

BUILDING CONDITION ASSESSMENT REPORT



JAMES WHYTE ARENA

70 FRONT STREET NORTH, THOROLD, ONTARIO

Our Project No.: 0T1-919309-CA

Prepared for: City of Thorold

3540 Schmon Parkway
Thorold, ON
L2V 4A7

Attention: Curtis Dray,

Reference No.: 2019-40

Date: May 13, 2019

McINTOSH PERRY

Executive Summary

A Building Condition Assessment (BCA) was carried out at the James Whyte Arena, 70 Front Street North, Thorold, Ontario by McIntosh Perry Limited (MPL) for the City of Thorold (City). The building was constructed in 1936 with an addition in 2000 to the northwest. Renovations occurred in 1976, 1986, 1992, 1995 and 2002. The single-storey assembly type building, with partial mezzanine, is located on the east side of Front Street North at the intersection of St. David Street East. The single pad structure includes two entrance lobbies, four Change Rooms at the north end, Referees and Woman's Change Room at the south end, Storage Rooms, Olympia Room, Refrigeration Plant, Mechanical Rooms, Workshop and two unheated garages. The Men's Woman's and Universal Washrooms and Canteen are shared with the Frank Doherty Arena via the south public foyer. Gross floor area is estimated at 22,500 square feet (sf) or 2,091 square meters (sm).

This BCA is based on a visual assessment of the property and a review of pertinent documentation provided by the City. Our visual review of the property found the facility to be in fair-to-poor condition and serviceable but in need of significant modifications based on age and inherent design issues. These issues require address in the immediate and short terms. Despite these proposed repairs/replacements, the physical dimensions of the framed structure and proximity to the east embankment negates any consideration for enlargement of the ice pad dimensions to meet current standards. The refrigerated ice pad facility has exceeded useful service life with short term restoration costs nearing full facility replacement costs for a similar sized arena. Consideration should be given for possible building repurposing such as a dry floor use (no refrigeration system) as opposed to demolition at least over the short term. Several options have been presented in the HDR letter of February 4, 2019. Building deficiencies and backlog of capital work other than refrigeration and dehumidification (e.g. HVAC, health and safety, thermal insulation improvements, etc.) would still require address under repurposing.

There are currently no restoration or renovation projects underway or scheduled. There has been no significant capital work performed at the facility over the last twenty years except for the 2016 roof shingle replacement, 2017 rainwater capture system, and the northwest addition in 1999/2000. The age of many of the main building components exceeds twenty-five years while the dasherboards and glazing are approximately thirty-six years old and the refrigerated pad is sixty-nine years old.

Summary of Findings & Recommendations

A – Substructure

The substructure consists of masonry block foundation walls and poured concrete column piers. Thickened floor slabs are presumed to be located under the interior masonry block walls. A poured concrete floor slab is installed throughout. The substructure components are performing well overall with no notable signs of deterioration or extensive damage, except for delaminated and distressed cement parging on exposed portions of the foundation walls. Despite erosion, poor grading and steep embankment along the east side of the arena, there is no evidence of significant movement of the substructure components. Floor slabs within the west storage garage, Olympia Room and perimeter apron of the arena are in need of repair. Short term

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refurbishment of deteriorated components is carried to maintain the substructure and ensure adequate performance over the long term.

B – Shell

The superstructure consists of plain faced masonry block interior and exterior walls, architectural block walls, prefinished and painted metal siding, aluminum framed windows, aluminum/steel/wood framed doors, insulated metal overhead doors, sloped shingled roofs and modified bitumen roofs. The Press Box, arena storage rooms and the south mezzanine storage rooms are constructed with conventional wood framing methods. Truss uplift at the north addition have created voids along the upper masonry walls along with step cracking of mortar joints. The walls are also not laterally braced. All superstructure components, except for the new roof shingles, will require repair/refurbishment in the immediate to short term based on observed conditions.

The shell also has minimal to no insulating value and minimal air/vapour barrier integrity. Notable air and water infiltration/exfiltration through voids at exterior walls, doors, vents, grilles, etc. are widespread. These conditions result in significant energy losses (all HVAC equipment is working harder both in the heated and unheated areas). The affects of condensation in shoulder seasons is also problematic.

C – Interiors

The interior finishes consist of conventional materials including painted concrete block walls, painted plywood and transite wall and ceiling panels, painted concrete floors, ceramic floor tiles, sheet vinyl floors, vinyl floor tiles, painted gypsum board and lay-in ceiling tiles. The north change rooms are equipped with older rubber matting. Interior doors are both wood and metal core in metal frames. Newer roll-up metal overhead doors are installed at the Olympia Room and Concession area.

All finishes, except for the recently renovated public washrooms at the south end, will require updating. The north change rooms will require new rubber flooring and baseboard along with wall and ceiling repairs and refinishing of shower areas.

D – Services

Fire Protection and Life Safety Systems: The 1-storey Assembly occupancy building is a combination of wood, steel and masonry construction. The building is protected by an older Edwards single-stage fire alarm system with main panel located at the west side of the main foyer. The panel has a battery back-up and is monitored by Fire Monitoring of Canada. Emergency lighting is provided by numerous battery back-up fixtures. 5-lb ABC fire extinguishers are installed throughout the building. The arena, refrigeration room and south mezzanine are equipped with a dry type sprinkler suppression system. Servicing of the fire protection equipment is Aatel Communications, Sentinel Systems and Johnson Controls.

The Fire Safety Plan is located in the wall mounted FSP box adjacent to the fire alarm panel. Egress floor exit plans are prominently posted at the south main foyer and the northwest vestibule. It is recommended that the plan be updated.

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The fire protection equipment requires updating based on age and conditions. Although functional, based on monthly servicing, the equipment is at end of useful service life. Another issue that requires address is the sealing of all fire separation penetrations (ducts, wiring, conduit, piping) with proper firestopping materials. Ductwork dampers, fire panel, sprinkler system including provision of backflow preventer, notification and signal devices also require replacement in the immediate to short terms. Emergency lighting coverage is lacking at many areas.

Vertical Transportation: The James Whyte Arena has no vertical transportation equipment.

Mechanical: The building is heated and ventilated by means of three gas-fired forced air furnaces. Two furnaces are installed at the north addition Mechanical Room and one furnace is located at the south Mechanical Room. The arena has seven suspended gas-fired radiant heaters; four along the east exterior wall are abandoned. Additional heat is provided by electric forced flow wall heaters and conventional baseboard heaters. A gas-fired make-up air unit is installed to serve the Canteen, main foyer and southeast public washrooms. Point source and central roof mounted exhaust fans are installed for the various service and user rooms. The arena bowl is ventilated by a small wall mounted exhaust fan and opposing interlocked fresh air intake louver. All heating and ventilating equipment, including distribution ducting need replacement. Fresh air introduction for ventilation is lacking in most areas. Work should be tied into the flat roof replacement and interior finish updating projects.

Domestic water enters the building at two locations. Both are unmetered with no backflow protection. Domestic hot water service various gas-fired and electric hot water heaters and storage tanks. This equipment is predominantly newer. Allowances are carried to replace older galvanized piping, replace older copper piping especially at areas within showers and the provision of meters and backflow devices with proper valves.

Sanitary drainage is by gravity to the below-grade piping connected to the municipal system. The sanitary drainage system is functioning as intended but is also aging. Allowances are carried to map the piping, replace older floor drains, improve support of vent piping and provide an interceptor at the Canteen sink. Plumbing fixtures are newer and in good condition at most locations. Allowances are carried to replace older fixtures and refurbish all shower areas.

The James Whyte Arena has no building automation system (BAS) but relies on manual switching and thermostatic controls. The system is operational and generally functions. There are no commissioning or balancing reports available. Future allowances are carried to provide BAS to the proposed HVAC replacements.

Electrical: The building electrical systems are conventional with the main service provided from the local utility by an overhead service that is fed to the east pad mount transformer. The service runs underground to the Refrigeration Room main switch. The service is rated at 600-Amp, 575-Volt, 3-P, 4-W for main refrigeration components and then is stepped down to 120/240-V by remote transformers for general use equipment. The power is distributed by older and newer disconnects and panelboards for power and lighting requirements. Lighting is by T8 and T12 fluorescent fixtures. Arena lighting is by 400-W metal halide high bay fixtures. These fixtures are over 40-years old and connected by knob-and-tube type wiring. Illumination levels

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in most service and common areas of the building are lacking. Conventional toggle switches and three prong receptacles are used throughout. Ground fault interrupter (GFI) receptacles are lacking. Allowances are carried to replace the aging distribution system, including receptacles and switches, provision of GFI receptacles, replacement of abandoned wiring and overall identification of circuits.

E – Equipment & Furnishings

Equipment is limited to the Nevco score clock and concession appliances. Furnishings include benches in the change rooms, two portable bleacher stands and millwork throughout the workshop, canteen and washrooms. The components will require updating in the short term except for the newer renovated public washrooms.

F – Special Construction

The building has a single refrigerated ice pad including dashboards, glazing and ice making system. The dehumidification units, dashboards, glazing, scoreboard, condenser and refrigeration controls need updating in the short term as components have exceeded service life. Longer term compressor, chiller and ice pad replacement are carried based on age of components.

G – Site

The site is comprised of asphaltic concrete surfaced parking area to the north, sodded laneway to the east, gravel surfaced west service drive, poured concrete sidewalks and curbing and the wood framed storage outbuilding for Figure Skating Club. The site has minimal soft landscaping features. Soffit and wall mounted HPS light fixtures are installed.

The asphalt parking lot, east and west laneways and lighting will require major capital work in the short term.

H – Legislation/Codes/Standards/Health & Safety Programs Documentation and Related Scopes of Work

Recommended reports include air balancing and commissioning of entire building, Designated Substance Survey report, energy audit, predictive quality measurements, provision of as-built drawings and illumination review. These costs, where necessary, are carried in the short term.

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Immediate, Short and Long Term Capital Requirements

Over the next 25-years it is anticipated that the majority of equipment and systems will require major repair or replacement to maintain the building in a state-of-good repair under the current operational model.

Descriptions and observations are intentionally brief or absent. This information, as well as quantity, costs, life expectancy, and replacement year, are to be updated as components are replaced, and subsequent building condition assessments are completed.

Based on our visual review of the property, we are of the opinion that total cumulative expenditures will be in the range of \$6,146,654 in the immediate (2019) and short term (2020 to 2024) to maintain the property in a state-of-good repair. The above opinion of probable costs excludes sales taxes and inflation but includes contingencies, engineering, and project management costs.

This executive summary is intended to provide an overview of pertinent facts and estimates contained in this BCA Report for the architectural/engineering disciplines, and it is provided as a convenience only. Readers are advised to refer to the full text of this BCA Report and accompanying spreadsheets for detailed information.

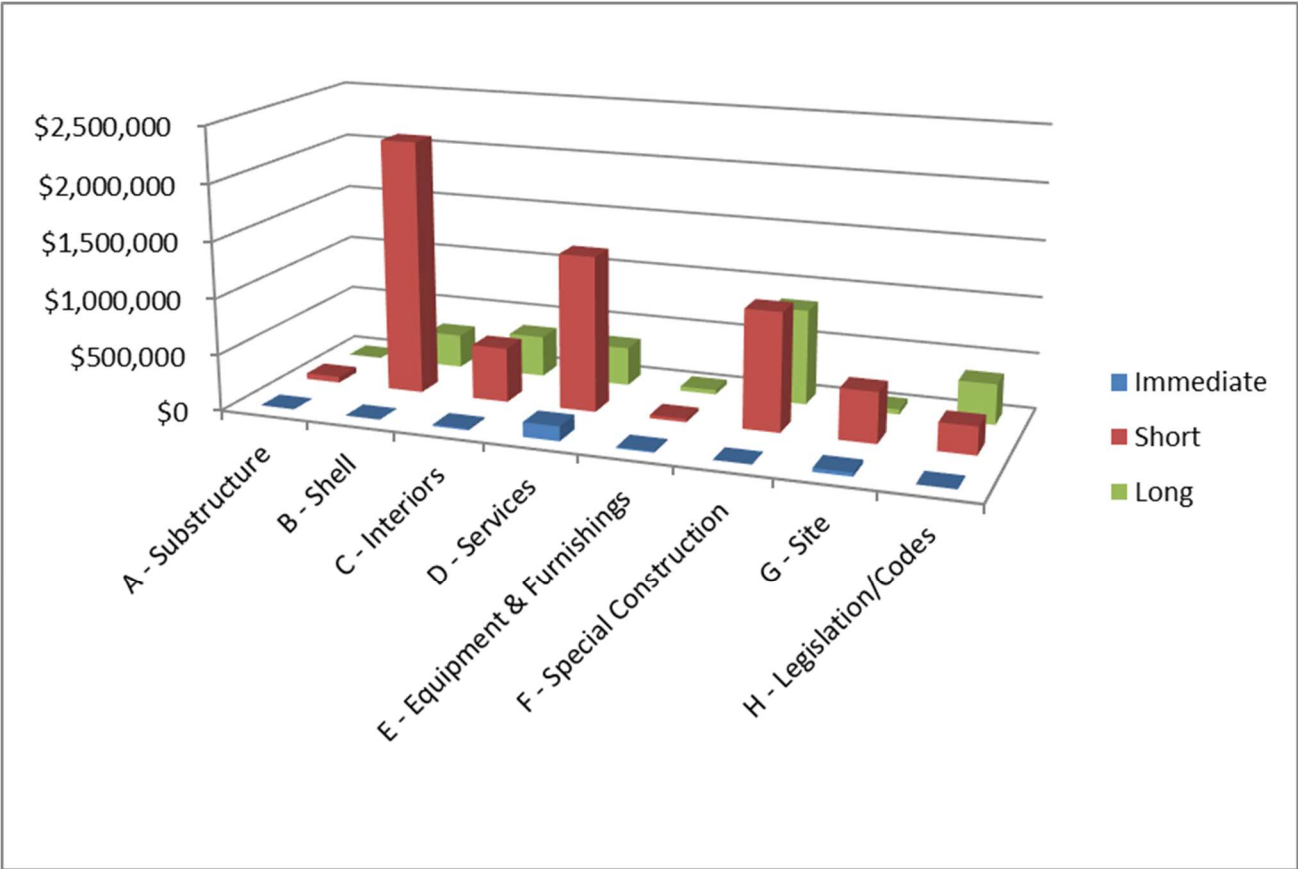


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1.0 INTRODUCTION

McIntosh Perry Limited (MPL) was retained by The Corporation of The City of Thorold (City) to carry out a Building Condition Assessment (BCA) of the facility located at 70 Front Street North, Thorold, Ontario.

Probable costs for repairs or replacements over the immediate (0 and 1 years), short term (2 to 5 years) and long term (6 to 20 years) are provided.

The Report is not to be used as a specification for undertaking work. All immediate and short term work emanating from this BCA is to be backed by intrusive destructive testing and measurements to obtain the means and methods to allow for such specifications to be developed. Work/costs forecasted out beyond the first few years (short term) are only to be viewed as speculative reserve placeholder items formed by life cycling of components. As this BCA is a static snap-shot of the current conditions, and due to the detailed component listing provided, updates will be required continually as components age, systems are altered, management opinions change or new found information surfaces. These undertakings are beyond the scope of the BCA.

The study included an on-site inspection of the development which was carried out on April 18, 2019. The inspection focused on sitework, structure, building exterior, building interior and the electrical, mechanical and fire safety systems.

Details regarding each of the inspected elements, with our observations, are detailed in the accompanying spreadsheet (Appendix A).

1.1 Property Description



The building was constructed as a natural ice pad in 1936 through partnership with Abitibi Paper. Original architects are unknown. In 1950, a refrigerated ice pad was installed and four change rooms were added to the south end. The refrigeration plant was updated in 1960 and again in 1992, 1995, 1997, and 1998. The original 1936 wood framed roof structure was modified in 1976, 1991, and 1992. In 1983, dasherboards, glazing, pad, and apron were installed to increase the ice dimensions from 170' by 70' to 185' by 76'. The design was prepared by Williams Woodruff and Elmes Architects, St Catharines, Ontario. In 1999/2000 four change rooms were added to the northwest corner of the building. The arena design incorporates a single level building with an enclosed mezzanine sound/media room at the northeast corner. The main entrance is located on the northwest elevation, adjacent to the parking lot. Secondary entrances are located at the east and west elevations through the main foyer. The facility has a gross floor area of approximately 22,500 square feet (sf).

The exterior walls of the arena are constructed with 8 inch plain faced masonry block. The walls of the addition are constructed with 8 inch architectural block.

The sloped roofs are protected by conventional three-tab asphalt shingles on wood sheathing on original Galvalume metal roof panels. The flat roof to the south is finished with a two-ply modified bitumen membrane on wood deck. Storm water is collected by conventional prefinished metal eavestroughs and PVC leader assembly with discharge to grade at both the north and south parking lots. The flat roof sections are drained by standard roof drains and internal leaders to below grade. Windows at the northwest addition are aluminum framed double glazed awning type. Exterior doors are a combination of wood and metal core in metal frames with and without glazing.

Mechanical systems include the domestic cold water, distribution piping, electric heaters and gas-fired forced air furnaces. The arena refrigeration is ammonia type with cooling brine for the slab. Dehumidification is limited to one older and one newer packaged unit installed over the storage rooms at opposing ends of the arena. Ventilation is by various point-source exhaust fans discharged to roof level.

Electrical systems are conventionally supplied from the utility supply to the east pad-mount site transformer and onto the Refrigeration Room.

Interior finishes consist of painted concrete floors, vinyl floor tile, ceramic floor tile, painted gypsum board/plaster ceilings and painted concrete block walls.

The facility is located on the east side of Front Street North, south of St. David Street East, on a 3.90 acre (170,000 sf) irregular shaped lot with sharply sloped from west to east. The site is accessed from Front Street North, , St. David Street and Ormond Street. The site landscaping features include asphalt paving, concrete sidewalks and minimal soft landscaping features.

The following Table 1 details the pertinent characteristics of the site and building, as identified during our site visit or otherwise provided by the City. All building and site areas are considered estimates.

Table 1

Summary of Facility Features

Name: James Whyte Arena			
Address: 70 Front Street North, Thorold, Ontario			
Site Information			
Site Area & Zoning	170,000 sf	3.90 acres	
Access Drives (Curb Cuts)	Front Street North, St. David Street, Ormond Street		
Total Parking Stalls	50 total, 2 barrier-free	Traffic Surface	Asphalt
Walks	West & North	Traffic Surface	Poured Concrete
Building Information			
Gross Floor Area	22,500 sf	2,091 sm	
Footprint Area	22,500 sf	2,091 sm	
Flat Roof Type	Wood Framed	Membrane	3-Tab Asphalt Shingle
Sloped Roof Type	Wood Framed	Membrane	2-Ply Modified Bitumen
Cladding Type	Masonry and Architectural Block	Windows	Aluminum Framed
HVAC System	Gas-Fired Furnaces, Gas Unit Heaters, Electric Unit Heaters, Point-Source Exhaust Fans		
Electrical	600-A, 575-V, 3-P, 4-W		
Structural Framing	Concrete block walls, wood framed roofs supported on poured concrete foundations.		
Fire Protection	Single Stage Fire Alarm, Dry Sprinkler System, ABC Fire Extinguishers		

1.2 Methodology

The Project consists of five (5) steps:

1.2.1 Part 1 – Documentation Review

1. MPL to review the following information provided by the City:
 - a. All Architectural, Mechanical, Electrical and Site Drawings and Specifications;
 - b. Information on existing scheduled, pending, in-progress and completed projects information;
 - c. Relevant building/roof/structural assessment reports;
 - d. All existing warranties, guarantees and service contracts;
 - e. Records of capital items added since original construction;
 - f. Maintenance and inspection records and schedules including Work Order Records for Preventative Maintenance and Demand Maintenance;
 - g. Compliance Orders;
 - h. Any further information or known property problems;
 - i. Completed MPL Questionnaire.

The following documents were provided for our review:

1. Fire Safety Plan, undated, by ERC Design & Consulting Inc.;
2. Ontario Environmental & Safety Network Ltd., Asbestos Materials Survey, June 1, 2016;
3. Crack Program Monitoring Progress Report – November 2017 – by Amec Foster Wheeler;
4. Visual Structural Assessment Reports dated October 24, 2016 and November 24, 2017 by IRC Building Sciences Group;
5. Ice Arena Inspection Report for air quality dated March 21, 2019 by Niagara Region Public Health;
6. IRC Contract dated July 18, 2016 for a 4-Year for Structural Review Reporting;
7. Ultrasonic Thickness Survey for High Pressure Receiver dated March 11, 2019 by Team Industrial Services;
8. Condition Assessment for James Whyte and Frank Doherty Arenas, Final Report dated February 2013;
9. Ammonia Ice Rink Plant Review by Cimco Refrigeration dated April 2019;
10. Thorold Arenas Repurposing Options by HDR Architecture Associates Inc. dated February 4, 2019;
11. Drawings (various).

1.2.2 Part 2 - Interview with Key Individuals

An interview was conducted with the building representative. During this interview MPL discussed building issues and potential problematic items. A Questionnaire was returned for this building (see Appendix C). The interview was conducted the day of the inspection. We were informed of several issues including the refrigeration plant, finishes and structural integrity.

1.2.3 Part 3 - Site Visit

All site visits were coordinated with the City. The visit included a guided tour of the facility, service rooms, utility rooms, offices, shops and the grounds. All accessible areas within the building(s) were visually reviewed during our walk-through inspection. Inspections of attics, crawl spaces, basements and service tunnels were conducted where safe to do so for the inspectors and where they are not deemed confined space.

Digital photographs were taken by digital camera including dating and description for logging purposes.

The site assessment was visual, non-intrusive and non-destructive type. General review of code and standard reviews was completed. Problematic areas requiring further assessment and testing were noted. Priority items were identified.

Assessment particulars:

Site – We will review all site items within the vicinity of the buildings being assessed. This includes underground services, parking lots and driveways, exterior lighting, curbs, gazebos, walks, patios, stairs, decks, retaining walls, soft landscaping, recreational equipment, signage, accessories, etc. Unless specifically listed, out-buildings, surveys, geotechnical, boreholes and soil testing are excluded from review at this time.

Interiors – Items include interior finishes (floor, wall and ceiling), doors, hardware, stairs, handrails, guards, common areas and user rooms, service rooms (electrical, mechanical, IT). Non-fixed furniture is excluded.

Environmental Issues – Hazardous Substance Surveys are not included in this project. At the minimum, we will review existing reports and provide commentary on general completeness and whether additional testing is required or recommended. If no existing reports are available our commentary will be limited to suspected hazardous substances, PCBs, storage tanks, mould, and indoor air quality from a visual assessment only. Phase 1, 2 and 3 Environmental Reports are excluded. MPL will also indicate locations of hazardous conditions and potential hazardous equipment.

Barrier-Free – MPL will review building access, entrances, washrooms, and interior circulation and amenities for accessibility in accordance with the AODA and latest version of the OBC. High level discussions, along with anticipated probable costs to remove barriers, will be presented in the report. Any discussions requiring intrusive or specialty testing under the current regulations will be considered outside of the scope of the RFP.

Code – Compliance – Assessment is for general code compliance only and includes obvious infractions such as roof guarding, guards, tie-backs, etc. Cite code references where possible.

Structure – Items include foundations, superstructure, balconies, canopies, parking structures, stairs, guards, and handrails. Significant degradation and problematic detailing, including heights and stability of guards, are reviewed. Structural design analysis (calculations) is excluded at this time.

Building Envelope – Items include flashings, sealants, exterior finishes and wall systems, exterior windows, doors and wall penetrations, roofs, flashings, eavestroughs, downspouts. Thermography and roof test cuts

are not included at this time. MPL will notify the City if thermography or test cuts are required. This work would be considered additional to the contract.

Mechanical – Items include all accessible heating, ventilation, and air conditioning equipment (recording the manufacturer, model and serial number, size and capacity, equipment number, and condition). Plumbing systems including domestic water supply, distribution, heaters, boilers, fixtures and drainage will be reviewed. Process and specialized equipment at all buildings are excluded (IT, communications, security, wastewater pumping, etc.).

Fire/Life Safety Systems - Items include suppression systems (sprinkler, standpipe), voice communication, fire extinguishers, fire alarm and annunciators, notification and signal devices. We will also review Fire Safety Plans and make comment on building classification, required fire resistance ratings (FRR), and occupancy type.

Electrical – Items include all accessible electrical equipment such as switchgear and switchboard units, motor control centres, distribution panels, light fixtures (interior and exterior), wiring, switches, receptacles, communication and security systems and accessories. Equipment will not be dismantled or intrusively accessed, and thermography will not be conducted. Building Automation Systems (BAS) and lighting systems are included.

1.2.4 Part 4 - Estimating and Costing

The replacement costs of the various components forming the development detailed in this report are based on the unit rates detailed in the 2019 edition of "Yardsticks for Costing" published by Southam Business Information and Communications Group Inc., and "Building Construction Cost Data – 2019" by RS Means, combined with recent experience gained by MPL in the repair and renovation of residential, commercial, and industrial buildings. The costs are considered Class "D" preliminary, in Canadian Dollars, including a 10% contingency fee for unforeseen costs/internal & external fees and a 10% contingency for consulting fees.

