

To: **COUNCIL**

Meeting Date: **12/02/21**

Subject: **Preston Auditorium Expansion Project – Revised Scope and Program Options**

Submitted By: **Lesley Head, Director of Recreation & Culture**

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Report No.: **21-292(CD)**

File No.: **C1101**

Recommendations

THAT Report 21-292(CD) Preston Auditorium Expansion Project – Revised Scope and Program Options be received;

AND THAT Council endorse staff recommendation to proceed with program Option D renovation and expansion of the existing Preston Auditorium Arena for a total construction budget of \$13,262,000, with provision for a future second ice pad as part of a future capital forecast;

AND THAT Council directs staff to close projects A/00420-41 Karl Homuth Demolition and A/00420-42 Preston Auditorium Parking Lot Expansion;

AND FURTHER THAT Council approves adjusting the capital forecast for the Preston Auditorium Expansion construction and design projects to be a total of \$14,304,915 funded from tax supported debentures in the amount of \$11,850,363 and from development charges in the amount of \$2,454,552.

Executive Summary

Purpose

The purpose of this report is to inform Council of the key steps that staff have undertaken since the May 11, 2021 deferral of staff report 21-019(CD), to highlight the key outcomes of additional consultation that has occurred during that time, and to present Council with four additional program options for consideration, along with associated budgets for each program.

The goal of this report is to provide Council with program and budget information in order to facilitate a decision that will direct staff to move forward with schematic building design.

At the conclusion of the schematic building design phase, staff will report back to Council and will seek approval to move into detailed design phase.

Key Findings

- At the May 11, 2021 Council meeting, report 21-019 (CD) Preston Auditorium Expansion Project – Scope & Design Options, which presented 3 Concepts, was deferred and staff were directed to conduct additional consultation with user groups, and to revisit the proposed designs.
- At the June 29, 2021 Council meeting, report 21-186 (CD) was approved, identifying additional fees required for user group consultation and additional design work, and outlining the proposed next steps in the project.
- Following Council direction, in July and August 2021, staff held video conference meetings with ten (10) different user groups, consulting on space and function needs in order to inform a revised building program.
- Four new building program options were developed (Options A – D) using the information from all user groups as a guide, while also considering overall community use and need, current versus future functionality, building operations, phasing opportunities and budgetary constraints.
- Options A-D were developed to include a vision towards ultimately having two NHL-sized ice pads installed at Preston Arena.
- One additional option is being identified for consideration, Option E – maintain both the Preston Auditorium and Karl Homuth arenas as-is and further leverage existing opportunities within the community.
- Staff recommend that Council approve Option D – refurbishment and minimal expansion of the existing Preston Auditorium single-pad arena, with provision for a future twin-pad expansion.
- Staff will identify opportunities for leveraging existing community assets and analyze needs justification for adding design and construction projects for a future twin-pad expansion in a future capital budget forecast.

Financial Implications

- With the exception of Option E, all options that were considered require an increase in capital commitment of varying degrees. Option D, at a budget of \$13,262,000, would result in the lowest budget increase, at \$286,200 for construction under A/00420-40; the consultant's fees will need to be increased by \$40,000 to complete the design, however sufficient approved budget remains available under the design project A/00420-30. Additionally, under Option D, forecasted projects A/00420-41 Karl Homuth Demolition, budgeted at \$400,000, and A/00420-42 Preston Auditorium Parking Lot Expansion, budgeted at \$800,000, would be closed.
- Although Option D would result in continuing to operate two separate buildings, the reduced annual capital sustainability contributions and debt charges offset the higher annual operating expenses. It is anticipated that staff recommended Option D would result in \$833,000 total annual operating impact which results in a future tax levy increase of 0.84%.
- Staff will identify additional expenditures needed to maintain the Karl Homuth building, which will be communicated through future capital budget forecasts.
- It is anticipated that Concept 2 (as previously recommended through report 21-019(CD) on May 11) and Program Options A, B and C would result in overall net increase in annual operating impacts. Despite finding staffing and equipment efficiencies through closing Karl Homuth Arena, greater annual debt payments and capital contributions would be required for each of these options. As a result, Concept 2 would result in annual operating impact of \$816,800; Option A would carry an annual operating impact of \$965,100; Option B annual operating impact of \$1,036,500; and Option C annual operating impact of \$1,306,900.
- Should Council support Option E – *Maintain Both the Preston Auditorium and Karl Homuth Arenas As-Is and further Leverage existing opportunities within the Community*, the Preston Auditorium improvements projects A/00420-30 and A/00420-40 would be cancelled, as would projects A/00420-41 Karl Homuth Demolition and A/00420-42 Preston Auditorium Parking Lot Expansion. Staff would undertake further needs assessments and analysis to identify opportunities for expansion and/or creation of a twin-pad facility at Preston Auditorium or another location. Staff would also analyze opportunities to leverage existing facilities to accommodate existing and future occupancy needs. Any future funding requirements for new or expanded facilities, or for capital projects related to maintenance of the Preston Auditorium or Karl Homuth buildings would be identified through future capital budget forecasts.

Background

Recreation Facilities Improvement Strategy – Arena Improvements

On June 18, 2019, Council chose to move ahead with a strategy to construct a Recreation Complex in south-east Cambridge, to expand and improve the Preston Memorial Auditorium to a twin-pad facility, to decommission older recreation facilities as newer facilities became operational, and to work with Buckingham Sports Properties to discuss the expansion of the Cambridge Sports Park to a quad ice pad facility. In reference to report 19-178(CRE) Recreation Complex - Recommendations, Council directed staff to expand and improve the Preston Memorial Auditorium with an additional ice pad to make it a twin-pad facility as a part of the 2020-2029 Capital budget process. At that time the scope change raised the project budget from \$1.6M (renovation of existing change rooms) to \$14M (design and construction of an additional ice pad) to carry out the improvements.

Overview of Project Work Completed

In 2020, Architects Tilmann Ruth Robinson (aTRR) were engaged as lead consultants to undertake the design of the Preston Auditorium improvements. Initial schematic designs were completed, and public consultation was completed in the Fall of 2020 with the intent of finalizing the schematic design. At that time consultation materials were posted on the Engage Cambridge website, which saw 839 visitors and returned 113 survey responses from the public and user groups. Based on the feedback received, it was determined additional design concepts needed to be explored and aTRR's scope was increased to include a feasibility study.

The results of the feasibility study were shared with Council in report 21-019 (CD) on May 11, 2021. Staff put forward a recommendation to proceed with design Concept 2 along with a budget increase of \$3,056,943. The proposed concept was opposed by delegations representing the Cambridge Rivulettes Junior Hockey Club, the Cambridge Roadrunners Girls Hockey Association and the Preston Figure Skating Club. Council chose to defer their decision, directing staff to conduct additional consultation with the user groups and to revisit the design options. Staff report 21-186 (CD) Additional Fees for Preston Auditorium Expansion Project, was submitted to Council on June 29, 2021 and included a recommendation to increase aTRR's scope to complete additional consultation and design work, and also outlined the proposed next steps that would be completed before returning to Council. The scope of next steps included consultation with user groups, assembling alternative program options, reviewing budgets, and returning to Council to seek a decision on the preferred program option.

Three Concept Plans Presented to Council on May 11, 2021

Three concept plans were presented to Council on May 11, 2021, with staff recommending Concept Two. The Concepts are described as follows:

1. Concept One – 33,756 ft² addition of new space, and 3,311 ft² of renovation to the existing facility. Overall program included a new NHL size rink with 180 spectator seats, storage areas, new and renovated change rooms, washrooms, and multi-purpose space. The budget for this scope was identified at \$14,827,234. Note, the cost estimate was completed in April 2021, and it is anticipated that prices have escalated in the time that has elapsed.
2. Concept Two - 39,665 ft² addition of new space, and 7,114 ft² of renovation to the existing facility. Overall program included a new NHL size rink with 450 spectator seats, storage areas, new and renovated change rooms, washrooms, multi-purpose space, new dedicated space for Preston Rivulettes Hockey Club and the Cambridge Minor Hockey Association, and renovations to the existing banquet hall and concessions space. Existing spaces allocated to the Preston Figure Skating Club were maintained. The budget for this scope was identified at \$17,056,908. Note, the cost estimate was completed in April 2021, and it is anticipated that prices have escalated in the time that has elapsed.
3. Concept Three - 50,299 ft² addition of new space, and 7,114 ft² of renovation to the existing facility. Overall program included a new NHL size rink with 450 spectator seats, storage areas, new and renovated change rooms, washrooms, multi-purpose space, new dedicated space for Preston Rivulettes Hockey Club and the Cambridge Minor Hockey Association, renovations to the existing banquet hall and concessions space, and a new elevated walking track. Existing spaces allocated to the Preston Figure Skating Club were maintained. The budget for this scope was identified at \$18,758,548. Note, the cost estimate was completed in April 2021, and it is anticipated that prices have escalated in the time that has elapsed.

Work Completed Per Council Direction Received May 11, 2021 and June 29, 2021

Starting in July 2021, following direction from Council, project staff and a TRR met with representatives of ten (10) different Preston Auditorium user groups, which included Cambridge Minor Hockey Association, Cambridge Rivulettes Junior Hockey Club, Preston Figure Skating Club, Cambridge Sports Hall of Fame, Cambridge Ringette Association, Preston Heights Neighbourhood Association, Cambridge Minor Lacrosse Association, Cambridge Kips Gymnastics Club, Adult User Groups, and the City's Operations staff. Invitations were also sent to other clubs that have an interest in Preston Auditorium, including Kinsmen Club, Cambridge Roadrunners Hockey Club, Hespeler Minor Hockey Association and the Cambridge Minor Ball Hockey League, however no representatives from these groups attended the meetings. Meeting minutes were taken and circulated to all parties that attended. Lists of programming and square footage were produced and vetted by the City's Project Team, then circulated to user groups for confirmation that they represented what was discussed in the meetings, and subsequent changes were completed incorporating that additional feedback. Taking the

full vetted program as a starting point, efficiencies were identified and various elements were adjusted, and four (4) final program options were refined, representing varying scales of investment for Council's consideration. High-level costing analysis was performed on each of the four program options, including additional corresponding design fee estimates. The program options were vetted by the Project Team, the Project Steering Committee and the Corporate Leadership Team. Communication with the user groups, both formally and informally, has continued at key points throughout this process.

A fifth option was also identified for consideration, which does not identify any additional programming and does not involve any further capital investment at this time, but does not address community needs.

A Council decision on the program at this stage will allow the project to move into the schematic design phase.

Karl Homuth Arena

Karl Homuth Arena, located at 1407 Hamilton Street, is currently identified for decommissioning/demolition through project A/00420-41 (2024) at a cost of \$400,000 and for reinstatement as a parking lot through project A/00420-42 (2024) at a cost of \$800,000. Budgets identified are considered order of magnitude and will be refined through the design projects in advance of construction.

The arena, constructed in 1973, is not up to modern facility standards in terms of ice dimensions, atmosphere, accessibility, energy efficiency and overall user experience. The most recent building condition assessment, completed in February 2018, identified a number of urgent and desired repairs needed in order to maintain current service levels, most notably a roof replacement budgeted at over \$500,000 and a transformer/distribution panel listed at \$100,000 (in 2017 funds, respectively). The majority of the other individual items identified in the condition assessment range in value from \$2,000 and up to \$30,000 and are recommended for repair or replacement from 2018 through 2028 at a total estimated cost of \$1,105,440 (in 2017 funds). Under program Options A, B and C, Karl Homuth Arena would be demolished and a new parking lot installed in its place to assist with minimum parking requirements for a new twin-pad arena. Under both recommended program Option D and also Option E, Karl Homuth Arena would remain intact and would continue to operate at current service levels; an additional condition assessment will need to be completed and funding will need to be forecasted in future budgets to address urgent issues to support the continued use. As per the recommended option, staff will complete further analysis to consider the justification for an additional ice pad and submit a capital project for the future twinning of the Preston Auditorium, as required.

Current Rental Capacity at Cambridge Sports Park

The City of Cambridge has a license agreement with the Cambridge Sports Park that permits 840 hours of use per year. This agreement was established in 1996 at a time when ice demand was high and minor sports groups would start as early as 6am and adult groups would play until midnight. Since this time demand for ice has shifted to later start times for minor sports groups and earlier end times for adult groups.

As a result, the City's use of Cambridge Sports Park has decreased with less need or desire to use shoulder ice times. In the 2019/20 season, 450 hours of use occurred as part of the license agreement. For the 2021/22 season, 413 hours are currently booked.

In comparison the following is a summary of the number of hours booked for the same period of time (September 1 – April 1) at Preston Auditorium and Karl Homuth arenas

Season	Arena	Total Hours Booked
2019/20	Preston Auditorium	1624
	Karl Homuth	1248
2020/21	Preston Auditorium	1650
	Karl Homuth	1149

Analysis

Strategic Alignment

PEOPLE To actively engage, inform and create opportunities for people to participate in community building – making Cambridge a better place to live, work, play and learn for all.

Goal #5 - Parks and Recreation

Objective 5.1 Work with the community to provide the right mix of recreational opportunities that meet the needs of a changing and diverse population.

Analysis

Engaging community and user groups in developing a strategic approach for Preston Auditorium expansion in order to balance current and future needs with a fiscally responsible approach, while ensuring the improvements fit within the larger vision of recreation facilities improvements City-wide.

Comments

Other Facility Comparators

At the May 11, 2021 Council meeting, a number of delegations spoke about concerns that the proposed Concept Two plan would not provide a gender-equal design. Specific concerns were raised that the Rivulettes' proposed dedicated changeroom / office / training / laundry / storage area was smaller than other men's hockey facilities in Cambridge and other Provincial Women's Hockey League (PWHL) facilities in Ontario. Representatives from the Cambridge Rivulettes addressed Council and requested that the facilities provided to them at Preston Auditorium be at parity with the facilities utilized by Junior Men's leagues in Cambridge. Staff looked at Cambridge comparable facilities and determined that, based on the Junior B team's facilities at Galt Gardens Arena, the appropriate target for the Rivulettes' dedicated space is 2,000 square feet. Staff also contacted PWHL teams that play in municipally-owned facilities in the neighbouring communities of Kitchener, Burlington and Oakville and requested space allocation numbers. Based on the figures those three teams provided, staff are confident that all four of the new options presented align with other municipally-owned facilities in the PWHL.

The Scope of Work has Changed Based on City Priorities and User Feedback

The options presented in this report were assembled following extensive consultation with the Preston Auditorium user groups. Additional factors considered when assembling the options included current needs, future needs, operating challenges, financial implications, opportunities for improving overall atmosphere and user experience, and opportunities to phase future improvements. The options presented in this report range considerably in cost and represent different strategic approaches to provide what, staff believe, achieves differing balances of scope and affordability. Staff recommend Council approve Option D, which represents the most fiscally responsible option while also providing a reasonable response to the programming needs identified by the user groups.

Every Option Presented Includes Some Amount of Compromise

It has become clear through all the consultation completed to date with the user groups that the scope of work previously identified in the project description cannot address all items identified as needs. The project site has physical constraints including the limits of the road allowance, steep topography to the south, being surrounded by private property, and anticipated parking limitations that constrain the way the site can be developed, and which factored into the space allocations shown in the options. Despite every option identified in this report being over-budget (with the exception of Option E), each option includes some amount of compromise. The options presented in this report reflect best efforts to provide a balance of the most significant factors requested by each of the groups, with a long-term plan to address outstanding needs that can be addressed as part of a future capital project.

Options for Council Consideration

Please note that Program Options A through D for consideration in the following table are considered high level design, and that no drawings have been produced, therefore proposed space allocation for each option has been rounded off to the nearest 500 square feet. Detailed descriptions of each option are located in the Appendix. Budget costs indicated below for Options A through D are considered Order of Magnitude and have been rounded off to the nearest \$1,000. Also note that Options C and D involve a greater percentage of renovation work, therefore the blended square foot rates for those two options are lower. A matrix showing anticipated costs is included in the Appendix.

Design Concept 2, highlighted below, was completed as a part of the Feasibility Study and a schematic design was produced, therefore exact square footage and budget indicated are commensurate with the level of detail that was examined at that time. Note the costs indicated have escalated since May 11, 2021 due to recent construction industry trends.

Option E would see no change to the existing operating model of both the existing Preston Auditorium and Karl Homuth arenas. Additional operating and/or capital expenditures may be required in order to keep both arenas fully functional, but are dependent on further analysis and therefore costs are identified as “not applicable”.

The approved construction budget of project A/00420-40 is \$12,975,800; the approved design budget of project A/00420-30 is \$1,042,915.

Design Concept 2 – 46,779 ft² – Staff-Recommended Concept Presented at May 11, 2021 Council Meeting, Deferred.

Construction Budget	<ul style="list-style-type: none">• \$16,993,000 (\$4,017,200 over-budget) – cost escalations since May 11, 2021 deferral of report 21-019 (CD) are included into adjusted budget figure;• Includes \$905,288 (7.5% of approved budget) contingency to support potential site remediation, potential construction industry inflation and impacts related to the COVID-19 pandemic;<ul style="list-style-type: none">• Includes 1-year cost escalation at 5%.
Additional Design Fees	<ul style="list-style-type: none">• \$270,000 (\$230,000 over-budget)
Concept Highlights	<ul style="list-style-type: none">• New arena construction with NHL sized ice and 450 spectator seats on one floor only;• Dedicated changerooms / office / training / laundry / storage for Rivulettes (1,441 square feet), dedicated office space and storage for CMHA, with dedicated exterior access for both groups;• Maintain existing office and storage space for Preston Figure

	Skating; <ul style="list-style-type: none"> • Renovations to existing 6 changerooms, plus 6 new players changerooms, 2 referees changerooms, new washrooms; • Additional storage to meet existing storage shortfall; • Renovation to existing banquet hall; • Increased lobby space, display areas for Cambridge Sports Hall of Fame.
Pro's	<ul style="list-style-type: none"> • Provides dedicated space for CMHA with exterior access, allows for their operations to centralize in one location; • Centralized storage for equipment allows for proper ventilation and prolongs lifespan of equipment, and increases storage inventory; • Dedicated space for Rivulettes with exterior access, providing ease for loading and unloading equipment; • Showcase Cambridge Sports Hall of Fame in lobby; • Includes modernizing and accessibility improvements to the existing facility in key areas.
Con's	<ul style="list-style-type: none"> • Construction budget would need to be increased by 31%; • Additional design fees required; • Does not address ice resurfacing equipment access issues in the existing facility; • Identified by the Rivulettes and Roadrunners as not meeting gender equity needs; • Does not address new needs heard in the latest round of consultation.
Additional Comments	<ul style="list-style-type: none"> • Additional consultation has taken place as directed by Council, during which additional needs were highlighted, and additional user groups have expressed desire to have programming space at the facility. These additional needs have not been included in Design Concept 2.

Program Option A – 59,500 ft² – New Twin-Pad Arena, One Floor Only, Moderate Renovations, Plan for Future NHL Size Ice Rink in Existing Building

Construction Budget	<ul style="list-style-type: none"> • \$21,160,000 (\$8,184,200 over-budget); • Includes \$905,288 (7.5% of approved budget) contingency to support potential site remediation, potential construction industry inflation and impacts related to the COVID-19 pandemic; • Includes 1-year cost escalation at 5%.
Additional Design Fees	<ul style="list-style-type: none"> • \$450,000 (\$410,000 over-budget)
Program Highlights	<ul style="list-style-type: none"> • New arena construction with NHL sized ice and 450 spectator seats on one floor only; • Dedicated changerooms/office/training/laundry/storage for Rivulettes (2,000 square feet), dedicated office and storage space for CMHA, dedicated offices and storage space for

	<p>Preston Figure Skating;</p> <ul style="list-style-type: none"> • Cases and digital space for Cambridge Sports Hall of Fame displays; • New storage space for Cambridge Minor Lacrosse; • New dry land training and multi-purpose areas; • New lower-level small concession stand; • New office space and ability to provide programming for the Preston Heights Neighbourhood Association; • Renovations to existing 6 changerooms plus 6 new players changerooms, 3 referees changerooms, new washrooms; • Renovations to existing banquet hall and level 2 boardroom to create multi-purpose meeting/video space; • Future project to be added to Capital Forecast to renovate existing arena and provide a second NHL sized ice pad.
Pro's	<ul style="list-style-type: none"> • Addresses many of the requests from user groups, while setting a plan to address the outstanding requests through future renovation of the existing arena; • Accommodates additional user groups than in previous design concepts;
Con's	<ul style="list-style-type: none"> • Construction budget would need to be increased by 63% to accommodate the additional needs identified by the user groups; • Additional design fees required; • Staff have received comments indicating dis-satisfaction with the quantity of proposed spectator seating, and the seating being located on the ground floor.
Additional Comments	<ul style="list-style-type: none"> • Program Option A addresses many of the needs identified in the latest round of consultation with the user groups in the short term, and sets a long-term plan to address the majority of the remaining requests through future renovation of the existing ice surface. • Program Option A is the least costly option that addresses the issues raised in consultation, while also expanding Preston Auditorium to a twin-pad arena facility at a later date.

Program Option B – 65,500 ft² – New Twin-Pad Arena, One Full Floor & Partial Second Floor, Moderate Renovations, Plan for Future NHL Size Ice Rink in Existing Building

Construction Budget	<ul style="list-style-type: none"> • \$23,126,000 (\$10,150,200 over-budget) • Includes \$905,288 (7.5% of approved budget) contingency to support potential site remediation, potential construction industry inflation and impacts related to the COVID-19 pandemic; • Includes 1-year cost escalation at 5%.
Additional Design Fees	<ul style="list-style-type: none"> • \$560,000 (\$520,000 over-budget)

Program Highlights	<ul style="list-style-type: none"> • New arena construction with NHL sized ice and 450 spectator seats on a partial second floor, with new access to the north side of the existing second-floor concessions area; • Dedicated changerooms/office/training/laundry/storage for Rivulettes (2,000 square feet), dedicated office and storage space for CMHA, dedicated offices and storage space for Preston Figure Skating; • Cases and digital space for Cambridge Sports Hall of Fame displays; • New storage space for Cambridge Minor Lacrosse; • New dry land training and multi-purpose areas; • New lower-level small concession stand; • New office space and ability to provide programming for the Preston Heights Neighbourhood Association; • Renovations to existing 6 changerooms plus 6 new players changerooms, 3 referees changerooms, new washrooms; • Renovations to existing banquet hall and level 2 boardroom to create multi-purpose and meeting/video space; • Future project to be added to Capital Forecast to renovate existing arena and provide a second NHL sized ice pad.
Pro's	<ul style="list-style-type: none"> • Elevated seating on a partial second-level with access to the upper floor concession improves the spectator experience; • Addresses many of the requests from user groups, while setting a plan to address the outstanding requests through future renovation of the existing arena; • Addresses requests from the Rivulettes for better sight-lines for talent scouts and better angles and access for video equipment; • Accommodating additional user groups than in previous design concepts;
Con's	<ul style="list-style-type: none"> • Construction budget would need to be increased by 78% to accommodate the additional needs identified by the user groups; • Additional design fees required; • Staff have received comments indicating dis-satisfaction with the quantity of proposed spectator seating.
Additional Comments	<ul style="list-style-type: none"> • Program Option B addresses many of the needs identified in the latest round of consultation with the user groups in the short term, and sets a long-term plan to address the majority of the remaining requests through future renovation of the existing ice surface. • Adding raised seating and access to the second-floor concessions from the new arena would contribute to enabling an exciting atmosphere for spectators and support the needs of user groups.

Program Option C – 77,500 ft² – New Twin-Pad Arena, One Floor Only, Extensive

Renovations Including NHL Size Ice Rink in Existing Building

Construction Budget	<ul style="list-style-type: none"> • \$26,211,000 (\$13,235,200 over-budget) • Includes \$905,288 (7.5% of approved budget) contingency to support potential site remediation, potential construction industry inflation and impacts related to the COVID-19 pandemic; • Includes 1-year cost escalation at 5%.
Additional Design Fees	<ul style="list-style-type: none"> • \$740,000 (\$700,000 over-budget)
Program Highlights	<ul style="list-style-type: none"> • New arena construction with NHL sized ice and 450 spectator seats on one floor only, plus full renovation of the existing arena to provide a second NHL sized ice pad; • Dedicated changerooms/office/training/laundry/storage for Rivulettes (2,000 square feet), dedicated office and storage space for CMHA, dedicated offices and storage space for Preston Figure Skating; • Cases and digital space for Cambridge Sports Hall of Fame displays; • New storage space for Cambridge Minor Lacrosse; • New dry land training and multi-purpose areas; • New lower-level small concession stand; • New office space and ability to provide programming for the Preston Heights Neighbourhood Association; • Renovations to existing 6 changerooms plus 6 new players changerooms, 3 referees changerooms, new washrooms; • Renovations to existing banquet hall and level 2 boardroom to create multi-purpose space.
Pro's	<ul style="list-style-type: none"> • Addresses the majority of requests from the user groups immediately, without need for a future renovation project; • Sets up the full facility to function with a "community" rink in the expanded portion of the building, and a "competitive" rink in the existing portion of the building, thereby reducing the need for higher seating numbers in the new arena.
Con's	<ul style="list-style-type: none"> • Construction budget would need to be increased by 102% to accommodate the expansion and full renovation. • Additional design fees required; • All of Preston Auditorium would be unavailable during the full construction period, expected to last 2-years. • Delays expansion of a twin pad facility • Construction costs increase with a later installation date • May require the support of third-party ice facilities to accommodate use during construction or decrease number of available hours in city arenas to existing user groups
Additional Comments	<ul style="list-style-type: none"> • Program Option C would provide a fully upgraded facility all in one project and takes advantage of current day pricing without having to account for inflation/escalation.

	<ul style="list-style-type: none"> The cost of upgrading the existing arena at this time is expected to be lower than completing the work at a future date.
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Program Option D – 41,000 ft² - Extensive Renovations to Existing Single-Pad Arena Including NHL Ice, Plan for Future New Twin-Pad Expansion with NHL Ice

Construction Budget	<ul style="list-style-type: none"> \$13,262,000 (\$286,200 over-budget) Includes \$905,288 (7.5% of approved budget) contingency to support potential site remediation, potential construction industry inflation and impacts related to the COVID-19 pandemic; Includes 1-year cost escalation at 5%.
Additional Design Fees	<ul style="list-style-type: none"> \$40,000 (can be accommodated in the existing approved budget)
Program Highlights	<ul style="list-style-type: none"> Renovation of the existing single-pad arena to upgrade current under-sized ice pad to NHL size; Dedicated changerooms/office/training/laundry/storage for Rivulettes (2,000 square feet), dedicated office and storage space for CMHA; Preston Figure Skating retains existing office/storage space; Digital space for Cambridge Sports Hall of Fame displays; New dry land training and multi-purpose areas; New office space and ability to provide programming for the Preston Heights Neighbourhood Association; Renovations to existing 6 changerooms, 1 new and 1 renovated referees changerooms, new washrooms; Renovations to existing banquet hall and level 2 boardroom to create multi-purpose space; Future project to be added to Capital Forecast to expand existing single-pad arena to a twin-pad arena with NHL ice.
Pro's	<ul style="list-style-type: none"> Provides many of the improvements requested by the user groups but at a reduced cost to the other options under consideration; Additional design fees can be accommodated in existing approved design budget.
Con's	<ul style="list-style-type: none"> Construction budget would need to be increased by 2% to accommodate the expansion and renovation. Relies on continued use and investment into Karl Homuth Arena, including Capital and Operating funding; Proposes a staged approach to upgrading Preston Auditorium into a twin-pad arena in the future. Will require the support of third-party ice facilities to accommodate use during construction or decrease number of available hours in city arenas to existing user groups
Additional Comments	<ul style="list-style-type: none"> Program Option D takes a different approach to the other options by making improvements and minor expansions to the

	<p>existing facility and planning for a seamless expansion to a twin-pad at a future date;</p> <ul style="list-style-type: none"> • A project could be added to the 2023-2032 Capital Budget Forecast to complete the arena expansion; • Staff can explore opportunities to work with third-party ice providers that would re-allocate hours of use and take Karl Homuth offline at an earlier date • Staff recommend Council provide direction to proceed with schematic design of Program Option D including a master-plan for a future twin-pad and plan to include as a project in a future Capital Budget Forecast.
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Option E – Maintain Both the Preston Auditorium and Karl Homuth Arenas As-Is and Further Leverage Existing Opportunities Within the Community

Construction Budget	<ul style="list-style-type: none"> • Not Applicable
Additional Design Fees	<ul style="list-style-type: none"> • Not Applicable
Program Highlights	<ul style="list-style-type: none"> • Not Applicable
Pro's	<ul style="list-style-type: none"> • No immediate capital costs
Con's	<ul style="list-style-type: none"> • Does not address facility upgrade needs; • Does not address concerns raised by user groups about gender inequality at the existing facility; • Does not address needed accessibility improvements in the existing facility; • Does not address needs for additional programming that were communicated to staff during consultation with the public and user groups; • Does not work towards completing City-wide Recreational Facilities Improvement Strategy.
Additional Comments	<ul style="list-style-type: none"> • Program Option E would result in no change to the existing Preston Auditorium Arena; • Karl Homuth Arena would require maintenance work to be completed immediately to address known issues and budget forecasting for issues identified to be addressed in the future; • Staff would continue to look at opportunities for future facility improvements, including strategizing other opportunities for providing programming at other facilities, and looking to find efficiencies in facility programming amongst current facility inventory. Key business terms and associated costs would be presented to Council for future consideration.

Staff Recommends Option D – Extensive Renovations to Existing Single-Pad Arena

Option D is a departure from the approved project scope and does not result in a twin-pad facility; however, Option D provides a significant proportion of the requests from user groups at an overall cost that is significantly less than any of the other options identified that involve creation of a twin-pad facility. Renovating the existing arena at Preston Auditorium will provide improvements to a facility that already has significant seating and will build upon existing character that contributes to atmosphere and sense of place. Additions to the building will be master-planned and built in such a way that future addition of a new NHL ice pad would be as seamless as possible. During schematic design phase, options will be explored to expand the existing under-sized ice pad to NHL-sized, with as little impact to existing seating as possible, and while factoring in viewing angles for spectators. Option D provides a phased approach to providing a twin-pad facility at Preston Memorial Auditorium. Staff will return to Council with schematic designs for approval prior to commencing the detailed design stage.

Staff will explore opportunities to add a new design project and a new construction project to a future Capital Budget Forecast for the Preston Auditorium Twin-Pad expansion.

Coordinating User Groups During Construction Activities

Staff will look into opportunities to coordinate user group needs at other City and private ice facilities during construction activities. Timing of impacts to user groups will be examined in detail during future design phases and accommodation plans will be implemented well in advance of construction works.

A Twin-Pad Facility is Not Recommended at This Time

Several factors led staff to recommend not to proceed with a twin-pad facility at this time. Currently there is insufficient budget to adequately provide for all the identified needs from user groups in a twin-pad facility. Additionally, there are a number of physical constraints in the existing facility that cause operating challenges, including a constrained ice resurfacer accessway, that could not be solved in Concept 2, and is unlikely to be resolved in Option A or in Option B due to high costs, but could be resolved in Options C or D. Option E would not address any of the existing operating and accessibility challenges.

Existing Policy/By-Law

There is no existing policy/by-law.

Financial Impact

Capital Budget Impacts

- Council-approved design budget A/00420-30 is \$1,042,915; the construction budget A/00420-40 is \$12,975,800; for a total of \$14,018,715.
- Recommended program Option D will require a design contract increase of \$40,000, paid through existing approved funding sources; Option D will also require a construction budget increase of \$286,200.
- The design and construction budget funding sources will be adjusted to be a total of \$14,304,915, funded from tax supported debentures in the amount of \$11,850,363 and from development charges in the amount of \$2,454,552.
- Capital funding will be required to be invested in Karl Homuth Arena to repair or replace key elements needing maintenance attention. Staff will analyze needs and propose appropriate funding for approval in future capital forecasts.
- Staff will explore opportunities in association with Program Option D to include funding in a future Capital Budget Forecast, to ensure future building expansion is planned for.
- Budgets for each program option were calculated based on square foot rate, additional site development related costs, escalation adjustment and contamination remediation.
- The ongoing impact of COVID-19 on commodity prices and supply chains are not fully known at this time, and future budget updates may reflect additional changes based on new information.

