# ELEANOR PEW MORRIS MEMORIAL ARENA FEASIBILITY STUDY

190 Pig Loop Rd, Chester, Nova Scotia B0J 1J0

Draft Report – July 12, 2024



Prepared for: Church Memorial Park Board of Trustees



Prepared by:

DSRA Architecture Inc.



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## 1 EXECUTIVE SUMMARY

#### 1.1 PROJECT GOALS

The Church Memorial Park Board of Trustees is trying to determine whether its current facility, the Eleanor Pew Morris Memorial Arena, should be renovated and maintained, or if a new facility should be built to replace the old.

This project will support this decision by answering these key questions:

- 1. What level of financial investment will be required to keep this facility in sound operating condition for the next 25 years, while still meeting the facility standard of 'Access by Design 2030' from the Province of Nova Scotia?
- 2. Is the current facility suitable for the current and future recreation needs of the Municipality of Chester?
- 3. Would the financial investment into the existing Memorial Arena be comparable in investment to the cost of building a new arena that would have similar building systems?
- 4. If a new replacement facility were to be built, what are the main preliminary considerations?

#### 1.2 SCOPE OF WORK

DSRA Architecture Inc. was engaged by the Church Memorial Park Board of Trustees to conduct a Building Condition Assessment (BCA) and Feasibility Study of the Eleanor Pew Morris Memorial Arena. The complete study was undertaken from January 10, 2024, to July 12, 2024.

#### 1.2.1 Building Condition Assessment

- Comprehensively assess the structural, functional, and operational components of the existing building condition.
  - o Conduct visual site inspections to assess the condition of the building's elements.
  - Categorize and conduct detailed assessments of each building element based on the ASTM Uniformat II classification system.
- Provide recommendations and predict capital requirements for achieving an additional 25 years of facility life, including necessary repairs, upgrades, and improvements, considering both short-term and long-term costs.

#### 1.2.2 Need Assessment

- Assess the suitability of the current facility for the Municipality of Chester's current and future recreation needs by evaluating capacity, functionality, and user requirements.
  - Analyze regional context, demographic trends, user demand and programming possibilities.
  - o Review current facility use.
  - Consult key stakeholders, including local authorities, community groups, user organizations, and facility management personnel, ensuring alignment with community priorities and aspirations.
- Ensure compliance with the accessibility standard 'Access by Design 2030' from the province of Nova Scotia.

Provide a holistic understanding of the arena's role within the community, and its potential for adaptation or expansion to meet evolving needs.

#### 1.2.3 **Feasibility Study**

- Potential enhancement opportunities, such as facility upgrades, added amenities, or operational improvements, to maximize the arena's utility and financial sustainability.
- Compare the financial investment required for maintaining the existing Memorial Arena with the cost of building a new arena with similar building systems.
- Evaluate the practicality of retrofitting the existing facility versus constructing a new arena, considering factors such as long-term operational efficiencies, energy savings, and economic impact.

#### 1.2.4 **Final Deliverables**

This report is provided in PDF, MS Word, and Excel formats.

#### 1.3 GENERAL CONTEXT

The Eleanor Pew Morris Memorial Arena is located at 190 Pig Loop Rd, Chester. It is part of The Park! Recreation Complex. The property was purchased in 1928 and the construction of tennis courts, a clubhouse and a baseball field were completed in 1932. The Eleanor Pew Morris Memorial Rink complex, comprising an ice arena (190x85), four-sheet curling rink, locker rooms, office, two lounge areas and two canteen facilities, opened on the park site on February 14, 1970. The ice rink is open seasonally for ice rentals from October to April. Floor time for ball hockey, lacrosse and other special events is available from April to September.

#### 1.4 CONSULTANT TEAM

<b>Prime Consultant:</b>	<b>DSRA</b> Architecture Inc.
Time consum.	Dollar in contecture inc.

Peter Connell, NSAA, RAIC, P. Eng. 1. Principal Architect:

2. Project Manager: Ehtesham (Sham) Ali, PMP®, P.Eng.

#### **Engineering Consultant:**

1. Structural Engineer: Geoff Jamieson, P.Eng. (Campbell Comeau Engineering)

2. Mechanical Engineer: Aaron Smith, P.Eng. (M&R Engineering)

3. Electrical Engineer: Charles Nelson, C.E.T. (M&R Engineering)

## 2 EXISTING BUILDING CONDITION ASSESSMENT

#### 2.1 TERMS OF REFERENCE

The Church Memorial Park Board of Trustees has awarded DSRA Architecture, acting as the Prime Consultant, and Campbell Comeau Engineering (structural), and M&R Engineering (Mechanical and Electrical) the contract to conduct a comprehensive Building Condition Assessment (BCA) and Feasibility Study for the Eleanor Pew Morris Memorial Arena, Nova Scotia.

To ensure a methodical approach, the BCA adopts the ASTM Uniformat II classification, where each building element is meticulously examined and classified into the designated categories:

- A Substructure
- B Shell
- C Interiors
- D Services
- G Building Site Work
- E Equipment and Furnishings
- F Spatial Structures

We began evaluation by conducting a detailed examination of the site, considering factors such as land condition, external infrastructure, and environmental factors that may impact the building. This initial step allowed us to establish a contextual understanding of the site's surroundings and their potential influence on the building's condition.

Next, we focused on scrutinizing individual site service systems and components. This involved inspecting elements such as landscaping, drainage systems, utility connections, parking areas, and other relevant site-specific features. By examining these components individually, we were able to assess their functionality, identify any signs of wear or damage, and evaluate their impact on the overall site condition.

To ensure a comprehensive evaluation, we further delved into assessing individual building systems and components. This included scrutinizing systems such as ice plant, HVAC, plumbing, electrical wiring, lighting, fire protection, and security systems, interior partitions, bleachers, and accessibility standards. By conducting a detailed examination of these systems, we aimed to identify any issues, deficiencies, or areas requiring maintenance or potential renewal.

Additionally, the BCA presents:

- A summary of projected capital expenditures over the initial five and thirty-year periods.
- A comprehensive analysis of the Current Replacement Value (CRV) and Facility Condition Index (FCI).

Budget estimates utilize reputable references such as R.S. Means, and DSRA Architecture's comprehensive cost data, incorporating the insights of proficient engineering consultants. The budget breakdown includes labor and material costs, contingency funds, and soft costs for engineering and project management.

It is important to acknowledge that while the CRV represents the total cost required for asset replacement conforming to contemporary construction standards, event costs are tailored to the specific requirements of

each event and may involve the remediation of existing components. Consequently, the CRV and event costs may not manifest a direct proportional correlation.

#### 2.1.1 Limitations

It is important to acknowledge that thorough and comprehensive evaluation depends on factors such as access permissions, site conditions, and available resources. Despite diligent adherence to industry standards, certain limitations arose during the assessment, affecting the depth of the evaluation. It is crucial to highlight these limitations to ensure a clear understanding of the assessment's scope and identify potential areas that may require further investigation. The following sections outline the specific constraints encountered in the assessment's architectural, civil, structural, mechanical, and electrical aspects.

#### **Architectural Limitations:**

Roof Accessibility: Limited access to the roof impeded comprehensive inspection.

**Visual Assessment Only:** The assessment relied solely on visual inspections, without conducting any testing.

Lack of Historical Renovation Information: Documentation regarding historical renovations for most systems was unavailable, limiting insight into past modifications.

**Absence of Drawings:** Drawings are only available for the 1970 pre-construction set. Drawings were not accessible for several systems, hindering detailed analysis.

**Generalized Assessment Scope:** The assessment focused on overall arena condition rather than delving into granular details, potentially overlooking specific issues.

#### **Structural Limitations:**

The information presented in this report is based on direct visual observation made by personnel with Campbell Comeau Engineering Limited with additional information provided as detailed below. Recommendations contained within our report reflect our opinion based on the information gathered during our investigation. The findings cannot be extended to components of the building that were not reviewed or that were unavailable for direct observation at the time of our visit. We conducted a visual walk-through survey of the components of the building structure which could be observed visually without removal of material or the use of special equipment.

#### **Mechanical Limitations:**

The mechanical assessment included a visual walk-through audit of the facility, a discussion with the operations staff and a review of a limited amount of documentation. It did not involve an indepth inspection of mechanical equipment, the opening of walls, ceilings or floors, or an assessment of a code compliance or indoor air quality.

#### **Electrical Limitations:**

The electrical assessment included a visual walk-through audit of the facility, a discussion with the operations staff and a review of a limited amount of documentation. It did not involve an in-depth inspection of electrical equipment, the opening of electrical panels, switchboards, transformers, lighting, and equipment, etc. We also did not review the installations for conformance with code requirements.

#### 2.1.2 Assumptions

The findings and recommendations in this report are based on comprehensive assessments derived from data obtained through building site assessments, drawings, reports, and insights provided by the property management staff. Despite efforts to gather accurate data, certain limitations, such as inaccessible areas and limited documentation, have necessitated assumptions made to ensure a comprehensive assessment.

#### **Architectural Assumptions:**

**Data Accuracy:** The information used in this report is gathered from building site assessments, drawings, reports, and insights provided by the property management staff. It is assumed that the provided information is accurate and reliable.

**Equipment Age:** In cases where the actual age of the equipment and building elements could not be obtained from the equipment plate or documents, the ages have been assumed based on information provided by the property management staff, equipment condition, and the building's age.

**Budget Estimates:** The budgets outlined in this report are estimated in today's Canadian Dollar. Considering the challenges in determining the precise condition of the equipment, its peripherals, and the scope of work during replacement, a contingency allowance for equipment peripherals, such as electrical connections, piping, connections to the fire alarm system, etc., has been included in the Equipment Replacement Costs.

**Exclusions:** The costs associated with the examination, testing, and maintenance of the fire alarm system, sprinkler and standpipe system, fire extinguishers, generators, and elevators, as required by applicable codes, have not been included in this report. These exclusions have been made to ensure a transparent understanding of the report's coverage and limitations.

#### **Structural Assumptions:**

The replacement costs provided in this report are estimations only and are subject to confirmation from qualified contractors. Any opinions of probable cost and any maintenance, repair or replacement schedules contained in this report are based on the assumption that the recommendations contained in this report will be carried out, that the property will be maintained on a regular and routine basis by skilled and qualified tradesmen and that a program of periodic professional review will be carried out throughout the life of the property.

#### **Mechanical Assumptions:**

**Costing:** Costing assumes pricing is received competitively, replacing life-for-like components unless noted otherwise.

#### **Electrical Assumptions:**

**Costing:** Costing assumes pricing is received competitively, replacing life-for-like components unless noted otherwise.

#### 2.1.3 Documentation

**Architectural:** The following documentation was provided by The Church Memorial Park Board of Trustees, and reviewed as part of the process of preparing this BCA and Feasibility Study:

- Access by Design 2030 Province of Nova Scotia
- WRD Detailed Final Inspection Report, May 19 2023
- WRD Eleanor Pew Morris Memorial Arena Retrofit Phase 1 2023 for Church Memorial Park, June 9 2023
- 1970 Pre-Construction Drawings
- WRD Eleanor Pew Morris Arena Curling Rink: Technical Report on Strain Alarms and One-Day Site Inspection, March 14 2024

Structural: The following documentation was provided for review prior to our site visit:

- Property Condition Assessment (PCA) Report for Church Memorial Park, 190 Pig Loop Road, Chester, NS – Draft Report – Prepared by Stantec Consulting. Project No. 133431344. Dated February 23, 2018. 104 pages.
- Eleanor Pew Morris Arena, Chester, NS Final Inspection & Condition State Report. Prepared by Wood Research & Development. Project Number 5215S. Dated January 6, 2023. 48 pages.
- Eleanor Pew Morris Arena Detailed Inspection & Condition State Report. Prepared by Wood Research & Development. Project Number 5215S-01. Dated May 19, 2023. 83 pages.
- Eleanor Pew Morris Memorial Arena Retrofit Phase 1 2023 for Church Memorial Park. Prepared by Wood Research & Development. Project Number 5215D. Dated June 9, 2023. 31 pages.

**Mechanical:** Limited documentation was made available. The original building design drawings and specifications were not available, nor were documents for many of the changes that have taken place. The only documents available related to mechanical systems included bid documents from the 2009 replacement of the ice hockey refrigerant plant. Utility data for 2023 was also provided for energy calculations.

**Electrical:** Limited documentation was available. The original building design drawings and specifications were not available, nor were documents for many of the changes that have taken place. We reviewed documents related to the electrical service and distribution system upgrades as well as the ice hockey refrigerant plant installation from 2008-2009.

#### 2.1.4 Building Profile

Site Name	The Park! Recreation Complex
<b>Building Name</b>	Eleanor Pew Morris Memorial Arena
Address	190 Pig Loop Rd, Chester, Nova Scotia B0J1J0
<b>Building Type</b>	Sports Arena
Year Construction	1970
Parking Description	One outdoor parking lot
Gross Floor area (GFA)	4453 sq. meters
Number of Floors above grade	One (1) Floor and a Mezzanine
Number of Floors below grade	No Basement

#### 2.1.5 Building History & Past Renovation

The building was constructed in 1970. The site supervisor has provided pre-construction drawings from 1970. Many major renovations have occurred since initial construction, rendering all these drawings inaccurate to the current structure. The Chester Arena's transformation over the years reflects ongoing efforts to maintain and improve the facility while retaining key elements of its original form.

**Architectural:** The Chester Arena has undergone a series of changes over the years. While the exact timeline of renovations is unclear, it is known that some of the interior doors have been replaced, though no specific dates have been provided. Approximately four years ago, the roof shingles were updated, ensuring the facility remains weather-resistant. However, despite these alterations, the building's exterior envelope remains largely original, as does the flooring, both of which date back to the arena's construction in 1970.

**Structural:** The building was constructed in 1970 and no major structural renovations have been completed. It is likely that the hockey dressing rooms and curling service spaces are contained within an addition to the original building but no information was provided as to the timing of that addition. There was an addition added to the North end of the hockey arena sometime prior to 2002 to add Zamboni storage and associated facilities.

A detailed inspection of the structure was completed by Wood Research and Development in December of 2022 after concerns were brought up regarding deflection of the roof structure. The first phase of the reinforcing work was completed in the summer of 2023 with additional work planned for the future. There is also currently a structural health monitoring system in place that monitors the movement of multiple rafters with snow loads over the winter months in both the hockey arena and curling rink.

**Mechanical:** The plumbing systems generally appear to be original to the building with some fixtures being replaced over the years.

Ductless mini-split heat pumps have been added to many common areas of the facility over the past 5 years. Approximately 15 years ago ERVs were added to serve locker rooms and a new ice plant was installed to serve the hockey rink which also included a heat pump system to heat hockey locker rooms. The curling rink ice plant was replaced in 2002.

Sprinkler heads were replaced in the facility in 2023.

**Electrical:** The main switchboard, stepdown transformers, central distribution panels, select branch circuit panels and the motor control centre serving the ice hockey refrigerant plant were replaced in 2008-2009. Approximately half of the branch circuit panelboards were replaced as well but it appears the existing branch circuit wiring original to the space was maintained and reconnected. Branch circuit wiring was updated in spaces/systems being renovated at the time.

The lighting throughout the curling rink appears to also have been changed during that time. The emergency and egress lighting appears to be more recently replaced as well.

#### 2.2 ARCHITECTURAL EXECUTIVE SUMMARY

The architectural assessment conducted at the Eleanor Pew Morris Memorial Arena indicates an overall fair to poor condition of the building, with many architectural systems nearing the end of their life cycle. Significant investment is required to upgrade the facility and bring it up to modern standards.

While certain architectural elements of the Eleanor Pew Morris Memorial Arena require immediate attention, such as window and door upgrades, others are in relatively fair condition. Addressing the identified issues through repairs and replacements will be crucial in maintaining the functionality, safety, and visual appeal of the arena.

With proper investment and strategic upgrades, the arena has the potential to become a modern, functional, and visually appealing community asset for years to come.

#### 2.2.1 Exterior Envelope

**Wood Cladding:** Minor issues were identified in the wood cladding system, necessitating some repairs as detailed in Appendix B of the report. There are certain areas that may benefit from replacement, specifically the rotting bottom edge. Addressing these issues will not only improve the aesthetic appeal of the arena but also contribute to its longevity and structural integrity.

**Exterior Staircase:** While the exterior wooden staircase is in fair condition, it is close to the end of its service life and will eventually require a retrofit.

**Roof Shingles:** The roof shingles are in good condition.

#### 2.2.2 Doors and Windows

**Doors:** Both exterior and interior doors (including overhead doors) were found to be in poor condition and warrant immediate replacement to improve functionality and security.

**Windows:** The wooden frame windows are also in poor condition, and should be immediately replaced with new aluminum framed, energy efficient windows.

#### 2.2.3 Interior Building Systems

**Wall Partitions:** Most wall partitions were assessed to be in fair condition, providing structural support and spatial division within the building. However, the glass partitions facing the Curling Rink are in poor condition, with mold seen growing along the edges from cold and humidity. These should be updated and repaired within the next two years.

**Restrooms:** Restrooms, for the most part, are in fair condition. However, they should still be upgraded as the fixtures are old.

**Finishes:** Interior wall finishes, and floor systems are in poor condition, and it is recommended to upgrade and replace these systems in the next year. No major issues were found in the ceiling system.

**Interior Stairs:** The staircase near the dining area of the curling club is structurally unsound and should be replaced.

**Equipment and Furnishing:** In general, the facility's equipment (including kitchen, dressing room equipment and dining furniture) is old, worn, and aesthetically outdated. It is recommended to upgrade and replace this equipment alongside the rest of the arena's upgrades.

**Bleachers:** While the bleachers are in fair condition, they are of an older, outdated style. It is recommended that they are replaced with a newer style of bleachers.

#### 2.3 STRUCTURAL EXECUTIVE SUMMARY

In addition to the on-site visual review, the structural review included several reports from Wood Research and Development that detailed the investigation and repair work that has been ongoing in both the hockey arena and curling rink since 2022. Due to this ongoing work being carried out by Wood Research and Development our review did not include the entire timber framed roof structure that includes the hockey arena, curling rink and multi-purpose areas.

The Eleanor Pew Morris Arena facility is a recreational complex that consists of a curling rink, hockey rink and a two-story multi-purpose area. The building structure is composed of a timber frame with tapered glue-laminated (glulam) rafters and timber purlins and a wood roof deck. The tapered glulam rafters are supported on glulam timber posts and braced with a round structural steel tie rod. The roof deck is supported with 6" x 12" wood purlins that in turn support a nominal 2" thick wood deck.

#### 2.3.1 Asset Details

See report (Section 6, Appendix B) for detailed descriptions of the assets for the building structure. The items that were included were as follows:

- Structural slab on grade which includes the hockey arena slab, the curling rink slab and the remaining slab on grade throughout the multi-purpose areas. Ice rink slabs were not observed and some deterioration in the Zamboni storage area needs repair or replacement.
- Foundation walls & footings for the hockey arena, curling rink and multi-purpose areas. No major issues observed. Some cracks that may be repaired and general deterioration that could be patched.
- Roof structure for small shed roof addition on the east side of the hockey arena housing dressing rooms and the north side of the curling rink housing service rooms for ice-making. No observations made but potential exists for built-up and sliding snow and structure could be assessed to determine design capacity.
- Timber framed roof structure and supporting columns for the hockey arena, curling rink and multi-purpose areas. Reinforcing and repair work being done with design by Wood Research and Development.
- Entrance canopy roof structure comprised of untreated light wood members. Monitor for deterioration and replace missing steel post as noted.
- No bearing walls were available for viewing so were not included in the review.

#### 2.3.2 Condition Summary

The low-roof structure over the dressing rooms and mechanical spaces was not visible for assessment but due to the potential for built-up snow from higher sloped roofs these areas should be monitored for excessive snow build-up. If the capacity of the existing structure was to be assessed some removal of material would be required to allow for condition assessment of the roof framing. Similarly, there were no load bearing wall structures that were not covered with wall coverings and able to be assessed.

The hockey arena slab and curling rink slab were both covered in ice during our site visit and not available for inspection. We understand that that both had been replaced in the past, but the date is unknown. There was some severe damage to the concrete slab in the Zamboni storage area that should be repaired or replaced in the near future. All foundation walls that were visible were in reasonable condition and did not show signs of distress. The exterior wood canopy is built from untreated wood and should be monitored for

deterioration. A steel pipe support was removed from one location in the canopy roof. The support should be replaced to limit the chances of damage from snow loading.

#### 2.4 MECHANICAL EXECUTIVE SUMMARY

M&R Engineering was retained by DSRA (on behalf of the Church Memorial Park) to perform a condition assessment of the mechanical systems serving the Eleanor Pew Morris Memorial Arena, determining the necessity of system upgrades and the preliminary considerations of such upgrades within the context of a building renovation or a full rebuild.

M&R Engineering conducted a site visit on February 2, 2024, to assess the condition of the facility's mechanical systems including the plumbing, heating, cooling, ventilation, refrigeration systems serving the facility's curling and hockey rinks as well as the fire protection systems. The state of the facility's mechanical systems was assessed through a site walkthrough with facility staff, taking photographs and documenting details such as system layouts, control sequences, system performance, equipment age, inspection dates, and expected service life.

#### 2.4.1 Asset Details

The building relies on two water wells and plumbing fixtures generally consist of flush valve urinals, flush tank water closets and manually operated faucets. Service hot water for the hockey rink is preheated by the ice plant through a dedicated heat pump and topped up by a propane fired water heater.

Most of the facility's heating and cooling demands in non-rink areas are served by variable refrigerant flow (VRF) and ductless mini-split heat pumps. Electric baseboards and unit heaters serve some washroom, changing room, and perimeter spaces. The curling rink has a warm air furnace owned by the curling club.

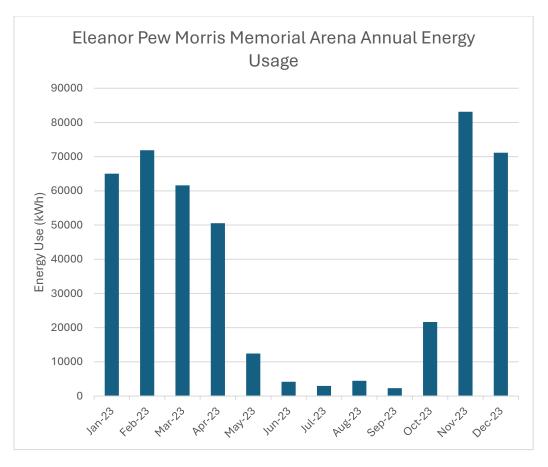
Locker rooms are ventilated by energy recovery ventilator (ERVs), washrooms generally have residential type exhaust fans, and the hockey rink has a dedicated exhaust fan and makeup air dampers which appear to be controlled by air quality sensors. The kitchen has a commercial grease hood and rooftop exhaust fan. Some destratification fans provide air movement in the curling rink.

The curling rink ice plant was made by Cimco and was installed in 2002. It is a single compressor 23TR plant utilizing R22 as a refrigerant with a constant speed brine pump and dry cooler. It has a mechanical dehumidifier.

The hockey rink ice plant was installed in 2009. It is a 78TR plant utilizing Ammonia as a refrigerant with a constant speed brine pump and cooling tower. It has two mechanical dehumidifiers.

The building is sprinklered, with wet and dry pipe systems fed from two pressurized storage tanks.

Monthly utility bills for 2023 were provided and used as inputs with EnergyStar's Portfolio Manager, resulting in a score of 93. The EnergyStar score (0-100) is a measure of how well a property is performing relative to similar properties when normalized for climate and operational characteristics, with the median building's performance earning a score of 50 (a higher number is better). A score of 93 means that out of 100 ice rinks, the Eleanor Pew Morris Arena uses less energy than 93 of them. When compared to the EnergyStar median ice rink, the Eleanor Pew Morris Arena uses 46% less energy annually.



#### 2.4.2 Condition Summary

The facility's mechanical systems range from fair to good working condition with some pieces of equipment nearing the end of their expected service lives. The curling rink ice plant is nearing the end of its service life, and its primary refrigerant, R22, is being phased out and is no longer available for purchase or import and its replacement should be a priority.

The plumbing systems including piping and many of the fixtures appeared to be of various ages but in fair to good condition.

As well, plan for replacement of the sprinkler system including tanks, pumps and associated controls.

#### 2.5 ELECTRICAL EXECUTIVE SUMMARY

M&R Engineering conducted a site visit on February 2, 2024, to review the general condition of the facility's electrical systems including power distribution equipment, transformers, motor control centres, branch circuit wiring, wiring devices, lighting, telecommunications, and fire alarm systems.

#### 2.5.1 Asset Details

The main electrical service transitions from a primary utility pole to underground, feeding a utility owned exterior padmount transformer which provide 347/600VAC power to the Main Switchboard. The Main Switchboard is rated for 800A, however the main breaker and secondary conductors installed are rated for 600A.

600V power is distributed through the facility to serve mechanical equipment loads and 600V-120/208 stepdown transformers. The stepdown transformers serve central 120/208V distribution boards, which in turn sub-feed the 120/208V branch circuit panelboards.

The lighting equipment generally consists of fluorescent fixtures c/w T8 style fluorescent lamps and local line voltage controls.

Emergency lighting is provided by unit equipment battery packs and remote heads. Exit signage is the green pictogram style signage, throughout the facility.

The fire alarm system appears to be a conventional type, c/w annunciator indicator panel at the main entrance. The system supports fire alarm pull stations, bells, smoke & heat detectors, and the fire suppression systems.

The incoming telecommunications service consists of multi-pair copper telephone (analog telephone lines), Eastlink Coaxial data and television services.

#### 2.5.2 Condition Summary

The equipment and systems range from good to poor condition.

Generally the work completed in the 2008-2009 electrical service upgrade; ie the associated electrical distribution equipment and lighting upgrades are in good condition.

The egress lighting for emergency and exit signage is in good condition and the exit signs have been updated to the current code, pictogram style.

There are a number of branch circuit panelboards that are original to the facility that are past their usable lifespan and should be replaced. Additionally, the associated branch circuit wiring should be replaced throughout. This includes where branch circuit panels were upgraded but the original wiring reconnected.

The telecommunications systems are in fair condition and consideration should be given to bring them up to present day standards.

The fire alarm system is in fair condition, consideration should be given to implementing addressable devices, to improve system reporting and ease of maintenance.

#### **2.6** CIVIL

The Eleanor Pew Morris Memorial Arena is located at 190 Pig Loop Rd, Chester. The facility has one parking area at its front. Access to Pig Loop Road is facilitated through one entrance to the parking lot. The parking lot is shared with the Chester Tennis Club, the Chester Family Resource Centre and the Chester Brass Band. An asphalt driveway along the edge of the curling rink building allows for vehicular access to the back lot, which is paved with gravel. The back lot is only used for servicing.

#### 2.6.1 Asphalt Parking and Driveway

The asphalt is in fair to poor condition with major cracks throughout and several sections where the asphalt has deteriorated down to subgrade.

#### 2.6.2 Fencing

There are wooden fences in the back side of the arena building developed to safeguard the HVAC equipment. These wooden fences are in very poor condition and very deteriorated.

#### 2.7 CONDITION ASSESSMENT ANALYSIS

#### 2.7.1 Detailed Component / Event Analysis

A detailed component and event analysis, including images, can be found in Appendix B. Each building element is meticulously examined and classified into the designated categories:

- A Substructure
- B Shell
- C Interiors
- D Services
- G Building Site Work
- E Equipment and Furnishings
- F Spatial Structures

This analysis contains detailed suggestions for maintenance, repairs, and upgrades. It is the foundation for the following cost assessment.

#### 2.7.2 Cost Assessment

A cost assessment was conducted for the continued running of Eleanor Pew Morris Memorial Arena as-is, including expenditures such as: regular maintenance, repairs, upgrades, and provisions for unforeseen emergencies or urgent repairs.

The projected budget for the next thirty (30) years is:

#### **SECTION - 2.7.2: EXECUTIVE SUMMARY**

UNIFORMAT CLASS		BUDGET 2024 TO 2028 INCLUDING INFLATION (YEAR 1 TO 5)	BUDGET 2029 TO 2053 INCLUDING INFLATION (YEAR 6 TO 30)
A	SUBSTRUCTURE	\$0.00	\$2,028,562.80
В	SHELL	\$4,681,534.72	\$1,219,729.50
С	INTERIORS	\$2,357,914.73	\$77,538.87
D	SERVICES	\$873,800.00	\$2,292,400.00
G	BUILDING SITEWORKS	\$165,799.20	\$313,675.00
Е	EQUIPMENT AND FURNISHING	\$779,942.41	\$0.00
F	SPATIAL STRUCTURES	\$0.00	\$2,856,367.47
SUB-	TOTAL	\$8,858,991.06	\$8,788,273.64
TOTAL FROM YEAR 1 TO 30		\$17,647	,264.70

Full calculation sheets can be found in Appendix A, as listed below:

- Section 5.1 Five (5) Years Expenditure
  - o Projected expenses spanning from 2024 to 2028.
- Section 5.2 Thirty (30) Years Expenditure
  - o Projected expenses spanning from 2024 to 2053.

Through proactive measures and prudent resource management, the Eleanor Pew Morris Memorial Arena can commit to ensuring the continuous improvement and excellence of its facilities, enhancing the overall experience for patrons and stakeholders alike.

#### 2.7.3 Current Replacement Value (CRV)

The Current Replacement Value (CRV) of the Eleanor Pew Morris Memorial Arena in Chester, Nova Scotia, serves as an estimation of the cost required to replicate the building's features, systems, and infrastructure in its current state. This value is instrumental for insurance purposes, financial planning, and assessing the overall worth of the facility.

The CRV considers a multitude of factors, including the construction materials, architectural design, mechanical and electrical systems, interior finishes, and specialized features unique to the building. A comprehensive evaluation conducted by industry experts considers market rates, labor costs, material prices, and other pertinent factors to calculate the accurate CRV.

#### The CRV of the Eleanor Pew Morris Memorial Arena is: \$17,647,264.70.

A detailed breakdown of this calculation can be found in Appendix A, Section 5.3.

This valuation plays a crucial role in helping stakeholders make informed decisions regarding insurance coverage, investment strategies, and risk management. It ensures the financial protection of the building and provides a reliable basis for future planning and decision-making processes.

By utilizing the CRV as a benchmark, stakeholders can effectively safeguard the financial interests associated with the Eleanor Pew Morris Memorial Arena while strategically planning for its long-term sustainability and resilience.

#### 2.7.4 Facility Condition Index

The Facility Condition Index (FCI) is a crucial benchmark for facility managers and owners, providing a comprehensive overview of the current state of a building or group of buildings within a facility. It outlines its current condition, anticipated maintenance costs, and recommendations for future enhancements. By quantifying the relationship between the cost of necessary repairs and the current replacement value (CRV), the FCI aids in the comprehensive evaluation of a building's condition over time.

This index facilitates informed decision-making, allowing stakeholders to allocate resources efficiently, ensuring that management and maintenance efforts target areas in need of immediate attention.

**Facility Condition Index (FCI) Computation:** The FCI is calculated for the building over a 10-year projection. This index serves as a comparative measure of the facility's relative condition. It is presented as a ratio of the cost required to rectify maintenance deficiencies to the CRV. The FCI values are expressed as a percentage. The FCI will be computed annually, if all identified tasks for a given year are completed within that year, without any pending work spilling over to future years.

Further information regarding the rating criteria for the FCI is available in Appendix A.

The renewal needs and corresponding FCI and building condition of the building for the next ten (10) years is presented in the following table:

	SECTION - 2.7.4 - FACILITY CONDITON INDEX SUMMARY:				
YEAR	RENEWAL NEEDS	CURRENT REPLACEMENT VALUE	FACILTIY CONDITION INDEX FCI	FACILTIY CONDITION INDEX CONDITION RATING	
2024	\$0.00	\$17,647,264.70	0.00%	Good	
2025	\$7,748,133.18	\$17,647,264.70	43.91%	Critical	
2026	\$962,057.88	\$17,647,264.70	5.45%	Fair	
2027	\$0.00	\$17,647,264.70	0.00%	Good	
2028	\$148,800.00	\$17,647,264.70	0.84%	Good	
2029	\$662,828.27	\$17,647,264.70	3.76%	Good	
2030	\$0.00	\$17,647,264.70	0.00%	Good	
2031	\$0.00	\$17,647,264.70	0.00%	Good	
2032	\$600,000.00	\$17,647,264.70	3.40%	Good	
2033	\$133,920.00	\$17,647,264.70	0.76%	Good	
	\$10,255,739.33	\$17,647,264.70	6.46%	Fair	
	Good Fair				
Poor					

With an overall Facility Condition Index (FCI) of **6.46%**, the Eleanor Pew Morris Memorial Arena has been categorized as being in **Fair Condition**. This rating suggests a moderate level of upgrades, maintenance, repairs, and replacements of specific building elements in the next ten (10) years. Several components have surpassed their expected service life and now demand immediate attention.

Despite the relatively low overall FCI, the table above highlights the necessity for upcoming maintenance and repairs in 2025 and 2026, with the FCI expected to rise to 43.91% (Critical) and 5.45% (Fair) respectively. This signifies a potential decline if left unaddressed.

Addressing upcoming maintenance requirements promptly is crucial to prevent further deterioration and maintain a high-quality environment for building occupants and visitors.

To effectively manage the building's long-term prospects, it is advisable to conduct additional investigations and establish an Asset Management Plan (AMP) that includes a comprehensive analysis of operational aspects, market value, and the Benefit-Cost Ratio (BCR) for thorough evaluation and strategic planning.

#### 2.7.5 Summary

Critical

While specific building elements necessitate immediate attention, the Eleanor Pew Morris Memorial Arena is expected to effectively serve its intended purpose for the next twenty-five (25) to thirty (30) years, in

accordance with standard building component lifecycles. By adhering to the outlined recommendations within this report, the building can be sustainably preserved, ensuring its longevity, and sustained functional efficacy for the years to come.

It is imperative to incorporate the lifecycle events outlined in this report and uphold a consistent regime of proactive maintenance practices.

## 3 NEED ASSESSMENT

#### 3.1 HISTORICAL & CULTURAL SIGNIFICANCE

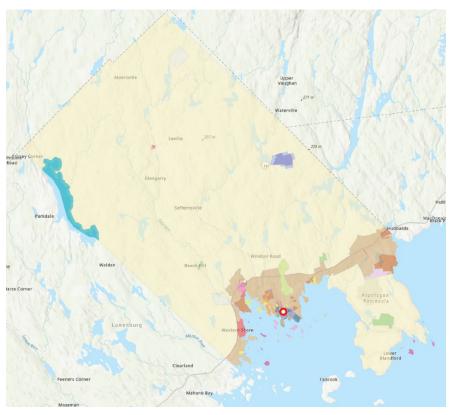
The Eleanor Pew Morris Memorial Arena serves as a hub for community activities and events, particularly ice-related sports like hockey and figure skating.

The arena's significance lies in its role as a gathering place for residents of Chester and the surrounding area. The arena provides a venue for sporting events that foster a sense of community identity and pride. Additionally, it serves as a space for socializing and recreation, where people of all ages can come together to enjoy various cultural events, fundraisers, and community initiatives.

As Chester evolves and grows, the arena remains a steadfast presence, preserving cherished traditions while embracing new opportunities for community engagement and development.

#### 3.2 SITE DESCRIPTION & FEATURES

#### 3.2.1 Regional Context



Municipality of the District of Chester Map, with Chester highlighted in red (Source: Municipality of Chester Zoning)

The Municipality of the District of Chester has a population of 10,693 in the 2021 Census. Together with the Municipality of the District of Lunenburg on its West, it makes up Lunenburg County. It is bordered by the Halifax Regional Municipality to its East.

#### 3.2.2 Location

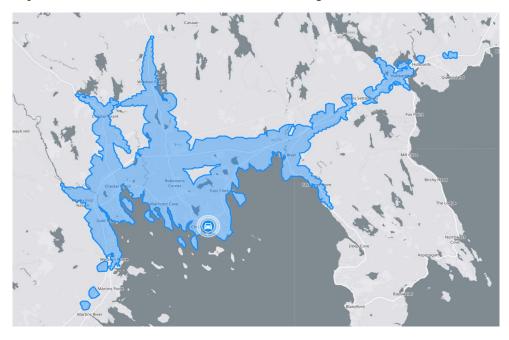


Satellite view of Chester and surroundings, with the Eleanor Pew Morris Memorial Arena marked in red, Highway 103 marked in blue, and Highway 3 marked in orange (Source: Google Earth)

The Eleanor Pew Morris Memorial Arena is situated at the edge of the Village of Chester. The Highway 3 corridor is the primary gateway into the Village of Chester.

