



FACILITY CONDITION ASSESSMENT

TOWNSHIP OF STRONG

Sundridge Strong Joly Arena
14 Albert Street North, Sundridge, ON P0A 1Z0

WalterFedy Project No.: 2021-0270

June 14, 2021



WALTERFEDY

DISCLAIMER AND LIMITATION OF LIABILITY

This document was prepared by WalterFedy for the above stated client ("Client") for the specific purpose and use by the client as outlined in the client's Request for Proposal.

WalterFedy does not accept any liability if this report is used for an alternative purpose from which it is intended, nor if this report is used by a third party - any use which a third party makes of the report is at the sole responsibility and risk of the third party.

This report was completed based on the information that was available at the time of report preparation, and is subject to all limitations, assumptions, and qualifications contained herein. Any events or circumstances that have occurred since the date on which the report was prepared are the responsibility of the client, and WalterFedy accepts no responsibility to update the report to reflect these changes.

WalterFedy agrees that this report represents its professional judgement and any estimates or opinions regarding probable costs, schedules, or technical data provided represent the professional judgement of WalterFedy's experience as well as the information available at the time of report preparation. In addition, WalterFedy accepts no responsibility for changes in market or economic conditions or price fluctuations for labour and material costs and, therefore, makes no representations, guarantees, or warranties for the cost estimates in this report. Persons relying on such estimates or opinions do so at their own risk.

WalterFedy agrees with the Client that it will complete the work identified in the client's RFP to the standards of care, skill, and diligence normally provided in the performance of professional services with respect to work similar to that contemplated by this Agreement. WalterFedy at its own expense carries professional liability insurance to the extent that it deems prudent and WalterFedy's liability under this Agreement to the Client for any claim in contract or in tort related to the services provided under this Agreement howsoever arising shall be limited to the extent that such liability is covered by such professional liability insurance from time to time in effect including the deductible therein, and which is available to indemnify WalterFedy and in any event WalterFedy's liability under this Agreement shall be limited to loss or damage directly attributable to the negligent acts of WalterFedy, its officers, servants, or agents, or its failure to provide the standards of care, skill, and diligence aforesaid. In no event shall WalterFedy be liable for loss or damage caused by delays beyond WalterFedy's control, or for loss of earnings or for other consequential damage howsoever caused.

The errors and omissions policies are available for inspection by the Client at all times upon request. If the Client, because of its particular circumstances or otherwise, desires to obtain further insurance to protect it against any risk beyond the coverage provided by such policies, WalterFedy will co-operate with the Client to obtain such insurance at the Client's expense.

The Client, in consideration of the provision by WalterFedy of the services set forth in this Agreement, agrees to the limitations of the liability of WalterFedy aforesaid. The Client shall have no right of set-off against any billings of WalterFedy under this Agreement.

WalterFedy Project No.: 2021-0270

June 14, 2021

Dan Trunchon

Treasurer

Township of Strong

28 Municipal Lane, P.O.Box 1120

Sundridge, POA 1Z0

Dear Mr. Dan Trunchon,

RE: Township of Strong: Facility Condition Assessment

14 Albert Street North, Sundridge, ON POA 1Z0

WalterFedy is pleased to submit this Facility Condition Assessment to Township of Strong. This report encompasses the originally agreed upon scope, as outlined in our proposal 2021-0270-01 for the Sundridge Strong Joly Arena located at 14 Albert Street North in Sundridge.

This report was completed with the data supplied by Township of Strong and that collected during our site visit, as well as engineering judgement and various analysis tools to arrive at the final recommendations.

All of which is respectfully submitted,

WALTERFEDY

A handwritten signature in black ink, appearing to read 'My Hoang', written in a cursive style.

My Hoang, P.Eng.

Team Leader

Asset and Facilities Management Solutions

Mhoang@walterfedy.com

519-576-2150 ext. 303

TABLE OF CONTENTS

1	EXECUTIVE SUMMARY	1
1.1	General Information	1
1.2	Annual Investment Projections.....	1
1.3	General Summary.....	2
1.4	Structural Summary.....	2
1.5	Architectural: Exterior Elements Summary.....	2
1.6	Architectural: Interior Elements Summary.....	3
1.7	Mechanical Summary	3
1.8	Electrical Summary	3
1.9	Fire & Life Safety Summary	4
1.10	Accessibility Summary	4
1.11	Site Summary	4
2	INTRODUCTION	5
2.1	Objectives.....	5
2.2	Scope of Work.....	5
2.3	Recommended Actions.....	6
2.4	Cost Estimates	6
2.5	Action Year.....	7
2.6	Condition and Priority Rating System.....	7
3	FACILITY CONDITION INDEX (FCI).....	9
3.1	General Information and Methodology	9
3.2	Subject Building Details.....	9
4	LIST OF REFERENCE DOCUMENTS AND STANDARDS	13
4.1	Contact Information	13
5	EXISTING CONDITIONS AND RENEWAL RECOMMENDATIONS.....	14
6	GLOSSARY OF TERMS AND DEFINITIONS	115

1 EXECUTIVE SUMMARY

1.1 General Information

Table 1 - Facility Background Information

Facility Name:	Township of Strong - Sundridge Strong Joly Arena
Location:	14 Albert Street N., Sundridge
Facility Type:	Arena
Facility Description	Arena
Date of Site Visit	May. 13, 2021
Assessor 1	Alex Young
Assessor 2	
Construction Year	1970
Building Age (years)	51
Estimated Current Replacement Cost	\$11,375,000 at \$325 per SF
Number of Floors (above grade):	2
Number of Floors (below grade):	0
Number of Elevators	1
Estimated Window Area (SF)	150
Window / Wall Percentage	1.03%
Site Area (SF)	175,000
Building Footprint (SF)	26,500
Building Gross Area (SF)	35,000
Percent of Site Coverage	15.14%
Estimated Permeable Site Area (SF)	60,000
Percentage Permeable Site	34.29%
FCI (Current):	0.07% - Good
FCI - Next ten (10) years	9.18% - Fair

1.2 Annual Investment Projections

The study timeline for this report spans from 2021 to 2031. Annual investment on maintenance, repair, and end-of-life replacement of building components will be required over the next ten (10) years in order to ensure the building lifecycle is maximized and it remains in safe condition for the users of the building.

The annual expenditure forecast in each year is not constant due to different remedial actions that have been identified, and differing lifecycles for different equipment types. Therefore, WalterFedy provides annual average, maximum annual investment, and total forecast investment values over the study period, as listed in the tables below where the dollar amounts are expressed in 2021 costs without inflation:

Capital Cost Forecast (Lifecycle Replacement)

Average Annual Expenditure [\$]	\$145,950
Maximum Annual Expenditure [\$]	\$792,550
Total 10-Year Expenditure [\$]	\$1,605,450

**2021 dollars without inflation*

Repair Cost Forecast

Average Annual Expenditure [\$]	\$27,471
Maximum Annual Expenditure [\$]	\$155,000
Total 10-Year Expenditure [\$]	\$303,280

**2021 dollars without inflation*

1.3 General Summary

The report identifies and makes lifecycle repair/replacement recommendations for deficiencies visually identified while on site on May 13, 2021. Within the property condition assessment methodology, each major component was assessed for condition, based on visual review, while factoring in component history, current maintenance practices, and time since last major replacement/repair. The assessed condition of the component is then compared against industry accepted "expected useful life" values for each component type. An inventory of needs was then developed based on age, condition, and the relative impact that failure of that particular component represents for the building. A designated substance survey (DSS) was not provided for this site.

1.4 Structural Summary

The foundation for the Arena consists of concrete block foundation walls extending below grade with strip footings below grade. The superstructure of the building is comprised of load-bearing concrete block walls and concrete slabs. The majority of the building superstructure is hidden from view behind finishes and therefore could not be viewed during inspection. The areas that were visible were observed to be in good condition. A poured concrete ice rink floor slab is located in the rink area. The slab was observed to be in poor condition.

1.5 Architectural: Exterior Elements Summary

The exterior cladding of the Arena primarily consists of metal siding. The siding was noted on every elevation of the building. Overall, the metal siding was observed to be in good condition. A portion of the building includes concrete block and fluted concrete block masonry. The concrete block walls were observed to be in fair condition.

The building includes six windows in vinyl frames with operable (vertical sliders) and fixed sections. The building has four exterior aluminum framed glazed entry doors and four general exterior doors that were observed to be in fair condition. The building is equipped with two manual overhead doors located in the Zamboni bay area. The overhead doors were observed to be in good condition.

The main roof system for the Arena is an EPDM (Ethylene Propylene Diene Monomer) roof. Approximately 100 SF of the building's roof consists of a pitched asphalt shingle roof. Neither of the roof sections were accessible during the site inspection; however, it was reported that the asphalt shingle roof was leaking and areas of missing/damaged shingles could be viewed from the ground level. Overall, the asphalt roofing is considered to be in poor condition.

1.6 Architectural: Interior Elements Summary

Painted gypsum board or gypsum wallboard and concrete block walls were observed throughout the building. The painted walls were generally observed to be in good condition with no major deficiencies. Ceramic tile walls were noted in the washrooms on the first and second floor of the building. Vinyl composite tiles (VCT) were observed throughout the second floor and storage areas. Rubber flooring was noted in the locker rooms, around the ice surface, the lobby and first floor washrooms. Ceramic tile flooring was observed in the second-floor washrooms. The flooring was observed to be in good condition. Acoustic ceiling tiles (ACT) are located throughout the entire building. The tiles were noted to be in good condition.

There is a metal staircase located in the lobby providing access to the second floor of the building. The staircase was observed to be in good condition.

1.7 Mechanical Summary

The Arena includes one hydraulic Otis elevator. The elevator was installed in 2000 and is recommended for upgrades and modernization within the mid-term of the study period. One Ruud natural gas domestic hot water heater is located in the rink area. The heater has an input heating of 380,000 BTU/HR. One Ruud domestic hot water tank is located on the second floor. The tank has a capacity of 74 U.S. gallons and was observed to be in good functioning condition with no reported issues. One Henry Technologies chiller is located in the mechanical room for ice making. The chiller was observed to be in fair condition as it is past its expected service life. The chiller includes two barrels that work together with the compressors and cooling tower. A water tank is located in the mechanical room connected to the cooling tower. The tank was observed to be in fair condition with some rust and deterioration observed. A cooling tower is located outside the building. The tower was observed to be in good functioning condition with no reports of any issues. Two forced-air furnaces and electric baseboard heaters provide heating to the common areas of the building. The heating elements were viewed to be in good condition. There are two ice rink refrigerant compressors manufactured by MYCOM. Ammonia is the refrigerant being fed into both compressors. Two packaged air heating and cooling units are located on the flat rooftop of the building. The units could not be inspected at the time of the assessment because there was no access to the roof. However, there were no reports of any issues with the roof top unit (RTU). There are two unit heaters located in the mechanical room and Zamboni bay. A Thermoplus dehumidifier is located in the ice rink area of the building.

There are three gas-fired stoves and four refrigerators located in the kitchen areas of the building. The kitchen equipment was found to be in good condition.

1.8 Electrical Summary

Control of the electrical distribution of the building is provided by a main disconnect switch manufactured by FPE. Intermediate electrical distribution panels are located throughout the building. The panels vary from 225 amps to 400 amps, and were observed to be in fair condition. Intermediate disconnects are located throughout the building. The disconnects were observed to be in fair condition. One transformer is located in the electrical room which is rated for 112.5 kVA. The interior lighting of the Arena consists of T8 fluorescent lighting fixtures. One generator manufactured by Generac is located on the exterior.

1.9 Fire & Life Safety Summary

A Fireshield fire alarm panel is located in the electrical room. The panel was observed to be in fair condition with the panel being outdated. There are fire alarms, pull stations, heat detectors, and smoke/CO detectors throughout the building. The Arena includes red exit signs that are located in appropriate locations to indicated paths of egress. Double-headed emergency lighting was also observed in appropriate locations throughout the building's interior. A wet sprinkler system services the entire building. At the time of inspection, the system was not tested but there are no reports of any issues. A range hood suppression system monitors the gas-fired kitchen equipment in the second-floor kitchen area.

1.10 Accessibility Summary

The Arena is considered accessible with the availability of an elevator that accesses both floors, automatic door openers, partially accessible washrooms, and adequate turning radiuses provided within the building.

1.11 Site Summary

Landscaping for the site consists of manicured grass, mature trees, and a gravel parking space. There is a wooden shed used for storage located on the western elevation of the building. The shed was viewed to be in fair condition. The exterior lighting for the building consists of wall-mounted fixtures, and two light poles.

2 INTRODUCTION

2.1 Objectives

The objectives of Building Condition Assessments (BCAs) and Elevator Audits¹ will be:

- To determine the present physical condition of the listed facilities with respect to structural/architectural components, building envelope, mechanical and electrical systems, fire/life safety systems, and predictive 10-year renewal costs;
- To determine the scope, timing and current cost of all building component repairs or replacement likely to be required;
- To determine the finances required to be set aside for both normal maintenance and capital repair/replacement of major components for budgetary purposes; and
- To report all findings and recommendations from these assessments and audits of all repairs, replacements, and rehabilitations and 10-year plans.

2.2 Scope of Work

As per the agreement between the client and WalterFedy, the Building Condition Assessment (BCA) includes a visual assessment using non-destructive techniques and tools of the following major building assemblies and their component parts:

- Structural assemblies (those that are visible)
 - Including parking garages (when applicable)
- Architectural assemblies (exterior, interior components)
 - Roof coverings
 - Building wall cladding
 - Windows and doors
 - Unique architectural items
 - Room finishes
- Mechanical assemblies
 - Heating, Cooling and Ventilation
 - Plumbing
- Electrical assemblies
- Fire and Life Safety assemblies
- Accessibility and Barrier-free elements
- Exterior site features
 - Roadways and parking
 - Sidewalks, patios, or other hard surfaces
 - Fences and gates
 - Storm water drainage
 - Soft landscaping
- Elevators (when applicable)

The assessments consider the physical condition of each assembly and its components, the age of the components compared to an expected useful life of similar components, and any capacity issues identified. When further details are required to fully understand the scope of a deficiency that is identified, WalterFedy recommends further study and investigative work to be done.

¹ Where Applicable

Building components are identified using the *ASTM E1557 - 09(2015) Standard Classification for Building Elements and Related Sitework-UNIFORMATII*. This industry-recognized standard allows an easy-to-understand description of the building components, as well as a logical method to analyze collected data.