The replacement cost of each component is based on the following assumptions:

- standard building materials will be used, purchased at the contractor's list price;
- current construction techniques will be used in replacement or repair of building components;
- quality of construction will be in accordance with the current edition of the relevant local Building Code;
- replacing like with like components unless:
 - A less expensive item is available that can perform to the same standard;
 - A cost-benefit analysis (including energy savings) that shows replacement to a higher standard would be cost-effective;
 - A higher standard is required because of changes to the OBC or other applicable standards and legislation;
 - An item of the original standard is unavailable.

The estimated replacement and maintenance costs contained in this report are based in part on information and quantities obtained by a visual review of the property and in part from a review of the available reports and drawings relating to this development.

1.2.5 Part 5 - Recording and Reporting

Provide all detailed data in an Excel spreadsheet and accompanied by a report.

1.2.6 Maintenance Requirements

This is a high level assessment looking at current preventative maintenance activities and to provide suggestions on how to improve activities to meet/exceed standard lifecycle periods for various systems along with associated costs. MPL will review current maintenance practices and policies, as well as past maintenance records for each facility, where provided.

1.2.7 Life Expectancy Assumptions

The assumptions regarding the life expectancy of each of the various components forming the common elements of this development, as detailed in this report, are based on the technical literature of manufacturers, on our experience with the materials and equipment forming the common element components of the development, and on relevant technical publications such as ASHRAE. The estimations of the remaining life expectancies of the common element components are based on an assessment of their present condition and effective age made during our visual review of the property.

1.3 Terms of Reference

The terms of reference governing this Building Condition Assessment are detailed in our Proposal No. 191754, dated March 5, 2019 in response to RFP No.: 2019-40.

The intent of this Project is to provide the City with a Building Condition Assessment (BCA) that identifies per property/building a 20-year budget, which on a yearly basis lists all major repairs or replacements of systems based on current conditions, age, maintenance practices, life expectancy, etc.

The threshold reporting level was defined by the City and is set at \$5,000.

1.3.1 Definitions

Action Summary: The recommendation for repair, replacement or refurbishment.

Action Type: Actions include None, Repair, Lifecycle Replacement and Refurbishment.

Actual Age or Last Major Action: This is current age (in years) of the component either known or estimated by MPL.

Address: Physical address of the building as provided by the City.

ASHRAE: Refers to the American Society of Heating and Refrigeration and Air Conditioning Engineers.

Ancillary Costs: Design Contingency of 10% of Net Costs and General Contingency of 10% for unforeseen conditions are carried. These can be adjusted or removed at the discretion of the City.

Building: Refers to a structure consisting of a wall, roof and floor, or any one or more of them.

Building Area: Refers to the greatest horizontal area of a building within the outside surface of the exterior walls or, where a firewall is constructed, within the outside surface of exterior walls and the centre line of the firewalls.

Building Name: This is the name that identifies the property for which the assessment has been completed. Names are provided by the City.

Building Component, Category or Category Code: This is the inventory of the building components, systems and equipment that have been included in the BCA. The ASTM UniFormat II Classification (the classification of building elements and related site work) has been used. These elements usually perform a given function, regardless of the design specification, construction method or material used.

City: Refers to City of Thorold.

Condition Rating or Overall Condition: The following ratings and percentages are provided by the City.

Definition of Rating

Very Good – 80% to 100% Fit for the future.

Good – 60% to 79% Adequate for now.

Fair – 40% to 59% Requires attention.

Poor – 20% to 39% At Risk.

Very Poor – 0% to 19% Unfit for sustained service.

Construction Replacement Value (CRV): Value of the facility based on current market pricing, codes and regulations. Inclusive of all costs including construction, design, project management, administration, site development and site features. It is not representative of real property value or insurance replacement value, however. Calculated from RS Means Square Foot Costs 2019 data or otherwise provided by the City.

Criticality Rating: All repair/retrofit/replacement Projects are to be categorized under one of the five listed priority ratings:

Priority 1 – Essential – Currently Critical (Immediate)

Conditions in this category do not meet code related statutory obligation and due diligence requirements, and require immediate action to correct a problem that, if left uncorrected, increases the potential for serious or continued damage to buildings, building components or infrastructure systems, and would negatively impact the facilities ability to deliver its program to include and be not limited to:

- 1) Life Safety and Legal Compliance – Hazardous life safety building or site conditions that jeopardize people, programs, equipment that, unless corrected, will cause suspension of facilities use. Repairs, renovation and improvements required for immediate code compliance.
- 2) Damage or Deterioration to Facilities – Repairs, renovations and improvements to facilities that, unless corrected, will lead to loss of a facility and incur higher costs if not addressed. Stop accelerated deterioration.
- 3) Cost-Effective Measures – Repairs, renovations and improvements required to prevent serious facility deterioration and significantly higher labour costs if not immediately corrected. Energy conservation to reduce consumption with a rapid return on investment.
- 4) Return a facility to operation.
- 5) Structural integrity compromised.

Priority 2 – Necessary High – Potentially Critical (1 or 2 years remain)

This category represents a high operational risk and affects the operational capacity of the facility. Conditions in this category, if not corrected expeditiously, will become critical within a year or two and result in major failure that will lead to major damage to a facility and loss of use, lead to higher future replacement costs, hamper Program activities, or affect economies of operation. Situations within this category include: Intermittent operations, rapid deterioration, potential life safety hazards and suspect structural integrity.

Priority 3 – Necessary Medium – Not yet critical (3 to 5 years remain)

This category is managing the long-range integrity, operational capacity and presentation of facilities. Conditions in this category require appropriate attention to preclude predictable deterioration or potential downtime and the associated damage or higher costs if deferred further. Situations in this category include: (1) Liability Concerns – Facility elements requiring early attention to remove potential issues relating to life safety, property damage, or code requirements; (2) Program and Operational Concerns – Actions necessary to meet the operational requirements of the Facility and Program; (3) Economy and Efficiency Measures – Projects that support program and operational objectives but deserve special attention because they will result in immediate or eventual cost savings; (4) Deferred Capital – Projects that have been deferred, phased out, or the scope of work has been modified due to funding shortfalls or other reasons. Capital renewal is necessary for proper functioning of the facility. These are capital renewal projects that can be postponed for a short period of time; (5) Anticipating Actions – Actions carried out in anticipation of longer range development including land acquisition, infrastructure elements and advance planning for capital projects; (6) Reduction in Scope – Modify scope to a smaller scale or consolidate with other projects.

Priority 4 – Necessary Low – Recommended Improvements/Lifecycle (6 to 25 years remain)

No action is required at this time, but should substantial work be undertaken in contiguous areas, certain existing conditions may require correction. The projects in this priority can be safely and economically deferred and reassessed at a future date.

Priority 5 – Does Not Meet Current Codes/Standards - Grandfathered

Grandfathered conditions in this category include items that do not conform to existing codes but are “grandfathered” in their condition. No immediate action is required at this time, but should substantial work be undertaken in contiguous areas, certain existing conditions may require action, therefore no date needs to be assigned.

Definition: Describing what is covered under the Category.

Description or Commentary: The component, material, composition, type, manufacturer, make, model, identification tag, etc.

Design: Refers to plans, sketches, drawings, graphic representation or specification intended to govern the construction, enlargement or alteration of a building or part of a building.

Development: Refers to the site and all its facilities there upon.

Dwelling Unit: Refers to a room or suite of rooms used or intended to be used as a domicile by one or more persons and usually containing cooking, eating, living, sleeping and sanitary facilities.

ECM: Refers to Energy Conservation Measure.

FCI: Means Facility Condition Index and is equal to the Total Building Repair/Upgrade/Renewal needs in dollars (\$) divided by the Current Replacement Value of Building Components in dollars (\$). FCI is obtained by aggregating the total cost of any needed or outstanding repairs, renewal or upgrade requirements at a building compared to the current replacement value of the building components. It is the ratio of the repair needs to the replacement value expressed in percentage terms. Land value is not considered when evaluating FCI. The City has provided the following percentage ratings:

0 to 5% FCI: Asset is in Good Condition

5 to 10% FCI: Asset is in Fair Condition

10 to 30% FCI: Asset is in Poor Condition

31% FCI or above: Asset is in Critical Condition

Fire Separation: Refers to a construction assembly that acts as a barrier against the spread of fire and that may or may not have a fire-resistance rating or a fire-protection rating.

General Review: In relation to the construction, enlargement or alteration of a building means an examination of the building to determine whether the construction, enlargement or alteration is in general conformity with the design governing the construction, enlargement or alteration, and reporting thereon.

Grade: Means the lowest of the average levels of finished ground adjoining each exterior wall of a building but does not include localized depressions such as for vehicle or pedestrian entrances.

Gross Area: Means the total area of all floors above grade measured between the outside surfaces of exterior walls or, where no access or building service penetrates a firewall, between the outside surfaces of exterior walls and centre line of firewalls but in residential occupancy where access or a building service penetrates a firewall, the measurement may be taken to the centre line of the firewall.

High-rise Building or High Building: Buildings that are seven (7) stories or more in height.

IESO: Means the Independent Electrical System Operator.

LACAC: Means the Local Architectural Conservation Advisory Committee.

Net Cost: Cost in current 2019 dollars to undertake the scope of work for each listed component. This is an estimate or opinion of probable cost, considered a Class D type and excludes project management and design fees, taxes, interest and ancillary fees.

Observations or Commentary: The descriptive assessment of the component or equipment including all observed and tested concerns. The assessment will obtain the physical conditions of the architectural, structural, mechanical, electrical, fire and life safety related building components as referenced in the Scope of Work. Describe the deficiencies and conditions and indicate exact location of the issues.

Observed Age: For various reasons a component may be wearing faster or slower than would normally be expected for its age. The Observed Age is an adjudged age of the component based on its current condition and remaining life expectancy.

OBC: Means Ontario Building Code.

OFC: Means Ontario Fire Code.

OSHA: Means Occupational Health and Safety Act.

Percent (%) of Quantity Scheduled: This is the percentage of the total quantity for any repair or replacement work covered by the Capital Expenditures for a particular component.

Personal Services Occupancy: Means occupancy for the rendering or receiving of professional or personal services.

Project: Means the Scope of Work outlined in the RFP and the Consulting Agreement including all amendments.

Project Quantity: The quantity of work carried for replacement, major repair or renovation. Calculated by multiplying Total Quantity by % of Quantity Scheduled.

Recommendations: The explanation for the highlighted deficiencies or projected concerns. The scope of work required is to be outlined illustrating the breakdown for the cost estimates where reasonable to do so.

Recommended Year or Year: The year that corresponds to the Remaining Life (number of years) that corrective action is required for the component.

Remaining Life: This is the time remaining (in Years) before the corrective work is estimated to be required. It is simply the difference between the Service Life and Observed Age.

Residential Occupancy: Means an occupancy in which sleeping accommodation is provided to residents who are not harboured for the purpose of receiving special care or treatment and are not involuntarily detained.

RFS: Means Reserve Fund Study or Studies.

Scope of Work: This is a brief description of the nature of corrective work involved with each of the building components. This can involve work of a repair/refurbishment nature through to complete replacement. Detailed descriptions, observations and recommendations will follow in subsequent columns.

Service Life or Repeat Interval: An estimate of how many years from the time it is new to the time the component requires corrective work that is noted in the Scope of Work. Estimated life expectancies are based on ASHRAE data references.

System Condition Index (SCI): A comparative ranking of the condition of the systems within an asset class. Calculated by aggregate of the asset backlog within each system in \$ divided by the aggregate replacement cost of all assets within that system (\$). The six primary physical systems are Structure, Building Envelope, Interior Finishes, Building Services, Equipment and Siteworks.

Terms: Immediate term is considered Year 0 (2019). Short term is considered Years 1 to 5 (2020 to 2024). Long term is considered Years 6 to 25 (2025 to 2044).

Total Quantity: This is the total quantity or amount either measured from available Drawings, provided by the City or otherwise estimated by MPL.

UniFormat Code or Category Code: Component identifier codes as per ASTM Standards.

Unit of Measure: This is the unit measurement utilized in the calculation of the Current Cost. Allowance for a specific component and includes LM = lineal meter, SF = square feet, EA = number/each, LS = the component as a whole.

Unit Rate: The unit rate cost assigned to each component for replacement, repair or renovation presented in current 2019 dollars.

1.3.2 Deliverables

As a minimum, the proponent will deliver the following:

1.3.2.1 BCA Requirement

- Facility component reports and recommendations (structural integrity, access, electrical, energy efficiency, mechanical, building envelope, exterior landscape) with consideration given to the ice plant review findings;
- Prioritized recommendation for repair/remediation with estimated costs for up to a 20-year capital plan;
- Quantity survey and life cycle costing report/spreadsheets;
- A cost benefit assessment of repair/remediation plans versus planning for facility replacement.

1.3.2.2 Reporting

Draft submission will consist of a pdf version of report and spreadsheets.

Final submission will consist of one hardcopy and pdf version of report and spreadsheets and one open spreadsheet.

High level discussions on barrier-free compliance and potential energy reducing initiatives will be included.

Report may include but not be limited to an Executive Summary, General Facility Description, including profile, capital expenditure summary (5-years), site observations, etc.

2.0 BUILDING CHARACTERISTICS

2.1 Summary of Design

The James Whyte Arena building design incorporates a single-storey building with partial mezzanines at the north and south ends and a single refrigerated ice pad. Ancillary spaces include the main south foyer, public washrooms, change rooms and service rooms. The main entrances are located on the northwest corner and at the east and west through the central foyer. A parking lot is provided at the north side of the arena. Service access is provided on the north and west sides of the building. The facility has a gross floor area of approximately 22,500 square feet (sf).

2.2 Accessibility/Barrier-Free Access

A high level barrier-free review of the James Whyte Arena was conducted using the minimum standards of the Ontario Building Code (OCB). The portion of the building reviewed was found to be in general non-compliance. Notable issues include:

- South arena door to main lobby is undersized and missing auto door operator;
- The west interior ramp/viewing platform is improperly configured;
- Reduced headroom along east and west sides of arena due to column-to-truss connections;
- Designated wheelchair spaces and adaptable seating are not provided in the arena;
- Accessibility Signs (International Symbol of Access) are not posted at the north main entrance door, north arena door and north barrier-free washroom;
- Curb cut at north main entrance is non-conforming;
- Manual pull stations (fire) are above 48" AFF;
- North barrier-free washroom door is less than 33.9" in width;
- Door to arena from north vestibule is less than 33.9" in width;
- Vision panels in doors are not configured properly;
- Toilet paper dispenser is not located under grab bars at Washrooms;
- "L" grab bar is too low at washrooms;
- No barrier-free change rooms provided;
- Counter at Canteen is not configured properly;
- Men's and Women's Public Washroom vanity counters are too high;
- Drain piping at Men's and Women's Public Washroom vanities are not insulated;
- Men's and Women's Public Washroom stalls are slightly undersized;
- The adult change table has no adjustable height and has operating mechanism greater than 47.2" AFF;
- Urinal configuration is non-compliant;
- Proper demarcations are not provided at the two exterior parking stalls and the path of travel towards the building;
- Asphalt condition at the path of travel from the parking stalls to the north entrance are not stable and firm throughout;

- No strobe type notification devices installed (fire alarm system).

2.3 Environmental Issues, Health & Safety

2.3.1 Hazardous Materials

The 2016 Asbestos Materials Survey by Ontario Environmental & Safety Network Ltd. Indicates that asbestos materials are found in older vinyl floor tile, transite wall and ceiling panels, pipe fitting insulation and cement transite piping. The sink undercoating material was presumed to contain asbestos materials.

Our assessment noted that some of the transite paneling and vinyl floor tile are damaged. Pipe fittings were also not marked (painted) where asbestos containing. Other hazardous materials are known to be present including lead, mercury and silica.

It is recommended that a complete Designated Substance Survey (DSS) be provided to accompany this report. It is recommended that the asbestos containing materials be removed when renovating areas over the short term.

2.3.2 Indoor Air Quality

The building is equipped with point-source exhaust fans for the washrooms, main service rooms, and arena bowl. Mechanical ventilation is provided to the user areas by roof-top packaged heating and cooling units and a make-up air unit at the south end of the building. Ventilation rates, based on equipment sizing, is less than adequate in many areas including the Refrigeration Room and Canteen. It is recommended that equipment be updated (replaced) and commissioned accordingly.

Air quality measurements are taken on a regular basis by Niagara Region Public Health. The last report dated March 21, 2019, indicated that CO and NO2 levels are at 5 PPM and 1 PPM respectively or as low as reasonably achievable.

2.3.3 Fire Safety

The building is classified as a single-storey A3 Assembly Occupancy (Arena) with an estimated gross floor area of approximately 22,500 sf (James Whyte Arena portion only). As such the building can be constructed with combustible and non-combustible materials used singly or in combination provided that the building is sprinklered, not more than 1-storey in building height and has a building area of not more than 7,200 SM or 77,500 SF. The building is required to have a fire alarm system, with notification signal to fire department, based on occupancy load.

The building has the following life safety provisions:

- Dry type sprinkler system for arena and Refrigeration Room with fire department connection at west wall facing Front Street North;
- Portable ABC fire extinguishers;

- Public hydrants at east side of Front Street and at the Ormond Street driveway entrance;
- Key box at east side main entrance;
- Single stage Edwards (m# E2280) fire alarm system with main control and annunciator panels at Front Street entrance using smoke and heat detectors with electric bells and manual pull stations at exit doors;
- Battery back-up type emergency lighting fixtures;
- Voice communication is by a non-alarm integrated, unrated public address system located at Main Office covering the main foyer area and the Frank Doherty Arena only.
- 6" wide masonry block demising walls around main service rooms and from the arena to the south main foyer area.

We noted the following issues:

- Firestopping is not provided around ducting and pipe penetrations in the majority of services rooms;
- Egress instructions are not provided at the posted fire safety plans;
- Egress instructions are not posted at all fire exit doors;
- Emergency lighting fixture locations are not properly indicated on the FSP;
- Emergency lighting coverage is inadequate;
- Portable air compressor is used on the dry sprinkler system.

2.4 Code Compliance – Prioritization

This section discusses relative compliance to current applicable codes, standards, legislation and by-laws. Where non-compliance is observed at the facilities, MPL is to notify the City immediately. MPL noted that most of the code deficiencies are within the Refrigeration Room (see Section 3.5.3 below). Other deficiencies include low illumination levels, poorly supported exterior natural gas piping, laterally unsupported interior walls, lack of eyewash stations, lack of firestopping at fire separations, bleacher configurations and the use of a portable compressor for the dry sprinkler system.

2.5 Building Operational Performance

2.5.1 Building Envelope

The building is considered to have below-average energy efficiencies. This is based on both the mechanical equipment and the assumed thermal resistance values of the wall, windows and roof systems. Heat gain and heat loss are significant factors affecting the supply of heating and cooling of occupied areas.

R-values are estimated at R-2 for foundations, R-3 for exterior walls, R-1 to 7 for the sloped and flat roof assemblies and R-2 for the windows and doors. The arena building portion has no wall or roof insulation materials. There is also significant air infiltration and exfiltration through wall cracks, open ridge vents and the loose fitting exterior doors. The north addition has no wall insulation and the attic has only 3" of blown fiberglass (R-7). There is also uncontrolled air infiltration at the low wall vents.

Well sealed, insulated walls and ceiling/roof assemblies makes it possible to control indoor climate, speeds ice making process and maintain ice conditions through warmer temperature periods. Currently, the radiant heat transfer between the ice and the uninsulated roof makes the underside of the roof colder. This condition promotes the formation of condensation when exterior temperatures increase. The provision of a low-e blanket or coating to the underside of the roof, along with insulation, will improve the ice making process as well as maintain it through the operational period. This will significantly reduce the electrical energy use as the operation of the refrigeration equipment is reduced.

2.5.2 Mechanical, Electrical and Water

Based on our review the building would not be in compliance to the ASHRAE 90.1 Energy Standard for Buildings Except Low Rise Residential Buildings. Specific design parameters are unknown and load calculations have not been performed. Features include:

- Dual lamp T8/T12 fluorescent lighting fixtures;
- Older 400-W metal halide lighting for arena;
- Localized use of room occupancy sensor controls;
- Older double glazed, aluminum framed windows;
- Older high-efficiency furnaces;

- Older wall and roof exhaust fans;
- Older make-up air unit;
- Basic HVAC controls with no building automation systems;
- Partially insulated domestic water piping;
- No recirculation lines on hot water systems;
- Extensive piping lengths on domestic hot water systems.

Potential opportunities include:

- Replacing interior lighting with LED type including the arena;
- Replace HVAC equipment with high-efficiency type (most has exceeded useful service life);
- Provide commissioning and balancing of all air and water systems;
- Improve all wall and roof insulation levels in short term;
- Consider installing energy recovery ventilators for the washroom/shower exhaust systems;
- Replace windows and doors with high-efficiency type;
- Improve hot water supply systems and layouts;
- Improve dehumidification systems in arena.

2.5.3 Maintenance Review

Maintenance inspections and service on the structure, refrigeration system, air quality and fire alarm are provided on an annual basis as follows:

- Cimco provides yearly inspection and overhaul of the ice pad compressors and brine testing;
- Structural reviews are provided annually by Amec Foster Wheeler;
- Air quality testing is provided by the Niagara Health Board annually;
- The fire alarm is serviced by Aatel Communications (1-800-695-2883) and monitored by Fire Monitoring of Canada (1-800-563-3840).

The building receives general routine maintenance through City staff on a regular basis. The maintenance is considered average for this facility based on the visual review only (service records, agreements and schedules were not reviewed).

2.5.4 Structural Integrity

Structural reviews have been ongoing over the last ten years by various engineering consultants including IRC Building Sciences Group Inc., Amec Foster Wheeler, Ausenco Engineering Canada, M.A. Steelcon Engineering Limited, Shoalts Engineering, Sandwell Engineering and AECOM. The IRC Reports dated October 24, 2016 and November 24, 2017 were made available for review. All reports are based on visual assessment with no loading analysis or physical (intrusive) methods employed.

The arena structure was constructed in 1936 and is approximately 206 feet long with 13 bays of 15'-10.5" on centre by 90 feet wide. The roof is a gambrel type with two sloped sections per side creating clear heights over the arena of 26 to 35 feet. Four bays are reinforced with steel angle cross bracing. The north end wall is wood framed full height and clad with painted galvanized panels. The south wall is also wood framed.

The hipped arched roof trusses are constructed with multiple plies of ½" to 1" thick boards with bottom chords constructed as fully laminated type using 12 to 13 plies with visible nailing patterns. Web members are also constructed as fully laminated type using 4 larger wood planks with visible nailing patterns. The top chords of the truss are constructed with two larger wood plank sections separated by a third plank at the converging nodes. Steel plate gussets with both through bolts and spike nail connectors are used at all web connection (panel) points. Threaded rods with nuts and end plates are installed at each of the trusses ridge point. Trusses have lateral reinforcement consisting of smaller steel angles with bolted connections. Additional reinforcement (circa 1976) to some of the web members consist of tubular steel (HSS) sections welded to top and bottom gusset plates with steel angle clips. The columns supporting the trusses are constructed with five-ply of solid 2'x10" wood. The columns use a haunched connection detail, with turnbuckle clamps, as they connect to the truss ends. Higher notches indicate that a second set of turnbuckles were to be used. Most of the columns have through-bolted base plate. The columns extend down below the concrete slab apron; anchorage to concrete pier footings is concealed. The roof assembly consists of asphalt shingles on ¾" plywood roof deck on original galvanized metal panels on 2"x8" wood purlins at 24" on centre. Solid blocking with ribbon board are installed at mid-span between most of the trusses. The purlins are attached to the top chord of the truss members by galvanized Z clips except at the steel gusset plate locations.

A fire occurred circa 1950 causing damage to the many of the roof purlins and a truss member at the north end of the arena. In 1991, the wood roof structure was painted with red oxide primer as there was concerns with corrosion. In 1992, insulation batts were removed from the gambrel roof and north end wall and approximately one-hundred twenty 2"x8" purlins were added (sistered to existing purlins) due to sectional loss of the fire damaged purlins.

The east and west walls are constructed with 8" wide plain faced masonry block. Column ends are capped with prefabricated masonry caps to resemble faux pilasters.

Crack monitoring has been conducted from approximately 2010 to 2017 by Amec Foster Wheeler throughout the James Whyte Arena. Although some of the gauges have been physically tampered with, it was concluded that there is little movement (at a Normal Level of 2 mm or less).

IRC Group has also been retained for a 4-year contract (2016 to 2020) to undertake Structural Assessments of both arenas on a semi-annual basis. The latest report of November 24, 2017 indicated no significant movement or concerns. Several recommendations have been made including sealing column ends, cleaning/re-painting truss members and columns and doubling up of cracked purlins where present. These repairs have not been undertaken.

2.5.5 Ice Plant Review

The ice plant for the James Whyte Arena is classified as an Indirect system with low leakage probability using B2 (ammonia) refrigerant within a public assembly building per the B52.13 Refrigeration Code. The plant, according to Cimco, is registered with TSSA, has guarded controls, is attended by a 4th Class/B Chief during operation and has compressor power of less than 200-HP. The ice plant was not in operation at the time of our site inspection. Several construction deficiencies were noted:

Ventilation of the Refrigeration Room is via two separate roof-mounted downblast exhaust fans; older unlabeled fan and newer PennBarry (s# DX11B). The required air flow for emergency requirements is estimated at 2,916 CFM. Minimum ventilation (continuous and intermittent non-emergency) requirements per the Refrigeration Code are to be the greater of the room area calculation (using 0.5 CFM/SF) or volume calculation required to prevent maximum temperature rise above ambient greater than 10C based on all the heat producing equipment within the room. The room size calculation requires 412 CFM and the volume calculation (based on total motor horsepower, discharge piping heat gain and estimated electrical loads) requires 4,115 CFM. It is concluded that the existing fans are undersized (estimated total exhaust provided is 1,300-CFM). The fans are also required to be upblast type per the Industrial Institute of Ammonia Refrigeration (IIAR-2) Standard. Mechanical exhaust fan discharge was too close to the air inlet ventilator. IIAR 2 standard requires a minimum 6m clearance distance. IIAR 2 standard requires monitoring for the loss of power to or failure of the emergency mechanical ventilation system; this was not observed. Allow to replace fans in immediate term.