The regional highway in the area is Highway 103 which runs east-west from Halifax to Yarmouth. It takes approximately 10 minutes to get to the arena from the closest highway exits.

Below is a map that shows the 30-minute drive area surrounding the arena.



Area within 30-Minute Drive Time (Source: TravelTime)

#### 3.2.3 Adjacent Buildings



(Source: Google Earth)

The Eleanor Pew Morris Memorial Arena is part of "The Park!" Recreational Complex. Aside from the arena, The Park! is also home to the Chester Tennis Club, the Chester Family Resource Centre, and the Chester Brass Band. Adjacent to The Park! is the Chester District School.

#### 3.3 PLANNING CONTEXT

#### 3.3.1 Municipal District of Chester Community Profile

Between 2016 and 2021, the population of the Province of Nova Scotia increased by 5%, while the population of the Municipal District of Chester increased by 3.7%. As of 2021, the Municipal District of Chester has a population of 10,693.

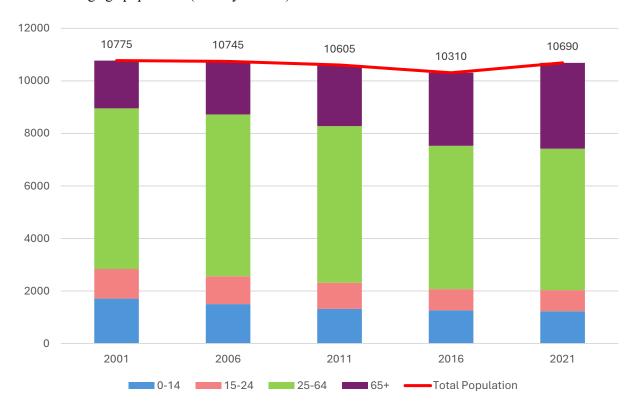
Population Change, 2016-2021

	2016 Population	2021 Population	2026-21 % change
<b>Chester, Municipal District</b>	10,310	10,693	3.7%
County of Lunenburg	47,126	48,599	3.1%
Nova Scotia	923,598	969,383	5%

(Data: Statistics Canada)

#### **Historic Population Trends**

Chester's population was steadily decreasing from 2001 to 2016 but has experienced an increase in the recent 5 years, from 2016 to 2021. Like many communities across Nova Scotia, the population of the Municipal District of Chester is ageing. Over 20 years, the percentage of people 65 years and older increased from 16.9% of the population in 2001, to 30.6% of the population in 2021. During the same period, the percentage of children (0-14 years old) decreased from 15.9% to 11.5%, while the percentage of the working age population (15-64 years old) decreased from 67.2% to 57.9%.



Historic Population Change (by Age), Census 2001-2021

Age Group	2001	2006	2011	2016	2021
0-14	1710 (15.9%)	1500 (14%)	1320 (12.5%)	1265 (12.3%)	1230 (11.5%)
15-24	1130 (10.5%)	1060 (9.9%)	995 (9.4%)	805 (7.8%)	805 (7.5%)
25-64	6115 (56.7%)	6165 (57.3%)	5965 (56.2%)	5460 (53%)	5385 (50.4%)
65+	1820 (16.9%)	2020 (18.8%)	2325 (21.9%)	2780 (26.9%)	3270 (30.6%)
Total Pop.	10775	10745	10605	10310	10690

(Data: Statistics Canada)

#### Income

Income levels impact the ability or inclination of a person to participate in recreational or leisure activities. The greater a person's level of income, the more likely they are to participate in such activities.

According to the Statistics Canada 2021 Census, in 2020, the Municipal District of Chester's median income for all private households was \$64,500, which is lower than the provincial average of \$71,500. Thus, compared to the average Nova Scotian, the residents of Chester may be less likely to participate in recreation activities, and may not be able to pay similar user fees for recreation services.

#### **Immigration and Diversity**

Participation and accessibility of recreation opportunities is also impacted by immigration and diversity levels.

In the Statistics Canada 2021 census, only 0.6% of Chester's population is classified as a recent immigrant (having immigrated up to five years prior to a given census year), which is lower than the provincial average of 2.2%.

As of 2021, 5.2% of the District's population was comprised of immigrants or non-permanent residents (i.e. born outside of Canada), which is lower than the provincial average of 9.8%.

As the majority of the District's population (94.8%) are non-immigrants, barriers to participation associated with cultural norms and language are not likely to be significant in Chester. Nevertheless, methods to improve accessibility should still be implemented for the benefit of those who need it.

#### 3.3.2 Framework Policies for Recreation and Accessibility

Below are key takeaways from framework policies at the provincial and municipal level that must be considered in this feasibility study of Eleanor Pew Morris Memorial Arena to align with the Municipal District of Chester's commitment to improving recreation and accessibility.

#### The Shared Strategy for Advancing Recreation in Nova Scotia



Based on the "Framework for Recreation in Canada", the Shared Strategy is a priority-setting and direction-setting document. By helping future projects and initiatives align with the Shared Strategy, the recreational sector is further promoted in the province. The Strategy provides a list of 5 goals, each with several associated priorities.

- 1. **Active Living:** Foster active living through physical recreation.
  - Children, families, and older adults should be encouraged and given the opportunity to regularly engage in different forms of recreation, fostering physical literacy.
- 2. **Inclusion and Access:** Increase inclusion and access to recreation for populations that face constraints to participation.
  - Barriers to recreational experiences should be eliminated for all children and youth.
  - Participation in recreation by Nova Scotians from diverse populations, communities, and cultures should be free of constraints.
  - Equitable participation by all women and girls should be ensured.
- 3. Connecting people and nature: Help people connect to nature through recreation.
  - More Nova Scotians should have recreational opportunities outdoors.
  - Recreation policies and practices must practice responsible environmental stewardship, minimizing negative impacts on the natural environment.
- 4. **Supportive environments:** Ensure the provision of supportive physical and social environments that encourage participation in recreation and help build strong, caring communities.

- Built and natural environments should be improved and maintained such that they both support and inspire recreation within their communities.
- Social environments should encourage participation in recreation, building strong, caring communities.
- 5. **Recreation Capacity:** Ensure the continued growth and sustainability of the recreation field.
  - Professionals and volunteers are supported such that they can successfully excel as leaders in the recreational sector.
  - Alignment of priorities, collaborations and resource sharing should be strengthened with the other sectors of the province.
  - Decision makers should have improved access to quality information that supports evidence-based planning.

#### **Rink Revitalization Fund**

The Rink Revitalization Fund is part of the Recreation Facility Development Grant from the Province of Nova Scotia which assists community groups, municipalities and other 'not-for-profit' organizations who operate rinks to invest in the revitalization or upgrading of capital infrastructure to support the sustainability of the facility.

#### 3.3.3 General Trends & Best Practices

Emerging best practices in recreational facilities and services:

#### • Indoor Recreation

- Flexible multi-use, multi-generational increasing focus on creating flexible multi-use "destination" facilities as recreation, entertainment and family centers and community hubs.
- o **Sport tourism** throughout Canada, sport tourism represents a growing market and providing facilities to accommodate this is an important consideration.
- o **Aquatics** emerging aquatic facility designs (fitness and leisure swimming, therapeutic programs for seniors, and splash pads/water parks for children).
- O Sustainability increasing focus on the overall sustainability of a facility (e.g., net zero/carbon neutral)
- O Accessibility and Inclusivity making indoor and outdoor facilities accessible for people of all ages and abilities. Indoor facilities must comply with the provincial Accessibility regulations. Encouraging cycling and walking to access facilities. Creating recreation opportunities and spaces that are accessible, affordable, and welcoming for people of all social, ethnic, and economic backgrounds, all ages and abilities.
- **Programming and Services** trends and shifts in the focus of recreation services are being observed at the national & provincial level, including:
  - o Promoting and fostering participation in physical activity for all ages.
  - Use of web-based registration and effective monitoring systems to help inform municipal responses to parks and recreation program demand, including investment in Customer Relationship Management (CRM) systems.
  - o Improving the experience of recreation through a deepening of program opportunities geared to lifestyle.
  - o Recognition with the recreation sector of active transportation opportunities as a core recreational and transportation service provided by municipalities and their partners.

#### 3.3.4 Examples

The following are a few examples of recreational centers that include ice rinks with additional multi-use facilities. These case studies help establish possible design strategies and enable us to learn from other communities what has and hasn't worked.

**Queen's Place Emera Center Location:** Liverpool, Nova Scotia

**Project Completed: 2011** 

**Area:** 53,800 sf

Commissioned by the Region of Queens Municipality to be a recreational, social, and cultural facility, the Queen's Place Emera Center not only hosts recreational programming, but is also a venue for tournaments, concerts, conventions, and other events that serve the locals, as well as visitors to Liverpool.



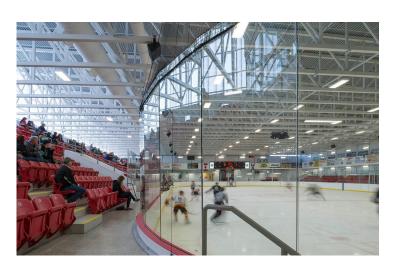
(Image Source: MJMA)

#### Indoor facilities include:

- 900-seat NHL-sized ice pad
- Two-lane walking track
- Fitness center and studio
- Community multi-purpose rooms
- Change rooms

#### Outdoor facilities include:

- Skatepark
- Playpark
- Spray pad
- Outdoor trail



- Basketball courts
- Picnic areas

Additionally, the facility was designed with a second phase in mind. If implemented, the future expansion would add an aquatics center with a four-lane 25-meter lap pool, therapy pool, and leisure pool. While no current plans are in motion to make this addition, this level of forward planning at the design stage ensures that the facility will be flexible enough to accommodate the new program, should the need arise through its years of operation.



**Upper Skeena Recreation Center Location:** Hazelton, British Columbia

**Project Completed: 2019** 

Area: 55,000 sf

Championed by the local community to replace an old, decommissioned community ice rink, the Upper Skeena Recreation Centre serves three townships and eight First Nations communities in central BC. This recreation center is an example of how timber-framed ice rinks can be a cost-effective way of replacing aging arenas. Sourcing local wood, local contractors and local workers helped the project foster a sense of local community pride.



(Image Source: Hemsworth Architecture)

#### Indoor facilities include:

- 500-seat NHL-sized ice pad
- Large gymnasium and fitness center
- Changing rooms
- Community multi-purpose room
- Indoor basketball court





**Lunenburg County Lifestyle Centre Location:** Bridgewater, Nova Scotia

**Project Completed: 2013** 

**Area:** 110,000 sf



(Image Source: Lydon Lynch Architects)

#### Indoor facilities include:

- 1200-seat NHL-sized ice pad and concert venue
- Three-pool aquatics centre
- Public library
- Multi-purpose rooms
- Changing rooms





## Rath Eastlink Community Centre Location: Truro, Nova Scotia

**Project Completed: 2013** 

**Area:** 130,000 sf



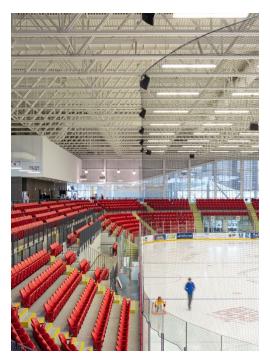
(Image Source: Double Space Photo)

#### Indoor facilities include:

- 3000-seat NHL-sized ice pad
- Competitive and leisure pools with water slide
- Fitness centre

- Rock climbing wall
- Multi-purpose rooms
- Changing rooms





**Pictou County Wellness Centre Location:** New Glasgow, Nova Scotia

**Project Completed: 2013** 

**Area:** 155,000 sf



(Image Source: DSRA)

#### Indoor facilities include:

- Two NHL-sized ice rinks with seats for 2000 people
- Fitness centre
- Gymnasium
- Walking track
- Aquatics centre
- Day care

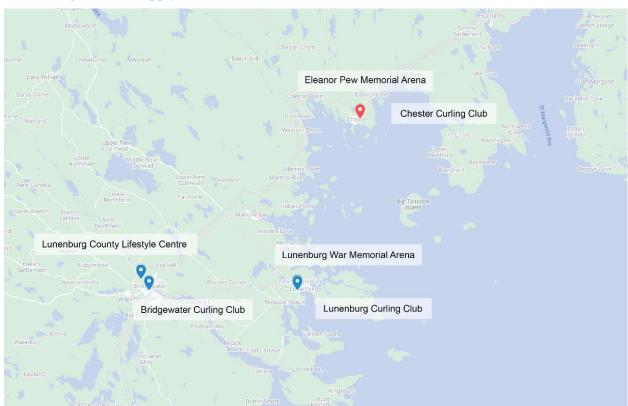
- Multi-purpose rooms
- Changing rooms
- Café





## 3.4 RECREATIONAL NEEDS ASSESSMENT

#### 3.4.1 Regional Ice Supply



# Arenas in Lunenburg County (Source: Google Maps)

Location	Facility	Address	Details	Distance from Chester
Chester	Eleanor Pew Memorial Arena	190 Pig Loop Rd, Chester, NS	Ice rink, curling rink	-
Lunenburg	Lunenburg War Memorial Arena	19 Green St, Lunenburg, NS	Ice rink	40.8 km <b>31 min drive</b>
Lunenburg	Lunenburg Curling Club	13 Green St, Lunenburg, NS	Curling rink	40.8 km <b>31 min drive</b>
Bridgewater	Lunenburg County Lifestyle Centre	135 N Park St, Bridgewater, NS	NHL-sized ice rink, Aquatic Centre, therapeutic pool, public library, multi-purpose community rooms, fitness studio	43.7 km 35 min drive
Bridgewater	Bridgewater Curling Club	90 Dominion St, Bridgewater, NS	Curling rink	43.7 km <b>35 min drive</b>

#### 3.4.2 Hockey/Skating Rink – User Groups

Ice rentals at the Eleanor Pew Morris Memorial Arena can be summed up in the following categories. If known, the organizations who make regular bookings are listed under these categories, however this is not an exhaustive list. This chart is based on information submitted by the site supervisor.

Eleanor Pew Morris Memorial Arena User Groups

Category	Organization/Program	Avg. Participation (if known)
Adult Hockey	Thursday Shinny	-
	Afternoon Oldies Hockey	3 days a week, 15 players per session
	Recreational Hockey	-
	Gentlemen's Hockey	-
	Junior C Team (Schooners)	Play once a week
	Adult Female Team (She Devils)	12-14 games a season
Adult Skating	Morning Skates	Low attendance
Minor Hockey	S.S. Minor Hockey	Minor hockey organizations
	Buccaneers Hockey	account for majority of ice
	Chester Minor Hockey Association	rentals, with approximately 350
	U7 to U15 (Ravens)	total players all playing at least
	Tasa Minor Hockey	twice a week.
	Rip Tide Hockey (girls' team)	
	Forest Heights (High School) Hockey	_
	(Falcons)	
	Cams Hockey	_
Miscellaneous Rentals	T.N.T Hockey	-
	Rec. Dept. Free Skate	-
	N.R. School Skate	-
	Ravens Roost	-
Other	Public Skates (Wed and Sat)	40 people per session

During the summer, rentals are usually for one-off events. Most summer rentals are for film companies who rent the arena for space. The arena also does small space rentals for birthday parties, weddings, beer gardens, and other assorted small events during the summer.

The curling floor is also used for the same purposes in the summer.

From October to April, the curling rink is iced and leased to the Chester Curling Club who maintains their own ice scheduling for curling.

#### 3.4.3 Hockey/Skating Rink – Ice Time

The skating rink at the Eleanor Pew Morris Memorial Arena is open from October to March. At the Eleanor Pew Morris Memorial Arena, prime hours are: 4pm to 11pm on weekdays, and 7am to 11pm on weekends. There are a total of 67 prime hours in one week.

The ice usage hours in the table below are based on the "Weekly Summary of Ice Rentals and Special Events" for one week in February 2024, provided by the site supervisor.

Typical Weekly Ice Usage at the Eleanor Pew Morris Memorial Arena

Category	Total hours booked	
Hockey and Adult Skating	14	
Minor Hockey	28.75	
Miscellaneous Rentals	8	
Public Skate	2.5	
Total:	53.25	

Ordinarily all weekend and weekday evening prime-time ice is rented. However, the arena struggles to rent late night ice as well as weekday 7am-4pm (non-prime-time) ice.

The majority of prime-time ice time being rented indicates that the arena is close to capacity.

#### 3.4.4 Curling Club

The Curling Club has approximately 180-185 members. 110 of these are full membership adults, with the remaining being stick curlers, juniors, and day curlers.

#### 3.4.5 Leaseholders of The Park

Organization	Size
Chester Brass Band	25-30 members
Tennis Club	176 members
Chester Area Resource Centre (Daycare)	Licensed to serve up to 108 families

#### 3.5 Public & Stakeholder Engagement

#### 3.5.1 Methods of Engagement

To test feasibility of the specific project, it is important to undertake primary consultation in addition to the analysis of regional context, planning context and regional needs assessment.

To that end, the consultant team has conducted a series of stakeholder interviews with the main recreation and sports groups that are current users of the Eleanor Pew Morris Memorial Arena. Additionally, an online community survey was distributed by the Church Memorial Park Board of Trustees.

A summary of the stakeholder interviews and community survey results, including analysis of key themes and needs is provided in this section.

#### 3.5.2 Stakeholder Interviews

4 round-table group interviews were conducted with representatives from the major user groups of the site:

- Group 1 Local Hockey Groups
  - o Chester Minor Hockey Association U7 to U15 (Ravens)
  - High School Team (FHCS Falcons)

- Youth girls' team (Riptide)
- Junior C Team (Schooners)
- Nova Scotia Women's Hockey League (She Devils)
- Group 2 the Curling Club
- Group 3 the CMP Board of Trustees
- Group 4 Representatives from Leaseholders of the Park
  - Chester Brass Band
  - Chester Tennis Club
  - o Chester Arena Resource Centre (Daycare)

These meetings provided a platform for direct interaction and dialogue with the key stakeholders involved in the arena. The interview format facilitated focused discussions, enabling stakeholders to share their personal experiences and knowledge of the arena.

# **Background Information**

- The Park serves the Municipality of Chester, not just the Town of Chester.
- The facility is currently funded by the Pew family trust fund (a grant of US\$40,000 a year for the next four years) and the Municipality (\$75,000 per year). This is usually enough to cover operational costs, but when specific events or emergencies happen (such as the recent roof structure fixes) they need to approach the municipality council or the provincial government for more grants.
- There used to be a CanSkate program and figure skating program, but they recently folded as membership numbers dropped and volunteers could not be found to keep the programs running. Most people still interested in skating go to the rinks that are 25 minutes away.

# **Local Hockey Groups**

### **Growth:**

- The Chester Minor Hockey Association is seeing growth, with people from further out interested in joining the league there is buzz around Minor Hockey coming back into prominence in the Chester area.
- Riptide also sees Chester as one of their hotspots for growth in female hockey.
- Growing demand for ice time from the various hockey leagues.

## **Player Experience:**

#### • Ice Rink

- o All agree that ice quality is very good.
- Need half boards for minor hockey.
- A nice addition would be a small ice area for kids to play on ice (such as shooting pucks), while others are playing hockey on the main rink.
- A larger NHL-sized surface is desired they could get two groups on ice at the same time during practice.
- Adjacent benches need to be higher the coach cannot see the whole arena without standing.
- O Durable flooring is needed in all parts of the facility in the dressing room, hallways, walkways, washrooms, etc.

#### Showers and Locker Rooms

- Only one person is allowed in the shower stall at a time a hockey team can take hours to finish showering.
- O Need to be expanded with a more modern layout.
- There are only 4 locker rooms currently, they would love to have 8.

# • Parking Lot Safety Concerns

- Lack of lighting in the parking lot makes players (especially girls) feel unsafe when leaving. Children playing and running in the dark is also dangerous. They need a better layout for the lighting.
- The drop-off leading up to the arena has an awkward turn, which might affect an emergency vehicle trying to access the facility. For example, an ambulance might waste valuable time trying to make the three-point turn.

# Fan Experience:

- The stairs don't meet code and benches are uncomfortable. Need bigger and more comfortable seating. Benches need more leg room.
- The rubber mats on the arena floor are uneven.

#### Accessibility:

- Benches, doors, and gates are too small for wheelchair accessibility.
- Sliding doors are wanted for wheelchair accessibility.
- It is difficult for those with mobility issues and seniors to walk up the bleacher stairs.
- The existing warm room is not big enough and should be wheelchair accessible. Currently, they need to go through the curling club to access the elevator, which is too small. There is no room for both the wheelchair and an assisting person in the current elevator.
- The board systems and bench areas around the existing rink are not accessible for anyone who wants to do sledge hockey.
- The walkways to access the hockey rooms are too narrow for a wheelchair to go through.

#### **Future:**

#### • Additional Amenities

- Raised Walking Track: Desire for a raised walking track for parents while their children play hockey. The walking track could also double as warm-up spaces. The daycare could also make use of the walking track.
- Sound System: Want a higher quality sound system and improved acoustics in the building, which are currently quite poor. A good sound system would enable the hosting of larger events in the facility.
- O <u>Designated Storage Spaces</u>: A designated storage space for each primary user group to store their training equipment (pucks, on-ice coaching materials, mininets, etc.), that is easily accessible from the ice.
- o <u>CPR Equipment:</u> Currently do not have in the facility.
- Water Bottles: Suggested having a ledge for bottles to be kept between the coach and the players for easy access from the rink. Also need water bottle filling stations on each side of the rink.
- Advertising Boards
- Digital Scoreboards

#### Events

- For high school games, 300-500 people may come to watch.
- o There is not enough parking during events.
- They would like to host a high school hockey tournament, but with the current amenities (locker rooms, stands) there is not enough space, and ice is not always available.
- O There is also no hotel accommodation in Chester, making it difficult for people to visit from further away.

#### Possibilities for other uses

The facility could become more multi-use, hosting events such as craft fairs, markets, and other community events.

## **Curling Club**

## **Facility Management:**

- Security issues use of the facility is not fully controlled.
- Would like if there was one united management group for all operations in the facility.
   This will make it easier to contact someone if any issues need to be resolved or services are required.
- Currently feels disjointed from the rest of the facility and community spaces. The representatives believe that it would be beneficial for the arena to be looked at as one single facility, rather than the curling club being a completely independent entity.
- There are some common areas and amenities that can be shared between the curling club and the hockey rink users to make space usage more efficient. However, they should ultimately remain a private club rather than a fully public building.

#### **Curling Club Culture:**

• Curling club culture is evolving, traditions and needs are changing. The club is still figuring out the best way for it to continue operating, which will influence their needs in regard to a new facility.

## **Existing Facilities:**

- The curling club will continue to need access to a kitchen and bar, to continue the regular events associated with the curling community: potluck dinners, banquets, etc.
- Burners need to be replaced.
- Currently no insulation, which needs to be addressed.
- Humidity spikes within the facility.
- The equipment is old and needs to be upgraded.
- Beams are fine but decayed, this will need to be addressed.
- Continual maintenance is necessary such as an alarm system for snow load, to keep an eye on roof safety.
- No problem with the existing base elements of the rink the ice quality is fantastic.

#### **Future:**

• A new curling facility can also have other uses to generate revenue, such as being a nice destination for other events like weddings.

- For the full facility, they would welcome other community services like a walking track or a library.
- Not sure if the municipality and thus the tax base will be willing to raise the tax rate to cover these facility upgrades.

## Leaseholders of the Park

# **Current Buildings:**

- The Chester Brass Band might be renovating soon. If possible, they would like to collaborate with whatever is happening with the Chester Arena.
- The Tennis Club and the Daycare do not anticipate physical expansion of their current buildings soon.

# **Backup Facility:**

- The Chester Arena has been used as a backup facility in times of emergencies by both the Brass Band and the Daycare.
- During last year's water issue, the Brass Band used water from the arena.
- During a sprinkler issue two years ago, the Daycare used the rink as a temporary set up for their classrooms.

#### **Concerns:**

- The leaseholders are primarily concerned with maintaining their current access to the parking lot.
- The Daycare specifically notes that since they have many families who need to pick up and drop off their children, having sufficient parking space is essential for them.
- Other than backup emergency use, the leaseholders of the Park have their own buildings and do not have much interaction with the main Chester Arena building. Thus, they do not have many major concerns with the arena itself that need to be addressed.

Full meeting notes can be found in Appendix C, Section 7.1.

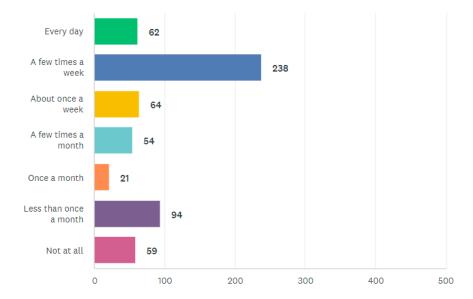
#### 3.5.3 Community Survey

A community-wide survey was conducted to reach a broader audience and gather input from a diverse range of community members beyond those directly involved in the interview meetings. The survey was designed to collect feedback on various aspects related to the arena, such as its current condition, usage patterns, desired amenities, and future expansions.

The community survey was distributed online by the Church Memorial Park Board of Trustees. It was open from March 20<sup>th</sup>, 2024 to April 29<sup>th</sup>, 2024. <u>It received a total of 599 responses.</u>

#### Frequency of Arena Use

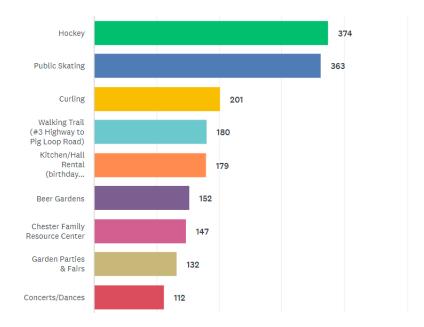
Participants were asked how frequently they, or other members of their family, used the facilities at the Church Memorial Park.

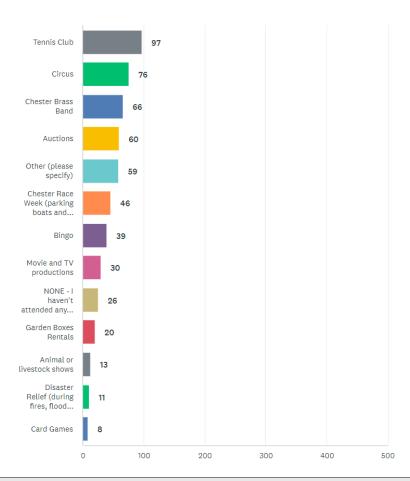


Every day	10.47%	62
A few times a week	40.20%	238
About once a week	10.81%	64
A few times a month	9.12%	54
Once a month	3.55%	21
Less than once a month	15.88%	94
Not at all	9.97%	59
Total		592

# <u>Current Use – Activities and Services</u>

Participants were asked which services, activities or functions at the Church Memorial Park they had attended as a participant or spectator in the past. They could choose as many as applicable.





Activity	Responses	
Hockey	63.28%	374
Public Skating	61.42%	363
Curling	34.01%	201
Walking Trail (#3 Highway to Pig Loop Road	30.46%	180
Kitchen/Hall Rental (birthday parties, weddings,	30.29%	179
suppers, banquets, meetings, etc.)		
Beer Gardens	25.72%	152
Chester Family Resource Center	24.87%	147
Garden Parties & Fairs	22.34%	132
Concerts/Dances	18.95%	112
Tennis Club	16.41%	97
Circus	12.86%	76
Chester Brass Band	11.17%	66
Auctions	10.15%	60
*Other	9.98%	59
Chester Race Week (parking boats and vehicles,	7.78%	46
use of showers and washrooms)		
Bingo	6.60%	39
Movie and TV productions	5.08%	30

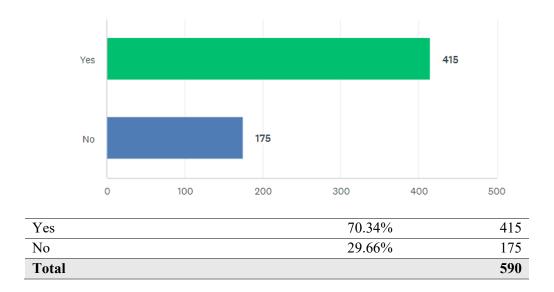
NONE – I haven't attended any function, activity	4.40%	26
or event at the Church Memorial Park		
Garden Boxes Rentals	3.38%	20
Animals or livestock shows	2.20%	13
Disaster Relief (during fires, floods, extended	1.86%	11
power outages etc use of kitchen, shower and		
washrooms)		
Card Games	1.35%	8
<b>Total Respondents: 591</b>		

The top 5 identified activities were **hockey** (63.28%), **public skating** (61.42%), **curling** (34.01%), using the **walking trail** (30.46%), and **kitchen/hall rental** (30.29%).

\*Of the 59 "Other" (9.98%) written responses, the most common answers can be categorized as below:

- 29 Events such as farmers markets (in the parking lot) and craft fairs
- 6 Pickle Ball
- 4 None/Used to go in the past
- 3 Roller skating
- 3 Fitness Classes at the Band Hall
- 2 Washer Toss Tournament
- One (1) response each:
  - o Broom ball
  - o Yoga (at the Curling Club)
  - o Softball
  - o Soccer field
  - o Birthday Skate
  - o Acting in TC Shows
  - High school graduation
  - o Baseball (many years ago)
  - o Dog walking in the old ball field
  - o Wedding
  - Meeting
  - o Election poll station

Participants were then asked if they were aware of the services offered at the Eleanor Pew Morris Memorial Arena:



Participants were then asked what other activities or services they would support if they were offered. This question received <u>359 written responses</u>, which are categorized as below:

Various Ball Games	148
Pickleball	76
Basketball	25
Indoor soccer	21
Squash	6
Lacrosse	5
Badminton	5
Indoor baseball	5 3 3
Shuffleboard	3
Softball	2
Indoor tennis	1
Volleyball	1
Indoor Swimming Pool	122
Indoor Walking Track	98
Gym/Fitness Centre with workout equipment offering a variety of	90
fitness programs*	
More Ice Time	37
Second rink	10
Extended/year-round hockey	9
Figure skating program (CanSkate)	9
Year-round public skate	5
Sledge Hockey	2

More curling	2
More varied community events**	27
Off-ice Hockey Variants	21
Floor hockey	15
Roller hockey	6
Kids Programming	19
Summer kids program/camp	7
Afterschool kids' program	6
Outdoor kids' playground	4
Indoor kids' playground	2
Community room***	15
Roller skating/derby	10
Other	43
Concerts/dances	8
Golf simulator	6
Library	6
Food/Café/Dining	4
Art/craft lessons	3
Off-leash dog park	3
Splash pad	3
More daycare	3
Sauna	1
Bouldering	1
Lawn bowling	1
Night-time movies in the park	1
Retail space for small business	1
Hiking club	1
EV charging	1

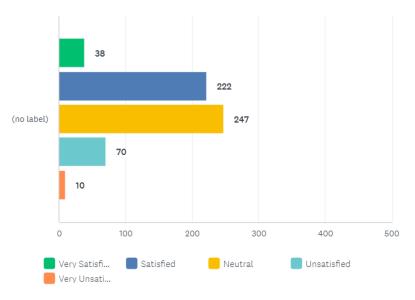
<sup>\*</sup>Fitness program suggestions include: weights, yoga, Taichi, dance, spin, meditation, senior programs.

<sup>\*\*</sup>Community event suggestions include: farmers market, craft fairs, trade shows, boat show, dog show, outdoor recreation show, home show, flea market, yard sales, garden parties, food trucks, beer gardens.

<sup>\*\*\*</sup>Community room suggested uses include: event rentals, parties, community dinners, bingo, cards.

# Satisfaction with Current Programs & Activities

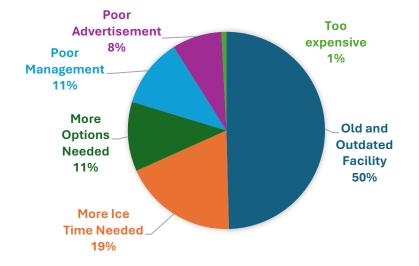
Participants were asked to rate their overall satisfaction with the programs and activities offered at the Eleanor Pew Morris Memorial Arena.



Very Satisfied	6.47%	38
Satisfied	37.82%	222
Neutral	42.08%	247
Unsatisfied	11.93%	70
Very Unsatisfied	1.70%	10
Total		587

# **Barriers to Participation**

If they indicated they were unsatisfied with the programs and activities offered at the Eleanor Pew Morris Memorial Arena, participants were invited to detail why. This question received <u>131 written responses</u>, of which the main complaints are listed below:



Old and	61
Outdated	
Facility	
More Ice Time	23
Needed	
More Options	14
Needed	
Poor	14
Management	
Poor	10
Advertisement	
Too expensive	1

#### • The facility is old and outdated.

- o The whole facility is cold, particularly the dressing rooms and the arena seating.
- o In addition to the cold, the benches used for seating are uncomfortable.
- Major accessibility renovations are needed, as many portions of the facility are not accessible. An accessible warm viewing area is needed.
- o Dressing rooms are too small.
- The whole facility is rundown and does not meet modern standards. Additionally, it does not seem to be maintained well with bad smells and dirty bathrooms being noted.
- o It lacks care for even small details, such as a drinking water fountain, or a broken clock that doesn't work for half the season. Sometimes there is no water access.
- o The facility is underutilized.
- o Parking is not clearly marked.
- o There are safety concerns regarding the poor outdoor lighting.

# • The facility is poorly managed and is not being used to its full potential.

- Connected to the previous point, cleanliness is lacking with complaints about the facility being dirty.
- o The canteen is inconsistently open and it is not communicated when it is open.
- Feels that the current manager is not interested in getting a larger client base and/or establishing programs in collaboration with the recreation department. Feels that the management is not encouraging of new suggestions.
- Feels that the manager is not present. 'If proper management is not in place, it won't matter if the present rink is upgraded or a new facility is built it will not succeed.'
- Mention that other facility managers develop, establish cost, and find people to run programming, with flexible office hours to remain available to these groups. This allows other facilities to be open longer throughout the day with a larger range of activities.
- O Do not feel welcomed 'the park had become too hidden to our community.'
- O Public skates are poorly managed 'free for all, people skating in all directions at high speed.'
- o Inefficiencies in ice bookings lead to wasted ice time that no one is utilizing suggesting that last minute, discounted rate ice rentals could be advertised through social media.
- o No one answers the phone when trying to book ice time.
- o Current management practices should be reviewed.

# • Poor advertising of offered services – needs better promotion to improve awareness in the community.

- o Improve website and social media.
- o Needs an easily accessible schedule for public skating and other events.

# • The facility needs to offer a wider selection of programs and activities beyond just hockey and curling.

- Would like learn-to-skate programs.
- o Feels like it's 'not built for the community' due to the narrow focus on ice sports.
- O Adult skating would be better attended if it was during lunch hours or during the weekend as working people cannot get to the current 10-11 skating period.
- o Community events are lacking.

#### • More ice/ice time is needed.

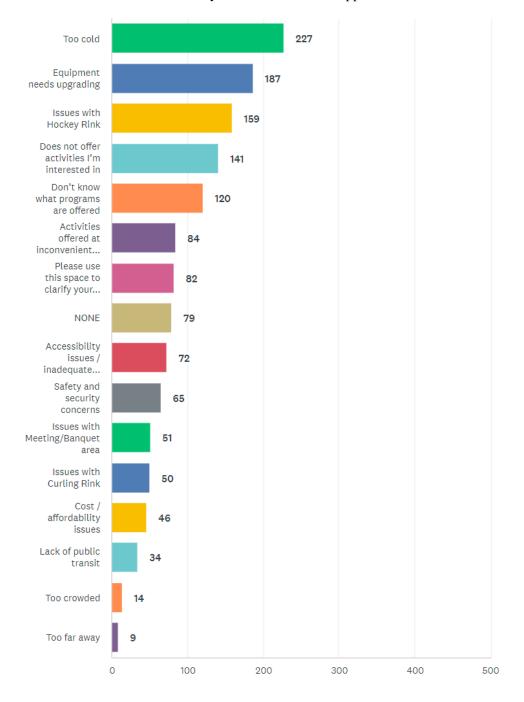
- Arena should be in use year-round both for ice sports and for a wider selection of programming.
- o Late start and early finish of ice availability relative to the hockey season.

- O Associations find it difficult to get ice time, often needing to look elsewhere.
- O Associations do not like having to book later ice times like 9:30pm.
- o More opportunities for free skates are needed (expanded hours or different times).
- Current ice allocations are frustrating to several associations.