2.3 Recommended Actions

When necessary WalterFedy will develop Recommended Action items for components. The Actions are classified as one of the following categories:

Table 2: Possible Action Type Categories

Action Type	Definition
Repair	The existing component is functioning, but in need of repair so that it will function to its intended capacity and design lifecycle
Replacement	The existing component cannot be effectively repaired due to <ul style="list-style-type: none">• the cost of repair being greater than the cost of a new component,• outdated technology,• the component is at its expected normal useful lifecycle, or• a repair will not be effective at resolving any deficiencies
Install	A component that is required is missing and should be installed
Study	Further detailed assessment including possible destructive testing is required in order to fully understand the requirements for the component

Action items are developed based on the knowledge of WalterFedy’s assessors and industry standards (including applicable Code requirements).

2.4 Cost Estimates

Action cost estimates provided in this report should be considered Class "D" estimates (i.e., ±25% of expected actual costs) and are provided as a preliminary estimate of the expected costs to repair the deficiencies identified by WalterFedy assessors. The cost values are determined by identifying the requirements for an element or component of the building and then estimating element replacement costs and/or a reasonable lump sum allowance for the recommended work.

The action cost estimates are, unless otherwise stated, reflective of the cost to remove the existing element and replace it with a new version of the element that would provide equivalent service (i.e., a “like-for-like” replacement). These costs are determined from a combination of source information:

- RS Means is an industry leader specializing in providing baseline cost estimates for building systems. Their costing databases compare building activities across North America in order to establish baseline cost estimates for replacement or installation of components and elements adjusted for the geographic location of the subject building. RS Means costs include an allowance for a contractor’s overhead and profit.
- WalterFedy also makes use of information from other current and past projects completed by our firm that include work similar in scope to the actions recommended in the BCA reports

- Finally, with an extensive project history in southwestern Ontario and beyond, WalterFedy has relationships with many local contractors, and has gained a good understanding of current building construction, market trends, and costs.

The information from the sources listed above is compiled, reviewed, and maintained in an internal database of action costs for actions or building elements that are relevant to the building(s) in this study. This database is regularly reviewed and updated as necessary in order to ensure that our cost estimates match current market values.

Cost estimates are prepared in 2021 Canadian Dollars (i.e., the year of assessment) and include a 20% contingency fee to cover unforeseen costs plus a 10% contingency fee to cover applicable consulting fees, but do not include any applicable taxes.

The cost estimates assume work is performed at one time and, as such, do not include general project management costs, or costs for a contractor to mobilize for a project that might result from a combination of multiple actions into one larger project.

More precise cost estimates would require more detailed investigations and design work than provided for in the scope of work of this project. WalterFedy cannot guarantee or warrant that the final costs will not exceed these estimated amounts, or that all ancillary costs related to the recommended actions are covered.

2.5 Action Year

For each identified action WalterFedy also identifies a year when that action should occur. This timing is based on our knowledge of the typical lifecycles of building components before replacement is expected, but will also be developed taking into consideration the unique situation of the component.

When a component lifecycle is less than the length of the study period (i.e., less than 10 years) the action item will appear as many times in the future as the lifecycle requires within the study period.

2.6 Condition and Priority Rating System

As part of the RFP package, the client provided a template worksheet for identifying the various components within the building, including defined condition ratings:

Table 3: Condition Definitions

Condition	Definition
Excellent	Element(s) collectively are in a condition indistinguishable from new. Individual life spans may vary.
Good	Element(s) are in a condition to have a collective life span in excess of five (5) years. Individual life spans may vary.
Fair	Element(s) collectively require some level of immediate attention within the short term (less than five (5) years) of either repair, replacement, or upgrade. Individual life spans may vary.
Poor	Element(s) collectively require some level of immediate action of either repair, replacement, or upgrade. Individual life spans may vary.

Further to the general condition ratings, the client provided a set of criteria listed in Table 4 that highlights the importance of each component and identified actions affecting the component. WalterFedy applied our assessment of each criteria point to the best of our ability within our understanding of the importance of each component in the building.

Table 4: Project Prioritization System

Category	Ratings Description
Priority A – Life Safety	Hazardous conditions which cannot be deferred, and which could lead to loss of life or critical or extremely severe injury.
Priority B – Structural Integrity	Conditions, which lead to the deterioration of structural elements of a property, must be investigated and corrected if necessary; structural integrity must be maintained at all times. Failure to do so will lead to unsafe, life threatening conditions and will eventually render the building structurally unsound and physically obsolescent; incapable of performing the task it was designed to do.
Priority C – Legislative Requirement	All property elements, which must be upgraded so that they comply with revision to existing legislation or to the requirements of newly-adopted legislation. Work required by municipal orders to comply is not included within this priority.
Priority D – Building Functionality	The repair or replacement of building elements, which have a direct and significant impact on primary building systems. These building systems must be maintained in order to protect the value and operational viability of the asset. Included within this priority is the repair or replacement of building elements, which have reached the end of their useful life. This work is necessary in order to maintain and to prevent the building from becoming physically or functionally obsolescent.
Priority E – Cost Effective Upgrade	Upgrades with cost-effective initiatives which improve the operational efficiency of a property, and which have a reasonable payback. Using the Energy Audit includes recommendations on energy upgrades to the building and relative time frame or cost recovery from energy savings.

3 FACILITY CONDITION INDEX (FCI)

3.1 General Information and Methodology

The FCI is an industry standard key performance indicator (KPI) which can be used to objectively quantify and evaluate the current condition (i.e., physical health) of an individual building, or to compare an individual building to other buildings in a portfolio. It is based on the financial needs of the building only, and can help building owners and managers make benchmark comparisons on the relative condition of buildings but should be used with care. The FCI will not allow identification of priority actions or levels of risk associated with the building, nor a detailed list of all the required Actions.

By using projected renewal and replacement costs a future FCI can be predicted that will demonstrate the changing condition of the building over time.

FCI is typically expressed using the following equation:

$$\text{FCI} = \frac{\text{Total Renewal and Repair Costs}}{\text{Building Replacement Cost}}$$

Where:

- Renewal and repair costs are determined by the identified Repair or Replacement Action items.
- The building replacement cost represents the construction cost to building a building the same size, with the same function, in accordance with current Standards and Codes, exclusive of land or real estate market costs.

The following benchmarks are typical industry standards used to indicate the overall building condition based on the FCI calculation:

- FCI: 0-5% Good Condition
- FCI: 5-10% Fair Condition
- FCI: 10-30% Poor Condition
- FCI: >30% Critical Condition

Unless advised otherwise, WalterFedy uses a unit cost-per-area construction cost based on current construction market costs and comparable buildings.

3.2 Subject Building Details

In order to examine how the condition of the building may change, we assume a “worst case” scenario where no investment is made to the building. The FCI will continue to worsen (i.e., the percentage value will increase) and over the next ten (10) years, the calculated 10-year average FCI value is 9.18%. That means the facility will be in Fair condition overall.

Figure 1 displays the FCI graph over the ten (10) year study period.

Figures 2 and 3 provide an annual breakdown of forecast expenditures: Figure 2 represents the forecast replacement costs (i.e., due to lifecycle needs or other reasons) and Figure 3 represents the forecast repair costs for elements that do not require full replacement, but do require attention to return them to satisfactory condition.

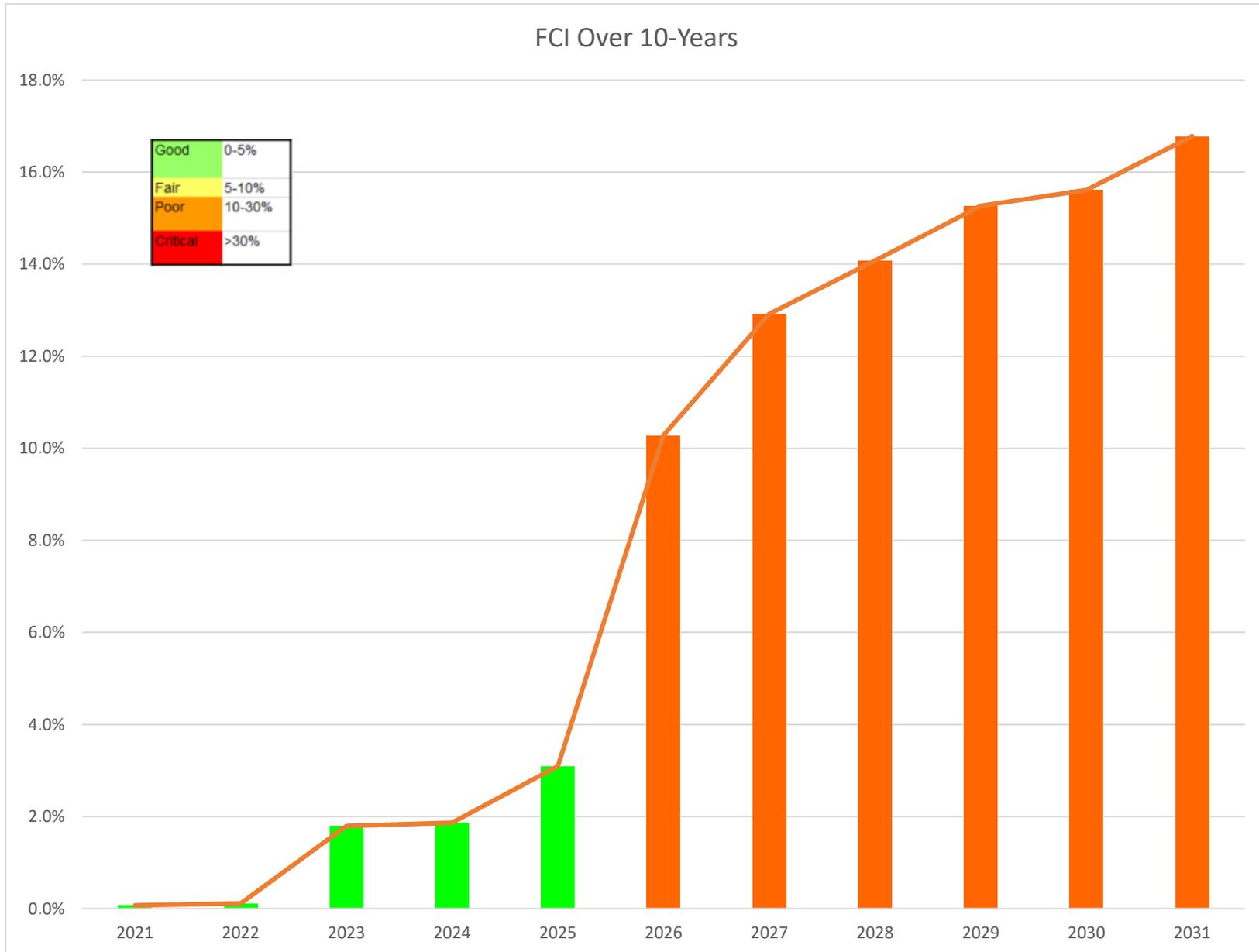


Figure 1: Facility Condition Index (FCI) Chart

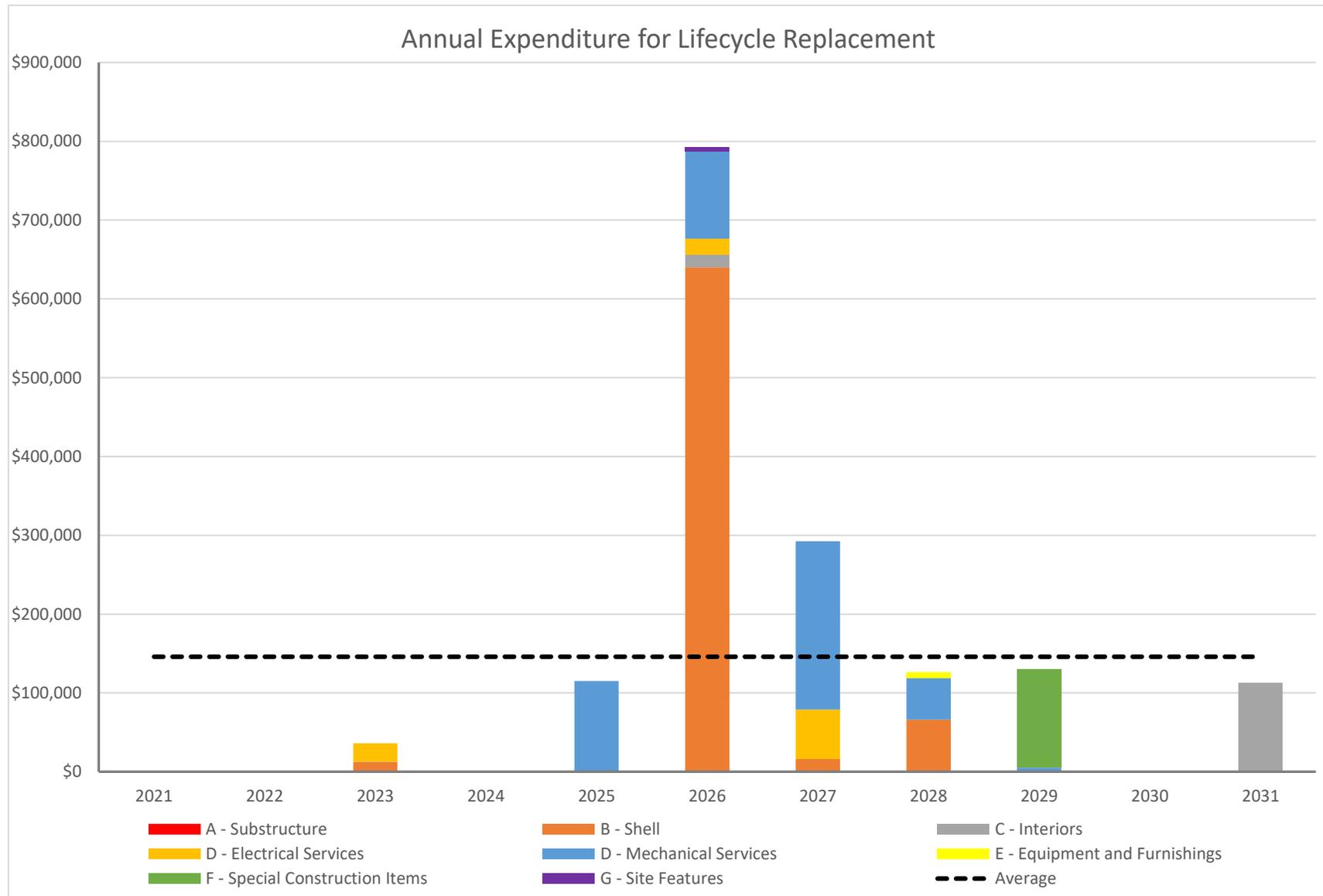


Figure 2: Annual Expenditures Chart for Lifecycle Replacement (*2021 dollars without inflation)