Operating Budget Impacts

- Proceeding with recommended program Option D would mean continuing to operate two single-pad arenas, therefore no substantial change in annual operating expenses from the current budget is anticipated, however there would be substantial increases to capital sustainability contribution and debt payments, resulting in \$833,000 annual operating impact which results in a future tax levy increase of 0.84%.
- Program Options A, B, or C would require demolition of the older Karl Homuth Arena and moving to a twin-pad arena at Preston Auditorium. Savings in annual operating expenses of approximately \$173,000 would be achieved through efficiencies of equipment and staffing levels, but an overall increase would result from additional contributions and debt payments. Operating budget, capital contribution and debt payments for Concept 2 would result in annual operating impact of \$816,800; Option A would carry an annual operating impact of \$965,100; Option B annual operating cost of \$1,036,500; and Option C annual operating impact of \$1,306,900.

- Option E, maintaining both the Preston Auditorium and Karl Homuth facilities as-is, would result in no immediate impact to current approved operating budget outside of standard maintenance.

Public Input

Public Consultation Completed Prior to the May 11, 2021 Council Meeting

Public engagement was conducted in the fall of 2020. Meetings with key stakeholders and facility user groups were held between October 2020 and May 2021 to inform the findings of report 21-019 (CD).

Key themes and concerns identified during community consultation included:

- Improvements to existing and additional changeroom facilities/washrooms
- Dedicated space for user groups desired – specifically the Preston Rivulettes, Cambridge Minor Hockey Association and Cambridge Sports Hall of Fame, and maintaining existing space for the Preston Figure Skating Club
- Additional Training/warm-up space
- Updated community hall/multi-purpose space
- Seating and access

Public Consultation Completed Since the May 11, 2021 Council Meeting

Additional consultation and ongoing communication with the Preston Auditorium user groups took place between July and November 2021. Meetings were held with the following groups:

- Cambridge Minor Hockey Association
- Cambridge Rivulettes Junior Hockey Club
- Preston Figure Skating Club
- Cambridge Sports Hall of Fame
- Cambridge Ringette Association
- Preston Heights Neighbourhood Association
- Cambridge Minor Lacrosse Association
- Cambridge Kips Gymnastics Club
- Adult Hockey Groups

- City Arena Operations

The following additional Preston Auditorium user groups were invited to meet with project staff but did not send any representatives:

- Preston Kinsmen Club
- Hespeler Minor Hockey Association
- Cambridge Roadrunners Girls Hockey Association
- Cambridge Minor Ball Hockey League

After the consultation meetings were completed, follow-up email and/or phone conversations were held between project staff and all of the user groups that attended, in order to confirm the information collected, to dive deeper into the requests, and to collect and convey additional information to the groups. The main comments received included:

- Desire to maximize functionality of the new arena to ensure needs of today and tomorrow are realized;
- Specific space and functionality requirements were identified by each group;
- Desire to add as much spectator seating as possible;
- Need for videoing capabilities on the new ice pad;
- Continued dedicated facility access points for the Preston Rivulettes and the Cambridge Minor Hockey Association and dedicated space for the Cambridge Sports Hall of Fame;
- Creation of quality spaces that contribute to sense of place and allow for historical memorabilia to be displayed;
- Convenient access to concession area for all arena visitors;
- Maximizing storage areas in the new design;
- Thoughtful response to accessibility, inclusion and diversity;
- A well-thought-out plan for future facility improvements that includes the provision of a second NHL-sized ice pad;
- Improvement of existing ice resurfacing equipment access and storage.

Following Council direction on the program option, schematic design phase will commence and will involve more consultation with the user groups. Staff will report back to Council at the conclusion of the schematic design phase about the additional consultation undertaken.

Internal/External Consultation

A Project Steering Committee and a Project Team have been established consisting of staff in Recreation & Culture, Parks Operations, Facilities, Planning Services,

Engineering, Finance and the Project Management Office. Both the Project Steering Committee and Project Team have contributed to the content of this staff report.

Consultation was completed with the Preston Auditorium Steering Committee and Corporate Leadership Team in the development of this report.

Conclusion

At the May 11, 2021 Council meeting, Council directed project staff to undertake additional project consultation with Preston Auditorium facility user groups, to explore additional design options, and to report back. Project staff, with assistance from the project architect, consulted with the user groups and produced four new program options for Council to consider, plus an additional option to maintain the existing facilities. Recommended Program Option D will result in upgrades to the existing Preston Auditorium that will serve the community in a cost-responsible manner until future improvements and expansion to a twin-pad arena can be implemented. Staff will explore opportunities and timing for future expansion to twin-pad facility and will include project descriptions and budgets in a future Capital Budget Forecast.

Division Approval



Reviewed by the CFO

Reviewed by Legal Services

Name: Lesley Head

Title: Director of Recreation & Culture

Departmental Approval



Name: Hardy Bromberg

Title: Deputy City Manager, Community Development

City Manager Approval



Name: David Calder

Title: City Manager

Appendixes

- Appendix A - Preston Auditorium Program Option A
- Appendix B - Preston Auditorium Program Option B
- Appendix C - Preston Auditorium Program Option C
- Appendix D - Preston Auditorium Program Option D
- Appendix E - Preston Auditorium Budget Matrix
- Appendix F - Report 21-019 (CD) Preston Auditorium Scope and Design Options

OPTION 'A' - SHARED PROGRAM FOR 2022 FACILITY

October 13, 2021

Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments	
1.0	Building Base Program	37,226		
2.0	Renovations	7,645		
3.0	Rivulettes	2,800		
4.0	CMHA	1,750		
5.0	Preston Figure Skating	910		
6.0	CSHOF	280		
7.0	Cambridge Minor Lacross	280		
8.0	Operations	3,430		
9.0	Shared Programs	5,359	Indicate programs to be utilized by all groups	
	Total Gross Square Feet	59,680		

OPTION 'A' - SHARED PROGRAM FOR 2022 FACILITY

October 13, 2021

Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments	
1.0	Building Base Program			
1.1	N.H.L Ice Surface	18,000		
1.2	Seating (Capacity = 450)	2,500		
1.3	Vestibule / Lobby	800		
1.4	Female WR	375		
1.5	Male WR	375		
1.6	Universal WR	90		
1.7	Change Room	525		
1.8	Change Room 2	525		
1.9	Change Room 3	525		
1. 10	Change Room 4	525		
1. 11	Change Room 5	525		
1. 12	Change Room 6	525		
1. 13	Referee Room #1	250		
1. 14	Referee Room # 2	250		
1. 15	First Aid	100		
1. 16	Storage 1	350		
1. 17	Storage 2	350		
	Sub Total	26,590		
	Gross-up Factor / Circulation (1.4)	10,636		
	Total	37,226		

OPTION 'A' - SHARED PROGRAM FOR 2022 FACILITY

October 13, 2021

Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments	
2.0	Renovations			
2.1	Team 1	430		
2.2	Team 2	460		
2.3	Team 3	430		
2.4	Team 4	400		
2.5	Team 5	400		
2.6	Team 6	460		
2.7	Male WR	175		
2.8	Female WR	225		
2.9	Ref. Room	200		
2. 10	Concession	900		
2.11	Storage	80	* Shared space	
2.12	Community Hall	2,525	* Shared space	
2. 13	Multi-use Space	960	* Existing Level 2 Board Room	
	Sub Total	7,645		
	Total	7,645		

OPTION 'A' - SHARED PROGRAM FOR 2022 FACILITY

October 13, 2021

Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments	
3.0	Rivulettes			
3.1	Change Room	1,000	20-25 Individual Stalls	
3.2	Training Room	250	Sink, Cold Tub, Therepy Table	
3.3	Coaches Office	250	5 Coaches, Meeting Table, Change room	
3.4	Equipment	400	Include Skate Sharpening Machine	
3.5	Laundry	100		
	Sub Total	2,000		
	Gross-up Factor / Circulation (1.4)	800		
	Total	2,800		

OPTION 'A' - SHARED PROGRAM FOR 2022 FACILITY

October 13, 2021



Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments	
4.0	CMHA			
4.1	General Storage	1,000		
4.2	Office	150	2 Desks	
4.4	File Storage	100	Office Supplies Etc. / Sink	
	Sub Total	1,250		
	Gross-up Factor / Circulation (1.4)	500		
	Total	1,750		

OPTION 'A' - SHARED PROGRAM FOR 2022 FACILITY

October 13, 2021

Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments	
5.0	Preston Figure Skating			
5.1	Coaches Offices	200	Include Kitchenette / Back Storage	
5.2	Coaches Change	250	Change Room for 12 Coaches	
5.3	Storage	200	Main floor Costumes, Matts, Balls Etc.	
5.4	Ice Surface	TBD	Request Olympic Size Ice	
			(Note - Existing Sound System to remain)	
	Sub Total	650		
	Gross-up Factor / Circulation (1.4)	260		
	Total	910		

OPTION 'A' - SHARED PROGRAM FOR 2022 FACILITY

October 13, 2021

Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments	
6.0	CSHOF			
6.1	Display	200		
6.2	Storage	TBD	Currently Offsite	
6.3	Office	TBD	Currently Offsite	
	Sub Total	200		
	Gross-up Factor / Circulation (1.4)	80		
	Total	280		

OPTION 'A' - SHARED PROGRAM FOR 2022 FACILITY

October 13, 2021



Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments	
	Cambridge Minor Lacross			
7.0	Equipment storage	200		
	Sub Total	200		
	Gross-up Factor / Circulation (1.4)	80		
	Total	280		

OPTION 'A' - SHARED PROGRAM FOR 2022 FACILITY

October 13, 2021

[illegible]

OPTION 'A' - SHARED PROGRAM FOR 2022 FACILITY

October 13, 2021

Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments	
9.0	Shared Program			
9.1	Video Room	0	Located in 2.13	
9.2	Press Room / Additional Seating	450	To accommodate additional Press	
9.3	Multi-Purpose Meeting	650	25-30 Seats	
9.4	Display	50	Trophy Case, Banners Etc.	
9.5	Community Office Space	175	Office for 3-4 Staff w/ lockable storage (Preston Heights)	
9.6	Dryland Training	2,500	Stretching, Warm-Up etc.	
	Sub Total	3,828		
	Gross-up Factor / Circulation (1.4)	1,531		
	Total	5,359		

OPTION 'B' - SECOND LEVEL WITH TIERED SEATING

October 19, 2021



Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments
1.0	Building Base Program	41,776	
2.0	Renovations	7,645	
3.0	Rivulettes	2,800	
4.0	CMHA	1,750	
5.0	Preston Figure Skating	910	
6.0	CSHOF	280	
7.0	Cambridge Minor Lacross	280	
8.0	Operations	3,430	
9.0	Shared Programs	6,601	Indicate programs to be utilized by all groups
Total Gross Square Feet		65,472	

OPTION 'B' - SECOND LEVEL WITH TIERED SEATING

October 19, 2021

Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments
1.0	Building Base Program		
1.1	N.H.L Ice Surface	18,000	
1.2	Seating (Capacity = 450)	2,500	(Level 2)
1.3	Vestibule / Lobby	900	
1.4	Female WR	375	
1.5	Male WR	375	
1.6	Universal WR	90	
1.7	Change Room	525	
1.8	Change Room 2	525	
1.9	Change Room 3	525	
1. 10	Change Room 4	525	
1. 11	Change Room 5	525	
1. 12	Change Room 6	525	
1. 13	Referee Room #1	250	
1. 14	Referee Room # 2	250	
1. 15	First Aid	100	
1. 16	Storage 1	350	
1. 17	Storage 2	350	
1.18	Upper Lobby / Elevator / Viewing	650	
1.19	Exit Stairs / Egress	2,500	
	Sub Total	29,840	
	Gross-up Factor / Circulation (1.4)	11,936	
	Total	41,776	

OPTION 'B' - SECOND LEVEL WITH TIERED SEATING

October 19, 2021

Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments
2.0	Renovations		
2.1	Team 1	430	
2.2	Team 2	460	
2.3	Team 3	430	
2.4	Team 4	400	
2.5	Team 5	400	
2.6	Team 6	460	
2.7	Male WR	175	
2.8	Female WR	225	
2.9	Ref. Room	200	
2. 10	Concession	900	(Level 2)
2.11	Storage	80	* Shared space
2.12	Community Hall	2,525	* Shared space
2. 13	Multi-use Space	960	* Existing Level 2 Board Room
	Sub Total	7,645	
	Total	7,645	

OPTION 'B' - SECOND LEVEL WITH TIERED SEATING

October 19, 2021

tillmann
architects ruth
robinson

 **Spriet
Associates**
ENGINEERS & ARCHITECTS

Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments
3.0	Rivulettes		
3.1	Change Room	1,000	20-25 Individual Stalls
3.2	Training Room	250	Sink, Cold Tub, Therepy Table
3.3	Coaches Office	250	5 Coaches, Meeting Table, Change room
3.4	Equipment	400	Include Skate Sharpening Machine
3.5	Laundry	100	
	Sub Total	2,000	
	Gross-up Factor / Circulation (1.4)	800	
	Total	2,800	

OPTION 'B' - SECOND LEVEL WITH TIERED SEATING

October 19, 2021

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Associates**
ENGINEERS & ARCHITECTS

Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments
4.0	CMHA		
4.1	General Storage	1,000	
4.2	Office	150	2 Desks
4.4	File Storage	100	Office Supplies Etc. / Sink
	Sub Total	1,250	
	Gross-up Factor / Circulation (1.4)	500	
	Total	1,750	

OPTION 'B' - SECOND LEVEL WITH TIERED SEATING

October 19, 2021

Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments
5.0	Preston Figure Skating		
5.1	Coaches Offices	200	Include Kitchenette / Back Storage
5.2	Coaches Change	250	Change Room for 12 Coaches
5.3	Storage	200	Main floor Costumes, Matts, Balls Etc.
5.4	Ice Surface	TBD	Request Olympic Size Ice
			(Note - Existing Sound System to remain)
	Sub Total	650	
	Gross-up Factor / Circulation (1.4)	260	
	Total	910	

OPTION 'B' - SECOND LEVEL WITH TIERED SEATING

October 19, 2021



Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments
6.0	CSHOF		
6.1	Display	200	
6.2	Storage	TBD	Currently Offsite
6.3	Office	TBD	Currently Offsite
	Sub Total	200	
	Gross-up Factor / Circulation (1.4)	80	
	Total	280	

OPTION 'B' - SECOND LEVEL WITH TIERED SEATING

October 19, 2021



Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments
	Cambridge Minor Lacross		
7.0	Equipment storage	200	
	Sub Total	200	
	Gross-up Factor / Circulation (1.4)	80	
	Total	280	

OPTION 'B' - SECOND LEVEL WITH TIERED SEATING

October 19, 2021



Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments
8.0	Operations		
8.1	Ice Resurfacing Room	1,000	
8.2	Refrig / Mechanical Room	1,000	
8.3	Staff Room	350	Incl. Lockers, Small Meeting Room & Kitchenette
8.4	Concession Stand	100	Main floor
8.5	NHL Size Rink	0	Future
	Sub Total	2,450	
	Gross-up Factor / Circulation (1.4)	980	
	Total	3,430	

OPTION 'B' - SECOND LEVEL WITH TIERED SEATING

October 19, 2021

Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments
9.0	Shared Program		
9.1	Video Room	150	(Level 2)
9.2	Press Room / Additional Seating	600	To accommodate additional Press (Level 2)
9.3	Multi-Purpose Meeting	650	25-30 Seats
9.4	Display	50	Trophy Case, Banners Etc.
9.5	Community Office Space	175	Office for 3-4 Staff w/ lockable storage (Preston Heights)
9.6	Dryland Training	3,000	Stretching, Warm-Up etc. (Level 2)
9. 10	Washroom (B.F)	90	(Level 2)
	Sub Total	4,715	
	Gross-up Factor / Circulation (1.4)	1,886	
	Total	6,601	

OPTION 'C' - NEW NHL RINK IN EXSISTING FACILITY

October 19, 2021

Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments	
1.0	Building Base Program	37,226		
2.0	Renovations	25,645		
3.0	Rivulettes	2,800		
4.0	CMHA	1,750		
5.0	Preston Figure Skating	910		
6.0	CSHOF	280		
7.0	Cambridge Minor Lacross	280		
8.0	Operations	3,430		
9.0	Shared Programs	5,359	Indicate programs to be utilized by all groups	
	Total Gross Square Feet	77,680		

OPTION 'C' - NEW NHL RINK IN EXSISTING FACILITY

October 19, 2021

Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments	
1.0	Building Base Program			
1.1	N.H.L Ice Surface	18,000		
1.2	Seating (Capacity = 450)	2,500		
1.3	Vestibule / Lobby	800		
1.4	Female WR	375		
1.5	Male WR	375		
1.6	Universal WR	90		
1.7	Change Room	525		
1.8	Change Room 2	525		
1.9	Change Room 3	525		
1. 10	Change Room 4	525		
1. 11	Change Room 5	525		
1. 12	Change Room 6	525		
1. 13	Referee Room #1	250		
1. 14	Referee Room # 2	250		
1. 15	First Aid	100		
1. 16	Storage 1	350		
1. 17	Storage 2	350		
	Sub Total	26,590		
	Gross-up Factor / Circulation (1.4)	10,636		
	Total	37,226		

OPTION 'C' - NEW NHL RINK IN EXSISTING FACILITY

October 19, 2021

Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments	
2.0	Renovations			
2.1	Team 1	430		
2.2	Team 2	460		
2.3	Team 3	430		
2.4	Team 4	400		
2.5	Team 5	400		
2.6	Team 6	460		
2.7	Male WR	175		
2.8	Female WR	225		
2.9	Ref. Room	200		
2. 10	Concession	900		
2.11	Storage	80	* Shared space	
2.12	Community Hall	2,525	* Shared space	
2. 13	Multi-use Space	960	* Exsisting Level 2 Board Room	
2. 14	NHL Size Rink	18,000	* Replacement of exsisting ice surface	
	Sub Total	25,645		
	Total	7,645		

OPTION 'C' - NEW NHL RINK IN EXSISTING FACILITY

October 19, 2021

Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments	
3.0	Rivulettes			
3.1	Change Room	1,000	20-25 Individual Stalls	
3.2	Training Room	250	Sink, Cold Tub, Therepy Table	
3.3	Coaches Office	250	5 Coaches, Meeting Table, Change room	
3.4	Equipment	400	Include Skate Sharpening Machine	
3.5	Laundry	100		
	Sub Total	2,000		
	Gross-up Factor / Circulation (1.4)	800		
	Total	2,800		

OPTION 'C' - NEW NHL RINK IN EXSISTING FACILITY

October 19, 2021



Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments	
4.0	CMHA			
4.1	General Storage	1,000		
4.2	Office	150	2 Desks	
4.4	File Storage	100	Office Supplies Etc. / Sink	
	Sub Total	1,250		
	Gross-up Factor / Circulation (1.4)	500		
	Total	1,750		

OPTION 'C' - NEW NHL RINK IN EXSISTING FACILITY

October 19, 2021

Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments	
5.0	Preston Figure Skating			
5.1	Coaches Offices	200	Include Kitchenette / Back Storage	
5.2	Coaches Change	250	Change Room for 12 Coaches	
5.3	Storage	200	Main floor Costumes, Matts, Balls Etc.	
5.4	Ice Surface	TBD	Request Olympic Size Ice	
			(Note - Exsisting Sound System to remain)	
	Sub Total	650		
	Gross-up Factor / Circulation (1.4)	260		
	Total	910		

OPTION 'C' - NEW NHL RINK IN EXSISTING FACILITY

October 19, 2021

Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments	
6.0	CSHOF			
6.1	Display	200		
6.2	Storage	TBD	Currently Offsite	
6.3	Office	TBD	Currently Offsite	
	Sub Total	200		
	Gross-up Factor / Circulation (1.4)	80		
	Total	280		

OPTION 'C' - NEW NHL RINK IN EXSISTING FACILITY

October 19, 2021



Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments	
	Cambridge Minor Lacross			
7.0	Equipment storage	200		
	Sub Total	200		
	Gross-up Factor / Circulation (1.4)	80		
	Total	280		

OPTION 'C' - NEW NHL RINK IN EXSISTING FACILITY

October 19, 2021

[illegible]

OPTION 'C' - NEW NHL RINK IN EXSISTING FACILITY

October 19, 2021

Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments	
9.0	Shared Program			
9.1	Video Room	0	Located in 2.13	
9.2	Press Room / Additional Seating	450	To accommodate additional Press	
9.3	Multi-Purpose Meeting	650	25-30 Seats	
9.4	Display	50	Trophy Case, Banners Etc.	
9.5	Community Office Space	175	Office for 3-4 Staff w/ lockable storage (Preston Heights)	
9.6	Dryland Training	2,500	Stretching, Warm-Up etc.	
	Sub Total	3,828		
	Gross-up Factor / Circulation (1.4)	1,531		
	Total	5,359		

OPTION 'D' - EXISTING BUILDING RENOVATION / ADDITION

November 2, 2021

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 **Spriet
Associates**
ENGINEERS & ARCHITECTS

Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments
1.0	Building Base Program	3,780	
2.0	Renovations	25,645	
3.0	Rivulettes	2,800	
4.0	CMHA	1,750	
5.0	Preston Figure Skating	0	Existing space will remain
6.0	CSHOF	0	
7.0	Cambridge Minor Lacrosse	0	
8.0	Operations	3,290	
9.0	Shared Programs	3,745	Indicate programs to be utilized by all groups

Total Gross Square Feet

41,010

OPTION 'D' - EXISTING BUILDING RENOVATION / ADDITION

November 2, 2021

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 **Spriet
Associates**
ENGINEERS & ARCHITECTS

Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments
1.0	Building Base Program		
1.1	Vestibule / Lobby	800	
1.2	Female WR	375	
1.3	Male WR	375	
1.4	Universal WR	90	
1.5	Change Room	460	
1.6	Misc. Storage	350	
1.7	Referee Room #1	250	
	Sub Total	2,700	
	Gross-up Factor / Circulation (1.4)	1,080	
	Total	3,780	

OPTION 'D' - EXISTING BUILDING RENOVATION / ADDITION

November 2, 2021



Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments

OPTION 'D' - EXISTING BUILDING RENOVATION / ADDITION

November 2, 2021

tillmann
architects ruth
robinson

 **Spriet
Associates**
ENGINEERS & ARCHITECTS

Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments
2.0	Renovations		
2.1	Team 1	430	
2.2	Team 2	460	
2.3	Team 3	430	
2.4	Team 4	400	
2.5	Team 5	400	
2.6	Team 6	460	
2.7	Male WR	175	
2.8	Female WR	225	
2.9	Ref. Room #2	200	
2. 10	Concession	900	
2.11	Storage	80	* Shared space
2.12	Community Hall	2,525	* Shared space
2. 13	Multi-use Space	960	* Existing Level 2 Board Room
2.14	New NHL Ice Pad	18,000	
	Sub Total	25,645	
	Total	25,645	

OPTION 'D' - EXISTING BUILDING RENOVATION / ADDITION

November 2, 2021

tillmann
architects ruth
robinson

 **Spriet
Associates**
ENGINEERS & ARCHITECTS

Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments
3.0	Rivulettes		
3.1	Change Room	1,000	20-25 Individual Stalls
3.2	Training Room	250	Sink, Cold Tub, Therepy Table
3.3	Coaches Office	250	5 Coaches, Meeting Table, Change room
3.4	Equipment	400	Include Skate Sharpening Machine
3.5	Laundry	100	
	Sub Total	2,000	
	Gross-up Factor / Circulation (1.4)	800	
	Total	2,800	

OPTION 'D' - EXISTING BUILDING RENOVATION / ADDITION

November 2, 2021

tillmann
architects ruth
robinson

 **Spriet
Associates**
ENGINEERS & ARCHITECTS

Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments
4.0	CMHA		
4.1	General Storage	1,000	
4.2	Office	150	2 Desks
4.4	File Storage	100	Office Supplies Etc. / Sink
	Sub Total	1,250	
	Gross-up Factor / Circulation (1.4)	500	
	Total	1,750	

OPTION 'D' - EXISTING BUILDING RENOVATION / ADDITION

November 2, 2021

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Associates**
ENGINEERS & ARCHITECTS

Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments
5.0	Preston Figure Skating		
5.1	Coaches Offices	0	Existing space to remain unchanged
5.2	Coaches Change	0	Existing space to remain unchanged
5.3	Storage	0	Existing space to remain unchanged
5.4	Ice Surface	0	(Future consideration)
			(Note - Existing Sound System to remain)
	Sub Total	0	
	Gross-up Factor / Circulation (1.4)	0	
	Total	0	

OPTION 'D' - EXISTING BUILDING RENOVATION / ADDITION

November 2, 2021



Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments
6.0	CSHOF		
6.1	Display	0	Located in the lobby
6.2	Storage	TBD	Existing
6.3	Office	TBD	Existing
	Sub Total	0	
	Gross-up Factor / Circulation (1.4)	0	
	Total	0	

OPTION 'D' - EXISTING BUILDING RENOVATION / ADDITION

November 2, 2021



Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments
	Cambridge Minor Lacrosse		
7.0	Equipment storage	0	Use existing off-site
	Sub Total	0	
	Gross-up Factor / Circulation (1.4)	0	
	Total	0	

OPTION 'D' - EXISTING BUILDING RENOVATION / ADDITION

November 2, 2021

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ENGINEERS & ARCHITECTS

Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments
8.0	Operations		
8.1	Ice Resurfacing Room	1,000	
8.2	Refrig / Mechanical Room	1,000	
8.3	Staff Room	350	Incl. Lockers, Small Meeting Room & Kitchenette
8.4		0	Future
	Sub Total	2,350	
	Gross-up Factor / Circulation (1.4)	940	
	Total	3,290	

OPTION 'D' - EXISTING BUILDING RENOVATION / ADDITION

November 2, 2021



Program ID No	Area ID Name	Proposed Net Area Square Feet	Comments
9.0	Shared Program		
9.1	Video Room	0	Located in 2.13
9.4	Display	0	(Located in the lobby)
9.5	Community Office Space	175	Office for 3-4 Staff w/ lockable storage (Preston Heights)
9.6	Dryland Training	2,500	Stretching, Warm-Up etc.
	Sub Total	2,675	
	Gross-up Factor / Circulation (1.4)	1,070	
	Total	3,745	

Appendix E

\$ 1,042,915.00

\$ 12,975,800.00

[illegible]

To: **COUNCIL**

Meeting Date: **05/11/2021**

Subject: **Preston Auditorium Expansion Project - Scope & Design Options**

Submitted By: **Lesley Head, Director of Recreation & Culture**

Prepared By: **Lesley Head, Director of Recreation & Culture**

Report No.: **21-019(CD)**

File No.: **C1101**

Recommendations

THAT Report 21-019(CD) Preston Auditorium Expansion Project - Scope & Design Options is received;

AND THAT Council endorse the recommendation to proceed with Concept Two which includes the addition of enhanced and dedicated space for primary user groups and space to support accessibility, the Cambridge Sports Hall of Fame and community use for the Preston Auditorium Expansion Project;

AND FURTHER THAT Council approves an increase to the budget of \$3,056,943 which includes additional contingency to support potential site remediation, potential construction industry inflation and impacts related to the Covid-19 pandemic, to be funded from development charges in the amount of \$781,710 and tax supported debentures in the amount of \$2,275,233.

Executive Summary

Purpose

The purpose of this report is to provide an update and information to Council on the recently undertaken public engagement and consultation completed for the Preston Auditorium Expansion Project as well as seek Council approval for the recommended concept plan and direction for staff to proceed with detailed design development.

To achieve this end, several concepts were developed and further public engagement provided feedback to the team that additional review of project scope was necessary along with feasibility of further expansion to meet user needs required.

With additional work completed to review and incorporate feedback along with evaluation of site suitability this report is providing Council with a recommendation to proceed with a design concept.

Key Findings

- Public consultation on the initial concept ran in August 2018 and then additional consultation took place on revised concepts in the fall of 2020.
- There were over 1,000 visits to the Engage Cambridge site with additional stakeholder and user groups meetings conducted.
- The response from the community indicates a desire for additional amenities to the project scope to increase the opportunity to profile this recreation facility for enhanced public use and high-profile sport opportunities.
- Three key stakeholders have provided detailed feedback during the concept development phase, these are: Cambridge Minor Hockey Association, Cambridge Rivulettes and the Cambridge Sports Hall of Fame.
- Initial project scope and concept development was not favoured during the public consultation process. Significant concern was expressed with the initial Concept One as presented.
- It was identified that further analysis including a feasibility review was needed to determine if the ability to 1) The project and site could meet the needs/feedback received through a revised concept design and 2) was the site suitable to accommodate the revised concepts and finally, 3) determine what the cost and overall impact would be to the existing project budget.
- As illustrated in the Feasibility Report and accompanying concept plans (Appendix A), there are a number of options for how to effectively plan and allocate space and uses of this facility to address the community feedback.

Financial Implications

- Council approved capital project A00420- 30 Preston Auditorium Expansion Project at a total design budget of \$1,024,165.
- Total allocated project budget for both construction and design is \$13,999,965
- A feasibility study was undertaken within the project budget, at a cost of \$39,800, to further evaluate the feedback received through the community consultation process, site suitability and options to address user needs along with revised detailed costing and project plan.

- An additional 7.5% contingency has been added to the previously approved construction budget for each of the concept costs to support potential site remediation, potential construction industry inflation and impacts related to the Covid-19 pandemic.
- The difference in cost from the Council approved project budget to the recommended Concept Two is \$3,056,943 to be funded from development charges in the amount of \$781,710 and tax supported debentures in the amount of \$2,275,233. This will result in an estimated tax rate impact of .26% due to debt repayment.
- The City retained the services of Architects Tillman, Ruth, Robinson for the design and build of the Preston Auditorium Expansion project.
- Operating impacts associated with the facility expansion will be developed and further reviewed as design development proceeds and will be communicated to Council through future budgets and reports.
- Further work will need to be completed regarding site parking needs to ensure the facility will meet future requirements. Options for review would include repurposing the Karl Homuth arena site to a parking facility. The current capital budget for the demolition of the Karl Homuth arena is allocated as part of the 2023 capital budget forecast and will be reviewed during the annual budget process.

Background

As part of Report 19-178(CRE) Recreation Complex-Recommendations, Council approved the recommendation to direct staff to prepare a project proposal to expand and improve the Preston Memorial Auditorium as part of the 2020-2029 Capital budget process.

Staff initiated the procurement process for a design/ build program for the project in 2020 and retained the services of Architects Tillman, Ruth, Robinson.

The project kick off meeting commenced in July 2020 and staff worked closely with the architectural team to develop concept designs to support the expansion and identified needs to expand the Preston Auditorium and its aging infrastructure.

The original concept (Concept One) focused on the areas of enhanced changerooms, an additional ice pad to support the decommission of the Karl Homuth Arena and upgraded ancillary spaces.

Concept One was presented to key stakeholders, user groups and the broader community through Engage Cambridge in the fall of 2020.

More detailed information is found in Appendix A – Feasibility Report which provides further information and costing for the proposed concept plans.

Community Consultation

Staff participated in a variety of engagement methods including meetings with key stakeholders and user groups along with an online opportunity through Engage Cambridge.

Through the public engagement, staff heard some recurring themes of amenities and services the community would like to see incorporated to enhance the overall functionality of the facility. As a result, staff have prioritized some additional elements that could be incorporated in response to the feedback received while attempting to minimize the overall increase to the budget.

Feedback received included the following examples:

- Increase size of changerooms/washrooms and ensure accessibility and usability is at the forefront
- Storage, office and meeting space for user groups
- Training/warm up area for identified users
- Additional seating/viewing space
- Multi-purpose/community space
- Ensuring equality of space for both male/female athletes
- Identified key stakeholders/user groups had specific concerns to each of their operational needs

Cambridge Minor Hockey Association (CMHA)

Previously CMHA had a central location for storage and office administration at the Duncan MacIntosh Arena. Due to requirements within the Accessibility for Ontarians Disability Act (AODA) the spaces are no longer a valid option for use. As such, CMHA has since stored equipment in multiple arenas and relocated its office to Galt Arena. The association therefore would like to be considered as part of the Preston Auditorium Expansion project as a centrally located facility to house all of CMHA is ideal for the organization as a whole.

Cambridge Rivulettes

The Cambridge Rivulettes have been a long-standing user of the Preston Auditorium, providing the community with a high caliber of women's hockey. This group has a strong tie to Preston and look to increase their presence in the community, encouraging

girls to participate in sport and aspire for greater athletic accomplishments. The level of play is equivalent to that of Men's Junior Hockey and as part of their growth in the game have requested an upgrade to their dressing room and the facility, including playing on an NHL sized ice surface. Staff provided their list of requests in the initial consultation. Following the public engagement, the Rivulettes have come back asking again for upgrades to the facility.