# • Too expensive.

O Ice rentals are too much to afford for some of the hockey teams.

Participants were asked if there were any facility-related barriers limiting their participation in activities or programs at the Church Memorial Park. They could check all that applied.

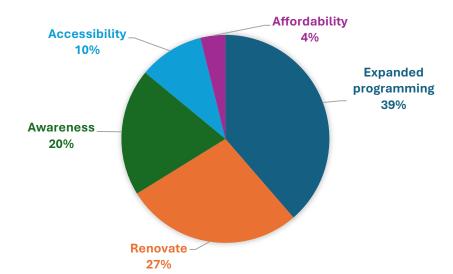


Too cold	43.91%	227
Equipment needs upgrading	36.17%	187
Issues with Hockey Rink	30.75%	159
Does not offer activities I'm interested in	27.27%	141
Don't know what programs are offered	23.21%	120
Activities offered at inconvenient times	16.25%	84
*Other – please use this space to clarify your	15.86%	82
answer or provide other barriers not listed:		
None	15.28%	79
Accessibility issues / inadequate facilities for	13.93%	72
persons with disabilities		
Safety and security concerns	12.57%	65
Issues with Meeting/Banquet area	9.86%	51
Issues with Curling Rink	9.67%	50
Cost / affordability issues	8.90%	46
Lack of public transit	6.58%	34
Too crowded	2.71%	14
Too far away	1.74%	9
<b>Total Respondents: 517</b>		

<sup>\*</sup>Other – a list of clarifications and additional barriers submitted by participants:

- Need better operations management it is hard to find staff for services like skate sharpening.
- Lack of safe drinking water, lack of hot water.
- Poor communications regarding whether the rink will be open or not (regarding events such as roof repairs and equipment issues).
- Accessibility issues:
  - o Curling rink not accessible for wheelchair curlers.
  - o No automatic door openers.
  - o No accessible toilet/change room.
  - o No accessible way to access the skating ice.
  - Warm room is not accessible.
- Layout issues:
  - o The stairs are very steep and narrow.
  - o Many hallways are very narrow, can be difficult to carry a hockey bag through them.
  - o Dressing rooms could be configured better.
  - o Bathroom stalls could be bigger.
- Unwelcoming atmosphere (décor)
- Parking lot issues:
  - o Lighting in the parking lot is completely inadequate.
  - o Many potholes in pavement.
  - o No salt used makes the pavement very slippery in the winter.
- Most public skates are during daytime working hours not possible for most working adults to attend.

Participants were then asked what would make it easier for them to access and participate in programs at the Eleanor Pew Morris Memorial Arena. <u>180 written responses were recorded</u>, and the main categories summarized below:



Expanded	80
programming	
Renovate	57
Awareness	41
Accessibility	21
Affordability	8

## • Expanded programming:

- Year-round availability
  - The facility should offer a wider variety of programs and supporting facilities yearround.
  - The facility should be more creative in finding varied summer uses for the rink.
  - Ice availability should be extended year-round.
  - More skating times should be offered.

# Scheduling

- Activities such as public skates should not be offered during the working day, as working adults find it difficult to take advantage of these programs.
- Programs for seniors should be offered during the day, as seniors do not like to drive after dark.
- Regarding hockey, people do not consider times like 9:45pm to be ideal prime time

   they consider these times late.
- O A facility that operates more as a community center that offers a range of activities will boost membership.
- o Programs should be more publicly available. Currently most ice time is booked by associations, and individual non-members get very limited availability.
- o Pickleball is quite popular and is mentioned frequently.
- o Skaters would love having skate rentals.
- Examples of facilities with the types of programming that respondents enjoy: the new Windsor facility, the LCLC, St Margaret's Centre, the facilities at Bridgewater and Liverpool.

## • Renovate the facility:

- O Parking lot: quality of pavement is terrible, lighting needs to be improved, accessible parking needs to be added, no salt is currently used so it is slippery in the winter.
- o Improve road conditions on Pig Loop Road as it is currently dangerous.
- Improve heating for the whole facility.

- Have a heated viewing area for the hockey rink.
- o Maintenance must be improved and remain consistent for cleaner facilities.
- o Replace the hard wood bleachers as they are very uncomfortable.
- Add handrails for the bleachers.
- o Replace with new boards, benches and penalty boxes.
- o Improve the cafeteria and have it open more consistently.
- o The curling club needs their own proper kitchen to host bonspiels,
- The facility should consider incorporating advertising space in the arena for funding.

# • Improve Awareness and Communication:

- O Better utilize social media to communicate what is happening at the facility. The current situation is a poorly maintained noticeboard and phone number. There are complaints that no one answers this phone number, which makes it even more difficult to get information.
- An overall schedule of activities, events and programs happening at the facility needs to be made available and clearly communicated to the public. This schedule should also make it clear what facilities are currently available for rent/use.
  - All programs are currently promoted by separate organizations, so understanding the full picture is difficult.
  - A website with a live, up-to-date, and accessible calendar would help increase rentals and use.
  - This website can also implement online booking and registration so that users are able to buy tickets and make bookings online.
- o In addition to the website, the facility could also send out quarterly mail like what the recreation department does with their programs.
- Some respondents want more transparency, as they are not even aware if there is a group that organizes events at the facility or not. They suggest a more formal structure to ensure community involvement and participation in the process. They need to know more about what a 'cultural center' entails before they know if they want one.
- More emails and notices should be sent out to taxpayers to understand where the money is going.

## • Improve Accessibility:

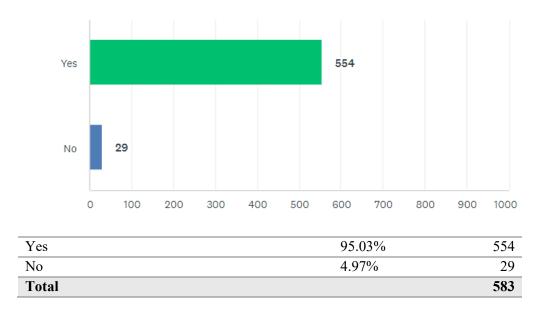
- Accessible parking
- Consult accessibility professionals.
- o Make entryways and all doorways, hallways, bathrooms, and showers accessible.
- New entrance systems with automatic sliding doors.
- Accessible access to ice surface.
- Elevators to upstairs.
- o Accessible spectator seating and viewing areas at ice level.
- o Improve public transit in the surroundings.
- Keep the facility at an accessible and walkable location (close to two schools, daycare and senior village).
- The facility must be welcoming to a variety of demographics.

#### • Affordability:

- Have a greater commitment from the municipality to subsidize costs.
- o Building should be run and financed by the Municipal government so it can be open more and made a proper municipal/community center.
- o Free use for public or affordable membership.
- o Provide different price options so people on different budgets can still enjoy the facility.

# Location

Participants were asked if they knew where the Church Memorial Park is located.



Participants were then asked how convenient they found the current location of the Church Memorial Park to be.



# The average rating of the current location's convenience is 7.85/10.

1 – least	2	3	4	5	6	7	8	9	10 – most	Total
convenient									convenient	
0.35%	0.70%	1.41%	2.64%	11.97%	6.87%	12.15%	22.89%	10.74%	30.28%	
2	4	8	15	68	39	69	130	61	172	568

Below are the basic statistical results of this question.

Minimum	Maximum	Median	Mean	Standard Deviation*
1.00	10.00	8.0	7.85	1.99

<sup>\*</sup>Standard Deviation is the amount of spread from the mean.

Participants were then asked how important the location of a multi-use Sports & Culture facility is.



# The average rating for the location of a multi-use Sports & Culture facility is 8.15/10.

1 – not important at all	2	3	4	5	6	7	8	9	10 – very important	Total
2.43%	0.52%	1.73%	1.21%	10.40%	4.68%	9.71%	15.60%	8.67%	45.06%	
14	3	10	7	60	27	56	90	50	260	577

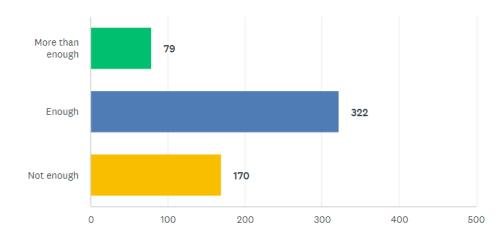
Below are the basic statistical results of this question.

Minimum	Maximum	Median	Mean	Standard Deviation*
1.00	10.00	9.0	8.15	2.26

<sup>\*</sup>Standard Deviation is the amount of spread from the mean.

# **Parking**

Participants were asked if parking space at the current location of the Church Memorial Park meets their requirements.



More than enough	13.84%	79
Enough	56.39%	322
Not enough	29.77%	170
Total		571

# **Funding**

Participants were asked to indicate what percentage of their tax dollars they were comfortable with the municipality using towards recreation, including the maintenance and operation of a multi-use sport, recreational and cultural facility.

494 people answered this question. Participants were able to enter any number from 0 to 100.

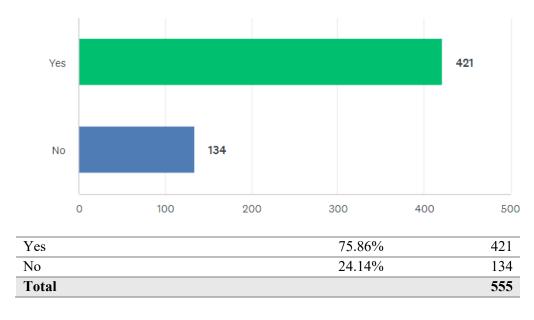
## The average percentage is 23%.

Below are the basic statistical results of this question.

Minimum	Maximum	Median	Mean	Standard Deviation*
0.00	100.00	18.0	22.68	19.85

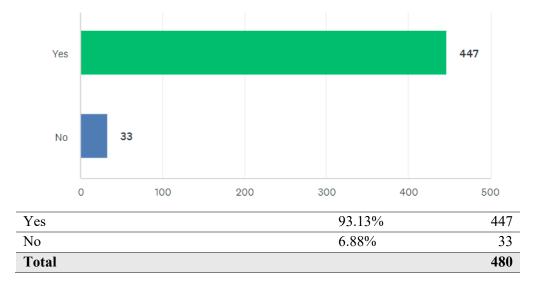
<sup>\*</sup>Standard Deviation is the amount of spread from the mean.

Participants were then asked if they would support increased user fees (such as: hourly rates for ice use, rentals, leases, and membership fees) as a method to assist with the additional costs of an upgraded or new multi-use sport, recreational and cultural facility.

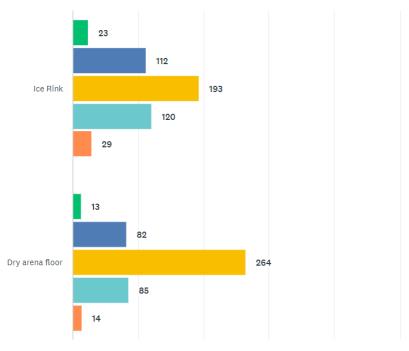


# **Existing Facility Upgrades and Improvements**

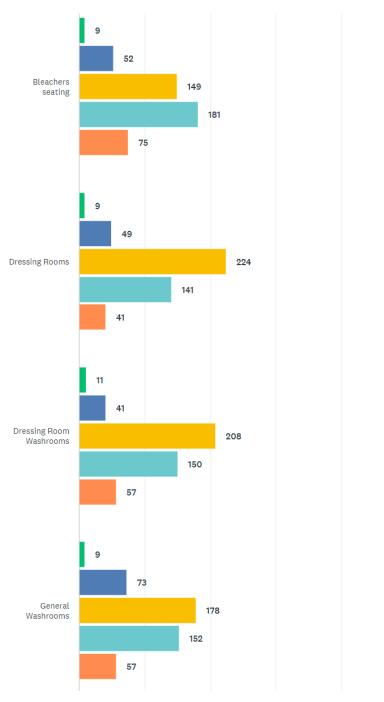
Participants were asked if they felt upgrades or improvements were needed for the Eleanor Pew Morris Memorial Arena.



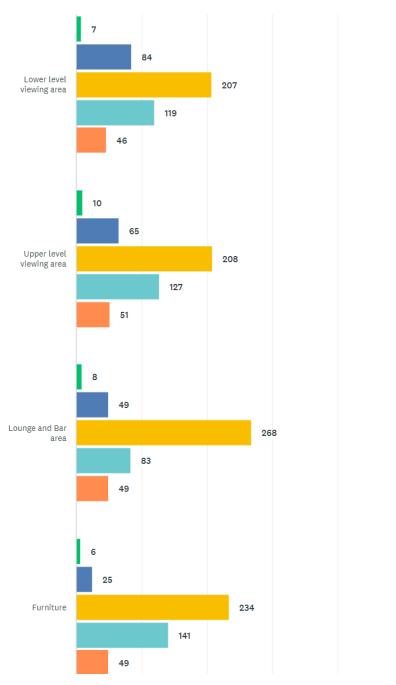
Participants were then asked to rate their satisfaction with the existing **SKATING RINK** facilities provided at the Eleanor Pew Morris Memorial Arena. If not applicable, to them they were asked to select "neutral".



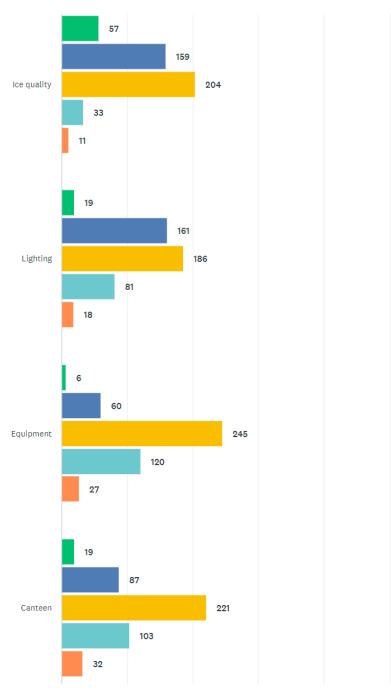
	V. Satisfied	Satisfied	Neutral	Unsatisfied	V. Unsatisfied	Total
Ice Rink	4.82%	23.48%	40.46%	25.16%	6.08%	
	23	112	193	120	29	477
Dry Arena	2.84%	17.90%	57.64%	18.56%	3.06%	
Floor	13	82	264	85	14	458



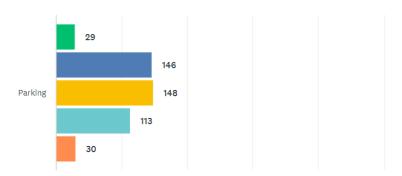
	V. Satisfied	Satisfied	Neutral	Unsatisfied	V. Unsatisfied	Total
Bleachers	1.93%	11.16%	31.97%	38.84%	16.09%	
Seating	9	52	149	181	75	466
Dressing	1.94%	10.56%	48.28%	30.39%	8.84%	
Rooms	9	49	224	141	41	464
Dressing	2.36%	8.78%	44.54%	32.12%	12.21%	
Room	11	41	208	150	57	467
Washrooms						
General	1.92%	15.57%	37.95%	32.41%	12.15%	
Washrooms	9	73	178	152	57	469



	V. Satisfied	Satisfied	Neutral	Unsatisfied	V. Unsatisfied	Total
Lower-level	1.51%	18.14%	44.71%	25.70%	9.94%	
viewing area	7	84	207	119	46	463
Upper-level	2.17%	14.10%	45.12%	27.55%	11.06%	
viewing area	10	65	208	127	51	461
Lounge and	1.75%	10.72%	58.64%	18.16%	10.72%	
Bar area	8	49	268	83	49	457
Furniture	1.32%	5.49%	51.43%	30.99%	10.77%	
	6	25	234	141	49	455

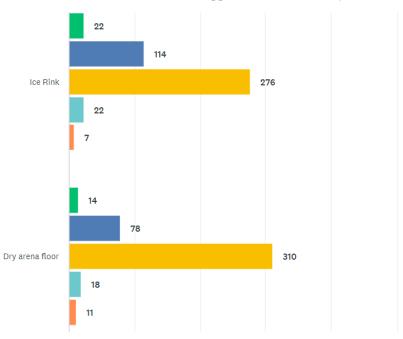


	V. Satisfied	Satisfied	Neutral	Unsatisfied	V. Unsatisfied	Total
Ice quality	12.28%	34.27%	43.97%	7.11%	2.37%	
	57	159	204	33	11	464
Lighting	4.09%	34.62%	40.00%	17.42%	3.87%	
	19	161	186	81	18	465
Equipment	1.31%	13.10%	53.49%	26.20%	5.90%	
• •	6	60	245	120	27	458
Canteen	4.11%	18.83%	47.84%	22.29%	6.93%	
	19	87	221	103	32	462

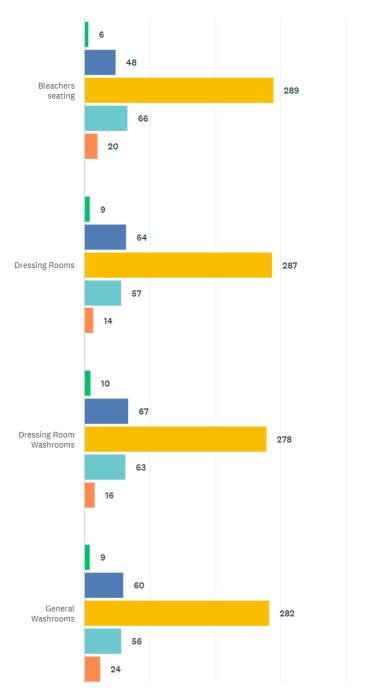


	V. Satisfied	Satisfied	Neutral	Unsatisfied	V. Unsatisfied	Total
Parking	6.22%	31.33%	31.76%	24.25%	6.44%	
	29	146	148	113	30	466

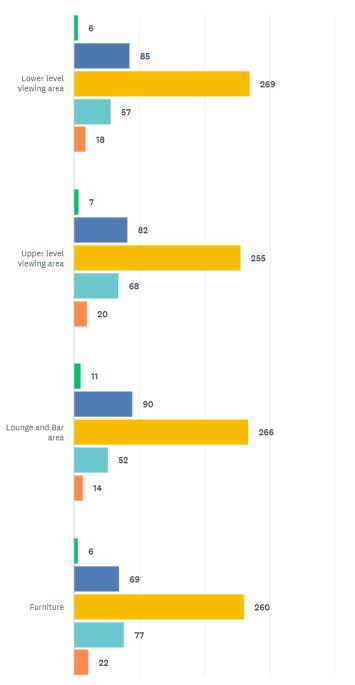
Participants were then asked to rate their satisfaction with the existing **CURLING RINK** facilities provided at the Eleanor Pew Morris Memorial Arena. If not applicable, to them they were asked to select "neutral".



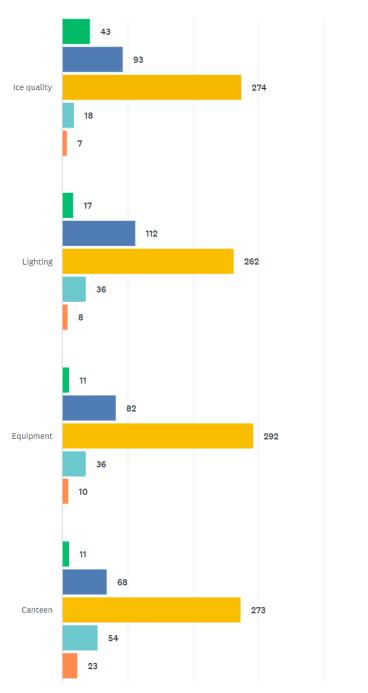
	V. Satisfied	Satisfied	Neutral	Unsatisfied	V. Unsatisfied	Total
Ice Rink	4.99%	25.85%	62.59%	4.99%	1.59%	
	22	114	276	22	7	441
Dry Arena	3.25%	18.10%	71.93%	4.18%	2.55%	
Floor	14	78	310	18	11	431



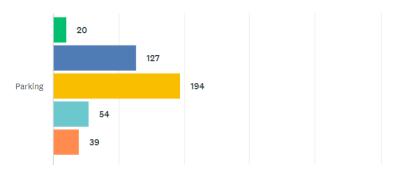
	V. Satisfied	Satisfied	Neutral	Unsatisfied	V. Unsatisfied	Total
Bleachers	1.40%	11.19%	67.37%	15.38%	4.66%	
Seating	6	48	289	66	20	429
<b>Dressing Rooms</b>	2.09%	14.85%	66.59%	13.23%	3.25%	
-	9	64	287	57	14	431
<b>Dressing Room</b>	2.30%	15.44%	64.06%	14.52%	3.69%	
Washrooms	10	67	278	63	16	434
General	2.09%	13.92%	65.43%	12.99%	5.57%	
Washrooms	9	60	282	56	24	431



	V. Satisfied	Satisfied	Neutral	Unsatisfied	V. Unsatisfied	Total
Lower-level	1.38%	19.54%	61.84%	13.10%	4.14%	
viewing area	6	85	269	57	18	435
Upper-level	1.62%	18.98%	59.03%	15.74%	4.63%	
viewing area	7	82	255	68	20	432
Lounge and	2.54%	20.79%	61.43%	12.01%	3.23%	
Bar area	11	90	266	52	14	433
Furniture	1.38%	15.90%	59.91%	17.74%	5.07%	
	6	69	260	77	22	434



	V. Satisfied	Satisfied	Neutral	Unsatisfied	V. Unsatisfied	Total
Ice quality	9.89%	21.38%	62.99%	4.14%	1.61%	
	43	93	274	18	7	435
Lighting	3.91%	25.75%	60.23%	8.28%	1.84%	
	17	112	262	36	8	435
Equipment	2.55%	19.03%	67.75%	8.35%	2.32%	
	11	82	292	36	10	431
Canteen	2.56%	15.85%	63.64%	12.59%	5.36%	
	11	68	273	54	23	429



	V. Satisfied	Satisfied	Neutral	Unsatisfied	V. Unsatisfied	Total
Parking	4.61%	29.26%	44.70%	12.44%	8.99%	
	20	127	194	54	39	434

Below is an overview of the submitted comments and complaints about each facility, when participants were asked why they were unsatisfied with facilities provided at the Eleanor Pew Morris Memorial Arena:

#### Ice Rink:

- Known as the 'coldest rink in the province'.
- The safety pads along the glass are broken and provide minimal protection.
- Irregularities in the boards there are parts that stick out on both sides with the potential for injury.
- Glass on the boards is smudged hard to see.

## **Dry Arena Floor:**

- The mats on the floor are a tripping hazard.
- Not level in some parts of the rink.
- Concrete floor not appropriate for athletic play (during the summer).

## **Bleachers Seating:**

- Uncomfortable wooden benches.
- The lower-level seating of the hockey rink is obstructed by beams, creating bad sight lines.
- The penalty box and score keep walls block views from the stands. In other locations the roof rafters are in the way.
- No rails, feels unsafe.
- Benches are sometimes wet from drips.
- Bad layout there is not enough space for people to get by others in order to access the middle seats.
- Not enough seating for provincial tournaments.
- Instances where people have gotten splinters from the wood benches.
- The Curling Club needs more seating (needs more space in general there is not enough during events)

## **Dressing Room & Showers:**

- Out of date.
- Too small for large hockey teams.
- Many lockers don't close properly.

- Hot water is not always available from taps and showers.
- Need a larger dedicated female dressing room for privacy concerns.
- Corridors to dressing rooms are very narrow especially when carrying a hockey bag, causing congestion.
- Directions to dressing rooms are not well signposted.
- Small shower stalls there is barely enough room for two people.

#### Washrooms:

- No public washroom in the curling rink.
- The washrooms are unclean, smelly, always messy, and usually out of paper towels and toilet paper.
- Broken locks in washrooms.
- The dressing room washrooms have only one stall.

## **Viewing Area:**

- Not possible to see anything happening on the hockey rink in a wheelchair.
- The warming room is not centered on the hockey rink and kept in the corner. The view is blocked by HVAC.

# Lounge/Bar Area & Furniture:

- The Curling Club does not have a full kitchen to host events.
- The Curling Club bar and viewing area is too small, especially during events.
- Bar and bar supplies are crammed in.
- If you are waiting for food, you are not able to see what is happening on the ice.
- All the furniture needs to be updated some is broken.

## **Ice Quality:**

- Can be inconsistent.
- Ice is sometimes either very rough or soft 'like skating on a lake'.
- Sheet 1 of the curling club has a bump in it.

#### **Equipment:**

- Holes in nets, net pegs don't work.
- No working sound system.
- Not enough storage space off the floor.
- Not enough 'walkers' available for the ice during public skate.
- Outlets not working throughout the arena.
- Touchy wifi.

#### Canteen:

- The canteens in both rinks are seldom open.
- There are no snack or pop machines to supplement this.
- The kitchen needs more appliances, such as a stove, ovens and a small fridge.

#### Parking:

- Potholes need to be fixed.
- The lighting in the parking lot is inadequate, making it too dark and unsafe at night.
- Needs more parking spots, should be lined, and needs more pavement.
- The lack of organization would make it difficult for emergency services to access the facility if there is an emergency.

#### **Other comments:**

- Not accessible (in all aspects)
- Poor management
  - o Not enough staff + complaints of unprofessional and unfriendly staff.
  - o Does not seem interested in improvement.
  - Lack of proper upkeep.
  - o Garbage is rarely cleaned.
- Poor acoustics loud within the arena.
- The stairs are very steep and narrow.
- Mold on upstairs ceiling.

#### **Overall:**

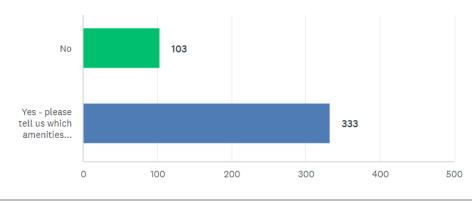
Commenters find the arena outdated, dirty, and in need of modernization. It has not been maintained to acceptable conditions and cleanliness. People are noticing a lack of care for even small details, such as sawdust not being swept away for a month after work was done, or a door latch being fixed.

Upgrades and accessibility are needed in all areas. There are also additional safety concerns about the overall structure, as well as the current conditions of some facilities. For example: 'I don't feel comfortable letting my toddler run around as there are sharp screws sticking out of the boards'.

People remember it being exactly the same from when they were children, decades ago. The atmosphere of the interior is gloomy and uninviting. It is not modern in comparison to other communities, which some find embarrassing. There is not much civic pride in this arena as it stands currently.

## **Additional Amenities/Facility**

Participants were asked if they felt additional/new amenities are needed at the existing Eleanor Pew Morris Memorial Arena.

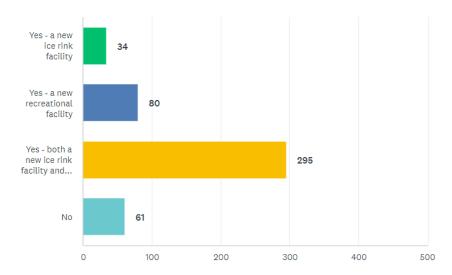


Yes	76.38%	333
No	23.62%	103
Total		436

The following is a list of frequently suggested additional spaces that can supplement existing amenities, collected from the comments:

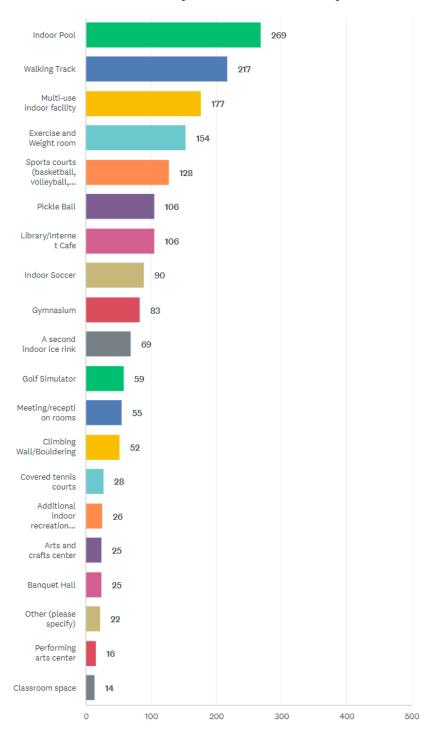
- More stadium-style seating in the bleachers.
- Redesign access to the curling rink so wheelchairs can get to ice level.
- Accessible viewing platform.
- Larger viewing areas.
- Multi-use room (suitable for meetings, community spaces, social events, etc.)
- More food catering to supplement existing canteen, such as vending machines or food trucks during events.
- Walking track
- Additional recreation options such as: basketball, pickleball courts, gym/fitness spaces, swimming.

They were then asked if they thought a new ice rink facility, or a new recreational facility is needed in Chester.



Yes – a new ice rink facility	7.23%	34
Yes – a new recreational facility	17.02%	80
Yes – both a new ice rink facility and a new	62.77%%	295
recreational facility		
No	12.98%	61
Total		470

Then they were asked to mark from a list the top three indoor recreation spaces most needed in Chester.



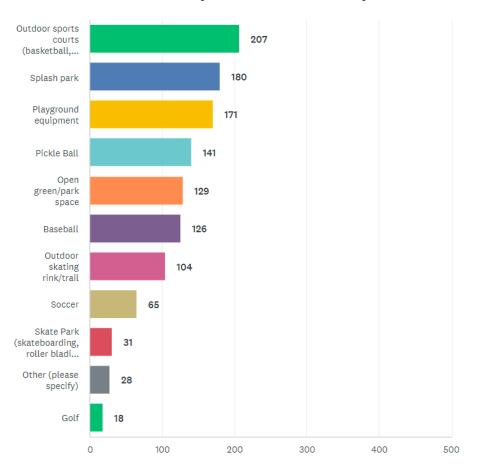
Indoor Pool	56.75%	269
Walking Track	45.78%	217
Multi-use indoor facility	37.34%	177
Exercise and Weight room	32.49%	154
Sports courts (basketball, volleyball, etc.)	27.00%	128

Pickleball	22.36%	106
Library/Internet Café	22.36%	106
Indoor Soccer	18.99%	90
Gymnasium	17.51%	83
Second indoor ice rink	14.56%	69
Golf simulator	12.45%	59
Meeting/reception rooms	11.60%	55
Climbing Wall/Bouldering	10.97%	52
Covered tennis courts	5.91%	28
Additional indoor recreational spaces are not	5.49%	26
needed		
Arts and crafts center	5.27%	25
Banquet Hall	5.27%	25
*Other (please specify)	4.64%	22
Performing arts center	3.38%	16
Classroom space	2.95%	14
<b>Total Respondents: 474</b>		

<sup>\*</sup>Below are the comments submitted for the "Other" option:

- Some mentioned that it's difficult to pick only three they would like many of these listed suggestions.
- One commentor mentioned that some of these options could be better accessed through other existing community spaces such as using local schools' gyms, fields and playground during after school hours or other existing meeting spaces.
- Indoor rec space (field house) that can be used for multiple sports: soccer, field hockey, baseball, football, squash, racquetball.
- Badminton
- Children/Baby play area
- A multipurpose café for families with young children: quiz nights, painting parties, book clubs, baby sitting movie night, "mommy and me" during the day, music space for kids.
- Skate Park & Roller blading

Then they were asked to mark from a list the top three outdoor recreation spaces most needed in Chester.



Outdoor sports courts (basketball, volleyball, etc.)	47.70%	207
Splash Park	41.47%	180
Playground equipment	39.40%	171
Pickleball	32.49%	141
Open green/park space	29.72%	129
Baseball	29.03%	126
Outdoor skating rink/trail	23.96%	104
Soccer	14.98%	65
Skate Park (skateboarding, roller blading, etc.)	7.14%	31
*Other (please specify)	6.45%	28
Golf	4.15%	18
Total Respondents: 434		

\*Below are the comments submitted for the "Other" option:

- Adult gym/exercise equipment
- Lacrosse
- Treego

- Dog park
- Lawn bowling
- Outdoor track
- Walking/multiuse trails
- Public washroom facilities

## **Survey Summary**

Overall, 93.13% of survey respondents believe that improvements and upgrades to the Eleanor Pew Morris Memorial Arena's existing amenities are necessary. 76.38% believe that additional amenities are needed. There seems to be large interest in a more flexible multi-use sportsplex with an increased variety of amenities and recreation options, with 17.02% believing a new recreational facility is needed, and 62.77% believing that both a new ice rink facility and a new recreational facility is needed.

Respondents are interested in a facility that not only focuses on team sports, but also accommodates a larger range of public users, such as family use and individual fitness/recreation needs. A new, updated recreational facility could be a draw for young professionals to move to the community, choosing the area as a great place to live, work and raise young families.

It is important that the facility be upgraded to meet accessibility standards.

The raw survey results can be found in Appendix C, Section 7.2.

## 3.5.4 Outcomes, Key Themes and Needs

The methods of public and stakeholder engagement provided valuable information about the current use of the Eleanor Pew Morris Memorial Arena and emerging needs for indoor facilities and programming.

A summary of the suggested needs, improvements, and additions:

**Ice Availability**: Surplus ice time is very limited – it is almost always booked up. Needs for ice time are increasing past the current capacity of the rink. Organized team sports book most of the ice time, causing frustration amongst other user groups.

**Dressing Rooms:** Additional and bigger dressing rooms with better heating are required. New dressing rooms and joint shower areas must abide by Hockey Canada's new inclusivity rules regarding privacy in changing rooms. Universal dressing rooms and washrooms should be made available.

**Insulation:** A common complaint amongst spectators is that the interior is very cold, making the viewing experience very uncomfortable.

**Accessibility:** The stands, warm room, changing rooms and washrooms should all be made wheelchair accessible. There is currently no accessible spot for wheelchair users to view the ice. An elevator to the warm room should be installed. Steps are currently too steep with no handrails, which is challenging for those with mobility issues. Doors are heavy to open and handicap buttons do not work reliably.

**Stands:** If the arena wants to host larger events (larger hockey league matches, provincial-level tournaments, or competitions, etc.), they will require an increased seating capacity, and the current stands should be upgraded to padded fold-down seats with assigned seating for greater comfort and ease of ticket selling.

Large heated multi-purpose space: For off-ice training, meetings and community use.

**Minor Additions:** More ice-level storage, greater lighting options (floodlights and spotlights for shows), multi-media support (designated space for livestreaming games and events), improved sound systems.

**Maintenance:** From the survey, the Eleanor Pew Morris Memorial Arena has a reputation for being old and dirty. Even after renovation, the facility should undergo proper maintenance and upkeep in its regular usage to preserve a high standard of cleanliness and comfort for its users.

**Parking:** Not enough parking, especially during back-to-back practices or large events. More accessible parking spaces should be provided. The lighting in the parking lot must also be improved to address safety concerns.

**Expenses:** Costs to participate are becoming more expensive across multiple programs, including minor hockey. This is creating a barrier to entry for some families. If it was less expensive to rent ice time, overhead league costs would lower.

**Management:** Concerns with the current way the facility is being managed have been raised in both the stakeholder interviews and in the community survey. Even if renovations are made, or a new facility is built, existing problems will persist with improper management. It would be beneficial to review current management practices in collaboration with the community users.

**Multi-use Facility:** There is interest in an indoor, multi-use facility with a greater variety of indoor activities and amenities that could also be used in the summer, such as: walking track, gym space, lacrosse, indoor pickleball, roller hockey, indoor pool, etc. Creating a one-stop destination for recreation in one location makes recreational activities more convenient and accessible for busy families to overlap their activities. These programs should be beneficial and accessible to residents of all ages.

**Awareness:** Awareness and advertising of recreational programs should be better promoted by facility management. Skating times should be listed in an accessible website format – posting images on Facebook is not accessible to those with vision impairments and excludes non-Facebook users. Information should be clearly available, easy to filter and allow for easy keyword searches on a website.

**Town Infrastructure:** If the arena wants to attract visitors and host larger tournaments and events, the village of Chester requires hotels and related infrastructure to be built. This is outside the scope of this study but should still be noted.

## 3.6 NEED ASSESSMENT SUMMARY

## Is the current facility suitable for the current and future needs of Chester?

Like many other places in Nova Scotia, the population of Chester is both steadily increasing and ageing. It is more important than ever to have a **fully accessible** recreational facility that allows all to enjoy the physical benefits of recreational programming and the social benefits of connecting with the greater Chester community.

Recreational needs are growing past what the current facility can sustain. The ice hours at the Eleanor Pew Morris Memorial Arena are close to its usage capacity during prime time. In addition to existing ice rentals by team sports organizations, there is also interest in increased hours of public programming to be made available to the general public. **Increased flexibility** needs to be provided for ice bookings.