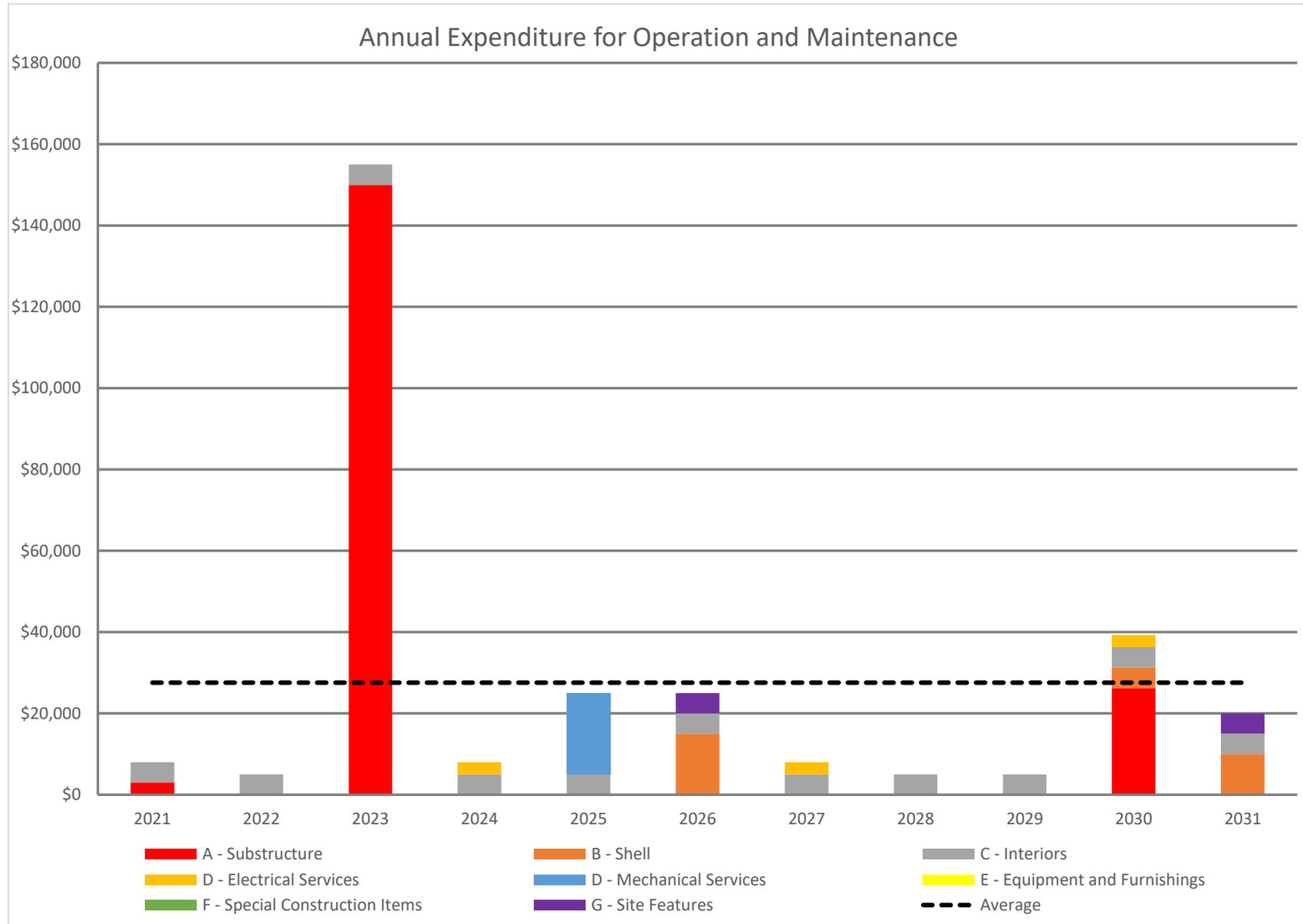


Figure 3: Annual Expenditures Chart for Operation and Maintenance (*2021 dollars without inflation)

4 LIST OF REFERENCE DOCUMENTS AND STANDARDS

- ASTM E2018 - 15 Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process
- ASTM E2166 - 16 Standard Practice for Organizing and Managing Building Data
- ASTM E1557 - 09(2015) Standard Classification for Building Elements and Related Sitework-UNIFORMATII
- Ontario Building Code, 2012
- Ontario Fire Code, 2007

4.1 Contact Information

The contact information for the Owner (Township of Strong) and the Consultant (WalterFedy) can be found in Table 5:

Table 5: Contact Information

Owner:	Consultant:
Township of Strong	WalterFedy
Dan Trunchon Treasurer	My Hoang, P.Eng. Team Leader, AFM
treasurer@strongtownship.com	519-576-2150 ext. 303 Mhoang@walterfedy.com
28 Municipal Lane, P.O.Box 1120 Sundridge POA 1Z0	675 Queen Street South, Suite 111 Kitchener, ON N2M 1A1

5 EXISTING CONDITIONS AND RENEWAL RECOMMENDATIONS

5.1 A - Substructure

Element Description: Foundation
Year of Installation: 1970
Location: Below Grade
Condition: Good
Consequence of Failure: High

Commentary: The foundation of the arena is constructed with concrete block walls extending below grade with strip footings below grade. Upon inspection, the foundations appeared to be in good condition with no reported issues. An allowance has been included for repairs to the foundations.

Recommended Action: Repair

Action Summary:	Action Description:
Allowance for repairs	Repair concrete foundations

Other Information:

Estimated Useful Life (EUL)	80	Remaining Service Life	29
Current Replacement Value (CRV)	\$1,314,000	Action Cost:	\$26,280
Quantity Estimate:	2190 SF	Action Year:	2030
Unit Cost:	\$12	Repeat Cycle:	0
Urgency of Action:	Low (10+ Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.2 A - Substructure

Element Description: Ice Rink Floor Slab
Year of Installation: 1970
Location: Slab-on-Grade
Condition: Poor
Consequence of Failure: High

Commentary: The ice rink floor slab is poured concrete. Upon inspection, the slab appeared to be in poor condition with visible cracking and damage. Allowances have been included to conduct a study of the concrete slab and piping system, followed by repairs to the ice rink slab in the next two years. The cost to repair may vary based on the results of the study.

5.2.1 Recommended Action: Study

Action Summary:	Action Description:
Allowance for study	Study the condition of the concrete slab and piping system

Other Information:

Estimated Useful Life (EUL)	50	Remaining Service Life	0
Current Replacement Value (CRV)	\$250,000	Action Cost:	\$3,000
Quantity Estimate:	1 Unit(s)	Action Year:	2021
Unit Cost:	\$3,000	Repeat Cycle:	0
Urgency of Action:	High (1-5 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

5.2.2 Recommended Action: Repair

Action Summary:	Action Description:
Allowance for repairs	Repair ice rink slab and piping

Other Information:

Estimated Useful Life (EUL)	50	Remaining Service Life	0
Current Replacement Value (CRV)	\$250,000	Action Cost:	\$150,000
Quantity Estimate:	1 Unit(s)	Action Year:	2023
Unit Cost:	\$150,000	Repeat Cycle:	50
Urgency of Action:	High (1-5 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.3 B - Shell

Element Description: Superstructure
Year of Installation: 1970
Location: General Construction
Condition: Good
Consequence of Failure: High

Commentary: The superstructure of the building is comprised of concrete block walls and concrete slab floors. Upon inspection, the superstructure of the building appeared to be in good condition. It is recommended that a structural study be conducted every ten years to assess the condition of the buildings structural components. Allowances have been included for as-needed repairs to the superstructure every ten years as well as a structural review conducted every five years.

5.3.1 Recommended Action: Repair

Action Summary:	Action Description:
Allowance for repairs	As-needed repairs to the superstructure

Other Information:

Estimated Useful Life (EUL)	80	Remaining Service Life	29
Current Replacement Value (CRV)	\$1,872,500	Action Cost:	\$5,000
Quantity Estimate:	1 Unit(s)	Action Year:	2030
Unit Cost:	\$5,000	Repeat Cycle:	10
Urgency of Action:	Low (10+ Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

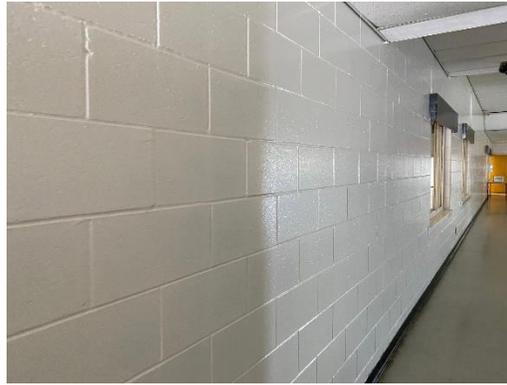
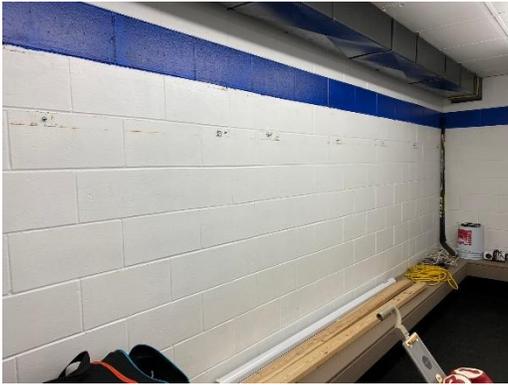
5.3.2 Recommended Action: Study

Action Summary:	Action Description:
Allowance for study	Structural review

Other Information:

Estimated Useful Life (EUL)	80	Remaining Service Life	29
Current Replacement Value (CRV)	\$1,872,500	Action Cost:	\$10,000
Quantity Estimate:	1 Unit(s)	Action Year:	2026
Unit Cost:	\$10,000	Repeat Cycle:	5
Urgency of Action:	Medium (5-10 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.4 B - Shell

Element Description: Aluminum Siding (Original)

Year of Installation: 1970

Location: Building Exterior

Condition: Good

Consequence of Failure: Moderate

Commentary: The majority of the building exterior walls are clad with aluminum siding. A portion of the siding is original to building construction. Upon inspection, the siding appeared to be in good condition, and the expected service life has been extended. An allowance has been included to replace the original portion of the siding in the next seven years.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace aluminum siding

Other Information:

Estimated Useful Life (EUL)	50	Remaining Service Life	0
Current Replacement Value (CRV)	\$33,000	Action Cost:	\$33,000
Quantity Estimate:	3000 SF	Action Year:	2028
Unit Cost:	\$11	Repeat Cycle:	50
Urgency of Action:	Medium (5-10 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos





5.5 B - Shell

Element Description: Aluminum Siding (Foyer Addition)

Year of Installation: 1978

Location: Building Exterior

Condition: Good

Consequence of Failure: Moderate

Commentary: A portion of the siding was installed in 1978 with the foyer addition. Upon inspection, the siding appeared to be in good condition. An allowance has been included to replace the siding at the end of its useful life.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace aluminum siding

Other Information:

Estimated Useful Life (EUL)	50	Remaining Service Life	7
Current Replacement Value (CRV)	\$33,000	Action Cost:	\$33,000
Quantity Estimate:	3000 SF	Action Year:	2028
Unit Cost:	\$11	Repeat Cycle:	50
Urgency of Action:	Low (10+ Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos





5.6 B - Shell

Element Description: Aluminum Siding (Rear Wall)

Year of Installation: 2008

Location: Building Exterior

Condition: Good

Consequence of Failure: Moderate

Commentary: A portion of the siding was replaced in 2008 along the rear of the building. Upon inspection, the siding appeared to be in good condition. No major allowances are anticipated within the term of the study.

Recommended Action: No Action is Required.

Action Summary:	Action Description:
Not Applicable	Not Applicable

Other Information:

Estimated Useful Life (EUL)	50	Remaining Service Life	37
Current Replacement Value (CRV)	\$33,000	Action Cost:	Not Applicable
Quantity Estimate:	Not Applicable	Action Year:	Not Applicable
Unit Cost:	Not Applicable	Repeat Cycle:	Not Applicable
Urgency of Action:	Not Applicable	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos





5.7 B - Shell

Element Description: Concrete Masonry
Year of Installation: 1970
Location: Building Exterior
Condition: Fair
Consequence of Failure: Moderate
Commentary: A portion of the exterior walls are finished with concrete block and fluted concrete

block masonry. Upon inspection, the masonry appeared to be in fair condition with signs of deterioration. An allowance has been included for periodic repairs to the concrete masonry every ten (10) years.

Recommended Action: Repair

Action Summary:	Action Description:
Allowance for repairs	As-needed repairs to the concrete masonry

Other Information:

Estimated Useful Life (EUL)	80	Remaining Service Life	29
Current Replacement Value (CRV)	\$146,000	Action Cost:	\$5,000
Quantity Estimate:	1 Unit(s)	Action Year:	2026
Unit Cost:	\$5,000	Repeat Cycle:	10
Urgency of Action:	Medium (5-10 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos





5.8 B - Shell

Element Description: Windows
Year of Installation: 1970
Location: Building Exterior
Condition: Poor
Consequence of Failure: Low

Commentary: There are six vinyl-framed windows with both fixed and operable sections (vertical sliders) located on the exterior of the building. It is our understanding that the windows are original to building construction. Based on age, the windows are considered to be in poor condition. An allowance has been included to replace the windows in the next two years.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace windows

Other Information:

Estimated Useful Life (EUL)	30	Remaining Service Life	0
Current Replacement Value (CRV)	\$12,000	Action Cost:	\$12,000
Quantity Estimate:	6 Unit(s)	Action Year:	2023
Unit Cost:	\$2,000	Repeat Cycle:	30
Urgency of Action:	High (1-5 Years)	Energy Savings:	Low
Health and Safety:	No	Accessibility Issue:	No

Component Photos





5.9 B - Shell

Element Description: Entrance Doors

Year of Installation: 1970

Location: Building Exterior

Condition: Fair

Consequence of Failure: Low

Commentary: There are four hollow metal doors with glazing located at the entrance to the building. It is our understanding that they are original to building construction. Upon inspection, the doors appeared to be in fair condition with signs of wear and aging, therefore, the expected service life of the doors has been extended. An allowance has been included to replace the entrance doors in the next six years.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace entrance doors

Other Information:

Estimated Useful Life (EUL)	25	Remaining Service Life	0
Current Replacement Value (CRV)	\$8,000	Action Cost:	\$8,000
Quantity Estimate:	4 Unit(s)	Action Year:	2027
Unit Cost:	\$2,000	Repeat Cycle:	25
Urgency of Action:	Medium (5-10 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.10 B - Shell

Element Description: Exterior Doors

Year of Installation: 1970

Location: Building Exterior

Condition: Fair

Consequence of Failure: Low

Commentary: There are four hollow aluminum doors with glazing providing alternate entry into the building. It is our understanding that the doors are original to building construction. Upon inspection, the doors appeared to be in fair condition with signs of wear and aging; therefore, the expected service life has been extended. An allowance has been included to replace the exterior doors in the next six years.