The fans have ON/AUTO switches located outside of the Refrigeration Room as per Section 6.2.5.4 of the Refrigeration Code. The separate fan switches are located at opposing ends of the Refrigeration Room. The CSA B52 standard requires the remote fan switch on the exterior of the machinery room to be fan-enable only without the fan-disable. The installed switches are not in compliance. Allow to re-wire switches so that both fans can be operated together by activating either of the switches.

The Refrigeration Room(s) are not equipped with supplementary heating per Section 6.2.5.7 of the Refrigeration Code.

Cimco has noted that the ammonia receiver vessel is undersized for pump down events. The Refrigeration Code Section 5.6 requires that the vessel be of sufficient size to allow for 90% of liquid to be stored. Allow to replace receiver in short term.

Marking and labeling is not in compliance to Section 5.11 of Refrigeration Code throughout the Refrigeration Room. This includes the System Nameplate on Refrigeration Plant Room entry doors, rooftop condenser unit, main electrical switch, external emergency box does not identify control power shutdown switch, main shut off switch not identified at each vessel inlet, ammonia pipe labeling, posting of shutdown instructions not located in the Refrigeration Room and the contact information was not combined in a single posted document. The chiller room piping identification does not meet the requirements per IIAR 2 standard, e.g. refrigerant state, flow direction. The process drawings for both refrigeration systems were not posted within the Refrigeration Room. Allow to provide proper labeling in immediate term.

The pressure relief device serves all equipment with the exception of the underfloor heat exchanger for the adjacent arena. The common header is sized at 2" diameter within the Refrigeration Room to a 3" diameter vertical above the roof line. CSA B52-13 requires that the piping is to be 3" diameter throughout the run. On the exterior of the ice resurfacing equipment room, there is an emergency shut off switch to electrically disable the chiller plant, and a manual ammonia release valve for use in case of emergency. The Manual Emergency Discharge of Ammonia Refrigerant located outside of the overhead door does not have a pressure gauge upstream of the stop valve as per ASHRAE Standard 15. The Manual Emergency Discharge of Ammonia Refrigerant located outside of the overhead door does not have the permanent label on the stop valve with the prescribed wording as per ASHRAE Standard 15. The Manual Emergency Discharge of Ammonia Refrigerant located outside of the overhead door is not housed inside a locked box per ASHRAE Standard 15. The Manual Emergency Discharge of Ammonia Refrigerant located outside of the overhead door wood housing does not bear the permanent label reading "Emergency Refrigerant Control Box" with the name of the refrigerant in the system, as per ASHRAE Standard 15. Allow to replace the relief system when updating the refrigeration plant in short term.

Cimco identified that one of the pipes (C-1 dry suction line) is mounted only 7' above finished floor (AFF). The Refrigeration Code requires a minimum of 7.5' AFF. Allow to modify height in short term; item is related to the Frank Doherty Arena only.

The fire relief valves and the emergency stop enclosures are not weathertight or easily accessible per Refrigeration Code requirements. Allow to relocate in immediate term.

The eyewash station is located too far from the Refrigeration Room per requirements of ANSI Z358.1-2004 and IIAR-2 Standards (requires equipment to be not more than 10 seconds to reach, path of travel to be clear and for strong caustics or acids it should be located immediately adjacent to the hazard). Eyewash station was provided does not have body shower nor is the water tempered as per ISEA Z358.1 standard.

The Refrigeration Room is not equipped with a door that leads directly to the exterior of the building as required by the Refrigeration Code Section 6.3(b). The door from the Refrigeration Room to the Canteen vestibule is not equipped with self-closer and has no warning signs and alarms. The door from the Refrigeration Room to the Olympia Room also has insufficient warning signs and alarms. Allow for immediate renovations to remedy the egress issues.

The Refrigeration Room is not tightly sealed per Refrigeration Code Section 6.3(f). There are several voids through walls and ceilings (pipe and ducting penetrations). Proper firestopping is required and the conditions of the existing fire dampers require verification.

The Refrigeration Room floors, walls and ceilings are required to be of non-combustible construction with a fire resistive rating (FRR) of not less than 1-hour per Refrigeration Code Section 6.3(d). The Ontario Building Code (OBC) indicates that if the building is not more than one-storey and is less than 7200 SM the building can be constructed of combustible and non-combustible construction if sprinklered. The existing 8" concrete block walls and poured concrete slab-on-grade floor would have sufficient FRR. The ceiling is a combination of wood tongue-and-groove decking supported on exposed steel I beams and wood decking on wood ceiling

joists with transite (asbestos containing) ceiling finish. Although the wood framing and decking are combustible and would not provide the proper FRR, a sprinkler suppression system is installed to negate the requirement. It is recommended that the non-combustible decking be installed when replacing roofs in short term.

3.0 CAPITAL PLAN

The expenditure plan for this facility is shown in Appendix B.

3.1 Facility Condition Index (FCI)

FCI has been calculated using 2019 and 2020 fiscal years as backlog (numerator in calculation).

$$\text{FCI} = \frac{\text{Total of Building Repair/Upgrade/Renewal Needs (\$)}}{\text{Current Replacement Value of Building Components (\$)}}$$

$$\text{FCI} = \frac{\$2,421,146}{\$6,412,500} = 37.8\%$$

By definition the asset (facility) is in critical condition.

3.2 System Condition Index (SCI)

SCI is calculated for the main building systems.

Section Breakout	Expenditures			Total	Year 1 & 2 Backlog	Replacement Cost		
	Immediate	Short	Long			%	\$	SCI
A - Substructure	\$0	\$52,200	\$0	\$52,200	\$29,400	7%	\$448,875	7%
B - Shell	\$0	\$2,257,920	\$218,400	\$2,476,320	\$696,120	26%	\$1,667,250	42%
C - Interiors	\$14,400	\$484,896	\$365,130	\$864,426	\$402,000	7%	\$448,875	90%
D - Services	\$136,320	\$1,377,600	\$345,720	\$1,859,640	\$553,800	26%	\$1,667,250	33%
E - Equipment & Furnishings	\$12,240	\$29,160	\$39,600	\$81,000	\$18,000	1%	\$64,125	28%
F - Special Construction	\$0	\$1,050,360	\$847,200	\$1,897,560	\$608,760	25%	\$1,603,125	38%
G - Site	\$33,266	\$449,892	\$45,120	\$528,278	\$65,066	7%	\$448,875	14%
H - Legislation/Codes	\$0	\$248,400	\$360,000	\$608,400	\$48,000	1%	\$64,125	75%
Grand Totals	\$196,226	\$5,950,428	\$2,221,170	\$8,367,824	\$2,421,146	100%	\$6,412,500	

4.0 LIMITATIONS

The opinions of probable cost provided in this report are estimations only and are subject to confirmation and adjustment when tenders from suitably qualified contractors are obtained.

Any opinions of probable cost and any maintenance, repair or replacement schedules contained in this report are based on the assumption that the recommendations contained in this report will be carried out, that the property will be maintained on a regular and routine basis by skilled and qualified tradesmen and that a program of periodic professional review will be carried out throughout the life of the property. Failure to undertake any of these tasks in an expeditious manner may result in unanticipated failure of any of the systems and components that form the property and its improvements and lead to issues of public safety.

The information presented in this report is based on direct visual observation made by personnel with McIntosh Perry Limited and in some instances as noted within the report on information provided by others. Recommendations contained within our report reflect our informed opinion based on the information gathered during our investigation. The findings cannot be extended to components of the building or portions of the site that were not reviewed or that were concealed or unavailable for direct observation at the time of our visit. There is a possibility for additional deficiencies being present in the building which have not been identified during our visit, given the limited nature of this review.

Our mandate was to complete a visual walk-through survey of items, components and systems that were conspicuous, patent and which could be observed visually during the walk-through survey without intrusion, removal of material, exploratory probing or the use of special equipment. Therefore, concealed or inaccessible physical deficiencies were specifically excluded from our mandate. Our interviews of building personnel attempted to uncover known concerns in the building, but we cannot attest to the integrity or knowledge of the interviewees, nor can this process, or the accepted scope of work in its entirety, be considered technically exhaustive or be considered to eliminate all risks related to owning or having a financial interest in this property.

No legal survey, soil test, detailed structural engineering investigation, or quantity survey compilation have been made. Our scope of services for this assignment did not include a design review or engineering analysis of any of the building's systems or components. No responsibility, therefore, is assumed concerning these matters, or for any failure to carry out those technical or engineering procedures required to discover any inherent or hidden condition of this property since such investigation work was not included in the terms of reference governing this study.

The conclusions and recommendations detailed in this report are based upon the information available at the time of preparation of the report. No investigative method eliminates the possibility of obtaining imprecise or incomplete information. Professional judgment was exercised in gathering and analyzing the information obtained and in the formulation of our conclusions and recommendations. The recommendations are not intended to be utilized as a detailed specification for any remedial work that may be required. McIntosh Perry Limited accepts no responsibility for interpretation of our recommendations, or actions taken based on them without our consultation and supervision.

The mechanical and electrical equipment and the fire safety systems were visually inspected where accessible. The systems were not dismantled to verify the condition of the internal components.

We did not carry out a review to check compliance with all Building or Fire Code requirements which may have been applied at the time of construction, or which may be retroactively applied to this building. Our review assumes that the design professionals and building permit process have created a design (and subsequent construction) that is code compliant.

Information provided by McIntosh Perry Limited is intended for the exclusive use of the City. McIntosh Perry Limited will not provide results or information to any party other than the City, unless the City, in writing, requests that information be provided to a third party or unless disclosure by McIntosh Perry Limited is required by law. Any use by a third party, of reports or documents authored by McIntosh Perry Limited, or any reliance by a third party, or decisions made by a third party, on the findings described in reports or documents authored by McIntosh Perry Limited, is the sole responsibility of such third parties. McIntosh Perry Limited accepts no responsibility for damages suffered by any third party as a result of decisions made or work carried out based on reports or documents authored by McIntosh Perry Limited.

McIntosh Perry Limited makes no representations concerning the legal and medical significance of our findings. With respect to regulatory compliance requirements, regulations change from time to time, and interpretation of their meaning and intent may also change. McIntosh Perry Limited accepts no responsibility for any legal interpretation of the Regulations, or the consequent financial effect on transactions, property values, or requirements for follow-up actions and costs.

The liability of McIntosh Perry Limited or its staff is limited to the fees paid or actual damages incurred by the City, whichever is less. McIntosh Perry Limited is not responsible for consequential or indirect damages. All claims by the City shall be deemed relinquished if not made within two years after last date of services provided.

The City expressly agrees that it has entered into this agreement with McIntosh Perry Limited, both on its own behalf and as agent on behalf of its employees and principals.

The City expressly agrees that McIntosh Perry Limited's employees and principals shall have no personal liability to the City in respect of a claim, whether in contract, or tort, or in any other cause of action in law. Accordingly, the City expressly agrees that it will bring no proceedings and will take no action in any court of law against any of McIntosh Perry Limited's employees or principals.

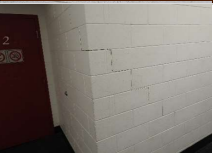
We trust that the foregoing information is sufficient for your present needs and will be pleased to review the contents of this report in greater detail should you so require.

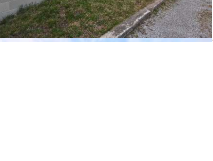
BUILDING CONDITION ASSESSMENT REPORT

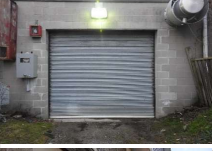
APPENDIX A – BUILDING COMPONENT CYCLE/COST TABLE

BUILDING INFORMATION				ASSESSMENT											PRELIMINARY COSTS						OTHER FEES			TOTAL COST OF PROJECT
BUILDING NAME	ADDRESS	UNIFORMAT CODE	BUILDING COMPONENT	DESCRIPTION	OBSERVATIONS	RECOMMENDATIONS	CONDITION RATING	CRITICALITY RATING	IMAGE	SERVICE LIFE (Years)	ACTUAL AGE (Years)	OBSERVED AGE (Years)	REMAINING LIFE (Years)	RECOMMENDED YEAR	TOTAL QUANTITY	% OF QUANTITY SCHEDULED	PROJECT QUANTITY	UNIT OF MEASURE	UNIT RATE (\$)	NET COST (\$)	DESIGN/ENGINEERING FEES (10%)	CONTINGENCY (10%)	TOTAL OTHER FEES	
James Whyte Arena	70 Front Street North	A101001	Wall Foundations - Masonry Block	Masonry block foundations with cement parging finish are installed around the building perimeter of the original ice rink. Drawing details are not provided.	Block foundations are performing as intended with no notable settlement. Exposed areas observed showed no signs of settlement or extensive cracking. Parging delaminations are widespread.	Structural components to last life of building. Building has exceeded useful service life but is performing as intended. Allow to repair parging finish along with grading improvements.	Good	Life Cycle		75	83	74	1	2020	1	100%	1	L-SUM	\$4,500	\$4,500	\$450	\$450	\$900	\$5,400
James Whyte Arena	70 Front Street North	A101001	Wall Foundations - Masonry Block	Masonry block foundations with cement parging finish are installed around the building perimeter of the 1999 addition. Drawing details are not provided.	Block foundations are performing as intended with no notable settlement. Exposed areas observed showed no signs of settlement or extensive cracking. Parging delaminations are widespread along with moisture retention and efflorescence.	Structural components to last life of building. Allow to repair parging finish.	Good	Life Cycle		75	20	74	1	2020	1	100%	1	L-SUM	\$2,500	\$2,500	\$250	\$250	\$500	\$3,000
James Whyte Arena	70 Front Street North	A101002	Column Foundations And Pile Caps	The wood columns supporting the roof trusses are bearing on concrete piers. The exposed portion of the pier is covered with cement parging. Drawing details are not provided.	Column pier footings are performing as intended with no notable settlement. Exposed areas observed showed no signs of settlement or extensive cracking. Parging delaminations are minor in nature.	Structural components to last life of building. Allow to repair parging finish.	Good	Life Cycle		75	83	74	1	2020	1	100%	1	L-SUM	\$2,500	\$2,500	\$250	\$250	\$500	\$3,000
James Whyte Arena	70 Front Street North	A103001	Standard Slab on Grade	Poured concrete slab-on grade is installed throughout the building. Excludes ice pad and apron; under separate line item.	The slab is in good condition with localized damage at floor drains.	Components are expected to last life of building. No allowances carried. Repairs at floor drains to be covered under sanitary drainage item. Minor imperfections are covered under Finishes section.	Good	Life Cycle		75	83	74	1	2020	0	100%	0	L-SUM	\$0	\$0	\$0	\$0	\$0	\$0
James Whyte Arena	70 Front Street North	A103001	Standard Slab on Grade	Poured concrete slab-on grade is installed throughout the building.	The slab at the Olympia Room and west garage are in fair condition with worn surfaces, rutting and notable cracking.	Allow for refurbishment of the slabs.	Fair	Life Cycle		50	83	49	1	2020	1	100%	1	L-SUM	\$15,000	\$15,000	\$1,500	\$1,500	\$3,000	\$18,000
James Whyte Arena	70 Front Street North	A103004	Trenches, Pits & Bases	Header trench and snow melt pit are constructed of poured concrete. The trench is covered by wood planking supported on steel angles. The melt pit has galvanized grating supported on steel angles.	The trench and pit are in fair condition. Portion of dump pit at Olympia Room has open grating section with openings of approximately 3-1/4" on centre.	Allow for short term refurbishment of pits. Will require drainage of melt pit.	Fair	Life Cycle		50	83	48	2	2021	1	100%	1	L-SUM	\$4,000	\$4,000	\$400	\$400	\$800	\$4,800
James Whyte Arena	70 Front Street North	A103005	Under Slab Drainage & Insulation	Slabs are presumed to be installed on granular fill with and without insulation. The ice pad is presumed to have a drainage system per the 1983 design drawings.	No issues observed or reported.	No repairs carried at this time.	Fair	Life Cycle		75	36	36	39	2058	0	100%	0	L-SUM	\$0	\$0	\$0	\$0	\$0	\$0
James Whyte Arena	70 Front Street North	A103006	Foundation Drainage	4" diameter perimeter weeping tile is presumed to be installed along the foundation walls of both the arena and addition. No design drawings provided.	No issues observed or reported.	Allow for investigation and localized repairs in the long term.	Fair	Life Cycle		50	36	45	5	2024	1	100%	1	L-SUM	\$15,000	\$15,000	\$1,500	\$1,500	\$3,000	\$18,000
James Whyte Arena	70 Front Street North	A202002	Moisture Protection	The foundation walls are presumed to have no dampproofing or waterproofing.	No issues observed or reported.	No allowances carried.				25	36	25	0	2019	0	100%	0	L-SUM	\$0	\$0	\$0	\$0	\$0	\$0
James Whyte Arena	70 Front Street North	A202003	Basement Wall Insulation	Foundation insulation is not provided based on site conditions.	The walls are performing as intended.	No allowances carried.				50	36	50	0	2019	0	100%	0	L-SUM	\$0	\$0	\$0	\$0	\$0	\$0



BUILDING INFORMATION				ASSESSMENT											PRELIMINARY COSTS						OTHER FEES			TOTAL COST OF PROJECT
BUILDING NAME	ADDRESS	UNIFORMAT CODE	BUILDING COMPONENT	DESCRIPTION	OBSERVATIONS	RECOMMENDATIONS	CONDITION RATING	CRITICALITY RATING	IMAGE	SERVICE LIFE (Years)	ACTUAL AGE (Years)	OBSERVED AGE (Years)	REMAINING LIFE (Years)	RECOMMENDED YEAR	TOTAL QUANTITY	% OF QUANTITY SCHEDULED	PROJECT QUANTITY	UNIT OF MEASURE	UNIT RATE (\$)	NET COST (\$)	DESIGN/ENGINEERING FEES (10%)	CONTINGENCY (10%)	TOTAL OTHER FEES	
James Whyte Arena	70 Front Street North	B101002	Structural Interior Walls	Structural interior walls are masonry block type.	The walls show minor signs of minor step cracking along mortar joints within the Refrigeration Room and the north addition as well as localized vertical cracking at interfacing walls. The cracking is primarily due to the effects of truss uplift as settlement issues were not noted within the foundations. Truss uplift has also created large gaps to occur at the top of the walls of the north addition. Lateral support of the interior demising walls has not been installed where inspected per requirements of the OBC.	Allow to rout and seal vertical and step cracking in the short term. Allow to provide lateral support methods of block walls and correct where omitted prior to repairing voids.	Good	Life Cycle		60	20	59	1	2020	1	100%	1	L-SUM	\$13,000	\$13,000	\$1,300	\$1,300	\$2,600	\$15,600
James Whyte Arena	70 Front Street North	B101003	Floor Decks And Slabs	The mezzanine floors (south storage areas, Press Box and dehumidification platforms) are constructed with wood framing. Most framing is concealed.	The dehumidification platforms and the Press Box should be reconstructed due to layout and questionable connections where viewed from undersides. Press Box access stair has discontinuous handrails and non-conforming guard height with narrow 6.75" runs and 7.25" risers.	Allow to reconstruct mechanical platforms and Press Box in the short term. Replacement of the south end storage areas would occur with the replacement of the superstructure (Item B102001 below).	Fair	Recommended		75	83	83	1	2020	1	100%	1	L-SUM	\$20,000	\$20,000	\$2,000	\$2,000	\$4,000	\$24,000
James Whyte Arena	70 Front Street North	B102001	Roof Construction - Structural Frame	The 1999 Addition roof is framed with prefabricated wood roof trusses spanning in the east-to-west direction.	The roof framing is in good condition as viewed from the access hatch at the Mechanical Room.	Structural components to last life of building. No allowances carried.	Good	Life Cycle		75	20	20	55	2074	0	100%	0	L-SUM	\$0	\$0	\$0	\$0	\$0	\$0
James Whyte Arena	70 Front Street North	B102001	Roof Construction - Structural Frame	The 1999 Addition roof is framed with prefabricated wood roof trusses spanning in the east-to-west direction.	The attic is insulated with 4" blown fiberglass insulation on 6-mil polyethylene vapour barrier. The attic is well vented.	Allow to increase attic insulation to improve efficiencies.	Poor	Recommended		20	20	19	1	2020	1	100%	1	L-SUM	\$2,900	\$2,900	\$290	\$290	\$580	\$3,480
James Whyte Arena	70 Front Street North	B102001	Roof Construction - Structural Frame	The hipped arched roof trusses are constructed with multiple plies of ½" to 1" thick boards with bottom chords constructed as fully laminated type using 12 to 13 plies with visible nailing patterns. Web members are also constructed as fully laminated type using 4 larger wood planks with visible nailing patterns. The top chords of the truss are constructed with two larger wood plank sections separated by a third plank at the converging nodes. Steel plate gussets with both through bolts and spike nail connectors are used at all web connection (panel) points. Threaded rods with nuts and end plates are installed at each of the trusses ridge point.	The trusses are in fair condition overall. Trusses have lateral reinforcement consisting of smaller steel angles with bolted connections. Additional reinforcement (circa 1976) to some of the web members consist of tubular steel (HSS) sections welded to top and bottom gusset plates with steel angle clips.	Structural trusses and columns have exceeded useful service life. It is recommended that the trusses and columns be fully refurbished and re-painted under the pretense that the building is to remain in use under its current configuration.	Fair	Life Cycle		75	83	74	1	2020	1	100%	1	L-SUM	\$40,000	\$40,000	\$4,000	\$4,000	\$8,000	\$48,000

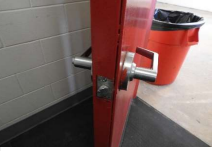
BUILDING INFORMATION				ASSESSMENT											PRELIMINARY COSTS						OTHER FEES			TOTAL COST OF PROJECT
BUILDING NAME	ADDRESS	UNIFORMAT CODE	BUILDING COMPONENT	DESCRIPTION	OBSERVATIONS	RECOMMENDATIONS	CONDITION RATING	CRITICALITY RATING	IMAGE	SERVICE LIFE (Years)	ACTUAL AGE (Years)	OBSERVED AGE (Years)	REMAINING LIFE (Years)	RECOMMENDED YEAR	TOTAL QUANTITY	% OF QUANTITY SCHEDULED	PROJECT QUANTITY	UNIT OF MEASURE	UNIT RATE (\$)	NET COST (\$)	DESIGN/ENGINEERING FEES (10%)	CONTINGENCY (10%)	TOTAL OTHER FEES	
James Whyte Arena	70 Front Street North	B102001	Roof Construction - Structural Frame	The hipped arched roof trusses are constructed with multiple plies of ½” to 1” thick boards with bottom chords constructed as fully laminated type using 12 to 13 plies with visible nailing patterns. Web members are also constructed as fully laminated type using 4 larger wood planks with visible nailing patterns. The top chords of the truss are constructed with two larger wood plank sections separated by a third plank at the converging nodes. Steel plate gussets with both through bolts and spike nail connectors are used at all web connection (panel) points. Threaded rods with nuts and end plates are installed at each of the trusses ridge point.	The trusses are in fair condition overall. Trusses have lateral reinforcement consisting of smaller steel angles with bolted connections. Additional reinforcement (circa 1976) to some of the web members consist of tubular steel (HSS) sections welded to top and bottom gusset plates with steel angle clips.	Structural trusses and columns have exceeded useful service life. It is recommended that the trusses and columns be fully replaced in the short term.	Fair	Life Cycle		75	83	72	3	2022	1	100%	1	L-SUM	\$1,200,000	\$1,200,000	\$120,000	\$120,000	\$240,000	\$1,440,000
James Whyte Arena	70 Front Street North	B102001	Roof Construction - Structural Frame	The Olympia Room roof is constructed with fluted metal roof deck supported on steel I beams on masonry block walls.	The structural components are in good condition with no obvious signs of distress.	Replacement of structural components are not anticipated over service life of building.	Good	Life Cycle		75	69	55	20	2039	1	100%	1	L-SUM	\$27,000	\$27,000	\$2,700	\$2,700	\$5,400	\$32,400
James Whyte Arena	70 Front Street North	B102001	Roof Construction - Structural Frame	The Workshop and garages are constructed with wood ceiling joists and rafters with nailed connections supported on masonry block walls.	The structural components are in fair condition. Portions of the roof joists of the north garage flat roof are water damaged.	Allow for repairs/partial replacement of roof framing members in the short term when replacing roofs.	Fair	Life Cycle		75	83	74	1	2020	1	100%	1	L-SUM	\$15,000	\$15,000	\$1,500	\$1,500	\$3,000	\$18,000
James Whyte Arena	70 Front Street North	B201001	Exterior Closure - Masonry Block	8" wide smooth faced masonry block is installed along the east and west elevations of the arena.	The block is in good condition with the exception of vertical voids at column interfaces.	Allow for short term repairs (remove all loose mortar and provide backer rod and sealant on both interior and exterior sides. Allow for full insulated metal cladding system at east and west walls.	Good	Life Cycle		75	83	74	1	2020	3800	100%	3800	SF	\$29	\$110,200	\$11,020	\$11,020	\$22,040	\$132,240
James Whyte Arena	70 Front Street North	B201001	Exterior Closure - Masonry Block	8" wide architectural block is installed at the north addition. The walls are uninsulated with interior painted finish and no weep holes or base flashing.	The block is in good condition. Moisture within the block is being trapped and affecting the foundation parging. This will affect the long term durability of the wall system.	Allow for short term repairs and the provision of insulation to the exterior walls.	Good	Life Cycle		25	20	23	2	2021	1	100%	1	L-SUM	\$50,000	\$50,000	\$5,000	\$5,000	\$10,000	\$60,000
James Whyte Arena	70 Front Street North	B201001	Exterior Closure - Masonry Block	Plain faced masonry block is installed at the Workshop and storage garages at the west side of the site. The walls are uninsulated with interior painted finish. Gables are finished with original painted wood and newer vinyl siding.	The block is in fair condition with localized deterioration.	Allow to insulate and clad the masonry walls and replace older wood siding.	Fair	Life Cycle		25	50	23	2	2021	1	100%	1	L-SUM	\$20,000	\$20,000	\$2,000	\$2,000	\$4,000	\$24,000
James Whyte Arena	70 Front Street North	B201001	Exterior Closure - Vinyl Siding	Vinyl siding is installed at the gable end and soffit of the north addition.	The siding is in good condition.	Replace siding in the long term.	Good	Life Cycle		40	20	20	20	2039	1	100%	1	L-SUM	\$3,400	\$3,400	\$340	\$340	\$680	\$4,080
James Whyte Arena	70 Front Street North	B201001	Exterior Closure - Metal Siding	Prefinished metal siding is installed at some of the exposed column ends.	The siding and sealants are in good condition.	Replace siding in the long term.	Good	Life Cycle		40	4	4	36	2055	1	100%	1	L-SUM	\$1,800	\$1,800	\$180	\$180	\$360	\$2,160