Current amenities at the Eleanor Pew Morris Memorial Arena should be **upgraded and modernized** to meet current day needs, allowing for users to feel both comfortable and secure. Aesthetic improvements create a more welcoming space, and improve civic pride within the community,

There is also potential for the facility to provide a greater variety of recreational offerings. New recreational best practices look for **flexible multi-use** facilities that function as recreation, entertainment, family centers and community hubs. Additions and upgrades to existing amenities, such as a multi-use room, dedicated warm-up space, a walking track, gym facilities, and an improved canteen, are all possibilities that can broaden user experiences at the Eleanor Pew Morris Memorial Arena.

# 4 FEASIBILITY STUDY

#### 4.1 DESIGN PRINCIPLES

Design Principles for a well-designed recreation facility:

#### **Accessible Design**

- Rick Hanson Accessibility design standards.
- Designed for all ages, genders and ethnicities.
- Intuitive layout and wayfinding.

#### **High Quality Interior and Exterior Design**

- Welcome and uplifting with natural light.
- Modern materials and technology.
- Reflects vitality of recreational activities.
- Includes gender neutral amenities.

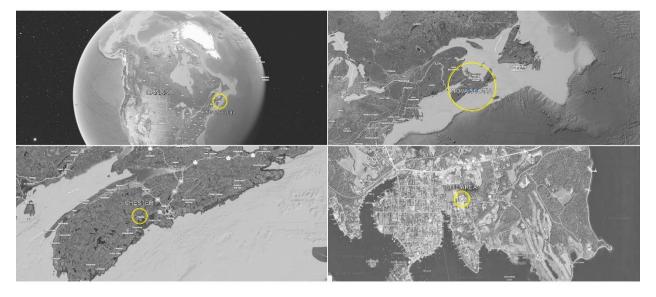
#### **Good Planning and Layout**

- Easily understood and navigated.
- Secure control points.

#### **Sustainable Design**

- Optimized energy and water efficiency.
- Energy producing technology (e.g.: PV Panels)
   Green building design certification (e.g.: LEED)
- Carbon Neutral design

### 4.2 SITE ANALYSIS



Location

The existing site of the Eleanor Pew Morris Memorial Arena is located at 190 Pig Loop Rd, Chester, Nova Scotia.

The Eleanor Pew Morris Memorial Arena is part of "The Park!" Recreational Complex. Aside from the arena, The Park! is also home to the Chester Tennis Club, the Chester Family Resource Centre, and the Chester Brass Band. North of The Park! is the Chester District School.





- 1. Eleanor Pew Morris Memorial Arena
- 2. Chester District School
- 3. Chester Family Resource Centre and Chester Brass Band
- 4. Chester Tennis Club
- 5. Public Parking (48 cars)
- . Technical Backyard



Site Analysis

The parking lot is to the south of the arena and is accessed from Pig Loop Road. It has approximately 48 parking spaces. The site also has a technical backyard for loading and other machinery access. This is accessed by an asphalt driveway that runs along the east side of the arena.



Site Photos

# 4.3 OPTION 1 – BASE RETROFIT ONLY | EXISTING SITE

In Option 1, there are no upgrades or additions to the arena other than accessibility upgrades. This only includes the list of recommended repairs that were included in the Building Condition Assessment to extend the lifetime of the building by another 25 years. All other existing conditions would remain the same.



Bird-Eye View - Existing Building

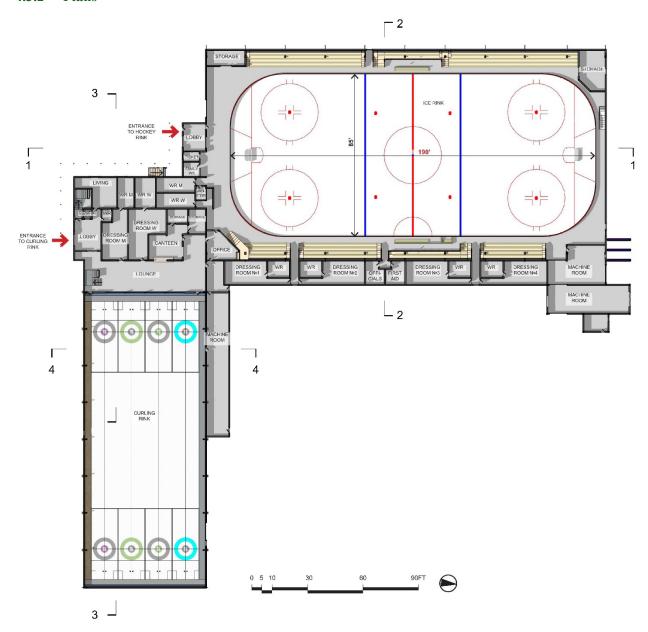
### 4.3.1 Summary

- Parking: 48 cars
- Main amenities:
  - o 190'x85' skating rink
  - Curling rink



3D View - Existing - First (left) & Second (right) Floor

### 4.3.2 Plans



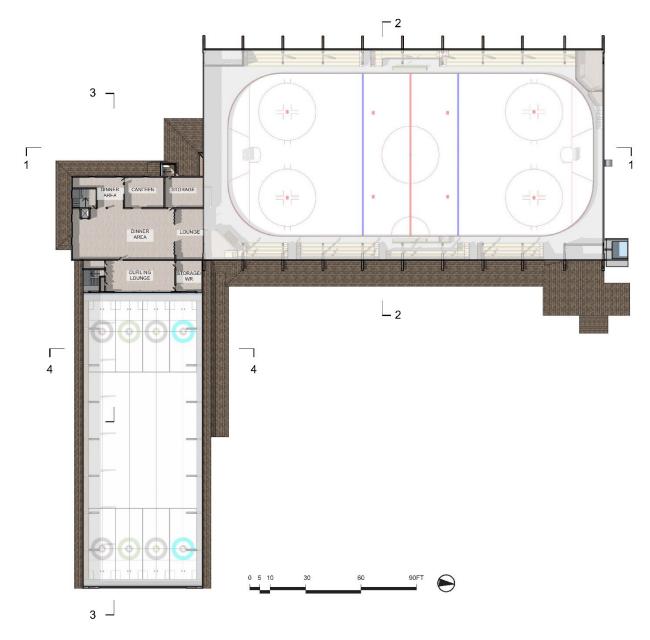
First Floor Plan – Existing

The current length of the skating rink is insufficient. According to NHL standards, 200' is required.

### **Current First Floor Amenities:**

- Lobby
- Curling rink
- 2 Curling rink dressing rooms
- Curling lounge and canteen

- 190'x85' Skating rink
- 4 Skating rink dressing rooms
- 1 Office
- Storage



Second Floor Plan – Existing

### **Current Second Floor Amenities:**

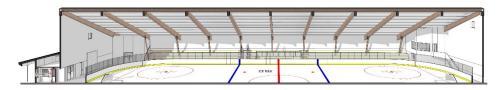
- Curling lounge
- Dinner area with canteen

- Skating lounge
- Storage

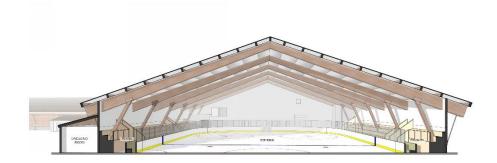
# **Current Capacity: 748 seats**

<b>Skating Rink Spectators</b>	Other 1FL Capacity	Other 2FL Capacity	
• Stands: 607	• Curling Lounge: 25	Hockey Lounge: 15	
		• Curling Lounge: 25	
		• Dinner Area: 76	

### 4.3.3 Sections



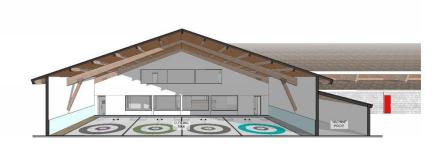
Section 1 – Existing – Skating Rink



Section 2 – Existing – Skating Rink



Section 3 – Existing – Curling Rink



Section 4 – Existing – Curling Rink

#### 4.3.4 Cost Estimate

The following table describes the cost estimate for Option 1.

# **OPTION 1 - BASE RETROFIT ONLY | Existing Site**

### **MAIN FEATURES:**

Hockey Rink (Existing Rink - Not to NHL Size)

Curling Rink

Existing Arena Seating Capacity 748 Seats
Existing Parking Capacity 48 Cars

 First Floor
 41,847 Sq. Ft.

 Second Floor
 4,650 Sq. Ft.

 Total Area
 46,497 Sq. Ft.

### A - ESTIMATED COST FOR THE REPAIRS AND RETROFITS:

DESCRIPTION	COST ESTIMATES	TOTAL
Base Renovations - 5 Years Cost	\$8,850,000	
Base Renovation - 25 Years Cost	\$8,790,000	
TOTAL COST OF THE REPAIRS AND RETRO	\$17,640,000	

# **B-ESTIMATED COST FOR UPGRADES / ENHANCEMENTS:**

DESCRIPTION OF UPGRADES	COST ESTIMATES	TOTAL
DESCRIPTION OF STORAGES	OGGI EGIIMATEG	TOTAL
TOTAL COST OF THE UPGRADES		\$0.00
CONSTRUCTION COST ESTIM	ATE OF THE UPGRADES	\$0
CONSTRUCTION COST ESTIMATE	FOR THE OPTION (A+B)	\$17,640,000
ESTIMATE OF PROJECT SOFT COSTS (Design, Lega	ıl, P.Mgmt, Permits) - 20%	\$3,528,000

ESTIMATED PROJECT COST \$21,168,000

### 4.3.5 Needs Assessment

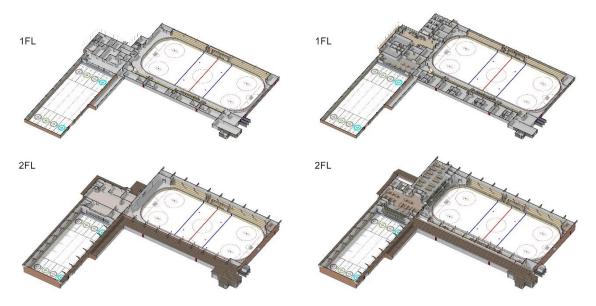
The following matrix compares Option 1 against the main stakeholder and community needs that were derived from the Needs Assessment.

Needs	Yes/No		
NHL-sized Ice Rink	No		
Needs for prime ice time are surpassing the Arena's current ice capacity.	NO		
Larger/More Dressing Rooms			
Minor Hockey teams require larger dressing rooms with separate stalls	No		
to comply with Hockey Canada regulations.			
Improved Insulation & Warm Viewing Spaces	No		
Common complaint amongst spectators is that the interior is very cold, making the viewing experience very uncomfortable.	INO		
Accessibility			
The facility needs to meet 'Access by Design 2030' facility accessibility	Yes		
standards.			
Increased Seating Capacity	NI.		
To host larger events, more seating is required around the rink.	No		
Increased Parking			
Parking frequently overflows during overlapping bookings and large	No		
events.			
Multi-purpose Room	No		
For greater flexibility in community programming.			
Top 5 INDOOR recreation spaces desired in Chester, voted on by survey respondents:			
Indoor Pool	No		
Walking Track	No		
Multipurpose Facility	No		
Weight/fitness Room	No		
Indoor Sports Courts	No		
Top 5 OUTDOOR recreation spaces desired in Chester, voted on by survey respondents:			
Outdoor Sports Courts	Yes (only retains existing tennis courts)		
Splash Park	No		
Playground Equipment	No		
Pickleball Courts	No		
Open Green/Park Space	No		

# 4.4 OPTION 2 – BASE RETROFIT + UPGRADES | EXISTING SITE

Option 2 introduces a new expansion scheme on top of the base renovations detailed in Option 1:

- 1. Extended Public Area
- 2. Length of Ice Rink has been increased to 200ft
- 3. Extended Dressing Room Area



Existing (Left) & Expansion Scheme (Right)

### 4.4.1 Summary

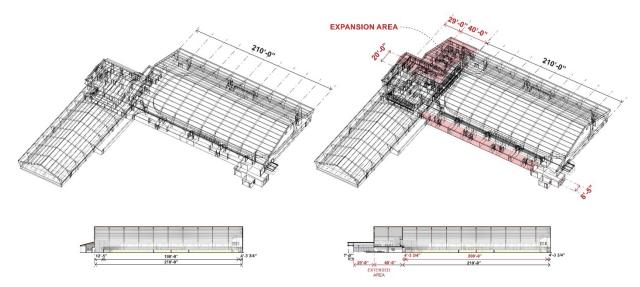
- Parking: 48 cars
- Main amenities:
  - o 200'x85' skating rink (NHL-sized)
  - Curling rink

### 4.4.2 Site Analysis



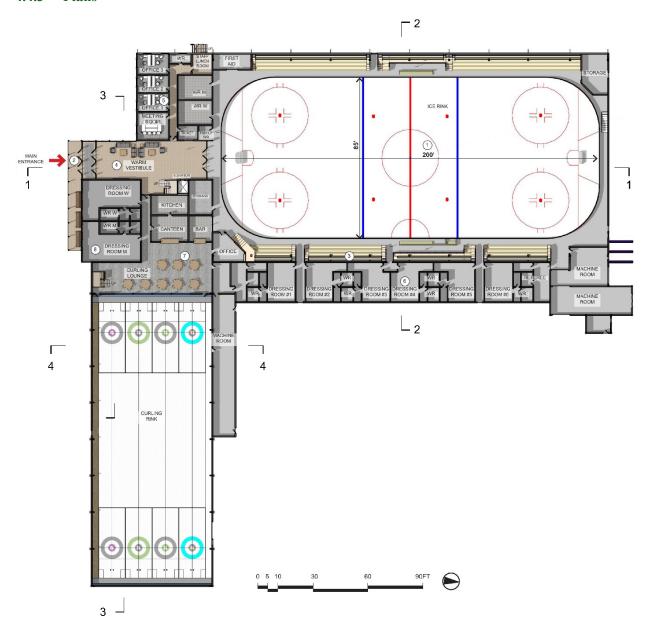
Finding a suitable location to expand the arena

This expansion scheme takes advantage of the empty space in the south where the hockey rink building meets the curling rink building (as seen in view 2). The existing skating rink dressing rooms are also extended to the east to fit 6 dressing rooms in place of the existing 4 dressing rooms.



Existing (Left) & Expansion Scheme (Right)

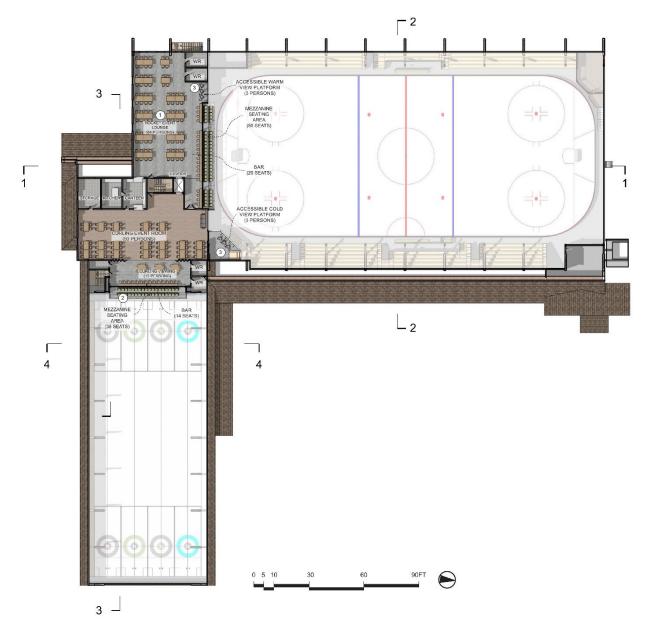
#### **4.4.3** Plans



First Floor Plan – Option 2

### **First Floor Additions:**

- 1. The length of the ice rink has been increased to 200'. The ice rink has been extended to the south.
- 2. One main entrance
- 3. Added 2 rows to the stands
- 4. Warm vestibule
- 5. 3 new offices and 1 meeting room
- 6. 6 expanded skating rink dressing rooms
- 7. Enlarged curling lounge
- 8. 2 new curling room dressing rooms



Second Floor Plan – Option 2

## **Second Floor Additions:**

- 1. New hockey event lounge with mezzanine
- 2. New curling lounge with mezzanine
- 3. New accessible view platform

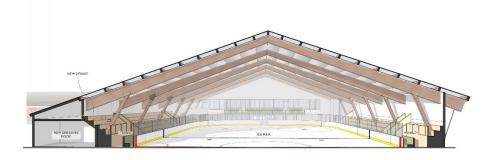
# **Total Capacity: 1095 seats**

Skating Rink Spectators	Other 1FL Capacity	Other 2FL Capacity
• Stands: 750	• Curling Lounge: 40	Multipurpose Room
<ul> <li>Mezzanine Seating: 50</li> </ul>		(Hockey Event Lounge w/ Bar): 104
<ul> <li>Accessible Platform: 6</li> </ul>		• Lounge (Curling Event Room): 80
		<ul> <li>Curling Viewing Room w/ Bar: 29</li> </ul>
		<ul> <li>Curling Mezzanine: 36</li> </ul>

### 4.4.4 Sections



Section 1 – Option 2 – Skating Rink



Section 2 – Option 2 – Skating Rink



Section 3 – Option 2 – Curling Rink



Section 4 – Option 2 – Curling Rink

### 4.4.5 Additional Diagrams

#### Mezzanine

Mezzanine seating has been added above both the ice rink and the curling rink, providing an intimate view of the action on ice. Behind the mezzanine, the ice is still visible from the hockey event lounge and curling viewing lounge respectively, allowing for viewers to see what is happening while remaining warm and comfortable inside.



Ice Rink Mezzanine



Curling Rink Mezzanine

### **Accessible View Platform**

There are two accessible view platforms overlooking the ice rink. Each platform has three wheelchair spaces, allowing for a clear view of the ice surface.



View 1



View 2

# **Design Renders**

Artistic impressions for reference only, may differ with drawings.



New Main Entrance



Warm Vestibule

# **Design Renders**

Artistic impressions for reference only, may differ with drawings.



Increased Curling Lounge Space



Multifunction Room

### 4.4.6 Cost Estimate

The following table describes the cost estimate for Option 2.

# **OPTION 2 - BASE RETROFIT + UPGRADES | Existing Site**

MAIN FEATURES:		Construction
Hockey Rink (NHL Size)	New Multipurpose Room	1
Renovations to the Curling Rink 1	05 Seats	2
New Multipurpose Room	104 Seats	1
Expanded Dressing Rooms		3
New Entrance		1
Existing Parking Capacity	48 Cars	1
First Floor	46,211 Sq. Ft.	
Second Floor	8,200 Sq. Ft.	
Total Area	54,411 Sq. Ft.	

# A - ESTIMATED COST FOR THE REPAIRS AND RETROFITS:

DESCRIPTION	COST ESTIMATES	TOTAL
Base Renovations - 5 Years Cost	\$8,850,000	
Base Renovation - 25 Years Cost	\$8,790,000	
TOTAL CONSTRUCTION COST ESTIMATE OF RE	\$17,640,000	

# **B - ESTIMATED COST FOR UPGRADES / ENHANCEMENTS:**

DESCRIPTION OF UPGRADES	COST ESTIMATES	TOTAL
Extended (NHL) ice surface and boards	\$2,000,000	
Precast bleachers with fixed seating	\$2,000,000	
Dressing Room Expansion	\$2,500,000	
Two-storey Entrance, Offices, Warm Room, and VIP seating	\$5,000,000	
Curling Club Renovations, Community Room, Kitchen, &Canteen	\$2,500,000	
CONSTRUCTION COST ESTIMA	\$11,500,000	
CONSTRUCTION COST ESTIMATE	\$29,140,000	
ESTIMATE OF PROJECT SOFT COSTS (Design, Legal	\$5,828,000	

# ESTIMATED PROJECT COST \$34,968,000

### 4.4.7 Needs Assessment

The following matrix compares Option 2 against the main stakeholder and community needs that were derived from the Needs Assessment.

Needs	Yes/No	
NHL-sized Ice Rink	Yes	
Needs for prime ice time are surpassing the Arena's current ice capacity.		
Larger/More Dressing Rooms  Minor Hockey teams require larger dressing rooms with separate stalls	Yes	
to comply with Hockey Canada regulations.	1 65	
Improved Insulation & Warm Viewing Spaces		
Common complaint amongst spectators is that the interior is very cold,	Yes	
making the viewing experience very uncomfortable.		
Accessibility		
The facility needs to meet 'Access by Design 2030' facility accessibility	Yes	
standards.		
Increased Seating Capacity To host larger events, many seating is required around the nink	Yes	
To host larger events, more seating is required around the rink.  Increased Parking		
Parking frequently overflows during overlapping bookings and large	No	
events.	110	
Multi-purpose Room	V.	
For greater flexibility in community programming.	Yes	
Top 5 INDOOR recreation spaces desired in Chester, voted on by survey respondents:		
Indoor Pool	No	
Walking Track	No	
Multipurpose Facility	No	
Weight/fitness Room	No	
Indoor Sports Courts	No	
Top 5 OUTDOOR recreation spaces desired in Chester, voted on by su	irvey respondents:	
Outdoor Sports Courts	Yes (only retains existing tennis courts)	
Splash Park	No	
Playground Equipment	No	
Pickleball Courts	No	
Open Green/Park Space	No	

# 4.5 OPTION 3 – NEW MULTIPURPOSE CENTRE | EXISTING SITE

Option 3 is a conceptual scheme that demolishes the existing arena and builds a new skating rink and curling rink complex on the same site. The scheme also includes an indoor walking track. The parking layout has been completely revised and now holds 308 cars compared to the original parking capacity of 48 cars.



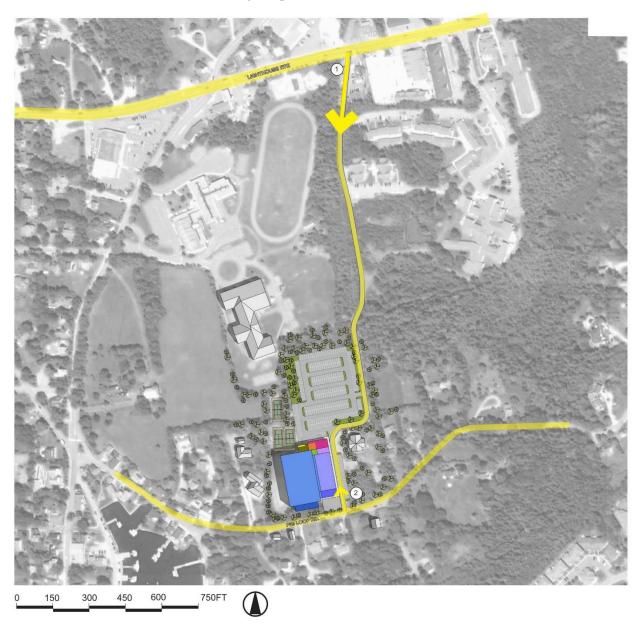
Artistic Impression – Option 3

### **4.5.1 Summary**

- Parking: 308 cars
- Main amenities:
  - o 200'x85' skating rink (NHL-sized)
  - Curling rink
  - Walking track
  - Multipurpose room

# 4.5.2 Site Analysis

This scheme proposes that the new site entrance should be from the north, from Lighthouse Route. The current entrance from the south, from Pig Loop Road should be converted into a service entrance.



Situation Plan

- 1. New Site Entrance
- 2. Service Entrance

The new arena building is to be built where the old parking lot used to be, and the new parking lot is to be built where the old arena used to be. The existing tennis courts and other buildings of The Park! (the daycare and the brass band) can remain in their current positions.



Master Plan

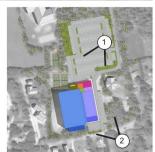
- 3. New Parking (308 cars)
- 4. Service Area
- 5. Existing Tennis Courts
- 6. New Arena + Walking Track (675 seats + 750 standing)
- 7. New Curling Club (4 sheets)
- 8. Multipurpose Room (250 seats)

VIEW 1



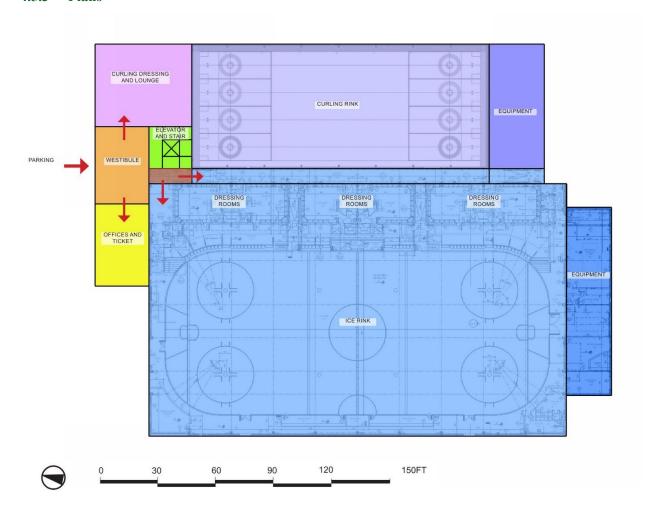
VIEW 2





Basic Massing – Option 3

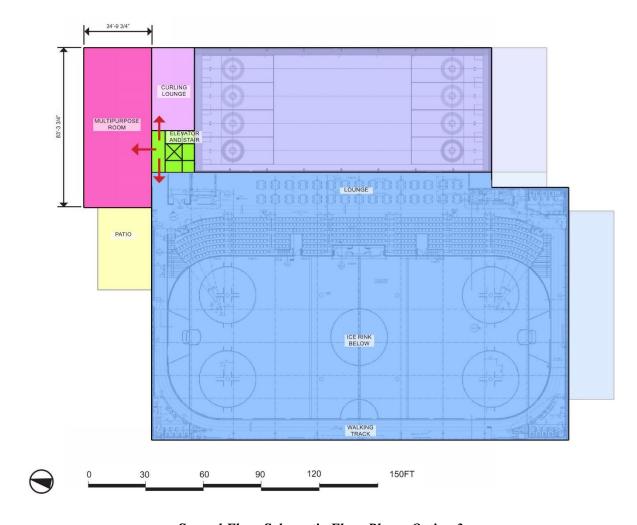
### 4.5.3 Plans



First Floor Schematic Floor Plan – Option 3

### **First Floor Amenities:**

- Curling Rink
- 2 Curling dressing rooms and lounge
- NHL-sized ice rink
- 6 Ice rink dressing rooms + 2 referee rooms
- Entrance vestibule
- Offices and ticketing
- Equipment storage



Second Floor Schematic Floor Plan – Option 3

### **Second Floor Amenities:**

- Multipurpose room
- Curling lounge
- Outdoor patio
- Skating rink lounge
- Walking track

# **Total Capacity: 1780 seats**

<b>Skating Rink Spectators</b>	Other 1FL Capacity	Other 2FL Capacity
• Arena Seats: 675	• Curling lounge: 40	• Curling lounge w/ Bar: 29
<ul> <li>Walking Track</li> </ul>		<ul> <li>Mezzanine (curling): 36</li> </ul>
Standing: 750		• Multi-purpose room: 250

### 4.5.4 Cost Estimate

The following table describes the cost estimate for Option 3.

# **OPTION 3 - NEW MULTIPURPOSE CENTRE | Existing Site**

MAIN FEATURES:		Construction
New Hockey Rink (NHL Size)	675 Seats	1
New Curling Rink ( 4 sheets)	105 Seats	2
Walking Track (3 lanes)	750 Standing	1
New Parking Capacity	308 Cars	3
6 Dressing Rooms + 2 Ref rooms		1
New Multipurpose Room	250 seats	1
Admin Offices + Meeting Room		1
First Floor	47,750Sq. Ft.	
Second Floor	14,415 Sq. Ft.	
Total Area	62,164 Sq. Ft.	

# A - ESTIMATED COST FOR THE DEMOLITION:

DESCRIPTION	COST ESTIMATES	TOTAL
Demolition Cost - Hockey Rink	\$500,000	
Demolition Cost - Curling Rink	\$250,000	
TOTAL DEMOLITION COST		\$750,000

### **B - ESTIMATED COST FOR NEW CONSTRUCTION:**

DESCRIPTION	COST ESTIMATES	TOTAL
New Arena, Walking Track, Multipurpose, Admin, Kitchen (1)	\$25,000,000	
New Curling Club + Upper Lounge (2)	\$13,000,000	
Site Parking and North Road Access (3)	\$3,500,000	
Assumed Land Purchase Cost	\$0.00	
TOTAL CONSTRUCTION COST ESTIMATE OF NEW BUILDING		\$41,500,000
TOTAL CONSTRUCTION COST ESTIMATE FOR THE OPTION (A+B)		\$42,250,000
ESTIMATE OF PROJECT SOFT COSTS (Design, Legal, P.Mgmt, Permits) - 25%		\$10,562,500

**ESTIMATED PROJECT COST** \$52,812,500

### 4.5.5 Needs Assessment

The following matrix compares Option 3 against the main stakeholder and community needs that were derived from the Needs Assessment.

Needs	Yes/No	
NHL-sized Ice Rink	Yes	
Needs for prime ice time are surpassing the Arena's current ice capacity.	100	
Larger/More Dressing Rooms	••	
Minor Hockey teams require larger dressing rooms with separate stalls	Yes	
to comply with Hockey Canada regulations.		
Improved Insulation & Warm Viewing Spaces	<b>V</b>	
Common complaint amongst spectators is that the interior is very cold,	Yes	
making the viewing experience very uncomfortable.		
Accessibility The facility needs to meet 'Access by Design 2030' facility accessibility	Yes	
standards.	1 CS	
Increased Seating Capacity		
To host larger events, more seating is required around the rink.	Yes	
Increased Parking		
Parking frequently overflows during overlapping bookings and large	Yes	
events.		
Multi-purpose Room	V	
For greater flexibility in community programming.	Yes	
Top 5 INDOOR recreation spaces desired in Chester, voted on by survey respondents:		
Indoor Pool	No	
Walking Track	Yes	
Multipurpose Facility	Yes	
Weight/fitness Room	No	
Indoor Sports Courts	No	
Top 5 OUTDOOR recreation spaces desired in Chester, voted on by survey respondents:		
Outdoor Sports Courts	Yes (only retains existing tennis courts)	
Splash Park	No	
Playground Equipment	No	
Pickleball Courts	No	
Open Green/Park Space	No	

# 4.6 OPTION 4 – SMALL MULTIPURPOSE (NO ARENA) + SPORT PARK | EXISTING SITE

Option 4 is a conceptual scheme that demolishes the existing arena and builds a new multipurpose facility on the same site. The scheme includes multiple outdoor sports facilities. The scheme preserves the indoor curling rink but removes the skating rink. The parking layout has been completely revised and now holds 216 cars compared to the original parking capacity of 48 cars.



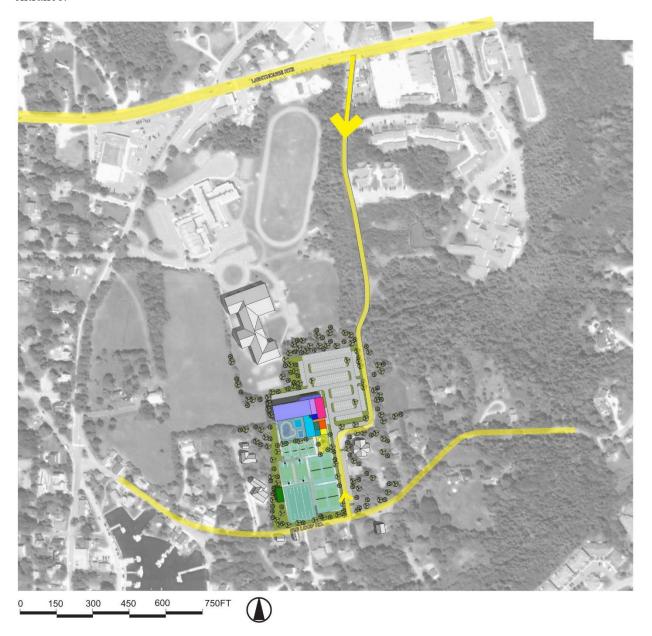
Artistic Impression - Option 4

### 4.6.1 Summary

- Parking: 216 cars
- Indoor amenities:
  - Curling rink
  - o Multipurpose room
- Outdoor amenities:
  - Splash pad
  - 4 Tennis courts
  - o 4 Pickleball courts
  - Lawn bowling
  - o 2 Basketball courts
  - o Children's playground
  - o Picnic space

# 4.6.2 Site Analysis

Like Option 3, this scheme proposes that the new site entrance should be from the north, from Lighthouse Route. The current entrance from the south, from Pig Loop Road should be converted into a service entrance.



Situation Plan

The new arena building, and new outdoor facilities are built over where the old parking lot used to be. The new parking lot is to be built where the old arena used to be. The existing tennis courts have been removed but are replaced with new tennis courts within this scheme. The other existing buildings of The Park! (the daycare and the brass band) can remain in their current positions.

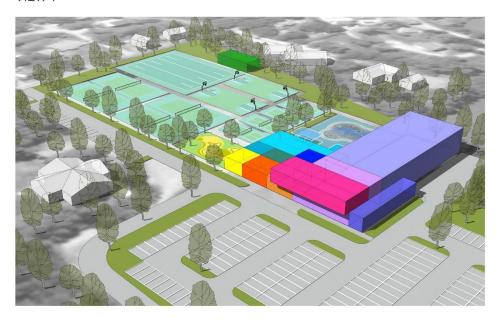


#### Master Plan

- 1. New Multi-purpose Room
- 2. Parking (216 cars)
- 3. Service Area
- 4. Children's Splash Pad and Wading Pool
- 5. Children's Playground

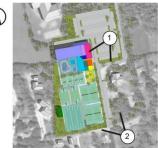
- 6. Tennis Courts (4 courts)
- 7. Pickleball Courts (4 courts)
- 8. Basketball Courts (2 courts)
- 9. Lawn Bowling (3 lanes)

VIEW 1



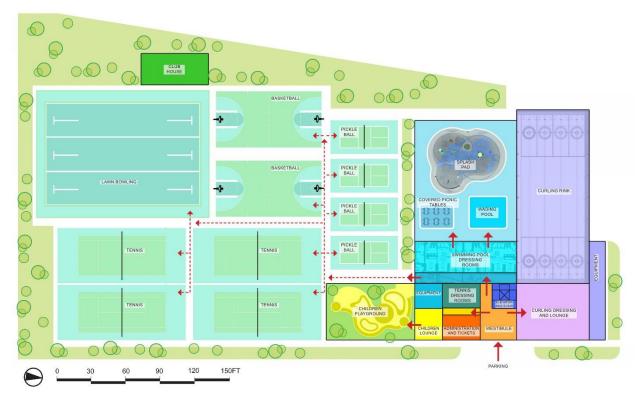
VIEW 2





Basic Massing - Option 4

### 4.6.3 Plans



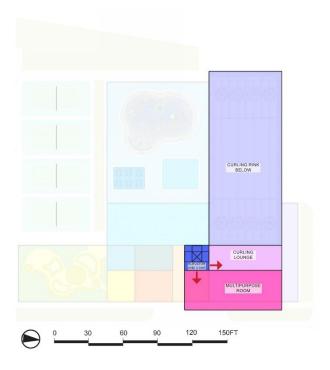
First Floor Schematic Floor Plan - Option 4

#### **Outdoor Amenities:**

- Splash Pad
- Wading Pool
- Covered Picnic Tables
- Children's Playground
- 4 Pickleball Courts
- 2 Basketball Courts
- 4 Tennis Courts
- Lawn Bowling
- Clubhouse

### **First Floor Amenities:**

- Curling Rink
- Curling dressing rooms and lounge
- Swimming pool dressing rooms
- Tennis dressing rooms
- Equipment storage
- Children's lounge
- Administration and tickets
- Vestibule



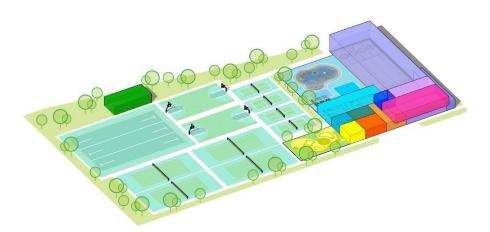
Second Floor Schematic Floor Plan - Option 4

### **Second Floor Amenities:**

- Curling lounge
- Multipurpose room

### **Total Capacity: 415 seats**

1FL Capacity	2FL Capacity
<ul> <li>Curling lounge: 40</li> </ul>	<ul> <li>Curling lounge w/ bar: 29</li> </ul>
<ul> <li>Sports facilities: 60</li> </ul>	<ul> <li>Mezzanine (curling): 36</li> </ul>
	• Multipurpose room: 250



3D View - Option 4

### 4.6.4 Cost Estimate

The following table describes the cost estimate for Option 4.