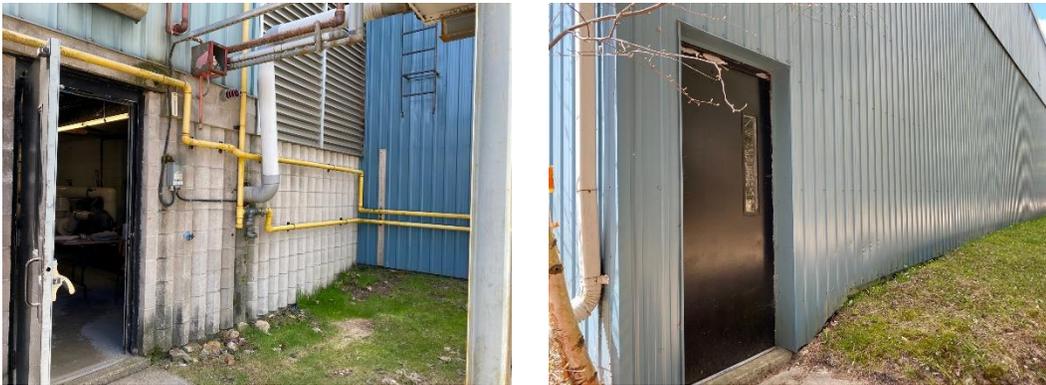
Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace exterior doors

Other Information:

Estimated Useful Life (EUL)	25	Remaining Service Life	0
Current Replacement Value (CRV)	\$8,000	Action Cost:	\$8,000
Quantity Estimate:	4 Unit(s)	Action Year:	2027
Unit Cost:	\$2,000	Repeat Cycle:	25
Urgency of Action:	Medium (5-10 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos





5.11 B - Shell

Element Description: Overhead Doors

Year of Installation: 2010

Location: Building Exterior

Condition: Good

Consequence of Failure: Low

Commentary: There are two manual overhead doors providing access for the Zamboni to move in and out of the Zamboni bay. It is our understanding that the doors are more than five years old, and the last major action year has been estimated. Upon inspection, the doors appeared to be in good condition. No capital expenditures are anticipated within the term of the study.

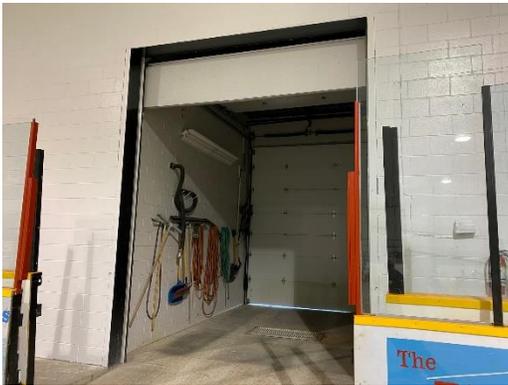
Recommended Action: No Action is Required.

Action Summary:	Action Description:
Not Applicable	Not Applicable

Other Information:

Estimated Useful Life (EUL)	25	Remaining Service Life	14
Current Replacement Value (CRV)	\$6,000	Action Cost:	Not Applicable
Quantity Estimate:	Not Applicable	Action Year:	Not Applicable
Unit Cost:	Not Applicable	Repeat Cycle:	Not Applicable
Urgency of Action:	Not Applicable	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.12 B - Shell

Element Description: EPDM Roofing

Year of Installation: 2001

Location: Roof

Condition: Fair

Consequence of Failure: Medium

Commentary: The majority of the building's roof is an EPDM (Ethylene Propylene Diene Monomer) roofing system. It is our understanding that the roof is roughly 20 years old. Based on age, the roof is considered to be in fair condition overall as no issues have been reported. An allowance has been included to replace the roofing in the next five years.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace EPDM roofing

Other Information:

Estimated Useful Life (EUL)	20	Remaining Service Life	0
Current Replacement Value (CRV)	\$640,000	Action Cost:	\$640,000
Quantity Estimate:	25600 SF	Action Year:	2026
Unit Cost:	\$25	Repeat Cycle:	20
Urgency of Action:	Medium (5-10 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

5.13 B - Shell

Element Description: Asphalt Shingles
Year of Installation: 1978
Location: Roof
Condition: Poor
Consequence of Failure: Medium

Commentary: A portion of the roof above the side stairwell is finished with asphalt shingles. It is our understanding that the shingles were installed in 1978 during the foyer addition. It was reported that roofing has been leaking and is in overall poor condition. An allowance has been included to replace the asphalt shingle roofing in the next two years.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace asphalt shingle roofing

Other Information:

Estimated Useful Life (EUL)	20	Remaining Service Life	0
Current Replacement Value (CRV)	\$500	Action Cost:	\$500
Quantity Estimate:	100 SF	Action Year:	2023
Unit Cost:	\$5	Repeat Cycle:	20
Urgency of Action:	High (1-5 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.14 B - Shell

Element Description: Soffit and Fascia

Year of Installation: 1970

Location: Roof Perimeter

Condition: Good

Consequence of Failure: High

Commentary: There are aluminum soffit and fascia located along the perimeter of the asphalt shingle roof. Upon inspection, the soffit and fascia appeared to be in good condition, therefore, the expected service life has been extended. No capital expenditures are anticipated within the term of the study.

Recommended Action: No Action is Required.

Action Summary:	Action Description:
Not Applicable	Not Applicable

Other Information:

Estimated Useful Life (EUL)	40	Remaining Service Life	0
Current Replacement Value (CRV)	\$600	Action Cost:	Not Applicable
Quantity Estimate:	Not Applicable	Action Year:	Not Applicable
Unit Cost:	Not Applicable	Repeat Cycle:	Not Applicable
Urgency of Action:	Not Applicable	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

5.15 C - Interiors

Element Description: Glazed Partitions
Year of Installation: 1970
Location: Foyer
Condition: Good
Consequence of Failure: Low

Commentary: There are glazed partitions located in the foyer which look into the ice rink. Upon inspection, the partitions appeared to be in good condition, therefore, the expected service life has been extended. An allowance has been included to replace the glazed partitions in the next ten years.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace glazed partitions

Other Information:

Estimated Useful Life (EUL)	25	Remaining Service Life	0
Current Replacement Value (CRV)	\$10,000	Action Cost:	\$10,000
Quantity Estimate:	1 Unit(s)	Action Year:	2031
Unit Cost:	\$10,000	Repeat Cycle:	25
Urgency of Action:	Low (10+ Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.16 C - Interiors

Element Description: Storage Cells
Year of Installation: 2005
Location: Storage Area
Condition: Good
Consequence of Failure: Low

Commentary: There are two storage cells located on the first floor of the building, serving as storage areas with some mechanical equipment installed inside. The actual age of the finishes is unknown; therefore, the last major action year has been estimated. Upon inspection, the cells appeared to be in good condition. No major allowances are anticipated within the term of the study period.

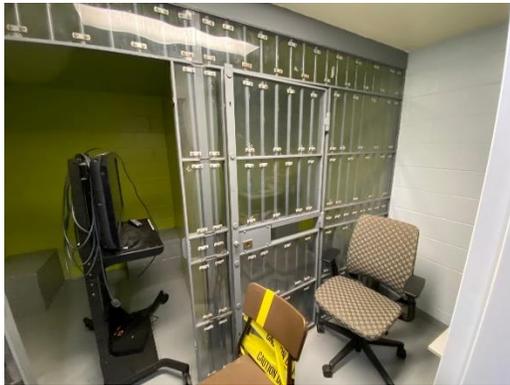
Recommended Action: No Action is Required.

Action Summary:	Action Description:
Not Applicable	Not Applicable

Other Information:

Estimated Useful Life (EUL)	30	Remaining Service Life	14
Current Replacement Value (CRV)	\$10,000	Action Cost:	Not Applicable
Quantity Estimate:	Not Applicable	Action Year:	Not Applicable
Unit Cost:	Not Applicable	Repeat Cycle:	Not Applicable
Urgency of Action:	N/A	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.17 C - Interiors

Element Description: Metal Interior Doors
Year of Installation: 1970
Location: Throughout Building
Condition: Good
Consequence of Failure: Low

Commentary: There are six hollow metal interior doors with and without glazing. It is our understanding that the doors are original to building construction. Upon inspection, the doors appeared to be in good condition, and the expected service life has been extended. An allowance has been included to replace the metal interior doors in the next ten years.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace metal interior doors

Other Information:

Estimated Useful Life (EUL)	30	Remaining Service Life	0
Current Replacement Value (CRV)	\$12,000	Action Cost:	\$12,000
Quantity Estimate:	6 Unit(s)	Action Year:	2031
Unit Cost:	\$2,000	Repeat Cycle:	30
Urgency of Action:	Low (10+ Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.18 C - Interiors

Element Description: Wood Interior Doors
Year of Installation: 1970
Location: Throughout Building
Condition: Good
Consequence of Failure: Low

Commentary: There are ten solid wood interior doors. It is our understanding that the doors are original to building construction. Upon inspection, the doors appeared to be in good condition. An allowance has been included to replace the wood interior doors in the next ten years.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace wood interior doors

Other Information:

Estimated Useful Life (EUL)	30	Remaining Service Life	0
Current Replacement Value (CRV)	\$15,000	Action Cost:	\$15,000
Quantity Estimate:	10 Unit(s)	Action Year:	2031
Unit Cost:	\$1,500	Repeat Cycle:	30
Urgency of Action:	Low (10+ Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos





5.19 C - Interiors

Element Description: Metal Staircase
Year of Installation: 1970
Location: Throughout Building
Condition: Good
Consequence of Failure: Medium

Commentary: There is a metal staircase which provides access to the second level of the building. The staircase is finished with metal railings and rubber treads. Upon inspection, the stair finishes appeared to be in good condition. No capital expenditures are anticipated within the term of the study.

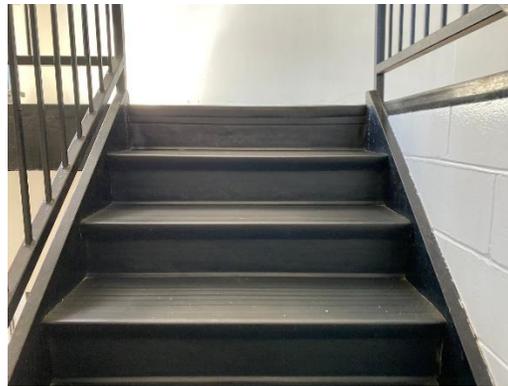
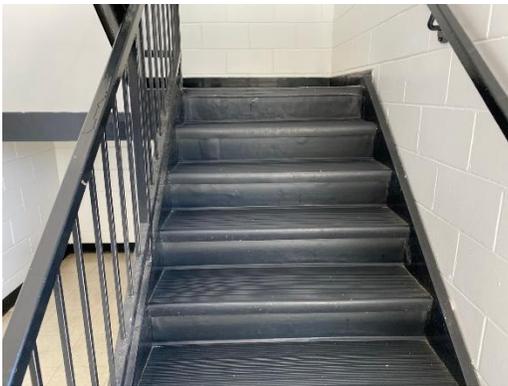
Recommended Action: No Action is Required.

Action Summary:	Action Description:
Not Applicable	Not Applicable

Other Information:

Estimated Useful Life (EUL)	85	Remaining Service Life	34
Current Replacement Value (CRV)	\$80,000	Action Cost:	Not Applicable
Quantity Estimate:	Not Applicable	Action Year:	Not Applicable
Unit Cost:	Not Applicable	Repeat Cycle:	Not Applicable
Urgency of Action:	Not Applicable	Energy Savings:	N/A
Health and Safety:	Yes	Accessibility Issue:	No

Component Photos



5.20 C - Interiors

Element Description: Painted Drywall and Concrete Block Walls

Year of Installation: 1970

Location: Throughout Building

Condition: Good

Consequence of Failure: Very Low

Commentary: The majority of interior walls are finished with paint on drywall and concrete block walls. Upon inspection, the paint finish appeared to be in good condition. An allowance has been included to repair portions of the paint finish annually based on the recommendation from the site staff.

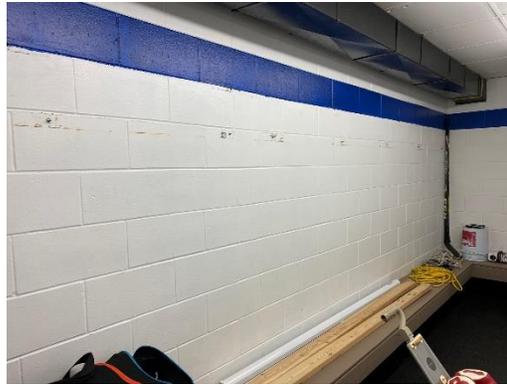
Recommended Action: Repair

Action Summary:	Action Description:
Allowance for repairs	Repaint walls as needed

Other Information:

Estimated Useful Life (EUL)	15	Remaining Service Life	0
Current Replacement Value (CRV)	\$70,000	Action Cost:	\$5,000
Quantity Estimate:	1 Unit(s)	Action Year:	2021
Unit Cost:	\$5,000	Repeat Cycle:	1
Urgency of Action:	High (1-5 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos





5.21 C - Interiors

Element Description: Ceramic Tile Walls
Year of Installation: 2000
Location: Washrooms
Condition: Good
Consequence of Failure: Very Low

Commentary: The lower portions of the washroom walls are finished with ceramic tile. The actual age of the tile is unknown; therefore, the last major action year has been estimated. Upon inspection, the ceramic tiles appeared to be in good condition. No capital expenditures are anticipated within the term of the study.