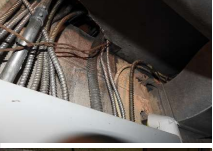
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James Whyte Arena	70 Front Street North	B201001	Exterior Closure - Metal Siding	Painted galvanized steel panels are installed at the north and south gables of the arena. The panels are uninsulated.	The siding is in poor condition with notable corrosion at fasteners and worn paint finish. The siding is physical damaged at the north end at grade.	Replace siding in the short term with insulated type.	Poor	Life Cycle		40	83	39	1	2020	2800	100%	2800	SF	\$27	\$75,600	\$7,560	\$7,560	\$15,120	\$90,720
James Whyte Arena	70 Front Street North	B201008	Exterior Soffits	Vinyl clad soffits are installed at the north arena entrance.	The soffit is in good condition.	Replace soffits in the long term.	Good	Life Cycle		40	20	20	20	2039	1	100%	1	L-SUM	\$2,100	\$2,100	\$210	\$210	\$420	\$2,520
James Whyte Arena	70 Front Street North	B201008	Exterior Soffits	Painted plywood soffits are installed at the west storage garages.	The soffits are in fair condition.	Replace soffits in the short term with coinciding roofing components.	Fair	Life Cycle		25	50	24	1	2020	1	100%	1	L-SUM	\$3,500	\$3,500	\$350	\$350	\$700	\$4,200
James Whyte Arena	70 Front Street North	B201011	Joint Sealant	Window, door and control sealants are installed.	The sealants are in poor condition overall.	Allow to replace sealants in the short term. East and west control joint sealants are carried under B201001 item.	Poor	Necessary		15	20	14	1	2020	1	100%	1	L-SUM	\$5,000	\$5,000	\$500	\$500	\$1,000	\$6,000
James Whyte Arena	70 Front Street North	B202001	Windows	Aluminum framed, double glazed windows are installed at the north addition. The windows are operable awning type with acrylic exterior covering.	The windows are in fair condition. The plexiglass covers have faded/oxidized and the hardware is damage.	Allow to replace windows in the long term.	Fair	Life Cycle		30	20	25	5	2024	1	100%	1	L-SUM	\$6,000	\$6,000	\$600	\$600	\$1,200	\$7,200
James Whyte Arena	70 Front Street North	B203001	Solid Doors	Wood framed, wood core doors are installed at arena exits.	The doors, frames and associated hardware are in poor condition.	Replace doors and associated hardware in the short term.	Fair	Life Cycle		25	50	24	1	2020	4	100%	4	EA	\$3,500	\$14,000	\$1,400	\$1,400	\$2,800	\$16,800
James Whyte Arena	70 Front Street North	B203001	Solid Doors	Steel framed, solid panel door at west side of arena was added in 1999.	The door has a deteriorated threshold, corrosion of frames and aging hardware. Clear width is approximately 32". The landing is also undersized.	Replace door and associated hardware in the short term. Allow to widen door for barrier-free use.	Fair	Life Cycle		25	20	24	1	2020	1	100%	1	EA	\$12,000	\$12,000	\$1,200	\$1,200	\$2,400	\$14,400
James Whyte Arena	70 Front Street North	B203001	Solid Doors	Arena double leaf wood door at north end in wood frame.	The doors are in poor condition with corrosion and general wear. Hardware is also in poor condition.	Replace doors in the short term.	Poor	Life Cycle		25	50	24	1	2020	1	100%	1	EA	\$7,300	\$7,300	\$730	\$730	\$1,460	\$8,760
James Whyte Arena	70 Front Street North	B203002	Glazed Doors	The north entrance is accessed by two single leaf, metal clad doors with 1/2-height GWG single glazed vision panels.	The doors are in good condition poor condition with minor corrosion and general wear. Hardware is in fair condition and includes one Horton automatic operator. Clear width is 37".	Replace doors in the long term. Allow to provide proper vision panels with double glazing.	Good	Life Cycle		25	20	20	5	2024	2	100%	2	EA	\$9,500	\$19,000	\$1,900	\$1,900	\$3,800	\$22,800
James Whyte Arena	70 Front Street North	B203004	Overhead And Roll-Up Doors	Olympia Room is equipped with an older 11' x 10' Kinnear rolling coil door with manual chain operation.	The door is in fair condition with localized physical damage.	Replace door in the short term with roll-up, insulated type with motor.	Fair	Life Cycle		20	25	18	2	2021	1	100%	1	EA	\$6,500	\$6,500	\$650	\$650	\$1,300	\$7,800



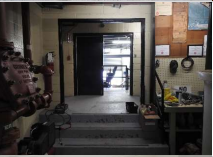
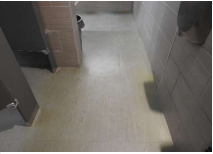
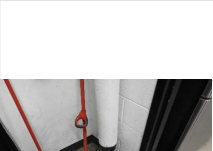
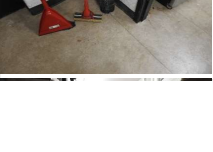
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James Whyte Arena	70 Front Street North	B203004	Overhead And Roll-Up Doors	Insulated overhead metal doors (8' x 8', 11' x 11') are installed at the west storage garages. The doors are manually operated only.	The doors are in fair condition with minor wear.	Replace doors in the long term.	Fair	Life Cycle		25	15	15	10	2029	2	100%	2	EA	\$6,500	\$13,000	\$1,300	\$1,300	\$2,600	\$15,600
James Whyte Arena	70 Front Street North	B203004	Overhead And Roll-Up Doors	Insulated overhead metal doors (8' x 8', 11' x 11') are installed at the west storage garages. The doors are manually operated only.	The doors are in fair condition with minor wear.	Allow to refurbish doors in the short term including wood frames and weatherstripping.	Fair	Life Cycle		15	15	14	1	2020	2	100%	2	EA	\$650	\$1,300	\$130	\$130	\$260	\$1,560
James Whyte Arena	70 Front Street North	B203008	Exterior Door Hardware	Older exterior door hardware is installed throughout the building including self-closers, cylinders and crash bars.	The hardware is in poor condition. Some of the doors are missing self-closers.	Replace all exterior door hardware. Cost is covered under door components.	Poor	Life Cycle		20	50	20	0	2019	0	100%	0	L-SUM	\$18,000	\$0	\$0	\$0	\$0	\$0
James Whyte Arena	70 Front Street North	B301001	High Slope Roof Coverings	The gambrel and hipped roofs of the arena and north addition are protected by standard asphalt shingles.	The shingles are in good condition with no deterioration noted; installed in 2016. A water stain was noted around the combustion air pipe for the south furnace in the north Mechanical Room; operation and maintenance item.	Replace asphalt shingles in the long term.	Good	Life Cycle		20	2	2	18	2037	27000	100%	27000	SF	\$5	\$121,500	\$12,150	\$12,150	\$24,300	\$145,800
James Whyte Arena	70 Front Street North	B301001	High Slope Roof Coverings	The sloped roof over the workshop are protected by older asphalt shingles.	The shingles are in poor condition. Water entry was noted in localized areas. Asphalt patching is used to seal voids.	Replace asphalt shingles in the short term.	Poor	Necessary		20	30	19	1	2020	1300	100%	1300	SF	\$7	\$9,100	\$910	\$910	\$1,820	\$10,920
James Whyte Arena	70 Front Street North	B301002	Low Slope Membrane Systems	The flat roof sections over the main corridor, Olympia Room, Committee Room and Administration areas are protected by two-ply modified bitumen membrane.	The roof system is in poor condition with notable blistering, poorly sealed penetrations and poor slope to area drains. Extensive ponding water was observed along with notable water entry.	Replace roof membrane in the short term.	Poor	Necessary		20	25	19	1	2020	14000	100%	14000	SF	\$17	\$238,000	\$23,800	\$23,800	\$47,600	\$285,600
James Whyte Arena	70 Front Street North	B301004	Flashings And Trim	Prefinished metal flashings are used at the upturns and at parapets.	The flashings are in fair-to-poor condition with loose sections noted.	Allow to replace all flashings with replacement of flat roofing.	Poor	Life Cycle		30	25	29	1	2020	1	100%	1	L-SUM	\$10,000	\$10,000	\$1,000	\$1,000	\$2,000	\$12,000
James Whyte Arena	70 Front Street North	B301005	Gutters And Downspouts	Prefinished aluminum soffits and gutters are installed at the north addition. The downspouts are ABS/PVC type with discharge to grade below the sidewalk.	The raingoods are in good condition with the exception of the ABS downspouts. The downspouts have cracked as they extend below the adjacent sidewalk.	Allow to replace all raingoods in the long term.	Good	Life Cycle		30	20	20	10	2029	1	100%	1	L-SUM	\$5,800	\$5,800	\$580	\$580	\$1,160	\$6,960
James Whyte Arena	70 Front Street North	B301005	Gutters And Downspouts	Prefinished aluminum soffits and gutters are installed at the north addition. The downspouts are ABS/PVC type with discharge to grade below the sidewalk.	The raingoods are in good condition with the exception of the ABS downspouts. The downspouts have cracked as they extend below the adjacent sidewalk.	Allow to replace downspouts in the short term.	Fair	Life Cycle		30	20	29	1	2020	1	100%	1	L-SUM	\$3,200	\$3,200	\$320	\$320	\$640	\$3,840
James Whyte Arena	70 Front Street North	C101005	Interior Windows	Wood framed window with GWG wired glass and plexiglass covering are installed at the Press Box.	The windows are in fair condition.	Replacement of interior windows are included in the proposed reconstruction of the Press Box.	Fair	Life Cycle		50	60	50	0	2019	0	100%	0	L-SUM	\$0	\$0	\$0	\$0	\$0	\$0

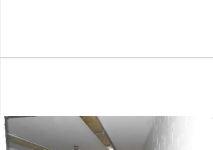


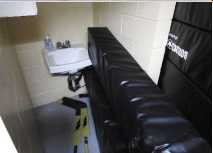
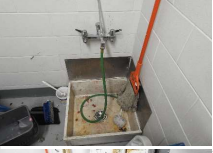
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James Whyte Arena	70 Front Street North	C1010	Partitions - General	Wall partitions are fixed type constructed with masonry block.	The block walls are in good condition with some exceptions (see item B101002). The end bearing for a steel beam opening at the north garage is in poor condition.	Allow for repairs in the immediate term.	Good	Necessary		20	83	19	1	2020	1	100%	1	L-SUM	\$4,500	\$4,500	\$450	\$450	\$900	\$5,400
James Whyte Arena	70 Front Street North	C102001	Standard Interior Doors	Metal and wood doors, in metal and wood frames, are used throughout the arena interior.	The doors are in fair condition with corroding door frames. Doors and frames at service areas are a combination of UL rated and non-UL rated type. All wood framed doors are in poor condition and in need of updating. Some of the doors were replaced in recent years at the south end of the arena (Women's Change Room, Furnace Room, Slop Sink Room). Doors at the north addition change rooms are lower quality (3 hinge type with limited panel reinforcement). Wood doors used in fire separations will require replacement (e.g. doors at Canteen corridor). The Canteen corridor exit and exit door widths are also restrictive by the installation of BAS panels (measurements of 30" door and 33" exit width recorded when minimum 31" and 43" are required).	Allow to refurbish steel doors and replace older wood doors. Allow for UL rated frames and door panels at all service rooms, e.g. east exit door from Refrigeration Room to service corridor.	Fair	Life Cycle		25	36	23	2	2021	34	40%	14	EA	\$2,300	\$31,280	\$3,128	\$3,128	\$6,256	\$37,536
James Whyte Arena	70 Front Street North	C102001	Standard Interior Doors	Doors to arena from main foyer are metal clad in metal frame with GWG single glazed vision panels.	The doors are in fair condition. Standard push/pull hardware is installed with self-closers. Vision panel configuration and single width (24.5") are non-conforming to barrier-free requirements.	Replace doors in the short term.	Fair	Life Cycle		25	36	24	1	2020	1	100%	1	L-SUM	\$15,000	\$15,000	\$1,500	\$1,500	\$3,000	\$18,000
James Whyte Arena	70 Front Street North	C102005	Interior Overhead Doors	Olympia Room has a newer 10'x10' insulated metal roll-up sectional door. The door is manually operated.	The door is in good condition.	Replace door in the long term.	Good	Life Cycle		15	4	4	11	2030	1	100%	1	EA	\$5,200	\$5,200	\$520	\$520	\$1,040	\$6,240
James Whyte Arena	70 Front Street North	C102005	Interior Overhead Doors	Canteen rolling metal shutter by Overhead Door Corp.	The door is in good condition.	Replace door in the long term.	Good	Life Cycle		15	4	1	14	2033	1	100%	1	EA	\$3,900	\$3,900	\$390	\$390	\$780	\$4,680
James Whyte Arena	70 Front Street North	C102007	Interior Door Hardware	Horton automatic door operator is installed at the north foyer to the arena.	The operator is in fair condition.	Replace operator in the long term.	Fair	Life Cycle		20	20	15	5	2024	1	100%	1	EA	\$5,500	\$5,500	\$550	\$550	\$1,100	\$6,600
James Whyte Arena	70 Front Street North	C102007	Interior Door Hardware	Interior doors are equipped with standard lever and knob type pass sets, LCN self-closers and thumb latch cylinders.	The hardware is in fair condition. Door closer was omitted at the south Slop Sink Room; operation and maintenance item.	Replace hardware in the short term with doors.	Fair	Life Cycle		20	20	16	4	2023	1	100%	1	L-SUM	\$8,000	\$8,000	\$800	\$800	\$1,600	\$9,600

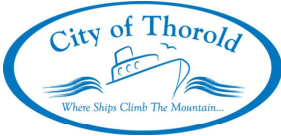
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James Whyte Arena	70 Front Street North	C103001	Compartments, Cubicles And Toilet Partitions	PVC type partitions are installed at the north change rooms and the south public washroom stalls.	The partitions are in good condition.	Allow to replace the partitions in the long term.	Good	Life Cycle		15	2	2	13	2032	1	100%	1	L-SUM	\$13,000	\$13,000	\$1,300	\$1,300	\$2,600	\$15,600
James Whyte Arena	70 Front Street North	C103002	Toilet Accessories	Each washroom has a variety of soap dispensers, paper towel dispensers, toilet paper towel dispensers, grab bars, mirrors, etc. Newer World Dryer electric hand dryers are installed at the renovated public washrooms.	The accessories are in good condition.	Allow to replace accessories in the long term.	Good	Life Cycle		15	6	6	9	2028	1	100%	1	L-SUM	\$4,000	\$4,000	\$400	\$400	\$800	\$4,800
James Whyte Arena	70 Front Street North	C103004	Identifying Devices	Wayfinding signage for user and service rooms.	Wayfinding signage is very limited.	Allow to provide wayfinding signage in immediate term.	Poor	Necessary		20	30	19	1	2020	1	100%	1	L-SUM	\$4,000	\$4,000	\$400	\$400	\$800	\$4,800
James Whyte Arena	70 Front Street North	C103006	Shelving	Older painted wood shelving is installed at the Workshop areas.	The shelving is in need of updating.	Replace shelving in the short term.	Fair	Necessary		20	50	18	2	2021	1	100%	1	L-SUM	\$5,300	\$5,300	\$530	\$530	\$1,060	\$6,360
James Whyte Arena	70 Front Street North	C103009	Cabinets	Older laminate and painted wood cabinetry at the Workshop Kitchen.	The millwork is in poor condition.	Replace millwork in the short term.	Poor	Life Cycle		20	50	19	1	2020	1	100%	1	L-SUM	\$12,000	\$12,000	\$1,200	\$1,200	\$2,400	\$14,400
James Whyte Arena	70 Front Street North	C103009	Cabinets	Older laminate counters and lower cupboards are installed at the Canteen.	The millwork is in fair condition.	Replace millwork in the short term.	Fair	Life Cycle		20	30	18	2	2021	1	100%	1	L-SUM	\$15,000	\$15,000	\$1,500	\$1,500	\$3,000	\$18,000
James Whyte Arena	70 Front Street North	C103011	Firestopping Penetrations	Firestopping materials at the various Mechanical Rooms, including the Refrigeration Room(s) are omitted..	Voids at penetrations of block walls is widespread.	Allow for immediate installations.	Poor	Necessary		30	83	30	0	2019	1	100%	1	L-SUM	\$12,000	\$12,000	\$1,200	\$1,200	\$2,400	\$14,400
James Whyte Arena	70 Front Street North	C103099	Other Interior Specialties	Older metal lockers and newer Justrite non-vented flammable storage cabinet are provided.	The components are in fair condition.	Allow for long term replacements. Allow to vent storage cabinet under O & M.	Fair	Life Cycle		25	15	15	10	2029	1	100%	1	L-SUM	\$3,200	\$3,200	\$320	\$320	\$640	\$3,840
James Whyte Arena	70 Front Street North	C201001	Interior Stair Construction	Poured concrete stairs are installed at the Olympia Room. The stairs are equipped with painted steel pipe railings and guards.	The stairs, handrails (at 37" AFF) and guards (at 42" AFF) are in fair condition. Cracking along stair nosings was noted.	Replacement of stairs is not anticipated through life of building. Allow to repaint stairs with textured, contrasting nosings and replace handrails and guards with continuous type. Repair cracking as necessary. Relocate double door to prevent doors from opening onto stairs and intermediate landing.	Fair	Life Cycle		75	69	74	1	2020	1	100%	1	L-SUM	\$25,000	\$25,000	\$2,500	\$2,500	\$5,000	\$30,000

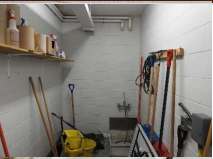
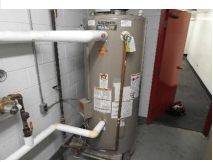


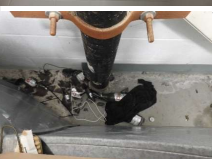
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James Whyte Arena	70 Front Street North	C201001	Interior Stair Construction	Poured concrete stairs are installed at the Refrigeration Room. The stairs are equipped with painted steel pipe railings.	The stairs and handrails (at 37" AFF) are in good condition.	Replacement of stairs is not anticipated through life of building. Allow to repaint stairs with textured, contrasting nosings and replace handrails with continuous type over both sides.	Fair	Life Cycle		75	69	74	1	2020	1	100%	1	L-SUM	\$5,000	\$5,000	\$500	\$500	\$1,000	\$6,000
James Whyte Arena	70 Front Street North	C30	Interior Finishes	The north change room showers are constructed with poured concrete floors with painted finish, painted gypsum board ceilings and painted masonry block walls.	The wall and ceiling finishes are in fair condition. The floor finish is in poor condition.	Allow to update finishes in the short term. Allow to use durable, non-slip urethane floor finishes.	Poor	Necessary		5	9	4	1	2020	4	100%	4	EA	\$3,100	\$12,400	\$1,240	\$1,240	\$2,480	\$14,880
James Whyte Arena	70 Front Street North	C30	Interior Finishes	The south end of the arena (Refrigeration Room, Canteen, Referee's Room, Change Room 6, Main Entrance, Women's Change Room and southeast Mechanical Room) are finished with painted concrete floors with loose rubber sheets, painted transite (asbestos) board ceilings, painted plaster/wood framed walls and painted block walls. The upper area is not used (originally used as a Change Room with separate forced air ducting and registers, insulated walls with painted plywood cover and partially insulated roof rafters with painted plywood cover.	All finishes at this end of the arena are in fair-to-poor condition. The floor finishes are in poor condition especially at shower areas. Integrity of fire separation between the James Whyte Arena and the south common foyer requires improvement (omission of firestopping). Heat loss and exfiltration are also a concern due to the lack of insulation and vapour/air barrier components.	Allow to update finishes in the short term. Allow to use durable, non-slip urethane floor finishes in shower areas. Allow for full retrofit of south end of arena to rectify deficiencies (finishes, thermal and air leakage).	Poor	Necessary		25	69	24	1	2020	2100	100%	2100	SF	\$45	\$94,500	\$9,450	\$9,450	\$18,900	\$113,400
James Whyte Arena	70 Front Street North	C30	Interior Finishes	The west Workshop, washroom and kitchen are finished with painted concrete floors, painted plywood ceilings and painted masonry block/plywood on wood framed walls. The two adjoining storage garages are unfinished.	All finishes at this end of the arena are in fair-to-poor condition. Integrity of fire separation between the Workshop and Olympia Room is generally adequate. Heat loss and exfiltration in this area is extensive due to the lack of insulation and vapour/air barrier components.	Allow to update finishes in the short term. Allow for full retrofit of Workshop areas to rectify deficiencies (finishes, thermal and air leakage).	Poor	Necessary		25	69	24	1	2020	1900	100%	1900	SF	\$35	\$66,500	\$6,650	\$6,650	\$13,300	\$79,800
James Whyte Arena	70 Front Street North	C301004	Tile And Terrazzo Wall Finishes	Newer ceramic wall tile is installed at the recently renovated south public washrooms.	The tile is in good condition.	Allow to replace wall tiling in the long term.	Good	Life Cycle		35	3	3	32	2051	1000	100%	1000	SF	\$24	\$24,000	\$2,400	\$2,400	\$4,800	\$28,800
James Whyte Arena	70 Front Street North	C301005	Painting to Walls	Block wall surfaces are painted at the various user and service rooms.	The painted surfaces are in fair condition with localized wear. The north and south change rooms were recently re-painted. Wall painting in service rooms and the Canteen are in poor condition.	Allow for re-painting of the surfaces in the short term with repeated intervals.	Fair	Life Cycle		4	2	2	2	2021	1	100%	1	L-SUM	\$8,000	\$8,000	\$800	\$800	\$1,600	\$9,600
James Whyte Arena	70 Front Street North	C301005	Painting to Walls	Block wall surfaces are painted throughout the arena bowl. Portions of the ceiling are also painted as is the main structure.	The painted surfaces are in fair condition notable wear.	Allow for re-painting of the surfaces in the short term. This will also improve illumination.	Fair	Life Cycle		7	15	6	1	2020	1	100%	1	L-SUM	\$28,000	\$28,000	\$2,800	\$2,800	\$5,600	\$33,600
James Whyte Arena	70 Front Street North	C302004	Resilient Floor Finishes	The Canteen area is finished with newer sheet linoleum with vinyl base.	The flooring and base are in good condition.	Replace flooring components in the long term.	Good	Life Cycle		15	3	3	12	2031	1	100%	1	L-SUM	\$3,500	\$3,500	\$350	\$350	\$700	\$4,200