# OPTION 4 - SMALL MULTIPURPOSE (NO ARENA) + SPORT PARK | Existing Site

MAIN FEATURES:		Construction
New Curling Rink ( 4 sheets)		1
Splash Pad, Wading Pool, Picnic (8500 SF)		2
Children Playground (3500 SF)		3
Outdoor Games - 4 Tennis Courts, 4 Pickle	Ball Courts, 2 Basket Ball Courts	4
Outdoor Games - Lawn Bowling (4 lanes, 1	5000 Sf) ) + Clubhouse (1400SF)	5
New Parking Capacity	216 Cars	6
Curling Event Capacity	415 Seats	
First Floor	21,262 Sq. Ft.	
Second Floor	5,241 Sq. Ft.	
Total Area	26,503 Sq. Ft.	

# A - ESTIMATED COST FOR THE DEMOLITION:

DESCRIPTION	COST ESTIMATES	TOTAL
Demolition Cost - Hockey Rink	\$500,000	
Demolition Cost - Curling Rink	\$250,000	
TOTAL COST OF DEMOLITION		\$750,000

# **B - ESTIMATED COST FOR NEW CONSTRUCTION:**

B-ESTIMATED GOOT TORNEW GONOTION.		
DESCRIPTION	COST ESTIMATES	TOTAL
New Curling Club + Multtpurpose + Upper Lounge (1)	\$15,000,000	
New Splash Pad + Wading Pool + Picnic Area (2)	\$3,500,000	
Childrens Playground (3)	\$1,000,000	
Tennis, Pickle, Basketball (4)	\$1,500,000	
Lawn Bowling + Club House (5)	\$1,000,000	
Site Parking and North Road Access (6)	\$3,000,000	
Assumed Land Purchase Cost	\$0.00	
TOTAL CONSTRUCTION COST ESTIMATE OF NEW BUILDING + SPORT PARK		\$25,000,000
TOTAL CONSTRUCTION COST ESTIMATE FOR THE OPTION (A+B)		\$25,750,000
ESTIMATE OF PROJECT SOFT COSTS (Design, Legal, P.Mgmt, Permits) - 25%		\$6,437,500
ESTIMATED PROJECT COST		\$32,187,500

### 4.6.5 Needs Assessment

The following matrix compares Option 4 against the main stakeholder and community needs that were derived from the Needs Assessment.

Needs	Yes/No	
NHL-sized Ice Rink Needs for prime ice time are surpassing the Arena's current ice capacity.	No – This scheme assumes a new ice rink is built elsewhere	
Larger/More Dressing Rooms		
Minor Hockey teams require larger dressing rooms with separate stalls	N/A	
to comply with Hockey Canada regulations.		
Improved Insulation & Warm Viewing Spaces		
Common complaint amongst spectators is that the interior is very cold,	N/A	
making the viewing experience very uncomfortable.		
Accessibility		
The facility needs to meet 'Access by Design 2030' facility accessibility	Yes	
standards.		
Increased Seating Capacity	N/A	
To host larger events, more seating is required around the rink.	2 2 2	
Increased Parking		
Parking frequently overflows during overlapping bookings and large	Yes	
events.		
Multi-purpose Room	Yes	
For greater flexibility in community programming.		
Top 5 INDOOR recreation spaces desired in Chester, voted on by survey respondents:		
Indoor Pool	No	
Walking Track	No	
Multipurpose Facility	Yes	
Weight/fitness Room	No	
Indoor Sports Courts	No	
Top 5 OUTDOOR recreation spaces desired in Chester, voted on by survey respondents:		
Outdoor Sports Courts	Yes	
Splash Park	Yes	
Playground Equipment	Yes	
Pickleball Courts	Yes	
Open Green/Park Space	Yes	

# 4.7 OPTION 5 – LARGE MULTIPURPOSE (ARENA) + CURLING | NEW SITE

Option 5 is a conceptual scheme that explores the possibility of building a new skating rink and curling rink complex at a new site. The scheme includes an indoor walking track.



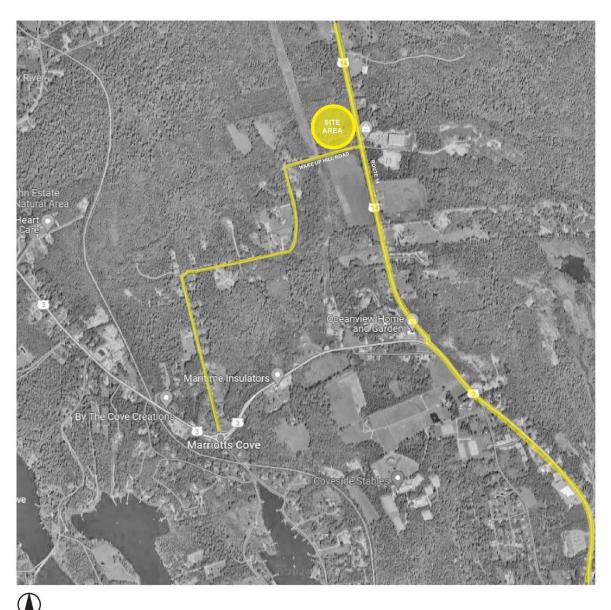
Artistic Impression – Option 5

### **4.7.1 Summary**

- Parking: 259 cars
- Main amenities:
  - o 200'x85' skating rink (NHL-sized)
  - Curling rink
  - Walking track
  - o Multipurpose Room

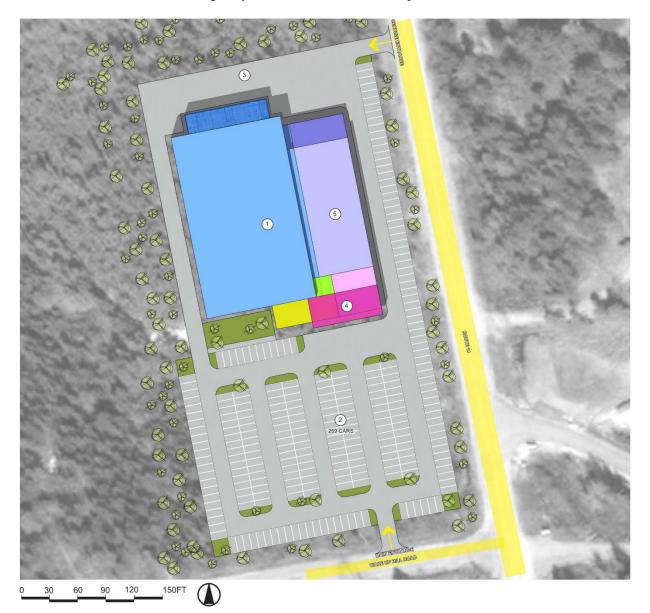
# 4.7.2 Site Analysis

The new site is situated at the intersection of Wake Up Hill Road and Highway 14. It is a 6-minute drive from the current location of the Eleanor Pew Morris Memorial Arena.



Vicinity Map

The site can be accessed from Highway 14 to the east and Wake Up Hill Road from the south.



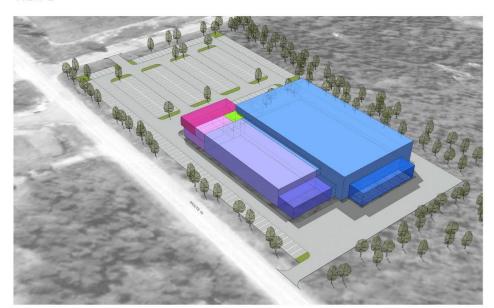
## Master Plan

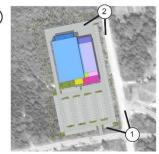
- 1. New Arena + Walking Track (675 seats + 750 standing)
- 2. Parking (259 cars)
- 3. Service Area
- 4. Multipurpose Room (250 seats)
- 5. New Curling Club (4 sheets)

VIEW 1



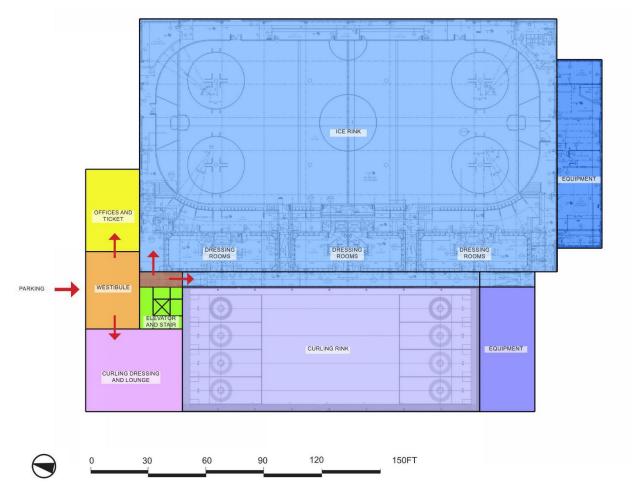
VIEW 2





Basic Massing – Option 5

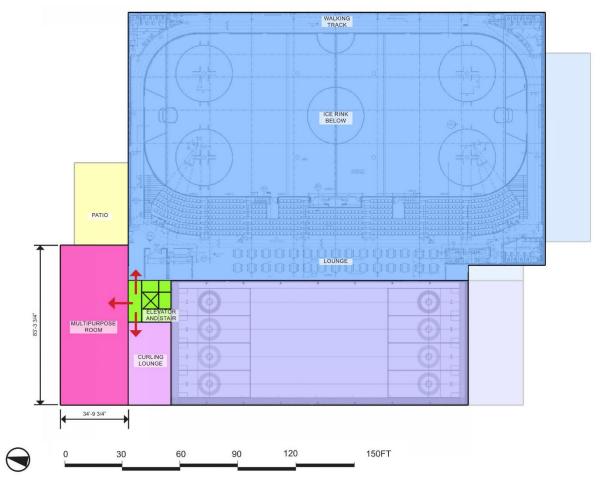
#### 4.7.3 Plans



First Floor Schematic Floor Plan – Option 5

#### **First Floor Amenities:**

- Curling Rink
- 2 Curling dressing rooms and lounge
- NHL-sized ice rink
- 6 Ice rink dressing rooms + 2 referee rooms
- Entrance vestibule
- Offices and ticketing
- Equipment storage



Second Floor Schematic Floor Plan – Option 5

## **Second Floor Amenities:**

- Multipurpose room
- Curling lounge
- Outdoor patio
- Skating rink lounge
- Walking track

# **Total Capacity: 1780 seats**

<b>Skating Rink Spectators</b>	Other 1FL Capacity	Other 2FL Capacity
• Arena Seats: 675	• Curling lounge: 40	• Curling lounge w/ bar: 29
<ul> <li>Walking Track</li> </ul>		<ul> <li>Mezzanine (curling): 36</li> </ul>
Standing: 750		• Multi-purpose room: 250

#### 4.7.4 Cost Estimate

The following table describes the cost estimate for Option 5.

# OPTION 5 - LARGE MULTIPURPOSE (ARENA) + CURLING | New Site

	Construction
675 seats	1
105 seats	2
750 standing	1
259 Cars	3
	1
250 seats	1
	1
1780 Seats	
47,750 Sq. Ft.	
14,414 Sq. Ft.	
62,164 Sq. Ft.	
	105 seats 750 standing 259 Cars  250 seats  1780 Seats  47,750 Sq. Ft. 14,414 Sq. Ft.

# **ESTIMATED COST FOR NEW CONSTRUCTION:**

DESCRIPTION	COST ESTIMATES	TOTAL
New Arena, Walking Track, Multipurpose, Admin, Kitchen (1)	\$25,000,000	
New Curling Club + Upper Lounge (1)	\$13,000,000	
Site Parking and Road Access (3)	\$3,500,000	
Assumed Land Purchase Cost	\$0	
TOTAL CONSTRUCTION COST ESTIF	\$41,500,000	
ESTIMATE OF PROJECT SOFT COSTS (Design, Lega	\$10,375,000	

ESTIMATED PROJECT COST \$51,875,000

## 4.7.5 Needs Assessment

The following matrix compares Option 5 against the main stakeholder and community needs that were derived from the Needs Assessment.

Needs	Yes/No
NHL-sized Ice Rink	Yes
Needs for prime ice time are surpassing the Arena's current ice capacity.	
Larger/More Dressing Rooms	<b>V</b>
Minor Hockey teams require larger dressing rooms with separate stalls	Yes
to comply with Hockey Canada regulations.  Improved Insulation & Warm Viewing Spaces	
Common complaint amongst spectators is that the interior is very cold,	Yes
making the viewing experience very uncomfortable.	1 65
Accessibility	
The facility needs to meet 'Access by Design 2030' facility accessibility	Yes
standards.	
Increased Seating Capacity	Yes
To host larger events, more seating is required around the rink.	1 es
Increased Parking	
Parking frequently overflows during overlapping bookings and large	Yes
events.	
Multi-purpose Room  For greater flexibility in community and greatering	Yes
For greater flexibility in community programming.	• .
Top 5 INDOOR recreation spaces desired in Chester, voted on by surv	vey respondents:
Indoor Pool	No
Walking Track	Yes
Multipurpose Facility	Yes
Weight/fitness Room	No
Indoor Sports Courts	No
Top 5 OUTDOOR recreation spaces desired in Chester, voted on by st	urvey respondents:
Outdoor Sports Courts	No
Splash Park	No
Playground Equipment	No
Pickleball Courts	No
Open Green/Park Space	No

# 4.8 OPTIONS SUMMARY

	<b>Option 1</b> Base Retrofit Only	<b>Option 2</b> Retrofit + Expansion Scheme	<b>Option 3</b> New Multi-Purpose Facility	<b>Option 4</b> Small Multi-Purpose Facility + Sport Park	<b>Option 5</b> Large Multi-Purpose Facility on New Site
Parking Lot Capacity:	48	48	308	216	259
Seating Capacity:					
Arena – Seats	607	806	675	-	675
Arena – Standing	-	-	750	-	750
Lounge	15	80	-	-	-
Dining	76	-	-	-	-
Multipurpose Room	-	104	250	250	250
Curling Club	50	105	105	105	105
Sports Facilities	-	-	-	60	
Total:	748	1095	1780	415	1780
Existing Site	<b>√</b>	✓	✓	<b>√</b>	
Accessibility Upgrades	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>
NHL-sized Rink		✓	✓		✓
Curling Rink	✓	$\checkmark$	✓	$\checkmark$	$\checkmark$
Warm Vestibule		✓	✓	$\checkmark$	✓
Multifunction Room		✓	✓	✓	✓
Improved Skating Rink Lounge		$\checkmark$	$\checkmark$	N/A	$\checkmark$
Improved Curling Lounge		$\checkmark$	$\checkmark$	✓	$\checkmark$
Improved Kitchen and Canteen access		$\checkmark$	$\checkmark$	✓	$\checkmark$
Accessible View Platform		✓	✓	N/A	✓
<b>Larger Skating Dressing Rooms</b>		$\checkmark$	$\checkmark$	N/A	$\checkmark$
Walking Track			✓		✓
Outdoor Tennis Courts	✓	✓	✓	✓	
Outdoor Splash Pad & Wading Pool				✓	
Outdoor Pickleball Courts				✓	
Outdoor Children's Playground				✓	
Outdoor Basketball Courts				✓	
Outdoor Lawn Bowling				✓	

# 4.9 Cost Estimate Summary

Option 1	\$21,168,000
Base Retrofit Only   Existing Site	\$21,108,000
Option 2	\$34,968,000
Base Retrofit + Upgrades   Existing Site	\$34,908,000
Option 3	¢52 912 500
New Multipurpose Centre   Existing Site	\$52,812,500
Option 4	\$22 197 500
Small Multipurpose (No Arena) + Sport Park   Existing Site	\$32,187,500
Option 5	¢51 975 000
Large Multipurpose (Arena) + Curling   New Site	\$51,875,000

# 5 APPENDIX A – BUILDING CONDITION ASSESSMENT: CALCULATION SHEETS

## 5.1 FIVE (5) YEARS EXPENDITURE

The spending overview for the Eleanor Pew Morris Memorial Arena in Chester provides a clear visual representation of projected expenses spanning from 2024 to 2028. These estimated expenditures encompass various aspects including regular maintenance, repairs, upgrades, and provisions for unforeseen emergencies or urgent repairs.

Through review and analysis of this overview, the Eleanor Pew Morris Memorial Arena can effectively strategize and allocate resources to maintain a secure, functional, and well-maintained facility.

Detailed Calculation Sheets are in the upcoming Sections:

- 5.2.1: Five (5) Years Expenditure Chart (2024-2028)
- 5.2.2: Five (5) Years Expenditure Graph (2024-2028)
- 5.2.3: Five (5) Years Detailed Expenditure Table (2024-2028)

# 5.1 FIVE (5) YEARS EXPENDITURE SUMMARY:

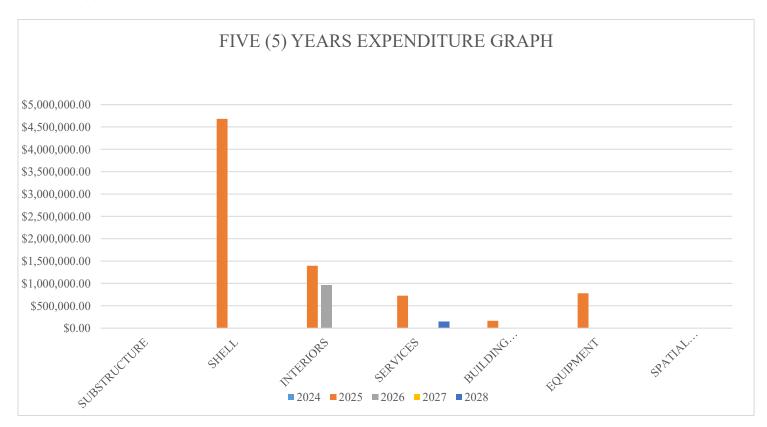
## 5.1.1 FIVE (5) YEARS EXPENDITURE CHART:

#### 2024 TO 2028:

	UNIFORMAT CLASS	FIVE (5) YEARS EXPENDITURE CHART- 2024 TO 2028					
	UNIFORMAT CLASS	2024	2025	2026	2027	2028	
A	SUBSTRUCTURE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
В	SHELL	\$0.00	\$4,681,534.72	\$0.00	\$0.00	\$0.00	
С	INTERIORS	\$0.00	\$1,395,856.86	\$962,057.88	\$0.00	\$0.00	
D	SERVICES	\$0.00	\$725,000.00	\$0.00	\$0.00	\$148,800.00	
G	BUILDING SITEWORKS	\$0.00	\$165,799.20	\$0.00	\$0.00	\$0.00	
Е	EQUIPMENT	\$0.00	\$779,942.41	\$0.00	\$0.00	\$0.00	
F	SPATIAL STRUCTURES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
YEAR	LY TOTAL	\$0.00	\$7,748,133.18	\$962,057.88	\$0.00	\$148,800.00	
BUDG	ET FOR NEXT FIVE (5) YEARS	\$8,858,991.06					

## 5.1.2 FIVE (5) YEARS EXPENDITURE GRAPH

#### 2024 TO 2028:



# **5.1** FIVE (5) YEARS EXPENDITURE SUMMARY:

# 5.1.3 FIVE (5) YEARS DETAILED EXPENDITURE TABLE:

2024 TO 2028:

UNIFORM	EXPENDITURE	FIVE	(5) YEARS EXPE	NDITURE CHA	RT- 2024 T	O 2028
AT CODE	DESCRIPTION	2024	2025	2026	2027	2028
A SUBST	TRUCTURE					
A1030.001	Structural Slab on Grade	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
A2020.001	Foundation Walls & Footings	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
B SHELI						
B1010.001	Low Roof Structure	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
B1011.001	Wood Roof Structure	\$0.00	\$4,032,117.12	\$0.00	\$0.00	\$0.00
B2010.001	Entrance Canopy Roof Structure	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
B2010.001	Exterior Cladding - Wood	\$0.00	\$441,553.26	\$0.00	\$0.00	\$0.00
B2020.001	Exterior Windows - Wood	\$0.00	\$26,074.34	\$0.00	\$0.00	\$0.00
B2032.001	Exterior Doors	\$0.00	\$127,890.00	\$0.00	\$0.00	\$0.00
B2032.001	Overhead Exterior Doors - Mech	\$0.00	\$53,900.00	\$0.00	\$0.00	\$0.00
B3010.001	Roof Covering with Shingles	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
			· ·			
B1020.001	Exterior Stairs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	TOTAL	\$0.00	\$4,681,534.72	\$0.00	\$0.00	\$0.00
C INTER			_			
C1010.001	Wall Partitions - Any Interior Walls	\$0.00	\$0.00	\$962,057.88	\$0.00	\$0.00
C1020.001	Interior Doors	\$0.00	\$234,430.39	\$0.00	\$0.00	\$0.00
C3016.001	Interior Finish - Painting, & Staining	\$0.00	\$100,271.23	\$0.00	\$0.00	\$0.00
C3020.001	Floor Finish - All Types	\$0.00	\$621,731.00	\$0.00	\$0.00	\$0.00
C3033.001	Ceiling Finish	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
C1000.001	Restrooms	\$0.00	\$229,505.30	\$0.00	\$0.00	\$0.00
C2010.001	Interior Stairs	\$0.00	\$209,918.94	\$0.00	\$0.00	\$0.00
	TOTAL	\$0.00	\$1,395,856.86	\$962,057.88	\$0.00	\$0.00
D SERVI	CES					
02010.001	Plumbing Fixture - Plumbing Systems	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D2020.001	Plumbing Pipe	\$0.00	\$300,000.00	\$0.00	\$0.00	\$0.00
D2020.001	Domestic Hot Water Plants	\$0.00	\$50,000.00	\$0.00	\$0.00	\$0.00
03020.001	Ice Plant 1 - Curling Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03020.001	Ice Plant 2 - Hockey Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03040.001	Outdoor Energy Recovery Ventilation	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03040.001	Curling Rink Furnace	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.00
D3040.001	Ice Rink Fans	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D3050.001	VRF Indoor/Outdoor Units	\$0.00	\$60,000.00	\$0.00	\$0.00	\$0.00
D3050.002	Ductless (Mini-Split) Heat Pumps	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D3090.001	Kitchen Ventilation Systems	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03092.001	Dehumidifier - Hockey Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D3092.001	Dehumidifier - Curling Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D4010.001	Wet and Dry Sprinklers	\$0.00	\$250,000.00	\$0.00	\$0.00	\$0.00
D5010.001	Main Switchboard	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
25012 001	Distribution Panels	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5012.001	Distribution 1 uners	Ψ σ . σ σ	* * * * * *	* * * * * * * * * * * * * * * * * * * *		

Final Report

BUDGET FO	R NEXT FIVE (5) YEARS	\$8,858,991.06					
YEARLY TO	TAL	\$0.00	\$7,748,133.18	\$962,057.88	\$0.00	\$148,800.00	
	TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
F1042.001	Curling Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
F1042.001	Ice Rink Dasher Boards - Skating	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
F SPAT	TIAL STRUCTURES						
	TOTAL	\$0.00	\$779,942.41	\$0.00	\$0.00	\$0.00	
E2010.001	Arena Bleachers - Fixed Seatings	\$0.00	\$391,518.92	\$0.00	\$0.00	\$0.00	
E2040.001	Dining Room Furniture	\$0.00	\$73,757.56	\$0.00	\$0.00	\$0.00	
E1020.002	Dressing Room Equip. & Furnishing	\$0.00	\$260,720.09	\$0.00	\$0.00	\$0.00	
E1020.001	Kitchen Equipment and Cabinets 2	\$0.00	\$22,581.98	\$0.00	\$0.00	\$0.00	
E1020.001	Kitchen - Equipment and Cabinets 1	\$0.00	\$31,363.86	\$0.00	\$0.00	\$0.00	
E EQU	IPMENT						
	TOTAL	\$0.00	\$165,799.20	\$0.00	\$0.00	\$0.00	
G2041.001	Site Development - Fences	\$0.00	\$12,100.00	\$0.00	\$0.00	\$0.00	
G2031.002	Concrete Landing Pads - Entrance	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
G2022.001	Gravel Driveway	\$0.00	\$153,699.20	\$0.00	\$0.00	\$0.00	
G2022.002	Parking Lot - Asphalt Pavement	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
G2022.001	Asphalt Driveway	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
G BUIL	DING SITEWORKS						
	TOTAL	\$0.00	\$725,000.00	\$0.00	\$0.00	\$148,800.00	
D5030.001	Fire Alarm System	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D5030.001	Communications Systems	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D5020.001	Branch Wiring	\$0.00	\$0.00	\$0.00	\$0.00	\$148,800.00	
D5020.001	Lighting - Hockey Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D5020.001	Lighting - Curling Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D5020.001	Lighting - General	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D5012.005	Dry-Type Transformers - 112.5kVA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
05012.004	Motor Control Centres	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
5012.003	Circuit Panelboards - Older Style	\$0.00	\$45,000.00	\$0.00	\$0.00	\$0.00	

Repair Requirements
Renewal Requirements

## 5.2 THIRTY (30) YEARS EXPENDITURE

The expenditure overview for the Eleanor Pew Morris Memorial Arena in Chester, Nova Scotia, spans a comprehensive 30-year period from 2024 to 2053.

Over the next three decades, the estimated expenses encompass a wide range of activities, including regular maintenance, significant repairs, equipment replacements, technological upgrades, and compliance with evolving regulations and standards.

This expenditure summary reflects a strategic and forward-thinking approach to facility management, emphasizing sustainability, safety, and efficiency. By planning meticulously and allocating resources over the long term, the Eleanor Pew Morris Memorial Arena can establish a resilient, adaptable, and future-ready facility that meets the needs of its users.

Detailed Calculation Sheets are in the upcoming Sections:

- 2024-2028
  - o 5.2.1: Five (5) Years Expenditure Chart (2024-2028)
  - o 5.2.2: Five (5) Years Expenditure Graph (2024-2028)
  - o 5.2.3: Five (5) Years Detailed Expenditure Table (2024-2028)
- 2029-2033
  - o 5.2.4: Five (5) Years Expenditure Chart (2029-2033)
  - o 5.2.5: Five (5) Years Expenditure Graph (2029-2033)
  - o 5.2.6: Five (5) Years Detailed Expenditure Table (2029-2033)
- 2034-2038
  - o 5.2.7: Five (5) Years Expenditure Chart (2034-2038)
  - o 5.2.8: Five (5) Years Expenditure Graph (2034-2038)
  - o 5.2.9: Five (5) Years Detailed Expenditure Table (2034-2038)
- 2039-2043
  - o 5.2.10: Five (5) Years Expenditure Chart (2039-2043)
  - o 5.2.11: Five (5) Years Expenditure Graph (2039-2043)
  - o 5.2.12: Five (5) Years Detailed Expenditure Table (2039-2043)
- 2044-2048
  - o 5.2.13: Five (5) Years Expenditure Chart (2044-2048)
  - o 5.2.14: Five (5) Years Expenditure Graph (2044-2048)
  - o 5.2.15: Five (5) Years Detailed Expenditure Table (2044-2048)
- 2049-2053
  - o 5.2.16: Five (5) Years Expenditure Chart (2049-2053)
  - o 5.2.17: Five (5) Years Expenditure Graph (2049-2053)
  - o 5.2.18: Five (5) Years Detailed Expenditure Table (2049-2053)

## 5.2.1 THIRTY (30) YEARS EXPENDITURE CHART:

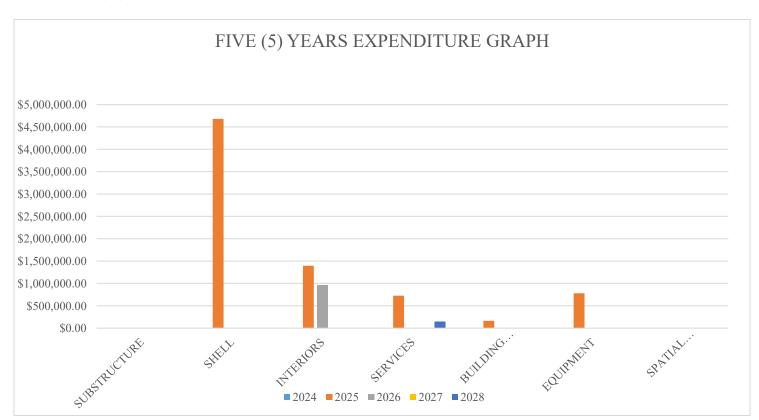
#### 2024 TO 2028:

Final Report

	UNIFORMAT CLASS	FIVE (5) YEARS EXPENDITURE CHART- 2024 TO 2028				
	UNITORWAT CLASS	2024	2025	2026	2027	2028
A	SUBSTRUCTURE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
В	SHELL	\$0.00	\$4,681,534.72	\$0.00	\$0.00	\$0.00
С	INTERIORS	\$0.00	\$1,395,856.86	\$962,057.88	\$0.00	\$0.00
D	SERVICES	\$0.00	\$725,000.00	\$0.00	\$0.00	\$148,800.00
G	BUILDING SITEWORKS	\$0.00	\$165,799.20	\$0.00	\$0.00	\$0.00
Е	EQUIPMENT	\$0.00	\$779,942.41	\$0.00	\$0.00	\$0.00
F	SPATIAL STRUCTURES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
YEAR	LY TOTAL	\$0.00	\$7,748,133.18	\$962,057.88	\$0.00	\$148,800.00
BUDG	ET FOR NEXT FIVE (5) YEARS	\$8,858,991.06				

## 5.2.2 THIRTY (30) YEARS EXPENDITURE GRAPH

## 2024 TO 2028:



# 5.2.3 THIRTY (30) YEARS DETAILED EXPENDITURE TABLE:

2024 TO 2028:

UNIFORM	EXPENDITURE	FIVE	(5) YEARS EXPE	NDITURE CHA	ART- 2024 T	TO 2028
AT CODE	DESCRIPTION	2024	2025	2026	2027	2028
A SUBST	RUCTURE					
A1030.001	Structural Slab on Grade	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
A2020.001	Foundation Walls & Footings	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
B SHELI						
B1010.001	Low Roof Structure	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
B1011.001	Wood Roof Structure	\$0.00	\$4,032,117.12	\$0.00	\$0.00	\$0.00
B2010.001	Entrance Canopy Roof Structure	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
B2010.001	Exterior Cladding - Wood	\$0.00	\$441,553.26	\$0.00	\$0.00	\$0.00
B2020.001	Exterior Windows - Wood	\$0.00	\$26,074.34	\$0.00	\$0.00	\$0.00
B2032.001	Exterior Doors	\$0.00	\$127,890.00	\$0.00	\$0.00	\$0.00
B2032.001	Overhead Exterior Doors - Mech	\$0.00	\$53,900.00	\$0.00	\$0.00	\$0.00
B3010.001	Roof Covering with Shingles	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
B1020.001	Exterior Stairs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	TOTAL	\$0.00	\$4,681,534.72	\$0.00	\$0.00	\$0.00
C INTER	IORS					
C1010.001	Wall Partitions - Any Interior Walls	\$0.00	\$0.00	\$962,057.88	\$0.00	\$0.00
C1020.001	Interior Doors	\$0.00	\$234,430.39	\$0.00	\$0.00	\$0.00
C3016.001	Interior Finish - Painting, & Staining	\$0.00	\$100,271.23	\$0.00	\$0.00	\$0.00
C3020.001	Floor Finish - All Types	\$0.00	\$621,731.00	\$0.00	\$0.00	\$0.00
C3033.001	Ceiling Finish	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
C1000.001	Restrooms	\$0.00	\$229,505.30	\$0.00	\$0.00	\$0.00
C2010.001	Interior Stairs	\$0.00	\$209,918.94	\$0.00	\$0.00	\$0.00
	TOTAL	\$0.00	\$1,395,856.86	\$962,057.88	\$0.00	\$0.00
D SERVI	CES					
D2010.001	Plumbing Fixture - Plumbing Systems	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D2020.001	Plumbing Pipe	\$0.00	\$300,000.00	\$0.00	\$0.00	\$0.00
D2020.001	Domestic Hot Water Plants	\$0.00	\$50,000.00	\$0.00	\$0.00	\$0.00
D3020.001	Ice Plant 1 - Curling Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D3020.001	Ice Plant 2 - Hockey Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D3040.001	Outdoor Energy Recovery Ventilation	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D3040.001	Curling Rink Furnace	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.00
D3040.001	Ice Rink Fans	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D3050.001	VRF Indoor/Outdoor Units	\$0.00	\$60,000.00	\$0.00	\$0.00	\$0.00
D3050.002	Ductless (Mini-Split) Heat Pumps	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D3090.001	Kitchen Ventilation Systems	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D3092.001	Dehumidifier - Hockey Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D3092.001	Dehumidifier - Curling Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D4010.001	Wet and Dry Sprinklers	\$0.00	\$250,000.00	\$0.00	\$0.00	\$0.00
D5010.001	Main Switchboard	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5012.001	Distribution Panels	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5012.002	Circuit Panelboards - Newer Style	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5012.003	Circuit Panelboards - Older Style	\$0.00	\$45,000.00	\$0.00	\$0.00	\$0.00

BUDGET FOR NEXT FIVE (5) YEARS \$8,858,991.06						
YEARLY TO	ΓAL	\$0.00	\$7,748,133.18	\$962,057.88	\$0.00	\$148,800.00
	TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
F1042.001	Curling Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
F1042.001	Ice Rink Dasher Boards - Skating	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
F SPAT	TAL STRUCTURES					
	TOTAL	\$0.00	\$779,942.41	\$0.00	\$0.00	\$0.00
E2010.001	Arena Bleachers - Fixed Seatings	\$0.00	\$391,518.92	\$0.00	\$0.00	\$0.00
E2040.001	Dining Room Furniture	\$0.00	\$73,757.56	\$0.00	\$0.00	\$0.00
E1020.002	Dressing Room Equip. & Furnishing	\$0.00	\$260,720.09	\$0.00	\$0.00	\$0.00
E1020.001	Kitchen Equipment and Cabinets 2	\$0.00	\$22,581.98	\$0.00	\$0.00	\$0.00
E1020.001	Kitchen - Equipment and Cabinets 1	\$0.00	\$31,363.86	\$0.00	\$0.00	\$0.00
	PMENT				•	
	TOTAL	\$0.00	\$165,799.20	\$0.00	\$0.00	\$0.00
G2041.001	Site Development - Fences	\$0.00	\$12,100.00	\$0.00	\$0.00	\$0.00
G2031.002	Concrete Landing Pads - Entrance	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
G2022.001	Gravel Driveway	\$0.00	\$153,699.20	\$0.00	\$0.00	\$0.00
G2022.002	Parking Lot - Asphalt Pavement	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
G2022.001	Asphalt Driveway	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
G BUIL	DING SITEWORKS					
	TOTAL	\$0.00	\$725,000.00	\$0.00	\$0.00	\$148,800.00
D5030.001	Fire Alarm System	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5030.001	Communications Systems	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5020.001	Branch Wiring	\$0.00	\$0.00	\$0.00	\$0.00	\$148,800.00
D5020.001	Lighting - Hockey Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5020.001	Lighting - Curling Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5020.001	Lighting - General	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5012.005	Dry-Type Transformers - 112.5kVA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
05012.004	Motor Control Centres	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Repair Requirements
Renewal Requirements

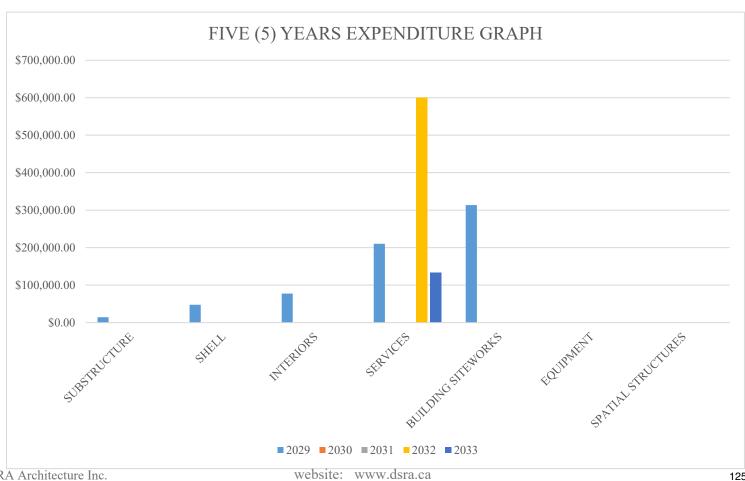
## 5.2.4 THIRTY (30) YEARS EXPENDITURE CHART:

