ability to fully assess that collateral affects of a repair/replacement event on other elements of the building or surrounding site.

Part A Substructure

No Events

Part B Shell**B10 Superstructure****B20 Exterior Enclosure****B201099 Other Exterior Walls**

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
	Unit Cost Est.		\$ 3,000	Localized Stone Concrete Sill repair on South facing Library Window	Repair
Condition	Sill cracked and loose from brick				
Scope	Exterior walls not described by the assembly categories listed above				

B2030 Exterior Doors**B203001 Solid Doors**

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
EA		1	\$ 1,000	South HM Access Door	Coating
Condition	weathered exterior: to be cleaned of rust, prime coat and finish paint				
Scope	Assemblies include all exterior solid doors, hollow metal or wood with frames. Solid doors may include viewing lites in door. Door hardware is located in B203008 EXTERIOR DOOR HARDWARE.				

B30 Roofing**B3010 Roof Coverings****B301006 Roof Openings and Supports**

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
	Unit Cost Est.	10	\$ 6,500	Flat Roofs: Localized leaking at parapet struts noted.	Replace
Condition	Leaking: Remove bitumen sealant entirely. Provide localized repair at strut base using EPDM compatible elastomeric materials and adhesives.				
Scope	All roof penetrations including roof hatches, sky lights, area glazing, roof hatches, gravity roof ventilators, smoke vents, etc.				

Part C Interiors

No Events

Part D Services**D20 Plumbing****D2010 Plumbing Fixtures**

D201004	Sinks						
	Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location		Flag
	EA		1	\$ 1,820	In washrooms		Replace
	Condition	Older fixtures and faucets. At theoretic life.					
	Scope	Self explained					

D2040 Rain Water Drainage

D204002	Roof Drains						
	Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location		Flag
	EA		4	\$ 6,720			Replace
	Condition	Exceeds theoretic life of system operation.					
	Scope	Assemblies include roof drains. The unit of measure at the assembly level is number of drains.					

D30 HVAC**D3020 Heat Generating Systems**

D302003	Furnaces						
	Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location		Flag
	KW	EA	2	\$ 36,400	City Hall Basement Main Furnaces, multi zone		Replace
	Condition	Exceeds theoretic life of Equipment Operation. Not efficient					
	Scope	This is a system that heats air. Assemblies would include furnace and necessary fittings and specialties required for hookup, including flue and stack. The unit of measure at the assembly level is each.					

D3030 Cooling Generating Systems

D303003	Direct Expansion Systems						
	Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location		Flag
	KW	EA	2	\$ 14,000	City Hall Basement Main Cooling, multi zone (includes Library)		Replace
	Condition	Exceeds theoretic life of Equipment Operation. Not efficient					
	Scope	Assemblies include condensers, compressors, heat pumps, and refrigerant piping. The unit of measure at the assembly level is each.					

D3040

Distribution Systems

D304008 Exhaust Systems

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
L/S	Assembly	1	\$ 3,800		Replace

Condition Exceeds theoretic life of Equipment Operation. Not efficient

Scope Assemblies include ductwork grilles, registers, diffusers, fans, and all associated work. The unit of measure at the assembly level is each system.

D50 Electrical

D5050

Electrical Service and Distribution

D501001 Main Transformers

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
AMP		1	\$ 10,000	Exterior Pad mount	Replace

Condition Enclosure starting to show some signs of rust. Who owns transformer, Utility or City of Dryden?

Scope Apportioned share of building service to library. Overhead or underground transformers used for primary electrical service. Assemblies include transformers, pad, trenching, and backfill.

D501002 Secondary

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
AMP		1	\$ 1,000	Wiring runs underground from pad mount transformer to main switchboard.	Replace

Condition Age and condition of wiring unknown but based on main disconnect is due for renewal

Scope Apportioned share of building service to library. Transformers fed from protection equipment on the building side of primary transformer. Assemblies include transformers, conduit, conduit support, and wire.

D501003 Main Switchboards

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
AMP		1	\$ 6,000	Main Electrical Room in City Hall	Replace

Condition Main switchboard appears to be original to the building. Breakers at or near end of theoretical life.

Scope Apportioned share of building service to library. This includes the protection equipment and metering devices for main distribution. Assemblies include main distribution panel, breaker, fuses, and meters.