Recommended Action: No Action is Required.

Action Summary:	Action Description:
Not Applicable	Not Applicable

Other Information:

Estimated Useful Life (EUL)	50	Remaining Service Life	29
Current Replacement Value (CRV)	\$10,000	Action Cost:	Not Applicable
Quantity Estimate:	Not Applicable	Action Year:	Not Applicable
Unit Cost:	Not Applicable	Repeat Cycle:	Not Applicable
Urgency of Action:	Not Applicable	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.22 C - Interiors

Element Description: Rubber Flooring
Year of Installation: 2011
Location: Throughout Building
Condition: Good
Consequence of Failure: Low

Commentary: There is rubber flooring located throughout the building including the lobby, changing rooms, some of the washrooms and around the ice surface. It is our understanding that the flooring was replaced ten years ago. Upon inspection, the flooring appeared to be in overall good condition. An allowance has been included to replace the flooring at the end of its useful life.

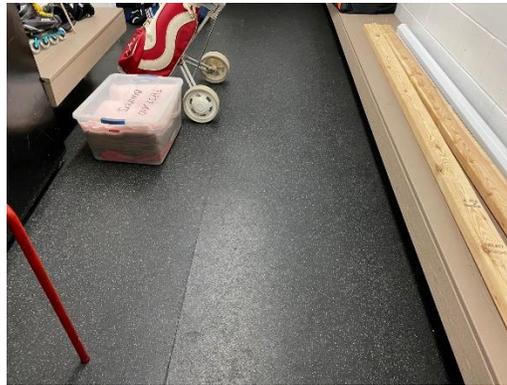
Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace rubber flooring

Other Information:

Estimated Useful Life (EUL)	20	Remaining Service Life	10
Current Replacement Value (CRV)	\$50,000	Action Cost:	\$50,000
Quantity Estimate:	5000 SF	Action Year:	2031
Unit Cost:	\$10	Repeat Cycle:	30
Urgency of Action:	Low (10+ Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos





5.23 C - Interiors

Element Description: Ceramic Floor Tile
Year of Installation: 2001
Location: Washrooms
Condition: Good
Consequence of Failure: Low

Commentary: There is ceramic tile flooring located in some of the washrooms. The tile appears to have been replaced, but the actual age is unknown; therefore, the last major action year has been estimated. Upon inspection, the tile flooring in the appeared to be in good condition. An allowance has been included to replace the ceramic tile at the end of its useful life.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace ceramic tile flooring

Other Information:

Estimated Useful Life (EUL)	30	Remaining Service Life	10
Current Replacement Value (CRV)	\$10,000	Action Cost:	\$10,000
Quantity Estimate:	500 SF	Action Year:	2031
Unit Cost:	\$20	Repeat Cycle:	30
Urgency of Action:	Low (10+ Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos





5.24 C - Interiors

Element Description: VCT Flooring
Year of Installation: 2011
Location: Throughout Building
Condition: Good
Consequence of Failure: Low

Commentary: There is VCT (Vinyl Composite Tile) flooring located in the second floor and storage areas. The actual age of the tile is unknown; therefore, the last major action year has been estimated. Upon inspection, the tile appeared to be in good condition. An allowance has been included to replace the VCT flooring at the end of its useful life.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace VCT flooring

Other Information:

Estimated Useful Life (EUL)	20	Remaining Service Life	10
Current Replacement Value (CRV)	\$16,000	Action Cost:	\$16,000
Quantity Estimate:	2000 SF	Action Year:	2031
Unit Cost:	\$8	Repeat Cycle:	20
Urgency of Action:	Low (10+ Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos





5.25 C - Interiors

Element Description: Acoustic Ceiling Tiles

Year of Installation: 2006

Location: Throughout Building

Condition: Fair

Consequence of Failure: Very Low

Commentary: The ceilings throughout the building are finished with acoustic ceiling tiles. The actual age of the tiles is unknown; therefore, the last major action year has been estimated. Upon inspection, the tiles appeared to be in fair condition with signs of aging and deterioration. An allowance has been included to replace the acoustic ceiling tiles at the end of their useful life.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace acoustic ceiling tiles

Other Information:

Estimated Useful Life (EUL)	20	Remaining Service Life	5
Current Replacement Value (CRV)	\$16,000	Action Cost:	\$16,000
Quantity Estimate:	8000 SF	Action Year:	2026
Unit Cost:	\$2	Repeat Cycle:	20
Urgency of Action:	Medium (5-10 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos





5.26 D - Mechanical Services

Element Description: Hydraulic Elevator
Year of Installation: 2000
Location: Lobby
Condition: Poor
Consequence of Failure: High

Commentary: There is one hydraulic elevator manufactured by Otis Elevator providing access to the second floor from the lobby of the building. Upon inspection, the elevator appeared to be in poor condition as it is approaching its expected service life in the next four years. Allowances have been included for modernization, cab and fixture upgrades, and replacement of the door operators in 2025.

5.26.1 Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for modernization	Modernization of the hydraulic elevator

Other Information:

Estimated Useful Life (EUL)	25	Remaining Service Life	4
Current Replacement Value (CRV)	\$100,000	Action Cost:	\$100,000
Quantity Estimate:	1 Unit(s)	Action Year:	2025
Unit Cost:	\$100,000	Repeat Cycle:	25
Urgency of Action:	High (1-5 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	Yes

5.26.2 Recommended Action: Repair

Action Summary:	Action Description:
Allowance for repairs	Cab and fixture upgrade

Other Information:

Estimated Useful Life (EUL)	25	Remaining Service Life	4
Current Replacement Value (CRV)	\$100,000	Action Cost:	\$20,000
Quantity Estimate:	1 Unit(s)	Action Year:	2025
Unit Cost:	\$20,000	Repeat Cycle:	25
Urgency of Action:	High (1-5 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	Yes

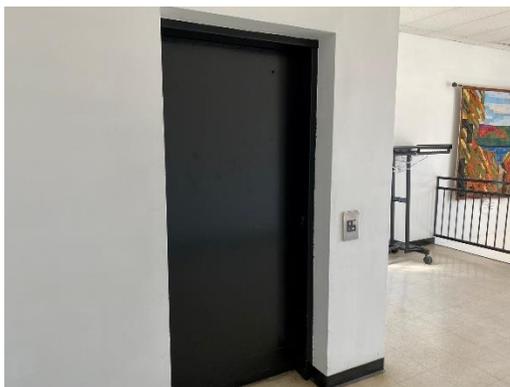
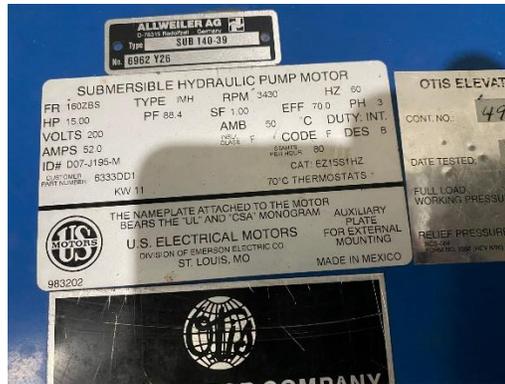
5.26.3 Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace door operators

Other Information:

Estimated Useful Life (EUL)	25	Remaining Service Life	4
Current Replacement Value (CRV)	\$100,000	Action Cost:	\$10,000
Quantity Estimate:	1 Unit(s)	Action Year:	2025
Unit Cost:	\$10,000	Repeat Cycle:	25
Urgency of Action:	High (1-5 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	Yes

Component Photos



5.27 D - Mechanical Services

Element Description: Plumbing Fixtures
Year of Installation: 2010
Location: Throughout Building
Condition: Good
Consequence of Failure: Low

Commentary: Plumbing fixtures within the building include 11 toilets, six urinals, four showers, and 13 sinks. The actual age of the fixtures is unknown; therefore, the last major action year has been estimated. Upon inspection, the fixtures appeared to be in good condition. No capital expenditures are anticipated within the term of the study.

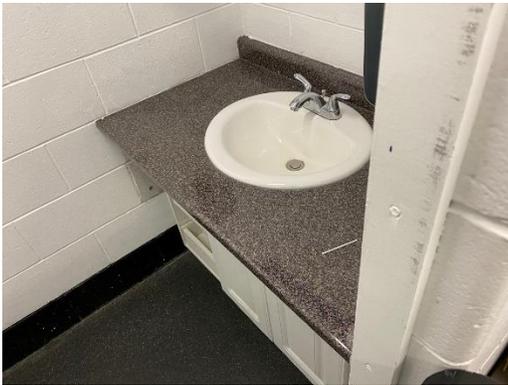
Recommended Action: No Action is Required.

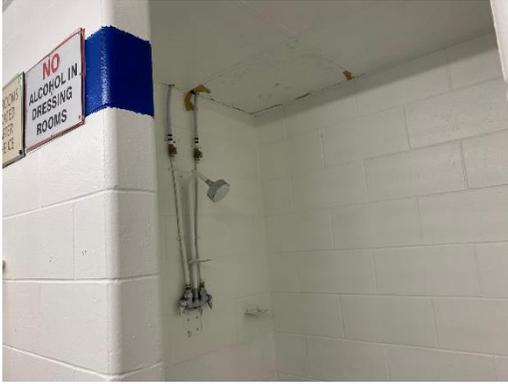
Action Summary:	Action Description:
Not Applicable	Not Applicable

Other Information:

Estimated Useful Life (EUL)	25	Remaining Service Life	14
Current Replacement Value (CRV)	\$30,000	Action Cost:	Not Applicable
Quantity Estimate:	Not Applicable	Action Year:	Not Applicable
Unit Cost:	Not Applicable	Repeat Cycle:	Not Applicable
Urgency of Action:	N/A	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos





5.28 D - Mechanical Services

Element Description: Drinking Fountain

Year of Installation: 2019

Location: Lobby

Condition: Good

Consequence of Failure: Low

Commentary: There is a drinking fountain located in the lobby of the building. It is our understanding that the fountain was replaced in 2019 and has only been used for one year (2019). Upon inspection, the fountain appeared to be in good condition. No capital expenditures are anticipated within the term of the study.

Recommended Action: No Action is Required.

Action Summary:	Action Description:
Not Applicable	Not Applicable

Other Information:

Estimated Useful Life (EUL)	25	Remaining Service Life	23
Current Replacement Value (CRV)	\$2,500	Action Cost:	Not Applicable
Quantity Estimate:	Not Applicable	Action Year:	Not Applicable
Unit Cost:	Not Applicable	Repeat Cycle:	Not Applicable
Urgency of Action:	N/A	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.29 D - Mechanical Services

Element Description: Domestic Water Supply
Year of Installation: 1970
Location: Throughout Building
Condition: Fair
Consequence of Failure: High
Commentary:

Domestic water for the building is supplied via underground pipe connections. Limited sections of the distribution piping were visible. Domestic water distribution systems generally have a 50+ year lifecycle with minimal maintenance. No issues regarding the domestic supply piping were identified on site and the piping is considered to be in fair condition based on age. The expected service life of the piping has been extended. An allowance has been included for replacement of the domestic water supply system in the next seven years.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace domestic water supply piping

Other Information:

Estimated Useful Life (EUL)	50	Remaining Service Life	0
Current Replacement Value (CRV)	\$25,000	Action Cost:	\$25,000
Quantity Estimate:	1 Unit(s)	Action Year:	2028
Unit Cost:	\$25,000	Repeat Cycle:	50
Urgency of Action:	Medium (5-10 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

5.30 D - Mechanical Services

Element Description: Circulation Pump
Year of Installation: 1970
Location: Mechanical Room
Condition: Poor
Consequence of Failure: High

Commentary: There is a circulation pump manufactured by Armstrong (M/N: 6X4X10 4030, S/N: 109384) located in the mechanical room. The pump was rated for 750 USGAL/M. The pump appeared to be original to building construction. It is our understanding that a replacement pump has been purchased and will be installed when the original pump fails. Upon inspection, the pump appeared to be in good condition based on age and signs of deterioration. No major capital expenditures are anticipated within the term of the study.

Recommended Action: No Action is Required.

Action Summary:	Action Description:
Not Applicable	Not Applicable

Other Information:

Estimated Useful Life (EUL)	30	Remaining Service Life	0
Current Replacement Value (CRV)	\$8,000	Action Cost:	Not Applicable
Quantity Estimate:	Not Applicable	Action Year:	Not Applicable
Unit Cost:	Not Applicable	Repeat Cycle:	Not Applicable
Urgency of Action:	N/A	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos





5.31 D - Mechanical Services

Element Description: Sanitary Waste Piping
Year of Installation: 1970
Location: Throughout Building
Condition: Fair
Consequence of Failure: High

Commentary: The sanitary waste piping within the building had no issues reported at the time of inspection. Sanitary draining systems typically have a lifecycle of 50+ years with good maintenance. Based on age, the sanitary piping is considered to be in fair condition. The expected service life has been extended. An allowance for the lifecycle replacement of the sanitary waste piping system in the next seven years.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace sanitary waste piping

Other Information:

Estimated Useful Life (EUL)	50	Remaining Service Life	0
Current Replacement Value (CRV)	\$25,000	Action Cost:	\$25,000
Quantity Estimate:	1 Unit(s)	Action Year:	2028
Unit Cost:	\$25,000	Repeat Cycle:	50
Urgency of Action:	Medium (5-10 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

5.32 D - Mechanical Services

Element Description: Domestic Hot Water Heater (1)
Year of Installation: 2014
Location: Rink Area
Condition: Good
Consequence of Failure: Moderate

Commentary: There is a domestic water heater manufactured by Ruud (M/N: G65-360-1, S/N: URNGA031416569) located in the rink area of the building which services the Zamboni bay. The capacity of the heater is 62 USGAL and 380,000 BTUH. Upon inspection, the water heater appeared to be in good condition. An allowance has been included to replace the water heater at the end of its useful life.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace water heater

Other Information:

Estimated Useful Life (EUL)	15	Remaining Service Life	8
Current Replacement Value (CRV)	\$5,000	Action Cost:	\$ 5,000
Quantity Estimate:	1 Unit(s)	Action Year:	2029
Unit Cost:	\$ 5,000	Repeat Cycle:	15
Urgency of Action:	Medium (5-10 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.33 D - Mechanical Services

Element Description: Domestic Hot Water Heater (2)
Year of Installation: 2010
Location: Second Floor
Condition: Good
Consequence of Failure: Moderate