#### 2029 TO 2033:

	UNIFORMAT CLASS	FIVE (5) YEARS EXPENDITURE CHART- 2029 TO 2033					
	UNIFORMAT CLASS	2029	2030	2031	2032	2033	
A	SUBSTRUCTURE	\$14,199.90	\$0.00	\$0.00	\$0.00	\$0.00	
В	SHELL	\$47,414.50	\$0.00	\$0.00	\$0.00	\$0.00	
С	INTERIORS	\$77,538.87	\$0.00	\$0.00	\$0.00	\$0.00	
D	SERVICES	\$210,000.00	\$0.00	\$0.00	\$600,000.00	\$133,920.00	
G	BUILDING SITEWORKS	\$313,675.00	\$0.00	\$0.00	\$0.00	\$0.00	
Е	EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
F	SPATIAL STRUCTURES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
YEARI	LY TOTAL	\$662,828.27	\$0.00	\$0.00	\$600,000.00	\$133,920.00	
BUDG	ET FOR NEXT FIVE (5) YEARS			\$1,396,748.27			

## 5.2.5 THIRTY (30) YEARS EXPENDITURE GRAPH

#### 2029 TO 2033:



DSRA Architecture Inc. 125

# 5.2.6 THIRTY (30) YEARS DETAILED EXPENDITURE TABLE:

2029 TO 2033:

UNIFORM	EXPENDITURE	FIVE (5) YEARS EXPENDITURE CHART- 2029 TO 2033					
AT CODE	DESCRIPTION	2029	2030	2031	2032	2033	
A SUBST	TRUCTURE						
A1030.001	Structural Slab on Grade	\$14,199.90	\$0.00	\$0.00	\$0.00	\$0.00	
A2020.001	Foundation Walls & Footings	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
	TOTAL	\$14,199.90	\$0.00	\$0.00	\$0.00	\$0.00	
B SHELI	Ĺ						
B1010.001	Low Roof Structure	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
B1011.001	Wood Roof Structure	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
B2010.001	Entrance Canopy Roof Structure	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
B2010.001	Exterior Cladding - Wood	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
B2020.001	Exterior Windows - Wood	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
B2032.001	Exterior Doors	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
B2032.001	Overhead Exterior Doors - Mech	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
B3010.001	Roof Covering with Shingles	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
B1020.001	Exterior Stairs	\$47,414.50	\$0.00	\$0.00	\$0.00	\$0.00	
	TOTAL	\$47,414.50	\$0.00	\$0.00	\$0.00	\$0.00	
C INTER	RIORS						
C1010.001	Wall Partitions - Any Interior Walls	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
C1020.001	Interior Doors	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
C3016.001	Interior Finish - Painting, & Staining	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
C3020.001	Floor Finish - All Types	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
C3033.001	Ceiling Finish	\$77,538.87	\$0.00	\$0.00	\$0.00	\$0.00	
C1000.001	Restrooms	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
C2010.001	Interior Stairs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
	TOTAL	\$77,538.87	\$0.00	\$0.00	\$0.00	\$0.00	
D SERVI	CES						
D2010.001	Plumbing Fixture - Plumbing Systems	\$60,000.00	\$0.00	\$0.00	\$0.00	\$0.00	
D2020.001	Plumbing Pipe	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D2020.001	Domestic Hot Water Plants	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D3020.001	Ice Plant 1 - Curling Rink	\$0.00	\$0.00	\$0.00	\$580,000.00	\$0.00	
D3020.001	Ice Plant 2 - Hockey Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D3040.001	Outdoor Energy Recovery Ventilation	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	
D3040.001	Curling Rink Furnace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D3040.001	Ice Rink Fans	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D3050.001	VRF Indoor/Outdoor Units	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D3050.002	Ductless (Mini-Split) Heat Pumps	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D3090.001	Kitchen Ventilation Systems	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D3092.001	Dehumidifier - Hockey Rink	\$100,000.00	\$0.00	\$0.00	\$0.00	\$0.00	
D3092.001	Dehumidifier - Curling Rink	\$50,000.00	\$0.00	\$0.00	\$0.00	\$0.00	
D4010.001	Wet and Dry Sprinklers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D5010.001	Main Switchboard	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D5012.001	Distribution Panels	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D5012.002	Circuit Panelboards - Newer Style	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
20012:002							

BUDGET FOR	NEXT FIVE (5) YEARS			\$1,396,748.27		
YEARLY TOT	AL	\$662,828.27	\$0.00	\$0.00	\$600,000.00	\$133,920.00
	TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
F1042.001	Curling Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
F1042.001	Ice Rink Dasher Boards - Skating	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
F SPATI	AL STRUCTURES					
	TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
E2010.001	Arena Bleachers - Fixed Seatings	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
E2040.001	Dining Room Furniture	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
E1020.002	Dressing Room Equip. & Furnishing	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
E1020.001	Kitchen Equipment and Cabinets 2	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
E1020.001	Kitchen - Equipment and Cabinets 1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
E EQUIP	PMENT					
	TOTAL	\$313,675.00	\$0.00	\$0.00	\$0.00	\$0.00
G2041.001	Site Development - Fences	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
G2031.002	Concrete Landing Pads - Entrance	\$13,875.00	\$0.00	\$0.00	\$0.00	\$0.00
G2022.001	Gravel Driveway	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
G2022.002	Parking Lot - Asphalt Pavement	\$260,400.00	\$0.00	\$0.00	\$0.00	\$0.00
G2022.001	Asphalt Driveway	\$39,400.00	\$0.00	\$0.00	\$0.00	\$0.00
G BUILD	DING SITEWORKS					
	TOTAL	\$210,000.00	\$0.00	\$0.00	\$600,000.00	\$133,920.00
D5030.001	Fire Alarm System	\$0.00	\$0.00	\$0.00	\$0.00	\$81,840.00
D5030.001	Communications Systems	\$0.00	\$0.00	\$0.00	\$0.00	\$52,080.00
D5020.001	Branch Wiring	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5020.001	Lighting - Hockey Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5020.001	Lighting - Curling Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5020.001	Lighting - General	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5012.005	Dry-Type Transformers - 112.5kVA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5012.004	Motor Control Centres	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Repair Requirements

**Renewal Requirements** 

Final Report

## **5.2 THIRTY (30) YEARS EXPENDITURE SUMMARY:**

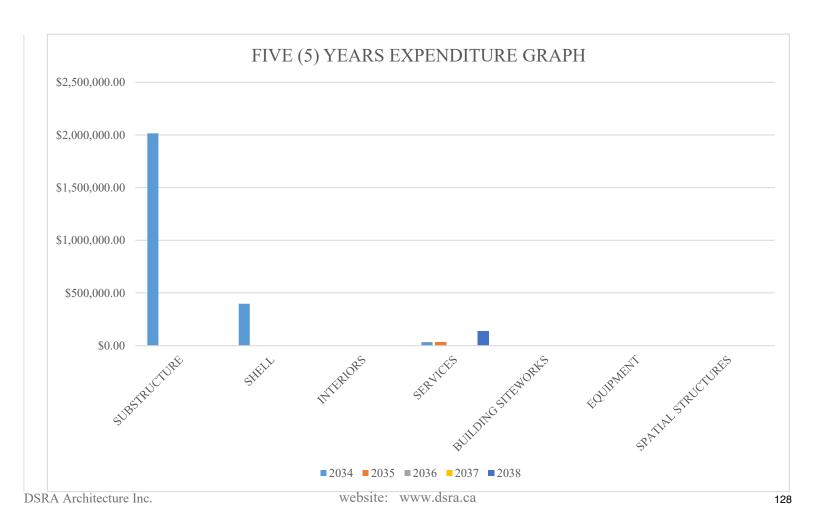
## 5.2.7 THIRTY (30) YEARS EXPENDITURE CHART:

#### 2034 TO 2038:

	UNIFORMAT CLASS	FIVE (	5) YEARS EXI	PENDITURE C	HART- 2034 T	TO 2038
	UNIFORMAT CLASS	2034	2035	2036	2037	2038
A	SUBSTRUCTURE	\$2,014,362.90	\$0.00	\$0.00	\$0.00	\$0.00
В	SHELL	\$396,976.45	\$0.00	\$0.00	\$0.00	\$0.00
С	INTERIORS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D	SERVICES	\$33,000.00	\$35,000.00	\$0.00	\$0.00	\$135,480.00
G	BUILDING SITEWORKS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Е	EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
F	SPATIAL STRUCTURES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
YEARI	LY TOTAL	\$2,444,339.35	\$35,000.00	\$0.00	\$0.00	\$135,480.00
BUDGI	ET FOR NEXT FIVE (5) YEARS			\$2,614,819.35		

## 5.2.8 THIRTY (30) YEARS EXPENDITURE GRAPH

#### 2034 TO 2038:



# 5.2.9 THIRTY (30) YEARS DETAILED EXPENDITURE TABLE:

2034 TO 2038:

UNIFORM	EXPENDITURE	FIVE (5) YEARS EXPENDITURE CHART- 2034 TO 2038					
AT CODE	DESCRIPTION	2034	2035	2036	2037	2038	
A SUBST	TRUCTURE						
A1030.001	Structural Slab on Grade	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
A2020.001	Foundation Walls & Footings	\$2,014,362.90	\$0.00	\$0.00	\$0.00	\$0.00	
	TOTAL	\$2,014,362.90	\$0.00	\$0.00	\$0.00	\$0.00	
B SHELI	L						
B1010.001	Low Roof Structure	\$250,360.20	\$0.00	\$0.00	\$0.00	\$0.00	
B1011.001	Wood Roof Structure	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
B2010.001	Entrance Canopy Roof Structure	\$146,616.25	\$0.00	\$0.00	\$0.00	\$0.00	
B2010.001	Exterior Cladding - Wood	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
B2020.001	Exterior Windows - Wood	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
B2032.001	Exterior Doors	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
B2032.001	Overhead Exterior Doors - Mech	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
B3010.001	Roof Covering with Shingles	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
B1020.001	Exterior Stairs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
	TOTAL	\$396,976.45	\$0.00	\$0.00	\$0.00	\$0.00	
C INTER	RIORS						
C1010.001	Wall Partitions - Any Interior Walls	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
C1020.001	Interior Doors	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
C3016.001	Interior Finish - Painting, & Staining	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
C3020.001	Floor Finish - All Types	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
C3033.001	Ceiling Finish	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
C1000.001	Restrooms	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
C2010.001	Interior Stairs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
	TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D SERVI	CES						
D2010.001	Plumbing Fixture - Plumbing Systems	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D2020.001	Plumbing Pipe	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D2020.001	Domestic Hot Water Plants	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D3020.001	Ice Plant 1 - Curling Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D3020.001	Ice Plant 2 - Hockey Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D3040.001	Outdoor Energy Recovery Ventilation	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D3040.001	Curling Rink Furnace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D3040.001	Ice Rink Fans	\$8,000.00	\$0.00	\$0.00	\$0.00	\$0.00	
D3050.001	VRF Indoor/Outdoor Units	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D3050.002	Ductless (Mini-Split) Heat Pumps	\$0.00	\$35,000.00	\$0.00	\$0.00	\$0.00	
D3090.001	Kitchen Ventilation Systems	\$25,000.00	\$0.00	\$0.00	\$0.00	\$0.00	
D3092.001	Dehumidifier - Hockey Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D3092.001	Dehumidifier - Curling Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D4010.001	Wet and Dry Sprinklers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D5010.001	Main Switchboard	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D5012.001	Distribution Panels	\$0.00	\$0.00	\$0.00	\$0.00	\$10,000.00	
D5012.002	Circuit Panelboards - Newer Style	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D5012.003	Circuit Panelboards - Older Style	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	

Final Report

BUDGET FOR NEXT FIVE (5) YEARS		\$2,614,819.35							
YEARLY TOT	`AL	\$2,444,339.35	\$35,000.00	\$0.00	\$0.00	\$135,480.00			
	TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
F1042.001	Curling Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
F1042.001	Ice Rink Dasher Boards - Skating	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
F SPATI	AL STRUCTURES								
	TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
E2040.001	Dining Room Furniture	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
E1020.002	Dressing Room Equip. & Furnishing	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
E1020.001	Kitchen Equipment and Cabinets 2	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
E1020.001	Kitchen - Equipment and Cabinets 1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
	PMENT					_			
	TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
G2041.001	Site Development - Fences	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
G2031.002	Concrete Landing Pads - Entrance	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
G2022.001	Gravel Driveway	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
G2022.002	Parking Lot - Asphalt Pavement	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
G2022.001	Asphalt Driveway	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
G BUILI	DING SITEWORKS								
	TOTAL	\$33,000.00	\$35,000.00	\$0.00	\$0.00	\$135,480.00			
D5030.001	Fire Alarm System	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
D5030.001	Communications Systems	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
D5020.001	Branch Wiring	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
D5020.001	Lighting - Hockey Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$42,000.00			
D5020.001	Lighting - Curling Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$36,000.00			
D5020.001	Lighting - General	\$0.00	\$0.00	\$0.00	\$0.00	\$47,480.00			
D5012.005	Dry-Type Transformers - 112.5kVA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
D5012.004	Motor Control Centres	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			

Repair Requirements

**Renewal Requirements** 

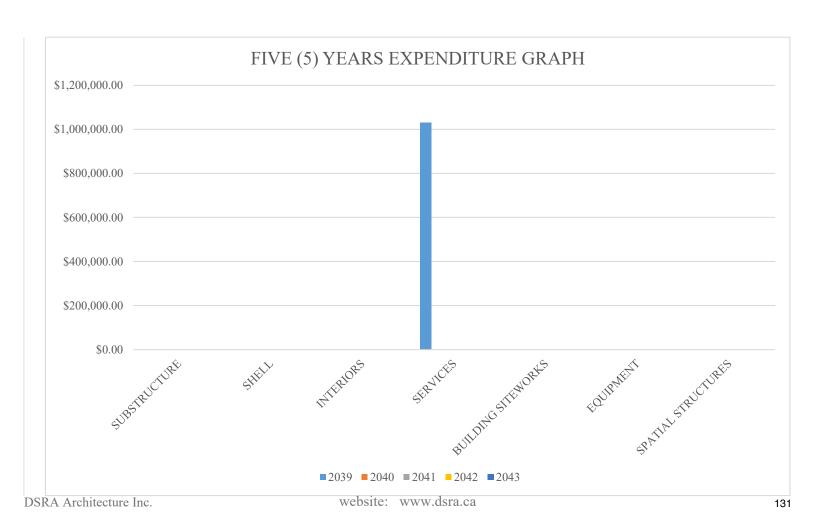
## 5.2.10 THIRTY (30) YEARS EXPENDITURE CHART:

#### 2039 TO 2043:

	UNIFORMAT CLASS	FIVE (	(5) YEARS EXI	PENDITURE C	HART- 2039 T	O 2043
	UNIFORMAT CLASS	2039	2040	2041	2042	2043
A	SUBSTRUCTURE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
В	SHELL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
С	INTERIORS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D	SERVICES	\$1,030,000.00	\$0.00	\$0.00	\$0.00	\$0.00
G	BUILDING SITEWORKS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Е	EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
F	SPATIAL STRUCTURES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
YEARI	Y TOTAL	\$1,030,000.00	\$0.00	\$0.00	\$0.00	\$0.00
BUDGI	ET FOR NEXT FIVE (5) YEARS			\$1,030,000.00		

## 5.2.11 THIRTY (30) YEARS EXPENDITURE GRAPH

#### 2039 TO 2043:



# 5.2.12 THIRTY (30) YEARS DETAILED EXPENDITURE TABLE:

2039 TO 2043:

EXPENDITURE	FIVE (5) YEARS EXPENDITURE CHART- 2039 TO 2043					
DESCRIPTION	2039	2040	2041	2042	2043	
RUCTURE						
Structural Slab on Grade	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Foundation Walls & Footings	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Low Roof Structure	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Wood Roof Structure	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Entrance Canopy Roof Structure	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Exterior Cladding - Wood	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Exterior Windows - Wood	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Exterior Doors	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Overhead Exterior Doors - Mech	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Roof Covering with Shingles	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Exterior Stairs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
IORS						
Wall Partitions - Any Interior Walls	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Interior Doors	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Interior Finish - Painting, & Staining	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Floor Finish - All Types	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Ceiling Finish	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Restrooms	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Interior Stairs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
CES						
Plumbing Fixture - Plumbing Systems	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Plumbing Pipe	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Domestic Hot Water Plants	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Ice Plant 1 - Curling Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
	\$980,000.00	\$0.00	\$0.00	\$0.00	\$0.00	
Outdoor Energy Recovery Ventilation	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Curling Rink Furnace		\$0.00	\$0.00	\$0.00	\$0.00	
Ice Rink Fans	\$0.00	\$0.00		\$0.00	\$0.00	
	\$0.00			\$0.00	\$0.00	
					\$0.00	
Kitchen Ventilation Systems	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Dehumidifier - Hockey Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D 1 110 0 11 D11	50.00	\$0.00	\$0.00	\$0.00	\$0.00	
Dehumidifier - Curling Rink	\$0.00		<b>#</b> 0.00	<b>#</b> 0.00	<b># * * * * * *</b>	
Wet and Dry Sprinklers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Wet and Dry Sprinklers Main Switchboard	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00	\$0.00	\$0.00	
Wet and Dry Sprinklers	\$0.00	\$0.00				
	Structural Slab on Grade Foundation Walls & Footings  TOTAL  Low Roof Structure Wood Roof Structure Entrance Canopy Roof Structure Exterior Cladding - Wood Exterior Windows - Wood Exterior Doors Overhead Exterior Doors - Mech Roof Covering with Shingles Exterior Stairs  TOTAL  IORS  Wall Partitions - Any Interior Walls Interior Doors Interior Finish - Painting, & Staining Floor Finish - All Types Ceiling Finish Restrooms Interior Stairs  TOTAL  CES  Plumbing Fixture - Plumbing Systems Plumbing Pipe Domestic Hot Water Plants Ice Plant 1 - Curling Rink Ice Plant 2 - Hockey Rink Outdoor Energy Recovery Ventilation Curling Rink Furnace Ice Rink Fans VRF Indoor/Outdoor Units Ductless (Mini-Split) Heat Pumps	DESCRIPTION   2039	DESCRIPTION   2039   2040	DESCRIPTION   2039   2040   2041	DESCRIPTION   2039   2040   2041   2042   2042	

Final Report

RUDGET FOR	NEXT FIVE (5) YEARS			\$1,030,000.00		\$0.00				
YEARLY TOT	`AL	\$1,030,000.00	\$0.00	\$0.00	\$0.00	\$0.00				
	TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00				
F1042.001	Curling Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00				
F1042.001	Ice Rink Dasher Boards - Skating	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00				
	AL STRUCTURES									
	TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00				
	TOTAL	70.00	00.00	20.00	20.00	<b>#</b> 0.00				
E2040.001	Dining Room Furniture	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00				
E1020.002	Dressing Room Equip. & Furnishing	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00				
E1020.001	Kitchen Equipment and Cabinets 2	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00				
E1020.001	Kitchen - Equipment and Cabinets 1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00				
	PMENT					,				
	TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00				
G2041.001	Site Development - Fences	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00				
G2031.002	Concrete Landing Pads - Entrance	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00				
G2022.001	Gravel Driveway	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00				
G2022.002	Parking Lot - Asphalt Pavement	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00				
G2022.001	Asphalt Driveway	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00				
G BUILI	DING SITEWORKS									
	TOTAL	\$1,030,000.00	\$0.00	\$0.00	\$0.00	\$0.00				
D5030.001	Fire Alarm System	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00				
D5030.001	Communications Systems	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00				
D5020.001	Branch Wiring	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00				
D5020.001	Lighting - Hockey Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00				
D5020.001	Lighting - Curling Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00				
D5020.001	Lighting - General	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00				
D5012.005	Dry-Type Transformers - 112.5kVA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00				
D5012.004	Motor Control Centres	\$50,000.00	\$0.00	\$0.00	\$0.00	\$0.00				

Repair Requirements

**Renewal Requirements** 

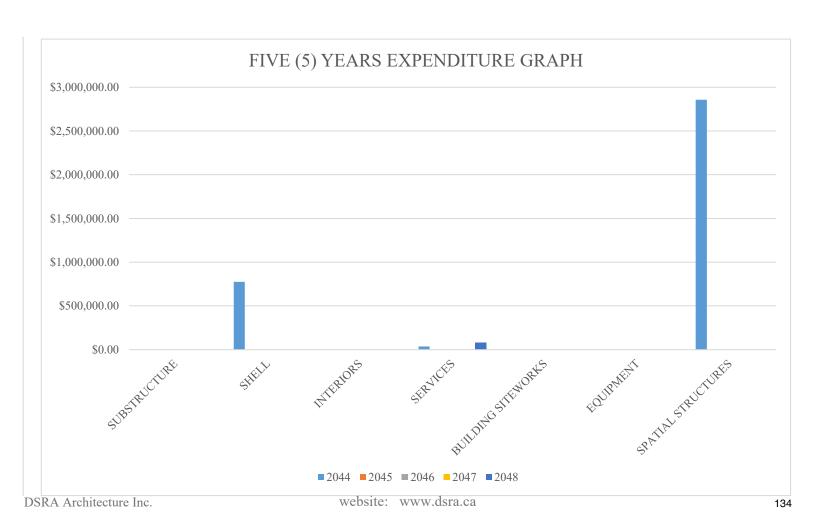
## 5.2.13 THIRTY (30) YEARS EXPENDITURE CHART:

#### 2044 TO 2048:

	UNIFORMAT CLASS	FIVE (5	) YEARS EXPI	ENDITURE CH	IART- 2044 TO	2048
	UNIFORMAT CLASS	2044	2045	2046	2047	2048
A	SUBSTRUCTURE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
В	SHELL	\$775,338.55	\$0.00	\$0.00	\$0.00	\$0.00
С	INTERIORS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D	SERVICES	\$35,000.00	\$0.00	\$0.00	\$0.00	\$80,000.00
G	BUILDING SITEWORKS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Е	EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
F	SPATIAL STRUCTURES	\$2,856,367.47	\$0.00	\$0.00	\$0.00	\$0.00
YEARI	LY TOTAL	\$3,666,706.02	\$0.00	\$0.00	\$0.00	\$80,000.00
BUDG	ET FOR NEXT FIVE (5) YEARS			\$3,746,706.02		

## 5.2.14 THIRTY (30) YEARS EXPENDITURE GRAPH

## 2044 TO 2048:



# 5.2.15 THIRTY (30) YEARS DETAILED EXPENDITURE TABLE:

2044 TO 2048:

EXPENDITURE	FIVE (5) YEARS EXPENDITURE CHART- 2044 TO 2048					
DESCRIPTION	2044	2045	2046	2047	2048	
RUCTURE						
Structural Slab on Grade	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Foundation Walls & Footings	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
ı						
Low Roof Structure	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Wood Roof Structure	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Entrance Canopy Roof Structure	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Exterior Cladding - Wood	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Exterior Windows - Wood	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Exterior Doors	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Overhead Exterior Doors - Mech	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Roof Covering with Shingles	\$775,338.55	\$0.00	\$0.00	\$0.00	\$0.00	
Exterior Stairs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
TOTAL	\$775,338.55	\$0.00	\$0.00	\$0.00	\$0.00	
IORS						
Wall Partitions - Any Interior Walls	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Interior Doors	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Interior Finish - Painting, & Staining	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Floor Finish - All Types	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Ceiling Finish	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Restrooms	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Interior Stairs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
CES						
Plumbing Fixture - Plumbing Systems	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Plumbing Pipe	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Domestic Hot Water Plants	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Ice Plant 1 - Curling Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
·				\$0.00	\$0.00	
				\$0.00	\$0.00	
					\$0.00	
					\$0.00	
VDE Indoon/Outdoon Units	ድስ ስስ	\$0.00	\$0.00	\$0.00	\$0.00	
VRF Indoor/Outdoor Units	\$0.00					
Ductless (Mini-Split) Heat Pumps	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Ductless (Mini-Split) Heat Pumps Kitchen Ventilation Systems	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00	\$0.00	
Ductless (Mini-Split) Heat Pumps Kitchen Ventilation Systems Dehumidifier - Hockey Rink	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	
Ductless (Mini-Split) Heat Pumps Kitchen Ventilation Systems Dehumidifier - Hockey Rink Dehumidifier - Curling Rink	\$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	
Ductless (Mini-Split) Heat Pumps Kitchen Ventilation Systems Dehumidifier - Hockey Rink Dehumidifier - Curling Rink Wet and Dry Sprinklers	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$0.00	
Ductless (Mini-Split) Heat Pumps Kitchen Ventilation Systems Dehumidifier - Hockey Rink Dehumidifier - Curling Rink Wet and Dry Sprinklers Main Switchboard	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$0.00 \$50,000.00	
Ductless (Mini-Split) Heat Pumps Kitchen Ventilation Systems Dehumidifier - Hockey Rink Dehumidifier - Curling Rink Wet and Dry Sprinklers	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$0.00	
	RUCTURE  Structural Slab on Grade Foundation Walls & Footings  TOTAL  Low Roof Structure Wood Roof Structure Entrance Canopy Roof Structure Exterior Cladding - Wood Exterior Windows - Wood Exterior Doors Overhead Exterior Doors - Mech Roof Covering with Shingles Exterior Stairs  TOTAL  IORS  Wall Partitions - Any Interior Walls Interior Doors Interior Finish - Painting, & Staining Floor Finish - All Types Ceiling Finish Restrooms Interior Stairs  TOTAL  CES  Plumbing Fixture - Plumbing Systems Plumbing Pipe Domestic Hot Water Plants	DESCRIPTION   2044	DESCRIPTION   2044   2045	DESCRIPTION   2044   2045   2046	DESCRIPTION   2044   2045   2046   2047	

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IIDCET EOD	NEXT FIVE (5) YEARS			\$3,746,706.02		
EARLY TOT	`AL	\$3,666,706.02	\$0.00	\$0.00	\$0.00	\$80,000.00
	TOTAL	\$2,856,367.47	\$0.00	\$0.00	\$0.00	\$0.00
F1042.001	Curling Rink	\$1,428,183.74	\$0.00	\$0.00	\$0.00	\$0.00
F1042.001	Ice Rink Dasher Boards - Skating	\$1,428,183.74	\$0.00	\$0.00	\$0.00	\$0.00
	AL STRUCTURES					
	TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
E2040.001	Dining Room Furniture	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
E1020.002	Dressing Room Equip. & Furnishing	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
E1020.001	Kitchen Equipment and Cabinets 2	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
E1020.001	Kitchen - Equipment and Cabinets 1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	PMENT					
	TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
G2041.001	Site Development - Fences	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
G2031.002	Concrete Landing Pads - Entrance	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
G2022.001	Gravel Driveway	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
G2022.002	Parking Lot - Asphalt Pavement	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
G2022.001	Asphalt Driveway	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
-	DING SITEWORKS					
	TOTAL	\$35,000.00	\$0.00	\$0.00	\$0.00	\$80,000.00
D5030.001	Fire Alarm System	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5030.001	Communications Systems	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5020.001	Branch Wiring	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5020.001	Lighting - Hockey Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5020.001	Lighting - Curling Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5020.001	Lighting - General	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5012.005	Dry-Type Transformers - 112.5kVA	\$0.00	\$0.00	\$0.00	\$0.00	\$30,000.00
D5012.004	Motor Control Centres	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Repair Requirements
Renewal Requirements

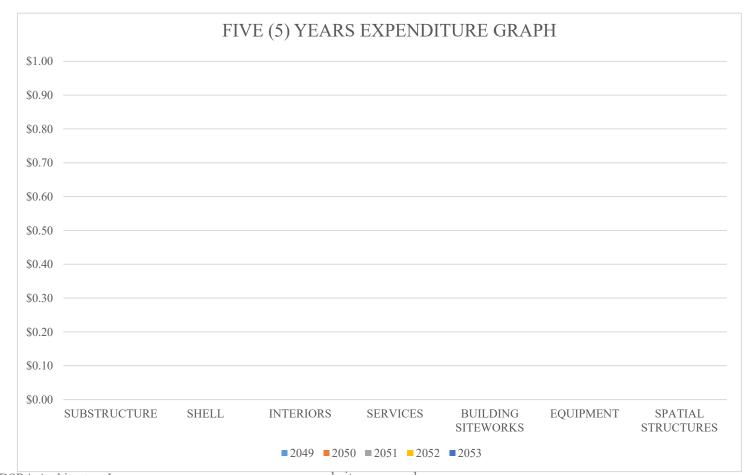
## 5.2.16 THIRTY (30) YEARS EXPENDITURE CHART:

#### 2049 TO 2053:

UNIFORMAT CLASS		FIVE (5) YEARS EXPENDITURE CHART- 2049 TO 2053					
		2049	2050	2051	2052	2053	
A	SUBSTRUCTURE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
В	SHELL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
С	INTERIORS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
D	SERVICES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
G	BUILDING SITEWORKS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Е	EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
F	SPATIAL STRUCTURES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
YEARI	YEARLY TOTAL		\$0.00	\$0.00	\$0.00	\$0.00	
BUDGET FOR NEXT FIVE (5) YEARS				\$0.00			

## 5.2.17 THIRTY (30) YEARS EXPENDITURE GRAPH

#### 2049 TO 2053:



# **5.2.18 THIRTY (30) YEARS DETAILED EXPENDITURE TABLE:**

2049 TO 2053:

UNIFORM	EXPENDITURE DESCRIPTION	FIVE (5) YEARS EXPENDITURE CHART- 2049 TO 2053				
AT CODE		2049	2050	2051	2052	2053
A SUBST	RUCTURE					
A1030.001	Structural Slab on Grade	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
A2020.001	Foundation Walls & Footings	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
B SHELI						
B1010.001	Low Roof Structure	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
B1011.001	Wood Roof Structure	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
B2010.001	Entrance Canopy Roof Structure	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
B2010.001	Exterior Cladding - Wood	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
B2020.001	Exterior Windows - Wood	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
B2032.001	Exterior Doors	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
B2032.001	Overhead Exterior Doors - Mech	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
B3010.001	Roof Covering with Shingles	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
B1020.001	Exterior Stairs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
C INTER	IORS					
C1010.001	Wall Partitions - Any Interior Walls	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
C1020.001	Interior Doors	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
C3016.001	Interior Finish - Painting, & Staining	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
C3020.001	Floor Finish - All Types	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
C3033.001	Ceiling Finish	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
C1000.001	Restrooms	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
C2010.001	Interior Stairs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D SERVI	CES					
D2010.001	Plumbing Fixture - Plumbing Systems	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D2020.001	Plumbing Pipe	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D2020.001	Domestic Hot Water Plants	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D3020.001	Ice Plant 1 - Curling Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D3020.001	Ice Plant 2 - Hockey Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D3040.001	Outdoor Energy Recovery Ventilation	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D3040.001	Curling Rink Furnace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D3040.001	Ice Rink Fans	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D3050.001	VRF Indoor/Outdoor Units	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D3050.002	Ductless (Mini-Split) Heat Pumps	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D3090.001	Kitchen Ventilation Systems	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D3092.001	Dehumidifier - Hockey Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D3092.001	Dehumidifier - Curling Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D4010.001	Wet and Dry Sprinklers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5010.001	Main Switchboard	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5012.001	Distribution Panels	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5012.002	Circuit Panelboards - Newer Style	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5012.003	Circuit Panelboards - Older Style	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Final Report

D5012.004	Motor Control Centres	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5012.005	Dry-Type Transformers - 112.5kVA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5020.001	Lighting - General	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5020.001	Lighting - Curling Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5020.001	Lighting - Hockey Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5020.001	Branch Wiring	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5030.001	Communications Systems	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
D5030.001	Fire Alarm System	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
G BUILI	DING SITEWORKS					
G2022.001	Asphalt Driveway	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
G2022.002	Parking Lot - Asphalt Pavement	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
G2022.001	Gravel Driveway	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
G2031.002	Concrete Landing Pads - Entrance	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
G2041.001	Site Development - Fences	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
E EQUII	PMENT					
E1020.001	Kitchen - Equipment and Cabinets 1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
E1020.001	Kitchen Equipment and Cabinets 2	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
E1020.002	Dressing Room Equip. & Furnishing	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
E2040.001	Dining Room Furniture	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
F SPATI	AL STRUCTURES					
F1042.001	Ice Rink Dasher Boards - Skating	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
F1042.001	Curling Rink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TOTAL		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
YEARLY TOTAL		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TOTAL BUDGET FOR THE NEXT FIVE (5) YEARS				\$0.00		

Repair Requirements

**Renewal Requirements** 

# 5.3 CURRENT REPLACEMENT VALUE (CRV)

The Current Replacement Value (CRV) determined the total cost required in current currency for a comprehensive replacement, ensuring compliance with the prevailing construction standards and regulatory requirements. The CRV computation involved multiplying the unit counts of system quantity by R.S. Means unit cost data, with the total CRV derived from the sum of the individual System CRVs. All calculations were linked to the latest nationally recognized R.S. Means construction cost data values to ensure accuracy and reliability in the assessment.

A detailed calculation sheet can be found in the upcoming Section.

# SECTION - 5.3 - CURRENT REPLACEMENT VALUE (CRV)

UNIFORMAT CODE	ELEMENT DESCRIPTION	YEAR	REPLACEMENT COST
	Gross Floor Area (Sq. M)		4,453.00
	Gross Floor Area (Sq. Ft)		47,931.65
	<b>Building Cost Including Site Works</b>	<b>Square Meter</b>	\$17,647,264.70
	Building Cost Per Sq. Ft. Including Site Works		368.18

	bunding Cost Fer Sq. Ft. Including Site Works		306.1
A - SUBSTRUCTURE			\$2,028,562.80
A1030.001	Structural Slab on Grade	2029	\$14,199.90
A2020.001	Foundation Walls & Footings	2034	\$2,014,362.90
B - SHELL		\$5,901,264.21	
B1010.001	Low Roof Structure	2034	\$250,360.20
B1011.001	Wood Roof Structure	2025	\$4,032,117.12
B2010.001	Entrance Canopy Roof Structure	2034	\$146,616.25
B2010.001	Exterior Cladding - Wood	2025	\$441,553.26
B2020.001	Exterior Windows - Wood	2025	\$26,074.34
32032.001	Exterior Doors	2025	\$127,890.00
B2032.001	Overhead Exterior Doors - Mechanical Operations	2025	\$53,900.00
B3010.001	Roof Covering with Shingles	2044	\$775,338.55
B1020.001	Exterior Stairs	2029	\$47,414.50
C - INTERIC	DRS		\$2,435,453.61
C1010.001	Wall Partitions - Any Interior Walls	2026	\$962,057.88
C1020.001	Interior Doors	2025	\$234,430.39
C3016.001	Interior Finish - Painting, Sealing & Staining	2025	\$100,271.23
C3020.001	Floor Finish - All Types	2025	\$621,731.00
C3033.001	Ceiling Finish	2029	\$77,538.87
C1000.001	Restrooms	2025	\$229,505.30
C2010.001	Interior Stairs	2025	\$209,918.94
D - SERVICI			\$3,166,200.00
D2010.001	Plumbing Fixtures - All Plumbing Systems	2029	\$60,000.00
D2020.001	Plumbing Pipe	2025	\$300,000.00
D2020.001	Domestic Hot Water Plants	2025	\$50,000.00
03020.001	Ice Plant 1 - Curling Rink	2032	\$580,000.00
03020.001	Ice Plant 2 - Hockey Rink	2039	\$980,000.00
D3040.001	Air Distribution System - Outdoor Energy Recovery Ventilation (ERV)	2032	\$20,000.00
D3040.001	Air Distribution System - Curling Rink Furnace	2025	\$20,000.00
03040.001	Air Distribution System - Ice Rink Fans	2034	\$8,000.00
03050.001	Terminal Units for Heating & Cooling (TU) - VRF Indoor/Outdoor Units	2025	\$60,000.00
03050.002	Split System Air Conditioning Units - Ductless (Mini-Split) Heat Pumps	2035	\$35,000.00
D3090.001	Other HVAC Systems & Equipment - Kitchen Ventilation Systems	2034	\$25,000.00
D3092.001	Special Humidity Controls - Dehumidifier - Hockey Rink	2029	\$100,000.00
D3092.001	Special Humidity Controls - Dehumidifier - Curling Rink	2029	\$50,000.00
D4010.001	E' D	2024	\$250,000.00
5 1010.001	Fire Protection Systems - Wet and Dry Sprinklers	2024	\$230,000.00

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D5012.001	Electrical Distribution - Distribution Panels	2038	\$10,000.00
D5012.002	Branch Circuit Panelboards - Newer Style	2044	\$35,000.00
D5012.003	Branch Circuit Panelboards - Older Style	2025	\$45,000.00
D5012.004	Motor Control Centres	2039	\$50,000.00
D5012.005	Dry-Type Transformers - 112.5kVA	2048	\$30,000.00
D5020.001	Lighting - General	2038	\$47,480.00
D5020.001	Lighting - Curling Rink	2038	\$36,000.00
D5020.001	Lighting - Hockey Rink	2038	\$42,000.00
D5020.001	Branch Wiring	2028	\$148,800.00
D5030.001	Communications Systems	Approx 2033	\$52,080.00
D5030.001	Fire Alarm System	2033	\$81,840.00
G - BUILDIN	G SITEWORKS		\$479,474.20
G2022.001	Asphalt Driveway	2029	\$39,400.00
G2022.002	Parking Lot - Asphalt Pavement	2029	\$260,400.00
G2022.001	Gravel Driveway	2025	\$153,699.20
G2031.002	Concrete Landing Pads - Entrance	2029	\$13,875.00
G2041.001	Site Development - Fences	2025	\$12,100.00
E - EQUIPM	ENT AND FURNISHING		\$779,942.41
E1020.001	Kitchen - Equipment and Cabinets 1	2025	\$31,363.86
E1020.001	Kitchen Equipment and Cabinets 2	2025	\$22,581.98
E1020.002	Dressing Room Equipment and Furnishing	2025	\$260,720.09
E2040.001	Dining Room Furniture	2025	\$73,757.56
E2010.001	Arena Bleachers - Fixed Seatings	2025	\$391,518.92
F - SPATIAL	STRUCTURES		\$2,856,367.47
F1042.001	Ice Rink Dasher Boards - Skating Rink	2044	\$1,428,183.74
F1042.001	Curling Rink	2044	\$1,428,183.74

website: www.dsra.ca DSRA Architecture Inc. 142

## 5.4 FACILITY CONDITION INDEX (FCI)

#### **Rating Criteria**

The rating criteria for the FCI are established based on the percentage resulting from the calculation. Different ranges of FCI percentages correspond to various condition ratings, providing a comprehensive understanding of the building's overall state. The following rating criteria are utilized:

0 - 5% FCI: Asset in good condition

5 - 10% FCI: Asset in fair condition

10 - 30% FCI: Asset in poor condition

30 - 50% FCI: Asset in critical condition

The FCI percentage represents the following conditions.