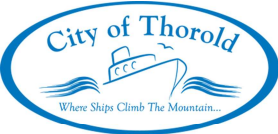
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James Whyte Arena	70 Front Street North	C302009	Floor Toppings & Traffic Membranes	Painted concrete floors are provided in the various service rooms and the Refrigeration Room(s).	The painted concrete floors are in fair condition. Housekeeping curbs are painted in contrasting colour.	Allow to re-paint floors in the short term.	Fair	Life Cycle		12	10	10	2	2021	2000	100%	2000	SF	\$4	\$8,000	\$800	\$800	\$1,600	\$9,600
James Whyte Arena	70 Front Street North	C302099	Other Flooring And Floor Finishes	Sectional rubber floor mats with adhered vinyl base trim are installed throughout the north change room, hall and vestibule. The floor mats are unadhered to the concrete slab-on-grade.	The rubber flooring is in fair condition with worn areas. Water collects below the flooring which has led to mould growth. The flooring is at end of useful service life.	Allow to replace flooring in the short term with adhered type.	Fair	Life Cycle		15	20	14	1	2020	3300	100%	3300	SF	\$17	\$56,100	\$5,610	\$5,610	\$11,220	\$67,320
James Whyte Arena	70 Front Street North	C302099	Other Flooring And Floor Finishes	Newer athletic rubber flooring is installed at the south entrance from foyer and portion of apron.	The rubber flooring is in good condition.	Allow to replace flooring in the long term.	Good	Life Cycle		15	3	3	12	2031	950	100%	950	SF	\$17	\$16,150	\$1,615	\$1,615	\$3,230	\$19,380
James Whyte Arena	70 Front Street North	C302099	Other Flooring And Floor Finishes	Newer rubber sheet flooring is installed at the southeast public washrooms.	The flooring, with no base, is in good condition.	Replace flooring in the long term.	Good	Life Cycle		15	3	3	12	2031	725	100%	725	SF	\$17	\$12,325	\$1,233	\$1,233	\$2,465	\$14,790
James Whyte Arena	70 Front Street North	C3030	Ceiling Finishes	Painted ceiling finishes are covered under C301005 item above.			Fair	Life Cycle		10	9	9	1	2020	0	100%	0	L-SUM	\$0	\$0	\$0	\$0	\$0	\$0
James Whyte Arena	70 Front Street North	C303003	Gypsum Wallboard Ceiling Finishes	Gypsum wallboard, with and without texture, are installed at the lobby and change rooms of the north addition.	The gypsum board ceilings are in good condition with minor physical damage.	Ceiling board replacement are not anticipated to occur. Localized repairs are considered maintenance.	Good	Life Cycle		50	19	19	31	2050	0	100%	0	L-SUM	\$0	\$0	\$0	\$0	\$0	\$0
James Whyte Arena	70 Front Street North	C303004	Acoustical Ceiling Tiles & Panels	Newer lay-in ceiling tiles are installed at the universal washroom at the south end of the building.	The tile system is in good condition.	Allow to replace ceiling system in the long term.	Good	Life Cycle		22	3	3	19	2038	1	100%	1	L-SUM	\$1,300	\$1,300	\$130	\$130	\$260	\$1,560
James Whyte Arena	70 Front Street North	D101002	Passenger Elevators	Building has no elevators or lifts.		Allow to add an elevator in the short term.	Poor	Necessary		25	0	22	3	2022	1	100%	1	L-SUM	\$275,000	\$275,000	\$27,500	\$27,500	\$55,000	\$330,000
James Whyte Arena	70 Front Street North	D2010	Plumbing Fixtures	The north change rooms are equipped with single American Standard and Gerber low-flow (6-LPF) floor mounted water closets with flush tanks, American Standard vitreous clay wall-hung vanities and dual head gang showers with residential type heads and single ball valve controls. The water closets were replaced in recent years while the vanities and showers are original. Similar vintage fixtures are installed at the Women's Change Room at south end of arena.	The fixtures are in fair-to-good condition.	Replace fixtures in the long term.	Fair	Life Cycle		15	20	10	5	2024	14	100%	14	EA	\$1,250	\$17,500	\$1,750	\$1,750	\$3,500	\$21,000
James Whyte Arena	70 Front Street North	D2010	Plumbing Fixtures	Public Washrooms (Universal, Men's and Women's) at southeast end of arena were recently renovated in 2017. Fixtures include American Standard floor mounted water closets that are low-flow type at 6 luff, undermounted vitreous clay vanity sinks with Moen auto faucets and soap dispensers and wall mounted urinals with auto flush valves.	The fixtures are in good condition.	Replace fixtures in the long term.	Good	Life Cycle		15	2	2	13	2032	20	100%	20	EA	\$1,500	\$30,000	\$3,000	\$3,000	\$6,000	\$36,000

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James Whyte Arena	70 Front Street North	D2010	Plumbing Fixtures	The northeast Referee's Room has been abandoned. Aging fixtures are installed.	The fixtures are in poor condition.	Allow to remove and cap all plumbing fixtures in the short term.	Poor	Life Cycle		15	36	14	1	2020	1	100%	1	L-SUM	\$1,500	\$1,500	\$150	\$150	\$300	\$1,800
James Whyte Arena	70 Front Street North	D2010	Plumbing Fixtures	The south Referee's Room and Change Room 6 are equipped with older shower stalls with exposed domestic water piping, old floor mounted water closets with flush tanks and wall hung vanities.	The fixtures are in poor condition.	Replace fixtures in the short term. Includes refinishing all showers.	Poor	Life Cycle		15	69	14	1	2020	1	100%	1	L-SUM	\$25,000	\$25,000	\$2,500	\$2,500	\$5,000	\$30,000
James Whyte Arena	70 Front Street North	D2010	Plumbing Fixtures	Older stainless steel sink at Workshop Kitchen.	The fixture and faucet are in need of updating.	Replace fixture and faucet in the short term.	Fair	Life Cycle		20	36	19	1	2020	1	100%	1	EA	\$1,700	\$1,700	\$170	\$170	\$340	\$2,040
James Whyte Arena	70 Front Street North	D2010	Plumbing Fixtures	The Canteen main wash sink has no interceptor (grease trap).	An interceptor is required by the Plumbing Code.	Allow to install an interceptor in the short term.	Poor	Necessary		25	30	24	1	2020	1	100%	1	EA	\$6,000	\$6,000	\$600	\$600	\$1,200	\$7,200
James Whyte Arena	70 Front Street North	D2010	Plumbing Fixtures	PVC slop sinks and industrial faucets are installed at the two Janitor's Rooms.	The sinks are in good condition. The faucets have vacuum breaker devices as required.	Allow to replace sinks and faucets in the long term.	Good	Life Cycle		25	10	12	13	2032	2	100%	2	EA	\$6,500	\$13,000	\$1,300	\$1,300	\$2,600	\$15,600
James Whyte Arena	70 Front Street North	D2010	Plumbing Fixtures	Older hose stations are installed at the Olympia Room.	The hoses, fittings and piping are in fair condition but require updating.	Allow to replace two hose stations at Olympia Room in the short term.	Fair	Life Cycle		25	30	24	1	2020	2	100%	2	EA	\$2,000	\$4,000	\$400	\$400	\$800	\$4,800
James Whyte Arena	70 Front Street North	D201004	Sinks	Newer stainless steel vanity sink and prep sink at Canteen.	The sinks and faucets are in good condition.	Allow to replace sinks and faucets in the long term.	Good	Life Cycle		25	2	2	23	2042	1	100%	1	L-SUM	\$8,000	\$8,000	\$800	\$800	\$1,600	\$9,600
James Whyte Arena	70 Front Street North	D201005	Showers	Older prefabricated steel shower, floor mounted water closet and wall hung vitreous clay sink are installed at the Workshop Washroom.	The fixtures are in poor condition.	Allow to replace fixtures in the short term.	Poor	Life Cycle		15	30	14	1	2020	1	100%	1	L-SUM	\$11,000	\$11,000	\$1,100	\$1,100	\$2,200	\$13,200
James Whyte Arena	70 Front Street North	D201006	Drinking Fountains and Coolers	Drinking fountain located at main foyer - not in scope.			Good	Life Cycle		20	2	2	18	2037	0	100%	0	EA	\$0	\$0	\$0	\$0	\$0	\$0
James Whyte Arena	70 Front Street North	D201099	Emergency Fixtures	Older SE eyewash station at Workshop.	The components are in fair condition. Tempering valve not located. The eyewash station is located too far from the Refrigeration Room per requirements of OSHA and ANSI Z358.1-2004 Standards (requires equipment to be not more than 10 seconds to reach, path of travel to be clear and for strong caustics or acids it should be located immediately adjacent to the hazard).	Allow to add a new eyewash station at the Refrigeration Room immediately. Allow to replace the existing eyewash station also.	Fair	Necessary		15	15	15	0	2019	1	100%	1	L-SUM	\$9,000	\$9,000	\$900	\$900	\$1,800	\$10,800



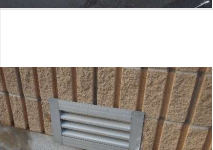
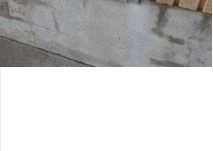
BUILDING INFORMATION				ASSESSMENT											PRELIMINARY COSTS						OTHER FEES			TOTAL COST OF PROJECT
BUILDING NAME	ADDRESS	UNIFORMAT CODE	BUILDING COMPONENT	DESCRIPTION	OBSERVATIONS	RECOMMENDATIONS	CONDITION RATING	CRITICALITY RATING	IMAGE	SERVICE LIFE (Years)	ACTUAL AGE (Years)	OBSERVED AGE (Years)	REMAINING LIFE (Years)	RECOMMENDED YEAR	TOTAL QUANTITY	% OF QUANTITY SCHEDULED	PROJECT QUANTITY	UNIT OF MEASURE	UNIT RATE (\$)	NET COST (\$)	DESIGN/ENGINEERING FEES (10%)	CONTINGENCY (10%)	TOTAL OTHER FEES	
James Whyte Arena	70 Front Street North	D201099	Emergency Fixtures	Eyewash stations are omitted at the two Janitor Rooms.	The omission is contrary to OSHA and ANSI Z358.1-2004 Standards.	Allow to add eyewash stations to the Janitor Rooms in immediate term.	Poor	Necessary		15	19	15	0	2019	2	100%	2	EA	\$7,000	\$14,000	\$1,400	\$1,400	\$2,800	\$16,800
James Whyte Arena	70 Front Street North	D202001	Pipes And Fittings	There are two domestic water supplies from the city, from the south and north ends of the arena in the Mechanical Rooms.	The north entrance is newer 1" diameter HDPE with ball valve to soldered copper distribution piping. The water service has an isolation ball valve, but no water meter, bypass or backflow preventer. The service is in fair condition.	Allow to update service in the long term.	Fair	Life Cycle		25	20	20	5	2024	1	100%	1	L-SUM	\$9,700	\$9,700	\$970	\$970	\$1,940	\$11,640
James Whyte Arena	70 Front Street North	D202001	Pipes And Fittings	There are two domestic water supplies from the city, from the south and north ends of the arena in the Mechanical Rooms.	The south entrance is original 1.5" diameter galvanized steel with ball valve to threaded galvanized steel piping. The water service has an isolation ball valve, but no water meter, bypass or backflow preventer. Copper sections are also installed but with no dielectric fittings. The service entrance is in poor condition.	Allow to update service in the short term.	Poor	Life Cycle		25	69	24	1	2020	1	100%	1	L-SUM	\$9,700	\$9,700	\$970	\$970	\$1,940	\$11,640
James Whyte Arena	70 Front Street North	D202001	Pipes And Fittings	Domestic water piping is installed and is a combination of galvanized steel screw threaded type and soldered copper. Ball and stem valves are installed.	The domestic water service is in fair condition but has reached the end of useful service life in most areas. Domestic cold water piping in the south Mechanical Room shows multiple signs of leakage at the unions and joints; active leakage not noted.	Allow for short term replacements of the domestic water system. Allow to add recirculation systems on hot water systems.	Poor	Necessary		50	83	49	1	2020	1	50%	1	L-SUM	\$35,000	\$17,500	\$1,750	\$1,750	\$3,500	\$21,000
James Whyte Arena	70 Front Street North	D202003	Domestic Water Equipment	Domestic hot water for the north change rooms is by an A.O. Smith MasterFit (m# BTR 500AL00N0000, s# LC000920633) gas-fired hot water heater. The heater is rated at 500-MBH input with 85-gallon capacity. Water is stored at 140F. A recirculation pump (Armstrong ASTRO 230SS) and a thermostatic mixing valve (Symmons) provides 120F domestic hot water.	The heater is in fair condition. The system does not use a hot water recirculation loop.	Allow to replace heater in the short term along with the provision of recirculation loop and expansion tank.	Fair	Life Cycle		20	19	19	1	2020	1	100%	1	EA	\$21,000	\$21,000	\$2,100	\$2,100	\$4,200	\$25,200
James Whyte Arena	70 Front Street North	D202003	Domestic Water Equipment	Domestic hot water for the ice resurfacer is by an A.O. Smith (m# BTRC251 110, s# J04M004450) gas-fired hot water heater. The heater is rated at 251-MBH input with 65-gallon capacity.	The heater is in fair condition.	Allow to replace heater in the short term.	Fair	Life Cycle		20	15	16	4	2023	1	100%	1	EA	\$12,000	\$12,000	\$1,200	\$1,200	\$2,400	\$14,400
James Whyte Arena	70 Front Street North	D202003	Domestic Water Equipment	The arena has three gas-fired domestic hot water tanks located on the south side (AO Smith models BTRC251 110, and two TJV 120M 000) provide hot water to the change rooms and other points of use, including supplying to another two hot water heaters in the new south arena, and the ice resurfacing machine. A booster pump (Armstrong motor model S-25 PLV/MF, date code 0517, pump size 1.25") is installed due to the length of pipe to the points of use.	The two storage tanks (m# TJV 120M 000, s# 1628M001215 and 1628M000812) have 116 US Gallon capacity each and are in good condition.	Allow to replace the storage tanks in the long term.	Good	Life Cycle		12	3	3	9	2028	2	100%	2	EA	\$6,000	\$12,000	\$1,200	\$1,200	\$2,400	\$14,400

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James Whyte Arena	70 Front Street North	D202003	Domestic Water Equipment	The south end of the building has a gas-fired domestic hot water heater and storage tank. The A.O. Smith (m# BTRC 120116, s# 1650104262206) is rated at 120-MBH input and 71-US Gallons. The storage tank is an A.O. Smith (m# TJV-120M 000, s# 1646103971514) has a 119 US gallon capacity.	The heater and storage tank are in good condition.	Allow to replace the heater and storage tank in the long term.	Good	Life Cycle		12	3	3	9	2028	1	100%	1	L-SUM	\$15,000	\$15,000	\$1,500	\$1,500	\$3,000	\$18,000
James Whyte Arena	70 Front Street North	D202003	Domestic Water Equipment	The workshop is equipped with a GSW (m# SS12SEB15, s# S0807 J70083) electric water heater. The heater is rated at 1500-W with 43-liter capacity.	The heater is in fair condition.	Allow to replace the heater in the long term.	Fair	Life Cycle		20	12	14	6	2025	1	100%	1	L-SUM	\$3,200	\$3,200	\$320	\$320	\$640	\$3,840
James Whyte Arena	70 Front Street North	D202003	Domestic Water Equipment	Fractional horsepower circulating pumps are installed on the various domestic water heating systems.	The pumps are a combination of newer and older.	Replace pumps under O & M only as needed.	Fair	Life Cycle		20	19	19	1	2020	0	100%	0	EA	\$0	\$0	\$0	\$0	\$0	\$0
James Whyte Arena	70 Front Street North	D202003	Domestic Water Equipment	New 2019 Symmons thermostatic control valve is installed for the north addition change rooms. The Women's Change Room shower faucet is a Symmons thermostatic type.	The valves are in fair-to-good condition. The south end areas require improvement in water temperature control.	Allow to add/modify design of thermostatic controls in immediate term.	Fair	Life Cycle		20	25	20	0	2019	1	100%	1	EA	\$6,000	\$6,000	\$600	\$600	\$1,200	\$7,200
James Whyte Arena	70 Front Street North	D202004	Insulation And Identification	Domestic water piping insulation is formed 1/2" fiberglass with PVC service jacket at newer installations. Older piping and fittings throughout the building are uninsulated.	The pipe insulation is in good condition where installed but is missing directional and identification labeling.	Allow to refurbish existing insulations and add insulations to bare piping and fittings in the short term.	Fair	Life Cycle		20	20	18	2	2021	1	100%	1	EA	\$6,500	\$6,500	\$650	\$650	\$1,300	\$7,800
James Whyte Arena	70 Front Street North	D2030	Sanitary Waste	Sanitary waste systems is comprised of ABS, copper and cast iron piping, venting and fittings and includes floor drains.	The sanitary waste system is in fair condition with no known concerns at this time. Some traps are dry on older sections and some stacks are missing cleanouts. A floor drain in one of the south change rooms was recessed below the finished floor posing a trip hazard.	Replace components in the short term.	Fair	Life Cycle		35	83	34	1	2020	1	100%	1	L-SUM	\$50,000	\$50,000	\$5,000	\$5,000	\$10,000	\$60,000
James Whyte Arena	70 Front Street North	D204001	Rain Water Drainage - Pipe And Fittings	The sloped roof over the arena is equipped with 5" aluminum eavestroughs and 4" to 5" diameter PVC collection piping and fittings. The piping is supported on steel brackets affixed to the exterior walls with steel straps affixed to alternating supports. The piping is discharged to the east and west main entrance areas. The assembly was installed in 2017.	The storm water drainage piping and fittings of the arena are in good condition. Corrosion has developed on all pipe strapping. The system does not utilize heat tracing; drainage in winter months is a concern. Current discharge points can cause safety issues during winter months as well due to freezing.	Allow to retrofit the collection storm water systems in the short term with heat tracing. Future replacement of the system (with roof shingle replacement) should utilize an oversized metal gutter, heat tracing, with discharge points directly to the storm water manhole(s). Allow to remove the original corroded soffit and fascia board when replacing shingles in the long term also.	Fair	Life Cycle		50	1	32	18	2037	1	100%	1	L-SUM	\$27,000	\$27,000	\$2,700	\$2,700	\$5,400	\$32,400
James Whyte Arena	70 Front Street North	D204001	Rain Water Drainage - Pipe And Fittings	The sloped roof over the arena is equipped with 5" aluminum eavestroughs and 4" to 5" diameter PVC collection piping and fittings. The piping is supported on steel brackets affixed to the exterior walls with steel straps affixed to alternating supports. The piping is discharged to the east and west main entrance areas.	The storm water drainage piping and fittings of the arena are in good condition. Corrosion has developed on all pipe strapping. The system does not utilize heat tracing; drainage in winter months is a concern. Current discharge points can cause safety issues during winter months as well due to freezing.	Allow to retrofit the collection storm water systems in the short term with heat tracing.	Fair	Life Cycle		15	1	14	1	2020	1	100%	1	L-SUM	\$6,500	\$6,500	\$650	\$650	\$1,300	\$7,800



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James Whyte Arena	70 Front Street North	D301002	Gas Supply System	Interior natural gas piping and fittings.	Gas piping in the North Building furnace room missing identification by banding or painting to comply with CSA B149.1 Natural Gas and Propane Installation Code. Gas piping adjacent to the north dehumidification unit is poorly supported (use of electrical wire versus appropriate pipe support as per CSA B149.1 Standard).	Allow to remedy issue under operation and maintenance.	Fair	Recommended		25	20	25	0	2019	0	100%	0	L-SUM	\$0	\$0	\$0	\$0	\$0	\$0
James Whyte Arena	70 Front Street North	D302003	Furnaces	York Diamond 90 (m# P3URC16N07501C, s# (8) ELM832700 and ELHM812847) gas-fired forced air furnaces are located at the North Furnace Room. The furnaces are rated at 80-MBH input and 76-MBH output (95% efficiency) and serve the north change rooms and service areas. Control is by a Honeywell digital thermostat located in the Unisex barrier-free washroom.	The 1999 high-efficiency furnaces are in good condition. The furnaces have a ducted intake fresh air louver with damper that is attached to the return air duct. The room is also equipped with an insulated fresh air duct to floor level for combustion air. One of the furnaces has internal corrosion from a leaking condensate pipe; operation and maintenance item.	Allow to replace furnaces in the long term.	Good	Life Cycle		20	20	15	5	2024	2	100%	2	EA	\$12,000	\$24,000	\$2,400	\$2,400	\$4,800	\$28,800
James Whyte Arena	70 Front Street North	D302003	Furnaces	York Diamond 90 (m# P3URC16N07501C, s# (8) ELM832700 and ELHM812847) gas-fired forced air furnaces are located at the North Furnace Room. The furnaces are rated at 80-MBH input and 76-MBH output (95% efficiency) and serve the A gas-fired forced air furnace is installed at the southeast Mechanical Room. The furnace serves the south change rooms and storage areas. The Nordyne (m# KG6RC 080C-12B, s# KGA021204862) has an input of 80-MBH and output of 72-MBH (90% efficiency).	The two furnaces in the North building have flue stacks with the incorrect material type. ABS DWV vents were used. These exhaust stacks shall be certified to ULC S636 to comply with CSA B149.1 Natural Gas and Propane Installation Code. The mid-efficiency furnace is in fair condition. The fresh air vent to the return air plenum was disconnected; contrary to OBC 6.2.2.1. The vent pipe to the masonry chimney is not UL rated as required.	Allow to replace venting system in immediate term.	Poor	Recommended		20	20	20	0	2019	1	100%	1	L-SUM	\$4,000	\$4,000	\$400	\$400	\$800	\$4,800
James Whyte Arena	70 Front Street North	D302003	Furnaces	A gas-fired forced air furnace is installed at the southeast Mechanical Room. The furnace serves the south change rooms and storage areas. The Nordyne (m# KG6RC 080C-12B, s# KGA021204862) has an input of 80-MBH and output of 72-MBH (90% efficiency).	The mid-efficiency furnace is in fair condition. The fresh air vent to the return air plenum was disconnected; contrary to OBC 6.2.2.1. The vent pipe to the masonry chimney is not UL rated as required.	Allow to replace furnace in the short term. Allow to reinstate fresh air introduction under operation and maintenance.	Fair	Life Cycle		20	17	17	3	2022	1	100%	1	EA	\$11,000	\$11,000	\$1,100	\$1,100	\$2,200	\$13,200
James Whyte Arena	70 Front Street North	D304001	Air Distribution, Heating & Cooling	Galvanized ductwork, prefinished grills and dampers are used throughout for exhaust, supply and return air systems.	All components are in fair condition. The ducting and grilles are in need of cleaning. Several penetrations have no fire dampers.	Allow for replacements/refurbishment in the short term with replacement of furnaces, make-up air unit and exhaust fans. Allow also to verify condition of fire dampers through rated floors and walls.	Fair	Necessary		40	50	39	1	2020	1	100%	1	L-SUM	\$18,000	\$18,000	\$1,800	\$1,800	\$3,600	\$21,600
James Whyte Arena	70 Front Street North	D304001	Air Distribution, Heating & Cooling	Painted galvanized ductwork with prefinished grills are installed on the supply and return air runs for the north addition.	All components are in good condition. The ducting is installed in a reverse fashion with return air over the exterior walls and supply air at the internal walls of the change rooms. The installation is non-conforming and provides inadequate air circulation. Supply and exhaust air diffusers at the north addition barrier-free washroom are too close. Similar situation exists at the Women's Change Room on supply and return air locations.	Allow for retrofitting the existing ductwork installations at the north addition.	Poor	Necessary		40	20	40	0	2019	1	100%	1	L-SUM	\$10,000	\$10,000	\$1,000	\$1,000	\$2,000	\$12,000
James Whyte Arena	70 Front Street North	D304007	Exhaust Systems	Penn (m# P-8) wall exhaust fan is installed at the Olympia Room.	The fan is in fair condition; data label is illegible. The fan is interconnected to a intake louver with automatic damper control and newer gas detection system. The system vents the ice melting pit. Intake air louver may be undersized.	Allow to update ventilation assembly in the short term based on age of intake and exhaust components.	Fair	Recommended		20	25	19	1	2020	1	100%	1	L-SUM	\$9,500	\$9,500	\$950	\$950	\$1,900	\$11,400
James Whyte Arena	70 Front Street North	D304007	Exhaust Systems	Older downblast spun aluminum exhaust fan is installed at the north change rooms.	The fan is in fair condition; data label is illegible. The fan is operated via an electronic timer. The insulated duct extends vertically through the attic. The exterior shroud has extensive corrosion.	Allow to replace exhaust fan in the short term.	Fair	Life Cycle		20	20	19	1	2020	1	100%	1	L-SUM	\$3,500	\$3,500	\$350	\$350	\$700	\$4,200