Commentary: There is a domestic water heater manufactured by Ruud (M/N: G76-200-1, S/N: URNG0610G00668) located in the second floor of the building which services the common areas of the building. The capacity of the heater was found to be 74 USGAL and 199,900 BTUH. Upon inspection, the water heater appeared to be in good condition. An allowance has been included to replace the water heater at the end of its useful life.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace water heater

Other Information:

Estimated Useful Life (EUL)	15	Remaining Service Life	4
Current Replacement Value (CRV)	\$5,000	Action Cost:	\$ 5,000
Quantity Estimate:	1 Unit(s)	Action Year:	2025
Unit Cost:	\$ 5,000	Repeat Cycle:	15
Urgency of Action:	High (1-5 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.34 D - Mechanical Services

Element Description: Natural Gas Line
Year of Installation: 1970
Location: Throughout Building
Condition: Fair
Consequence of Failure: Moderate

Commentary: The gas piping system for the building provides natural gas service to the associated mechanical equipment (water heaters, chillers, etc.). No issues were reported during the site inspection regarding the natural gas supply piping; however, the piping has passed its expected service life and is considered to be in fair condition overall. An allowance has been included to replace the natural gas supply piping in the next six years.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace natural gas supply piping

Other Information:

Estimated Useful Life (EUL)	35	Remaining Service Life	0
Current Replacement Value (CRV)	\$10,000	Action Cost:	\$10,000
Quantity Estimate:	1 Unit(s)	Action Year:	2027
Unit Cost:	\$10,000	Repeat Cycle:	35
Urgency of Action:	Medium (5-10 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.35 D - Mechanical Services

Element Description: Chiller
Year of Installation: 2002
Location: Mechanical Room
Condition: Fair
Consequence of Failure: Moderate
Commentary: The is one chiller manufactured by Henry Technologies (M/N: RA-16096-509, S/N: C220370B-1) is located in the mechanical room. The chiller was observed to be in fair condition based on age, with no reports of any issues. An allowance has been included to replace the chiller at the end of its useful life.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace chiller

Other Information:

Estimated Useful Life (EUL)	25	Remaining Service Life	6
Current Replacement Value (CRV)	\$200,000	Action Cost:	\$200,000
Quantity Estimate:	1 Unit(s)	Action Year:	2027
Unit Cost:	\$200,000	Repeat Cycle:	25
Urgency of Action:	Medium (5-10 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.36 D - Mechanical Services

Element Description: Water Tank
Year of Installation: 2002
Location: Mechanical Room
Condition: Fair
Consequence of Failure: Moderate
Commentary:

A water tank is located in the mechanical room as part of the cooling tower system. The actual age of the tank is unknown; therefore, the last major action year has been estimated. The tank was observed to be in fair condition with signs of deterioration. Replacement is recommended at the same time as the chiller unit. An allowance for replacement of the water tank has been included within the study period.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace water tank

Other Information:

Estimated Useful Life (EUL)	25	Remaining Service Life	6
Current Replacement Value (CRV)	\$3,500	Action Cost:	\$3,500
Quantity Estimate:	1 Unit(s)	Action Year:	2027
Unit Cost:	\$3,500	Repeat Cycle:	25
Urgency of Action:	Medium (5-10 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.37 D - Mechanical Services

Element Description: Cooling Tower

Year of Installation: 2005

Location: Building Exterior

Condition: Good

Consequence of Failure: Moderate

Commentary: There is one cooling tower located on the exterior of the Zamboni bay. The actual age of the cooling tower is unknown; therefore, the last major action year has been estimated. The tower was observed to be in good condition with no reports of any issues. No major capital expenditures are anticipated within the term of the study.

Recommended Action: No Action is Required.

Action Summary:	Action Description:
Not Applicable	Not Applicable

Other Information:

Estimated Useful Life (EUL)	30	Remaining Service Life	14
Current Replacement Value (CRV)	\$80,000	Action Cost:	Not Applicable
Quantity Estimate:	Not Applicable	Action Year:	Not Applicable
Unit Cost:	Not Applicable	Repeat Cycle:	Not Applicable
Urgency of Action:	N/A	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.38 D - Mechanical Services

Element Description: Packaged Air Heating and Cooling Units

Year of Installation: 2017

Location: Roof

Condition: Good

Consequence of Failure: Moderate

Commentary: There are two packaged heating and cooling units located on the roof of the building. It is our understanding that the units were replaced four years ago. The units could not be viewed during the site inspection; however, the units are considered to be in good condition based on age. No major capital expenditures are anticipated within the term of the study.

Recommended Action: No Action is Required.

Action Summary:	Action Description:
Not Applicable	Not Applicable

Other Information:

Estimated Useful Life (EUL)	25	Remaining Service Life	21
Current Replacement Value (CRV)	\$32,000	Action Cost:	Not Applicable
Quantity Estimate:	Not Applicable	Action Year:	Not Applicable
Unit Cost:	Not Applicable	Repeat Cycle:	Not Applicable
Urgency of Action:	N/A	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

5.39 D - Mechanical Services

Element Description: Forced-Air Furnaces
Year of Installation: 2012
Location: Throughout Building
Condition: Good
Consequence of Failure: Moderate

Commentary: There are two forced-air furnaces manufactured by York (M/N: TM9X080B12MP11A, S/N: W1F1075950, W1D1966958) located in the rink area and the storage area. The furnaces are rated for 80,000BTUH each. The actual age of the furnaces is unknown; therefore, the last major action year has been estimated. Upon inspection, the furnaces appeared to be in good condition. No major capital expenditures are anticipated within the term of the study.

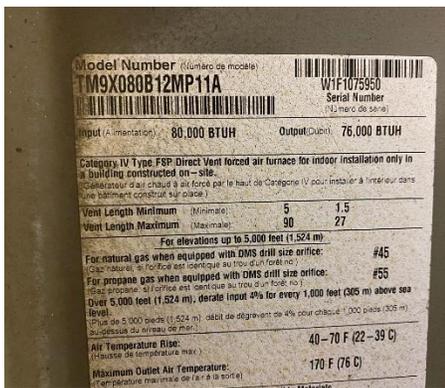
Recommended Action: No Action is Required.

Action Summary:	Action Description:
Not Applicable	Not Applicable

Other Information:

Estimated Useful Life (EUL)	20	Remaining Service Life	11
Current Replacement Value (CRV)	\$20,000	Action Cost:	Not Applicable
Quantity Estimate:	Not Applicable	Action Year:	Not Applicable
Unit Cost:	Not Applicable	Repeat Cycle:	Not Applicable
Urgency of Action:	N/A	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



Minimum up at least five seconds. The
 1. Drive a screwdriver into the memory
 field, and the burner is released.
 2. Blower motor speed correction shown
 application.





5.40 D - Mechanical Services

Element Description: Unit Heaters
Year of Installation: 2000
Location: Throughout Building
Condition: Good
Consequence of Failure: Moderate

Commentary: There are two unit heaters providing heat to the mechanical room and near the Zamboni bay in the rink area. Identification tags could not be viewed during the site visit. The actual age of the heaters is unknown; therefore, the last major action year has been estimated. Upon inspection, the heaters appeared to be in good condition. No major capital expenditures are anticipated within the term of the study.

Recommended Action: No Action is Required.

Action Summary:	Action Description:
Not Applicable	Not Applicable

Other Information:

Estimated Useful Life (EUL)	35	Remaining Service Life	14
Current Replacement Value (CRV)	\$4,000	Action Cost:	Not Applicable
Quantity Estimate:	Not Applicable	Action Year:	Not Applicable
Unit Cost:	Not Applicable	Repeat Cycle:	Not Applicable
Urgency of Action:	N/A	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.41 D - Mechanical Services

Element Description: Wall-Mounted Electric Fan Forced Unit Heaters

Year of Installation: 1998

Location: Throughout Building

Condition: Good

Consequence of Failure: Moderate

Commentary: There are Wall-mounted electric fan forced unit heaters located at the entrances into the building and in the lobby/second floor areas of the building. The actual age of the units is unknown; therefore, the last major action year has been estimated. Upon inspection, the units appeared to be in good condition. No major capital expenditures are anticipated within the term of the study period.

Recommended Action: No Action is Required.

Action Summary:	Action Description:
Not Applicable	Not Applicable

Other Information:

Estimated Useful Life (EUL)	35	Remaining Service Life	12
Current Replacement Value (CRV)	\$5,000	Action Cost:	Not Applicable
Quantity Estimate:	Not Applicable	Action Year:	Not Applicable
Unit Cost:	Not Applicable	Repeat Cycle:	Not Applicable
Urgency of Action:	N/A	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.42 D - Mechanical Services

Element Description: Control Board
Year of Installation: 2012
Location: Mechanical Room
Condition: Good
Consequence of Failure: Moderate

Commentary: There is a control board located in the mechanical room that controls the chiller and compressors. The actual age of the board is unknown; therefore, the last major action year has been estimated. Upon inspection, the board appeared to be in good condition. No major allowances are anticipated within the term of the study.

Recommended Action: No Action is Required.

Action Summary:	Action Description:
Not Applicable	Not Applicable

Other Information:

Estimated Useful Life (EUL)	20	Remaining Service Life	11
Current Replacement Value (CRV)	\$12,000	Action Cost:	Not Applicable
Quantity Estimate:	Not Applicable	Action Year:	Not Applicable
Unit Cost:	Not Applicable	Repeat Cycle:	Not Applicable
Urgency of Action:	N/A	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.43 D - Mechanical Services

Element Description: Dehumidifier
Year of Installation: 2019
Location: Rink Area
Condition: Good
Consequence of Failure: Low

Commentary: There is a dehumidifier manufactured by Thermoplus (M/N: IRD-075-8E, S/N: T2018120015) located in the rink area of the building. It is our understanding that the unit is two (2) years old. Upon inspection, the unit appeared to be in good condition. No major capital expenditures within the term of the study.

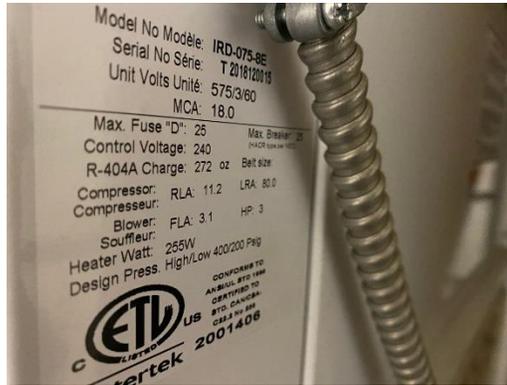
Recommended Action: No Action is Required.

Action Summary:	Action Description:
Not Applicable	Not Applicable

Other Information:

Estimated Useful Life (EUL)	20	Remaining Service Life	18
Current Replacement Value (CRV)	\$7,500	Action Cost:	Not Applicable
Quantity Estimate:	Not Applicable	Action Year:	Not Applicable
Unit Cost:	Not Applicable	Repeat Cycle:	Not Applicable
Urgency of Action:	N/A	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.44 D - Mechanical Services

Element Description: Electric Baseboard Heating

Year of Installation: 2010

Location: Throughout Building

Condition: Good

Consequence of Failure: Low

Commentary: There are electric baseboard heaters located throughout the building. The actual age of the heaters is unknown; therefore, the last major action year has been estimated. Upon inspection, the heaters appeared to be in good condition. No major capital expenditures are anticipated within the term of the study period.

Recommended Action: No Action is Required.

Action Summary:	Action Description:
Not Applicable	Not Applicable

Other Information:

Estimated Useful Life (EUL)	25	Remaining Service Life	14
Current Replacement Value (CRV)	\$5,000	Action Cost:	Not Applicable
Quantity Estimate:	Not Applicable	Action Year:	Not Applicable
Unit Cost:	Not Applicable	Repeat Cycle:	Not Applicable
Urgency of Action:	N/A	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.45 D - Mechanical Services

Element Description: Wet Sprinkler System

Year of Installation: 1970

Location: Throughout Building

Condition: Fair

Consequence of Failure: Very High

Commentary: A wet pipe sprinkler system services the entire building. At the time of inspection the system was not tested, but there are no reports of any issues. Based on age, the sprinkler system is considered to be in fair condition. An allowance has been included to replace the sprinkler system in the next five years.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace sprinkler system

Other Information:

Estimated Useful Life (EUL)	45	Remaining Service Life	0
Current Replacement Value (CRV)	\$111,300	Action Cost:	\$111,300
Quantity Estimate:	26500 SF	Action Year:	2026
Unit Cost:	\$4	Repeat Cycle:	45
Urgency of Action:	Medium (5-10 Years)	Energy Savings:	N/A
Health and Safety:	Yes	Accessibility Issue:	No

5.46 D - Mechanical Services

Element Description: Fire Extinguishers
Year of Installation: 2018
Location: Throughout Building
Condition: Fair

Consequence of Failure: Very High

Commentary: There are five 5-lb fire extinguishers located throughout the building. The actual age of the extinguishers is unknown; therefore, the last major action year has been estimated. Upon inspection, the extinguishers appeared to be in fair condition. An allowance has been included to replace the extinguishers at the end of their useful life.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace fire extinguishers

Other Information:

Estimated Useful Life (EUL)	10	Remaining Service Life	7
Current Replacement Value (CRV)	\$25,000	Action Cost:	\$2,500
Quantity Estimate:	5 Unit(s)	Action Year:	2028
Unit Cost:	\$500	Repeat Cycle:	10
Urgency of Action:	Medium (5-10 Years)	Energy Savings:	N/A
Health and Safety:	Yes	Accessibility Issue:	No

Component Photos





5.47 D - Mechanical Services

Element Description: Range Hood Suppression

Year of Installation: 2005

Location: Second Floor

Condition: Good

Consequence of Failure: Very High

Commentary: There is a range hood suppression system providing fire protection to the open gas equipment in the second floor kitchen area. The actual age of the system is unknown; therefore, the last major action year has been estimated. Upon inspection, the system appeared to be in good condition. No major capital expenditures are anticipated within the term of the study.

Recommended Action: No Action is Required.