#### Good (0% - 5% FCI):

- Facilities will appear clean and fully functional.
- Occasional and manageable component and equipment failures may occur.
- Repairs and replacements primarily focus on aesthetic enhancements, such as wall painting, carpet replacement, roof repair, and window caulking.
- Tenant complaints are expected to be minimal and easily manageable.
- Tenant morale is likely to be positive and evident, reflecting the favorable condition of the facilities.
- Facility staff can dedicate their time to regular scheduled maintenance, ensuring the continued upkeep of the building.

#### Fair (6% - 10% FCI):

- Facilities will begin to display early signs of wear and tear.
- Component and equipment failures might become more frequent.
- Repair and replacement efforts may be required for specific systems, such as boilers, window replacements, and interior renovations.
- Tenant complaints may arise with a higher frequency, indicating a slightly compromised condition of the facilities.
- Tenant morale might be affected, reflecting the deteriorating condition of the building.
- Facility staff may occasionally need to divert their attention from regular scheduled maintenance tasks to address emerging issues.

#### Poor (11% - 30% FCI):

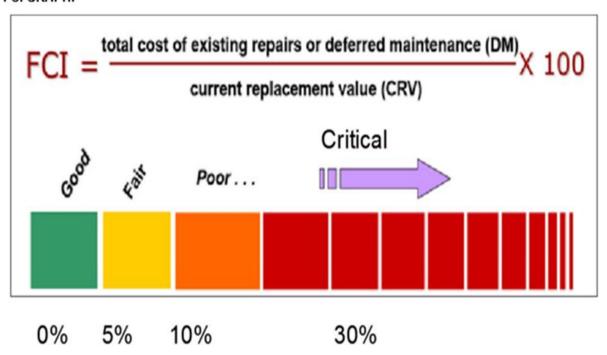
- Facilities will exhibit apparent and increasing signs of deterioration and wear.
- Component and equipment failures are expected to occur frequently, potentially leading to occasional building shutdowns.
- Replacement of specific major systems, including heating and plumbing systems, as well as complete interior renovations and building envelope restoration, may be necessary.
- Some units might be affected by shutdowns, often resulting from issues such as roof or pipe leakage.

- Tenant complaints are likely to be high in frequency, indicating growing dissatisfaction and concerns.
- Concerns about negative tenant morale may become more pronounced, reflecting the deteriorating condition of the facilities.
- Facility staff may need to shift from regular scheduled maintenance to a more reactive mode, addressing emergent issues as they arise.

#### Critical (Over 30% FCI):

- Facilities will show visible signs of wear, marked by obvious deterioration and aging.
- Frequent equipment failures and potential building shutdowns are expected, posing significant management risks.
- Health and safety concerns may become prominent, necessitating immediate attention and resolution.
- Replacement of multiple systems, such as mechanical, electrical, architectural, and structural components, might become imperative.
- Critical issues such as building heating system failures, evacuation requirements due to unaddressed roof leakage, and structural concerns, including envelope replacements, may arise.
- Operations staff may struggle to provide regular scheduled maintenance due to an increased volume
  of reactive calls, highlighting the urgent need for comprehensive and immediate repair and
  replacement measures.

#### FCI GRAPH:



The calculation includes a color-coded representation of each year within the 10-year FCI, aligned with the provided FCI graph, for enhanced clarity and visual understanding. The report also includes a note for the end-users, clarifying the assumption that all identified work for a particular year will be completed within that year.

# 6 APPENDIX B – BUILDING CONDITION ASSESSMENT: DETAILED COMPONENT / EVENT ANALYSIS

Each building element is meticulously examined and classified into the designated categories:

- A Substructure
- B Shell
- C Interiors
- D Services
- G Building Site Work
- E Equipment and Furnishings
- F Spatial Structures

# 6.1 A-Substructure

#### 6.1 - A - SUBSTRUCTURE - ELEANOR PEW MORRIS MEMORIAL ARENA CHESTER, NS

## 6.1.2 A1030.001 Structural Slab on Grade

**System Description:** Concrete Slab on grade in Curling Rink and the Hockey Rink.

Unit:	Square Meter	<b>Inspection Date:</b>	Friday, February 2, 2024
Quantity:	65	Year Installed:	1969
Unit Rate:	\$218.46	Service Life:	60
<b>Replacement Cost:</b>	\$14,199.90	Year Remaining:	6
Condition Rating:	Poor	Year of Replacement:	2029

**Observations:** With ice in the curling and hockey rink there was no opportunity to review the condition of the

concrete slab in either ice rink. The slab outside of the rink appeared to be serviceable with the

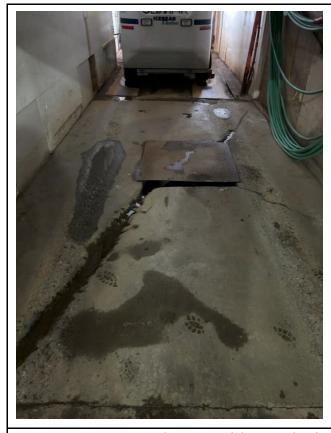
exception of the zamboni loading area and addition that houses the zamboni.

Condition and Anticipated Replacement:

The condition of the concrete slab in the zamboni loading and storage area is poor and should be repaired or replaced in the near future. The remaining areas of exposed slab throughout the arena appear to be in good condition. The ice rink slab condition is unknown.

**Recommendations:** Recommend replacement of zamboni storage area slab. Short-term repair could be done with

adequate concrete repair procedures.





Damaged concrete slab at Zamboni ramp & Damaged concrete slab at Zamboni addition

#### 6.1 - A - SUBSTRUCTURE - ELEANOR PEW MORRIS MEMORIAL ARENA CHESTER, NS

## 6.1.3 A2020.001 Foundation Walls & Footings

**System Description:** Foundation Walls & Footings

**Unit:** Square Meter **Inspection Date:** Friday, February 2, 2024 Quantity: 1310 Year Installed: 1969 **Unit Rate:** Service Life: 65 \$1.537.68 \$2,014,362.90 11 **Replacement Cost: Year Remaining:** 2034 **Condition Rating:** Fair **Year of Replacement:** 

**Observations:** No damage or deterioration was apparent that would indicate any foundation distress or issues.

Condition and Anticipated Replacement:

Foundation wall and concrete piers are typically exposed on the the inside of the curling rink and appear to be in fair to good condition. The interior concrete foundation wall and piers in the hockey rink is exposed on the end wall only but appear to be in fair condition. Some shrinkage cracks were noted but do not cause any serviceability concerns. The exterior foundation wall is exposed on two sides of the hockey arena and have been patched in a few areas that had shown some damage or deterioration.

**Recommendations:** 

Continue to repair any deteriorated concrete in the foundation walls or piers as required. Additional concrete testing to determine service life and durability should be done in order to extend service life beyond 65 years.





Patched concrete foundation wall on hockey rink exterior & Concrete foundation wall on curling rink interior

# **6.2 B** – **S**HELL

#### 6.2 - B - SHELL - ELEANOR PEW MORRIS MEMORIAL ARENA CHESTER, NS

# 6.2.1 B1010.001 Low Roof Structure

**System Description:** The system includes the low roof adjecent to Hockey Arena.

Unit: Square Meter **Inspection Date:** Friday, February 2, 2024 **Quantity:** 400 Year Installed: 1969 **Unit Rate:** \$625.90 **Service Life:** 65 \$250,360.20 Year Remaining: **Replacement Cost:** 11 **Condition Rating:** Fair Year of Replacement: 2034

**Observations:** There was no opportunity to inspect the low roof structure that runs along the hockey arena and

part of the curling rink. This low roof structure include dressing rooms in the hockey arena and

mechanical space along the curling rink that houses the ice making equipment.

Condition and Anticipated Replacement:

It is impossible to state the condition of the structure however it is subject to sliding snow loads from the roof above and may be subjected to significant snow drift loads.

**Recommendations:** With the reinforcing of the main roof structures it would be recommended that the low roof

structure be examined and the capacity checked to ensure that the roof structure is adequate to

withstands the NBCC design snow load.



#### 6.2 - B - SHELL - ELEANOR PEW MORRIS MEMORIAL ARENA CHESTER, NS

## 6.2.2 B1011.001 Wood Roof Structure

**System Description:** The main wood roof structure in the rinks.

Unit:	Square Meter	<b>Inspection Date:</b>	Friday, February 2, 2024
Quantity:	4182	Year Installed:	1969
Unit Rate:	\$964.16	Service Life:	75
<b>Replacement Cost:</b>	\$4,032,117.12	Year Remaining:	1
Condition Rating:	Poor	Year of Replacement:	2025

**Observations:** 

The glulam roof structure for both the hockey arena and curling rink were observed from the ice surface only and were not measured or analyzed in any way. Several reports by Wood Research and Development were provided and during the site inspection it was verified that phase one of reinforcing has been completed with more reinforcing planned for later on in 2024.

Condition and Anticipated Replacement:

Given a poor rating because of the reported deficiency in design capacity in relation to current NBCC design loads however it is apparent that the reinforcing that has been done will achieve higher capacity and ensure the roof structure is capable of providing many years of service. The cost to replace the building and infrastructure would be very large. Additional reinforcing is required however the design work and recommendations provided by Wood Research and Development have been excellent and their guidance extremely beneficial in maintaining this attractive and unique structure for Nova Scotia.

#### **Recommendations:**

The hockey arena and curling rink structure is in excellent hands and additional reinforcing should be completed to provide adequate overdesign for future environmental loads. The steel side plates and U-brackets that were installed in the past should definitely be removed as per WRD recommendations and as long as deterioration due to the steel in contact with the wood is not significant the structure should be able to serve many more years.





Glulam rafter with completed reinforcing in curling rink & Glulam rafter with completed reinforcing in hockey arena

#### 6.2 - B - SHELL - ELEANOR PEW MORRIS MEMORIAL ARENA CHESTER, NS

# 6.2.5 B2010.001 Entrance Canopy Roof Structure

**System Description:** The system includes the main entrance canopy structure.

**Unit:** Friday, February 2, 2024 Square Meter **Inspection Date:** Quantity: 125 Year Installed: 1969 **Unit Rate:** \$1,172.93 **Service Life:** 65 **Replacement Cost:** \$146,616.25 **Year Remaining:** 11 2034 **Condition Rating:** Fair **Year of Replacement:** 

**Observations:** Wood framed exterior canopy appears to be untreated and unfinished wood and deterioration

and damage may occur. Noted that a steel post at the interior corner of canopy near the

hockey arena entrance is missing.

Condition and Anticipated Replacement:

Overall condition of the canopy wood framing should be checked annually and any damage or

deterioration treated or replaced.

**Recommendations:** Replace missing steel post at cornet of the canopy immediately and monitor wood canopy

structure for damage and deterioration.



Canopy Structure at hockey arena entrance + Canopy Structure at hockey arena entrance with missing steel post

**Replacement:** 

#### 6.2 - B - SHELL - ELEANOR PEW MORRIS MEMORIAL ARENA CHESTER NS

#### 6.2.6 B2010.001 Exterior Cladding - Wood

System Description: The building incorporates a wood cladding system on its exterior walls, delivering a blend of

functionality and aesthetics. Most of the cladding is painted a light brown, with some portions

painted white or gray-green.

**Unit:** Square Meter **Inspection Date:** Tuesday, March 12, 2024 Year Installed: Quantity: 1837.00 1969 Unit Rate: (\$/Sq.m.) \$240.37 Service Life: (Years.) 50 **Replacement Cost:** \$441,553.26 1 **Year Remaining: Condition Rating:** 2025 Fair Year of Replacement:

**Observations:** Most of the wood cladding on the building's exterior is in poor/fair condition. While the majority is

in satisfactory shape, there are certain areas that may benefit from maintenance or replacement. Specifically, the bottom edge is not acceptable and is damaged with evidence of rotted wood. There is also evidence of chipping, discoloration and missing pieces seen throughout all sides of the

building's facade.

**Condition and** Based on the current condition, the wood cladding has already passed it's useful life and should be replaced in the next two years.

**Recommendations:** The wood cladding should be replaced in 2025.



**Typical Wood Cladding Condition** 

Final Report

# ADDITIONAL PHOTOGRAPHS

# 6.2.6 B2010.001

# **Exterior Cladding - Wood**



Chipping and Discoloration of Wood Cladding

#### 6.2 - B - SHELL - ELEANOR PEW MORRIS MEMORIAL ARENA CHESTER NS

#### 6.2.8 B2020.001 Exterior Windows - Wood

**System Description:** The building has windows with wooden frames. They are original to the building.

Unit:Square MeterInspection Date:Tuesday, March 12, 2024Quantity:21.00Year Installed:1969Unit Rate: (\$/Sq.m.)\$1,241.64Service Life: (Years.)50

Replacement Cost: \$26,074.34 Year Remaining: 1
Condition Rating: Poor Year of Replacement: 2025

**Observations:** From the inspection, the windows were assessed to be in very bad shape. The windows are very old

and were noted to be leaking, so they must be lodged closed at all times, thereby losing any

functionality.

Condition and Anticipated Replacement:

Wooden windows have a remaining service life of 1 years.

**Recommendations:** Replace with new aluminium framed, energy efficient windows.











**Exterior Windows** 

#### 6.2 - B - SHELL - ELEANOR PEW MORRIS MEMORIAL ARENA CHESTER NS

#### 6.2.10 **B2032.001** Exterior Doors

#### **System Description:**

There are multiple types of exterior doors associated with the arena. The entrance to the skating rink and the curling rink are aluminium double doors with windows. Other service doors around the building are both single and double doors, some with windows.

Unit:	Each	<b>Inspection Date:</b>	Tuesday, March 12, 2024
Quantity:	18.00	Year Installed:	1969
Unit Rate: (\$/Sq.m.)	\$7,105.00	Service Life: (Years.)	50
Replacement Cost:	\$127,890.00	Year Remaining:	1
<b>Condition Rating:</b>	Poor	Year of Replacement:	2025

**Observations:** 

The exterior doors were installed 20-30 years ago and look to be in poor condition. The doors show signs of wear and tear. Issues include: discoloration, scratches, paint peeling, and worn out footings. Seals on the garage doors are noted to be broken.

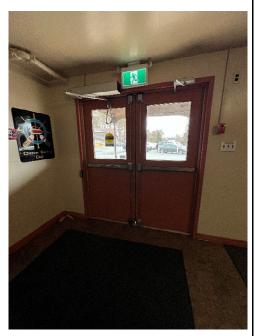
Condition and Anticipated Replacement:

The condition of the doors ranges from poor to fair.

**Recommendations:** It is recommended to replace all exterior doors in 2025.







Entrance to Curling Rink

# ADDITIONAL PHOTOGRAPHS

# 6.2.10 B2032.001 Exterior Doors







# Details of Doors at Entrance to Skating Rink















Examples of Other Exterior Doors

#### 6.2 - B - SHELL - ELEANOR PEW MORRIS MEMORIAL ARENA CHESTER NS

#### 6.2.10 B2032.001 Overhead Exterior Doors - Mechanical Operations

0.2.10 B2032.001 Overhead Exterior Boors internament operations

**System Description:** Overhead doors with mechanical operations are installed at various locations around the arena perimeter. These doors facilitate movement of machinery (such as zambonis) in and out of the arena.

Unit:	Each	<b>Inspection Date:</b>	Tuesday, March 12, 2024
Quantity:	4.00	Year Installed:	1969
Unit Rate: (\$/Sq.m.)	\$13,475.00	Service Life: (Years.)	50
Replacement Cost:	\$53,900.00	Year Remaining:	1
<b>Condition Rating:</b>	Poor	Year of Replacement:	2025

**Observations:** During the assessment, it was noted that the overhead doors are displaying visible signs of wear and

tear (scratches, discoloration and dents).

Condition and Anticipated Replacement:

Post-evaluation, it is clear that the condition of the overhead doors is poor. They are damaged with broken seals. The mechanical system is broken, thus the doors are non-functional.

**Recommendations:** It is highly advisable to prioritize their replacement within the next year to ensure optimal functionality and security. The Overhead Doors should be replaced in 2025.









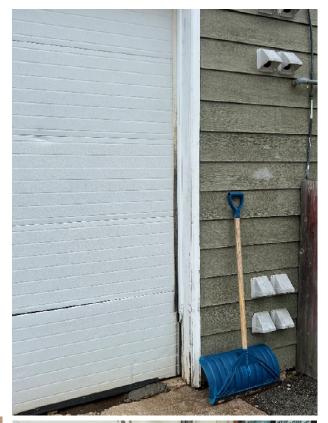
Overhead Doors

# ADDITIONAL PHOTOGRAPHS

# 6.2.10 B2032.001

# **Overhead Exterior Doors - Mechanical Operations**









Details + Interior

#### 6.2 - B - SHELL - ELEANOR PEW MORRIS MEMORIAL ARENA CHESTER NS

#### 6.2.12 B3010.001 Roof Covering with Shingles

**System Description:** The roof of the arena is covered with grey roof shingles. Roof soffits are white.

**Unit: Inspection Date:** Tuesday, March 12, 2024 Square Meter 2020 Quantity: 4453.00 Year Installed: \$174.12 Service Life: (Years.) 24 Unit Rate: (\$/Sq.m.) **Replacement Cost:** \$775,338.55 20 Year Remaining: **Condition Rating:** Good 2044 Year of Replacement:

**Observations:** The roof was not accessible. The overall condition of the roof shingles was found satisfactory. Some

discoloration and peeling could be observed on the roof soffits.

Condition and Anticipated Replacement:

The roof shingles were replaced 4 years ago. They have an estimated remaining life of 20 years, so should be replaced in 2044.

**Recommendations:** The replacement is recommended in 2044 but periodic inspections should be conducted.



### 6.2 - B - SHELL - ELEANOR PEW MORRIS MEMORIAL ARENA CHESTER NS

## 6.2.13 B1020.001 Exterior Stairs

**System Description:** There is a wooden staircase on the exterior of the building that leads from the ground floor to the

second floor.

**Unit:** Square Meter **Inspection Date:** Tuesday, March 12, 2024 2.00 2000 **Quantity:** Year Installed: Unit Rate: (\$/Sq.m.) \$23,707.25 Service Life: (Years.) 30 **Replacement Cost:** \$47,414.50 5 Year Remaining: **Condition Rating:** Fair 2029 Year of Replacement:

**Observations:** Overall, the staircase is in decent condition. There are signs of wear and tear on the steps and the

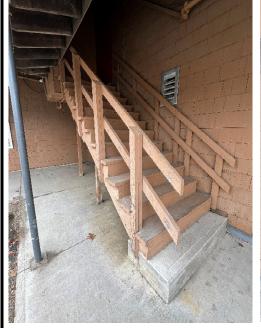
underside of the structure.

Condition and Anticipated Replacement:

The structure of the staircase is sound.

**Recommendations:** While the staircase is in good condition, it still requires a retrofit. The railing should be replaced and

the stairs should be updated in 2029.







**Exterior Staircase** 

# 6.3 C-Interiors

#### 6.3.1 C1010.001 Wall Partitions - Any Interior Walls

#### **System Description:**

This system includes wall partitions, wooden partitions, glass partitions and other types of interior partitions. These walls provide structural support, durability, and sound insulation, contributing to the overall stability and functionality of the space. Glass partitions provide opportunities for spectators to view activities happening on the ice rinks. Wall openings allow for kitchen and canteen service.

Unit:	Square Meter	<b>Inspection Date:</b>	Tuesday, March 12, 2024
Quantity:	1553.00	Year Installed:	1969
Unit Rate: (\$/Sq.m.)	\$619.48	Service Life: (Years.)	30
Replacement Cost:	\$962,057.88	Year Remaining:	2
<b>Condition Rating:</b>	Fair	Year of Replacement:	2026

**Observations:** The partitions observed include all types of partitions in the arena.

Condition and Anticipated Replacement:

The condition of the partitions is ranges from fair to poor. Particular of interest is the state of the interior glass partitions facing the Curling Rink. Mold can be seen growing along the edges from the cold/humidity.

**Recommendations:** 

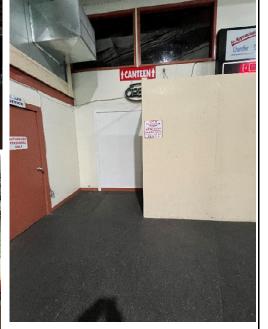
Glass partitions should be updated/repaired as and where needed. Several damages have been observed. The repairs should be done in the next two years.











Various Wall Partitions

# ADDITIONAL PHOTOGRAPHS

# 6.3.1 C1010.001

# Wall Partitions - Any Interior Walls











**Glass Partitions** 

#### 6.3.2 C1010.005 Moveable Partitions - Wood and Aluminium

**System Description:** On the second floor are moveable wooden and aluminium partitions that help divide the space for

multi-purpose functions.

Unit: Each Inspection Date: Tuesday, March 12, 2024

**Quantity:** 15 Year Installed: 2000 Unit Rate: (\$/Sq.m.) Service Life: (Years.) 20 \$1,884.38 **Replacement Cost:** \$28,265.65 Year Remaining: 1 **Condition Rating:** Poor/Fair Year of Replacement: 2025

**Observations:** The partitions are about 10 years old.

Condition and Anticipated

Replacement:

While the aluminium partitions are in fair condition, the wooden partitions are damaged.

**Recommendations:** It is recommended that the partitions are replaced.











**Moveable Partitions** 

#### 6.3.5 **C1020.001** Interior Doors

**System Description:** This system includes all types and sizes of the interior doors. Some are single doors, and some are metal double doors. These doors vary in size and feature hinges and a swinging mechanism.

Unit: Each Inspection Date: Tuesday, March 12, 2024

Quantity: 43.00 Year Installed: 2000

Unit Rate: (\$/Sq.m.) \$5,451.87 Service Life: (Years.) 20
Replacement Cost: \$234,430.39 Year Remaining: 1
Condition Rating: Poor Year of Replacement: 2025

**Observations:** The interior doors are old, around 25 years old. There is some evidence of wear and tear.

Condition and Anticipated

Replacement:

The interior doors are presently in poor condition.

**Recommendations:** 

It is recommended to replace all interior doors and hardware within the facility to preserve the

functionality, security and aesthetics of the interior door system in the building.



#### 6.3.10 C3016.001 Interior Finish - Painting, Sealing & Staining

**System Description:** The finish for the interior walls is paint.

Unit: Square Meter Inspection Date: Tuesday, March 12, 2024
Ouantity: 4943.00 Year Installed: 2015

Quantity:4943.00Year Installed:2015Unit Rate: (\$/Sq.m.)\$20.29Service Life: (Years.)3Replacement Cost:\$100,271.23Year Remaining:1Condition Rating:PoorYear of Replacement:2025

**Observations:** The assessment of the building revealed that the paint finish is currently in poor condition, exhibiting

various aesthetic concerns.

**Condition and Anticipated**Subsequent to this evaluation, it was found that the paint finish is unsatisfactory. Given the typical wear and tear, it is advisable to schedule its renewal within the upcoming year to uphold the desired

**Replacement:** appearance and quality.

**Recommendations:** Given the observed condition, it is strongly recommended that all interior finishes should be

repainted in the next year.







Interior Wall Finishes

### **6.3.11** C3020.001 Floor Finish - All Types

#### **System Description:**

This system includes all floor finishes found within the arena building. This includes: Vinyl Sheet flooring, Carpet, the Wooden pathway with Carpet Tiles surrounding the Curling Rink, the Tiling within the Restrooms, Wooden Floorboards, and the Epoxy Coated floors with Rubber Mats surrounding the Skating Rink.

Unit:	Square Meter	<b>Inspection Date:</b>	Tuesday, March 12, 2024
Quantity:	1949.00	Year Installed:	1969
Unit Rate: (\$/Sq.m.)	\$319.00	Service Life: (Years.)	30
Replacement Cost:	\$621,731.00	Year Remaining:	1
<b>Condition Rating:</b>	Poor	Year of Replacement:	2025

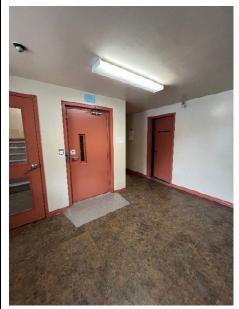
**Observations:** 

Aesthetically, most of the flooring is outdated. The wooden pathway surrounding the curling rink is structurally unstable. High traffic areas such as the edges of the skating rink and near the stands are significantly worn. Edges of the vinyl sheet, carpet and wooden floorboards can be seen starting to peel at their edges.

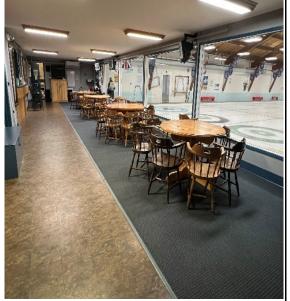
Condition and Anticipated Replacement:

During the assessment, the overall condition of all the flooring systems was found to be poor.

**Recommendations:** It is recommended to upgrade and replace all flooring systems in the next year.





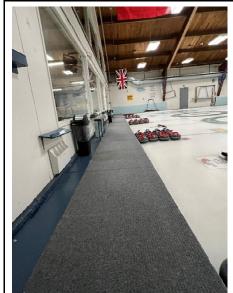


Various Floor Finishes

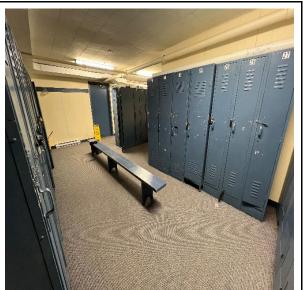
# ADDITIONAL PHOTOGRAPHS

# 6.3.11 C3020.001

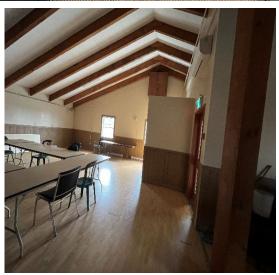
# Floor Finish - All Types

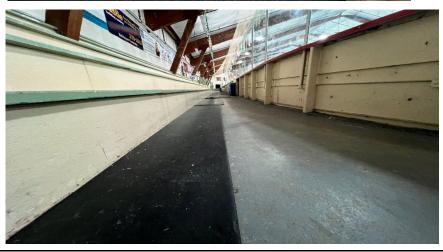














Various Floor Finishes

### 6.3.16 C3033.001 Ceiling Finish

**System Description:** The ceiling finish for the rooms and corridors of the building include: smooth, tiled and textured

finishes. Above the two rinks, the wooden structure of the roof is left visible.

Unit: Square Meter Inspection Date: Tuesday, March 12, 2024

**Quantity:** 564.50 Year Installed: 1969 Unit Rate: (\$/Sq.m.) \$137.36 Service Life: (Years.) 50 **Replacement Cost:** \$77,538.87 **Year Remaining:** 5 **Condition Rating:** Fair **Year of Replacement:** 2029

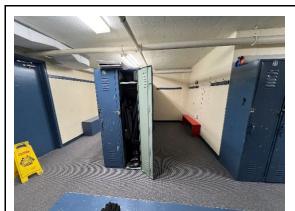
**Observations:** No major issues were found in the ceiling system.

Condition and Anticipated

**Replacement:** 

During the assessment, the ceiling finish was found to be in fair condition.

**Recommendations:** It is recommended to review the condition of the ceiling in 5 years and replace if required.









Ceiling Finish

6.3.18	C1000.001	Restrooms
0.5.10	C1000.001	ixesti ooms

**System Description:** The restrooms in the arena are equipped with basic facilities, including: sinks and restroom stalls.

Unit:	Each	<b>Inspection Date:</b>	Tuesday, March 12, 2024
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Quantity: 8.00 Year Installed: 2000 Unit Rate: (\$/Sq.m.) \$28,688.16 50 Service Life: (Years.) **Replacement Cost:** \$229,505.30 **Year Remaining:** 1 **Condition Rating:** 2025 Fair Year of Replacement:

**Observations:** No major issues were observed in the restrooms. It appears that the restrooms were updated 20 years

ago. But there is still need of an upgrade.

Condition and Anticipated Replacement:

Restroom facilities are in fair condition. Though fixtures are old and could be replaced.

**Recommendations:** It is recommended to upgrade the restrooms to match the upgrades in the arena. This should be done

in 2025.







**Restroom Facilities** 

### 6.3.19 **C2010.001** Interior Stairs

**System Description:** There are a number of interior staircases within the building that connect the ground floor to the

second floor. Around the skating rink, there is a staircase at each corner.

Unit: Each Flight Inspection Date: Tuesday, March 12, 2024

**Quantity:** 8.00 Year Installed: 1969 Unit Rate: (\$/Sq.m.) \$26,239.87 50 Service Life: (Years.) **Replacement Cost:** \$209,918.94 1 **Year Remaining: Condition Rating:** Poor/Fair 2025 **Year of Replacement:** 

**Observations:** The staircase near the dining area of the curling club is structurally unsound.

Condition and Anticipated Replacement:

The staircase near the dining area of the curling club is in poor condition. Most of the other interior stairs are in fair condition.

**Recommendations:** It is recommended to replace the staircase near the dining area of the curling club.















**Interior Staircases** 

# 6.4 D-SERVICES

# 6.4.1 D2010.001 Plumbing Fixtures - All Plumbing Systems

System Description: Fixtures serving kitchen areas, changing rooms, washrooms, and other areas of the facility

Unit: Each **Inspection Date:** Friday, February 2, 2024 Quantity: 30 Year Installed: 1970-2000+ 30 **Unit Rate:** \$2,000 Service Life: \$60,000 5 **Replacement Cost: Year Remaining:** Fair 2029 **Condition Rating: Year of Replacement:** 

**Observations:** Standard fixtures including manual control canity lavatories, showers, flush tank water closets, flush

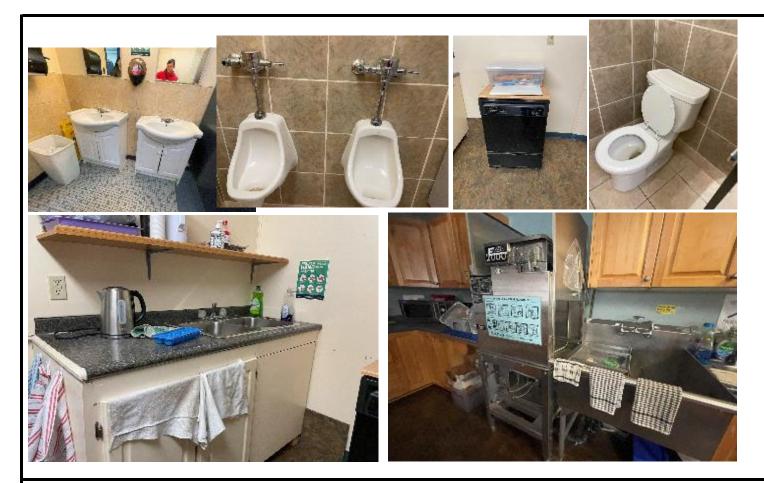
valve urinals, a commerical dishwasher, and others were observed throughout the facility.

Condition and Anticipated Replacement:

Plumbing fixtures were of various ages and appeared to be in Fair to good condition. Consider lower

flow rate fixtures when replacing.

**Recommendations:** Plan for replacement of fixtures over the next 5-10 years.



Various plumbing fixtures observed during Feb. 02 site visit.

6.4 -D - SERVICES - E	LEANOR PEW MOI	RRIS MEMORIAL ARE	NA CHESTER, NS

## 6.4.2 **D2020.001** Plumbing Pipe

**System Description:** Copper domestic water piping, sanitary piping is likely cast iron.

Unit:	LumpSum	<b>Inspection Date:</b>	Friday, February 2, 2024
Quantity:	1.0	Year Installed:	1970
Unit Rate:	\$300,000	Service Life:	50
<b>Replacement Cost:</b>	\$300,000	Year Remaining:	1
Condition Rating:	Fair	Year of Replacement:	2025

**Observations:** Most domestic water and sanitary piping was not visible for inspection. Visible domestic water

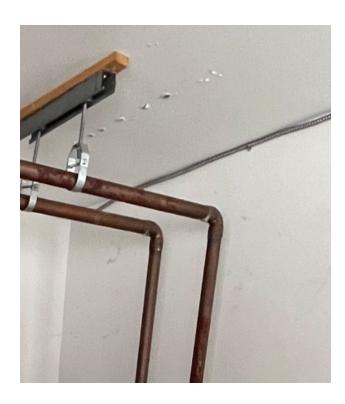
pipe was uninsulated copper and sanitary was cast iron.

Condition and Anticipated Replacement:

Most plumbing pipe is assumed to be the same age as the building (1970) and therefore is at or past its median service life. We have allowed for the replacement of aboveground domestic water piping in our estimate without including sanitary piping. Costs do not include ceiling or

drywall removals.

**Recommendations:** Plan for replacment of all domestic water plumbing piping.



Copper Domestic Water Piping

#### 6.4.3 D2020.001 Domestic Hot Water Plants

**System Description:** A heat pump preheats service hot water, storing it in two tanks with a propane-fired water heater

boosting the temperature.

Unit: Each Inspection Date: Friday, February 2, 2024

Quantity: 1 Year Installed: Unknown

 Unit Rate:
 \$50,000.00
 Service Life:
 15

 Replacement Cost:
 \$50,000.00
 Year Remaining:
 1

Condition Rating: Fair Year of Replacement: 2025

**Observations:** The heat pump and associated water heaters are of unknown age, the propane water heater was

recently installed. The kitchen hot water tank was not accessible during the site visit.

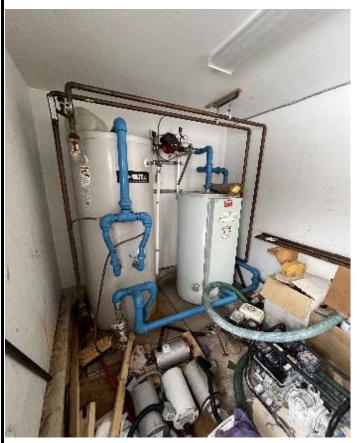
Condition and Anticipated

**Replacement:** 

Water heaters appear to be in fair to good condition but two are nearing the end of their median

service life.