Cambridge Sports Hall of Fame

Currently the CSHOF are located at the Cambridge Centre mall. Their display cases highlight the athletic accomplishments of the inductees along with memorabilia. As tenants of the Cambridge Centre Mall, who are currently providing the space in-kind, CSHOF face the potential of being displaced for a tenant who would bring in revenue. This has been a challenge that CSHOF has already had to contend with and continues to present a concern to them. Through the years, they have acquired a large amount of memorabilia which is currently stored in an industrial building. The space is approximately 400 square feet which they have outgrown. However, the ownership is currently changing, leaving the future uncertain as to whether they will be permitted to continue to store their memorabilia. With the uncertainty of their current location for storage and displays, CSHOF has now asked for consideration to be included in the Preston Auditorium expansion. Staff see an opportunity to work with the CSHOF to have ice specific sports showcased at the Preston Auditorium and look to future opportunities at the Recreation Complex to house other sports memorabilia.

Further Feasibility of Project Scope

The Project Steering Committee is confident in the consultation completed to date to determine the amenities that would need to be included to address the public feedback. Working with our key stakeholders, staff identified ways to further optimize the space program and have included 3 concepts for Council's consideration.

Concept 2 is the concept recommended by the Project Steering Committee.

Analysis

Strategic Alignment

PEOPLE To actively engage, inform and create opportunities for people to participate in community building – making Cambridge a better place to live, work, play and learn for all.

Goal #1 - Community Wellbeing

Objective 1.3 Deliver accessible, inclusive and age-friendly services, programs, and facilities.

Working closely with our community to identify and explore opportunities to ensure our recreation facilities are meeting the needs of users while being mindful of cost and function aligns with the City's strategic goal of Community Wellbeing through the delivery of shared programs, services and community space to ensure we are providing functional, innovative and beautiful spaces to be active and engaged in.

Comments

The development of all conceptual plans for the three approaches to the Preston Auditorium Expansion were based on the agreed upon goals of our Project Steering Committee which included: providing the community with an additional ice pad and associated changerooms, improve existing changeroom facilities, improve access and safety and where possible to improve the utility and desirability of the facility for both the residents and user groups as well as a detailed public engagement strategy and site design criteria.

Concept One: Minimal Increased Service Level

Cost	<ul style="list-style-type: none">• \$ 13,921,946• + additional \$905,288 (7.5%) contingency added to current approved construction budget to support potential site remediation, potential construction industry inflation and impacts related to the Covid-19 pandemic.• \$14,827,234 Total
Concept Highlights	<ul style="list-style-type: none">• Limited impact to overall project site.• Finalized concept which was presented to community for feedback.• Increased overall seating capacity is 180
Pros	<ul style="list-style-type: none">• Within current approved scope.
Cons	<ul style="list-style-type: none">• Concept was not supported during community consultation.• Doesn't provide dedicated, exterior access for the Rivulettes which would require them to be dependent on the City for access to their space, transporting and storage of equipment would be challenging. With no

	<p>access to proper meeting room it makes it difficult to strategize and prepare for game play.</p> <ul style="list-style-type: none"> • The Rivulettes would not be providing the same level of opportunity as other clubs within their league, potentially resulting in less interest from the community and potential players. • Increased project timeline and extension of project completion date. • \$827,269 above current approved project budget and will result in additional ongoing operating impacts associated with debt servicing costs and operating a larger overall building space and amenities. • Community space such as the board room and hall may remain underutilized by the community due to the lack of interest in the space. • Doesn't provide dedicated space for the Sports Hall of Fame which would result in the organization being faced with the uncertainty of having a permanent city location to showcase sports history in our community. • Does not address needs for announcer's booth required for user groups and larger scale sporting events. • Does not address Cambridge Minor Hockey's needs for centralized services in a City owned facility
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Concept Two: Optimal Service Level

Cost	<ul style="list-style-type: none"> • \$ 16,151,620 • + additional \$905,288 (7.5%) contingency added to current approved construction budget to support potential site remediation, potential construction industry inflation and impacts related to the Covid-19 pandemic. • \$17,056,908 Total
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Concept Highlights	<ul style="list-style-type: none"> • Addition of dedicated CMHA storage and office space • Dedicated change room facilities, office and training space for Cambridge Rivulettes • Dedicated space with exterior access for Rivulettes • Increased Ice Resurfacing Room to address Health & Safety and operational Requirements • Increased seating capacity to 450 seats • Upgrade existing facilities to maximize usage • Increased corridor access between pads 1 and 2 • Increased overall storage capacity throughout facility • Increased lobby areas with heated accessible seating
Pros	<ul style="list-style-type: none"> • Provides dedicated space for CMHA with the planned decommission of older arenas and allows for their operations to centralize in one location. • Centralized storage for equipment allows for proper ventilation and prolongs the lifespan and increases available inventory. • Provide exterior access for Rivulettes to allow for easy loading/unloading of equipment. Exterior access is standard for this level of play within their league. • Concept allows for CMHA and the Rivulettes to better access space and work in collaboration with each other within the facility space limitations. • Increased flow and overall accessibility throughout facility. • Improved/upgraded board room to facilitate dry land training for user groups, • Increased opportunity to both bid and potentially host larger scale sporting events at a Regional, Provincial level. • Opportunity to expand services to other community groups such as: Older Adult Programs, Summer Camp Programs and Dry Land Training for sports groups. • Updated announcer's booth to meet the demands of the user groups and large-scale sporting events. • Increased lobby space allows for more opportunity to

	showcase Cambridge Sports Hall of Fame.
Cons	<ul style="list-style-type: none"> • Increased scope and cost to original project plan. • \$3,056,943 above project budget and will result in additional ongoing operating impacts associated with debt servicing costs and operating a larger overall building space and amenities. • Increased project timeline and extension of project completion date. • Does not address feedback received around expansion to community hub concept and addition of second story and walking track. • Lack of concession stand to support additional pad.

Concept Three: Enhanced Service Level

Cost	<ul style="list-style-type: none"> • \$17,853,548 • + additional \$905,288 (7.5%) contingency added to current approved construction budget to support potential site remediation, potential construction industry inflation and impacts related to the Covid-19 pandemic. • \$18,758,836 Total
Concept Highlights	<ul style="list-style-type: none"> • Provides elements to elevate from recreation facility to Community Hub. • Addition of Walking Track (larger than existing one currently at the William E. Pautler Centre). • Additional community space and opportunity to accommodate space requirements for future requests such as Community Neighbourhood Associations. • Increased size of common areas including main floor lobby and extension of lobby space. • Expanded concession opportunities to support all areas of facilities.

	<ul style="list-style-type: none"> • Future opportunity for Community Neighbourhood Associations seeking dedicated space. • Opportunity to support other aging infrastructure and future capital facility needs within this facility space.
Pros	<ul style="list-style-type: none"> • Provides opportunity to make project into a “Community Hub” concept. • Addresses requests for walking track at the facility and increased opportunity for recreational pursuits outside of ice activities. • Provides opportunity for community use of space and potential revenue opportunities for rental income.
Cons	<ul style="list-style-type: none"> • Not intended as part of original project scope. • \$4,758,871 above project budget and will result in additional ongoing operating impacts associated with debt servicing costs and operating a larger overall building space and amenities • Further analysis needed to develop plan and determine site suitability. • Further delays expected to project timeline.

Project Timeline

Following Council endorsement, the project will advance to the design development phase with Architects Tillman, Ruth, Robinson.

Depending on which concept Council endorses the estimated project schedule will see estimated project timeline of 24 months for completion. The goal is to have ice available for the 2023/2024 season.

Options

Although this report recommends Council proceed with Concept Two, both Concepts One and Three are considerations for Council. As detailed above Concept One does fall within the project scope and budget but does not address feedback received through the public consultation process. Concept Three, provides an enhanced level of service which would require significant financial investment but would see more of a “community hub” concept which was also shared as a want amongst the community. All

concepts provide the community with an enhanced recreational facility addressing the need for a modernized ice pad.

The recommended approach of Concept Two provides the opportunity to address the majority of feedback received through the community consultation process and facility user groups while balancing the need to manage the impact to the overall project budget.

Existing Policy/By-Law

There is no existing policy/by-law.

Financial Impact

- The project will be funded through a combination of development charges, and tax supported debt financing.
- The current allocated budget for this project for both design and construction is \$13,999,965
- The total cost for the recommended Concept Two is \$17,056,908 which is \$3,056,943 above the current capital budget allocation.
- The additional costs are recommended to be added to the total project budget and funded through the same combination of development charges and tax supported debt financing.
- The additional tax supported debt funding will result in an impact of 0.26% to future operating budgets for the debenture principal and interest payments.
- All concepts will result in additional ongoing operating impacts associated with debt servicing costs and operating a larger overall building space and amenities.
- Operating impacts based on Concept One are allocated as part of future operating budgets and further financial analysis will need to be completed to evaluate implications to internal costing.
- Options are being explored to support sustainable design to ensure cost savings are considered where feasible.
- The impact of the Covid-19 pandemic on future construction costs is not known at this time. The pandemic may affect the supply of both labour and materials.
- The operating impact will be updated as design of the facility is underway and communicated to Council through future budgets and reports.

Public Input

- To date significant public input has been sought and received about the project, including consultation on facility amenities and future use. The public has been very engaged and involved in the concept development as presented to Council. Engagement was first initiated with the community in 2018 and was concluded in December of 2020. Meetings with key stakeholders and facility user groups have been ongoing since October 2020 until the development of this report.
- Key themes and concerns were identified during community consultation which included:
 - Changeroom Facilities/Washrooms
 - Dedicated Space for User Groups- specifically the Rivulettes and Cambridge Minor Hockey Association
 - Training/Warm-Up Space
 - Updated Community Hall/Multi-purpose Space
 - Dedicated space for Cambridge Sports Hall of Fame
 - Seating/Access
- Facility user groups and key stakeholders have been critical in providing valuable consultation on the design process to inform both the site and facility functionality. It is as a result of the consultation process that staff are recommending Concept Two and the additional budget to support this design.
- Ongoing consultation with internal staff teams including communications and planning remain ongoing along with engagement with the Accessibility Advisory Committee.
- Community engagement will remain a priority through the design development phase which will include ongoing consultation and updates to our key stakeholders and identified facility user groups through the project website and ongoing project communication updates.

Internal/External Consultation

Both a Project Steering Committee and Project Team has been established consisting of staff in Recreation & Culture, Parks Operations, Facilities, Planning Services, Engineering, Finance and the Project Management Office. Both the Project Steering Committee and Project Team have contributed to the content of this staff report.

Further work will need to be completed regarding site parking needs to ensure the facility will meet future requirements.

Conclusion

The opportunity presented is to expand and create an updated, functional and innovative recreation centre to support a variety of uses to enhance sport and recreation in our community. Both the Project Team and Project Steering Committee have worked in collaboration with Architects Tillman, Ruth, Robinson to create and review three different conceptual plans that provide Council with options to revitalize the Preston Memorial Auditorium. The decision to proceed with the recommended Concept Two responds to the needs to the majority of facility users.

There are several factors that informed this recommendation including:

- Results from community consultation and engagement
- Input from prime users of the facility
- The need to ensure space is efficiently designed to ensure maximum usage, sustainability and affordability.
- Ability to meet the needs of facility users while still remaining fiscally responsible to the community.

Concept Two allows the facility to meet the needs of various facility user groups, provides opportunity for additional recreation programs and services to be offered and factors in future growth, expansion and needs of our sports teams. Upon Council approval the project will continue to move forward to site and facility design development to support a fall 2023 opening date.

Signature

Reviewed by the CFO

Division Approval

Reviewed by Legal Services



Name: Lesley Head

Title: Director of Recreation & Culture

Departmental Approval



Name: Hardy Bromberg

Title: Deputy City Manager- Community Development

City Manager Approval



Name: David Calder

Title: City Manager

Attachments

- Appendix A- Preston Auditorium Feasibility Study/Concept Plans
- Appendix B- Preston Auditorium Engage Cambridge Project Report



architects Tillmann Ruth Robinson inc.
+ Spriet Associates

CITY OF CAMBRIDGE PRESTON AUDITORIUM IMPROVEMENT & EXPANSION DESIGN

FEASIBILITY STUDY | APRIL 2021

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5.0	DESIGN OPTION #2		
6.0	DESIGN OPTION #3		

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1.0 INTRODUCTION



1.0 INTRODUCTION

architects Tillmann Ruth Robinson was originally engaged to complete design and construction documents for a new single pad addition to the existing rink.

This addition included new change rooms and rink amenities, as well as minor renovations to the existing change rooms.

During the Schematic Design phase, additional program areas were requested, requiring further exploration.

Our team carefully evaluated these new aspirations, developing additional design concepts that expand on our earlier ideas. These investigations have led to this feasibility study, which highlights several exciting new possibilities.

Ultimately, it is our goal to ensure that this process leads to a design for a facility that best serves your community, creating a vibrant and welcoming attraction for all.

2.0 EXECUTIVE SUMMARY



2.0 EXECUTIVE SUMMARY

aTRR was asked to explore additional program and amenities requested by the steering committee and associated stakeholders.

Based on these requests, we developed **three additional options**, extending above and beyond the original scope outlined in the project RFP.

These options can be summarized as follows:

OPTION 1:

- Increase seating capacity
- Expand existing changerooms and improve their accessibility
- Introduce a staff room

OPTION 2:

Maintain same program as option 1, plus:

- Further increase seating capacity
- Add a dressing room (1,000 sq ft)
- Expand CMHA storage by 1,000 sq ft
- Renovate existing canteen
- Renovate existing banquet hall

OPTION 3:

Maintain same program as option 2, plus:

- Add a walking track elevated above the rink

For each option, we created a separate program, as well as schematic floor plans.

Each of these options were then vetted through the project steering committee, with subsequent revisions made to suit the stakeholders.

Final programs and plans were priced separately by the project Cost Consultant, Marshall and Murray. Those reports are appended to this document.

3.0 SITE ASSESSMENT & PROGRAM



3.0

SITE ASSESSMENT & PROGRAM

The existing site was investigated by the design team.

The current site is approximately 210,800 sq ft with 196 parking spaces. It is shared with the Cambridge Kips Gymnastic Club as well as the Preston Kinsmen Centre and the Public Works building.

In order to accommodate the new expansion, the Public Works building will be demolished.

The original program, as identified in the RFP (issued April 2020), is as follows:

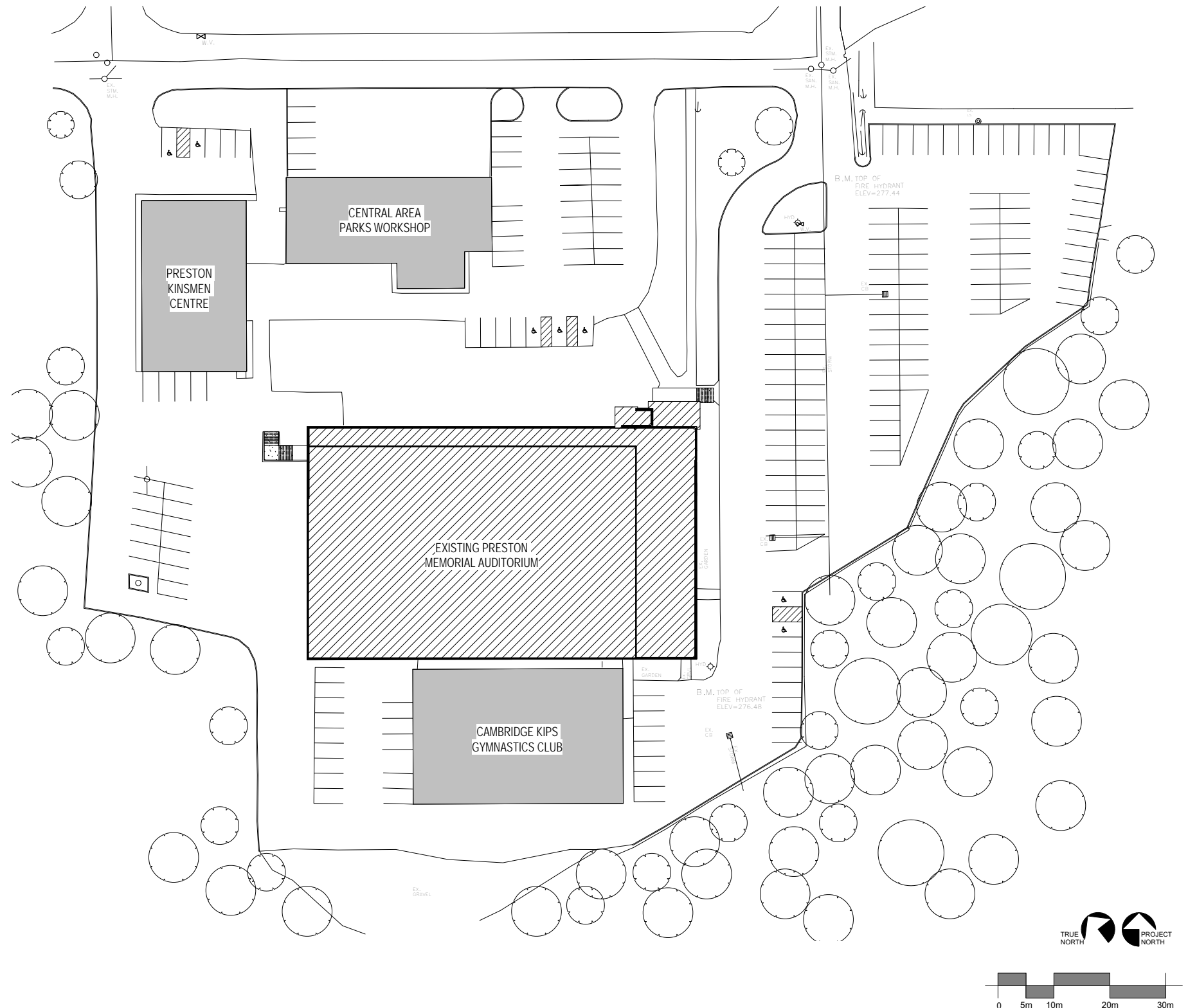
New construction:

- New 85' x 200' ice pad
- 250 spectator seating
- Entry lobby (shared)
- 6 change rooms
- Referee room/ First Aid
- Ice resurfacing room
- Washrooms
- Admin office
- Concession (shared)
- Service room

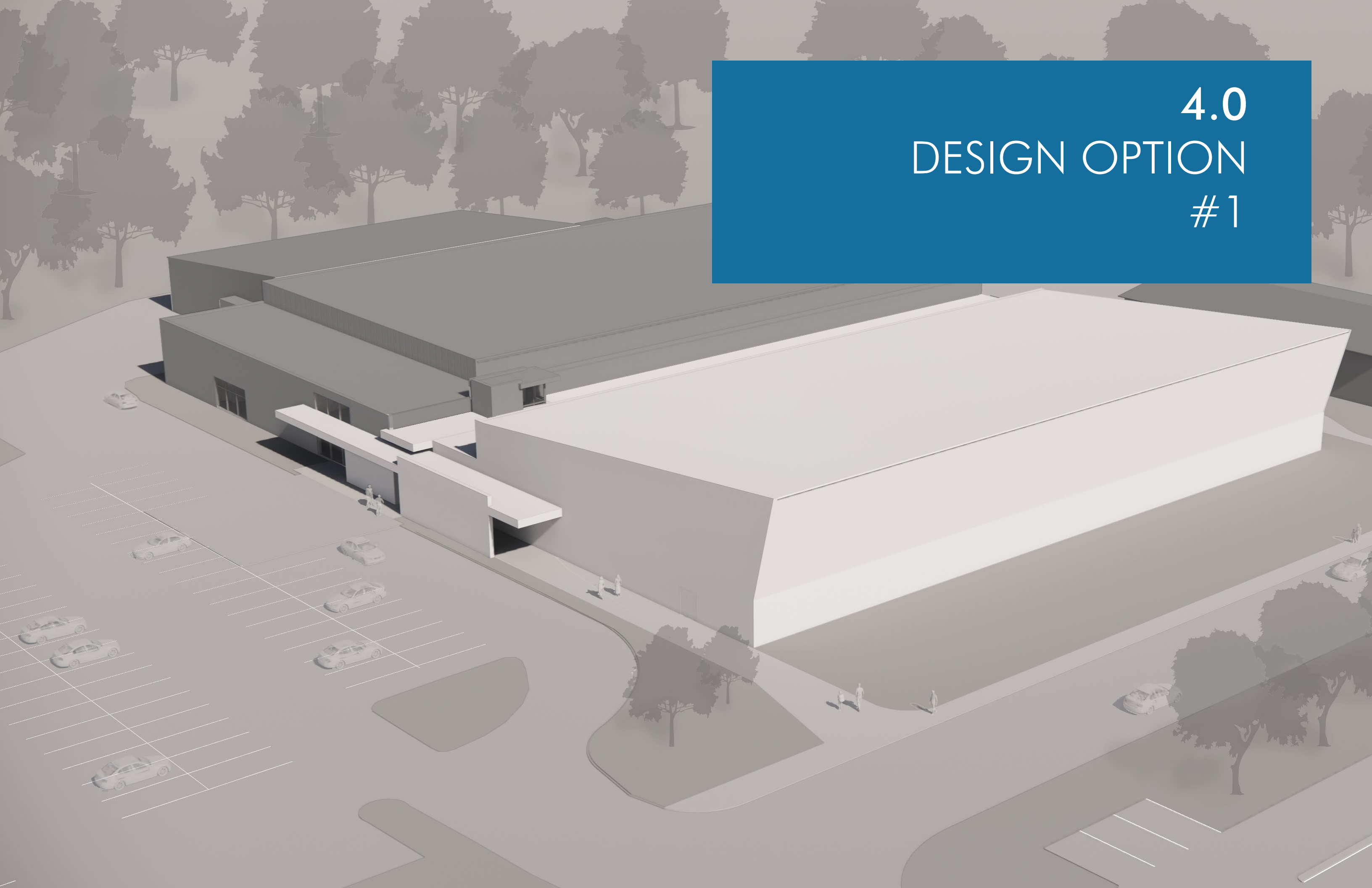
Renovation:

- Upgrade existing 6 change rooms
- Upgrade existing lobby
- Upgrade ice resurfacing room

In order to stay within the original budget of \$12,500,000, the total square footage of new construction was limited to 35,000 sq ft and total renovation square footage of 4,000 sq ft.



4.0 DESIGN OPTION #1



4.1 DESIGN OPTION #1 / SITE PLAN

Option #1 Summary

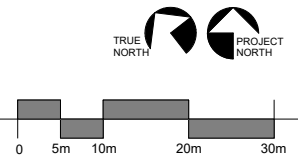
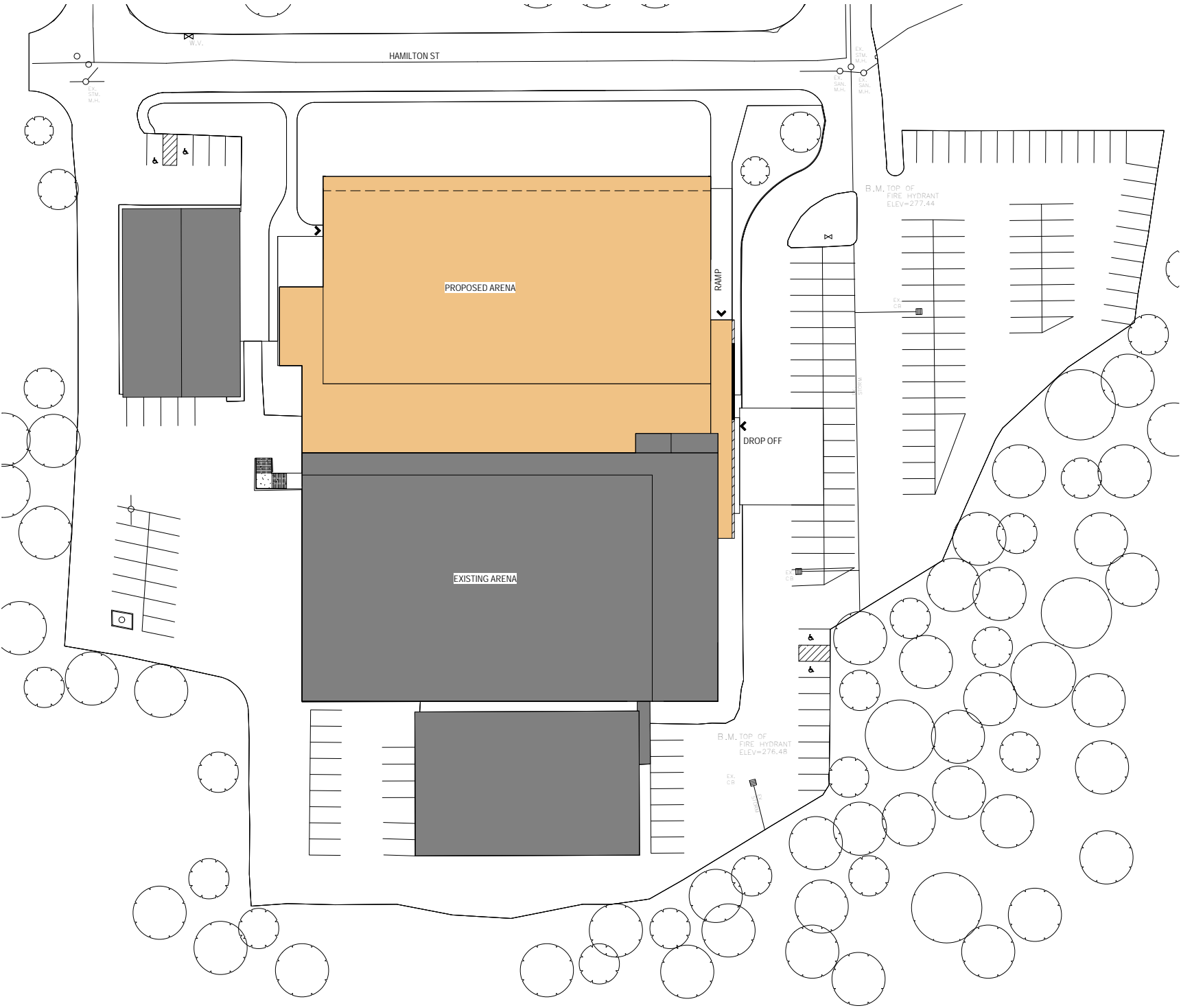
Our initial option proposes an addition consisting of **33,756 sq ft of new construction**, accompanied by a **3,311 sq ft renovation** to the existing facility.

Expansion will occur to the north of the current building, with a new shared entry providing an enhanced and accessible user experience while also working to unify the new program with the existing facility.

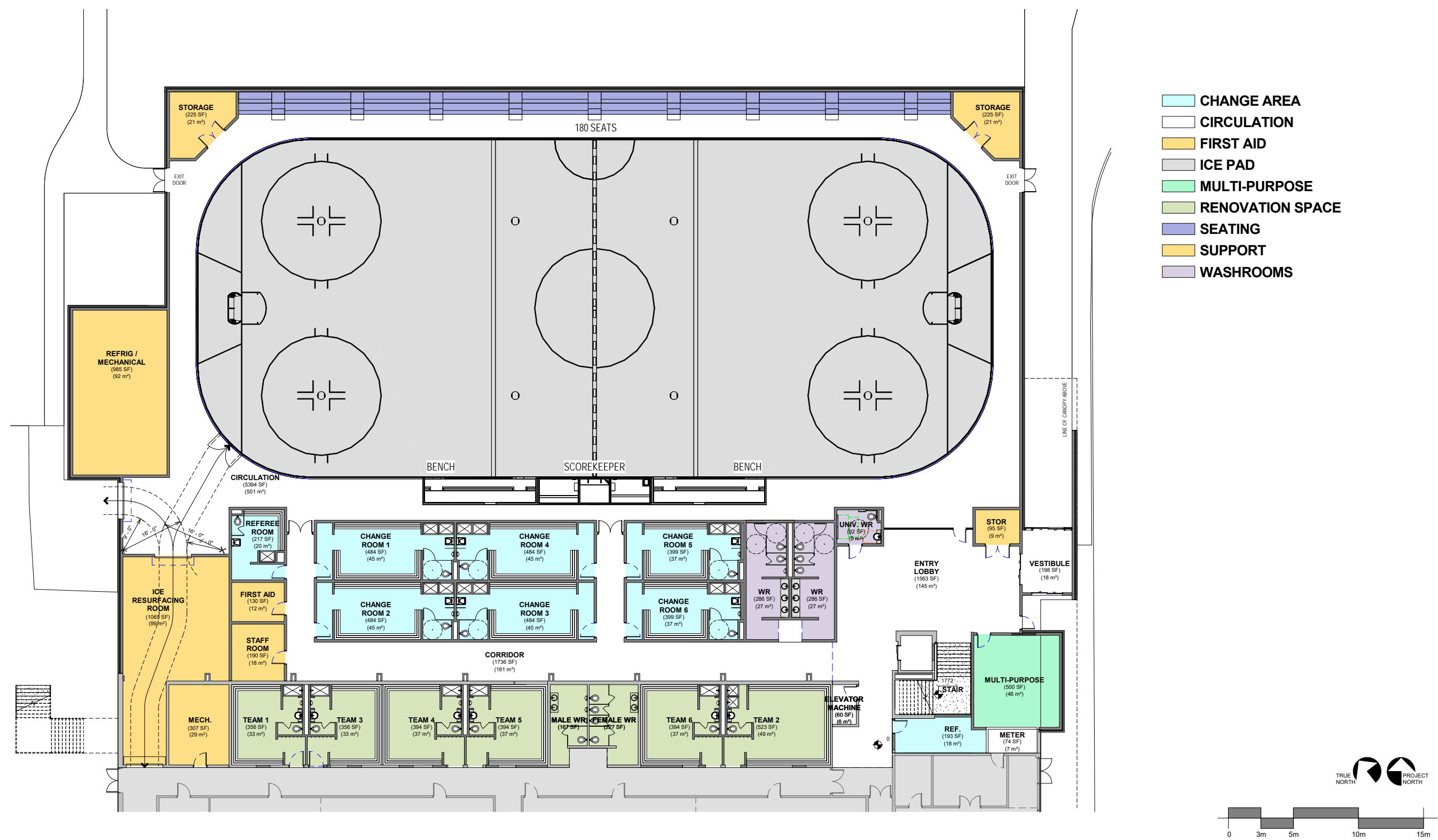
The overall program includes a new rink joined by associated amenities and 180 spectator seats. A detailed space summary follows these plans.

Note that Mechanical, Electrical, and Structural approaches are similar in all three options, and are detailed in *Appendix B and C*, accordingly.

The overall cost estimate has been estimated at \$ 13,921,946.00 (for construction only). The detailed Costing Report, prepared by Marshall & Murray, can be found in *Appendix A*.