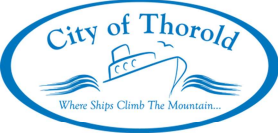
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James Whyte Arena	70 Front Street North	D304007	Exhaust Systems	Two older Nutone wall mounted fans are installed at the workshop washroom and kitchen area.	The fans were not operational and fan for washroom was removed/covered.	Replace fans and all associated controls in the short term.	Fair	Life Cycle		20	30	19	1	2020	2	100%	2	EA	\$1,400	\$2,800	\$280	\$280	\$560	\$3,360
James Whyte Arena	70 Front Street North	D304007	Exhaust Systems	PennBarry (m# DX11B, s# D17AS63751) 1/4-HP, 115-V, 1-P, 1775-RPM, 1000-CFM downblast roof-top exhaust fan. The fan is interlocked with the ammonia detection system of the Refrigeration Room.	The fan is in good condition including starter switches. Mechanical exhaust fan was a spun aluminum downblast style. IIAR 2 Standard requires an upblast type.	Replace fan in shorter term.	Fair	Necessary		20	25	19	1	2020	1	100%	1	EA	\$4,000	\$4,000	\$400	\$400	\$800	\$4,800
James Whyte Arena	70 Front Street North	D304007	Exhaust Systems	Older downblast exhaust fan is installed at roof level for the Refrigeration Room. The spun aluminum fan is for continuous operation when the chillers are enabled. The Refrigeration Room is also equipped with an intake air vent.	The fan is in fair condition. Data label was illegible but is likely undersized for the size of Refrigeration Room. The fan is also located too close to the fresh air intake.	Replace fan and intake vent in shorter term.	Fair	Necessary		20	35	19	1	2020	1	100%	1	EA	\$8,000	\$8,000	\$800	\$800	\$1,600	\$9,600
James Whyte Arena	70 Front Street North	D304007	Exhaust Systems	Older PennBarry (m# Domex) downblast exhaust fan is installed at the south roof at the east side. The fan serves the recently retrofitted public washrooms at the east end of the foyer and presumably the Women's Change Room.	The fan is in fair condition. Data label is partially legible.	Replace fan in the short term. Allow to re-size fan to include the Referee's Room, Slop Sink Room, South Furnace Room and Change Room 6 (storage); ventilation is lacking in these areas.	Fair	Life Cycle		20	19	19	1	2020	1	100%	1	EA	\$12,000	\$12,000	\$1,200	\$1,200	\$2,400	\$14,400
James Whyte Arena	70 Front Street North	D304007	Exhaust Systems	Older downblast exhaust fan is installed at the south roof at the west side. The fan serves the west set of public washrooms at the west end of the foyer.	The fan is in poor condition. Data label is illegible.	Replace fan in the short term.	Poor	Life Cycle		20	35	19	1	2020	1	100%	1	EA	\$3,200	\$3,200	\$320	\$320	\$640	\$3,840
James Whyte Arena	70 Front Street North	D304007	Exhaust Systems	Kitchen at Workshop area has no direct mechanical venting.		Allow to install a range hood ducted to the exterior in the short term.	Poor	Life Cycle		25	50	23	2	2021	1	100%	1	EA	\$5,500	\$5,500	\$550	\$550	\$1,100	\$6,600
James Whyte Arena	70 Front Street North	D304099	Other Distribution Systems	Passed condensation and mould issues were reported in the north addition. As a result, wall openings were made at the base of the exterior walls to allow increased ventilation.	The venting method is allowing for uncontrolled and untempered air flow into the change rooms. The vents are also not sealed at the exterior louvers.	It is recommended that the vents be sealed up and that controlled mechanical ventilation means be introduced (e.g. dehumidification units, heat recovery ventilators and/or operate furnace fans continuously and/or under dehumidistat controls). This should be completed in conjunction with the improvement of exterior wall and ceiling insulation of the north addition building.	Poor	Recommended		25	20	23	2	2021	1	100%	1	L-SUM	\$15,000	\$15,000	\$1,500	\$1,500	\$3,000	\$18,000
James Whyte Arena	70 Front Street North	D30502	Unit Heaters	Beacon Morris (m# BHR-75, s# M00149863003002) suspended gas-fired heater is installed at the Workshop. The heater has an input of 75-MBH and output of 50.75-MBH (81% efficiency).	The heater is in fair condition. The vent stack is in poor condition at roof level with extensive corrosion. Installed in 1998.	Replace heater in the short term with efficient type.	Fair	Life Cycle		25	20	22	3	2022	1	100%	1	EA	\$3,700	\$3,700	\$370	\$370	\$740	\$4,440
James Whyte Arena	70 Front Street North	D30502	Unit Heaters	Three Schwank (m# 2002, s# 597) 30-MBH input infrared gas-fired heaters are suspended at the south end of the arena over the bleachers. Four similar heaters along the east side of the arena have been abandoned. The master switch and heater relays are located in the Refrigeration Room.	The heaters are in fair condition with notable corrosion on black steel piping and fittings. Wiring connections are not neatly tied or placed in junction box. Fixtures are vented into arena area which is acceptable where proper venting is provided as per CSA-B149.1 and OBC 6.2.2.4. Venting of arena is lacking and there are gas detection systems in place.	Replace heaters in the short term with efficient type vented to exterior at south end of arena. Remove abandoned heaters and piping in the short term.	Fair	Recommended		25	60	24	1	2020	1	100%	1	L-SUM	\$30,000	\$30,000	\$3,000	\$3,000	\$6,000	\$36,000

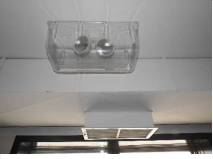
BUILDING INFORMATION				ASSESSMENT											PRELIMINARY COSTS						OTHER FEES			TOTAL COST OF PROJECT
BUILDING NAME	ADDRESS	UNIFORMAT CODE	BUILDING COMPONENT	DESCRIPTION	OBSERVATIONS	RECOMMENDATIONS	CONDITION RATING	CRITICALITY RATING	IMAGE	SERVICE LIFE (Years)	ACTUAL AGE (Years)	OBSERVED AGE (Years)	REMAINING LIFE (Years)	RECOMMENDED YEAR	TOTAL QUANTITY	% OF QUANTITY SCHEDULED	PROJECT QUANTITY	UNIT OF MEASURE	UNIT RATE (\$)	NET COST (\$)	DESIGN/ENGINEERING FEES (10%)	CONTINGENCY (10%)	TOTAL OTHER FEES	
James Whyte Arena	70 Front Street North	D30502	Unit Heaters	Spartan infrared gas-fired tube heater is installed at the Olympia Room.	The heater is in fair condition with notable corrosion. New vent pipe section is installed but it is non-conforming type. Ventilation is by means of a wall exhaust vent, intake louver and newer gas detection detector and control panel.	Replace heater in the short term with efficient type vented to exterior. Replace current vent piping with UL rated type in immediate term.	Fair	Recommended		25	25	24	1	2020	1	100%	1	L-SUM	\$7,700	\$7,700	\$770	\$770	\$1,540	\$9,240
James Whyte Arena	70 Front Street North	D30506	Package Units	An older Reznor gas-fired roof top air handling unit supplies heated air to the south foyer and Canteen. The Carrier and newer Reznor packaged units are excluded from review as they serve areas outside of the James Whyte arena.	The packaged heating unit is in fair condition but has no fresh air inlet. The data label was not observed. Proper ventilation to the interior areas is questionable and is suspected not to meet the requirements of the OBC and ASHRAE Standards. Separate supply air and return air ducting is provided.	Replace heater in the short term with efficient type. Allow to verify actual ventilation under Component H3010003 below.	Fair	Recommended		25	25	24	1	2020	1	100%	1	L-SUM	\$21,000	\$21,000	\$2,100	\$2,100	\$4,200	\$25,200
James Whyte Arena	70 Front Street North	D401001	Sprinklers And Releasing Devices	The building (arena and Refrigeration Room(s)) is partially sprinklered via a dry system. The 6" fire line enters the Refrigeration Room and is connected to a 6" diameter Grimes Model B dry valve, Potter PS10-2 pressure switch, Carnes alarm pressure switch, LynCar pressure gauges, water motor gong and Siamese connection. The black steel threaded piping is painted. The sprinkler system is maintained by Tyco Integrated Fire & Security (1-866-291-3568).	The sprinkler system is in fair condition and was installed in 1973. Piping within the arena at underside of roof shows signs of corrosion with most heads covered in significant dust. Note: The adjacent arena and service areas are not sprinklered and should not be used for trade shows, etc. in accordance to the OBC. A backflow preventer is not installed on the fire line which is in contravention of the OBC. Branch line in change room #6 is poorly supported.	Allow to replace the sprinkler system in the short term based on age and overall condition. Allow to extend coverage to remaining areas of the James Whyte Arena.	Fair	Life Cycle		40	46	37	3	2022	1	100%	1	L-SUM	\$120,000	\$120,000	\$12,000	\$12,000	\$24,000	\$144,000
James Whyte Arena	70 Front Street North	D401001	Sprinklers And Releasing Devices	The dry sprinkler system includes a Powermate (m# PPA1982054, s# L12410534A) portable compressor rated at 120-V, 15-A, 1-P with 20 US Gal capacity.	The compressor is in good condition but does not comply to the requirements of NFPA 13 and Electrical Code: Must be tank or base mounted with permanent electrical connection on a separate electrical circuit.	Allow to replace compressor in the short term with permanent type and GFI protection.	Fair	Life Cycle		18	7	15	3	2022	1	100%	1	L-SUM	\$8,500	\$8,500	\$850	\$850	\$1,700	\$10,200
James Whyte Arena	70 Front Street North	D402001	Standpipe Equipment & Piping	The building has no standpipe system.		No allowances carried.				35	83	35	0	2019	0	100%	0	L-SUM	\$0	\$0	\$0	\$0	\$0	\$0
James Whyte Arena	70 Front Street North	D403001	Fire Extinguishing Devices	Newer and older ABC type fire extinguishers are located throughout the building. The extinguishers are serviced as required by Sentinel Systems (289-783-2895).	The equipment is in good condition. Older extinguishers should be updated. Some extinguishers were not mounted; operation and maintenance item.	Replace components at the end of their expected life cycle.	Good	Life Cycle		15	10	10	5	2024	1	100%	1	L-SUM	\$1,200	\$1,200	\$120	\$120	\$240	\$1,440
James Whyte Arena	70 Front Street North	D409099	Other Fire Protection Systems	The Fire Safety Plan (FSP) was made available in digital form.	The FSP was prepared by ERC Design & Consulting Inc. And last updated in 2018; Thorold Fire & Emergency Services approval letter/date was not provided for review. Egress drawings and instructions are posted as required. FSP box is at main.	Allow to update the FSP in the short term.	Fair	Necessary		5	5	4	1	2020	1	100%	1	L-SUM	\$2,600	\$2,600	\$260	\$260	\$520	\$3,120
James Whyte Arena	70 Front Street North	D409099	Other Fire Protection Systems	There are no specialty suppression systems installed.	The Canteen is equipped with a portable, self-contained, ductless type fryer.	No allowances carried.	Fair			20	9	9	11	2030	0	100%	0	L-SUM	\$0	\$0	\$0	\$0	\$0	\$0
James Whyte Arena	70 Front Street North	DS01003	Main Switchboards	The electrical service is fed from overhead utility pole and down to a pad mount transformer located at the east arena entrance. The incoming service is run underground from the transformer to the Refrigeration Room. The newer Siemens main switch is rated at 600-A, 575-V, 3-P, 4-W.	The main switch, replaced in recent years, is in good condition.	Allow to replace the main switch in the long term,	Good	Life Cycle		40	10	10	30	2049	1	100%	1	EA	\$9,500	\$9,500	\$950	\$950	\$1,900	\$11,400

BUILDING INFORMATION				ASSESSMENT											PRELIMINARY COSTS						OTHER FEES			TOTAL COST OF PROJECT
BUILDING NAME	ADDRESS	UNIFORMAT CODE	BUILDING COMPONENT	DESCRIPTION	OBSERVATIONS	RECOMMENDATIONS	CONDITION RATING	CRITICALITY RATING	IMAGE	SERVICE LIFE (Years)	ACTUAL AGE (Years)	OBSERVED AGE (Years)	REMAINING LIFE (Years)	RECOMMENDED YEAR	TOTAL QUANTITY	% OF QUANTITY SCHEDULED	PROJECT QUANTITY	UNIT OF MEASURE	UNIT RATE (\$)	NET COST (\$)	DESIGN/ENGINEERING FEES (10%)	CONTINGENCY (10%)	TOTAL OTHER FEES	
James Whyte Arena	70 Front Street North	D501004	Interior Distribution Transformers	CGE 75-kVA , 600-V to 208Y/120-V is floor mounted at the Refrigeration Room.	The transformer is in fair condition.	Replace transformer in the short term.	Fair	Life Cycle		40	37	38	2	2021	1	100%	1	EA	\$8,000	\$8,000	\$800	\$800	\$1,600	\$9,600
James Whyte Arena	70 Front Street North	D501004	Interior Distribution Transformers	Newer Delta 30-kVA , 600-V to 600Y/346-V is wall mounted at the Refrigeration Room.	The transformer is in good condition.	Replace transformer in the long term.	Good	Life Cycle		40	2	2	38	2057	1	100%	1	EA	\$3,500	\$3,500	\$350	\$350	\$700	\$4,200
James Whyte Arena	70 Front Street North	D501004	Interior Distribution Transformers	Newer Square D 75-kVA , 600-V to 208Y/120-V is floor mounted at the Northwest Electrical Room.	The transformer is in good condition; installed in 2000.	Replace transformer in the long term.	Good	Life Cycle		40	19	19	21	2040	1	100%	1	EA	\$8,000	\$8,000	\$800	\$800	\$1,600	\$9,600
James Whyte Arena	70 Front Street North	D501005	Distribution Panels & Breakers	Newer Square D (cat# NF442L2) panelboard is rated at 250-A, 600Y/347-V, 3-P, 4-W and located in the Refrigeration Room.	The panelboard is in good condition but missing two breaker covers. Circuit identification is poor.	Replace panelboard in the long term.	Good	Life Cycle		40	2	2	38	2057	1	100%	1	EA	\$5,000	\$5,000	\$500	\$500	\$1,000	\$6,000
James Whyte Arena	70 Front Street North	D501005	Distribution Panels & Breakers	Newer Square D (cat# NQ442L2) panelboard is rated at 250-A, 240-V, 3-P, 4-W, 42-circuit and located in the Refrigeration Room. Serves both power and lighting requirements of foyer and service areas.	The panelboard is in good condition but circuit identification requires improvement.	Replace panelboard in the long term.	Good	Life Cycle		40	2	2	38	2057	1	100%	1	EA	\$4,000	\$4,000	\$400	\$400	\$800	\$4,800
James Whyte Arena	70 Front Street North	D501005	Distribution Panels & Breakers	Older Federal Pacific (cat# NALP 42-4L) panelboard "A" is rated at 250-A, 240-V, 3-P, 4-W, 42-circuit and located in the Refrigeration Room. Serves both power and lighting requirements of common and service areas.	The panelboard is in fair condition and at end of service life.	Replace panelboard in the short term.	Fair	Life Cycle		40	36	38	2	2021	1	100%	1	EA	\$4,500	\$4,500	\$450	\$450	\$900	\$5,400
James Whyte Arena	70 Front Street North	D501005	Distribution Panels & Breakers	Siemens (Type S1, cat# S1A18ML125ATS) panelboard "LP-A" is rated at 250-A (with 125-A main lug) 120/240-V, 1-P, 3-W, 18-circuits and is located in the Southeast Mechanical Room. Serves both power and lighting requirements of common and service areas.	Installed in 2000, the panelboard is in fair condition with notable corrosion at breakers.	Replace panelboard in the long term.	Fair	Life Cycle		40	19	35	5	2024	1	100%	1	EA	\$4,000	\$4,000	\$400	\$400	\$800	\$4,800
James Whyte Arena	70 Front Street North	D501005	Distribution Panels & Breakers	Siemens (Type S3, cat# S3C72ML225ATS) panelboard "LP-R" is rated at 250-A (with 125-A main lug) 120/208-V, 3-P, 4-W, 72-circuits and is located in the Northwest Electrical Room. Serves both power and lighting (arena) requirements of common and service areas.	Installed in 2000, the panelboard is in good condition with some missing circuit closures. Panel directory is poor.	Replace panelboard in the long term.	Good	Life Cycle		40	19	19	21	2040	1	100%	1	EA	\$6,500	\$6,500	\$650	\$650	\$1,300	\$7,800
James Whyte Arena	70 Front Street North	D501005	Distribution Panels & Breakers	Siemens (cat# EQL 100) panelboard is 100-A, 120/240-V, 1-P, 3-W, 8-circuits and is located at the Workshop. Serves both power and lighting requirements at the Kitchen, Workshop and Garages.	The panelboard is in good condition.	Replace panelboard in the long term.	Good	Life Cycle		40	7	7	33	2052	1	100%	1	EA	\$1,000	\$1,000	\$100	\$100	\$200	\$1,200

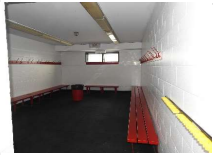
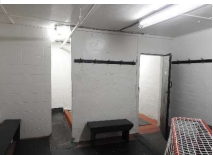
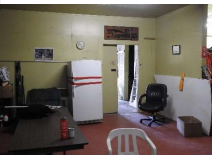
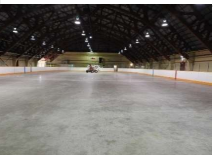
BUILDING INFORMATION				ASSESSMENT											PRELIMINARY COSTS						OTHER FEES			TOTAL COST OF PROJECT
BUILDING NAME	ADDRESS	UNIFORMAT CODE	BUILDING COMPONENT	DESCRIPTION	OBSERVATIONS	RECOMMENDATIONS	CONDITION RATING	CRITICALITY RATING	IMAGE	SERVICE LIFE (Years)	ACTUAL AGE (Years)	OBSERVED AGE (Years)	REMAINING LIFE (Years)	RECOMMENDED YEAR	TOTAL QUANTITY	% OF QUANTITY SCHEDULED	PROJECT QUANTITY	UNIT OF MEASURE	UNIT RATE (\$)	NET COST (\$)	DESIGN/ENGINEERING FEES (10%)	CONTINGENCY (10%)	TOTAL OTHER FEES	
James Whyte Arena	70 Front Street North	D501005	Distribution Panels & Breakers	Older Federal Pacific cat# NALP 42-4L) panelboard "A" is rated at 250-A, 240-V, 3-P, 4-W, 24-circuit and is located in the exit corridor behind the Canteen. Serves both power and lighting requirements of common and service areas.	The panelboard is in poor condition. Labeling is poor.	Replace panelboard in the short term.	Poor	Life Cycle		40	36	39	1	2020	1	100%	1	EA	\$3,000	\$3,000	\$300	\$300	\$600	\$3,600
James Whyte Arena	70 Front Street North	D501005	Distribution Panels & Breakers	No lighting control system is used for the arena.	Although not required, it would be beneficial to have a fully integrated lighting control system for the building. This would allow for scheduled events, set light levels for tasks and be set to occupancy sensors (where not done already).	Allow to provide lighting control system in the short term.	Fair	Life Cycle		25	36	23	2	2021	1	100%	1	L-SUM	\$15,000	\$15,000	\$1,500	\$1,500	\$3,000	\$18,000
James Whyte Arena	70 Front Street North	D501006	Enclosed Circuit Breakers	The service is fed to an older Dominion Machine 600-A, 600-V splitter. Disconnects are a combination of older Federal Pioneer (30-A for arena lighting, 30-A for new arena dehumidifier, 30-A for Office HVAC unit, 60-A spare, 200-A unlabeled, 30-A Dressing Room Heat, 30-A floor heat with Square D contactor), older Allen Bradley fan switch, older ITE 30-A for north dehumidifier of new arena, older switch for soft start of 100-HP compressor and newer Siemens 100-A switches for south arena and north arena. The splitter also serves the stepdown transformer at the floor level.	The disconnects are in fair condition. Labeling is poor.	Replace disconnects in the short term.	Fair	Life Cycle		30	36	28	2	2021	1	100%	1	L-SUM	\$15,000	\$15,000	\$1,500	\$1,500	\$3,000	\$18,000
James Whyte Arena	70 Front Street North	D501006	Enclosed Circuit Breakers	The 120/240-V splitter feed older Federal Pioneer disconnects (60-A for new arena clock, 100-A for Panel C, three 200-A unlabeled, 60-A for Canteen Fryer, 30-A unlabeled, 100-A for Panel E "Elevator") and one newer 100-A Square D disconnect for new Square D lighting and power panel.	The disconnects are in fair condition. Labeling is poor.	Replace disconnects in the short term.	Fair	Life Cycle		30	36	28	2	2021	1	100%	1	L-SUM	\$15,000	\$15,000	\$1,500	\$1,500	\$3,000	\$18,000
James Whyte Arena	70 Front Street North	D502001	Branch Wiring	Conventional three-prong receptacles and toggle light switches are installed. GFI receptacles are not installed in wet/damp areas as required.	The receptacles and switches are in fair condition. Omission of identification labels for electrical switches and timers in the Janitor's Rooms, Electrical Rooms and various service rooms.	Allow for the short term replacement of receptacles and switches. Provide GFI type in all wet/damp areas.	Fair	Necessary		25	36	24	1	2020	1	100%	1	L-SUM	\$9,000	\$9,000	\$900	\$900	\$1,800	\$10,800
James Whyte Arena	70 Front Street North	D502001	Branch Wiring	Older branch wiring is coreflex, armoured cable, and NMSC in conduit. Older knob-and-tube wiring is used for the arena lighting.	All components are in need of updating. Remove abandoned wiring where found.	Allow for the short term replacement of localized wiring. Wiring for lighting is carried under Section D502002.	Fair	Necessary		40	83	39	1	2020	1	20%	0	L-SUM	\$20,000	\$4,000	\$400	\$400	\$800	\$4,800
James Whyte Arena	70 Front Street North	D502002	Lighting Equipment	The arena is illuminated by means of 400-W metal halide high bay fixtures. The fixtures are manufactured by Canadian General Electric (cat# 24762 G1) circa 1975 and installed in 1983 (from another arena facility). The fixtures are installed on the original knob and tube wiring and support tie rods. Localized bulb replacements, recently installed, are protected with a safety coating.	The fixtures are in poor condition but operable. Reflectors are physically damaged. The primary and secondary support components are corroded and the secondary method is affixed to the primary support. The fixtures and supports are in need of updating. This also includes full electrical replacement.	Replace fixtures in immediate term due to age, type and wiring conditions. Allow to replace with LED type.	Poor	Life Cycle		20	44	20	0	2019	33	100%	33	EA	\$1,200	\$39,600	\$3,960	\$3,960	\$7,920	\$47,520

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James Whyte Arena	70 Front Street North	D502002	Lighting Equipment	Dual T8 fluorescent lamped fixtures with acrylic lenses are installed in the change rooms and service rooms. T12 fluorescent fixtures were noted at the Press Box. Many of the fluorescent fixtures are missing lenses or guards, e.g. Olympia Room. Incandescent fixtures were also noted at some of the south service and user rooms.	The fixtures are in fair condition. Occupancy sensors are installed at most rooms. Electrical light fixture base was damaged with electrical wires in the junction box exposed, located above door near north end dehumidification unit. An occupancy sensor mounted on junction box, on wall located in Janitor's Room adjacent to the Refrigeration Room, is missing cover plate. Lighting levels at the south foyer entrance is only 25-lux (no light fixture installed). Other areas such as the Canteen/Refrigeration Room exiting corridor are also poorly illuminated.	Replace fixtures in the short term with LED type. Increase illumination levels as needed.	Fair	Life Cycle		20	20	18	2	2021	1	100%	1	EA	\$25,000	\$25,000	\$2,500	\$2,500	\$5,000	\$30,000
James Whyte Arena	70 Front Street North	D5030	Communications and Security	The building has basic telecommunications provisions.	The telecommunications system is in fair condition. There are no LAN Rooms at this facility.	Allow for short term updating of communication systems (software and hardware) in conjunction with electrical distribution components.	Fair	Life Cycle		15	20	14	1	2020	1	100%	1	L-SUM	\$7,500	\$7,500	\$750	\$750	\$1,500	\$9,000
James Whyte Arena	70 Front Street North	D503001	Fire Alarm Systems	The building is equipped with an older 1977 Edwards (m# E2280) fire alarm panel. The single-stage, supervised fire alarm system includes automatic detection, zone indication, manual activation and sprinkler flow detection. Panel is located in west entrance of the main foyer. Devices include Edwards 6100D electric bells, Thermoflex CR135 and Edwards 281C heat detectors, Edwards 6250C smoke detectors and Edwards 270SPO manual pull stations. DSC Power Series control panel and security alarm are installed at the Refrigeration Room. The eight (8) zones include James White Arena, Frank Doherty Arena, Workshop and Compressor Rooms, Main Office/Foyer, Elevator Shaft, North Addition and the sprinkler supervisory valve.	The system is in poor condition and has surpassed useful service life. The fire alarm is serviced by Aatel Communications (1-800-695-2883) and monitored by Fire Monitoring of Canada (1-800-563-3840). The annual fire alarm system inspection And Test Report (per CAN/ULC-S536-04) was made available for review. The report is past due. The inspection Certificate has not been posted.	Allow to replace system and devices (pull stations, bells, heat and smoke detectors) in the short term based on age of equipment.	Poor	Life Cycle		25	42	24	1	2020	1	100%	1	L-SUM	\$19,000	\$19,000	\$1,900	\$1,900	\$3,800	\$22,800
James Whyte Arena	70 Front Street North	D503004	Public Address Systems	The building has an antiquated, stand alone public address system consisting of an older EV Q66 amplifier, Crest Audio V900 amplifier, Sony CD changer, mixing board, Kenwood tape player, ProBass 1000 preamplifier and corded microphone. Equipment is located within the Administration Office.	All equipment is older and dated. Announcements can be made over the building and arena speakers via the Administration Office and Press Box Areas.	Allow for full replacement of the public address system and associated equipment.	Poor	Life Cycle		20	30	18	2	2021	1	100%	1	L-SUM	\$12,000	\$12,000	\$1,200	\$1,200	\$2,400	\$14,400
James Whyte Arena	70 Front Street North	D503008	Security Systems	The building is equipped with 15 internet protocol (IP) fixed dome type cameras (14 interior and 1 exterior), two desk monitors and NVR with backup by HIKVISION (version 5.4.5). The system was installed circa 2016.	The system is in good condition but has inadequate coverage to the north portions of the site. The system also has no UPS backup.	Allow to install additional cameras to improve coverage and add UPS in the short term.	Good	Recommended		15	3	14	1	2020	1	100%	1	L-SUM	\$9,000	\$9,000	\$900	\$900	\$1,800	\$10,800
James Whyte Arena	70 Front Street North	D503008	Security Systems	The building is not equipped with a separate with an intrusion type security system (control panel, keypad, sensors/detectors).		Allow to add an intrusion type security system in the short term.	Poor	Life Cycle		12	12	11	1	2020	1	100%	1	L-SUM	\$3,500	\$3,500	\$350	\$350	\$700	\$4,200