D501005 Panels

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
AMP		1	\$ 2,000	Panel A and B in main electrical room and Panel C in basement	Replace

Condition Exceeds theoretic life of Panel.

Scope Apportioned share of building service to library. Branch circuit panel boards. Assemblies include panel boards, breakers, conduit, and wire.

D501006 Enclosed Circuit Breakers

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
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AMP	1	Below Panel B in main electrical room	Replace
Condition	Incorporate into new panel B when paperboards are replaced		
Scope	Over-current protection device enclosed in its own housing. Assemblies include enclosed circuit breaker, conduit, and wire		

D501099 Other Service and Distribution

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
AMP		1	\$ 700	Local disconnect switch beside conveyor in basement.	Replace
Condition	Disconnect switch at or near theoretical life.				
Scope	Service and distribution not described by the assembly categories listed above.				

Part E Equipmt. & Furnishings

No Events

Part F Special Construction

No Events

Part G Bldg. Sitewoks

G2040

Site Development

D204003 Exterior Furnishings

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
EA		1	\$ 1,100	Steel Bicycle Rack	Replace
Condition	Appeared to be in fair/ poor condition. Anticipated to be replaced with more modern style rack.				
Scope	Included are assemblies for on-site construction of fences, retaining walls, playing fields, fountains, and other site improvements. Walks, steps, ramps, terraces not described by the assembly categories listed above.				

Part A Substructure

No Events

Part B Shell**B10 Superstructure****B20 Exterior Enclosure**

B2010

Exterior Walls

B201010 Exterior Coatings

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
SM		18	\$ 800	Existing Exposed Painted Masonry Block	Coating

Condition Fair Condition: Paint has degraded and cracks are noted: to be re-pointed prior to paint

Scope Assemblies include paint, stucco, etc. The unit of measure at the assembly level is area of exterior coatings.

B201011 Joint Sealant

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
LM		80	\$ 1,300	General maintenance labour and sealant supply to various joint locations throughout.	Repair

Condition Some caulking has dried and is cracked; other evidence of gaps and lack of elasticity. Theoretical life of exterior sealant is 10 to 15 years.

Scope Exterior application of joint sealants

B2030

Exterior Walls

B203001 Solid Doors

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
EA		1	\$ 1,200	Basement Access Door	Coating

Condition Unfinished exterior: to be cleaned of rust, prime coat and finish paint

Scope Assemblies include all exterior solid doors, hollow metal or wood with frames. Solid doors may include viewing lites in door. Door hardware is located in B203008 EXTERIOR DOOR HARDWARE.

B30 Roofing

B3010

Roof Coverings

B301002 Low Slope Membrane Systems

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
SM		approx. 590m2	\$ 40,000	Ballasted EPDM: Flat roof over Library	Replace

Condition Roof exceeded useful life

Scope Assemblies include roof coverings, such as built-up, elastomeric, modified bitumen, etc. Also, walkways or work areas (used to gain access to rooftop equipment) will be included here.

B301003 Roof Insulation and Fill

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
SM		approx. 590m2	\$ 16,000	Ballasted EPDM: Flat roof over Library	Replace

Condition Replaced (1996) South part of Roof - Inverted membrane roof const. Bell Roof Poor Also: allow B201002, B301004,& B1006

Scope Assemblies include all types of insulation associated with the roof area.

B301004 Flashing and Trim

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
SM		approx. 590m2	\$ 12,500	Ballasted EPDM: Flat roof over Library	Replace

Condition Required replacement as part of roof replacement.

Scope Assemblies include all flashings associated with the roof, i.e., eave flashing, gable flashing, etc.

B301006 Roof Openings and Supports

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
	Unit Cost Est.	1	\$ 1,500	Flat Roofs: Mechical Roof-top Equipment Curbs and joints between disimmilar materials	Replace

Condition Required replacement with reroofing

Scope All roof penetrations including roof hatches, sky lights, area glazing, roof hatches, gravity roof ventilators, smoke vents, etc.

Part C Interiors**C10 Interior Construction**C1010 **Partitions**

C101008 Joint Sealant

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
LM			\$ 3,600	General Locations Throughout.	Maint'nc.

Condition Repair - General caulking and sealing of gaps between dissimilar materials. Caulking theoretic life is 10 -15 years .

Scope Assembly includes caulking, gasketing between dissimilar materials and at joints.