**Recommendations:** Plan to replace two of the water heaters in the next 5 years.





(Left) Two hot water tanks preheated from a heat pump. (Centre) Propane booster water heater. (Right): Heat Pump

# 6.4.4 D3020.001 Ice Plant 1 - Curling Rink

**System Description:** Cimco single compressor 23TR ice plant utilizing refrigerant R22 with a single speed brine pump.

Unit: Each **Inspection Date:** Friday, February 2, 2024 2002 **Quantity:** 1 Year Installed: 30 **Unit Rate:** \$580,000.00 **Service Life: Replacement Cost:** \$580,000.00 **Year Remaining:** 8 **Condition Rating:** Fair **Year of Replacement:** 2032

**Observations:** Controlled via slab temp in fall months, brine temp in winter months. No heat recovery, constant

speed brine pump. The curling rink operates 6 months a year.

Condition and Anticipated Replacement:

Compressor plant is operational but is nearing the end of its service life, the dry cooler located on the

roof was recently replaced.

**Recommendations:** Plan for replacement with a new plant incorporating heat recovery to heat curling rink change rooms

and lounge. Replace by 2032 with system incorporating more modern refrigerant.





(Left) Curling rink ice plant. (Right) Dry cooler on roof outside curling rink

# 6.4.5 D3020.001 Ice Plant 2 - Hockey Rink

**System Description:** 78TR NH3 (ammonia) and brine system with three reciprocating compressors, partial heat recovery

and a closed circuit cooling tower. The system includes a sub-slab heating system.

Unit: Each Inspection Date: Thursday, December 14, 2023

Quantity: 1.0 Year Installed: 2009

Unit Rate: \$980,000.00 Service Life: 30
Replacement Cost: \$980,000.00 Year Remaining: 15
Condition Rating: Good Year of Replacement: 2039

**Observations:** Waste heat is used to heat hockey rink changing rooms through a VRF system and a heat pump

preheats DHW. Replaced in 2009 by Acadia Refrigeration. It has a DDC control system installed by

ESP. The ice rink operates 6 months a year. Pumps are constant speed.

Condition and The Hockey rink ice plant appears to be in good condition but lacks some energy efficiency measures

**Anticipated** of modern plants. **Replacement:** 

**Recommendations:** Plan for replacement in 15 years.





(Left) Portion of hockey rink ice plant. (Right) Cooling tower on raised platform outside of hockey rink

# 6.4.6 D3040.001 Air Distribution System - Outdoor Energy Recovery Ventilation (ERV)

System Description: A Renewaire energy recovery ventilation unit serves hockey locker rooms and a similar model

serves curling rink locker rooms.

Unit: Each Inspection Date: Friday, February 2, 2024

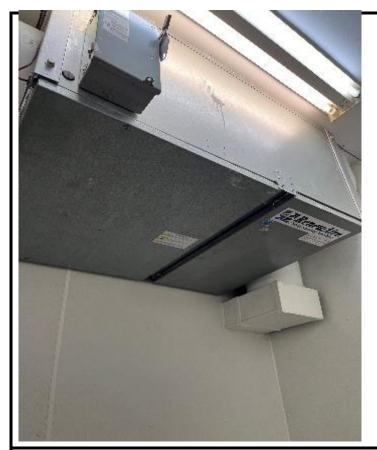
2 Quantity: **Year Installed:** Unknown **Service Life:** 20 **Unit Rate:** \$10,000.00 **Replacement Cost:** \$20,000.00 8 **Year Remaining:** 2032 **Condition Rating:** Fair **Year of Replacement:** 

**Observations:** The curling rink ERV is installed inside a compartment which is difficult to access.

Condition and Anticipated Replacement:

ERVs appear to be in good condition although the current model (HE1XINH) has been discontinued, they are likely 10-15 years old and nearing the end of their service lives.

**Recommendations:** None at this time. Plan to replace in 5-10 years.





Energy recovery ventilator located outside locker room for hockey rink

#### 6.4.7 D3040.001 Air Distribution System - Curling Rink Furnace

**System Description:** Oil furnace serving the curling rink.

Unit: Each Inspection Date: Friday, February 2, 2024

Quantity: 1 Year Installed: Unknown

Unit Rate:\$20,000.00Service Life:18Replacement Cost:\$20,000.00Year Remaining:1Condition Rating:GoodYear of Replacement:2025

**Observations:** Furnace is owned and operated by the Curling Association; capacity and age are unknown. Its

associated oil tank was manufactured in August 2023.

Condition and Anticipated Replacement:

Furnace and oil tank appear to be in good condition. Consider eliminating fossil fuels from the site

by utilizing heat pumps or heat recovery from a new curling ice plant.

**Recommendations:** None at this time.





(left) Oil furnace located on raised platform above curling rink and (right) oil tank.

## 6.4.8 D3040.001 Air Distribution System - Ice Rink Fans

**System Description:** Axial/propeller type fans located above curling rink ice surface.

Unit: Each Inspection Date: Friday, February 2, 2024

2 Quantity: Year Installed: Unknown \$4,000.00 **Service Life:** 20 **Unit Rate:** 10 **Replacement Cost:** \$8,000.00 **Year Remaining: Condition Rating:** 2034 Fair **Year of Replacement:** 

**Observations:** Circulation fans present above ice surface to reduce stratification of air. Age is unknown,

estimated to be 10 years old.

Condition and

The fans appear to be in fair operating condition

Anticipated Replacement:

**Recommendations:** None at this time.



Fan located above curling rink ice surface

#### 6.4.9 D3050.001 Terminal Units for Heating & Cooling (TU) - VRF Indoor/Outdoor Units

System Description: A Daikin RWEYQ72MTJU (6-ton) water cooled VRF unit captures waste heat from the ice plant to

heat hockey locker rooms through wall mounted ductless fan coils.

Unit: Lump Sum Inspection Date: Friday, February 2, 2024

2009 **Quantity:** 1.0 Year Installed: 15 **Unit Rate:** \$60,000.00 **Service Life: Replacement Cost:** \$60,000.00 **Year Remaining:** 1 **Condition Rating:** Fair **Year of Replacement:** 2025

**Observations:** Compressor unit located in the hockey rink refrigeration plant. 9.9 lbs of R410A refrigerant was

added in Oct. 2010.

Condition and Anticipated Replacement:

Both the outdoor unit and indoor units appear to be in fair condition, although the outdoor unit is nearing the end of its service life and its refrigerant, R410A, is currently being phased out.

**Recommendations:** Monitor the system's operation and plan to replace within 5 years.







(Left) Compresor unit in hockey rink ice plant. (Centre & Right) VRF indoor units

## 6.4.10 D3050.002 Split System Air Conditioning Units - Ductless (Mini-Split) Heat Pumps

System Description: Air-to-air ductless heat pumps were present throughout non-rink areas, including lounges, offices

and observation/gathering areas.

Unit: Each Inspection Date: Friday, February 2, 2024

**Quantity:** 7.0 Year Installed: 2020 **Unit Rate:** \$5,000.00 **Service Life:** 15 5 **Replacement Cost:** \$35,000.00 **Year Remaining: Condition Rating:** Year of Replacement: 2035 Good

**Observations:** The heat pumps are relatively new, generally installed in the last 3-4 years. There are

approximately 7 split units.

**Condition and** 

**Anticipated Replacement:** 

Mini-split heat pumps are in good condition overall.

**Recommendations:** Plan for replacement in 2035.



## 6.4.11 D3090.001 Other HVAC Systems & Equipment - Kitchen Ventilation Systems

**System Description:** The kitchen has a commercial grease hood with a wet chemical fire suppression system.

**Unit:** Each **Inspection Date:** Friday, February 2, 2024 **Quantity:** 1.0 Year Installed: Unknown **Unit Rate:** \$25,000.00 **Service Life:** 25 **Replacement Cost:** \$25,000.00 **Year Remaining:** 10 **Condition Rating:** Year of Replacement: 2034 Good

**Observations:** The system did not appear to have a make-up air ventilation system.

Condition and Anticipated Replacement:

The system appeared to be in good condition. Plan for replacement in 10 years time and install a

make-up air unit (not included in costing).

**Recommendations:** The age of the system is unknown but plan for replacement in the next 10 years.



Commerical Kitchen Hood

## 6.4.12 D3092.001 Special Humidity Controls - Dehumidifier - Hockey Rink

**System Description:** (2) Refrigerant type dehumidifiers (Dectron DA2-045-8), 7400 CFM, 60lbs R407c refrigerant.

Unit:EachInspection Date:Friday, February 2, 2024Quantity:2Year Installed:2014Unit Rate:\$50,000.00Service Life:15

Replacement Cost:\$100,000.00Year Remaining:5Condition Rating:GoodYear of Replacement:2029

**Observations:** Relative humidity setpoint of 50-60%.

Condition and Hockey rink dehumidifiers appear to be in good condition, however they are both reaching the end of

**Anticipated** its expected service life. **Replacement:** 

**Recommendations:** Plan for replacment in 5 years.



Dehumidifier unit serving hockey rink

## 6.4.13 D3092.001 Special Humidity Controls - Dehumidifier - Curling Rink

**System Description:** Mechanical refrigerant type dehumidifier.

Unit: Each **Inspection Date:** Friday, February 2, 2024 1 **Quantity:** Year Installed: 2014 15 **Unit Rate:** \$50,000.00 Service Life: **Replacement Cost:** \$50,000.00 5 **Year Remaining: Condition Rating: Year of Replacement:** 2029 Good

**Observations:** Curling rink dehumidifier was inaccessible during site visit.

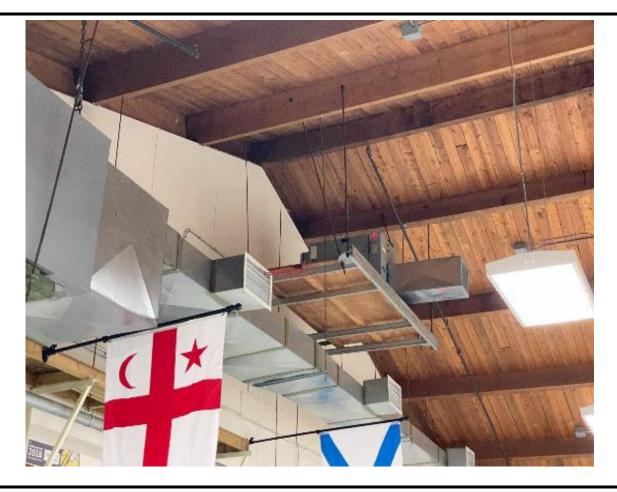
Condition and Anticipated Replacement:

Curling rink dehumidifier appears to be in good condition, however it has reached the end of its

service life.

**Recommendations:** 

Plan for its replacement in 5 years.



Dehumidifier unit located on platform above curling rink

## 6.4.14 D4010.001 Fire Protection Systems - Wet and Dry Sprinklers

**System Description:** Sprinkler water is stored in two 10,000L pressurized storage tanks serving a dry pipe system for the

rinks + canopies and a wet pipe system for other areas.

Unit: lump sum Inspection Date: Friday, February 2, 2024

1970 1 **Quantity: Year Installed: Unit Rate:** \$250,000.00 **Service Life:** varies \$250,000.00 1 **Replacement Cost: Year Remaining: Year of Replacement:** 2024 **Condition Rating:** Poor

**Observations:** Sprinkler heads have recently been replaced as they reached their 50 year lifespan. Sprinkler tanks are

original to the building (1970).

Condition and Anticipated Replacement:

Sprinkler tank inspection expires October 2025. A new system would include new storage tanks, alarm valves and a fire pump (electric with generator or diesel fired). The replacement of sprinkler piping will need to be considered (not included in pricing).

piping will need to be considered (not metaded in prioring).

**Recommendations:** Plan for replacement of the tanks and the installation of a new fire pump in the next 5 years.







(Top Left) Dry sprinklers serving curling rink. (Bottom Left) Sprinkler tanks and associated piping. (Right) Wet sprinklers serving curling rink observation area.

#### 6.4.28 D5010.001 Electrical Services & Distribution - Main Switchboard

**System Description:** 800A, 347/600VAC, 3-Phase, 4-Wire, I.C. Rating = 25kA. Manufactured by Eaton, Type CMP-

A1 Board. Main breaker is rated at 600A.

Unit:LotInspection Date:Friday, February 2, 2024Quantity:1Year Installed:Tuesday, July 1, 2008

Unit Rate:\$50,000.00Service Life:40Replacement Cost:\$50,000.00Year Remaining:25Condition Rating:GoodYear of Replacement:2048

**Observations:** The main switchboard was installed in 2008, along with the building service upgrade. It is fed

via undergroudn secondary conductors connected to the exterior utility owned padmount

transformer. No issues noted during review.

Condition and Anticipated Replacement:

The panel is in good condition and the aniticipated replacement is July 2048

Recommendations: It's recommended to perform thermography scanning every 5-years to identify and retighten any

loose connecitons. Arc flash evaluation stickers should be applied to distribution equipment to

highlight available incident energy levels and proper PPE for servicing.



Main Switchboard

### 6.4.31.a D5012.001 Electrical Distribution - Distribution Panels

System Description: 400A, 120/208V, 3-Phase, 4-Wire, Distribution Board. Manufactured by Eaton Type PWR

L1a.

Unit:LotInspection Date:Friday, February 2, 2024Quantity:1Year Installed:Tuesday, July 1, 2008

Unit Rate:\$10,000.00Service Life:30Replacement Cost:\$10,000.00Year Remaining:15Condition Rating:GoodYear of Replacement:2038

**Observations:** The distribution panel is fed from a 112.5kVA stepdown transofmer, connected to the Main

Switchboard. The distribution board sub-feeds 120/208V branch circuit panelboards and

mechanical loads.

Condition and Anticipated Replacement:

The panel is in good condition and the aniticipated replacement is July 2048

**Recommendations:** It's recommended to perform thermography scanning every 5-years to identify and retighten

any loose connections. Arc flash evaluation stickers should be applied to distribution equipment to highlight available incident energy levels and proper PPE for servicing.



**Distribution Panels** 

#### 6.4.31.b D5012.002 Branch Circuit Panelboards - Newer Style

#### **System Description:**

There are two (2) primary vintages of branch circuit panelboards throughout the facility, those installed during the service upgrade in 2008 and those original to the building. The newer style are a variety of sizes range from 100A to 400A, 120/208V, 3-Phase, 4-Wire, 12 to 42 circuit panels.

Unit:	Lot	<b>Inspection Date:</b>	Friday, February 2, 2024
Quantity:	7	Year Installed:	Tuesday, July 1, 2008
Unit Rate:	\$5,000.00	Service Life:	30
<b>Replacement Cost:</b>	\$35,000.00	Year Remaining:	15
Condition Rating:	Good	Year of Replacement:	2044

**Observations:** The branch circuit panelboards serve a variety of 120/208V loads including but not limited to;

lighting, receptacles, kitchens, lounge areas, fire alarm and light mechancial loads.

Condition and Anticipated Replacement:

The panels are in good condition and the aniticipated replacement is July 2048.

**Recommendations:** 

It's recommended to perform thermograhy scanning every 5-years to identify and retighten any loose connecitons. Arc flash evaluation stickers should be applied to distribution equipment to highlight available incident energy levels and proper PPE for servicing.



Branch Circuit Panelboard - Newer Style

#### 6.4.31.c D5012.003 Branch Circuit Panelboards - Older Style

There are two (2) primary vintages of branch circuit panelboards throughout the facility, those **System Description:** installed during the service upgrade in 2008 and those original to the building. The newer style are a variety of sizes range from 100A to 225A, 120/208V, 1-Phase/3-Phase, 3/4-Wire, 16 to 42 circuit panels.

Unit: **Inspection Date:** Friday, February 2, 2024 Lot Quantity: 9 Year Installed: Not known (1970) **Unit Rate:** \$5,000.00 **Service Life:** 30 **Replacement Cost:** \$45,000.00 Year Remaining: 1 **Condition Rating:** Poor to Critical Year of Replacement: 2025

**Observations:** The branch circuit panelboards serve a variety of 120/208V loads including but not limited to;

lighting, receptacles, kitchens, lounge areas, fire alarm and light mechancial loads.

**Condition** and **Anticipated Replacement:** 

The panels are in poor to critical condition and are past their servicable lifespan. They should

be replaced with new.

**Recommendations:** Branch circuit panelboards original to the building should be replaced immediately.



Branch Circuit Panelboard - Older Style

website: www.dsra.ca DSRA Architecture Inc. 191

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#### 6.4.31.d D5012.004 Motor Control Centres

**System Description:** 600A, 347/600VAC, 3-Phase, 4-Wire, I.C. Rating = 42kA. Manufactured by Siemens, Type

8PX3 MCC.

Unit:LotInspection Date:Friday, February 2, 2024Quantity:1Year Installed:Wednesday, July 1, 2009

Unit Rate:\$50,000.00Service Life:30Replacement Cost:\$50,000.00Year Remaining:15Condition Rating:GoodYear of Replacement:2039

**Observations:** The MCC has four vertical compartments and contains starters and breakers to serve

compressors and pumps related to the hockey rink's ice plant system. The MCC is fed from

the Main Switchboard.

Condition and Anticipated Replacement:

The MCC appears to be in good condition and the anticipated replacement is 2039.

**Recommendations:** It's recommended to perform thermography scanning every 5-years to identify and retighten any

loose connecitons. Arc flash evaluation stickers should be applied to distribution equipment to

highlight available incident energy levels and proper PPE for servicing.



## 6.4.31.e D5012.005 | Dry-Type Transformers - 112.5kVA

**System Description:** 112.5kVA, 600VAC Primary, stepdown to 120/208VAC seconday (Delta-Wye Configuration).

Manufactured by Siemens, Type 8PX3 MCC.

Unit:LotInspection Date:Friday, February 2, 2024Quantity:1Year Installed:Tuesday, July 1, 2008

Unit Rate:\$30,000.00Service Life:40Replacement Cost:\$30,000.00Year Remaining:25Condition Rating:GoodYear of Replacement:2048

**Observations:** The dry-type transformer is connected to the main switchboard and feeds distirbution

panelboard CR1. It stepsdown 600VAC to 120/208V, 3-Phase, 4-Wire.

Condition and Anticipated Replacement:

The Transformer appears to be in good condition and the anticipated replacement is 2048.

**Recommendations:** It's recommended to perform thermography scanning every 5-years to identify and retighten any

loose connecitons. Arc flash evaluation stickers should be applied to distribution equipment to

highlight available incident energy levels and proper PPE for servicing.



112.5kVA Transformer

## 6.4.36a D5020.001 Lighting - General

System Description: The general lighting throughout the facility is a mixture of suspended, surface mounted

fluorescent style wraps and recessed fluorescent fixtures.

Unit: Square Meter Inspection Date: Thursday, December 14, 2023

Quantity: 1000 Year Installed: Unknown 30 **Unit Rate:** \$47.48 **Service Life:** \$47,480.00 Approx 15 **Replacement Cost: Year Remaining:** 2038 **Condition Rating:** Good **Year of Replacement:** 

**Observations:** Generally, lighting appears to be in good condition. It appears that the ballasts and re-lamping is

well maintained and done on a regular as-needed basis.

Condition and Anticipated Replacement:

The lighting appears to be in good condition, anticipated replacement is 2038

**Recommendations:** Consideration should be given to replacing fluorescent lighting with integrated LED fixtures or

re-lamping with LED T8 lamps.



## 6.4.36b D5020.001 Lighting - Curling Rink

**System Description:** 120VAC Fluorescent High-Bay lighting fixtures with multi-level switching and line voltage

controls.

Unit: Lot Inspection Date: Thursday, December 12, 2023

Quantity: 36 Year Installed: 2008 30 **Unit Rate:** \$1,000.00 **Service Life:** \$36,000.00 15 **Replacement Cost: Year Remaining:** Good 2038 **Condition Rating: Year of Replacement:** 

**Observations:** The curling rink has 9 rows of lighting with each row having 4 rectangular suspended light

fixtures, containing 4 fluorescent tubes.

Condition and Anticipated Replacement:

The lighting appears to be in good condition, anticipated replacement is 2038.

**Recommendations:** Consideration should be given to replacing fluorescent lighting with integrated LED fixtures or

re-lamping with LED T8 lamps.



## 6.4.36c D5020.001 Lighting - Hockey Rink

**System Description:** 120VAC Fluorecent High-Bay lighting fixtures, suspended.

Unit: Lot Inspection Date: Thursday, December 12, 2023

Quantity: 28 Year Installed: Unknown 30 **Unit Rate:** \$1,500 **Service Life:** \$42,000.00 Approx 15 **Replacement Cost: Year Remaining:** Good 2038 **Condition Rating: Year of Replacement:** 

**Observations:** The hockey rink has approximately 28 fixtures located throughout and appears to be two (2)

separate zones of switching.

Condition and Anticipated Replacement:

The lighting appears to be in good condition, anticipated replacement is 2038.

**Recommendations:** Consideration should be given to replacing fluorescent lighting with integrated LED fixtures or

re-lamping with LED T8 lamps.



Lighting - Hockey Rink

## 6.4.36 **D5020.001** Branch Wiring

System Description: The branch circuit wiring throughout the facility is a mixture of electrical metallic tubing or in

flexible conduits and AC90 armoured cabling.

Unit: Square Meter Inspection Date: Thursday, December 14, 2023

**Year Installed:** Varied **Quantity:** 3720 **Unit Rate:** \$40.00 **Service Life:** 50 5 \$148,800.00 Year Remaining: **Replacement Cost:** 2028 **Condition Rating:** Good to Poor **Year of Replacement:** 

**Observations:** It appears that in many general spaces that the original branch circuit wiring is still in use. Areas

that have received upgrades over the years have had new branch circuitry installed to suit. Where panelboards have been replaced, generally branch circuit wiring has not been replaced.

Condition and Anticipated Replacement:

Condition ranges from good to poor, depending on the vintage of the branch circuit wiring.

**Recommendations:** Branch circuit wiring original to the facility should be replaced.



**Branch Circuit Wiring** 

## 6.4.38a D5030.001 Communications Systems

System Description: The telecommunications service consists of multi-pair copper voice lines, coaxial data backbone

and coaxial CATV services.

Unit: Square Meter Inspection Date: Thursday, December 14, 2023

Unknown **Quantity:** 3720 Year Installed: **Unit Rate:** \$14.00 **Service Life:** 30 \$52,080.00 Year Remaining: Approx 10 **Replacement Cost: Condition Rating:** Fair Year of Replacement: Approx 2033

**Observations:** The main telecommunications equipment and incoming service is lacking a dedicated Main

Communications Room. Generally system appears to suit their needs but not longer meets

current day codes and standards.

Condition and Anticipated Replacement:

The telecommunicaitons infrastrcuture appears to be in fair condition.

**Recommendations:** Consideration should be given to upgrading the telecommunications infrastructure to present day

standards, as well as providing dedicated space and communication racks.



Communications Entrance

## 6.4.38b D5030.001 Fire Alarm System

**System Description:** The fire alarm system is controlled by a Honeywell Fire-lite MS10UD controller with smoke

detectors, a mix of wall mounted bells and strobes, and "running man" EXIT sign along with

manual pull station.

Unit:	Square Meter	<b>Inspection Date:</b>	Thursday, December 14, 2023
Quantity:	3720	Year Installed:	Unknown
Unit Rate.	\$22.00	Sarvica Life	30

Unit Rate:\$22.00Service Life:30Replacement Cost:\$81,840.00Year Remaining:10Condition Rating:FairYear of Replacement:2033

**Observations:** The fire alarm system is controlled by a fire alarm panel manufactured by Honeywell. The fire

alarm system contains smoke detectors, a mix of wall mounted bells and strobes, and "running

man" EXIT sign along with manual pull station.

Condition and Anticipated Replacement:

The fire alarm system seems to be in good condition. However, there are a couple of exit location

where EXIT sign is missing on the exit door.

**Recommendations:** Replacement of the Fire Alarm system panel may not be required, based on the good condition

and age of the system.



DSRA Architecture Inc. website: www.dsra.ca

# 6.5 G-Building Site Works

2029

## 6.5 - G - BUILDING SITE WORKS - ELEANOR PEW MORRIS MEMORIAL ARENA CHESTER NS

## 6.5.2 G2022.001 Asphalt Driveway

**System Description:** Road flexible pavement including any required base and subbase material.

Fair

Unit:	Square Meter	<b>Inspection Date:</b>	Tuesday, March 12, 2024
Quantity:	394	Year Installed:	2000
Unit Rate:	\$100.00	Service Life:	20
Replacement Cost:	\$39,400.00	Years Remaining:	5

**Observations:** There is an asphalt driveway around the front and side of the building. The drive way leads

from the main entrance of the Curling Rink to the back of the building.

Condition and Anticipated Replacement:

**Condition Rating:** 

The asphalt is in fair to poor condition and should be replaced within the next 5 years. There are major cracks located throughout the driveway and several sections where the asphalt has

**Year of Replacement:** 

**lacement:** deteriorated down to the subgrade.

**Recommendations:** It is recommended to replace the asphalt around the main building in its entirety in the next five

years. This should be completed at the same time as the concrete pads and curbs.









Asphalt Driveway

## 6.5.5 G2022.002 Parking Lot - Asphalt Pavement

**System Description:** The parking lot has flexible pavement including any required base and subbase material.

Unit: Square Meter Inspection Date: Tuesday, March 12, 2024

**Year Installed:** 2000 **Quantity:** 2604 **Service Life:** 20 **Unit Rate:** \$100.00 **Replacement Cost:** \$260,400.00 **Years Remaining:** 5 2029 **Condition Rating:** Fair **Year of Replacement:** 

**Observations:** There is an asphalt parking lot on the front side of the building.

Condition and Anticipated Replacement:

The asphalt is in fair to poor condition and should be replaced within the next 5 years. There are major cracks located throughout the parking lot and several sections where the asphalt has deteriorated down to the subgrade.

**Recommendations:** It is recommended to replace the asphalt in the parking areas in its entirety in the next five years.

This should be completed at the same time as the concrete pads and curbs.





Parking Lot

6.5.6	G2022.001	Gravel Driveway
0.5.0	G2022.001	Gravei Driveway

**System Description:** The driveway at the back of the lot is covered with gravel.

Unit: Square Meter Inspection Date: Tuesday, March 12, 2024

**Year Installed:** 1969 **Quantity:** 1567 **Service Life:** 10 **Unit Rate:** \$98.09 **Replacement Cost:** \$153,699.20 **Years Remaining:** 1 **Condition Rating:** 2025 Poor **Year of Replacement:** 

**Observations:** Much of the gravel has been worn away, leaving the dirt behind. This creates muddy conditions

when it rains. The ground isn't even, which leads to water pooling.

Condition and Anticipated

**Replacement:** 

Gravel should be replaced.

**Recommendations:** The gravel should be relaid and washed away gravel should be replaced with new. It is also

recommended to design Asphalt Driveway by extending the existing driveway.





Gravel Driveway

### 6.5.7 G2031.002 Concrete Landing Pads - Entrance

**System Description:** The system includes cast-in-place concrete walkways and ramps.

Unit: Square Meter Inspection Date: Tuesday, March 12, 2024

Year Installed: 1969 **Quantity:** 111 30 **Unit Rate:** \$125.00 **Service Life:** 5 **Replacement Cost:** \$13,875.00 **Year Remaining:** 2029 Fair **Condition Rating: Year of Replacement:** 

**Observations:** There is a concrete walkways to the entrance of the arena building.

Condition and

**Anticipated Replacement:** 

The walkways is in fair condition with no major deficiencies noted.

**Recommendations:** The replacement should be planned in the next 5 years.



Concrete Landing Pads

## 6.5.8 G2041.001 Site Development - Fences

**System Description:** Wooden fences in the back side of the arena building.

Unit: Linear Meter Inspection Date: Tuesday, March 12, 2024

Year Installed: 2000 **Quantity:** 22 **Unit Rate:** \$550.00 **Service Life:** 20 \$12,100.00 1 **Replacement Cost: Year Remaining:** 2025 **Condition Rating:** Poor **Year of Replacement:** 

**Observations:** There is a fence and gate on the backside of the building which is developed to safeguard

HVAC Equipment. The fence is in poor condition and completely deteriorated.

Condition and Anticipated Replacement:

The wooden fence should be replaced with industrial grade 3.6 m high chain link fence.

**Recommendations:** The fence should be replaced in 2025.







Fences in the back side of the building

# 6.6 E – EQUIPMENT AND FURNISHING

#### 6.6.1a E1020.001 Kitchen - Equipment and Cabinets 1

**System Description:** The kitchen and bar on the ground floor serves the curling club.

Unit: Square Meter **Inspection Date:** Tuesday, March 12, 2024 Quantity: 25.00 Year Installed: 2000 Unit Rate: (\$/Sq.m.) \$1,254.55 20 Service Life: (Years.) **Replacement Cost:** \$31,363.86 Year Remaining: 1 **Condition Rating:** 2025 Poor Year of Replacement:

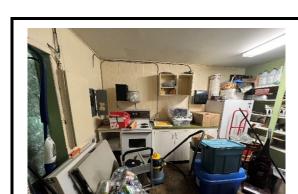
The condition of the kitchen cabinets and equipment is poor.

**Observations:** The kitchen cabinets are old with several aesthetic issues.

Condition and

Anticipated Replacement:

**Recommendations:** It is recommended to replace the kitchen equipment in 2025.









Kitchen Equipment

#### 6.6.1a E1020.001 Kitchen Equipment and Cabinets 2

**System Description:** There is a kitchen/canteen on the second floor for the skating rink users. It is adjacent to the warm

room.

Unit: Square Meter Inspection Date: Tuesday, March 12, 2024

**Quantity:** 18.00 Year Installed: 2000 \$1,254.55 20 Unit Rate: (\$/Sq.m.) Service Life: (Years.) \$22,581.98 1 **Replacement Cost: Year Remaining: Condition Rating:** Poor Year of Replacement: 2025

**Observations:** The kitchen cabinets are old with several aesthetic issues.

Condition and

The condition of the kitchen cabinets and equipment is poor.

Anticipated Replacement:

**Recommendations:** It is recommended to replace the kitchen equipment in 2025.









Kitchen Equipment

#### 6.6.1b E1020.002 Dressing Room Equipment and Furnishing

**System Description:** This system describes the equipment, furniture and permanent fixtures present within the arena's

dressing rooms. These include lockers, benches, cabinets and hooks.

Unit: Linear Meter Inspection Date: Tuesday, March 12, 2024

Quantity: 68.00 Year Installed: 2000 Unit Rate: (\$/Sq.m.) \$3,834.12 Service Life: (Years.) 20 \$260,720.09 Replacement Cost: Year Remaining: 1 Condition Rating: 2025 Poor Year of Replacement:

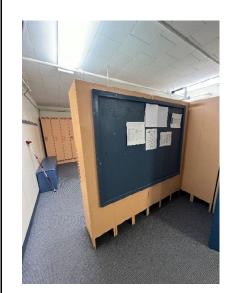
**Observations:** Fixtures are rudimentary and scratches can be seen on the paint finish. The lockers are very old,

dented, and some are missing handles.

Condition and Anticipated Replacement:

Dressing room equipment and furnishing is in poor condition.

**Recommendations:** It is recommended to replace the dressing room equipment in 2025.











**Dressing Room Equipment** 

## 6.6.5 E2040.001 Dining Room Furniture

System Description: This system describes the dining room furniture of the curling club, situated adjacent to the curling

rink and in the mezzanine/warm room above.

Unit: Square Meter Inspection Date: Tuesday, March 12, 2024

212.00 2000 **Quantity:** Year Installed: Unit Rate: (\$/Sq.m.) \$347.91 Service Life: (Years.) 20 **Replacement Cost:** \$73,757.56 Year Remaining: 1 **Condition Rating:** Fair Year of Replacement: 2025

**Observations:** Furniture is old.

Condition and Anticipated

Replacement:

The condition of the dining room furniture is fair. Aesthetically, the furnishings are outdated and

could be updated.

**Recommendations:** It is recommended to replace the dining equipment in 2025.









**Dining Furniture** 

6.6.7	E2010.001	Arena Bleachers - Fixed Seatings

**System Description:** This system describes the fixed seating bleachers that are arrayed around the ice rink. The structure is wooden.

**Unit:** Each **Inspection Date:** Tuesday, March 12, 2024 **Quantity:** 555.00 Year Installed: 2000 Unit Rate: (\$/Sq.m.) 20 \$705.44 Service Life: (Years.) **Replacement Cost:** \$391,518.92 1 **Year Remaining: Condition Rating:** 2025 Fair Year of Replacement:

**Observations:** Scratched paint can be seen on areas of the bleachers and adjacent flooring. Seating is basic, with no

added padding.

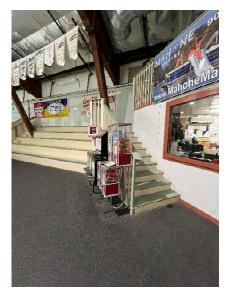
Condition and Anticipated Replacement:

The condition of the arena bleachers is fair. Most concerns are aesthetic.

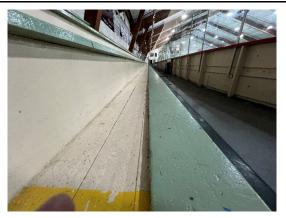
**Recommendations:** The bleachers are not in bad shape, just have aesthetic damages that could be refurbished. However,

the bleachers are an older, outdated style, it is recommended that they are replaced with a newer

style of bleachers in 2025.









Bleachers

Final Report

## ADDITIONAL PHOTOGRAPHS

## 6.6.7 **E2010.001**

## **Arena Bleachers - Fixed Seatings**



Bleachers

# 6.7 F-SPATIAL STRUCTURES

#### 6.7 - F - SPATIAL STRUCTURES - ELEANOR PEW MORRIS MEMORIAL ARENA CHESTER NS

## 6.7.1a F1042.001 Ice Rink Dasher Boards - Skating Rink

#### **System Description:**

The dimensions of the skating rink are 190'x85'. A system of Ice Rink Dasher Boards and shielding surrounds the ice pad. Rink gates allow for user access to the ice pad. There is a Zamboni entrance connecting to the Zamboni storage room. A protective hockey net hangs around the edge of the ice pad.

Unit:	Each	<b>Inspection Date:</b>	Tuesday, March 12, 2024
Quantity:	1.00	Year Installed:	2014
Unit Rate: (\$/Sq.m.)	\$1,428,183.74	Service Life: (Years.)	30
Replacement Cost:	\$1,428,183.74	Year Remaining:	20
<b>Condition Rating:</b>	Good	Year of Replacement:	2044

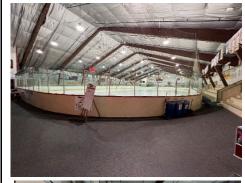
**Observations:** Minor scratches and other wear and tear can be seen on the surrounding Ice Rink Dasher Boards.

The system was replaced 10 years ago and in good conditiion.

Condition and Anticipated Replacement:

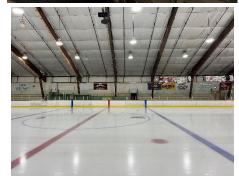
The Ice pad is in good condition. The Ice Rink Dasher Boards are in fair condition.

**Recommendations:** It is recommended to upgrade the Ice Rink Dasher Boards of the Skating Rink in the next 20 years.











**Skating Rink** 

#### 6.7 - F - SPATIAL STRUCTURES - ELEANOR PEW MORRIS MEMORIAL ARENA CHESTER NS

### 6.7.1b F1042.001 Curling Rink

**System Description:** Curling game lines are marked under the ice. The rink is surrounded by a wooden walkway

approximately 2m wide with carpet tiles.

Unit: Each Inspection Date: Tuesday, March 12, 2024

Quantity: 1.00 Year Installed: 2014 Unit Rate: (\$/Sq.m.) \$1,428,183.74 Service Life: (Years.) 30 **Replacement Cost:** \$1,428,183.74 20 Year Remaining: **Condition Rating:** Good Year of Replacement: 2044

**Observations:** Minor scratches and other wear and tear can be seen on the surrounding Ice Rink Dasher Boards.

The system was replaced 10 years ago and in good conditiion.

Condition and Anticipated

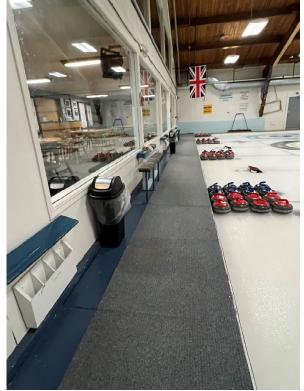
**Replacement:** 

The Ice pad is in good condition. The Ice Rink Dasher Boards are in fair condition.

**Recommendations:** It is recommended to upgrade the Ice Rink Dasher Boards of the Skating Rink in the next 20 years.







**Curling Rink**