Action Summary:	Action Description:
Not Applicable	Not Applicable

Other Information:

Estimated Useful Life (EUL)	30	Remaining Service Life	14
Current Replacement Value (CRV)	\$5,000	Action Cost:	Not Applicable
Quantity Estimate:	Not Applicable	Action Year:	Not Applicable
Unit Cost:	Not Applicable	Repeat Cycle:	Not Applicable
Urgency of Action:	N/A	Energy Savings:	N/A
Health and Safety:	Yes	Accessibility Issue:	No

Component Photos





5.48 D - Electrical Services

Element Description: Main Disconnect
Year of Installation: 1970
Location: Electrical Room
Condition: Fair
Consequence of Failure: Moderate

Commentary: There is a main disconnect switch manufactured by FPE (400A) which controls the main line coming into the building. It is our understanding that the disconnect is original to building construction. Upon inspection, the switch appeared to be in fair condition with signs of aging. An allowance has been included to replace the main disconnect switch in the next six years.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace main disconnect

Other Information:

Estimated Useful Life (EUL)	35	Remaining Service Life	0
Current Replacement Value (CRV)	\$5,000	Action Cost:	\$5,000
Quantity Estimate:	1 Unit(s)	Action Year:	2027
Unit Cost:	\$5,000	Repeat Cycle:	35
Urgency of Action:	Medium (5-10 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.49 D - Electrical Services

Element Description: Intermediate Electrical Distribution

Year of Installation: 1970

Location: Throughout Building

Condition: Fair

Consequence of Failure: Moderate

Commentary: There are five panel boards manufactured by FPE (225 to 400A, 347V, 3-phase, 4-wire) located throughout the building. It is our understanding that the panels are original to the building. Upon inspection, the panels appeared to be in fair condition with signs of aging. It is recommended that a thermal scanning study be done of the electrical equipment to assess the condition of the electrical equipment. Allowances have been included to replace the intermediate panel boards in the next six years as well as thermal scanning every three years.

5.49.1 Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace intermediate panel boards

Other Information:

Estimated Useful Life (EUL)	35	Remaining Service Life	0
Current Replacement Value (CRV)	\$20,000	Action Cost:	\$20,000
Quantity Estimate:	5 Unit(s)	Action Year:	2027
Unit Cost:	\$4,000	Repeat Cycle:	35
Urgency of Action:	Medium (5-10 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

5.49.2 Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for study	Thermal scanning

Other Information:

Estimated Useful Life (EUL)	35	Remaining Service Life	0
Current Replacement Value (CRV)	\$20,000	Action Cost:	\$3,000
Quantity Estimate:	1 Unit(s)	Action Year:	2024
Unit Cost:	\$3,000	Repeat Cycle:	3
Urgency of Action:	High (1-5 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.50 D - Electrical Services

Element Description: Transfer Switch
Year of Installation: 1970
Location: Electrical Room
Condition: Fair
Consequence of Failure: Moderate

Commentary: There is a transfer switch manufactured by Thomson Technology (M/N: TS 883A0250A1BN2AKKAA, S/N: W-048925) located in the electrical room. It is our understanding that the switch is original to the building. Upon inspection, the unit appears to be in fair condition with signs of aging. An allowance has been included to replace the transfer switch in six years.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace transfer switch

Other Information:

Estimated Useful Life (EUL)	35	Remaining Service Life	0
Current Replacement Value (CRV)	\$7,500	Action Cost:	\$7,500
Quantity Estimate:	1 Unit(s)	Action Year:	2027
Unit Cost:	\$7,500	Repeat Cycle:	35
Urgency of Action:	Medium (5-10 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.51 D - Electrical Services

Element Description: Intermediate Disconnects

Year of Installation: 1970

Location: Electrical Room

Condition: Fair

Consequence of Failure: Moderate

Commentary: There are five intermediate disconnects manufactured by FPE located in the electrical room. It is our understanding that the disconnects are original to the building. Upon inspection, the units appeared to be in fair condition with signs of aging. An allowance has been included to replace the intermediate disconnects in the next six years.

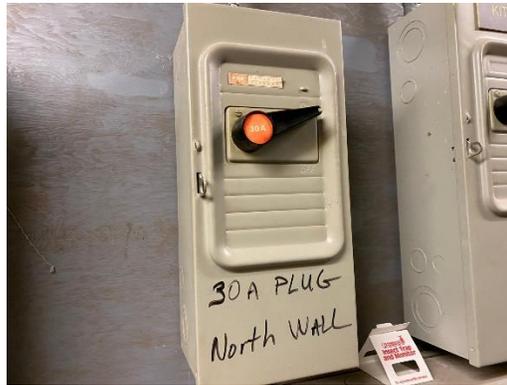
Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace intermediate disconnect switches

Other Information:

Estimated Useful Life (EUL)	35	Remaining Service Life	0
Current Replacement Value (CRV)	\$7,500	Action Cost:	\$7,500
Quantity Estimate:	5 Unit(s)	Action Year:	2027
Unit Cost:	\$1,500	Repeat Cycle:	35
Urgency of Action:	Medium (5-10 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos





5.52 D - Electrical Services

Element Description: Transformer
Year of Installation: 1970
Location: Electrical Room
Condition: Fair
Consequence of Failure: Moderate
Commentary:

There is a transformer manufactured by FPE (S/N: 50215-13) located in the electrical room. The transformer was found to be rated for 112.5 kVA. It is our understanding that the transformer is original to the building. Upon inspection, the transformer appeared to be in fair condition with signs of aging. An allowance has been included to replace the transformer in the next six years.

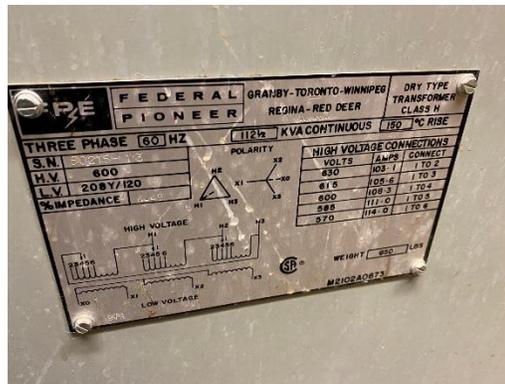
Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace transformer

Other Information:

Estimated Useful Life (EUL)	35	Remaining Service Life	0
Current Replacement Value (CRV)	\$8,000	Action Cost:	\$8,000
Quantity Estimate:	1 Unit(s)	Action Year:	2027
Unit Cost:	\$8,000	Repeat Cycle:	35
Urgency of Action:	Medium (5-10 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.53 D - Electrical Services

Element Description: Interior Lighting
Year of Installation: 2010
Location: Throughout Building
Condition: Fair
Consequence of Failure: Low

Commentary: Interior lighting for the building is provided by T8 fluorescent lighting fixtures. It is our understanding that the lights were replaced in 2010. Upon inspection, the fixtures appeared to be in fair condition as the fixtures are approaching the end of their useful life. It is recommended that the fixtures be replaced with LEDs for energy conservation and longer running hours. An allowance has been included to replace the fixtures with LEDs in the next five years.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Upgrade lighting fixtures to LEDs

Other Information:

Estimated Useful Life (EUL)	15	Remaining Service Life	4
Current Replacement Value (CRV)	\$12,000	Action Cost:	\$12,000
Quantity Estimate:	30 Unit(s)	Action Year:	2026
Unit Cost:	\$400	Repeat Cycle:	15
Urgency of Action:	Medium (5-10 Years)	Energy Savings:	Medium
Health and Safety:	No	Accessibility Issue:	No

Component Photos





5.54 D - Electrical Services

Element Description: PA System
Year of Installation: 1970
Location: Throughout Building
Condition: Fair
Consequence of Failure: Low

Commentary: There is a PA system installed in the rink area of the building. Upon inspection, the system appeared to be in fair condition with the system being well past its expected service life. The expected service life has been extended as no issues with the system were reported during the site inspection. An allowance has been included to replace the system in the next six years.

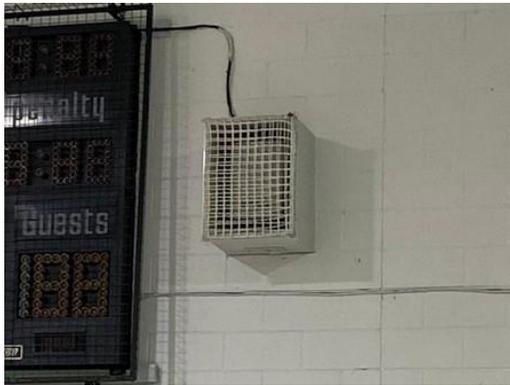
Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace PA system

Other Information:

Estimated Useful Life (EUL)	25	Remaining Service Life	0
Current Replacement Value (CRV)	\$15,000	Action Cost:	\$15,000
Quantity Estimate:	1 Unit(s)	Action Year:	2027
Unit Cost:	\$15,000	Repeat Cycle:	25
Urgency of Action:	Medium (5-10 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.55 D - Electrical Services

Element Description: Fire Alarm Panel

Year of Installation: 2001

Location: Electrical Room

Condition: Fair

Consequence of Failure: Very High

Commentary: There is a Fireshield alarm panel manufactured by EST located in the electrical room of the building. It is our understanding that the panel is 20 years old but is operating properly. Upon inspection, the panel appeared to be in good condition, therefore, the expected service life has been extended. An allowance has been included to replace the fire alarm panel in the next five years.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace fire alarm panel

Other Information:

Estimated Useful Life (EUL)	20	Remaining Service Life	0
Current Replacement Value (CRV)	\$7,500	Action Cost:	\$7,500
Quantity Estimate:	1 Unit(s)	Action Year:	2026
Unit Cost:	\$7,500	Repeat Cycle:	20
Urgency of Action:	Medium (5-10 Years)	Energy Savings:	N/A
Health and Safety:	Yes	Accessibility Issue:	No

Component Photos



5.56 D - Electrical Services

Element Description: Fire Alarm System - Pull Stations

Year of Installation: 1970

Location: Throughout Building

Condition: Poor

Consequence of Failure: Very High

Commentary: There are pull stations located at key points throughout the building. It is our understanding that most of the pull stations are original to the building and are replaced as-needed. Upon inspection, the stations appeared to be in poor condition as the units are past their service life and are quite dated. An allowance has been included to replace the pull stations in the next two years.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace pull stations

Other Information:

Estimated Useful Life (EUL)	30	Remaining Service Life	0
Current Replacement Value (CRV)	\$2,450	Action Cost:	\$2,450
Quantity Estimate:	7 Unit(s)	Action Year:	2023
Unit Cost:	\$350	Repeat Cycle:	30
Urgency of Action:	High (1-5 Years)	Energy Savings:	N/A
Health and Safety:	Yes	Accessibility Issue:	No

Component Photos



5.57 D - Electrical Services

Element Description: Fire Alarm System - Warning Bells

Year of Installation: 1970

Location: Throughout Building

Condition: Poor

Consequence of Failure: Very High

Commentary: There are warning bells located in key locations throughout the building. The bells appeared to be original to building construction. Upon inspection, the bells appeared to be in poor condition as they are past their expected service life. An allowance has been included to replace the warning bells in the next two years.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace warning bells

Other Information:

Estimated Useful Life (EUL)	30	Remaining Service Life	0
Current Replacement Value (CRV)	\$2,450	Action Cost:	\$2,450
Quantity Estimate:	7 Unit(s)	Action Year:	2023
Unit Cost:	\$350	Repeat Cycle:	30
Urgency of Action:	High (1-5 Years)	Energy Savings:	N/A
Health and Safety:	Yes	Accessibility Issue:	No

Component Photos



5.58 D - Electrical Services

Element Description: Fire Alarm System - Heat Detectors

Year of Installation: 2018

Location: Throughout Building

Condition: Poor

Consequence of Failure: Very High

Commentary: There are 15 heat detectors located in key locations throughout the building. It is our understanding that five of the units were recently replaced, but the actual year has been estimated. The remaining ten units are still original to the building. Upon inspection, the detectors were found to be in overall poor condition as the original detectors are past their expected service life. An allowance has been included to replace the remaining fixtures in the next two years.

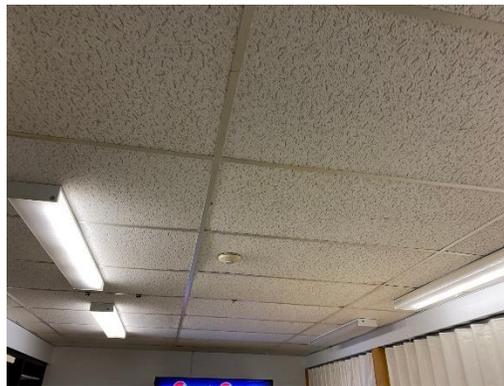
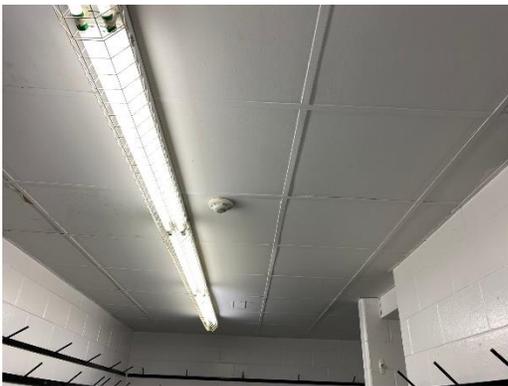
Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace heat detectors

Other Information:

Estimated Useful Life (EUL)	30	Remaining Service Life	27
Current Replacement Value (CRV)	\$5,250	Action Cost:	\$3,500
Quantity Estimate:	10 Unit(s)	Action Year:	2023
Unit Cost:	\$350	Repeat Cycle:	30
Urgency of Action:	High (1-5 Years)	Energy Savings:	N/A
Health and Safety:	Yes	Accessibility Issue:	No

Component Photos





5.59 D - Electrical Services

Element Description: Fire Alarm System - Smoke Detectors

Year of Installation: 2016

Location: Throughout Building

Condition: Fair

Consequence of Failure: Very High

Commentary: There are plug-in combination smoke/CO detectors located in rooms with gas-burning equipment. The actual age of the units is unknown; therefore, the last major action year has been estimated. Upon inspection, the detectors appeared to be in fair condition. An allowance has been included to replace the detectors at the end of their useful life.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace combination smoke/CO detectors

Other Information:

Estimated Useful Life (EUL)	10	Remaining Service Life	5
Current Replacement Value (CRV)	\$750	Action Cost:	\$750
Quantity Estimate:	5 Unit(s)	Action Year:	2026
Unit Cost:	\$150	Repeat Cycle:	10
Urgency of Action:	High (1-5 Years)	Energy Savings:	N/A
Health and Safety:	Yes	Accessibility Issue:	No

Component Photos



5.60 D - Electrical Services

Element Description: Exit Signage & Emergency Lighting
Year of Installation: 1970
Location: Throughout Building
Condition: Poor
Consequence of Failure: Very High

Commentary: There are red exit signs and emergency lighting fixtures located at key areas throughout the building. It is our understanding that the fixtures are original to the building. Upon inspection, the lighting appeared to be in poor condition with signs of wear and aging. Its is recommended that the exit signage be upgraded to the green running man fixtures. An allowance has been included to replace/upgrade the exit signage and emergency lighting in the next two years.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace/upgrade exit signage and emergency lighting

Other Information:

Estimated Useful Life (EUL)	15	Remaining Service Life	0
Current Replacement Value (CRV)	\$15,000	Action Cost:	\$15,000
Quantity Estimate:	15 Unit(s)	Action Year:	2023
Unit Cost:	\$1,000	Repeat Cycle:	15
Urgency of Action:	High (1-5 Years)	Energy Savings:	N/A
Health and Safety:	Yes	Accessibility Issue:	No

Component Photos



5.61 D - Electrical Services

Element Description: Generator
Year of Installation: 2008
Location: Zamboni Bay
Condition: Good
Consequence of Failure: Very High

Commentary: There is a generator manufactured by Generac (M/N: 9567150100, S/N: 2097234) located in the Zamboni bay of the building. The generator is rated for 150 kW and 188 kVA. Upon inspection, the generator appeared to be in good condition. No major capital expenditures are anticipated within the term of the study.