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James Whyte Arena	70 Front Street North	D503099	Other Communications & Alarm Systems	The chiller plant mechanical room is equipped with an Cimco ammonia leak detection system and exhaust fans. The exhaust fans are located on the roof. One exhaust fan is for continuous operation when the chiller is enabled.	The detection system is in good condition. Calibration certificate is posted conspicuously (dated Auguste 18, 2019). A single detector is located in the Refrigeration Room.	Allow for replacement of detection system in the long term. Allow to add an additional detection device in the older chiller room area; operation and maintenance item.	Good	Life Cycle		15	2	2	13	2032	1	100%	1	L-SUM	\$12,000	\$12,000	\$1,200	\$1,200	\$2,400	\$14,400
James Whyte Arena	70 Front Street North	D503099	Other Communications & Alarm Systems	The arena does not have an ammonia detection / evacuation warning system interconnect to an exhaust fan. The arena is ventilated by seven industrial type non-modulated vents located at the roof ridge, a newer fractional horsepower exhaust fan at the north gable end that is interconnected to the fresh air intake louver at the south end (with modulating damper). The fan is activated manually.	The fan and intake are operational but undersized. The seven original ridge roof vents are corroded and are not weathertight.	Allow to add ammonia detection system including controls, detectors and fans to the arena bowl in the immediate term. Allow to remove ridge vents also.	Poor	Recommended		18	36	18	0	2019	1	100%	1	L-SUM	\$31,000	\$31,000	\$3,100	\$3,100	\$6,200	\$37,200
James Whyte Arena	70 Front Street North	D503099	Other Communications & Alarm Systems	The Olympia Room is equipped with a carbon monoxide and propane detection system by Critical Environment Technologies DCC. The system activates the wall mounted Penn (m# P-8) exhaust fan and the interlocked motorized air inlet damper at the north wall.	The detection system is newer and in good condition. Calibration certificate was not conspicuously posted. Unlabeled horn and blue strobe light were located within the arena adjacent to the Olympia Room door.	Allow for replacement of detection system in the long term. Fan and inlet are carried as separate components. Allow to label horn and light; operation and maintenance item.	Good	Life Cycle		15	2	2	13	2032	1	100%	1	L-SUM	\$7,500	\$7,500	\$750	\$750	\$1,500	\$9,000
James Whyte Arena	70 Front Street North	D509002	Emergency Lighting & Power	Older exit signs with acrylic lenses and metal trim enclosures are provided.	The exit signage is in poor condition but functional.	Replace exit signage with green "running man" LED type in the short term.	Fair	Necessary		20	40	19	1	2020	6	100%	6	EA	\$950	\$5,700	\$570	\$570	\$1,140	\$6,840
James Whyte Arena	70 Front Street North	D509002	Emergency Lighting & Power	The building is not equipped with a back-up generator.	Although not required, it would be beneficial to have a back-up generator for this building.	Allow to provide a back-up generator in the long term.	Fair	Recommended		25	83	20	5	2024	1	100%	1	L-SUM	\$170,000	\$170,000	\$17,000	\$17,000	\$34,000	\$204,000
James Whyte Arena	70 Front Street North	D509002	Emergency Lighting & Power	Emergency lighting is provided by battery operated fixtures (13) with fixed and remote heads. Fixtures are a combination of newer and older type with 30-minute duration. Some of the exit signs are combination type (exit/emergency light).	The fixtures are dated and require replacement. One unit at the arena was not functioning and another unit has a damaged cover. Coverage is also inadequate based on number of fixtures. Wire mesh covers are restricting illumination.	Allow to replace fixtures and remote heads in the short term. Additional fixtures are also needed.	Fair	Necessary		25	25	24	1	2020	1	100%	1	L-SUM	\$11,000	\$11,000	\$1,100	\$1,100	\$2,200	\$13,200
James Whyte Arena	70 Front Street North	D509005	Electric Heating	Ouellet wall mounted force flow electric heaters are installed at the north end addition Mechanical Room and vestibule.	The force flow heaters are in fair condition with localized corrosion. Heaters are controlled manually.	Allow to replace heaters in the long term.	Fair	Life Cycle		30	20	20	10	2029	2	100%	2	EA	\$1,400	\$2,800	\$280	\$280	\$560	\$3,360
James Whyte Arena	70 Front Street North	D509005	Electric Heating	Older electric baseboard heaters are installed at the Canteen, Workshop and Storage areas.	The heaters are in fair condition.	Allow to replace heaters in the short term.	Fair	Life Cycle		30	35	27	3	2022	1	100%	1	L-SUM	\$5,000	\$5,000	\$500	\$500	\$1,000	\$6,000
James Whyte Arena	70 Front Street North	D509099	Other Special Systems and Devices	Sound system includes older Peavey (m# XR 500C) mixer amplifier, GenExxa high speed dubbing stereo cassette deck and Sony Mega Storage compact disc player. A single Peavey speaker is installed above center ice.	The sound system is in fair condition. The speaker is supported by chains to the structure; point load and supporting method are questionable.	Allow to update sound equipment in the short term utilizing lighter speaker(s). Allow to review support method and provide back-up supporting as necessary.	Fair	Necessary		20	20	18	2	2021	1	100%	1	L-SUM	\$17,000	\$17,000	\$1,700	\$1,700	\$3,400	\$20,400



BUILDING INFORMATION				ASSESSMENT											PRELIMINARY COSTS						OTHER FEES			TOTAL COST OF PROJECT
BUILDING NAME	ADDRESS	UNIFORMAT CODE	BUILDING COMPONENT	DESCRIPTION	OBSERVATIONS	RECOMMENDATIONS	CONDITION RATING	CRITICALITY RATING	IMAGE	SERVICE LIFE (Years)	ACTUAL AGE (Years)	OBSERVED AGE (Years)	REMAINING LIFE (Years)	RECOMMENDED YEAR	TOTAL QUANTITY	% OF QUANTITY SCHEDULED	PROJECT QUANTITY	UNIT OF MEASURE	UNIT RATE (\$)	NET COST (\$)	DESIGN/ENGINEERING FEES (10%)	CONTINGENCY (10%)	TOTAL OTHER FEES	
James Whyte Arena	70 Front Street North	E109003	Waste Handling Equipment	The building has no waste handling equipment.		No allowances carried.				25	83	25	1	2020	0	100%	0	L-SUM	\$0	\$0	\$0	\$0	\$0	\$0
James Whyte Arena	70 Front Street North	E109002	Food Service Equipment	CMB Inc. Autocrisp ventless deep fryer with built-in suppression system is installed at the Canteen.	The fryer is in fair condition. Service records were not available for review.	Allow to replace components in the long term. Servicing of suppression system is considered operation and maintenance.	Fair	Life Cycle		15	4	6	9	2028	1	100%	1	L-SUM	\$9,800	\$9,800	\$980	\$980	\$1,960	\$11,760
James Whyte Arena	70 Front Street North	E109004	Residential Equipment	Older Kenmore electric range, Woods refrigerator and Panasonic microwave are installed at the Workshop/Kitchen area.	The appliances are in fair-to-poor condition. Fridges within the Canteen area are considered tenant responsibility.	Allow to replace appliances in the short term.	Fair	Necessary		10	15	9	1	2020	1	100%	1	L-SUM	\$2,200	\$2,200	\$220	\$220	\$440	\$2,640
James Whyte Arena	70 Front Street North	E109007	Athletic, Recreational and Therapeutic Equipment	Old PVC or wood clad, steel framed benches are installed at players and timekeepers areas.	The benches are in fair condition but have surpassed useful service life. The configurations are not in conformance to ASTM F1703-13 Standard Guide for Skating and Ice Hockey Playing Facilities, ASTM F2442-07 Standard Guide for Layout of Ice Arena and ORFA Guidelines for Arena Dasherboards & Shielding Systems.	Allow to replace benches in the short term.	Fair	Necessary		25	28	22	3	2022	1	100%	1	L-SUM	\$5,500	\$5,500	\$550	\$550	\$1,100	\$6,600
James Whyte Arena	70 Front Street North	E109007	Athletic, Recreational and Therapeutic Equipment	Nevco (m# 4007, s# 42,139) 4600-W, 20-A, 120-V score clock is installed at north end of arena.	The clock is in fair condition but has exceeded service life; installed in 1986.	Replace clock in the short term with efficient LED type.	Fair	Life Cycle		25	33	23	2	2021	1	100%	1	L-SUM	\$14,000	\$14,000	\$1,400	\$1,400	\$2,800	\$16,800
James Whyte Arena	70 Front Street North	E201003	Seating (Fixed)	Painted, fixed wood slat benches are installed in the north addition change rooms.	The benching is in good condition.	Allow for long term replacement of the benching.	Good	Life Cycle		30	20	20	10	2029	1	100%	1	L-SUM	\$9,000	\$9,000	\$900	\$900	\$1,800	\$10,800
James Whyte Arena	70 Front Street North	E201003	Seating (Fixed)	Bleacher seating is provided by two steel framed portable bleachers at the south end of the arena.	The bleacher seating provided is non-conforming to OBC requirements with discontinuous handrails, short guards, open guards and non-uniform riser heights.	Allow to replace the bleachers with compliant type.	Poor	Necessary		40	46	40	0	2019	1	100%	1	L-SUM	\$7,000	\$7,000	\$700	\$700	\$1,400	\$8,400
James Whyte Arena	70 Front Street North	E202005	Moveable Multiple Seating	Older painted wood seating is installed at the south end change room areas.	The seating requires updating and should be installed as fixed type.	Allow to replace the seating at the south end change rooms in the short term.	Poor	Necessary		40	46	40	0	2019	1	100%	1	L-SUM	\$3,200	\$3,200	\$320	\$320	\$640	\$3,840
James Whyte Arena	70 Front Street North	E201002	Window Treatments	The building has no window treatments.		No allowances carried.				20	0	0	20	2039	0	100%	0	L-SUM	\$0	\$0	\$0	\$0	\$0	\$0
James Whyte Arena	70 Front Street North	E2020	Moveable Furnishings	Furniture is limited to Workshop table and chairs.	The furnishings are in fair condition but are in need of updating.	Allow for short term replacement of the furnishings.	Fair	Necessary		20	36	19	1	2020	1	100%	1	L-SUM	\$2,600	\$2,600	\$260	\$260	\$520	\$3,120
James Whyte Arena	70 Front Street North	F104005	Ice Rinks	Refrigerated concrete floor slab is installed.	The slab is in good condition overall based on visual review and discussion with building operator. The slab is level with only very minor cracking occurring in a north-south direction along the west central section.	Allow to replace slab in the long term.	Good	Life Cycle		50	36	35	15	2034	1	100%	1	L-SUM	\$400,000	\$400,000	\$40,000	\$40,000	\$80,000	\$480,000



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James Whyte Arena	70 Front Street North	F104005	Ice Rinks	Perimeter poured concrete apron. Rink slab is designed as 4.75" thick with 1:1.4 trap rock finish, 4" thick insulation, 4" diameter weepers (6) 2'-8" below insulation.	The slab is in fair condition overall. Cracking and uneven areas are located throughout the perimeter.	Allow to repair slab in the short term.	Fair	Life Cycle		50	36	48	2	2021	1	100%	1	L-SUM	\$8,000	\$8,000	\$800	\$800	\$1,600	\$9,600
James Whyte Arena	70 Front Street North	F104005	Ice Rinks	Header trench piping is welded steel with nipples and HDPE tubing with painted pressure treated wood cover.	The headers are in fair condition overall. We were informed of a brine leak in the system.	Allow to replace header piping in the long term; cost carried with slab replacement. Allow for short term refurbishment of header trench (replacing ring clamps, cleaning trench, cleaning/painting steel support angles and replacement of deck boards) in the short term.	Fair	Life Cycle		25	36	23	2	2021	1	100%	1	L-SUM	\$6,000	\$6,000	\$600	\$600	\$1,200	\$7,200
James Whyte Arena	70 Front Street North	F104005	Ice Rinks	Wood and steel framed dasherboards are installed. Consists of 2"x6" top plate, 2"x4" top stringers, 2"x6" intermediate and base stringers, 3/4" plywood base layer with 1/4" HDPE cap, sill band, skin and kick plate. Support frame posts are 2.25"x2.25" at 4' on centre with steel anchor plates embedded in thickened slab edge.	The dasherboards are in fair condition with 49.25" overall height. Some sections were re-constructed in 1999.	Allow to replace dasherboards in the short term.	Fair	Life Cycle		25	36	23	2	2021	1	100%	1	L-SUM	\$225,000	\$225,000	\$22,500	\$22,500	\$45,000	\$270,000
James Whyte Arena	70 Front Street North	F104005	Ice Rinks	Wood and steel framed doors are installed with similar construction as the dasherboards. There are 11 singles and 3 double doors.	The doors are in poor condition overall. Gaps of 3/8" to 3/4" in width.	Allow to replace all doors in the short term.	Poor	Life Cycle		25	36	23	2	2021	1	100%	1	L-SUM	\$29,000	\$29,000	\$2,900	\$2,900	\$5,800	\$34,800
James Whyte Arena	70 Front Street North	F104005	Ice Rinks	4' high (sides) and 5' high (ends) tempered glazing in aluminum stanchions are installed around the arena.	Glazing and stanchions are in poor condition.	Allow to replace glazing system in the short term.	Poor	Life Cycle		25	36	23	2	2021	1	100%	1	L-SUM	\$85,000	\$85,000	\$8,500	\$8,500	\$17,000	\$102,000
James Whyte Arena	70 Front Street North	F104005	Ice Rinks	1997 Evapco (m# LSCA 170/0H998.5, s# 232500/7015516) air cooled centrifugal cooling tower is located on the roof above the Refrigeration Room. The condenser serves both the James Whyte Arena and the Frank Doherty Arena. The unit has capacity of 1838 MBH (131 TR) @ 95F CT/75F WB.	The cooling tower is in fair condition and is functioning under the current operating timelines. Vibration isolation is missing from support frame and the tower is located too close to the intake vent for the Refrigeration Room below. This is in contradiction to the ASHRAE Standard 62 that requires a minimum of 50' from intakes, windows and doors. The unit size is adequate for both arenas throughout operating season (winter months) but is considered undersized in shoulder months (start and end of current operating season or when the outdoor temperatures are above average). The structural steel support frame has moderate corrosion. Replacement of unit and frame are imminent.	Allow for short term replacement of the cooling tower and associated controls.	Fair	Life Cycle		20	22	19	1	2020	1	100%	1	L-SUM	\$115,000	\$115,000	\$11,500	\$11,500	\$23,000	\$138,000
James Whyte Arena	70 Front Street North	F104005	Ice Rinks	1992 Olympia (m# ST 75) side dump ice resurfacer has 75,868 hours run time.	The ice resurfacer is in fair condition.	Allow to replace in the short term.	Fair	Life Cycle		10	27	9	1	2020	1	100%	1	L-SUM	\$124,000	\$124,000	\$12,400	\$12,400	\$24,800	\$148,800

BUILDING INFORMATION				ASSESSMENT											PRELIMINARY COSTS						OTHER FEES			TOTAL COST OF PROJECT
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James Whyte Arena	70 Front Street North	F104005	Ice Rinks	PVC condenser tank is located in Refrigeration Room. The overflow is piped to the sanitary system below grade.	PVC condenser tank and piping are in fair condition.	Replace tank and all associated piping in the short term with condenser.	Fair	Life Cycle		25	22	24	1	2020	1	100%	1	L-SUM	\$5,500	\$5,500	\$550	\$550	\$1,100	\$6,600
James Whyte Arena	70 Front Street North	F104005	Ice Rinks	PVC brine expansion tank is located adjacent to the chiller in the Refrigeration Room.	PVC brine expansion tank and piping are in fair condition.	Replace tank and all associated piping in the short term with chiller.	Fair	Life Cycle		25	24	24	1	2020	1	100%	1	L-SUM	\$4,500	\$4,500	\$450	\$450	\$900	\$5,400
James Whyte Arena	70 Front Street North	F104005	Ice Rinks	The condenser has no water treatment system.		Allow to add treatment system when replacing condenser in the short term.	Poor	Life Cycle		25	0	24	1	2020	1	100%	1	L-SUM	\$6,300	\$6,300	\$630	\$630	\$1,260	\$7,560
James Whyte Arena	70 Front Street North	F104005	Ice Rinks	Jet pump with Marathon 3/4-HP, 575-V motor.	The condenser pump is in poor condition. Corrosion has developed on electrical fittings.	Replace pump and controls in shorter term.	Poor	Necessary		20	22	19	1	2020	1	100%	1	L-SUM	\$3,000	\$3,000	\$300	\$300	\$600	\$3,600
James Whyte Arena	70 Front Street North	F104005	Ice Rinks	Original 1950 refrigeration control panel. Includes newer Honeywell brine temperature controls for the newer arena and older pneumatic controls for the James Whyte Arena.	The panel is functional but at end of useful service life.	Replace panel in the short term.	Fair	Necessary		30	69	29	1	2020	1	100%	1	L-SUM	\$19,000	\$19,000	\$1,900	\$1,900	\$3,800	\$22,800
James Whyte Arena	70 Front Street North	F104005	Ice Rinks	1995 Cimco, Division of Toromont Industries Ltd., (s# 208550-B, O.I.N. 5.998518, CRN H8358.5) two pass, shell and tube (286 tubes) ammonia chiller. Includes the heat exchanger, surge drum and associated piping. Design capacity is 69 TR @ 10F ET/15F SST, 650 USGPM. Vessels included 20" OD x 14' long chiller and a 20" OD x 9.5' long surge drum.	The chiller, installed in 1995, is in fair condition. The 1959 ammonia high pressure carbon steel receiver (CRN 4240-5) was tested by Team Industrial Services on March 11, 2019 using ultrasonic means. The test indicated that the cylinder has adequate thickness but has minor corrosion and paint failure.	Allow to replace chiller in shorter term. If this is not undertaken, allow to replace the ammonia receiver (red) and remove the abandoned receiver above (blue) in the short term.	Fair	Life Cycle		25	24	24	1	2020	1	100%	1	L-SUM	\$70,000	\$70,000	\$7,000	\$7,000	\$14,000	\$84,000
James Whyte Arena	70 Front Street North	F104005	Ice Rinks	Chiller and piping are insulated with expanded and spray type urethane foams with PVC jackets.	The insulation is in fair condition with localized damage.	Allow to replace the insulation in the short term with proposed chiller replacement; costs covered under chiller replacement.	Fair	Life Cycle		25	24	24	1	2020	0	100%	0	L-SUM	\$0	\$0	\$0	\$0	\$0	\$0
James Whyte Arena	70 Front Street North	F104005	Ice Rinks	1995 Cimco Lewis reciprocating compressor (m# 06-W04A, s# 95762) with Weg 60-HP motor, 575-V, 3-P. Motor is rated at 93.6% NEMA nominal efficiency.	The compressor is in fair condition and is re-built bi-annually.	Allow for long term replacement of the compressor including all associated piping, oil separator, expansion tank and fittings.	Fair	Life Cycle		40	24	24	16	2035	1	100%	1	L-SUM	\$43,000	\$43,000	\$4,300	\$4,300	\$8,600	\$51,600
James Whyte Arena	70 Front Street North	F104005	Ice Rinks	1992 Mycom 100-HP reciprocating compressor (m# N6WB, s# 630355) with Weg 100-HP motor, 575-V, 3-P with 95.4% NEMA nominal efficiency. The compressor primarily serves the adjacent arena.	The compressor is in fair condition and is re-built bi-annually.	Replacement of the compressor including all associated piping, oil separator, expansion tank and fittings is not carried at this time.	Fair	Life Cycle		40	27	27	13	2032	0	100%	0	L-SUM	\$60,000	\$0	\$0	\$0	\$0	\$0



BUILDING INFORMATION				ASSESSMENT											PRELIMINARY COSTS						OTHER FEES			TOTAL COST OF PROJECT
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James Whyte Arena	70 Front Street North	F104005	Ice Rinks	2005 brine circulating pump by Cimco (m# 6X4X8 4030, s# C645203) rated at 650 USGPM at 50' head. The end suction, base-mounted pump is located adjacent to the chiller and has a 2005 Weg 15-HP, 575-V, 3-P motor with 91% NEMA nominal efficiency.	The pump and motor are in fair condition. Corrosion is noted on the pump portion.	Allow for shorter term replacement of the pump with chiller replacement.	Fair	Life Cycle		20	14	19	1	2020	1	100%	1	L-SUM	\$15,000	\$15,000	\$1,500	\$1,500	\$3,000	\$18,000
James Whyte Arena	70 Front Street North	F104005	Ice Rinks	Arena dehumidification includes an older Blanchard Ness (m# LA 7.5G, s# 88-09-059) refrigerated (R-22) type unit.	The dehumidifier is beyond useful service life. The dehumidification unit, although functional, is inefficient and uses R-22 refrigerant (to be phased out by 2020). The unit has no safe permanent access ladder or perimeter guard. The drain was heat traced but had no insulation cover.	Allow for short term replacement of the dehumidification unit using a ducted type system.	Fair	Life Cycle		20	31	19	1	2020	1	100%	1	L-SUM	\$145,000	\$145,000	\$14,500	\$14,500	\$29,000	\$174,000
James Whyte Arena	70 Front Street North	F104005	Ice Rinks	Arena dehumidification includes a newer Cimco Humicon (m# MK VII, s# 214730B) desiccant type unit using R-22 refrigerant with 7.5-HP compressor motor.	The dehumidifier is in good condition overall. The dehumidification unit, although functional, is inefficient and uses R-22 refrigerant (to be phased out by 2020). The unit has no safe permanent access ladder or perimeter guard.	Allow for replacement of the dehumidification unit with proper ducted type assembly; cost covered above.	Good	Life Cycle		20	2	2	18	2037	0	100%	0	L-SUM	\$30,000	\$0	\$0	\$0	\$0	\$0
James Whyte Arena	70 Front Street North	F105002	Building Automation Systems	The James Whyte Arena has no automation controls but relies on conventional thermostats. A rudimentary BAS was added in 2013 to the Frank Doherty Arena by Direct Energy (consists of Schneider Electric ENC web controller, network switch and five controllers for RTU-01 (Office), RTU-02 (Lobby and Coffee Room), RTU-03 (Change Rooms) and exhaust fan EF (southeast washroom).	Standard digital thermostats are used for the furnaces. The thermostats for the James Whyte Arena are functioning as intended based on discussions with the building operator. Commissioning records are not available for review.	Allow for short term system updating. Commissioning is carried as a separate line item. Allow for basic building automation for the heating and ventilation systems in the short term.	Fair	Recommended		12	19	10	2	2021	1	100%	1	L-SUM	\$15,000	\$15,000	\$1,500	\$1,500	\$3,000	\$18,000
James Whyte Arena	70 Front Street North	G201001	Roadways - Bases And Subbases	The west service laneway is surfaced with granular stone. The lane also used as a fire route.	The laneway is in fair condition with depressed areas.	Allow to provide new subbase with asphalt surfacing in the short term. Allow also to widen to improve fire route width.	Fair	Recommended		25	50	23	2	2021	1500	100%	1500	SF	\$11	\$16,500	\$1,650	\$1,650	\$3,300	\$19,800
James Whyte Arena	70 Front Street North	G201001	Roadways - Bases And Subbases	The service parking area at the west garages is surfaced with granular stone.	The surfacing is in poor condition with depressed areas.	Allow to provide new subbase with asphalt surfacing in the short term.	Poor	Recommended		25	50	23	2	2021	750	100%	750	SF	\$8	\$6,000	\$600	\$600	\$1,200	\$7,200
James Whyte Arena	70 Front Street North	G202002	Parking Lots - Curbs & Gutters	Single stage poured concrete curbing is installed throughout the north parking lot.	The curbing is in good condition with minimal cracking and deterioration.	Allow for localized curbing replacement/modifications when replacing asphalt; cost covered under asphalt item. Allow for long term repairs.	Good	Necessary		30	17	17	13	2032	500	20%	100	LF	\$35	\$3,500	\$350	\$350	\$700	\$4,200
James Whyte Arena	70 Front Street North	G202003	Parking Lots - Paved Surfaces	The north parking lot is surfaced with asphaltic concrete paving.	The paving is in poor condition with extensive block and fatigue cracking with loose sections especially within the barrier-free path of travel.	Allow to replace paving in the short term.	Poor	Necessary		25	17	23	2	2021	26000	100%	26000	SF	\$8	\$208,000	\$20,800	\$20,800	\$41,600	\$249,600