C30 Interior Finishes**C3010 Wall Finishes****C103005 Painting to Walls**

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
SM		185	\$ 6,500	all drywall surfaces on main floor plus select basement walls	Coating
Condition General paint wear and damage over period of use.					
Scope This assembly includes painting, spackling and sealant applied directly to an interior wall surface.					

C3020**Floor Finishes****C302005 Carpeting**

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
SM		130	\$ 33,000	Main Floor of library	Replace
Condition Carpet in fair condition: Replacement due to projected wear in 6 - 10 years					
Scope Sheet or tile carpet with appropriate underlay					

Part D Services**D10 Conveying****D1090 Other Conveying Systems****D109002 Conveyors**

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
EA	Est.	1	\$ 2,000	Lower floor	Remove
Condition Not used and to be removed					
Scope Self explained					

Part D Services**D20 Plumbing****D2010 Plumbing Fixtures****D201001 Water Closets**

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
EA		2	\$ 4,760	in washrooms	Replace

Condition Older High-volume fixtures. At theoretic life.

Scope Self explained

D201003 Lavatories

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
EA		2	\$ 3,640	In washrooms	Replace

Condition Older fixtures and faucets. At theoretic life.

Scope Self explained

D201004 Sinks

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
EA		4	\$ 7,280	In washrooms	Replace

Condition Older fixtures and faucets. At theoretic life.

Scope Self explained

D2020 Domestic Water Distribution**D202003 Domestic Water Equipment**

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
EA	assembly	1	\$ 16,800		Replace

Condition

Scope This assembly includes equipment associated with the domestic water supply, including fittings, and specialties required for hookup. Assemblies include hot water heaters, water treatment plant, i.e., water softeners, filters, distillers, etc.; pumps directly associated with domestic water supply; and tanks for the potable hot or cold water system. The unit of measure at the assembly level is pieces of equipment.

D2040 Rain Water Drainage**D204001 Pipe and Fittings**

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
EA	LFT	180	\$ 6,300		Replace

Condition Exceeds theoretic life of Equipment Operation. Not efficient

Scope Assemblies include pipe and fittings from the roof drains to the discharge points, including supports and other associated work

D30 HVAC

D3050

Terminal and Package Units

D305099 Other Terminal and Package Units

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
	EA	2	\$ 11,200		Replace
Condition	Exceeds theoretic life of Equipment Operation.				
Scope	Terminal and package units not described by the assembly categories listed above.				

D50 Electrical

D502002 Lighting Equipment

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
SM			\$ 14,000	LED light fixtures in main library, office and basement. Fluorescent and incandescent light fixtures in remaining areas.	Replace
Condition	Replace ballasts and lamps in fluorescent light fixtures. Replace drivers in LED light fixtures.				
Scope	This assembly includes fixtures, conduit, wire, and switching devices.				

D5090

Other Electrical Services

D509002 Emergency Lighting and Power

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
SM			\$ 1,680	Multiple battery units and remote heads located throughout building	Replace
Condition	Replace batteries at end of life. Replace lamps in remote heads.				
Scope	Assemblies include fixtures, motors used for power generation, connection and testing, transfer switches, conduit, wire, battery chargers, batteries, and solar panels.				

D509005 Electrical Heating

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
SM			\$ 2,100	Baseboard heaters washrooms and basement meeting room	Replace
Condition	Replace heaters at end of theoretical life				
Scope	Items could include baseboard heaters and wall and ceiling heaters. Assemblies include safety switches, control devices, heaters, conduit, and wire.				

Part E Equipmt. & Furnishings

No Events

Part F Special Construction

No Events

Part G Bldg. Sitewoks**G40 Site Electrical Utilities Preparation****G4020 Site lighting****G402006 Exterior Lighting Fixtures and Controls**

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
EA			\$ 350	Recessed pot light in canopy at main entrance	Replace

Condition Replace ballasts and lamps in light fixture.

Scope Includes fixtures, controls, and all components used in conjunction with

G202006 Resurfacing

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
SM		2500	\$ 66,700	Asphalt parking lot resurfacing.	Replace

Condition Patched multiple times and appears to be settled in areas. Block cracking was observed throughout the parking lot. It is expected that resurfacing will address this issue.

Scope This is the placement of an asphalt wearing course over the existing parking surface.