4.2
DESIGN OPTION #1 /
LEVEL 1



4.3
DESIGN OPTION #1 /
PROPOSED SPACE SUMMARY

CAMBRIDGE PRESTON AUDITORIUM Proposed Space Summary - Functional Program Option 1				
Program ID No	Area ID Name	Units	NSF	Comment
1.0	Ice pad			
1.1	85' x 200' Ice Surface	1	16,564	
1.2	Circulation	1	5,394	
	Total		21,958	
2.0	Seating			
2.1	Seating (Capacity = 180)	1	1,017	
	Total		1,017	
3.0	Entry Lobby			
3.1	Vestibule	1	198	
3.2	Entry Lobby	1	1,563	
3.3	Female WR	1	286	
3.4	Male WR	1	286	
3.5	Universal WR	1	92	
	Total		2,425	

4.3
DESIGN OPTION #1 /
PROPOSED SPACE SUMMARY continued

CAMBRIDGE PRESTON AUDITORIUM Proposed Space Summary - Functional Program Option 1				
Program ID No	Area ID Name	Units	NSF	Comment
4.0	Change Area			
4.1	Change Room	1	484	
4.2	Change Room 2	1	484	
4.3	Change Room 3	1	484	
4.4	Change Room 4	1	484	
4.5	Change Room 5	1	399	
4.6	Change Room 6	1	399	
4.7	Referee Room	1	217	
	Total		2,951	
5.0	Support			
5.1	Staff Room	1	190	
5.2	First Aid	1	130	
5.3	Ice Resurfacing Room	1	1,065	
5.4	Refrig / Mechanical	1	985	
5.5	Storage	1	95	
5.6	Storage	1	225	
5.7	Storage	1	225	
	Total		2,915	

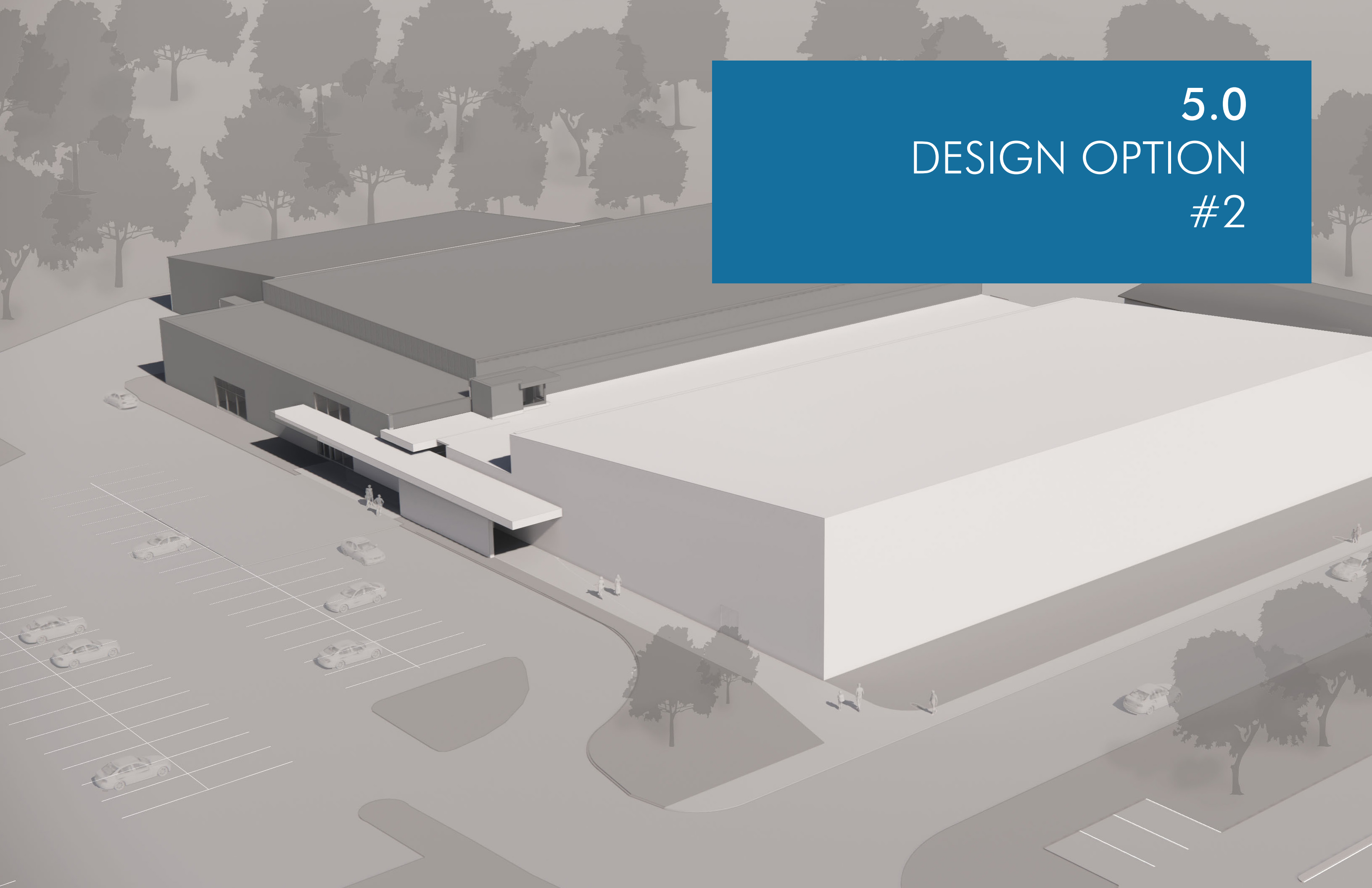
4.3
DESIGN OPTION #1 /
PROPOSED SPACE SUMMARY continued

CAMBRIDGE PRESTON AUDITORIUM Proposed Space Summary - Functional Program Option 1				
Program ID No	Area ID Name	Units	NSF	Comment
6.0	Multi-Purpose			
6.1	Multi-Purpose	1	500	
	Total		500	
7.0	Circulation			
7.1	Corridor	1	1,736	
7.2	Stair	1	254	
	Total		1,990	

4.3
DESIGN OPTION #1 /
PROPOSED SPACE SUMMARY continued

CAMBRIDGE PRESTON AUDITORIUM Proposed Space Summary - Functional Program Option 1				
Program ID No	Area ID Name	Units	NSF	Comment
8.0	Renovation Space			
8.1	Team 1	1	356	
8.2	Team 2	1	523	
8.3	Team 3	1	356	
8.4	Team 4	1	394	
8.5	Team 5	1	394	
8.6	Team 6	1	394	
8.7	Male WR	1	167	
8.8	Female WR	1	227	
8.9	Mechanical	1	307	
8.10	Referee	1	193	
	Total		3,311	
	Grand Total Square Feet		37,067	

5.0 DESIGN OPTION #2



5.1 DESIGN OPTION #2 / SITE PLAN

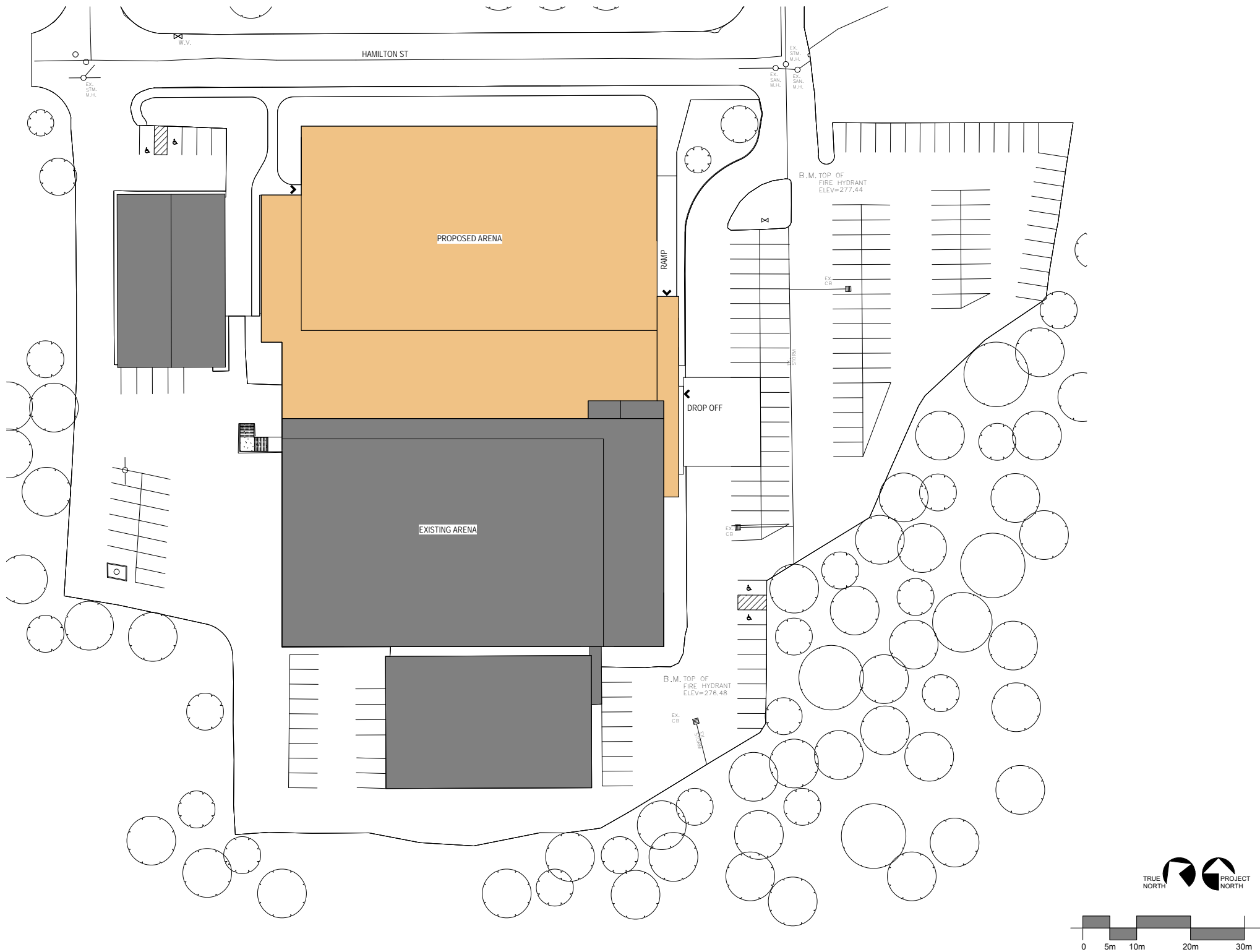
Option #2 Summary

Option 2 proposes a larger addition consisting of **39,665 sq ft of new construction**, accompanied by a **7,114 sq ft renovation** to the existing facility. Like Option 1, expansion will occur to the north of the current building, and will have a new entry and enlarged lobby space that seamlessly connects with the existing building.

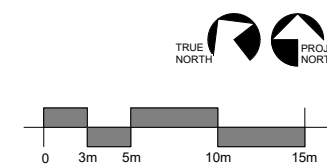
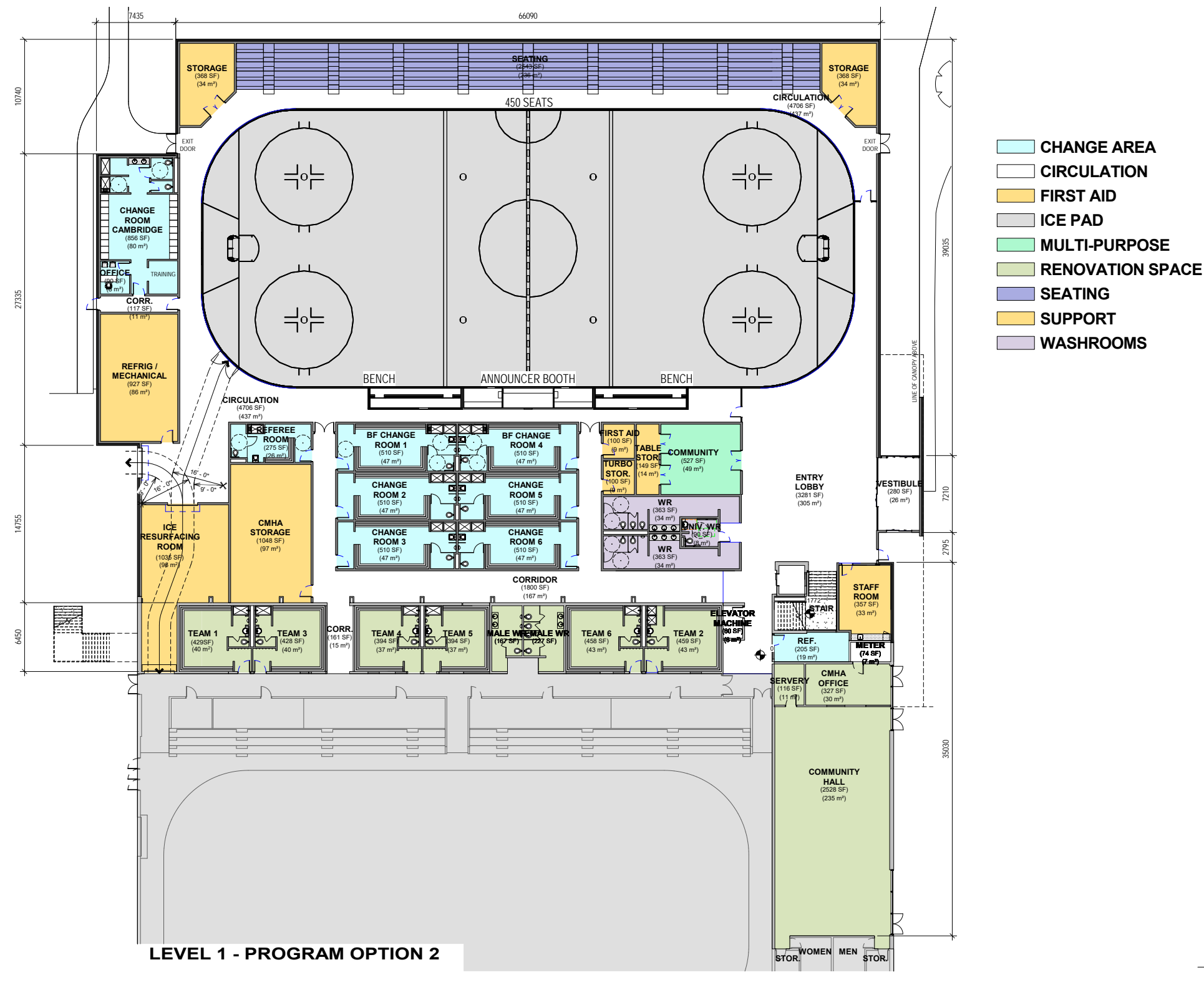
The overall program for this option is similar to option 1 (new rink and associated amenities) but with additional seating capacity of 450 seats. This option also accommodates a larger lobby are, a new private dressing room for the Rivulettes, dedicated storage space for CMHA as well as expanded renovations to the existing Banquet Hall and Concession space. A detailed space summary follows these plans.

The Mechanical, Electrical, and Structural approaches are detailed in *Appendix B and C*, accordingly.

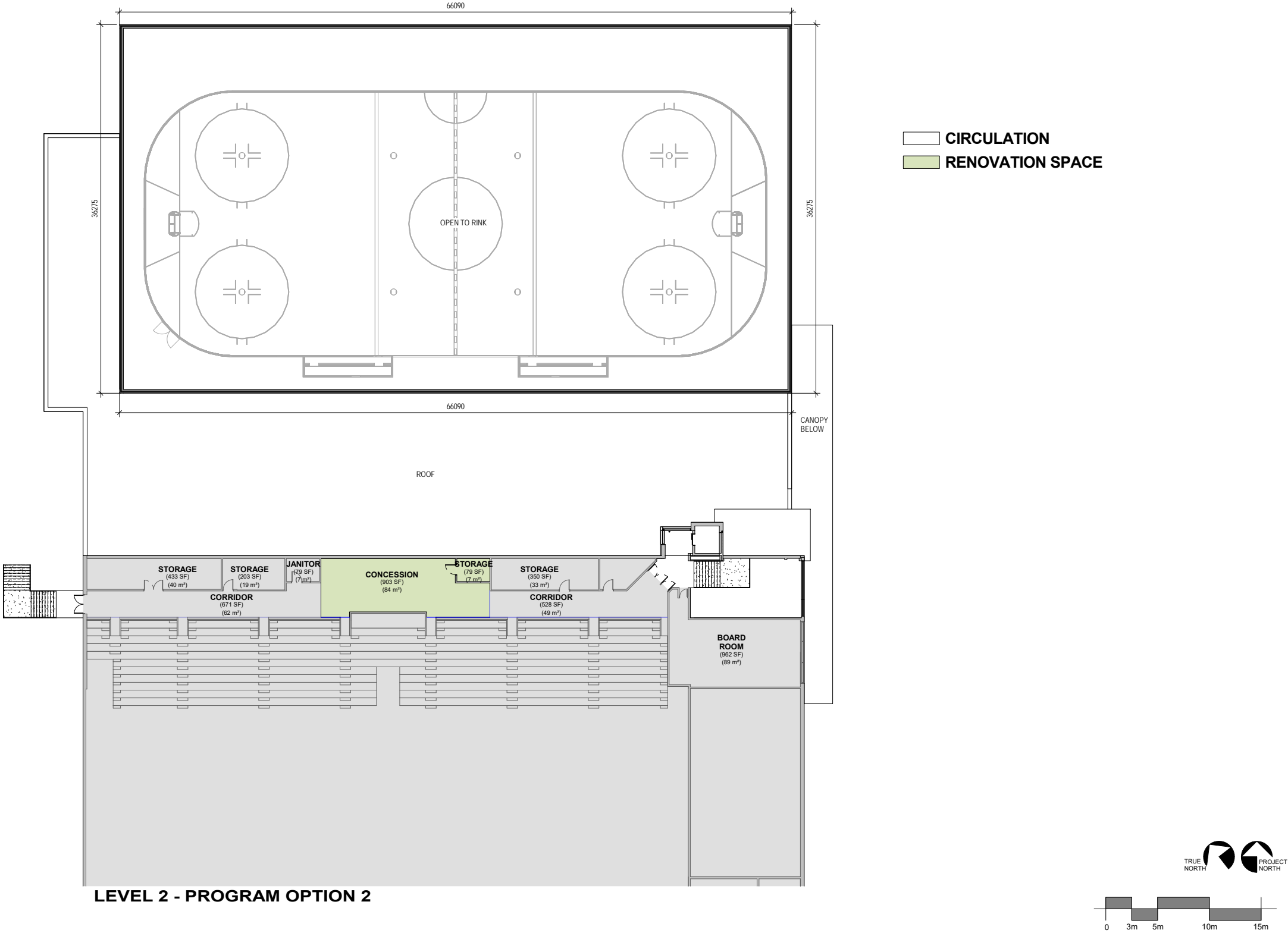
The overall cost estimate has been estimated at \$ 16,151,620.00 (for construction only). The detailed Costing Report, prepared by Marshall & Murray, can be found in *Appendix A*.



5.2
DESIGN OPTION #2 /
LEVEL 1



5.3
DESIGN OPTION #2 /
LEVEL 2



5.4
DESIGN OPTION #2 /
PROPOSED SPACE SUMMARY

CAMBRIDGE PRESTON AUDITORIUM Proposed Space Summary - Functional Program Option 2				
Program ID No	Area ID Name	Units	NSF	Comment
1.0	Ice pad			
1.1	85' x 200' Ice Surface	1	16,564	
1.2	Circulation	1	4,706	
	Total		21,270	
2.0	Seating			
2.1	Seating (Capacity = 450)	1	2,543	MIN. 400 Seats Required
	Total		2,543	
3.0	Entry Lobby			
3.1	Vestibule	1	280	
3.2	Entry Lobby	1	3,281	
3.3	Female WR	1	363	
3.4	Male WR	1	363	
3.5	Universal WR	1	90	
	Total		4,377	

5.4
DESIGN OPTION #2 /
PROPOSED SPACE SUMMARY continued

CAMBRIDGE PRESTON AUDITORIUM Proposed Space Summary - Functional Program Option 2				
Program ID No	Area ID Name	Units	NSF	Comment
4.0	Change Area			
4.1	Change Room	1	510	
4.2	Change Room 2	1	510	
4.3	Change Room 3	1	510	
4.4	Change Room 4	1	510	
4.5	Change Room 5	1	510	
4.6	Change Room 6	1	510	
4.7	Referee Room	1	275	
4.8	Change Room Cambridge Rivulettes	1	946	Including Office & Training Area
	Total		4,281	

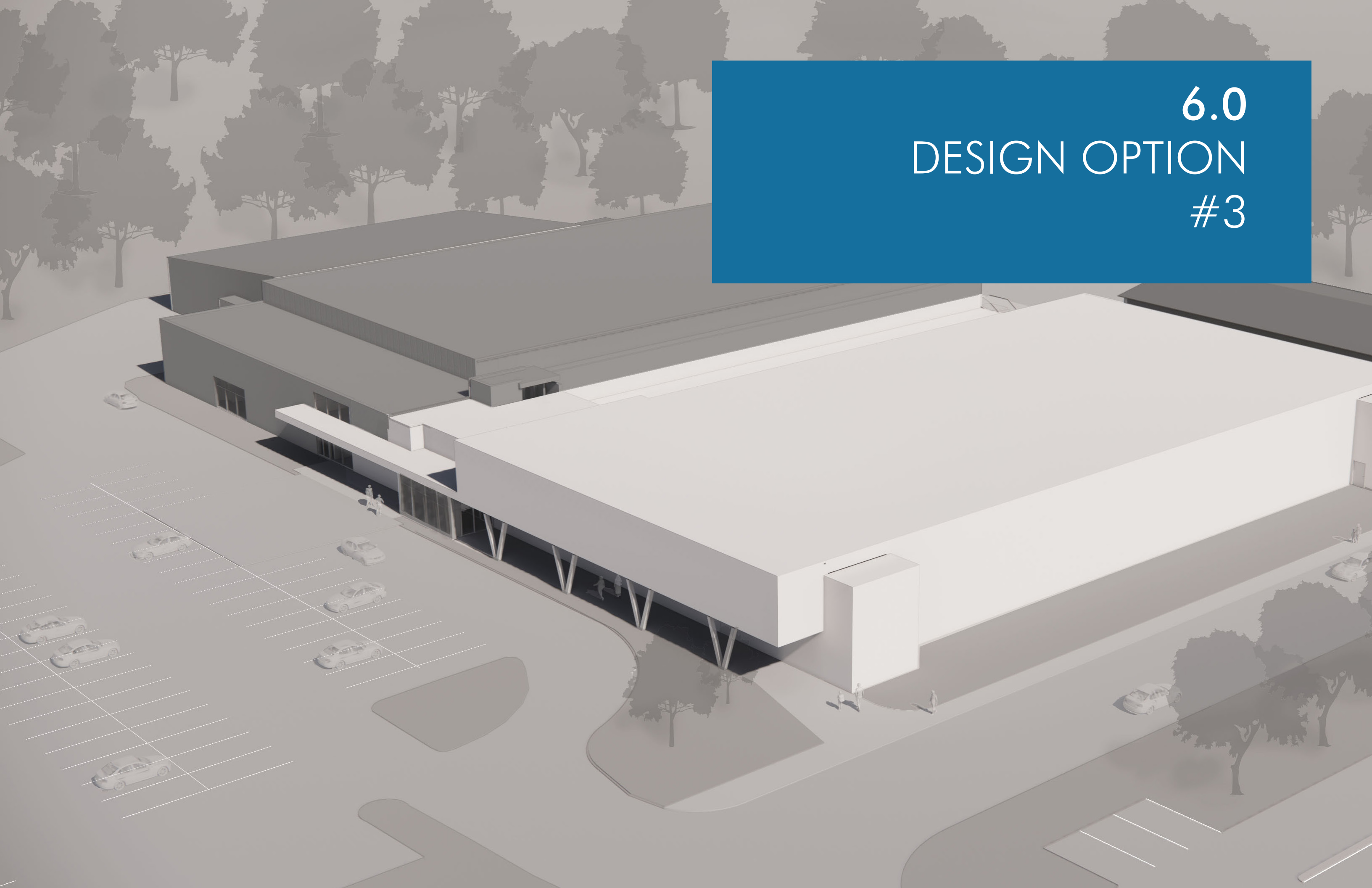
5.4
DESIGN OPTION #2 /
PROPOSED SPACE SUMMARY continued

CAMBRIDGE PRESTON AUDITORIUM Proposed Space Summary - Functional Program Option 2				
Program ID No	Area ID Name	Units	NSF	Comment
5.0	Support			
5.1	Staff Room	1	357	Including Kitchenette
5.2	First Aid	1	100	
5.3	Ice Resurfacing Room	1	1,035	
5.4	Refrig / Mechanical	1	927	
5.5	Turbo Storage	1	100	
5.6	CMHA Storage	1	1,048	
5.7	Storage	1	368	Owner to Confirm
5.8	Storage	1	368	Owner to Confirm
	Total		4,303	
6.0	Multi-Purpose			
6.1	Community	1	676	Including Table Storage
	Total		676	
7.0	Circulation			
7.1	Corridor	1	1,800	
7.2	Corridor	1	161	
7.3	Stair	1	254	
	Total		2,215	

5.4
DESIGN OPTION #2 /
PROPOSED SPACE SUMMARY continued

CAMBRIDGE PRESTON AUDITORIUM Proposed Space Summary - Functional Program Option 2				
Program ID No	Area ID Name	Units	NSF	Comment
8.0	Renovation Space			
8.1	Team 1	1	429	
8.2	Team 2	1	459	
8.3	Team 3	1	428	
8.4	Team 4	1	394	
8.5	Team 5	1	394	
8.6	Team 6	1	458	
8.7	Male WR	1	167	
8.8	Female WR	1	227	
8.9.	Ref. Room	1	205	
8.10.	Servery	1	116	
8.11.	CMHA Office	1	327	
8.12.	Community Hall	1	2,528	
8.13.	Concession	1	903	Level 2 Renovation
8.14.	Storage	1	79	Level 2 Renovation
	Total		7,114	
	Grand Total Square Feet		46,779	

6.0 DESIGN OPTION #3



6.1

DESIGN OPTION #3 /

SITE PLAN

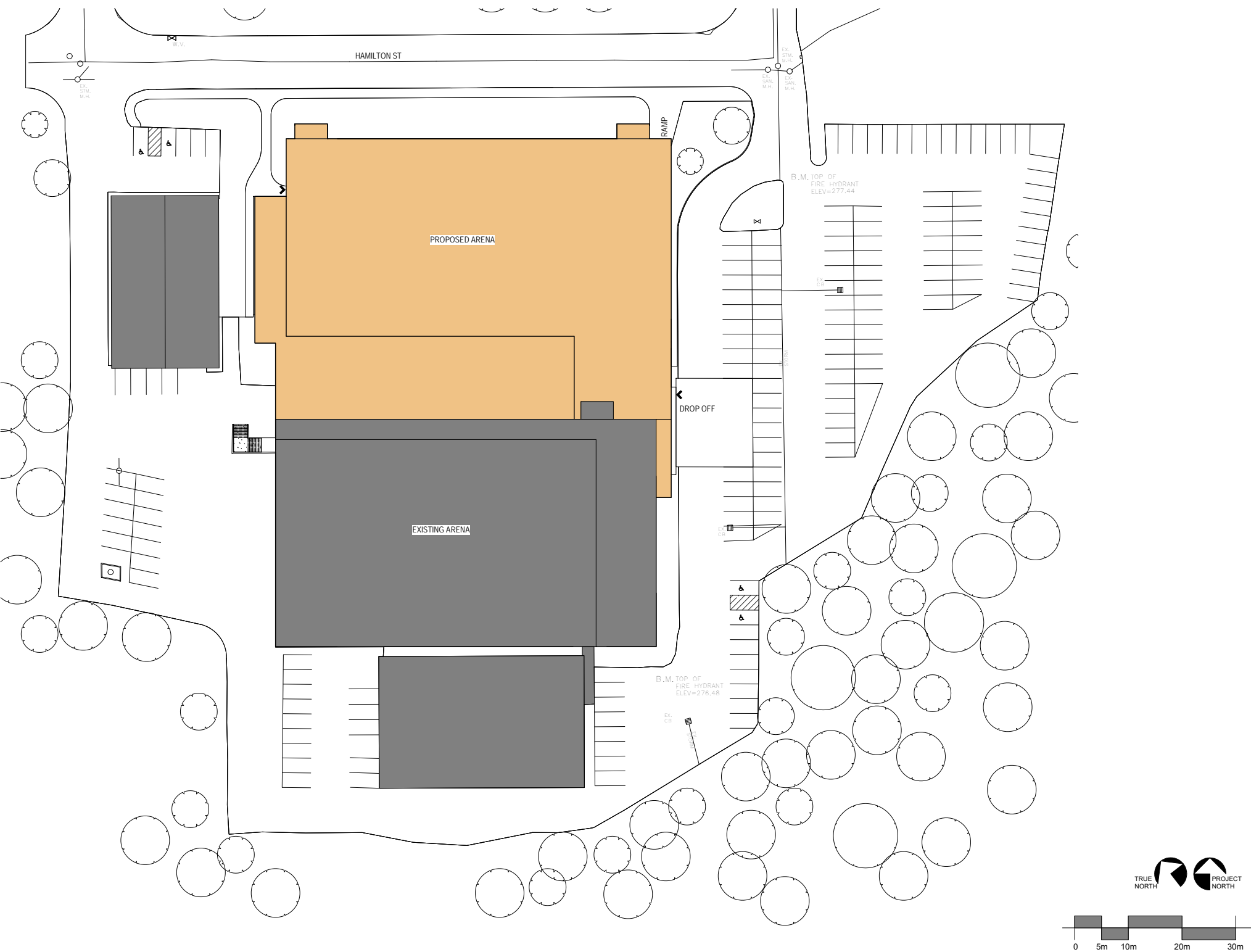
Option #3 Summary

Option 3 proposes the same footprint and program as Option 2 but with an added walking track. Overall, it involves **50,299 sq ft of new construction** and a **7,114 sq ft renovation** to the existing facility. Like the other options, expansion will occur to the north of the current building, with the enhanced entry and lobby spaces.

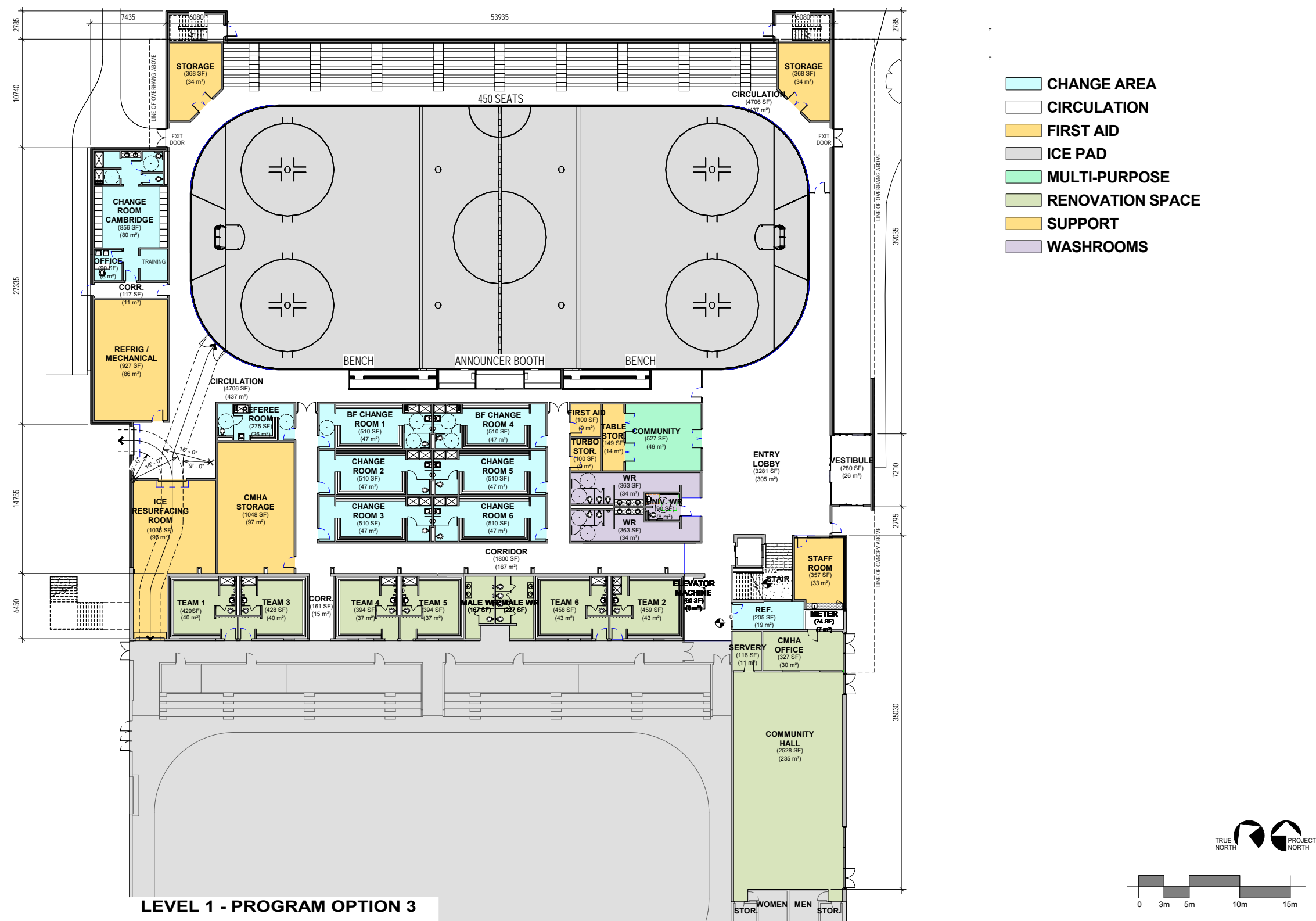
The overall program for this option is similar to option 2, including a seating capacity of 450 seats. This option is unique in the sense that an additional floor is being added above the lobby to access a new walking track. This new track is elevated above the rink surface and follows the perimeter of the rink below. New stairs have been added to comply with the exit requirements of the Ontario Building Code. A detailed space summary follows these plans.

The Mechanical, Electrical, and Structural approaches are detailed in *Appendix B* and *C*, accordingly.