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James Whyte Arena	70 Front Street North	G202004	Parking Lots - Marking & Signage	Metal sign posts and wall signs are installed around the north parking lot.	The parking signage is in fair condition.	Allow to replace, and add, signage in the short term.	Fair	Life Cycle		15	17	14	1	2020	1	100%	1	L-SUM	\$2,500	\$2,500	\$250	\$250	\$500	\$3,000
James Whyte Arena	70 Front Street North	G202004	Parking Lots - Marking & Signage	Stall parking lines.	The parking stall line painting and decals are worn.	Allow to re-paint line work in the short term.	Fair	Necessary		8	17	7	1	2020	1	100%	1	L-SUM	\$5,000	\$5,000	\$500	\$500	\$1,000	\$6,000
James Whyte Arena	70 Front Street North	G202007	Miscellaneous Structures And Equipment	Figure Skating Club storage building is located at the north end of the site. The building is wood framed with painted metal cladding, asphalt shingled roof and metal doors.	The building is in fair condition. Shingles are newer. The entrance landing is in poor condition.	Allow for short term refurbishment of the building including siding.	Fair	Life Cycle		30	28	28	2	2021	1	100%	1	L-SUM	\$4,000	\$4,000	\$400	\$400	\$800	\$4,800
James Whyte Arena	70 Front Street North	G203003	Pedestrian Paving - Paved Surfaces	Poured concrete, plain surfaced sidewalks are installed along the north and west sides of the addition.	The concrete is in good condition with minor cracking. One section on the north side is depressed creating a tripping hazard.	Allow for minor repairs in the immediate term.	Good	Necessary		25	20	25	0	2019	1	100%	1	L-SUM	\$2,000	\$2,000	\$200	\$200	\$400	\$2,400
James Whyte Arena	70 Front Street North	G203003	Pedestrian Paving - Paved Surfaces	Poured concrete, plain surfaced landings are installed at two of the four exit doors from the arena.	The concrete of one landing is newer but is too short. The other landing is in fair condition. One of the exits has a deteriorating concrete step.	Allow to modify all exits with properly poured concrete landings in the short term.	Poor	Necessary		25	83	24	1	2020	1	100%	1	L-SUM	\$5,000	\$5,000	\$500	\$500	\$1,000	\$6,000
James Whyte Arena	70 Front Street North	G204001	Fencing & Gates	Partial run of wood slat fencing separates the arena service laneway/fire route from the west residential building.	The fencing is in poor condition and is omitted at the north end.	Allow to provide fencing along laneway/fire route to secure the adjoining residential property.	Poor	Recommended		30	40	28	2	2021	190	100%	190	LF	\$39	\$7,410	\$741	\$741	\$1,482	\$8,892
James Whyte Arena	70 Front Street North	G204001	Fencing & Gates	6' high galvanized chain link fencing is installed along the north portion of the east lot line.	The fencing is in fair condition with localized damage and corrosion.	Allow to modify fencing to secure the east side of the arena including swing gates with proper egress hardware. Allow for minor repairs to the fencing also.	Poor	Recommended		30	40	28	2	2021	1	100%	1	L-SUM	\$15,000	\$15,000	\$1,500	\$1,500	\$3,000	\$18,000
James Whyte Arena	70 Front Street North	G204001	Fencing & Gates	6' high galvanized chain link fencing is installed along the north portion of the east lot line.	The fencing is in fair condition with localized damage and corrosion.	Allow to replace fencing in the long term.	Poor	Recommended		50	40	35	15	2034	450	100%	450	LF	\$28	\$12,600	\$1,260	\$1,260	\$2,520	\$15,120
James Whyte Arena	70 Front Street North	G204003	Exterior Furnishings	The building has no exterior furnishings (benches, bike racks, etc.).		Allow to add benching and general furnishings to the exterior of the arena facility.	Fair	Life Cycle		18	20	17	1	2020	1	100%	1	L-SUM	\$5,000	\$5,000	\$500	\$500	\$1,000	\$6,000
James Whyte Arena	70 Front Street North	G204005	Signage	Building and site signage.	Building and site signage is lacking at the north end of the site. A metal/plywood site sign is installed at the central west side of the building only.	Allow for site signage to the north end of the arena facility in the short term.	Poor	Recommended		20	20	18	2	2021	1	100%	1	L-SUM	\$6,500	\$6,500	\$650	\$650	\$1,300	\$7,800



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BUILDING NAME	ADDRESS	UNIFORMAT CODE	BUILDING COMPONENT	DESCRIPTION	OBSERVATIONS	RECOMMENDATIONS	CONDITION RATING	CRITICALITY RATING	IMAGE	SERVICE LIFE (Years)	ACTUAL AGE (Years)	OBSERVED AGE (Years)	REMAINING LIFE (Years)	RECOMMENDED YEAR	TOTAL QUANTITY	% OF QUANTITY SCHEDULED	PROJECT QUANTITY	UNIT OF MEASURE	UNIT RATE (\$)	NET COST (\$)	DESIGN/ENGINEERING FEES (10%)	CONTINGENCY (10%)	TOTAL OTHER FEES	
James Whyte Arena	70 Front Street North	G204009	Flagpoles	The building has no flagpoles.		No allowances carried.				25	0	0	25	2044	0	100%	0	EA	\$0	\$0	\$0	\$0	\$0	\$0
James Whyte Arena	70 Front Street North	G204099	Other Site Improvements	The wood framed outbuilding at the north end of the site is used for the Figure Skating Club storage.	The building has a newer sloped shingled roof, older painted metal siding, older double doors. The building is in fair condition overall. No access provided to building interior.	Allow to refurbish the building in the shorter term.	Fair	Recommended		20	60	18	2	2021	1	100%	1	L-SUM	\$5,000	\$5,000	\$500	\$500	\$1,000	\$6,000
James Whyte Arena	70 Front Street North	G2050	Landscaping	Soft landscaping is limited to sodded areas along the north, east and west elevations. Older deciduous trees are installed along the west lot line.	The components are in fair condition.	Allow for long term refurbishment of landscaping.	Fair	Life Cycle		25	83	20	5	2024	1	100%	1	L-SUM	\$15,000	\$15,000	\$1,500	\$1,500	\$3,000	\$18,000
James Whyte Arena	70 Front Street North	G205001	Final Grading And Soil Preparation	Final grading profile.	The grading around the building is fair condition with some notable back slope. Site is sloped to the northeast with a sharp drop along the west side of the arena.	Allow to improve grading at east and west elevations in the short term including the removal of original cast iron and transite storm piping leaders.	Fair	Life Cycle		25	83	24	1	2020	1	100%	1	L-SUM	\$9,000	\$9,000	\$900	\$900	\$1,800	\$10,800
James Whyte Arena	70 Front Street North	G205007	Irrigation Systems	The building is not equipped with an irrigation system.		No allowances carried.				20	83	20	0	2019	0	100%	0	L-SUM	\$0	\$0	\$0	\$0	\$0	\$0
James Whyte Arena	70 Front Street North	G3010	Water Supply	Main water service is presumed to be from Front Street to the east central Mechanical Room. A curb stop was observed at the west elevation. A second service enters the north Mechanical Room.	The water supply condition is unknown.	Allow for short term repairs to the water service.	Fair	Life Cycle		50	63	46	4	2023	1	100%	1	L-SUM	\$10,000	\$10,000	\$1,000	\$1,000	\$2,000	\$12,000
James Whyte Arena	70 Front Street North	G302001	Sanitary Sewer Piping	The location of the sanitary building main and connection to the municipal sewer main are unknown.	The sanitary drainage system is functioning with no notable damages reported or observed.	Allow for repairs and localized replacement of the sanitary system at the end of its expected life cycle.	Fair	Life Cycle		50	83	46	4	2023	1	100%	1	L-SUM	\$25,000	\$25,000	\$2,500	\$2,500	\$5,000	\$30,000
James Whyte Arena	70 Front Street North	G303001	Storm Sewer Piping	Site storm water is presumed to be directed to the two manholes at the east and west sides of the building and onto the storm sewer main. Catch basins were noted at the north end of the site. Remnants of abandoned downspouts suggest that the manholes also received rainwater.	The storm water system is working well with no notable damages reported or observed.	Allow for repairs and localized replacement of the storm water systems at the end of its expected life cycle.	Fair	Necessary		50	83	46	4	2023	1	100%	1	L-SUM	\$30,000	\$30,000	\$3,000	\$3,000	\$6,000	\$36,000
James Whyte Arena	70 Front Street North	G306006	Gas Distribution Piping (Natural & Propane)	Natural gas service enters the building at the west side of the building at the Frank Doherty Arena. Service includes a Roots Meter with GE Dresser temperature compensator and Fisher Controls (type S202) regulator.	The meter and regulator are in good condition overall. Supports for gas piping on roof missing pipe clamps and support spacing was insufficient to comply with CSA B149.1 Natural Gas and Propane Installation Code. Gas piping has surface corrosion. Recommend new coat of protective paint.	Allow for cleaning and painting of all exterior piping and installation of proper pipe supports.	Poor	Necessary		50	46	50	0	2019	1	100%	1	L-SUM	\$8,000	\$8,000	\$800	\$800	\$1,600	\$9,600
James Whyte Arena	70 Front Street North	G306006	Gas Distribution Piping (Natural & Propane)	There are gas-fired air handling units on the flat roof.	A permanent ladder has not been installed per requirements of the CSA B149.1 Standard.	Allow to add external access ladder with security cover.	Poor	Necessary		50	50	50	0	2019	1	100%	1	L-SUM	\$8,000	\$8,000	\$800	\$800	\$1,600	\$9,600
James Whyte Arena	70 Front Street North	G401002	Transformers	The site pad mount transformer is located at the east central elevation and is fed from the adjacent utility pole.	The transformer is in fair condition.	Replacement is responsibility of local utility. No allowances carried.	Fair	Life Cycle		50	59	46	4	2023	0	100%	0	L-SUM	\$0	\$0	\$0	\$0	\$0	\$0
James Whyte Arena	70 Front Street North	G401006	Underground Electric Conductors	Underground electric power lines are located from the transformer to the Main Electrical Room.	No issues noted.	Allowances are carried for future repairs.	Good	Life Cycle		50	59	30	20	2039	1	100%	1	L-SUM	\$9,000	\$9,000	\$900	\$900	\$1,800	\$10,800



BUILDING INFORMATION				ASSESSMENT											PRELIMINARY COSTS						OTHER FEES			TOTAL COST OF PROJECT
BUILDING NAME	ADDRESS	UNIFORMAT CODE	BUILDING COMPONENT	DESCRIPTION	OBSERVATIONS	RECOMMENDATIONS	CONDITION RATING	CRITICALITY RATING	IMAGE	SERVICE LIFE (Years)	ACTUAL AGE (Years)	OBSERVED AGE (Years)	REMAINING LIFE (Years)	RECOMMENDED YEAR	TOTAL QUANTITY	% OF QUANTITY SCHEDULED	PROJECT QUANTITY	UNIT OF MEASURE	UNIT RATE (\$)	NET COST (\$)	DESIGN/ENGINEERING FEES (10%)	CONTINGENCY (10%)	TOTAL OTHER FEES	
James Whyte Arena	70 Front Street North	G402006	Exterior Lighting Fixtures & Controls - Fixtures	Older and newer metal halide wallpacks are installed along the north, east and west elevations.	The fixtures are in fair-to-poor condition and several were not operating at the time of the inspection. Illumination levels are below IES/municipal requirements for public areas (even where currently illuminated).	Replace fixtures in the immediate term. Fixtures at outbuilding are flood light LED type. These can remain intact.	Poor	Necessary		20	20	20	0	2019	7	100%	7	EA	\$960	\$6,720	\$672	\$672	\$1,344	\$8,064
James Whyte Arena	70 Front Street North	G402006	Exterior Lighting Fixtures & Controls - Fixtures	Older incandescent/CFL soffit fixture at main north entrance.	The fixture is in poor condition.	Replace fixture and add along west walkway.	Poor	Necessary		20	20	20	0	2019	1	100%	1	L-SUM	\$3,000	\$3,000	\$300	\$300	\$600	\$3,600
James Whyte Arena	70 Front Street North	G402006	Exterior Lighting Fixtures & Controls - Fixtures	1962 40' high Stresscrete precast concrete light fixture is installed along the west boulevard. The standard has a newer LED luminaire.	The standard is in fair condition and the fixture is in good condition. Illumination levels at two barrier-free parking stalls is only 11-lux and 3-lux towards main entrance. Levels within the parking lot are 0 to 3-lux.	Replace standard and fixture in the long term and add standards to north parking lot to provide minimal required illumination levels.	Poor	Necessary		20	20	20	0	2019	1	100%	1	35000	\$2	\$2	\$0	\$0	\$0	\$2
James Whyte Arena	70 Front Street North	H3010001	Report - BCA/RFS	Past BCA report by Aecom was provided for review.		Allow to provide future report.	Good	Life Cycle		5	0	0	5	2024	1	100%	1	L-SUM	\$7,500	\$7,500	\$750	\$750	\$1,500	\$9,000
James Whyte Arena	70 Front Street North	H3010002	Report - Technical / Performance Audit	OES Asbestos Materials Survey, dated June 1, 2016, was made available for review.	Asbestos materials are present in older vinyl floor tile, transite board, transite piping and older insulated pipe fittings.	Allow for future update and to provide a full Designated Substance Survey (DSS).	Fair	Recommended		5	3	3	2	2021	1	100%	1	L-SUM	\$5,000	\$5,000	\$500	\$500	\$1,000	\$6,000
James Whyte Arena	70 Front Street North	H3010003	Report - Balancing / Commissioning	No balancing or commissioning reports available for review.	The HVAC systems require investigation to determine whether optimum performance is provided. Change Rooms are provided with ducted supply and return air.	Allow to provide investigations and general troubleshooting.	Fair	Recommended		10	9	9	1	2020	1	100%	1	L-SUM	\$9,500	\$9,500	\$950	\$950	\$1,900	\$11,400
James Whyte Arena	70 Front Street North	H3010006	Report - Indoor Air Quality	Air balancing.	There are no air balancing reports available.	Allow to provide air balancing reports with commissioning item.	Fair	Recommended		8	9	7	1	2020	1	100%	1	L-SUM	\$4,000	\$4,000	\$400	\$400	\$800	\$4,800
James Whyte Arena	70 Front Street North	H3010007	Report - Energy Audit	There is no Energy Audit Report available.		Allow to provide Energy Audit in the short term.	Fair	Recommended		8	8	6	2	2021	1	100%	1	L-SUM	\$15,000	\$15,000	\$1,500	\$1,500	\$3,000	\$18,000
James Whyte Arena	70 Front Street North	H3010008	Report - Destructive Testing	Intrusive testing.	Composition of exterior walls and foundation conditions are unknown.	Allow for intrusive investigations at foundations and exterior walls to determine composition.	Fair	Recommended		20	83	18	2	2021	1	100%	1	L-SUM	\$5,000	\$5,000	\$500	\$500	\$1,000	\$6,000
James Whyte Arena	70 Front Street North	H3010008	Report - Roof Inspection Report	Roof inspection/assessment reports are not provided.		Allow for short term spec and drawings to prepare for replacements.	Fair	Necessary		8	36	7	1	2020	1	100%	1	L-SUM	\$6,000	\$6,000	\$600	\$600	\$1,200	\$7,200
James Whyte Arena	70 Front Street North	H3010010	Design and Specification	Building drawings were limited and are not as-built type.	The drawings require updating to show current conditions.	Allow for future drawing review and confirmation of as built conditions.	Fair	Recommended		20	36	18	2	2021	1	100%	1	L-SUM	\$9,500	\$9,500	\$950	\$950	\$1,900	\$11,400
James Whyte Arena	70 Front Street North	H3010012	Retro-commissioning	Commissioning reports.	Commissioning reports are unavailable.	Allow for production of commissioning reports per H301003.	Fair	Necessary		20	9	19	1	2020	0	100%	0	L-SUM	\$0	\$0	\$0	\$0	\$0	\$0
James Whyte Arena	70 Front Street North	H3010013	Illumination Review	Emergency lighting is provided by the standard emergency battery pack fixtures.	Illumination levels are unknown but are considered to be low or poor based on location of fixtures. Some fixtures were not operating.	Allow for emergency lighting testing.	Fair	Necessary		7	25	6	1	2020	1	100%	1	L-SUM	\$3,500	\$3,500	\$350	\$350	\$700	\$4,200
James Whyte Arena	70 Front Street North	H3010014	Site Servicing Locates	Site services including storm, sanitary and electrical.	Locations, construction and conditions of subsurface services is unknown. No irregular service issues are reported.	Allow for verification of locations, construction and conditions of subsurface services.	Fair	Recommended		15	50	14	1	2020	1	100%	1	L-SUM	\$5,000	\$5,000	\$500	\$500	\$1,000	\$6,000
James Whyte Arena	70 Front Street North	H3010014	Electrical Review	Predictive quality measurements.	No thermography or other PQM provided.	Allow to provide PQM in the short term including arc flash review.	Fair	Necessary		5	36	4	1	2020	1	100%	1	L-SUM	\$12,000	\$12,000	\$1,200	\$1,200	\$2,400	\$14,400

BUILDING INFORMATION				ASSESSMENT											PRELIMINARY COSTS						OTHER FEES			TOTAL COST OF PROJECT
BUILDING NAME	ADDRESS	UNIFORMAT CODE	BUILDING COMPONENT	DESCRIPTION	OBSERVATIONS	RECOMMENDATIONS	CONDITION RATING	CRITICALITY RATING	IMAGE	SERVICE LIFE (Years)	ACTUAL AGE (Years)	OBSERVED AGE (Years)	REMAINING LIFE (Years)	RECOMMENDED YEAR	TOTAL QUANTITY	% OF QUANTITY SCHEDULED	PROJECT QUANTITY	UNIT OF MEASURE	UNIT RATE (\$)	NET COST (\$)	DESIGN/ENGINEERING FEES (10%)	CONTINGENCY (10%)	TOTAL OTHER FEES	
James Whyte Arena	70 Front Street North	H3010014	Barrier-Free Design	A barrier-free review was conducted by MP.	The interior and exterior components are all non-conforming. Recent installations of 1999 at the addition (two dedicated 11' wide parking stalls, curb cut, interior ramp/viewing area are all non-conforming to current standards. The ramp and viewing area also lack proper headroom clearance at the haunched structural columns and the end transition plates are loose. The north entrance doors have proper clear width (>34") but vision panels are non-compliant. Change rooms at the north end are also non-compliant. Double door from main foyer to arena is undersized with no automatic operator. Canteen counter configuration, as well as other counters within the foyer area, are non-compliant.	Allow for modifications of existing components at James Whyte Arena including provision of barrier-free change room, interior ramp replacement, wider common area access doors and handrail along the sloping sidewalk of the north addition. Universal signage requires improvement.	Poor	Necessary		15	18	13	2	2021	1	100%	1	L-SUM	\$125,000	\$125,000	\$12,500	\$12,500	\$25,000	\$150,000

BUILDING CONDITION ASSESSMENT REPORT

APPENDIX B – ESTIMATED ANNUAL EXPENDITURES FOR 25 YEARS (2019 – 2043)

Construction Inflation i0.0%

UNIFORMAT CODE	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	
G2050	0	0	0	0	0	\$18,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
G205001	0	\$10,800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
G205007	\$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
G3010	0	0	0	0	\$12,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
G302001	0	0	0	0	\$30,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
G303001	0	0	0	0	\$36,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
G306006	\$9,600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
G306006	\$9,600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
G401002	0	0	0	0	\$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
G401006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$10,800	0	0	0	0	
G402006	\$8,064	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
G402006	\$3,600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
G402006	\$2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
H3010001	0	0	0	0	0	\$9,000	0	0	0	0	\$9,000	0	0	0	0	\$9,000	0	0	0	0	\$9,000	0	0	0	0	
H3010002	0	0	\$6,000	0	0	0	0	\$6,000	0	0	0	0	\$6,000	0	0	0	0	\$6,000	0	0	0	0	\$6,000	0	0	
H3010003	0	\$11,400	0	0	0	0	0	0	0	0	0	\$11,400	0	0	0	0	0	0	0	0	0	\$11,400	0	0	0	
H3010006	0	\$4,800	0	0	0	0	0	0	0	0	\$4,800	0	0	0	0	0	0	0	\$4,800	0	0	0	0	0	0	
H3010007	0	0	\$18,000	0	0	0	0	0	0	0	0	\$18,000	0	0	0	0	0	0	0	\$18,000	0	0	0	0	0	
H3010008	0	0	\$6,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
H3010008	0	\$7,200	0	0	0	0	0	0	0	0	\$7,200	0	0	0	0	0	0	0	\$7,200	0	0	0	0	0	0	
H3010010	0	0	\$11,400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
H3010012	0	\$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
H3010013	0	\$4,200	0	0	0	0	0	0	\$4,200	0	0	0	0	0	0	\$4,200	0	0	0	0	0	0	\$4,200	0	0	
H3010014	0	\$6,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$6,000	0	0	0	0	0	0	0	0	
H3010014	0	\$14,400	0	0	0	0	\$14,400	0	0	0	0	\$14,400	0	0	0	0	\$14,400	0	0	0	0	\$14,400	0	0	0	
H3010014	0	0	\$150,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$150,000	0	0	0	0	0	0	0	
Annual Estimated Expenditures	\$196,226	\$2,224,920	\$1,315,788	\$1,954,440	\$102,000	\$353,280	\$45,840	\$6,000	\$37,800	\$54,960	\$71,160	\$219,480	\$44,370	\$99,000	\$41,880	\$569,520	\$240,480	\$162,000	\$199,800	\$19,560	\$81,240	\$248,520	\$53,400	\$9,600	\$16,560	

BUILDING CONDITION ASSESSMENT REPORT

APPENDIX C – QUESTIONNAIRE

McINTOSH PERRY

Building Name:

JAMES WHITE ARENA

Property Address:

70 FRONT ST NORTH

	YES	NO	COMMENTS
Are there any significant health and safety concerns in the building?	☒	☐	ORIGINAL ELECTRICAL WIRING FOR ICE SKATING CONSISTS OF KNOB & TUBE CONNECTIONS WIRING OLD & BRITTLE.
Is there a Fire Safety Plan in place?	☒	☐	HEALTH & SAFETY REVISED RECENTLY (2018)
Is there an asbestos management plan in place?	☒	☐	ASBESTOS MATERIALS SURVEY COMPLETED JUNE 1-2016
Are there any specific ongoing or chronic problems with indoor air quality?	☐	☒	EXCELLENT INSPECTIONS + REPORTS EVERY YEAR.
Are there any issues with the mechanical systems?	☒	☐	SLIGHT SEEPAGE IN BRINE SYSTEM OF COLD FLOOR. REFRIGERATION COMPONENTS ARE APPROXIMATING OR PAST LIFE EXPECTANCY.
Are there any ongoing issues with heating, ventilation or air conditioning?	☐	☒	FURNACES ARE 20 YEARS OLD AND SERVED US WELL. BI-YEARLY MAINTENANCE PERFORMED. DRESSING ROOM VENTILATION UPDATED 2003.
Are there any concerns with the plumbing? (includes storm water and sanitary drainage)	☐	☒	BUT SHOWER MIXING VALVE SYSTEM IS A CONSTANT MAINTENANCE CONCERN. POOR DESIGN. - DOWN SPOUT SYSTEM & RAUES TROUCHS UPDATED IN 2017
Are there any underground or aboveground storage tanks on the site?	☐	☒	
Are there any issues with the electrical system? (outages, overheating, etc)	☐	☒	OLD AGE CONCERNS.
Has there been any water ponding on the roof and/or water leakage?	☐	☒	OCCASIONALLY WATER IS DRIVEN IN AT BRAN VENTS AT TOP OF ROOF. 7 VENTS. STEEL HAS WRAPPED AWAY AND WATER LEAKS PAST.
Are there any concerns with lack of insulation or drafts? (include location)	☒	☐	POOR INSULATION EXISTS THROUGH BRICK STRUCTURE. GAPS ARE PRESENT ON EAST & WEST WALLS.
Are there any concerns about mould, moisture, water penetration or leakage in the building?	☒	☐	DRESSING ROOMS - RUBBER FLOORING HAS STAGNATED WATER UNDERNEATH. POOR SYSTEM & MATERIAL USED.

McINTOSH PERRY

	YES	NO	COMMENTS
Are there any additional environmental concerns?	☐	☒	
Have there been any recent major repairs/replacements? (If yes, include year and cost estimate)	☒	☐	RE-SHINGLED ROOF - 2016 - 100,000\$ STRAP & REINFORCE PERLINS ALONG ROOF STRUCTURE - 2017 - 20,000\$ - EAVES TROUGH'S AND DOWNSPOUTS RE-DESIGNED TO DIRECT WATER AWAY FROM BUILDING - 2017 - 25,000\$

Additional Comments:

- 1) ANNUAL BUILDING & STRUCTURAL INSPECTIONS CARRIED OUT.
- 2) BRINE TESTING FOR COLD FLOOR YEARLY. (PERFORMED BY CIMCO)
- 3) AIR QUALITY TESTING ANNUALLY (NIAGARA HEALTH BOARD)
- 4) EVAPORATOR (CHILLER) FOR ICE MAKING IS 25 YEARS OLD.
- 5) COMPRESSOR & CONDENSER FOR ICE MAKING ARE 27 YEARS AND 22 YEARS OLD RESPECTFULLY
- 6) YEARLY INSPECTION AND OVERTHAUL TO COMPRESSORS PERFORMED BY CIMCO.
- 7) VENTILATION SYSTEM IN REFRIGERATION ROOM NEEDS UP-GRADES.
- 8) T.S.S.A UNSCHEDULED INSPECTIONS OF REFRIGERATION ROOM.
- 9) ICE RESURFACER - 1992 - 27th YEAR. WELL PASSED ITS LIFE EXPECTANCY.

Please attach any drawings, relevant building reports, hazardous substance surveys/asbestos surveys, maintenance records, compliance orders, and service agreements.

Completed By: JERRY FRANCESCINI
 Title: SUPERVISOR
 Date: APRIL 15-2019

Return By: April 12, 2019
 Return To: Deirdre Roe
 McIntosh Perry
 Fax: 905-695-0221
 Email: d.roe@mcintoshperry.com

HAVE SOME REPORTS AND INSPECTION DOCUMENTS AVAILABLE.

Thanks
 Jerry