Recommended Action: No Action is Required.

Action Summary:	Action Description:
Not Applicable	Not Applicable

Other Information:

Estimated Useful Life (EUL)	35	Remaining Service Life	22
Current Replacement Value (CRV)	\$125,000	Action Cost:	Not Applicable
Quantity Estimate:	Not Applicable	Action Year:	Not Applicable
Unit Cost:	Not Applicable	Repeat Cycle:	Not Applicable
Urgency of Action:	N/A	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.62 E - Equipment and Furnishings

Element Description: Stove
Year of Installation: 2007
Location: Kitchen Areas
Condition: Good
Consequence of Failure: Low

Commentary: There are three gas-fired stoves located in the second and first floor kitchen areas. The actual age of the stoves is unknown; therefore, the last major action year has been estimated. Upon inspection, the stoves appeared to be in good condition. No major capital expenditures are anticipated within the term of the study.

Recommended Action: No Action is Required.

Action Summary:	Action Description:
Not Applicable	Not Applicable

Other Information:

Estimated Useful Life (EUL)	25	Remaining Service Life	11
Current Replacement Value (CRV)	\$12,000	Action Cost:	Not Applicable
Quantity Estimate:	Not Applicable	Action Year:	Not Applicable
Unit Cost:	Not Applicable	Repeat Cycle:	Not Applicable
Urgency of Action:	N/A	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos





5.63 E - Equipment and Furnishings

Element Description: Refrigerators
Year of Installation: 2007
Location: Kitchen Areas
Condition: Good
Consequence of Failure: Low

Commentary: There are four refrigerators located in the first and second floor kitchen areas. The actual age of the refrigerators is unknown; therefore, the last major action year has been estimated. Upon inspection, the refrigerators appeared to be in good condition. No major capital expenditures are anticipated within the term of the study.

Recommended Action: No Action is Required.

Action Summary:	Action Description:
Not Applicable	Not Applicable

Other Information:

Estimated Useful Life (EUL)	25	Remaining Service Life	11
Current Replacement Value (CRV)	\$4,000	Action Cost:	Not Applicable
Quantity Estimate:	Not Applicable	Action Year:	Not Applicable
Unit Cost:	Not Applicable	Repeat Cycle:	Not Applicable
Urgency of Action:	N/A	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos





5.64 E - Equipment and Furnishings

Element Description: Wooden Benches

Year of Installation: 1970

Location: Locker Rooms

Condition: Fair

Consequence of Failure: Very Low

Commentary: There are wooden benches located in the locker rooms of the building. Upon inspection, the benches appeared to be in fair condition as they have exceeded their expected service life. An allowance has been included to replace the wooden benches in the next seven years.

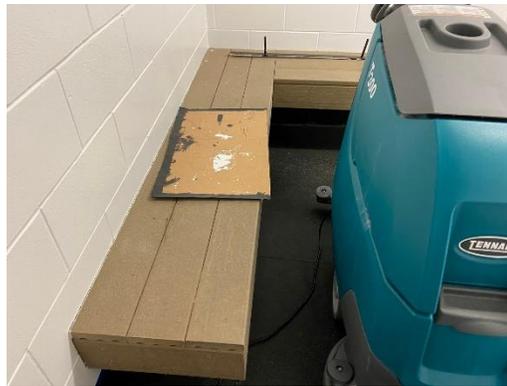
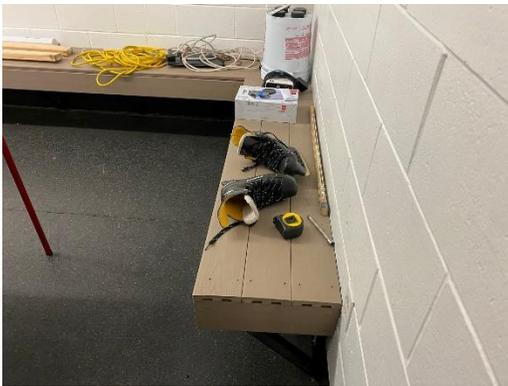
Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace wooden benches

Other Information:

Estimated Useful Life (EUL)	25	Remaining Service Life	0
Current Replacement Value (CRV)	\$8,000	Action Cost:	\$8,000
Quantity Estimate:	1 Unit(s)	Action Year:	2028
Unit Cost:	\$8,000	Repeat Cycle:	25
Urgency of Action:	Medium (5-10 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos





5.65 F - Special Construction Items

Element Description: Dasher Boards

Year of Installation: 1970

Location: Rink Area

Condition: Fair

Consequence of Failure: Moderate

Commentary: The ice rink is surrounded by plastic dasher boards. It is our understanding that the plastic was replaced last year, but the overall structural components are original to the building. Upon inspection, the boards appeared to be in fair condition, and the expected service life has been extended. An allowance has been included to replace the dasher boards in the next eight years.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace dasher boards

Other Information:

Estimated Useful Life (EUL)	25	Remaining Service Life	0
Current Replacement Value (CRV)	\$125,000	Action Cost:	\$125,000
Quantity Estimate:	1 Unit(s)	Action Year:	2029
Unit Cost:	\$125,000	Repeat Cycle:	25
Urgency of Action:	Medium (5-10 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos





5.66 F - Special Construction Items

Element Description: Ice Resurfacer
Year of Installation: 2005
Location: Zamboni Bay
Condition: Good
Consequence of Failure: Moderate

Commentary: There is an ice rink resurfacer manufactured by Frank J. Zamboni & CO. (M/N: 440, S/N: 6733) located in the Zamboni Bay of the building. The actual age of the Zamboni is unknown; therefore, the last major action year has been estimated. Upon inspection, the resurfacer appeared to be in good condition with no reported issues, and the expected service life has been extended. No major capital expenditures are anticipated within the term of the study.

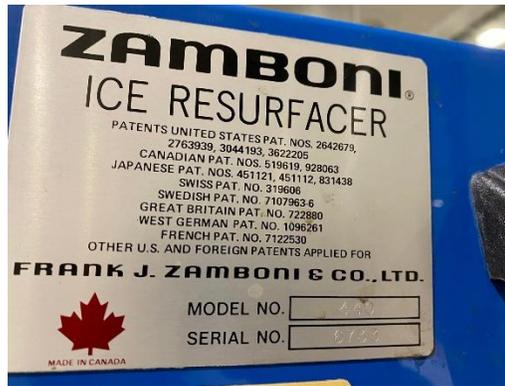
Recommended Action: No Action is Required.

Action Summary:	Action Description:
Not Applicable	Not Applicable

Other Information:

Estimated Useful Life (EUL)	15	Remaining Service Life	0
Current Replacement Value (CRV)	\$115,000	Action Cost:	Not Applicable
Quantity Estimate:	Not Applicable	Action Year:	Not Applicable
Unit Cost:	Not Applicable	Repeat Cycle:	Not Applicable
Urgency of Action:	N/A	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.67 F - Special Construction Items

Element Description: Scoreboard

Year of Installation: 2021

Location: Rink Area

Condition: Good

Consequence of Failure: Moderate

Commentary: There is a scoreboard located in the rink area of the building. It is our understanding that the scoreboard is being replaced this year. No major capital expenditures are anticipated within the term of the study.

Recommended Action: No Action is Required.

Action Summary:	Action Description:
Not Applicable	Not Applicable

Other Information:

Estimated Useful Life (EUL)	35	Remaining Service Life	35
Current Replacement Value (CRV)	\$12,000	Action Cost:	Not Applicable
Quantity Estimate:	Not Applicable	Action Year:	Not Applicable
Unit Cost:	Not Applicable	Repeat Cycle:	Not Applicable
Urgency of Action:	N/A	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.68 F - Special Construction Items

Element Description: Compressors
Year of Installation: 2011
Location: Mechanical Room
Condition: Good
Consequence of Failure: Moderate

Commentary: There are two reciprocating compressors manufactured by Mycom (M/N: N6WA) located in the mechanical room. The compressors are being fed with ammonia as the refrigerant of their system. It is our understanding that the compressors were installed in 2011. Upon inspection, the units appeared to be in good condition. No major capital expenditures are anticipated within the term of the study.

Recommended Action: No Action is Required.

Action Summary:	Action Description:
Not Applicable	Not Applicable

Other Information:

Estimated Useful Life (EUL)	25	Remaining Service Life	15
Current Replacement Value (CRV)	\$100,000	Action Cost:	Not Applicable
Quantity Estimate:	Not Applicable	Action Year:	Not Applicable
Unit Cost:	Not Applicable	Repeat Cycle:	Not Applicable
Urgency of Action:	N/A	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.69 G - Site Features

Element Description: Landscaping
Year of Installation: 1970
Location: Site
Condition: Good
Consequence of Failure: Low

Commentary: Landscaping for the site consists of manicured grass, trees, and a gravel parking area. Upon inspection, the landscaping appeared to be in good condition. An allowance has been included to periodically maintain the site landscaping.

Recommended Action: Repair

Action Summary:	Action Description:
Allowance for maintenance	Maintain site landscaping

Other Information:

Estimated Useful Life (EUL)	5	Remaining Service Life	0
Current Replacement Value (CRV)	\$5,000	Action Cost:	\$5,000
Quantity Estimate:	1 Unit(s)	Action Year:	2026
Unit Cost:	\$5,000	Repeat Cycle:	5
Urgency of Action:	Medium (5-10 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos





5.70 G - Site Features

Element Description: Shed
Year of Installation: 2006
Location: Site
Condition: Fair
Consequence of Failure: Low
Commentary:

There is a wooden shed located at the western elevation of the building. The actual age of the shed is unknown; therefore, the last major action year has been estimated. Upon inspection, the shed appeared to be in fair condition with signs of wear and aging. An allowance has been included to replace the shed at the end of its useful life.

Recommended Action: Replacement

Action Summary:	Action Description:
Allowance for lifecycle replacement	Replace wooden shed

Other Information:

Estimated Useful Life (EUL)	20	Remaining Service Life	5
Current Replacement Value (CRV)	\$5,000	Action Cost:	\$5,000
Quantity Estimate:	1 Unit(s)	Action Year:	2026
Unit Cost:	\$5,000	Repeat Cycle:	20
Urgency of Action:	Medium (5-10 Years)	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos



5.71 G - Site Features

Element Description: Site Lighting

Year of Installation: 2012

Location: Site

Condition: Good

Consequence of Failure: Low

Commentary: Site lighting is provided by four wall packs and two pole fixtures. It is our understanding that the fixtures were replaced roughly nine years ago. Upon inspection, the fixtures appeared to be in good condition. No major capital expenditures are anticipated within the term of the study.

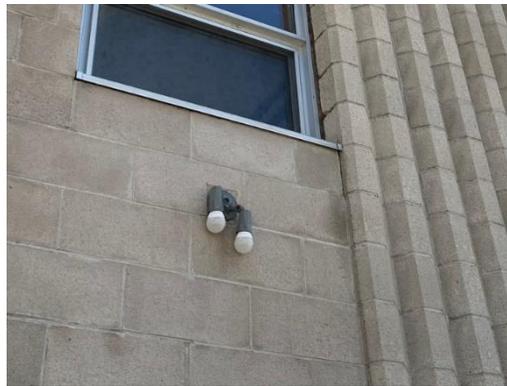
Recommended Action: No Action is Required.

Action Summary:	Action Description:
Not Applicable	Not Applicable

Other Information:

Estimated Useful Life (EUL)	20	Remaining Service Life	11
Current Replacement Value (CRV)	\$14,000	Action Cost:	Not Applicable
Quantity Estimate:	Not Applicable	Action Year:	Not Applicable
Unit Cost:	Not Applicable	Repeat Cycle:	Not Applicable
Urgency of Action:	N/A	Energy Savings:	N/A
Health and Safety:	No	Accessibility Issue:	No

Component Photos





6 GLOSSARY OF TERMS AND DEFINITIONS

Action Repeat Interval This means the time interval in which the recommended action needs to be repeated. For lifecycle replacement, the repeat interval is usually equal to the normal life expectancy of the component. For regular maintenance recommendations, the repeat interval is determined based on the existing condition, consultant's professional opinion, and staff/tenant's reports.

Action Cost This is the estimated cost of the action recommended, repairs and/replacement, derived from the market or building cost services, which publish construction and remodeling costs on an annual basis. Replacement cost estimates are generally based on local material costs, union labor costs and normal construction conditions.

Action Description This provides the details of the work recommended to be undertaken.

Action Year This indicates the year in which the action recommended should be undertaken.

Overall Condition This identifies the overall condition of the entire element/system. For example, a new flat roof is in good overall condition, but there may be localized minor damage to the roof membrane, drainage, or flashing, etc. The observed minor defect will not affect the good overall condition.

Replacement Cost These are unit cost estimates of various building components, derived from the market or building cost services, which publish construction and remodeling costs on an annual basis. Replacement cost estimates are generally based on local material costs, union labour costs and normal construction conditions. They represent the costs of major repairs or replacements at the current prices and under current conditions.

Year Installed This date indicates the timing of the installation of the element. It is noted that this date will vary for elements throughout the facility.