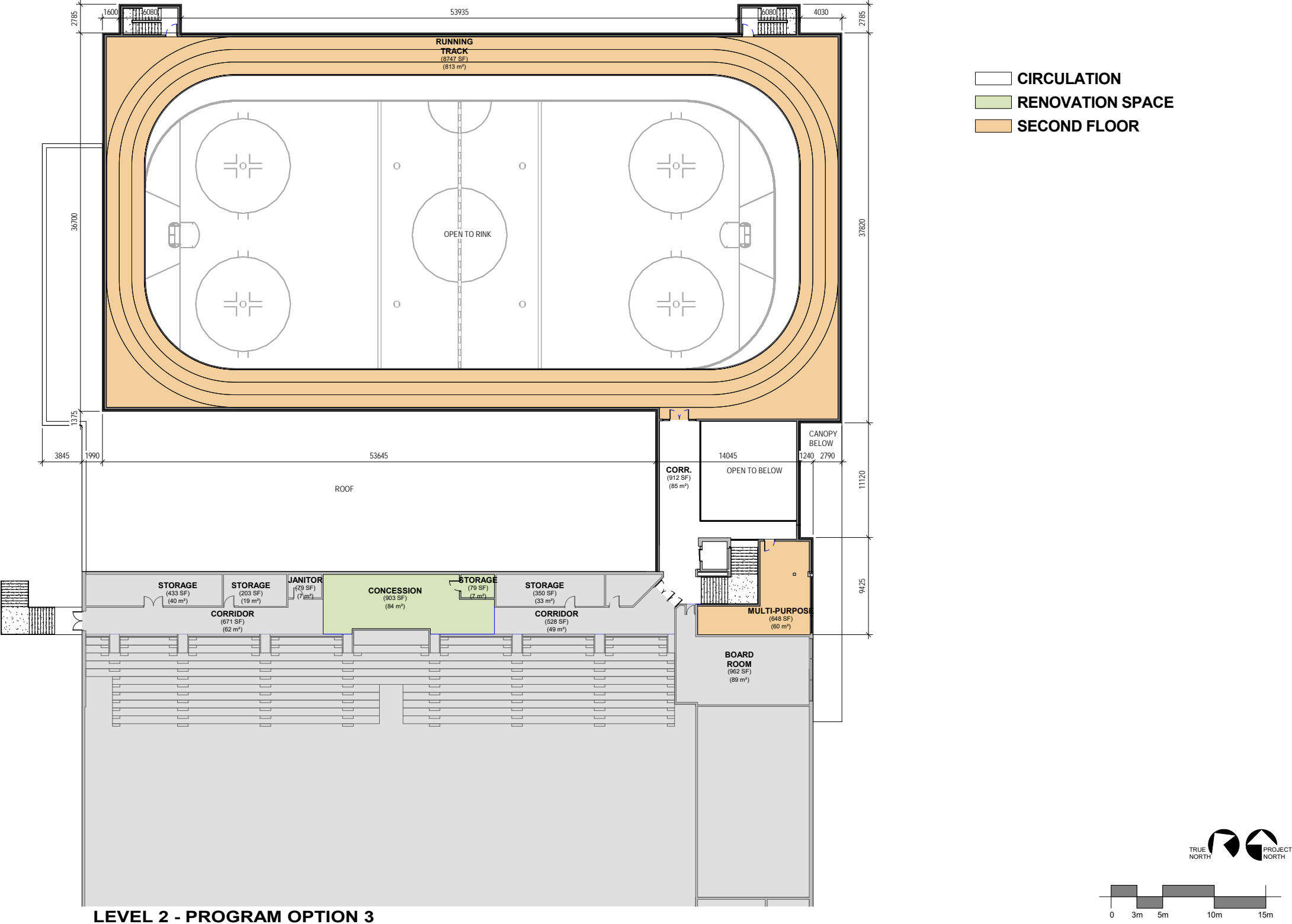
The overall cost estimate has been estimated at \$ 17,853,548.00 (for construction only). The detailed Costing Report, prepared by Marshall & Murray, can be found in *Appendix A*.



6.2
DESIGN OPTION #3 /
LEVEL 1



6.3
DESIGN OPTION #3 /
LEVEL 2



6.4
DESIGN OPTION #3 /
PROPOSED SPACE SUMMARY

CAMBRIDGE PRESTON AUDITORIUM Proposed Space Summary - Functional Program Option 3				
Program ID No	Area ID Name	Units	NSF	Comment
1.0	Ice pad			
1.1	85' x 200' Ice Surface	1	16,564	
1.2	Circulation	1	4,706	
	Total		21,270	
2.0	Seating			
2.1	Seating (Capacity = 450)	1	2,543	MIN. 400 Seats Required
	Total		2,543	
3.0	Entry Lobby			
3.1	Vestibule	1	280	
3.2	Entry Lobby	1	3,281	
3.3	Female WR	1	363	
3.4	Male WR	1	363	
3.5	Universal WR	1	90	
	Total		4,377	

6.4
DESIGN OPTION #3 /
PROPOSED SPACE SUMMARY continued

CAMBRIDGE PRESTON AUDITORIUM Proposed Space Summary - Functional Program Option 3				
Program ID No	Area ID Name	Units	NSF	Comment
4.0	Change Area			
4.1	Change Room	1	510	
4.2	Change Room 2	1	510	
4.3	Change Room 3	1	510	
4.4	Change Room 4	1	510	
4.5	Change Room 5	1	510	
4.6	Change Room 6	1	510	
4.7	Referee Room	1	275	
4.8	Change Room Cambridge Rivulettes	1	946	Including Office & Training Area
	Total		4,281	

6.4
DESIGN OPTION #3 /
PROPOSED SPACE SUMMARY continued

CAMBRIDGE PRESTON AUDITORIUM Proposed Space Summary - Functional Program Option 3				
Program ID No	Area ID Name	Units	NSF	Comment
5.0	Support			
5.1	Staff Room	1	357	Including Kitchenette
5.2	First Aid	1	100	
5.3	Ice Resurfacing Room	1	1,035	
5.4	Refrig / Mechanical	1	927	
5.5	Turbo Storage	1	100	
5.6	CMHA Storage	1	1,048	
5.7	Storage	1	368	Owner to Confirm
5.8	Storage	1	368	Owner to Confirm
	Total		4,303	
6.0	Multi-Purpose			
6.1	Community	1	676	Including Table Storage
	Total		676	

6.4
DESIGN OPTION #3 /
PROPOSED SPACE SUMMARY continued

CAMBRIDGE PRESTON AUDITORIUM Proposed Space Summary - Functional Program Option 3				
Program ID No	Area ID Name	Units	NSF	Comment
7.0	Circulation			
7.1	Corridor	1	1,800	
7.2	Corridor	1	161	
7.3	Stair	1	254	
	Total		2,215	
8.0	Second Floor			
8.1	Multipurpose Room	1	648	
8.2	Walking Track	1	8,771	
8.3	Corridor	1	915	
8.4	Stairs to Running Track	1	300	
	Total		10,634	

6.4
DESIGN OPTION #3 /
PROPOSED SPACE SUMMARY continued

CAMBRIDGE PRESTON AUDITORIUM Proposed Space Summary - Functional Program Option 3				
Program ID No	Area ID Name	Units	NSF	Comment
9.0	Renovation Space			
9.1	Team 1	1	429	
9.2	Team 2	1	459	
9.3	Team 3	1	428	
9.4	Team 4	1	394	
9.5	Team 5	1	394	
9.6	Team 6	1	458	
9.7	Male WR	1	167	
9.8	Female WR	1	227	
9.9.	Ref. Room	1	205	
9.10.	Servery	1	116	
9.11.	CMHA Office	1	327	
9.12.	Community Hall	1	2,528	
9.13.	Concession	1	903	Level 2 Renovation
9.14.	Storage	1	79	Level 2 Renovation
	Total		7,114	
	Grand Total Square Feet		57,413	

7.0 PARKING ASSESSMENT



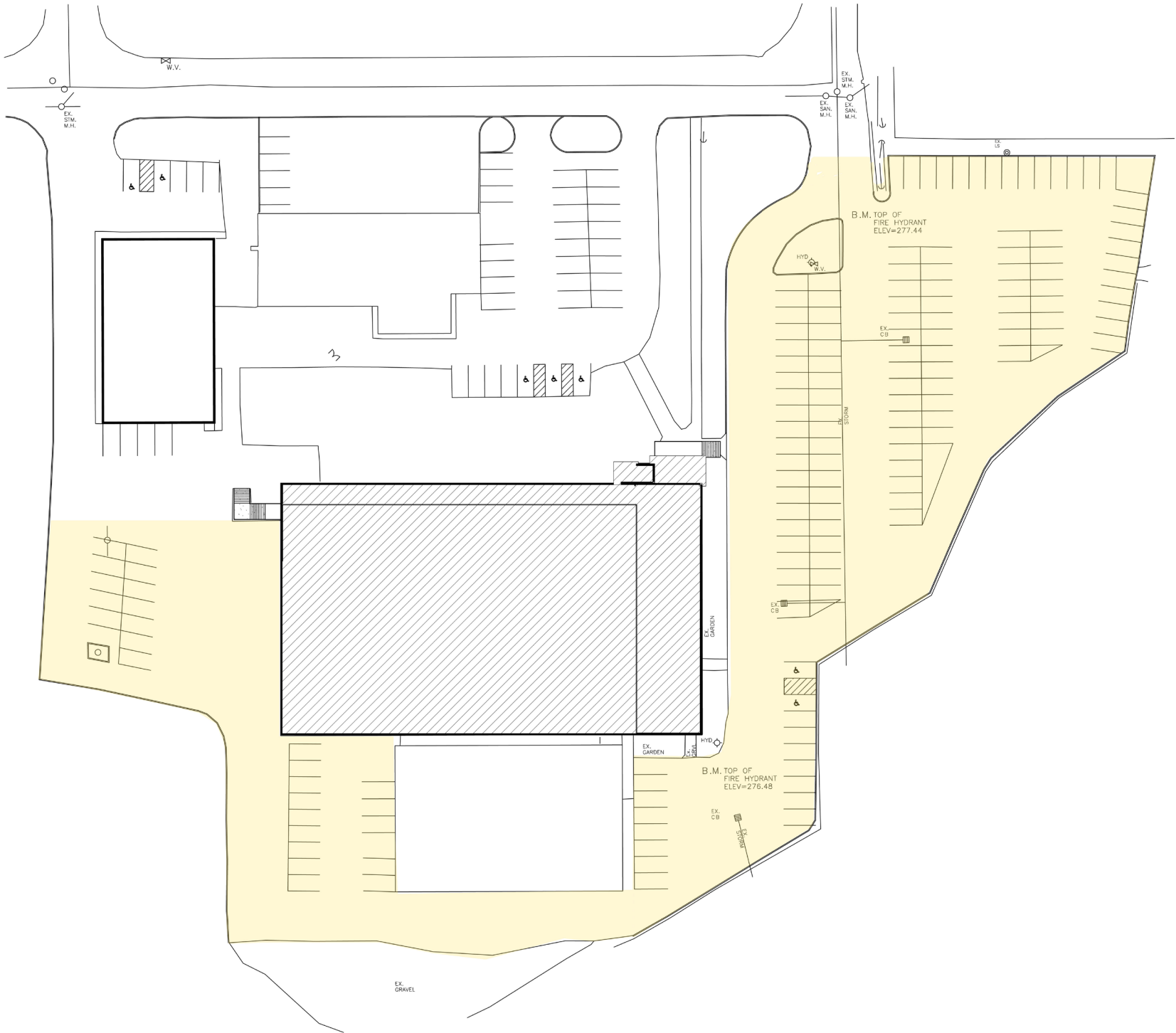
7.1
PARKING /
EXISTING

101 PARKING
SPOTS AVAILABLE –
highlighted below

We identified early in the design process that the existing facility currently has inadequate parking. The 101 existing spaces do not currently comply with The City of Cambridge parking regulations.

With the building addition, the occupant load and associated parking load will only exacerbate the issue. (Refer to 7.3 Parking Calculations.)

Due to these inconsistencies, it would be prudent to engage a separate consultant to complete a Parking Justification Study to fully understand the potential variances that may be required.



7.2
PARKING /
NEW

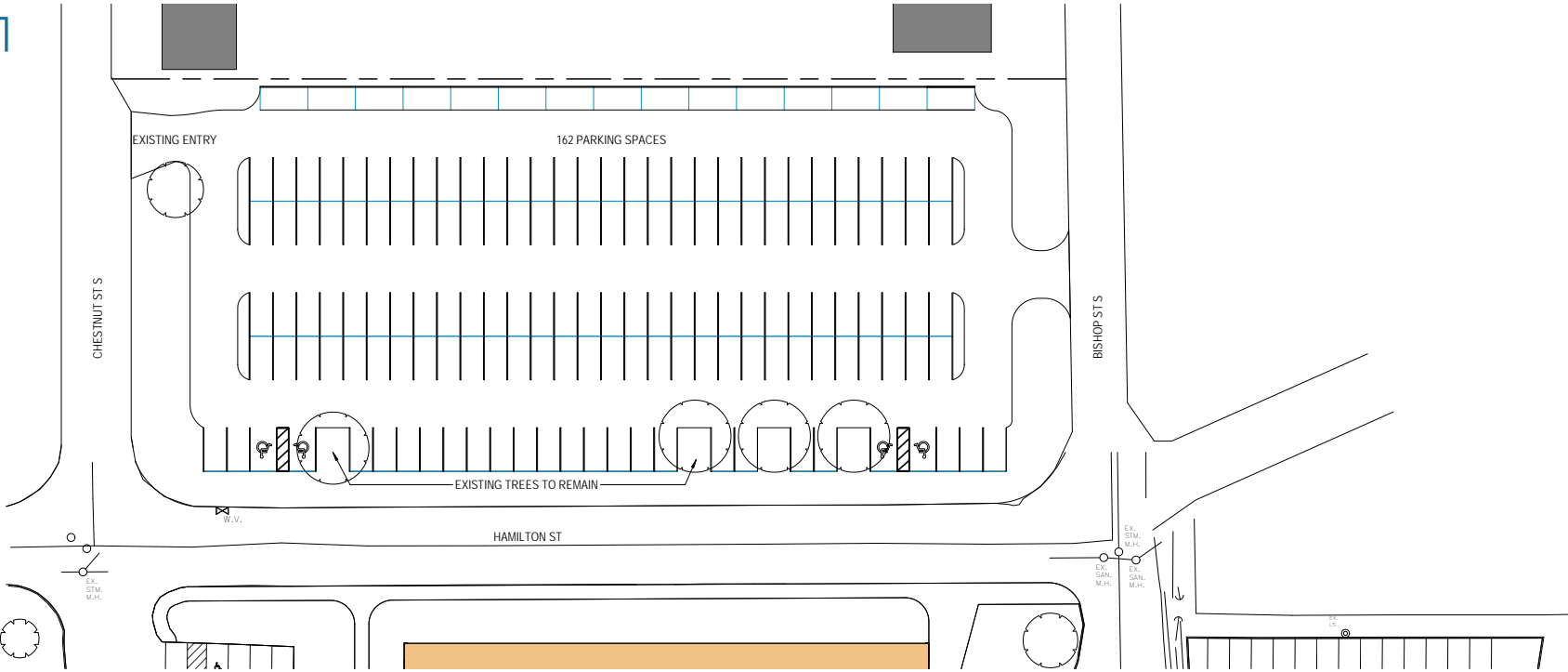
One option to consider to help mitigate the parking issue is to add a new parking lot across the street, which will be immediately north of the new addition.

This new lot, on the site of the soon-to-be abandoned arena, can provide up to 160 additional spaces. (Refer to adjacent site plan.)

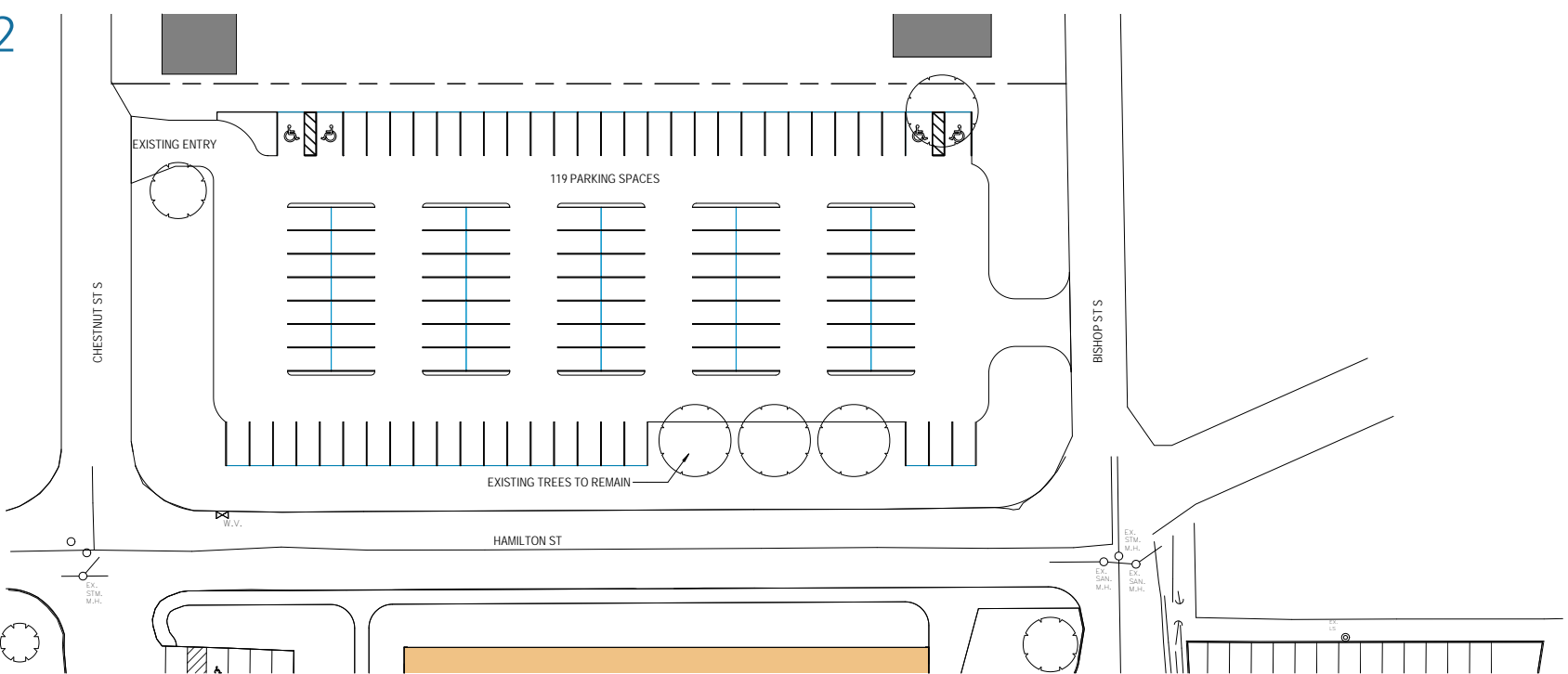
These additional spaces will satisfy the requirements of the new addition and also alleviate some of the pressures on the existing parking load. (Refer to 7.3 Parking Calculations.)

It should be noted that this parking option has not been included in the overall cost estimates (Appendix A) for any of the options.

PARKING OPTION 1



PARKING OPTION 2



7.3
PARKING /
CALCULATIONS

PROPOSED OPTION 1

New Arena

Seats	180 people
Rink	<u>+ 170</u>
Total Capacity	350
1 space per 5 people:	<u>350/5</u>
	= 70 parking spaces

Existing Arena

Seats	1,000 people
Banquet Hall	250
Meeting Room	71
Rink	<u>+ 170</u>
Total Capacity	1,491
1 space per 5 people:	1,491/5
	= 299 parking spaces

Gym

Capacity	300 (plus/minus)
1 space per 5 people:	300/5
	= 60 parking spaces

Total Space Required

70 + 299 + 60 = **429 parking spaces**

PROPOSED OPTION 2

New Arena

Seats	450 people
Rink	<u>+ 170</u>
Total Capacity	620
1 space per 5 people:	<u>620/5</u>
	= 124 parking spaces

Existing Arena

Seats	1,000 people
Banquet Hall	250
Meeting Room	71
Rink	<u>+ 170</u>
Total Capacity	1,491
1 space per 5 people:	1,491/5
	= 299 parking spaces

Gym

Capacity	300 (plus/minus)
1 space per 5 people:	300/5
	= 60 parking spaces

Total Space Required

124 + 299 + 60 = **483 parking spaces**

PROPOSED OPTION 3

New Arena

Seats	450 people
Rink	170
Level 2	<u>+ 50</u>
Total Capacity	620
1 space per 5 people:	<u>620/5</u>
	= 134 parking spaces

Existing Arena

Seats	1,000 people
Banquet Hall	250
Meeting Room	71
Rink	<u>+ 170</u>
Total Capacity	1,491
1 space per 5 people:	1,491/5
	= 299 parking spaces

Gym

Capacity	300 (plus/minus)
1 space per 5 people:	300/5
	= 60 parking spaces

Total Space Required

134 + 299 + 60 = **493 parking spaces**

8.0 APPENDIX



APPENDIX A
COSTING REPORT
OPTIONS 1, 2, 3

CITY OF CAMBRIDGE
PRESTON AUDITORIUM
Cambridge, Ontario

CLASS "D" ESTIMATE

prepared for:

ARCHITECTS TILLMANN RUTH ROBINSON
Suite 202-26 Soho Street
Toronto, Ontario
M5T 1Z7

prepared by:

MARSHALL & MURRAY INCORPORATED
625 Wellington Street
London, Ontario
N6A 3R8

April 21, 2021

L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx

Quantity Surveyors and Development Consultants

625 Wellington Street, London, Ontario N6A 3R8 Tel: (519) 433-3908 Fax: (519) 433-9453
Suite 414, 120 Carlton Street, Toronto, Ontario M5A 4K2 Tel: (416) 928-1993 Fax: (416) 928-0895
1379 Bank Street, Suite 301, Ottawa, Ontario K1H 8N3 Tel: (613) 230-3115 Fax: (613) 230-4091
E-mail: main@marshallmurray.com Website: www.marshallmurray.com

April 21, 2021

ARCHITECTS TILLMANN RUTH ROBINSON
Suite 202-26 Soho Street
Toronto, Ontario
M5T 1Z7

Attention: Mr. Scott Robinson

Re: CITY OF CAMBRIDGE - PRESTON AUDITORIUM - Cambridge, Ontario

Dear Scott,

Please find enclosed a copy of our Class "D" Estimate for the above note project for your review and comment.

If you have any questions or require further information, please do not hesitate to contact our office.

Yours truly,

MARSHALL & MURRAY INC.

Ted Hyde, PQS, GSC, LEED AP
Senior Cost Consultant

Cc:

Quantity Surveyors and Development Consultants

625 Wellington Street, London, Ontario N6A 3R8 Tel: (519) 433-3908 Fax: (519) 433-9453
Suite 414, 120 Carlton Street, Toronto, Ontario M5A 4K2 Tel: (416) 928-1993 Fax: (416) 928-0895
1379 Bank Street, Suite 301, Ottawa, Ontario K1H 8N3 Tel: (613) 230-3115 Fax: (613) 230-4091
E-mail: main@marshallmurray.com Website: www.marshallmurray.com

CLASS "D" ESTIMATE

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SECTION 1: PROJECT OVERVIEW

a) EXECUTIVE SUMMARY

This report prepared by Marshall & Murray Inc. is classified as a Class "D" Estimate.

Marshall & Murray Inc. were retained to provide a realistic **Total Projected Construction Cost** budget for the redevelopment at City Of Cambridge.

The project is located in Cambridge, Ontario.

The proposed redevelopment would consist of adding a second ice skating pad to the existing arena with renovations at adjoining area, associated site work and demolition of an existing service building.

The proposed redevelopment is being designed by Architects Tillmann Ruth Robinson.

The estimate presented here is based on the drawings received from the design team, meetings, and oral information.

The **Total Projected Construction Cost** is estimated as follows:

OPTION 1	\$13,921,946
OPTION 2	\$16,151,620
OPTION 3	\$17,853,548

The above amount excludes Separate and Alternate prices. A detailed breakdown of the amount can be found in the following Section 1b).

This estimate is priced in April 2021 dollars. Escalation during construction has been included in the estimate. Projected escalation to time of tender is identified separately if requested.

We are unable at this time to determine the projected construction cost implications due to the Coronavirus COVID-19 and have excluded any allowances for this impact if any.

We are currently experiencing a very active construction market which could result in bids varying greatly from our indicated amount due to lack of bidders, escalating material costs and lack of suppliers holding prices or delivery dates.

This estimate has been priced, based on a standard CCDC 2 – Stipulated Sum Contract. It does not include for any additional costs associated with the Alternate Financing Procurement method.

The construction cost includes all labour, materials, plant, sub-contractors' overheads and profit, and the general contractor's overheads and profit.

Please review the exclusions as noted in Section 1 k) Exclusions to Construction Cost.

If you have any questions or require further information, please do not hesitate to contact our office.

Ted Hyde, PQS, GSC, LEED AP
Email: thyde@marshallmurray.com
Ph: 519-433-3908
Fax: 519-433-9453

b) PROJECTED CONSTRUCTION COST SUMMARY

DESCRIPTION	OPTION 1 - March 24, 2021			OPTION 2			OPTION 3		
	GFA	COST/SF	AMOUNT	GFA	COST/SF	AMOUNT	GFA	COST/SF	AMOUNT
A. PRESTON AUDITORIUM									
1.0 NEW BUILD	39,321	305.21	12,001,065	49,633	283.34	14,062,891	59,740	261.49	15,621,433
OPTION 1	39,321	305	12,001,065	49,633	283	14,062,891	59,740	261	15,621,433
2.0 RENOVATION									
			in New Build			in New Build			in New Build
3.0 OTHER ASSOCIATED COSTS			1,257,931			1,319,604			1,381,946
SITE DEVELOPMENT / LANDSCAPING			540,758			520,758			520,758
EARLY WORKS SITE (REMOVAL OF BLDG AND TANK)	6,850	30	215,500	6,850	30	215,500	6,850	30	215,500
ABNORMAL SOIL CONDITIONS / CONTAMINATED SOIL			EXCLUDED			EXCLUDED			EXCLUDED
HAZARDOUS MATERIAL ABATEMENT			EXCLUDED			EXCLUDED			EXCLUDED
PREMIUM TIME / AFTER-HOURS WORK			EXCLUDED			EXCLUDED			EXCLUDED
CONSTRUCTION PHASING			EXCLUDED			EXCLUDED			EXCLUDED
LEED GOLD PREMIUM		4%	501,673		4%	583,346		4%	645,688
SIGNAGE & WAYFINDING			INCLUDED			INCLUDED			INCLUDED
MOVING COSTS			EXCLUDED			EXCLUDED			EXCLUDED
4.0 ESCALATION			662,950			769,125			850,169
ESCALATION TO TIME OF TENDER (ALLOW 5.0% P.A.)	1 yr	5%	662,950	1 yr	5%	769,125	1 yr	5%	850,169
TOTAL PRESTON AUDITORIUM	<u>42,746</u>	325.69	<u>\$13,921,946</u>	<u>53,058</u>	304.42	<u>\$16,151,620</u>	<u>63,165</u>	282.65	<u>\$17,853,548</u>
ANCILLARY COSTS (PROFESSIONAL FEES, PERMITS, TAXES, ETC.)			EXCLUDED			EXCLUDED			EXCLUDED
FURNISHINGS AND EQUIPMENT			EXCLUDED			EXCLUDED			EXCLUDED
LOCATION FACTOR			N/A			N/A			N/A
SCOPE CONTINGENCY		0.0%	-		0.0%	-		0.0%	-
POST CONTRACT CONTINGENCY (ON CONSTRUCTION)		0.0%	-		0.0%	-		0.0%	-
ANTICIPATED ESCALATION TO TIME OF TENDER			EXCLUDED			EXCLUDED			EXCLUDED
TOTAL PROJECT COST			13,921,946			16,151,620			17,853,548

c) METHOD OF MEASUREMENT

This estimate has been prepared by measurement of quantities from the drawings received from the design team, Architects Tillmann Ruth Robinson.

Unit costs, allowances, and contingencies were applied to these quantities to reflect market conditions and provide a realistic budget based on comparable projects with similar size and scope of works.

Structural information was provided by Spriet Associates.

Mechanical & Electrical information was provided by Integrated Engineering.

d) GROSS FLOOR AREA

Option 1				
Addition	3,250	M2	34,983	SF
Renovations	403	M2	4,338	SF
Total	3,653	M2	39,321	SF
Option 2				
Addition	3,822	M2	41,140	SF
Renovations	789	M2	8,493	SF
Total	4,611	M2	49,633	SF
Option 3				
Addition	4,708	M2	50,677	SF
Renovations	842	M2	9,063	SF
Total	5,550	M2	59,740	SF

e) PRICING

This estimate is priced in April 2021 dollars expecting 3-6 qualified competitive General Contractors and Sub-Contractors. Bids will vary due to fluctuating market conditions, proprietary product vendors, lack or surplus bidders and bidder's perception of risk.

We are unable at this time to determine the projected construction cost implications due to the Coronavirus COVID-19 and have excluded any allowances for this impact if any.

We are currently experiencing a very active construction market which could result in bids varying greatly from our indicated amount due to lack of bidders, escalating material costs and lack of suppliers holding prices or delivery dates.

f) TAXES

The Harmonized Sales Tax (H.S.T.) is excluded.

g) MECHANICAL AND ELECTRICAL COSTS

Mechanical and Electrical Costs included in this estimate were based on information provided by the Consultants.

h) SITE SERVICES

This includes allowances for mechanical, electrical, civil site services, soft, and hard landscaping.

i) CONTINGENCY

At this stage of the project, a 10.0% design contingency has been allowed. This is to cover unknown details in design and construction, layout variations and material selections but excludes any scope increases.

j) GENERAL REQUIREMENTS AND FEES

General Requirements - General Contractors Overhead is taken at:	8.0%
Fee - General Contractors Profit is taken at:	4.0%

k) EXCLUSIONS TO CONSTRUCTION COST

- | | |
|------------------------------------|--|
| - Phasing | - Contaminated Soil |
| - Soft Costs | - Project Management |
| - Professional and Design Fees | - Harmonized Sales Tax (H.S.T.) |
| - Furniture and Loose Equipment | - Inspection and Testing |
| - Development Charges and Levies | - Post Contract Contingencies |
| - Financing Costs | - Window Drapes/Curtains, and Art Work |
| - Relocation Costs | - Premium Labour |
| - Asbestos Abatement | - Project Scope Contingency |
| - Abnormal Soil Conditions | - Winter heat to shell construction |
| - COVID-19 / Pandemic Impact Costs | |

l) STATEMENT OF PROBABLE COSTS

This estimate represents a professional opinion of the probable costs for this project. Marshall & Murray Incorporated cannot guarantee that the actual project cost will not vary from this opinion.

m) ONGOING COST CONTROL

The project is still within the early stages of design and thus the full scope and design specifications have not been clearly determined. The estimate makes assumptions for all elements not clearly defined on the drawings. These assumptions are listed within the detailed estimate.

To alleviate a portion of the risk, a design and pricing contingency allowance has been included to accommodate for future design tweaks. However if there is a significant amount of design changes as the project progresses, they could result in an increase in cost that cannot be covered by the design and pricing contingency allowance. At this stage we consider the risk high, and would request that the design team review and provide comment with regards to the design detail included within the estimate.

We recommend that the estimate contained herein be reviewed thoroughly by the project team. Any comments or suggestions should be forwarded as soon as possible. We also recommend that further estimates be prepared once a firm design has been established.

n) DOCUMENTS LIST

The following list of drawings was received from Architects Tillmann Ruth Robinson. The noted drawings were used to complete Marshall and Murray's Class "D" Estimate.