G40 Site Electrical Utilities Preparations**G4020 Site Lighting****G402006 Exterior Lighting Fixtures and Controls**

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
EA		150	\$ 2,100	Wall and or ceiling mounted light fixtures at building entrance / exits. Façade flood lighting near main entrance.	Replace

Condition Depression: Regrading required to address drainage issues. Possible underdrainage required

Scope Includes fixtures, controls, and all components used in conjunction with

G2040

Site Development

G204003 Exterior Furnishings

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
EA		1	\$ 1,100	Steel Bicylce Rack	Replace
Condition	Appeared to be in fair/ poor condition. Anticipated to be replaced with more modern style rack.				
Scope	Included are assemblies for on-site construction of fences, retaining walls, playing fields, fountains, and other site improvements. Walks, steps, ramps, terraces not described by the assembly categories listed above.				

Part A Substructure

No Events

Part B Shell**B20 Exterior Enclosure**

B2010

Exterior Walls

B201004 Joint Sealant

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
LM		300	\$ 3,000	General maintenance labour and sealant supply to various joint locations throughout.	Repair
Condition	Routine periodic maintenance or future event. Theoretical life of exterior sealant is 10 to 15 years.				
Scope	Exterior application of joint sealants				

B201008 Exterior Soffits

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
SM		4	\$ 3,500	Entry canopy and original bldg soffit. Selective repair/ replacement.	Repair
Condition	Typical deterioration of surface from exposure to elements, discolouration.				
Scope	Assemblies would include all associated materials which make up the soffit and supports for the soffit. Typical materials would include wood, aluminum, exterior grade gypboard, stucco, etc.				

B201010 Exterior Coatings

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
SM		133	\$ 1,100	Existing Exposed Painted Masonry Block	Coating
Condition	Typical deterioration of painted surface from exposure to elements, discolouration.				
Scope	Assemblies include paint, stucco, etc. The unit of measure at the assembly level is area of exterior coatings.				

B2020

Exterior Windows

B202004 Exterior Glazing

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
SM	Allowance		\$ 38,000	Exterior glass Sealed unit replacement	Allowance
Condition	Remove original sealed units and replace				
Scope	In addition to glass, this includes acrylic, polycarbonate, and plastic glazing.				

B30 Roofing**Part C Interiors****C10 Interior Construction**

C1010	Partitions					
C101008	Joint Sealant					
	Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
	LM			\$ 800	General maintenance labour and sealant supply to various joint locations throughout.	Repair
	Condition	Some caulking has dried and is cracked; other evidence of gaps and lack of elasticity. Theoretical life of exterior sealant is 10 to 15 years.				
	Scope	Exterior application of joint sealants				

C30 Interior Finishes

C303000	Ceiling Finishes					
C303004	Acoustical Ceiling Tile and Panels					
	Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
	SM		553	\$ 22,000	Replace existing SAT tiles on main floor	Repair
	Condition	Existing tiles are fair condition.				
	Scope	Assemblies include acoustical ceiling tiles and panels. The suspension system, if required, is in Assembly Category C303007. This assembly does not include items that directly apply to ceiling finishes covered elsewhere in this subsystem. SAT = Suspended Acoustic Tile				

Part D Services**D20 Plumbing**

C2020	Domestic Water Distribution					
D202001	Pipes and Fittings					
	Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
	EA	Assembly	1	\$ 8,750		Replace
	Condition	Exceeds theoretic life of Equipment Operation. Not efficient				
	Scope	Assemblies include all pipe, fittings, and associated work with regard to domestic water supply. The unit of measure at the assembly level is number of fixtures.				

D202004 Insulation and Identification

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
EA	Assembly	1	\$ 3,500		Replace

Condition Replaced piping receive new insulation and identification.

Scope Assemblies include insulation used in association with domestic water supply. The unit of measure at the assembly level is number of fixtures.

C2030 **Sanitary Waste**

D203001 Waste Pipe and Fittings

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
EA	Assembly	1	\$ 6,300		Replace

Condition Exceeds theoretic life of System Operation.

Scope Assemblies include all pipe, fittings, and associated work with regard to sanitary waste pipe and fittings. The unit of measure at the assembly level is number of fixtures.

D203002 Vent Pipe and Fittings

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
EA	Assembly	1	\$ 2,100		Replace

Condition Exceeds theoretic life of System Operation.