	<u>Printed / Revision Date</u>	<u>Date Received</u>
Architectural		
Option 1		
Design brief		March 12, 2021
Level 1 existing plan	February 8, 2021	March 12, 2021
Level 2 exiting plan	February 8, 2021	March 12, 2021
Level 1 proposed plan	February 8, 2021	March 12, 2021
Level 1 proposed existing change room renovations	February 8, 2021	March 12, 2021
A1 to A4	October 5, 2020	March 12, 2021
Option 2 & 3		
Level 1 demo	March 25, 2021	March 25, 2021
Level 2 demo	March 25, 2021	March 25, 2021
Level 1 proposed plan	March 25, 2021	March 25, 2021
Level 2 proposed plan	March 25, 2021	March 25, 2021
Structural		
Design brief	February 9, 2021	March 12, 2021
Landscape / Site Work		
Option 1		
Proposed site plan	February 8, 2021	March 12, 2021
SP1	August 18, 2020	March 12, 2021
Option 2 & 3		
Proposed site plan	February 9, 2021	March 25, 2021
Mechanical		
Design brief	February 10, 2021	March 12, 2021
Electrical		
Design brief	February 10, 2021	March 12, 2021

SECTION 2: OPTION 1

CITY OF CAMBRIDGE			ELEMENTAL COST SUMMARY				April 21, 2021		
PRESTON AUDITORIUM							CLASS "D" ESTIMATE		
Cambridge, Ontario									
							GFA : 3,653 m²		
FILE: L2404/2/Class D/B/Arena estimate with Option 2 & 3 R1.xlsx									
ELEMENT/Sub Element	Ratio to GFA	Elemental Cost		Elemental Amount		Rate/m²			
		Quantity	Unit Rate	Sub-total	Total	Sub-Total	Total		
A SHELL					\$4,922,476		\$1,347.52	41.02%	
A1 SUBSTRUCTURE					\$645,000		\$176.57	5.37%	
A11 Foundations	0.89	3,250 m²	198.46	\$645,000		\$176.57			
A112 Special Foundations	0.00	0 m³	0.00	nil		\$0.00			
A12 Basement Excavation	0.00	0 m³	0.00	nil		\$0.00			
A2 STRUCTURE					\$2,460,875		\$673.66	20.51%	
A21 Lowest Floor Construction	0.89	3,250 m²	104.63	\$340,060		\$93.09			
A22 Upper Floor Construction	0.00	0 m²	0.00	\$5,500		\$1.51			
A222 Stair Construction	0.00	1 fts	10,000.00	\$10,000		\$2.74			
A23 Roof Construction	0.89	3,250 m²	647.79	\$2,105,315		\$576.32			
A3 EXTERIOR ENCLOSURE					\$1,816,601		\$497.29	15.14%	
A31 Walls Below Grade	0.00	0 m²	0.00	nil		\$0.00			
A32 Walls Above Grade	0.40	1,476 m²	561.91	\$829,376		\$227.04			
A33 Windows & Entrances	0.00	3 m²	14,556.33	\$43,669		\$11.95			
A34 Roof Covering	0.89	3,250 m²	230.86	\$750,310		\$205.40			
A35 Projections	0.06	217 m²	890.53	\$193,246		\$52.90			
B INTERIORS					\$2,245,023		\$614.57	18.71%	
B1 PARTITIONS & DOORS					\$678,704		\$185.79	5.66%	
B11 Partitions	0.64	2,325 m²	250.65	\$582,754		\$159.53			
B12 Doors	0.01	26 #	3,690.38	\$95,950		\$26.27			
B2 FINISHES					\$478,467		\$130.98	3.99%	
B21 Floor Finishes	0.94	3,435 m²	66.88	\$229,726		\$62.89			
B22 Ceiling Finishes	0.85	3,105 m²	30.35	\$94,246		\$25.80			
B23 Wall Finishes	2.08	7,605 m²	20.31	\$154,495		\$42.29			
B3 FITTINGS & EQUIPMENT					\$1,087,852		\$297.80	9.06%	
B31 Fittings & Fixtures	1.00	3,653 m²	158.19	\$577,852		\$158.19			
B32 Equipment	1.00	3,653 m²	132.77	\$485,000		\$132.77			
B33 Conveying Systems	0.00	2 stp	12,500.00	\$25,000		\$6.84			
C SERVICES					\$2,446,193		\$669.64	20.38%	
C1 MECHANICAL					\$1,605,950		\$439.62	13.38%	
C11 Plumbing & Drainage	1.00	3,653 m²	175.81	\$642,225		\$175.81			
C12 Fire Protection	1.00	3,653 m²	49.07	\$179,245		\$49.07			
C13 HVAC	1.00	3,653 m²	183.95	\$671,980		\$183.95			
C14 Controls	1.00	3,653 m²	30.80	\$112,500		\$30.80			
C2 ELECTRICAL					\$840,243		\$230.01	7.00%	
C21 Service & Distribution	1.00	3,653 m²	67.07	\$245,000		\$67.07			
C22 Lighting, Devices & Heating	1.00	3,653 m²	101.47	\$370,675		\$101.47			
C23 Systems & Ancillaries	1.00	3,653 m²	61.47	\$224,568		\$61.47			
NET BUILDING COST - EXCLUDING SITE & ANCILLARY WORK					\$9,613,692	\$9,613,692		\$2,631.73	80.11%
D SITE & ANCILLARY WORK					\$127,432		\$34.88	1.06%	
D1 SITE WORK					\$0		\$0.00	0.00%	
D11 Site Development	0.00	0 m²	0.00	nil		\$0.00			
D12 Mechanical Site Services	0.00	0 m²	0.00	nil		\$0.00			
D13 Electrical Site Services	0.00	0 m²	0.00	nil		\$0.00			
D2 ANCILLARY WORK					\$127,432		\$34.88	1.06%	
D21 Demolition	0.00	0 m²	0.00	nil		\$0.00			
D22 Alterations	1.00	3,653 m²	32.15	\$117,432		\$32.15			
D23 Cash Allowances	1.00	3,653 m²	2.74	\$10,000		\$2.74			
NET BUILDING COST - EXCLUDING GENERAL REQUIREMENTS					\$9,741,124	\$9,741,124		\$2,666.61	81.17%
Z GENERAL REQUIREMENTS					\$1,168,935		\$319.99	9.74%	
Z1 GENERAL REQUIREMENTS & FEE					\$1,168,935		\$319.99	9.74%	
Z11 General Requirements (%)		8.0%		\$779,290		\$213.33			
Z12 Fee (%)		4.0%		\$389,645		\$106.66			
TOTAL CONSTRUCTION ESTIMATE - EXCLUDING ALLOWANCES					\$10,910,059	\$10,910,059		\$2,986.60	90.91%
Z2 ALLOWANCES					\$1,091,006		\$298.66	9.09%	
Z21 Design & Pricing (%)		10.0%		\$1,091,006		\$298.66			
Z22 Escalation Allowance (%)		0.0%		\$0		\$0.00			
Z23 Construction Allowance (%)		0.0%		\$0		\$0.00			
TOTAL CONSTRUCTION ESTIMATE - EXCLUDING TAXES					\$12,001,065	\$12,001,065		\$3,285.26	100.00%
HARMONIZED SALES TAX					\$0				
Harmonized Sales Tax			0.0%		\$0		\$0.00		
TOTAL CONSTRUCTION ESTIMATE					\$12,001,065		\$3,285.26		
					Area (sf)		39,321		
					/sf		\$305.21		

FILE: L2404/2/Class D/B/Arena estimate with Option 2 & 3 R1.xlsx

OPTION 1

Description	Qty	Unit	Rate	Amount
A1 SUBSTRUCTURE				
A11 Foundations				
1.0 Earthwork	3,250	m²	35.00	113,750
2.0 Foundations	3,250	m²	125.00	406,250
3.0 Shoring / underpinning along abutting wall		allow		100,000
4.0 Inserts, steps, tie-ins, etc.		allow		25,000
Total A11 Foundations	3,250	m²		645,000
A112 Special Foundations				
A12 Basement Excavation				nil
A2 STRUCTURE				
A21 Lowest Floor Construction				
1.0 Slab-on-grade	3,250	m²	70.00	227,500
- extra / over for ice pad slab	1,539	m²	40.00	61,560
2.0 Pad service trench		allow		35,000
3.0 Trench drain		allow		6,000
4.0 Inserts, slab thickening, equipment bases, misc. reinforcing		allow		10,000
Total A21 Lowest Floor Construction	3,250	m²		340,060
A22 Upper Floor Construction				
1.0 Infill shaft		allow		5,000
2.0 Inserts, curbs, equip. bases, misc. reinforcing, tie-in to existing		allow		500
Total A22 Upper Floor Construction	0	m²		5,500
A222 Stair Construction				
1.0 Stairs	1	fts	10,000.00	10,000
Total A222 Stair Construction	1	fts		10,000

Marshall & Murray Inc.

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OPTION 1				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
A2 STRUCTURE				
A23 Roof Construction				
1.0 Structural steel	158,665	kgs	11.00	1,745,315
2.0 Galvanized cellular acoustic metal deck	3,250	m²	80.00	260,000
3.0 Inserts, curbs, misc. reinforcing, tie-in to existing		allow		100,000
Total A23 Roof Construction	3,250	m²		2,105,315
A3 EXTERIOR ENCLOSURE				
A31 Walls Below Grade				
				nil
A32 Walls Above Grade				
1.0 Exterior wall comprised of: - brick/stone - sprayed insulation - vapour barrier - masonry block	306	m²	581.00	177,786
2.0 Exterior wall comprised of: - metal panels - sprayed insulation - vapour barrier - masonry block	1,170	m²	527.00	616,590
3.0 Lintels, caulking, flashing, tie-in to existing		allow		35,000
Total A32 Walls Above Grade	1,476	m²		829,376

OPTION 1				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
A3 EXTERIOR ENCLOSURE				
A33 Windows & Entrances				
1.0 Overhead door	1	#	15,000.00	15,000
2.0 Insulated hollow metal doors c/w hardware	4	#	2,150.00	8,600
3.0 Sliding glazed aluminum entrance doors	2	#	6,000.00	12,000
4.0 Glazed aluminum entrance doors	1	#	3,000.00	3,000
5.0 Curtain wall	3	m²	1,023.00	3,069
6.0 Supports, caulking, flashing, etc.		allow		2,000
Total A33 Windows & Entrances	3	m²		43,669
A34 Roof Covering				
1.0 Two ply modified bitumen roofing	3,250	m²	215.00	698,750
2.0 Parapet cap and flashing	180	m	92.00	16,560
3.0 Flashing, pavers, anchors, tie-in to existing		allow		35,000
Total A34 Roof Covering	3,250	m²		750,310
A35 Projections				
1.0 Canopy	70	m²	900.00	63,000
2.0 Brick wall	147	m²	818.00	120,246
3.0 Flashing, caulking, tie-in to existing		allow		10,000
Total A35 Projections	217	m²		193,246

OPTION 1				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
B1 PARTITIONS & DOORS				
B11 Partitions				
1.0 Block partitions	2,318	m²	237.00	549,366
2.0 Glazing	7	m²	484.00	3,388
3.0 Lintels, supports, caulking, firestopping		allow		30,000
Total B11 Partitions	2,325	m²		582,754
B12 Doors				
1.0 Overhead door	1	#	15,000.00	15,000
2.0 Hollow metal doors with a paint finish set within a painted hollow metal frame	23	lvs	650.00	14,950
3.0 Fully glazed aluminum door c/w hardware	1	lvs	3,200.00	3,200
4.0 Sliding glazed aluminum entrance doors	1	#	8,000.00	8,000
5.0 Extra / over for:				
- finish hardware	23	#	1,600.00	36,800
- fire rating	6	#	250.00	1,500
- glazing	6	#	250.00	1,500
- door operators, card readers etc		allow		10,000
6.0 Supports, misc. finish hardware		allow		5,000
Total B12 Doors	26	#		95,950

OPTION 1				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
B2 FINISHES				
B21 Floor Finishes				
1.0 Rubber flooring	1,216	m²	140.00	170,240
2.0 Sealed concrete	2,118	m²	16.00	33,888
3.0 Vinyl composite tile	101	m²	38.00	3,838
4.0 Rubber base	1,176	m	10.00	11,760
5.0 Special finishes, patterns, etc.		allow		10,000
Total B21 Floor Finishes	3,435	m²		229,726
B22 Ceiling Finishes				
1.0 Paint to exposed structure	2,607	m²	22.00	57,354
2.0 Acoustic tile	498	m²	54.00	26,892
3.0 Bulkheads		allow		5,000
4.0 Special finishes, patterns, etc.		allow		5,000
Total B22 Ceiling Finishes	3,105	m²		94,246
B23 Wall Finishes				
1.0 Paint	7,605	m²	19.00	144,495
2.0 Special finishes, patterns, etc.		allow		10,000
Total B23 Wall Finishes	7,605	m²		154,495

OPTION 1

FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx

Description	Qty	Unit	Rate	Amount
B3 FITTINGS & EQUIPMENT				
B31 Fittings & Fixtures				
1.0	Refrig / mechanical room			nil
2.0	Storage (3#)			nil
3.0	Icepad			
	- dasher boards, benches, timekeeper and protective netting	allow		280,000
	- viewing bench seating	allow		60,000
4.0	Referee room (2#)			
	- toilet partitions	2	#	600.00
	- toilet tissue dispenser	2	#	85.00
	- prefabricated shower stall	2	#	3,500.00
	- shower curtain and rod	2	#	250.00
	- soap dispenser	2	#	65.00
	- paper towel dispenser	2	#	275.00
	- bench	12.4	m	197.00
	- mirror	2	#	220.00
	- sanitary napkin disposal	2	#	110.00
5.0	Change room (12#)			
	- bench	190	m	197.00
	- prefabricated shower stall	19	#	3,500.00
	- shower curtain and rod	19	#	250.00
	- handicap toilet partition	6	#	850.00
	- standard toilet partition	6	#	600.00
	- toilet tissue dispenser	12	#	85.00
	- soap dispenser	12	#	65.00
	- paper towel dispenser	12	#	275.00
	- mirror	12	#	220.00
	- sanitary napkin disposal	12	#	110.00
	- coat hooks	36	#	35.00
	- grab bars	12	#	220.00
6.0	Washrooms (2#)			
	- handicap toilet partition	4	#	850.00
	- standard toilet partition	5	#	0.00
	- toilet tissue dispenser	9	#	85.00
	- soap dispenser	10	#	65.00
	- paper towel dispenser	4	#	275.00
	- mirror	10	#	220.00
	- sanitary napkin disposal	7	#	110.00
	- vanity	9.0	m	213.00
	- grab bars	8	#	220.00

OPTION 1

FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx

Description	Qty	Unit	Rate	Amount
B3 FITTINGS & EQUIPMENT				
B31 Fittings & Fixtures				
7.0	Universal washroom			
	- toilet tissue dispenser	1	#	85.00
	- soap dispenser	1	#	65.00
	- paper towel dispenser	1	#	275.00
	- mirror	1	#	220.00
	- sanitary napkin disposal	1	#	110.00
	- vanity	1.0	m	213.00
8.0	Vestibule			
	- recessed aluminum grille		allow	5,000
9.0	Multipurpose		allow	5,000
10.0	Meter			nil
11.0	Elevator machine			nil
12.0	First aid			
	- lower cabinets	1.5	m	656.00
	- upper cabinets	1.5	m	509.00
	- soap dispenser	1	#	65.00
	- paper towel dispenser	1	#	275.00
13.0	Staff room			
	- lower cabinets	1.5	m	656.00
	- upper cabinets	1.5	m	509.00
	- soap dispenser	1	#	65.00
	- paper towel dispenser	1	#	275.00
	- tv support bracket	1	#	550.00
14.0	Mech			nil
15.0	Ice resurfacing room			nil
16.0	Miscellaneous metal supports		allow	1,500
17.0	Signage and wayfinding	3,653	m ²	11.00
18.0	Blinds		allow	5,000
19.0	Various fittings, fixtures, millwork and specialty components not specifically detailed on the current drawings		allow	20,000
Total B31 Fittings & Fixtures			3,653	m ²
				577,852

OPTION 1				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
B3 FITTINGS & EQUIPMENT				
B32 Equipment				
1.0	Scoreboard & time clocks	allow		25,000
2.0	Ice Rink refrigeration c/w dehumidification equipment	allow		450,000
3.0	Miscellaneous equipment supports, etc.	allow		10,000
Total B32 Equipment		3,653	m²	485,000
B33 Conveying Systems				
1.0	Modifications to existing elevator	allow		25,000
Total B33 Conveying Systems		2	stp	25,000

OPTION 1				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
C1 MECHANICAL				
C11 Plumbing & Drainage				
PLUMBING FIXTURES:				
1.0	Wall hung toilet c/w electronic flush valve, seat, and hanger	24	#	1,400.00 33,600
2.0	Wall hung urinal c/w electronic flush valve	11	#	1,300.00 14,300
3.0	Counter mounted lavatory c/w manual faucet	10	#	600.00 6,000
4.0	Wall hung lavatory c/w manual faucet, trap, and hanger	14	#	700.00 9,800
5.0	Single bowl s.s. sink c/w manual faucet & trap, allow	4	#	700.00 2,800
6.0	Double bowl s.s. sink c/w manual faucet & trap, allow			nil
7.0	Mop sink			nil
8.0	Eyewash station	1	#	550.00 550
9.0	Shower	20	#	1,000.00 20,000
TOTAL - PLUMBING FIXTURES				\$87,050
				\$23.83 /m2
DOMESTIC HOT AND COLD WATER				
10.0	Non frost wall hydrants	2	#	700.00 1,400
11.0	Hose bibbs	14	#	150.00 2,100
12.0	Water heater	2	#	6,500.00 13,000
13.0	Recirc pump	1	#	1,600.00 1,600
14.0	Temperature mixing valve to water heater	1	#	2,200.00 2,200
15.0	Tempering valves	24	#	200.00 4,800
16.0	Backflow preventer	1	#	8,000.00 8,000
17.0	Water meter connection			existing to remain
18.0	Domestic water pipe distribution			173,700
19.0	Insulation			43,425
TOTAL - DOMESTIC HOT AND COLD WATER				\$250,225
				\$68.50 /m2
SANITARY WASTE AND VENT				
20.0	Floor drains	40	#	250.00 10,000
21.0	Elevator sump pump			nil
22.0	Condensate drains	2	#	1,300.00 2,600
23.0	Sanitary pipe distribution			95,600
TOTAL - SANITARY WASTE AND VENT				\$108,200
				\$29.62 /m2
STORM				
24.0	Roof drains	12	#	300.00 3,600
25.0	Storm sump pit pumps			nil
26.0	Storm pipe distribution			48,000
27.0	Pipe insulation			9,600
TOTAL - STORM				\$61,200
				\$16.75 /m2

FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx

OPTION 1				
Description	Qty	Unit	Rate	Amount
C1 MECHANICAL				
NATURAL GAS				
28.0	Natural gas pipe distribution		allow	30,000
TOTAL - NATURAL GAS			<u>\$30,000</u>	
			\$8.21 /m2	
DEMOLITION				
29.0	Remove plumbing fixtures		30 #	3,750
30.0	Remove remaining mechanical as required		allow	50,000
TOTAL - DEMOLITION			<u>\$53,750</u>	
			14.71 /m2	
MISCELLANEOUS				
31.0	Identification			7,000
32.0	Miscellaneous fitments, as built, etc			44,800
TOTAL - MISCELLANEOUS			<u>\$51,800</u>	
			\$14.18 /m2	
Total C11 Plumbing & Drainage		3,653	m²	<u>642,225</u>

OPTION 1					
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx					
Description	Qty	Unit	Rate	Amount	
C1 MECHANICAL					
C12 Fire Protection					
SPRINKLERS:					
1.0	Wet sprinklers	3,653	m2	22.00	80,366
2.0	Extra over for Dry sprinklers	2,375	m2	10.00	23,750
3.0	Backflow preventer to fire service	1	#	10,000.00	10,000
4.0	Extra over for high elevations				26,029
5.0	Mains to areas		allow		25,000
TOTAL - SPRINKLERS				\$165,145	
				\$45.21	/m2
FIRE STANDPIPE					
					nil
TOTAL - FIRE STANDPIPE				nil	
				-	/m2
FIRE EXTINGUISHERS					
6.0	Fire extinguishers	8	#	200.00	1,600
TOTAL - FIRE EXTINGUISHERS				\$1,600	
				\$0.44	/m2
MISCELLANEOUS					
7.0	Miscellaneous fitments				12,500
TOTAL - MISCELLANEOUS				\$12,500	
				\$3.42	/m2
Total C12 Fire Protection		3,653	m²		179,245

OPTION 1				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
C1 MECHANICAL				
C13 HVAC				
AIR HANDLING UNITS AND DUCTWORK				
1.0	Heat recovery ventilators	2	#	30,000.00
2.0	Fans		allow	15,000
3.0	Ductwork c/w equipment installation			111,000
4.0	Grilles and Diffusers	60	#	70.00
5.0	Insulation			13,320
6.0	Fire dampers			Incl.
7.0	Gas fired radiant tube heaters	10	#	5,000.00
8.0	Split a/c unit c/w remote condenser and refrigeration lines	2	#	12,000.00
9.0	Duct vacuuming			nil
TOTAL - AIR HANDLING UNITS & DUCTWORK			\$277,520	
			\$75.97 /m2	
EXHAUST AND VENTILATION				
				incl.
TOTAL - EXHAUST AND VENTILATION			incl.	
			-	/m2
LIQUID HEAT TRANSFER				
10.0	Unit heaters/force flows	10	#	1,000.00
11.0	Reheat coils/volume boxes	19	#	800.00
12.0	Converters	2	#	5,500.00
13.0	Heating water pumps	4	#	4,600.00
14.0	Variable speed drives	10	#	6,500.00
15.0	Expansion tanks	2	#	1,000.00
16.0	Glycol fill station	1	#	1,500.00
17.0	Infloor heat to change rooms	518	m2	120.00
18.0	Heating water pipe distribution			62,160
19.0	Insulation			107,100
TOTAL - LIQUID HEAT TRANSFER			\$319,160	
			\$87.37 /m2	
BALANCING				
20.0	Balancing			5,000
21.0	Verification			3,000
22.0	Labour for Mechanical Contractor to coordinate with commissioning agent			4,000
TOTAL - BALANCING			\$12,000	
			\$3.28 /m2	
SILENCING/VIBRATION ISOLATION				
				nil
TOTAL - SILENCING/VIBRATION ISOLATION			nil	
			\$0.00 /m2	

OPTION 1				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
C1 MECHANICAL				
C13 HVAC (Cont'd)				
MOTOR CONTROL & MECHANICAL WIRING				
				By electrical
TOTAL - MOTOR CONTROL & MECHANICAL WIRING			By electrical	
			\$0.00 /m2	
MISCELLANEOUS				
23.0	Identification			4,400
24.0	Cranage			12,000
25.0	Seismic restraint			nil
26.0	Miscellaneous fitments, as built, etc			46,900
TOTAL - MISCELLANEOUS			\$63,300	
			\$17.33 /m2	
Total C13 HVAC	3,653	m²		671,980
C14 Controls				
1.0	Controls			112,500
Total C14 Controls	3,653	m²		112,500

OPTION 1				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
C2 ELECTRICAL				
C21 Service & Distribution				
1.0 Outdoor HV primary distribution				see site
2.0 Normal power distribution	1	#	192,000.00	192,000
3.0 Emerg NG fired stand-by generator				nil
4.0 Mechanical (motor) wiring	1	sum	32,000.00	32,000
5.0 Miscellaneous distribution				
- digital metering at main LV switchboard c/w commissioning	1	#	5,000.00	5,000
- hydro metering cabinet in separate W/P enclosure, W/M	1	#	1,250.00	1,250
- 915x915x305mm transition pulling box for secondary cables, W/M	1	#	750.00	750
- premium for shutdowns & tie-ins	1	sum	4,000.00	4,000
- testing, inspection & commissioning	1	sum	2,500.00	2,500
- arc flash hazard analysis	1	#	2,500.00	2,500
- short circuit & co-ordination study	1	#	5,000.00	5,000
Total C21 Service & Distribution	3,653	m²		245,000
C22 Lighting, Devices & Heating				
1.0 Lighting including exit & emerg lights, LED	3,653	m²	75.00	273,975
2.0 Switching c/w occupancy sensors	1	sum	25,000.00	25,000
3.0 LV lighting control system				nil
4.0 Receptacles	1	sum	50,000.00	50,000
5.0 Equipment hard wired power connections				
- electrical no touch faucet c/w 50va 120v/24vac TX in ceiling space	24	#	200.00	4,800
- electrical no touch flush urinal c/w 50va 120v/24vac TX in ceiling spa	11	#	200.00	2,200
- barrier free motorized door operator c/w pushbuttons, C/M	4	#	275.00	1,100
- scoreboard, W/M	1	#	1,500.00	1,500
- 1.5kw hot air hand dryer c/w pushbutton, W/M	12	#	200.00	2,400
- fire alarm EVAC power booster, W/M	2	#	250.00	500
- BAS mechanical controls c/w 50va 120v/24vac TX in ceiling space	6	#	200.00	1,200
6.0 Electrical resistance heating, connections only				
- 2.00kw cabinet unit heater UH-1 c/w built-in non-programmable electrical thermostat, W/M	6	#	250.00	1,500
- 5.00kw cabinet forced flow heater FFH-1 c/w built-in non-programmable electrical thermostat, W/M	4	#	375.00	1,500
7.0 Heat tracing to roof mounted mechanical piping	1	sum	5,000.00	5,000
Total C22 Lighting, Devices & Heating	3,653	m²		370,675

OPTION 1				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
C2 ELECTRICAL				
C23 Systems & Ancillaries				
1.0 Single stage addressable fire alarm system c/w 3rd party verification	3,653	m²	15.00	54,795
2.0 Telecommunications, conduit only	1	sum	8,000.00	8,000
3.0 Telecommunications, Cat6 FT6 multipair plenum rated cabling				by owner
4.0 Wireless communications				nil
5.0 CATV system, conduit only				
- CATV outlet, W/M	1	#	150.00	150
6.0 Barrier-free universal washroom flashing unit	1	#	2,000.00	2,000
7.0 Intrusion control system, conduit & power only	1	sum	8,000.00	8,000
8.0 Door access control system, conduit & power only				
- proximity card reader, unsecured side, W/M	4	#	125.00	500
- electric strike, D/M	4	#	125.00	500
- electro-magnetic door holder, D/M	8	#	125.00	1,000
- door open-detect contact, D/M	8	#	125.00	1,000
- door bell c/w step-down transformer, C/M	4	#	125.00	500
- power assisted pushbutton, W/M	4	#	125.00	500
- infra-red egress motion detector, W/M	4	#	125.00	500
- security junction box, C/M	4	#	150.00	600
- door power & security controller on secure side, C/M	4	#	400.00	1,600
9.0 Door access control system, wiring & head-end equipment				by others
10.0 CCTV system, power & conduit only				
- CCTV camera, indoor fixed, W/M	6	#	375.00	2,250
- CCTV camera, indoor PTZ, W/M	2	#	375.00	750
11.0 CCTV system, head-end equipment, devices & wiring				by others

OPTION 1				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
C2 ELECTRICAL				
C23 Systems & Ancillaries (Cont'd)				
12.0 Cable tray, main conduit, hangers & support channels, etc.	1	sum	25,000.00	25,000
13.0 Public address & paging system				nil
14.0 Lightning protection system				nil
15.0 Secondary grounding & bonding system	3,653	m²	2.50	9,133
16.0 Scanning, core drilling & patching				by general
17.0 Electrical demolition at tie-in c/w disposal	1	sum	1,500.00	1,500
18.0 Testing & inspection	1	sum	8,000.00	8,000
19.0 Labour for commissioning agent	1	sum	4,000.00	4,000
20.0 Seismic & vibration restraints				nil
21.0 Miscellaneous fitments, fire stops, rentals, etc.	1	sum	20,000.00	20,000
22.0 Job start up & close out	1	sum	74,290.00	74,290
Total C23 Systems & Ancillaries	3,653	m²		224,568

OPTION 1				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
D1 SITE WORK				
D11 Site Development				nil
D12 Mechanical Site Services				nil
D13 Electrical Site Services				
D2 ANCILLARY WORK				
D21 Demolition				see summary
D22 Alterations				
1.0 Removals				
- block partitions	214	m²	48.00	10,272
- floor finishes	454	m²	32.00	14,528
- ceiling finishes	454	m²	27.00	12,258
- doors and frames	16	#	100.00	1,600
- millwork	72	m	60.00	4,320
- exterior wall c/w shoring	116	m²	215.00	24,940
- toilet partitions	5	#	150.00	750
- overhead door	1	#	500.00	500
- stairs	1	#	2,500.00	2,500
- miscellaneous fittings and fixtures		allow		500
2.0 Demolish existing entrance		allow		12,000
3.0 Grind and prep floor for new finish	454	m²	16.00	7,264
4.0 Temporary partitions / protect existing		allow		15,000
5.0 Cut & patch for mechanical & electrical		allow		6,000
6.0 Hazardous material abatement				excluded
7.0 Minor demolition, removals, etc.		allow		5,000
Total D22 Alterations	3,653	m²		117,432
D23 Cash Allowances				
1.0 Cash allowances to include, but not limited to, testing and inspection and unforeseeable site conditions		allow		10,000
Total D23 Cash Allowances	3,653	m²		10,000

SECTION 3: OPTION 2

CITY OF CAMBRIDGE		ELEMENTAL COST SUMMARY					April 21, 2021	
PRESTON AUDITORIUM							CLASS "D" ESTIMATE	
Cambridge, Ontario								
					GFA :		4,611 m²	
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx								
ELEMENT/Sub Element	Ratio to GFA	Elemental Cost		Elemental Amount		Rate/m²		
		Quantity	Unit Rate	Sub-total	Total	Sub-Total	Total	
A SHELL					\$5,675,264		\$1,230.81	40.36%
A1 SUBSTRUCTURE					\$736,520		\$159.73	5.24%
A11 Foundations	0.83	3,822 m²	192.71	\$736,520		\$159.73		
A112 Special Foundations	0.00	0 m³	0.00	nil		\$0.00		
A12 Basement Excavation	0.00	0 m³	0.00	nil		\$0.00		
A2 STRUCTURE					\$2,853,850		\$618.92	20.29%
A21 Lowest Floor Construction	0.83	3,822 m²	99.45	\$380,100		\$82.43		
A22 Upper Floor Construction	0.00	0 m²	0.00	\$5,500		\$1.19		
A222 Stair Construction	0.00	1 flts	10,000.00	\$10,000		\$2.17		
A23 Roof Construction	0.83	3,822 m²	643.18	\$2,458,250		\$533.13		
A3 EXTERIOR ENCLOSURE					\$2,084,894		\$452.16	14.83%
A31 Walls Below Grade	0.00	0 m²	0.00	nil		\$0.00		
A32 Walls Above Grade	0.41	1,911 m²	554.72	\$1,060,079		\$229.90		
A33 Windows & Entrances	0.00	3 m²	18,706.33	\$56,119		\$12.17		
A34 Roof Covering	0.83	3,822 m²	228.88	\$874,762		\$189.71		
A35 Projections	0.02	100 m²	939.34	\$93,934		\$20.37		
B INTERIORS					\$2,566,401		\$556.58	18.25%
B1 PARTITIONS & DOORS					\$845,384		\$183.34	6.01%
B11 Partitions	0.62	2,872 m²	248.31	\$713,134		\$154.66		
B12 Doors	0.01	40 #	3,306.25	\$132,250		\$28.68		
B2 FINISHES					\$592,868		\$128.58	4.22%
B21 Floor Finishes	0.94	4,349 m²	68.32	\$297,122		\$64.44		
B22 Ceiling Finishes	0.84	3,851 m²	28.97	\$111,554		\$24.19		
B23 Wall Finishes	1.99	9,168 m²	20.09	\$184,192		\$39.95		
B3 FITTINGS & EQUIPMENT					\$1,128,149		\$244.66	8.02%
B31 Fittings & Fixtures	1.00	4,611 m²	134.06	\$618,149		\$134.06		
B32 Equipment	1.00	4,611 m²	105.18	\$485,000		\$105.18		
B33 Conveying Systems	0.00	2 stp	12,500.00	\$25,000		\$5.42		
C SERVICES					\$3,003,723		\$651.43	21.36%
C1 MECHANICAL					\$1,960,963		\$425.28	13.94%
C11 Plumbing & Drainage	1.00	4,611 m²	157.77	\$727,475		\$157.77		
C12 Fire Protection	1.00	4,611 m²	48.91	\$225,528		\$48.91		
C13 HVAC	1.00	4,611 m²	188.78	\$870,460		\$188.78		
C14 Controls	1.00	4,611 m²	29.82	\$137,500		\$29.82		
C2 ELECTRICAL					\$1,042,760		\$226.15	7.41%
C21 Service & Distribution	1.00	4,611 m²	63.76	\$294,000		\$63.76		
C22 Lighting, Devices & Heating	1.00	4,611 m²	100.42	\$463,025		\$100.42		
C23 Systems & Ancillaries	1.00	4,611 m²	61.97	\$285,735		\$61.97		
NET BUILDING COST - EXCLUDING SITE & ANCILLARY WORK				\$11,245,387	\$11,245,387		\$2,438.82	79.96%
D SITE & ANCILLARY WORK					\$169,297		\$36.72	1.20%
D1 SITE WORK					\$0		\$0.00	0.00%
D11 Site Development	0.00	0 m²	0.00	nil		\$0.00		
D12 Mechanical Site Services	0.00	0 m²	0.00	nil		\$0.00		
D13 Electrical Site Services	0.00	0 m²	0.00	nil		\$0.00		
D2 ANCILLARY WORK					\$169,297		\$36.72	1.20%
D21 Demolition	0.00	0 m²	0.00	nil		\$0.00		
D22 Alterations	1.00	4,611 m²	34.55	\$159,297		\$34.55		
D23 Cash Allowances	1.00	4,611 m²	2.17	\$10,000		\$2.17		
NET BUILDING COST - EXCLUDING GENERAL REQUIREMENTS				\$11,414,684	\$11,414,684		\$2,475.53	81.17%
Z GENERAL REQUIREMENTS					\$1,369,762		\$297.06	9.74%
Z1 GENERAL REQUIREMENTS & FEE					\$1,369,762		\$297.06	9.74%
Z11 General Requirements (%)		8.0%		\$913,175		\$198.04		
Z12 Fee (%)		4.0%		\$456,587		\$99.02		
TOTAL CONSTRUCTION ESTIMATE - EXCLUDING ALLOWANCES				\$12,784,447	\$12,784,447		\$2,772.60	90.91%
Z2 ALLOWANCES					\$1,278,445		\$277.26	9.09%
Z21 Design & Pricing (%)		10.0%		\$1,278,445		\$277.26		
Z22 Escalation Allowance (%)		0.0%		\$0		\$0.00		
Z23 Construction Allowance (%)		0.0%		\$0		\$0.00		
TOTAL CONSTRUCTION ESTIMATE - EXCLUDING TAXES				\$14,062,891	\$14,062,891		\$3,049.86	100.00%
HARMONIZED SALES TAX					\$0			
Harmonized Sales Tax		0.0%		\$0		\$0.00		
TOTAL CONSTRUCTION ESTIMATE				\$14,062,891		\$3,049.86		
						Area (sf)	49,633	
						/sf	\$283.34	

OPTION 2
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx

Description	Qty	Unit	Rate	Amount
A1 SUBSTRUCTURE				
A11 Foundations				
1.0 Earthwork	3,822	m²	35.00	133,770
2.0 Foundations	3,822	m²	125.00	477,750
3.0 Shoring / underpinning along abutting wall		allow		100,000
4.0 Inserts, steps, tie-ins, etc.		allow		25,000
Total A11 Foundations	3,822	m²		736,520

A112 Special Foundations
A12 Basement Excavation
nil
nil

A2 STRUCTURE				
A21 Lowest Floor Construction				
1.0 Slab-on-grade	3,822	m²	70.00	267,540
- extra / over for ice pad slab	1,539	m²	40.00	61,560
2.0 Pad service trench		allow		35,000
3.0 Trench drain		allow		6,000
4.0 Inserts, slab thickening, equipment bases, misc. reinforcing		allow		10,000
Total A21 Lowest Floor Construction	3,822	m²		380,100

A22 Upper Floor Construction				
1.0 Infill shaft		allow		5,000
2.0 Inserts, curbs, equip. bases, misc. reinforcing, tie-in to existing		allow		500
Total A22 Upper Floor Construction	0	m²		5,500

A222 Stair Construction				
1.0 Stairs	1	flts	10,000.00	10,000
Total A222 Stair Construction	1	flts		10,000

Marshall & Murray Inc.

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2021-04-21

OPTION 2				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
A2 STRUCTURE				
A23 Roof Construction				
1.0 Structural steel	186,590	kgs	11.00	2,052,490
2.0 Galvanized cellular acoustic metal deck	3,822	m²	80.00	305,760
3.0 Inserts, curbs, misc. reinforcing, tie-in to existing		allow		100,000
Total A23 Roof Construction	3,822	m²		2,458,250
A3 EXTERIOR ENCLOSURE				
A31 Walls Below Grade				
				nil
A32 Walls Above Grade				
1.0 Exterior wall comprised of: - brick/stone - sprayed insulation - vapour barrier - masonry block	333	m²	581.00	193,473
2.0 Exterior wall comprised of: - metal panels - sprayed insulation - vapour barrier - masonry block	1,578	m²	527.00	831,606
3.0 Lintels, caulking, flashing, tie-in to existing		allow		35,000
Total A32 Walls Above Grade	1,911	m²		1,060,079

OPTION 2				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
A3 EXTERIOR ENCLOSURE				
A33 Windows & Entrances				
1.0 Overhead door	1	#	15,000.00	15,000
2.0 Insulated hollow metal doors c/w hardware	7	#	2,150.00	15,050
3.0 Sliding glazed aluminum entrance doors	2	#	6,000.00	12,000
4.0 Glazed aluminum entrance doors	3	#	3,000.00	9,000
5.0 Curtain wall	3	m²	1,023.00	3,069
6.0 Supports, caulking, flashing, etc.		allow		2,000
Total A33 Windows & Entrances	3	m²		56,119
A34 Roof Covering				
1.0 Two ply modified bitumen roofing	3,822	m²	215.00	821,730
2.0 Parapet cap and flashing	196	m	92.00	18,032
3.0 Flashing, pavers, anchors, tie-in to existing		allow		35,000
Total A34 Roof Covering	3,822	m²		874,762
A35 Projections				
1.0 Canopy	87	m²	900.00	78,300
2.0 Brick wall	13	m²	818.00	10,634
3.0 Flashing, caulking, tie-in to existing		allow		5,000
Total A35 Projections	100	m²		93,934

OPTION 2				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
B1 PARTITIONS & DOORS				
B11 Partitions				
1.0 Block partitions	2,862	m²	237.00	678,294
2.0 Glazing	10	m²	484.00	4,840
3.0 Lintels, supports, caulking, firestopping		allow		30,000
Total B11 Partitions	2,872	m²		713,134
B12 Doors				
1.0 Overhead door	1	#	15,000.00	15,000
2.0 Hollow metal doors with a paint finish set within a painted hollow metal frame	33	lvs	650.00	21,450
3.0 Fully glazed aluminum door c/w hardware	5	lvs	3,200.00	16,000
4.0 Sliding glazed aluminum entrance doors	1	#	8,000.00	8,000
5.0 Extra / over for:				
- finish hardware	33	#	1,600.00	52,800
- fire rating	8	#	250.00	2,000
- glazing	8	#	250.00	2,000
- door operators, card readers etc		allow		10,000
6.0 Supports, misc. finish hardware		allow		5,000
Total B12 Doors	40	#		132,250

OPTION 2				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
B2 FINISHES				
B21 Floor Finishes				
1.0 Rubber flooring	1,544	m²	140.00	216,160
2.0 Sealed concrete	2,299	m²	16.00	36,784
3.0 Vinyl composite tile	506	m²	38.00	19,228
4.0 Rubber base	1,495	m	10.00	14,950
5.0 Special finishes, patterns, etc.		allow		10,000
Total B21 Floor Finishes	4,349	m²		297,122
B22 Ceiling Finishes				
1.0 Paint to exposed structure	3,325	m²	22.00	73,150
2.0 Acoustic tile	526	m²	54.00	28,404
3.0 Bulkheads		allow		5,000
4.0 Special finishes, patterns, etc.		allow		5,000
Total B22 Ceiling Finishes	3,851	m²		111,554
B23 Wall Finishes				
1.0 Paint	9,168	m²	19.00	174,192
2.0 Special finishes, patterns, etc.		allow		10,000
Total B23 Wall Finishes	9,168	m²		184,192

OPTION 2

FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx

Description	Qty	Unit	Rate	Amount
B3 FITTINGS & EQUIPMENT				
B31 Fittings & Fixtures				
1.0 Refrig / mechanical room				nil
2.0 Storage (4#)				nil
3.0 Icepad				
- dasher boards, benches, timekeeper and protective netting		allow		280,000
- viewing bench seating		allow		60,000
4.0 Referee room (2#)				
- toilet partitions	2	#	600.00	1,200
- toilet tissue dispenser	2	#	85.00	170
- prefabricated shower stall	2	#	3,500.00	7,000
- shower curtain and rod	2	#	250.00	500
- soap dispenser	2	#	65.00	130
- paper towel dispenser	2	#	275.00	550
- bench	12.4	m	197.00	2,443
- mirror	2	#	220.00	440
- sanitary napkin disposal	2	#	110.00	220
- fold down shower seat	1	#	550.00	550
5.0 Change room (13#)				
- bench	212.4	m	197.00	41,843
- prefabricated shower stall	21	#	3,500.00	73,500
- shower curtain and rod	21	#	250.00	5,250
- handicap toilet partition	2	#	850.00	1,700
- standard toilet partition	10	#	600.00	6,000
- toilet tissue dispenser	14	#	85.00	1,190
- soap dispenser	14	#	65.00	910
- paper towel dispenser	14	#	275.00	3,850
- mirror	14	#	220.00	3,080
- sanitary napkin disposal	14	#	110.00	1,540
- coat hooks	36	#	35.00	1,260
- grab bars	6	#	220.00	1,320
- vanity	2.0	m	213.00	426
6.0 Washrooms (2#)				
- handicap toilet partition	6	#	850.00	5,100
- standard toilet partition	6	#	600.00	3,600
- toilet tissue dispenser	10	#	85.00	850
- soap dispenser	6	#	65.00	390
- paper towel dispenser	2	#	275.00	550
- mirror	6	#	220.00	1,320
- sanitary napkin disposal	5	#	110.00	550
- vanity	5.6	m	213.00	1,193
- grab bars	8	#	220.00	1,760

OPTION 2

FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx

Description	Qty	Unit	Rate	Amount
B3 FITTINGS & EQUIPMENT				
B31 Fittings & Fixtures				
7.0 Universal washroom				
- toilet tissue dispenser	1	#	85.00	85
- soap dispenser	1	#	65.00	65
- paper towel dispenser	1	#	275.00	275
- mirror	1	#	220.00	220
- sanitary napkin disposal	1	#	110.00	110
- vanity	1.0	m	213.00	213
8.0 Vestibule				
- recessed aluminum grille		allow		5,000
9.0 Community		allow		5,000
10.0 Meter				nil
11.0 Elevator machine				nil
12.0 First aid				
- lower cabinets	1.5	m	656.00	984
- upper cabinets	1.5	m	509.00	764
- soap dispenser	1	#	65.00	65
- paper towel dispenser	1	#	275.00	275
13.0 Staff room				
- lower cabinets	3.7	m	656.00	2,427
- upper cabinets	3.7	m	509.00	1,883
- soap dispenser	1	#	65.00	65
- paper towel dispenser	1	#	275.00	275
- tv support bracket	1	#	550.00	550
14.0 Servery				
- lower cabinets	1.5	m	656.00	984
- upper cabinets	1.5	m	509.00	764
- soap dispenser	1	#	65.00	65
- paper towel dispenser	1	#	275.00	275
15.0 Ice resurfacing room				nil
16.0 CMHA office				nil
17.0 Community hall		allow		5,000
18.0 Office				nil
19.0 Training				
- white board	1	#	200.00	200

OPTION 2				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
B3 FITTINGS & EQUIPMENT				
B31 Fittings & Fixtures				
20.0	Concession	allow		5,000
21.0	Miscellaneous metal supports	allow		1,500
22.0	Signage and wayfinding	4,611	m²	11.00 50,721
23.0	Blinds	allow		5,000
24.0	Various fittings, fixtures, millwork and specialty components not specifically detailed on the current drawings	allow		20,000
Total B31 Fittings & Fixtures		4,611	m²	618,149
B32 Equipment				
1.0	Scoreboard & time clocks	allow		25,000
2.0	Ice Rink refrigeration c/w dehumidification equipment	allow		450,000
3.0	Miscellaneous equipment supports, etc.	allow		10,000
Total B32 Equipment		4,611	m²	485,000
B33 Conveying Systems				
1.0	Modifications to existing elevator	allow		25,000
Total B33 Conveying Systems		2	stp	25,000

OPTION 2				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
C1 MECHANICAL				
C11 Plumbing & Drainage				
PLUMBING FIXTURES:				
1.0	Wall hung toilet c/w electronic flush valve, seat, and hanger	26	#	1,400.00 36,400
2.0	Wall hung urinal c/w electronic flush valve	14	#	1,300.00 18,200
3.0	Counter mounted lavatory c/w manual faucet	12	#	600.00 7,200
4.0	Wall hung lavatory c/w manual faucet, trap, and hanger	14	#	700.00 9,800
5.0	Single bowl s.s. sink c/w manual faucet & trap, allow	4	#	700.00 2,800
6.0	Double bowl s.s. sink c/w manual faucet & trap, allow			nil
7.0	Mop sink			nil
8.0	Eyewash station	1	#	550.00 550
9.0	Shower	22	#	1,000.00 22,000
TOTAL - PLUMBING FIXTURES				\$96,950
				\$21.03 /m2
DOMESTIC HOT AND COLD WATER				
10.0	Non frost wall hydrants	2	#	700.00 1,400
11.0	Hose bibbs	18	#	150.00 2,700
12.0	Water heater	2	#	8,000.00 16,000
13.0	Recirc pump	1	#	1,600.00 1,600
14.0	Temperature mixing valve to water heater	1	#	2,200.00 2,200
15.0	Tempering valves	26	#	200.00 5,200
16.0	Backflow preventer	1	#	8,000.00 8,000
17.0	Water meter connection			existing to remain
18.0	Domestic water pipe distribution			192,900
19.0	Insulation			48,225
TOTAL - DOMESTIC HOT AND COLD WATER				\$278,225
				\$60.34 /m2
SANITARY WASTE AND VENT				
20.0	Floor drains	52	#	250.00 13,000
21.0	Elevator sump pump			nil
22.0	Condensate drains	4	#	1,300.00 5,200
23.0	Sanitary pipe distribution			119,000
TOTAL - SANITARY WASTE AND VENT				\$137,200
				\$29.75 /m2
STORM				
24.0	Roof drains	18	#	300.00 5,400
25.0	Storm sump pit pumps			nil
26.0	Storm pipe distribution			72,000
27.0	Pipe insulation			14,400
TOTAL - STORM				\$91,800
				\$19.91 /m2

FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx

OPTION 2				
Description	Qty	Unit	Rate	Amount
C1 MECHANICAL				
NATURAL GAS				
28.0	Natural gas pipe distribution		allow	35,000
TOTAL - NATURAL GAS			<u>\$35,000</u>	
			\$7.59 /m2	
DEMOLITION				
29.0	Remove plumbing fixtures		32 # 125.00	4,000
30.0	Remove remaining mechanical as required		allow	25,000
TOTAL - DEMOLITION			<u>\$29,000</u>	
			\$6.29 /m2	
MISCELLANEOUS				
31.0	Identification			8,500
32.0	Miscellaneous fitments, as built, etc			50,800
TOTAL - MISCELLANEOUS			<u>\$59,300</u>	
			\$12.86 /m2	
Total C11 Plumbing & Drainage		4,611	m²	<u>727,475</u>

FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx

OPTION 2					
Description	Qty	Unit	Rate	Amount	
C1 MECHANICAL					
C12 Fire Protection					
SPRINKLERS:					
1.0	Wet sprinklers	4,611	m2	22.00	101,442
2.0	Extra over for Dry sprinklers	2,375	m2	12.00	28,500
3.0	Backflow preventer to fire service	1	#	10,000.00	10,000
4.0	Extra over for high elevations				32,486
5.0	Mains to areas		allow		35,000
TOTAL - SPRINKLERS				\$207,428	
				\$44.99 /m2	
FIRE STANDPIPE					
nil					
TOTAL - FIRE STANDPIPE				nil	
				\$0.00 /m2	
FIRE EXTINGUISHERS					
6.0	Fire extinguishers	12	#	200.00	2,400
TOTAL - FIRE EXTINGUISHERS				\$2,400	
				\$0.52 /m2	
MISCELLANEOUS					
7.0	Miscellaneous fitments				15,700
TOTAL - MISCELLANEOUS				\$15,700	
				\$3.40 /m2	
Total C12 Fire Protection		4,611	m²		225,528

OPTION 2				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
C1 MECHANICAL				
C13 HVAC				
AIR HANDLING UNITS AND DUCTWORK				
1.0	Heat recovery ventilators	2	#	40,000.00
2.0	Fans		allow	20,000
3.0	Ductwork c/w equipment installation			175,000
4.0	Grilles and Diffusers	100	#	70.00
5.0	Insulation			21,000
6.0	Fire dampers			Incl.
7.0	Gas fired radiant tube heaters	10	#	5,000.00
8.0	Split a/c unit c/w remote condenser and refrigeration lines	4	#	12,000.00
9.0	Duct vacuuming			nil
TOTAL - AIR HANDLING UNITS & DUCTWORK			\$401,000	
			\$86.97 /m2	
EXHAUST AND VENTILATION				
				incl.
TOTAL - EXHAUST AND VENTILATION			incl.	
			\$0.00 /m2	
LIQUID HEAT TRANSFER				
10.0	Unit heaters/force flows	10	#	1,000.00
11.0	Reheat coils/volume boxes	24	#	800.00
12.0	Converters	2	#	6,000.00
13.0	Heating water pumps	4	#	5,500.00
14.0	Variable speed drives	10	#	6,500.00
15.0	Expansion tanks	2	#	1,600.00
16.0	Glycol fill station	1	#	1,500.00
17.0	Infloor heat to change rooms	653	m2	120.00
18.0	Heating water pipe distribution			126,800
19.0	Insulation			31,700
TOTAL - LIQUID HEAT TRANSFER			\$369,760	
			\$80.19 /m2	
BALANCING				
20.0	Balancing			7,500
21.0	Verification			4,500
22.0	Labour for Mechanical Contractor to coordinate with commissioning agent			6,000
TOTAL - BALANCING			\$18,000	
			\$3.90 /m2	
SILENCING/VIBRATION ISOLATION				
				nil
TOTAL - SILENCING/VIBRATION ISOLATION			nil	
			\$0.00 /m2	

OPTION 2				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
C1 MECHANICAL				
C13 HVAC (Cont'd)				
MOTOR CONTROL & MECHANICAL WIRING				
				By electrical
TOTAL - MOTOR CONTROL & MECHANICAL WIRING			By electrical	
			\$0.00 /m2	
MISCELLANEOUS				
23.0	Identification			6,000
24.0	Cranage			15,000
25.0	Seismic restraint			nil
26.0	Miscellaneous fitments, as built, etc			60,700
TOTAL - MISCELLANEOUS			\$81,700	
			\$17.72 /m2	
Total C13 HVAC		4,611	m²	870,460
C14 Controls				
1.0	Controls			137,500
Total C14 Controls		4,611	m²	137,500

OPTION 2				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
C2 ELECTRICAL				
C21 Service & Distribution				
1.0 Outdoor HV primary distribution				see site
2.0 Normal power distribution	1	#	235,000.00	235,000
3.0 Emerg NG fired stand-by generator				nil
4.0 Mechanical (motor) wiring	1	sum	38,000.00	38,000
5.0 Miscellaneous distribution				
- digital metering at main LV switchboard c/w commissioning	1	#	5,000.00	5,000
- hydro metering cabinet in separate W/P enclosure, W/M	1	#	1,250.00	1,250
- 915x915x305mm transition pulling box for secondary cables, W/M	1	#	750.00	750
- premium for shutdowns & tie-ins	1	sum	4,000.00	4,000
- testing, inspection & commissioning	1	sum	2,500.00	2,500
- arc flash hazard analysis	1	#	2,500.00	2,500
- short circuit & co-ordination study	1	#	5,000.00	5,000
Total C21 Service & Distribution	4,611	m²		294,000
C22 Lighting, Devices & Heating				
1.0 Lighting including exit & emerg lights, LED	4,611	m²	75.00	345,825
2.0 Switching c/w occupancy sensors	1	sum	32,500.00	32,500
3.0 LV lighting control system				nil
4.0 Receptacles	1	sum	62,500.00	62,500
5.0 Equipment hard wired power connections				
- electrical no touch faucet c/w 50va 120v/24vac TX in ceiling space	24	#	200.00	4,800
- electrical no touch flush urinal c/w 50va 120v/24vac TX in ceiling spa	11	#	200.00	2,200
- barrier free motorized door operator c/w pushbuttons, C/M	4	#	275.00	1,100
- scoreboard, W/M	1	#	1,500.00	1,500
- 1.5kw hot air hand dryer c/w pushbutton, W/M	12	#	200.00	2,400
- fire alarm EVAC power booster, W/M	2	#	250.00	500
- BAS mechanical controls c/w 50va 120v/24vac TX in ceiling space	6	#	200.00	1,200
6.0 Electrical resistance heating, connections only				
- 2.00kw cabinet unit heater UH-1 c/w				
built-in non-programmable electrical thermostat, W/M	8	#	250.00	2,000
- 5.00kw cabinet forced flow heater FFH-1 c/w				
built-in non-programmable electrical thermostat, W/M	4	#	375.00	1,500
7.0 Heat tracing to roof mounted mechanical piping	1	sum	5,000.00	5,000
Total C22 Lighting, Devices & Heating	4,611	m²		463,025

OPTION 2				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
C2 ELECTRICAL				
C23 Systems & Ancillaries				
1.0 Single stage addressable fire alarm system c/w 3rd party verification	4,611	m²	15.00	69,165
2.0 Telecommunications, conduit only	1	sum	10,000.00	10,000
3.0 Telecommunications, Cat6 FT6 multipair plenum rated cabling				by owner
4.0 Wireless communications				nil
5.0 CATV system, conduit only				
- CATV outlet, W/M	1	#	150.00	150
6.0 Barrier-free universal washroom flashing unit	1	#	2,000.00	2,000
7.0 Intrusion control system, conduit & power only	1	sum	8,000.00	8,000
8.0 Door access control system, conduit & power only				
- proximity card reader, unsecured side, W/M	6	#	125.00	750
- electric strike, D/M	6	#	125.00	750
- electro-magnetic door holder, D/M	8	#	125.00	1,000
- door open-detect contact, D/M	10	#	125.00	1,250
- door bell c/w step-down transformer, C/M	6	#	125.00	750
- power assisted pushbutton, W/M	6	#	125.00	750
- infra-red egress motion detector, W/M	6	#	125.00	750
- security junction box, C/M	6	#	150.00	900
- door power & security controller on secure side, C/M	6	#	400.00	2,400
9.0 Door access control system, wiring & head-end equipment				by others
10.0 CCTV system, power & conduit only				
- CCTV camera, indoor fixed, W/M	8	#	375.00	3,000
- CCTV camera, indoor PTZ, W/M	2	#	375.00	750
11.0 CCTV system, head-end equipment, devices & wiring				by others

OPTION 2				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
C2 ELECTRICAL				
C23 Systems & Ancillaries (Cont'd)				
12.0 Cable tray, main conduit, hangers & support channels, etc.	1	sum	36,000.00	36,000
13.0 Public address & paging system				nil
14.0 Lightning protection system				nil
15.0 Secondary grounding & bonding system	4,611	m²	2.50	11,528
16.0 Scanning, core drilling & patching				by general
17.0 Electrical demolition at tie-in c/w disposal	1	sum	1,500.00	1,500
18.0 Testing & inspection	1	sum	10,000.00	10,000
19.0 Labour for commissioning agent	1	sum	5,000.00	5,000
20.0 Seismic & vibration restraints				nil
21.0 Miscellaneous fitments, fire stops, rentals, etc.	1	sum	25,000.00	25,000
22.0 Job start up & close out	1	sum	94,342.00	94,342
Total C23 Systems & Ancillaries	4,611	m²		<u>285,735</u>

OPTION 2				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
D1 SITE WORK				
D11 Site Development				nil
D12 Mechanical Site Services				nil
D13 Electrical Site Services				
D2 ANCILLARY WORK				
D21 Demolition				see summary
D22 Alterations				
1.0 Removals				
- block partitions	223	m²	48.00	10,704
- floor finishes	789	m²	32.00	25,248
- ceiling finishes	789	m²	27.00	21,303
- doors and frames	17	#	100.00	1,700
- millwork	75	m	60.00	4,500
- exterior wall c/w shoring	116	m²	215.00	24,940
- toilet partitions	5	#	150.00	750
- overhead door	1	#	500.00	500
- stairs	2	#	2,500.00	5,000
- toilet partitions	5	#	250.00	1,250
- elevator door		allow		5,000
- concrete slab	107	m²	54.00	5,778
- opening for door	1	#	1,500.00	1,500
- miscellaneous fittings and fixtures		allow		500
2.0 Demolish existing entrance		allow		12,000
3.0 Grind and prep floor for new finish	789	m²	16.00	12,624
4.0 Temporary partitions / protect existing		allow		15,000
5.0 Cut & patch for mechanical & electrical		allow		6,000
6.0 Hazardous material abatement				excluded
7.0 Minor demolition, removals, etc.		allow		5,000
Total D22 Alterations	4,611	m²		<u>159,297</u>
D23 Cash Allowances				
1.0 Cash allowances to include, but not limited to, testing and inspection and unforeseeable site conditions		allow		10,000
Total D23 Cash Allowances	4,611	m²		<u>10,000</u>

SECTION 4: OPTION 3

CITY OF CAMBRIDGE		April 21, 2021						
PRESTON AUDITORIUM		CLASS "D" ESTIMATE						
Cambridge, Ontario								
		GFA : 5,550 m²						
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx								
ELEMENT/Sub Element	Ratio to GFA	Elemental Cost		Elemental Amount		Rate/m²		
		Quantity	Unit Rate	Sub-total	Total	Sub-Total	Total	
A SHELL					\$6,357,951		\$1,145.58	40.70%
A1 SUBSTRUCTURE					\$744,360		\$134.12	4.76%
A11 Foundations	0.70	3,871 m²	192.29	\$744,360		\$134.12		
A112 Special Foundations	0.00	0 m³	0.00	nil		\$0.00		
A12 Basement Excavation	0.00	0 m³	0.00	nil		\$0.00		
A2 STRUCTURE					\$3,437,636		\$619.39	22.01%
A21 Lowest Floor Construction	0.70	3,871 m²	99.08	\$383,530		\$69.10		
A22 Upper Floor Construction	0.15	837 m²	639.93	\$535,624		\$96.51		
A222 Stair Construction	0.00	1 fts	30,000.00	\$30,000		\$5.41		
A23 Roof Construction	0.70	3,871 m²	642.85	\$2,488,482		\$448.38		
A3 EXTERIOR ENCLOSURE					\$2,175,955		\$392.06	13.93%
A31 Walls Below Grade	0.00	0 m²	0.00	nil		\$0.00		
A32 Walls Above Grade	0.36	1,987 m²	554.24	\$1,101,265		\$198.43		
A33 Windows & Entrances	0.00	3 m²	20,139.67	\$60,419		\$10.89		
A34 Roof Covering	0.70	3,871 m²	228.99	\$886,401		\$159.71		
A35 Projections	0.03	169 m²	756.63	\$127,870		\$23.04		
B INTERIORS					\$2,816,284		\$507.44	18.03%
B1 PARTITIONS & DOORS					\$925,043		\$166.67	5.92%
B11 Partitions	0.56	3,098 m²	252.22	\$781,393		\$140.79		
B12 Doors	0.01	44 #	3,264.77	\$143,650		\$25.88		
B2 FINISHES					\$758,092		\$136.59	4.85%
B21 Floor Finishes	0.81	4,484 m²	100.08	\$448,772		\$80.86		
B22 Ceiling Finishes	0.70	3,899 m²	29.28	\$114,146		\$20.57		
B23 Wall Finishes	1.76	9,746 m²	20.03	\$195,174		\$35.17		
B3 FITTINGS & EQUIPMENT					\$1,133,149		\$204.17	7.25%
B31 Fittings & Fixtures	0.83	4,611 m²	135.14	\$623,149		\$112.28		
B32 Equipment	0.83	4,611 m²	105.18	\$485,000		\$87.39		
B33 Conveying Systems	0.00	2 stp	12,500.00	\$25,000		\$4.50		
C SERVICES					\$3,333,703		\$600.67	21.34%
C1 MECHANICAL					\$2,200,340		\$396.46	14.09%
C11 Plumbing & Drainage	1.00	5,550 m²	133.04	\$738,375		\$133.04		
C12 Fire Protection	1.00	5,550 m²	48.07	\$266,805		\$48.07		
C13 HVAC	1.00	5,550 m²	188.77	\$1,047,660		\$188.77		
C14 Controls	1.00	5,550 m²	26.58	\$147,500		\$26.58		
C2 ELECTRICAL					\$1,133,363		\$204.21	7.26%
C21 Service & Distribution	1.00	5,550 m²	52.97	\$294,000		\$52.97		
C22 Lighting, Devices & Heating	1.00	5,550 m²	92.78	\$514,950		\$92.78		
C23 Systems & Ancillaries	1.00	5,550 m²	58.45	\$324,413		\$58.45		
NET BUILDING COST - EXCLUDING SITE & ANCILLARY WORK				\$12,507,938	\$12,507,938		\$2,253.68	80.07%
D SITE & ANCILLARY WORK					\$171,797		\$30.95	1.10%
D1 SITE WORK					\$0		\$0.00	0.00%
D11 Site Development	0.00	0 m²	0.00	nil		\$0.00		
D12 Mechanical Site Services	0.00	0 m²	0.00	nil		\$0.00		
D13 Electrical Site Services	0.00	0 m²	0.00	nil		\$0.00		
D2 ANCILLARY WORK					\$171,797		\$30.95	1.10%
D21 Demolition	0.00	0 m²	0.00	nil		\$0.00		
D22 Alterations	0.83	4,611 m²	35.09	\$161,797		\$29.15		
D23 Cash Allowances	0.83	4,611 m²	2.17	\$10,000		\$1.80		
NET BUILDING COST - EXCLUDING GENERAL REQUIREMENTS				\$12,679,735	\$12,679,735		\$2,284.64	81.17%
Z GENERAL REQUIREMENTS					\$1,521,568		\$274.16	9.74%
Z1 GENERAL REQUIREMENTS & FEE					\$1,521,568		\$274.16	9.74%
Z11 General Requirements (%)		8.0%		\$1,014,379		\$182.77		
Z12 Fee (%)		4.0%		\$507,189		\$91.39		
TOTAL CONSTRUCTION ESTIMATE - EXCLUDING ALLOWANCES				\$14,201,303	\$14,201,303		\$2,558.79	90.91%
Z2 ALLOWANCES					\$1,420,130		\$255.88	9.09%
Z21 Design & Pricing (%)		10.0%		\$1,420,130		\$255.88		
Z22 Escalation Allowance (%)		0.0%		\$0		\$0.00		
Z23 Construction Allowance (%)		0.0%		\$0		\$0.00		
TOTAL CONSTRUCTION ESTIMATE - EXCLUDING TAXES				\$15,621,433	\$15,621,433		\$2,814.67	100.00%
HARMONIZED SALES TAX					\$0			
Harmonized Sales Tax		0.0%		\$0		\$0.00		
TOTAL CONSTRUCTION ESTIMATE				\$15,621,433		\$2,814.67		
						Area (sf)	59,740	
						/sf	\$261.49	

OPTION 3

FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx

Description	Qty	Unit	Rate	Amount
A1 SUBSTRUCTURE				
A11 Foundations				
1.0 Earthwork	3,871	m²	35.00	135,485
2.0 Foundations	3,871	m²	125.00	483,875
3.0 Shoring / underpinning along abutting wall		allow		100,000
4.0 Inserts, steps, tie-ins, etc.		allow		25,000
Total A11 Foundations	3,871	m²		744,360

A112 Special Foundations nil

A12 Basement Excavation nil

A2 STRUCTURE				
A21 Lowest Floor Construction				
1.0 Slab-on-grade	3,871	m²	70.00	270,970
- extra / over for ice pad slab	1,539	m²	40.00	61,560
2.0 Pad service trench		allow		35,000
3.0 Trench drain		allow		6,000
4.0 Inserts, slab thickening, equipment bases, misc. reinforcing		allow		10,000
Total A21 Lowest Floor Construction	3,871	m²		383,530

A22 Upper Floor Construction				
1.0 Infill shaft		allow		5,000
2.0 Structural steel and railings	837	m²	592.00	495,504
- E/O cantilevered structure	151	m²	100.00	15,120
3.0 Inserts, curbs, etc.		allow		20,000
Total A22 Upper Floor Construction	837	m²		535,624

A222 Stair Construction				
1.0 Stairs	3	fts	10,000.00	30,000
Total A222 Stair Construction	1	fts		30,000

Marshall & Murray Inc.