Scope Assemblies include all pipe, fittings, and associated work with regard to sanitary vent pipe and fittings. The unit of measure at the assembly level is number of fixtures.

D203003 Floor Drains

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
EA		3	\$ 2,940		Replace

Condition Exceeds theoretic life of System Operation.

Scope Assemblies include all floor drains. Hub drains are considered to be pipe and are not included in this category. The unit of measure at the assembly level is number of drains.

HVAC

D3010

Energy Supply

D301002 Gas Supply System

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
KW	Assembly	1	\$ 4,200		Replace

Condition Exceeds theoretic life of Equipment Operation. Not efficient

Scope This category includes both natural gas and LPG. Assemblies include metering and regulation equipment, storage equipment, transfer equipment, and distribution piping. The unit of measure at the assembly level is each system.

D3040

Distribution Systems

D304001 Air Distribution, Heating and Cooling

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
L/S	Assembly	1	\$ 55,000		Replace

Condition Exceeds theoretical life of Equipment Operation. Not efficient

Scope Assemblies include heating coils, cooling coils, and fittings and specialties required for water hook-up. This assembly also includes duct heaters, filters, humidifiers, supply and return ductwork, dampers, fire dampers, supply and return grilles, registers and diffusers, turning vanes, sound traps, and all associated insulation. The unit of measure at the assembly level is CF/M.

D50 Electrical

D5030

Communications and Security

D503001 Fire Alarm Systems

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
SM			\$ 21,000	Fire Alarm Panel in basement and annunciator in vestibule. Detectors, pull stations and bells located throughout building.	Replace

Condition Replace Fire Alarm Panel and devices at end of theoretical life.

Scope Assemblies include wire, conduit, conduit support or fastening systems, fire alarm devices, fire detection devices, safety switches, all electrical connections, and other associated items

D5090

Other Electrical Services

D509002 Emergency Lighting and Power

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
SM			\$ 1,680	Multiple battery units and remote heads located throughout building	Replace

Condition Exceeded reliable Operation Life: Replace batteries at end of life. Replace lamps in remote heads.

Scope Assemblies include fixtures, motors used for power generation, connection and testing, transfer switches, conduit, wire, battery chargers, batteries, and solar panels.

Part G Bldg. Sitewoks**G20 Site Improvements**

G2030

Pedestrian Paving

D203001 Bases and Sub-Bases

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
SM		10	\$ 400	Concrete sidewalk base.	Replace

Condition Sidewalk appears even. Localized repair to base during replacement expected.

Scope These are the compacted and prepared gravel or soil layers that are placed prior to the installation of the final surface. The subbase is placed and compacted before the base layer is applied.

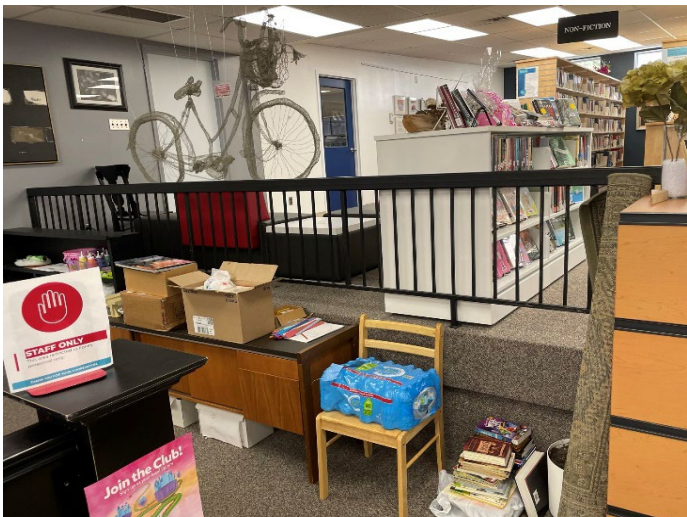
D203003 Paved Surfaces

Unit/Meas.	O/Factor	Quantity	Event \$ Est.	Location	Flag
SM		150	\$ 51,000	At north entrance., facing parking lot.	Replace

Condition Depression: Regrading required to address drainage issues. Possible underdrainage required

Scope This is material that is placed atop the base layer to provide the walking or driving surface.

Roof, Exterior and Interior Level Changes



Structural Roof Framing, Misc. M/E features