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2021-04-21

OPTION 3				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
A2 STRUCTURE				
A23 Roof Construction				
1.0 Structural steel	188,982	kgs	11.00	2,078,802
2.0 Galvanized cellular acoustic metal deck	3,871	m²	80.00	309,680
3.0 Inserts, curbs, misc. reinforcing, tie-in to existing		allow		100,000
Total A23 Roof Construction	3,871	m²		2,488,482
A3 EXTERIOR ENCLOSURE				
A31 Walls Below Grade				
				nil
A32 Walls Above Grade				
1.0 Exterior wall comprised of: - brick/stone - sprayed insulation - vapour barrier - masonry block	354	m²	581.00	205,674
2.0 Exterior wall comprised of: - metal panels - sprayed insulation - vapour barrier - masonry block	1,633	m²	527.00	860,591
3.0 Lintels, caulking, flashing, tie-in to existing		allow		35,000
Total A32 Walls Above Grade	1,987	m²		1,101,265

OPTION 3				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
A3 EXTERIOR ENCLOSURE				
A33 Windows & Entrances				
1.0 Overhead door	1	#	15,000.00	15,000
2.0 Insulated hollow metal doors c/w hardware	9	#	2,150.00	19,350
3.0 Sliding glazed aluminum entrance doors	2	#	6,000.00	12,000
4.0 Glazed aluminum entrance doors	3	#	3,000.00	9,000
5.0 Curtain wall	3	m²	1,023.00	3,069
6.0 Supports, caulking, flashing, etc.		allow		2,000
Total A33 Windows & Entrances	3	m²		60,419
A34 Roof Covering				
1.0 Two ply modified bitumen roofing	3,871	m²	215.00	832,265
2.0 Parapet cap and flashing	208	m	92.00	19,136
3.0 Flashing, pavers, anchors, tie-in to existing		allow		35,000
Total A34 Roof Covering	3,871	m²		886,401
A35 Projections				
1.0 Canopy	50	m²	900.00	45,000
2.0 Soffit	156	m²	431.00	67,236
3.0 Brick wall	13	m²	818.00	10,634
4.0 Flashing, caulking, tie-in to existing		allow		5,000
Total A35 Projections	169	m²		127,870

OPTION 3				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
B1 PARTITIONS & DOORS				
B11 Partitions				
1.0 Block partitions	3,087	m ²	237.00	731,619
2.0 Glazing	11	m ²	484.00	5,324
3.0 Glazed railing	17	m	850.00	14,450
4.0 Lintels, supports, caulking, firestopping		allow		30,000
Total B11 Partitions	3,098	m ²		781,393
B12 Doors				
1.0 Overhead door	1	#	15,000.00	15,000
2.0 Hollow metal doors with a paint finish set within a painted hollow metal frame	35	lvs	650.00	22,750
3.0 Fully glazed aluminum door c/w hardware	7	lvs	3,200.00	22,400
4.0 Sliding glazed aluminum entrance doors	1	#	8,000.00	8,000
5.0 Extra / over for:				
- finish hardware	35	#	1,600.00	56,000
- fire rating	9	#	250.00	2,250
- glazing	9	#	250.00	2,250
- door operators, card readers etc		allow		10,000
6.0 Supports, misc. finish hardware		allow		5,000
Total B12 Doors	44	#		143,650

OPTION 3				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
B2 FINISHES				
B21 Floor Finishes				
1.0 Rubber flooring	1,544	m ²	140.00	216,160
2.0 Sealed concrete	2,299	m ²	16.00	36,784
3.0 Vinyl composite tile	641	m ²	38.00	24,358
4.0 Rubber track flooring	676	m ²	215.00	145,340
5.0 Rubber base	1,613	m	10.00	16,130
6.0 Special finishes, patterns, etc.		allow		10,000
Total B21 Floor Finishes	4,484	m ²		448,772
B22 Ceiling Finishes				
1.0 Paint to exposed structure	3,325	m ²	22.00	73,150
2.0 Acoustic tile	574	m ²	54.00	30,996
3.0 Bulkheads		allow		5,000
4.0 Special finishes, patterns, etc.		allow		5,000
Total B22 Ceiling Finishes	3,899	m ²		114,146
B23 Wall Finishes				
1.0 Paint	9,746	m ²	19.00	185,174
2.0 Special finishes, patterns, etc.		allow		10,000
Total B23 Wall Finishes	9,746	m ²		195,174

OPTION 3

FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx

Description	Qty	Unit	Rate	Amount
B3 FITTINGS & EQUIPMENT				
B31 Fittings & Fixtures				
1.0 Refrig / mechanical room				nil
2.0 Storage (4#)				nil
3.0 Icepad				
- dasher boards, benches, timekeeper and protective netting		allow		280,000
- viewing bench seating		allow		60,000
4.0 Referee room (2#)				
- toilet partitions	2	#	600.00	1,200
- toilet tissue dispenser	2	#	85.00	170
- prefabricated shower stall	2	#	3,500.00	7,000
- shower curtain and rod	2	#	250.00	500
- soap dispenser	2	#	65.00	130
- paper towel dispenser	2	#	275.00	550
- bench	12.4	m	197.00	2,443
- mirror	2	#	220.00	440
- sanitary napkin disposal	2	#	110.00	220
- fold down shower seat	1	#	550.00	550
5.0 Change room (13#)				
- bench	212.4	m	197.00	41,843
- prefabricated shower stall	21	#	3,500.00	73,500
- shower curtain and rod	21	#	250.00	5,250
- handicap toilet partition	2	#	850.00	1,700
- standard toilet partition	10	#	600.00	6,000
- toilet tissue dispenser	14	#	85.00	1,190
- soap dispenser	14	#	65.00	910
- paper towel dispenser	14	#	275.00	3,850
- mirror	14	#	220.00	3,080
- sanitary napkin disposal	14	#	110.00	1,540
- coat hooks	36	#	35.00	1,260
- grab bars	6	#	220.00	1,320
- vanity	2.0	m	213.00	426
6.0 Washrooms (2#)				
- handicap toilet partition	6	#	850.00	5,100
- standard toilet partition	6	#	600.00	3,600
- toilet tissue dispenser	10	#	85.00	850
- soap dispenser	6	#	65.00	390
- paper towel dispenser	2	#	275.00	550
- mirror	6	#	220.00	1,320
- sanitary napkin disposal	5	#	110.00	550
- vanity	5.6	m	213.00	1,193
- grab bars	8	#	220.00	1,760

OPTION 3

FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx

Description	Qty	Unit	Rate	Amount
B3 FITTINGS & EQUIPMENT				
B31 Fittings & Fixtures				
7.0 Universal washroom				
- toilet tissue dispenser	1	#	85.00	85
- soap dispenser	1	#	65.00	65
- paper towel dispenser	1	#	275.00	275
- mirror	1	#	220.00	220
- sanitary napkin disposal	1	#	110.00	110
- vanity	1.0	m	213.00	213
8.0 Vestibule				
- recessed aluminum grille		allow		5,000
9.0 Community		allow		5,000
10.0 Meter				nil
11.0 Elevator machine				nil
12.0 First aid				
- lower cabinets	1.5	m	656.00	984
- upper cabinets	1.5	m	509.00	764
- soap dispenser	1	#	65.00	65
- paper towel dispenser	1	#	275.00	275
13.0 Staff room				
- lower cabinets	3.7	m	656.00	2,427
- upper cabinets	3.7	m	509.00	1,883
- soap dispenser	1	#	65.00	65
- paper towel dispenser	1	#	275.00	275
- tv support bracket	1	#	550.00	550
14.0 Servery				
- lower cabinets	1.5	m	656.00	984
- upper cabinets	1.5	m	509.00	764
- soap dispenser	1	#	65.00	65
- paper towel dispenser	1	#	275.00	275
15.0 Ice resurfacing room				nil
16.0 CMHA office				nil
17.0 Community hall		allow		5,000
18.0 Office				nil
19.0 Training				
- white board	1	#	200.00	200

FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx

OPTION 3					
Description	Qty	Unit	Rate	Amount	
B3 FITTINGS & EQUIPMENT					
B31 Fittings & Fixtures					
20.0	Concession		allow	5,000	
21.0	Multipurpose room		allow	5,000	
22.0	Miscellaneous metal supports		allow	1,500	
23.0	Signage and wayfinding	4,611	m²	11.00	50,721
24.0	Blinds		allow	5,000	
25.0	Various fittings, fixtures, millwork and specialty components not specifically detailed on the current drawings		allow	20,000	
Total B31 Fittings & Fixtures		4,611	m²		623,149
B32 Equipment					
1.0	Scoreboard & time clocks		allow	25,000	
2.0	Ice Rink refrigeration c/w dehumidification equipment		allow	450,000	
3.0	Miscellaneous equipment supports, etc.		allow	10,000	
Total B32 Equipment		4,611	m²		485,000
B33 Conveying Systems					
1.0	Modifications to existing elevator		allow	25,000	
Total B33 Conveying Systems		2	stp		25,000

OPTION 3				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
C1 MECHANICAL				
C11 Plumbing & Drainage				
PLUMBING FIXTURES:				
1.0	Wall hung toilet c/w electronic flush valve, seat, and hanger	26	#	1,400.00 36,400
2.0	Wall hung urinal c/w electronic flush valve	14	#	1,300.00 18,200
3.0	Counter mounted lavatory c/w manual faucet	12	#	600.00 7,200
4.0	Wall hung lavatory c/w manual faucet, trap, and hanger	14	#	700.00 9,800
5.0	Single bowl s.s. sink c/w manual faucet & trap, allow	4	#	700.00 2,800
6.0	Double bowl s.s. sink c/w manual faucet & trap, allow			nil
7.0	Mop sink			nil
8.0	Eyewash station	1	#	550.00 550
9.0	Shower	22	#	1,000.00 22,000
TOTAL - PLUMBING FIXTURES			\$96,950	
			\$21.03 /m2	
DOMESTIC HOT AND COLD WATER				
10.0	Non frost wall hydrants	2	#	700.00 1,400
11.0	Hose bibbs	18	#	150.00 2,700
12.0	Water heater	2	#	8,000.00 16,000
13.0	Recirc pump	1	#	1,600.00 1,600
14.0	Temperature mixing valve to water heater	1	#	2,200.00 2,200
15.0	Tempering valves	26	#	200.00 5,200
16.0	Backflow preventer	1	#	8,000.00 8,000
17.0	Water meter connection			existing to remain
18.0	Domestic water pipe distribution			192,900
19.0	Insulation			48,225
TOTAL - DOMESTIC HOT AND COLD WATER			\$278,225	
			\$60.34 /m2	
SANITARY WASTE AND VENT				
20.0	Floor drains	52	#	250.00 13,000
21.0	Elevator sump pump			nil
22.0	Condensate drains	4	#	1,300.00 5,200
23.0	Sanitary pipe distribution			119,000
TOTAL - SANITARY WASTE AND VENT			\$137,200	
			\$29.75 /m2	
STORM				
24.0	Roof drains	18	#	300.00 5,400
25.0	Storm sump pit pumps			nil
26.0	Storm pipe distribution			72,000
27.0	Pipe insulation			14,400
TOTAL - STORM			\$91,800	
			\$19.91 /m2	

OPTION 3					
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx					
Description		Qty	Unit	Rate	Amount
C1 MECHANICAL					
NATURAL GAS					
28.0	Natural gas pipe distribution		allow		45,000
TOTAL - NATURAL GAS				\$45,000	
				\$9.76 /m2	
DEMOLITION					
29.0	Remove plumbing fixtures	32	#	125.00	4,000
30.0	Remove remaining mechanical as required		allow		25,000
TOTAL - DEMOLITION				\$29,000	
				\$6.29 /m2	
MISCELLANEOUS					
31.0	Identification				8,700
32.0	Miscellaneous fitments, as built, etc				51,500
TOTAL - MISCELLANEOUS				\$60,200	
				\$13.06 /m2	
Total C11 Plumbing & Drainage		5,550	m²		738,375

OPTION 3					
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx					
Description	Qty	Unit	Rate	Amount	
C1 MECHANICAL					
C12 Fire Protection					
SPRINKLERS:					
1.0	Wet sprinklers	5,550	m2	22.00	122,100
2.0	Extra over for Dry sprinklers	3,212	m2	12.00	38,544
3.0	Backflow preventer to fire service	1	#	10,000.00	10,000
4.0	Extra over for high elevations				40,161
5.0	Mains to areas		allow		35,000
TOTAL - SPRINKLERS				\$245,805	
				\$53.31 /m2	
FIRE STANDPIPE					
					nil
TOTAL - FIRE STANDPIPE				nil	
				\$0.00 /m2	
FIRE EXTINGUISHERS					
6.0	Fire extinguishers	12	#	200.00	2,400
TOTAL - FIRE EXTINGUISHERS				\$2,400	
				\$0.52 /m2	
MISCELLANEOUS					
7.0	Miscellaneous fitments				18,600
TOTAL - MISCELLANEOUS				\$18,600	
				\$4.03 /m2	
Total C12 Fire Protection		5,550	m²		266,805

OPTION 3				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
C1 MECHANICAL				
C13 HVAC				
AIR HANDLING UNITS AND DUCTWORK				
1.0	Heat recovery ventilators	2	#	40,000.00
2.0	Fans		allow	20,000
3.0	Ductwork c/w equipment installation			175,000
4.0	Grilles and Diffusers	100	#	70.00
5.0	Insulation			21,000
6.0	Fire dampers			Incl.
7.0	Gas fired radiant tube heaters	10	#	5,000.00
8.0	Split a/c unit c/w remote condenser and refrigeration lines	4	#	12,000.00
9.0	Duct vacuuming			nil
10.0	HVAC/additional heating at track area, and link	940	m2	150.00
TOTAL - AIR HANDLING UNITS & DUCTWORK				\$542,000
				\$117.55 /m2
EXHAUST AND VENTILATION				
TOTAL - EXHAUST AND VENTILATION				incl.
				incl.
				\$0.00 /m2
LIQUID HEAT TRANSFER				
11.0	Unit heaters/force flows	14	#	1,000.00
12.0	Reheat coils/volume boxes	26	#	800.00
13.0	Converters	2	#	6,000.00
14.0	Heating water pumps	4	#	5,500.00
15.0	Variable speed drives	10	#	6,500.00
16.0	Expansion tanks	2	#	1,600.00
17.0	Glycol fill station	1	#	1,500.00
18.0	Infloor heat to change rooms	653	m2	120.00
19.0	Heating water pipe distribution			138,200
20.0	Insulation			34,600
TOTAL - LIQUID HEAT TRANSFER				\$389,660
				\$84.51 /m2
BALANCING				
21.0	Balancing			9,000
22.0	Verification			5,400
23.0	Labour for Mechanical Contractor to coordinate with commissioning agent			7,200
TOTAL - BALANCING				\$21,600
				\$4.68 /m2

OPTION 3				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
C1 MECHANICAL				
C13 HVAC (Cont'd)				
SILENCING/VIBRATION ISOLATION				
TOTAL - SILENCING/VIBRATION ISOLATION				nil
				\$0.00 /m2
MOTOR CONTROL & MECHANICAL WIRING				
TOTAL - MOTOR CONTROL & MECHANICAL WIRING				By electrical
				By electrical
				\$0.00 /m2
MISCELLANEOUS				
24.0	Identification			6,300
25.0	Cranage			15,000
26.0	Seismic restraint			nil
27.0	Miscellaneous fitments, as built, etc			73,100
TOTAL - MISCELLANEOUS				\$94,400
				\$20.47 /m2
Total C13 HVAC		5,550	m²	1,047,660
C14 Controls				
1.0	Controls			147,500
Total C14 Controls		5,550	m²	147,500

OPTION 3				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
C2 ELECTRICAL				
C21 Service & Distribution				
1.0 Outdoor HV primary distribution				see site
2.0 Normal power distribution	1	#	235,000.00	235,000
3.0 Emerg NG fired stand-by generator				nil
4.0 Mechanical (motor) wiring	1	sum	38,000.00	38,000
5.0 Miscellaneous distribution				
- digital metering at main LV switchboard c/w commissioning	1	#	5,000.00	5,000
- hydro metering cabinet in separate W/P enclosure, W/M	1	#	1,250.00	1,250
- 915x915x305mm transition pulling box for secondary cables, W/M	1	#	750.00	750
- premium for shutdowns & tie-ins	1	sum	4,000.00	4,000
- testing, inspection & commissioning	1	sum	2,500.00	2,500
- arc flash hazard analysis	1	#	2,500.00	2,500
- short circuit & co-ordination study	1	#	5,000.00	5,000
Total C21 Service & Distribution	5,550	m²		294,000
C22 Lighting, Devices & Heating				
1.0 Lighting including exit & emerg lights, LED	4,610	m²	75.00	345,750
- lighting to track, link, and stairs	940	m²	50.00	47,000
2.0 Switching c/w occupancy sensors	1	sum	32,500.00	32,500
3.0 LV lighting control system				nil
4.0 Receptacles	1	sum	67,500.00	67,500
5.0 Equipment hard wired power connections				
- electrical no touch faucet c/w 50va 120v/24vac TX in ceiling space	24	#	200.00	4,800
- electrical no touch flush urinal c/w 50va 120v/24vac TX in ceiling spa	11	#	200.00	2,200
- barrier free motorized door operator c/w pushbuttons, C/M	4	#	275.00	1,100
- scoreboard, W/M	1	#	1,500.00	1,500
- 1.5kw hot air hand dryer c/w pushbutton, W/M	12	#	200.00	2,400
- fire alarm EVAC power booster, W/M	2	#	250.00	500
- BAS mechanical controls c/w 50va 120v/24vac TX in ceiling space	6	#	200.00	1,200
6.0 Electrical resistance heating, connections only				
- 2.00kw cabinet unit heater UH-1 c/w built-in non-programmable electrical thermostat, W/M	8	#	250.00	2,000
- 5.00kw cabinet forced flow heater FFH-1 c/w built-in non-programmable electrical thermostat, W/M	4	#	375.00	1,500
7.0 Heat tracing to roof mounted mechanical piping	1	sum	5,000.00	5,000
Total C22 Lighting, Devices & Heating	5,550	m²		514,950

OPTION 3				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
C2 ELECTRICAL				
C23 Systems & Ancillaries				
1.0 Single stage addressable fire alarm system c/w 3rd party verification	5,550	m²	15.00	83,250
2.0 Telecommunications, conduit only	1	sum	12,500.00	12,500
3.0 Telecommunications, Cat6 FT6 multipair plenum rated cabling				by owner
4.0 Wireless communications				nil
5.0 CATV system, conduit only				
- CATV outlet, W/M	1	#	150.00	150
6.0 Barrier-free universal washroom flashing unit	1	#	2,000.00	2,000
7.0 Intrusion control system, conduit & power only	1	sum	8,000.00	8,000
8.0 Door access control system, conduit & power only				
- proximity card reader, unsecured side, W/M	8	#	125.00	1,000
- electric strike, D/M	8	#	125.00	1,000
- electro-magnetic door holder, D/M	8	#	125.00	1,000
- door open-detect contact, D/M	12	#	125.00	1,500
- door bell c/w step-down transformer, C/M	8	#	125.00	1,000
- power assisted pushbutton, W/M	8	#	125.00	1,000
- infra-red egress motion detector, W/M	8	#	125.00	1,000
- security junction box, C/M	8	#	150.00	1,200
- door power & security controller on secure side, C/M	8	#	400.00	3,200
9.0 Door access control system, wiring & head-end equipment				by others
10.0 CCTV system, power & conduit only				
- CCTV camera, indoor fixed, W/M	12	#	375.00	4,500
- CCTV camera, indoor PTZ, W/M	2	#	375.00	750
11.0 CCTV system, head-end equipment, devices & wiring				by others

OPTION 3				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
C2 ELECTRICAL				
C23 Systems & Ancillaries (Cont'd)				
12.0	Cable tray, main conduit, hangers & support channels, etc.	1	sum	39,000.0039,000
13.0	Public address & paging system			nil
14.0	Lightning protection system			nil
15.0	Secondary grounding & bonding system	5,550	m²	2.5013,875
16.0	Scanning, core drilling & patching			by general
17.0	Electrical demolition at tie-in c/w disposal	1	sum	1,500.001,500
18.0	Testing & inspection	1	sum	11,000.0011,000
19.0	Labour for commissioning agent	1	sum	6,000.006,000
20.0	Seismic & vibration restraints			nil
21.0	Miscellaneous fitments, fire stops, rentals, etc.	1	sum	27,500.0027,500
22.0	Job start up & close out	1	sum	102,488.00102,488
Total C23 Systems & Ancillaries		5,550	m²	324,413

OPTION 3				
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
D1 SITE WORK				
D11 Site Development				nil
D12 Mechanical Site Services				nil
D13 Electrical Site Services				
D2 ANCILLARY WORK				
D21 Demolition				see summary
D22 Alterations				
1.0	Removals			
	- block partitions	223	m²	48.0010,704
	- floor finishes	789	m²	32.0025,248
	- ceiling finishes	789	m²	27.0021,303
	- doors and frames	17	#	100.001,700
	- millwork	75	m	60.004,500
	- exterior wall c/w shoring	116	m²	215.0024,940
	- toilet partitions	5	#	150.00750
	- overhead door	1	#	500.00500
	- stairs	2	#	2,500.005,000
	- toilet partitions	5	#	250.001,250
	- elevator door		allow	5,000
	- concrete slab	107	m²	54.005,778
	- opening for door	1	#	1,500.001,500
	- overhang		allow	2,500
	- miscellaneous fittings and fixtures		allow	500
2.0	Demolish existing entrance		allow	12,000
3.0	Grind and prep floor for new finish	789	m²	16.0012,624
4.0	Temporary partitions / protect existing		allow	15,000
5.0	Cut & patch for mechanical & electrical		allow	6,000
6.0	Hazardous material abatement			excluded
7.0	Minor demolition, removals, etc.		allow	5,000
Total D22 Alterations		4,611	m²	161,797
D23 Cash Allowances				
1.0	Cash allowances to include, but not limited to, testing and inspection and unforeseeable site conditions		allow	10,000
Total D23 Cash Allowances		4,611	m²	10,000

SECTION 5: SITE WORK

CITY OF CAMBRIDGE			PRESTON AUDITORIUM			ELEMENTAL COST SUMMARY			April 21, 2021		
Cambridge, Ontario						SITE WORK - OPTION 1			CLASS "D" ESTIMATE		
						GFA :		N/A m²			
FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx											
ELEMENT/Sub Element		Ratio to GFA	Elemental Cost		Elemental Amount		Rate/m²				
			Quantity	Unit Rate	Sub-total	Total	Sub-Total	Total			
A SHELL											
A1 SUBSTRUCTURE											
A11 Foundations					separate						
A112 Special Foundations					separate						
A12 Basement Excavation					separate						
A2 STRUCTURE											
A21 Lowest Floor Construction					separate						
A22 Upper Floor Construction					separate						
A222 Stair Construction					separate						
A23 Roof Construction					separate						
A3 EXTERIOR ENCLOSURE											
A31 Walls Below Grade					separate						
A32 Walls Above Grade					separate						
A33 Windows & Entrances					separate						
A34 Roof Covering					separate						
A35 Projections					separate						
B INTERIORS											
B1 PARTITIONS & DOORS											
B11 Partitions					separate						
B12 Doors					separate						
B2 FINISHES											
B21 Floor Finishes					separate						
B22 Ceiling Finishes					separate						
B23 Wall Finishes					separate						
B3 FITTINGS & EQUIPMENT											
B31 Fittings & Fixtures					separate						
B32 Equipment					separate						
B33 Conveying Systems					separate						
C SERVICES											
C1 MECHANICAL											
C11 Plumbing & Drainage					separate						
C12 Fire Protection					separate						
C13 HVAC					separate						
C14 Controls					separate						
C2 ELECTRICAL											
C21 Service & Distribution					separate						
C22 Lighting, Devices & Heating					separate						
C23 Systems & Ancillaries					separate						
NET BUILDING COST - EXCLUDING SITE & ANCILLARY											
D SITE & ANCILLARY WORK						\$438,927			81.2%		
D1 SITE WORK						\$438,927			81.2%		
D11 Site Development		#DIV/0!	0 m2	0.00	\$153,000						
D12 Mechanical Site Services		#DIV/0!	0 m2	0.00	\$93,500						
D13 Electrical Site Services		#DIV/0!	0 m2	0.00	\$192,427						
D2 ANCILLARY WORK						\$0			0.0%		
D21 Demolition		#DIV/0!	0 m2	0.00	\$0						
D22 Alterations		#DIV/0!	0 m2	0.00	separate						
D23 Cash Allowances		#DIV/0!	0 m2	0.00	separate						
NET BUILDING COST - EXCLUDING GENERAL REQUIREMENTS						\$438,927	\$438,927		81.2%		
Z GENERAL REQUIREMENTS						\$52,671			9.7%		
Z1 GENERAL REQUIREMENTS & FEE						\$52,671			9.7%		
Z11 General Requirements (%)			8.0%		\$35,114						
Z12 Fee (%)			4.0%		\$17,557						
TOTAL CONSTRUCTION ESTIMATE - EXCLUDING ALLOWANCES						\$491,598	\$491,598		90.9%		
Z2 ALLOWANCES						\$49,160			9.1%		
Z21 Design & Pricing (%)			10.0%		\$49,160						
Z22 Escalation Allowance (%)			0.0%		\$0						
Z23 Construction Allowance (%)			0.0%		\$0						
TOTAL CONSTRUCTION ESTIMATE - EXCLUDING TAXES						\$540,758	\$540,758		100.0%		
HARMONIZED SALES TAX						\$0					
Harmonized Sales Tax			0.0%		\$0						
TOTAL CONSTRUCTION ESTIMATE						\$540,758					

SITE WORK - OPTION 1

FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx

Description	Qty	Unit	Rate	Amount
D1 SITE WORK				
D11 Site Development				
1.0 Clear & grub site		allow		3,000
2.0 Removals - asphalt and sidewalks	2,000	m²	10.00	20,000
3.0 New asphalt & sidewalks		allow		80,000
4.0 Landscaping / sod		allow		30,000
5.0 Grading, soil control, temporary barriers, etc.		allow		20,000
Total D11 Site Development	0	m²		153,000
D12 Mechanical Site Services				
1.0 Demolition		allow		10,000
2.0 Storm		allow		50,000
3.0 Domestic Water		allow		25,000
4.0 Sanitary				existing to remain
5.0 Natural gas				by utility
6.0 City charges				excluded
7.0 Miscellaneous fitments, inspection, cleaning				8,500
Total D12 Mechanical Site Services	0	m²		93,500

SITE WORK - OPTION 1

FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
D1 SITE WORK				
D13 Electrical Site Services				
1.0 Hydro charges (300kva TX, HV primary cables & demolition of existing service)	1	sum	40,000.00	40,000
2.0 Hydro pole c/w pole guys, cross arms & 15kv class insulators				existing
3.0 HV 28kv U/G copper 3#2/0 Cu primary cables, TR-XLPE 90, PVC jacket from existing hydro pole to 300kva primary TX				by hydro
4.0 28kv 600a full loadbreak interrupter switches c/w fused cut-outs & lighting arrestors, pole mounted				existing
5.0 300kva 28kv->347/600v 60hz oil filled pad mounted transformer c/w terminations of primary & secondary cables				by hydro
6.0 3ph precast chamber c/w bollards for 300kva oil filled padmount primary TX installed on 20/300mm crushed stone extending 300mm beyond all sides	1	sum	12,500.00	12,500
7.0 Primary grounding grid for 300kva primary TX c/w grounding test	1	sum	3,500.00	3,500
8.0 4#103mm type DB II PVC primary power ductbank, concrete encased, sloped c/w prefabricated spacers, 2x6" yellow warning tape & pullstring, native backfill, bellow & above 150x500mm sand bedding, min 10mpa concrete, from loadbreak switch to 300kva primary TX	55	m	400.00	22,000
9.0 HV 28kv U/G copper 3#500 Cu primary cables, TR-XLPE 90, PVC jacket from HV loadbreak switch to 300kva HV primary TX				by hydro
10.0 4#103mm type DB II PVC secondary ductbank, concrete encased, sloped c/w prefabricated spacers, 2x6" yellow warning tape & pullstring, native backfill, bellow & above 150x500mm sand bedding, min 10mpa concrete, from 300kva primary TX to elec room	25	m	400.00	10,000
11.0 3x3#350mcm + #3g in 103mm type DB II PVC ductbank secondary cables from 300kva oil filled primary TX to 1000a LV main switchboard	30	m	475.00	14,250
12.0 2#103mm type DB II PVC comms ductbank, concrete encased				existing
13.0 Emergency outdoor NG fired stand-by generator				nil
14.0 Light standards c/w base, U/G feeder, grounding & luminaries, LED - L1, 1x79w 20LEDbar, 6.12m steel pole	2	#	7,500.00	15,000

SITE WORK - OPTION 1

FILE: L2404/2/Class D/8/Arena estimate with Option 2 & 3 R1.xlsx				
Description	Qty	Unit	Rate	Amount
D1 SITE WORK				
D13 Electrical Site Services (Cont'd)				
15.0 Wall mounted outdoor luminaries, LED - L2, 1x34w 16LEDbar, 255mm dia x 261mm, wall mounted - L3, 1x57w 20LEDbar, 235mm dia x 361mm, wall mounted	8 4	# #	750.00 955.00	6,000 3,820
16.0 Outdoor lighting & wallpacks controls	1	sum	2,500.00	2,500
17.0 CCTV system, conduit & power only - CCTV camera c/w heater, PTZ, W/M	4	#	875.00	3,500
18.0 Power, data & EMT conduit to outdoor electronic sign, W/M	1	#	1,000.00	1,000
19.0 Power, data & U/G schedule4 conduit to outdoor electronic sign, P/M	1	sum	5,000.00	5,000
20.0 Dual plug-in electric vehicle charging station	4	#	5,000.00	20,000
21.0 Primary grounding grid for main LV equipment c/w grounding test	1	sum	7,500.00	7,500
22.0 Locate & trace existing underground services	1	sum	2,500.00	2,500
23.0 Electrical site demolition c/w disposal	1	sum	2,500.00	2,500
24.0 Testing & inspection	1	sum	2,000.00	2,000
25.0 Miscellaneous fitments, firestops, rentals, etc.	1	sum	5,000.00	5,000
26.0 Job start up & close out	1	sum	13,857.00	13,857
Total D13 Electrical Site Services	0	m ²		192,427

D2 ANCILLARY WORK

D21 Demolition	separate
D22 Alterations	separate
D23 Cash Allowances	separate

APPENDIX B MECHANICAL ENGINEERING DESIGN BRIEF

Fire Suppression

1. The existing 6" water service for the sprinkler system enters the building on the south-east side of the building. The existing Arena is provided with a wet system only, serving dressing rooms, storage rooms and the community centre. Under the new renovations a dry pipe system will be installed over the unheated parts of the arena.
2. The new addition will be provided with a wet pipe system to serve all heated areas and a dry pipe system in the unheated area's of the arena.
3. The existing water services room will have to be reviewed, at present the room is small with very low head room as it located under the existing main entrance to the arena. Additional space will be required to incorporate a 6" pressure reduced principle double check valve assembly (PRDCVA), an additional 4" wet alarm valve and two 4" dry pipe alarm valves.
4. Wall mounted 5 lb ABC Dry Chemical fire extinguishers shall be installed as per code.

Plumbing

1. The main incoming water service is in the same location as the sprinkler water supply. There is an existing 4" cold water main serving the existing building. This incoming water supply is adequate for the addition, the water service distribution system shall be re-configured to serve the entire building.
2. The existing changing rooms are being demolished and re-designed, all existing fixtures shall be removed. All domestic hot and cold water piping serving these fixtures shall be removed and new piping systems installed to serve the new fixtures.
3. The domestic hot water heating plant shall remain basically in the same location with modifications and increased storage added to the system to meet the requirements of the new addition changing rooms.
4. New plumbing fixtures shall include, wall-hung Water Closets with electronic hands free flush valves. Wall-hung Urinals with electronic hands free flush valves. Showers with time controlled mixing valves and wall hung lavatories with manual faucets and gooseneck spout for filling water bottles.
5. Sanitary piping systems for the renovated changing/washrooms shall connect to the existing sanitary sewer located in the same area. The new addition change rooms/washrooms sanitary system's shall connect to the existing 6" building sewer out side the existing building.
6. Domestic hot water will be provided by gas fired high efficiency instantaneous water heater's.
7. Storm water from flat roof areas shall be drained via roof drains. Drainage from sloped roof's would be through an eaves trough and down spout system. Refer to architect's report.

HVAC Systems

1. Renovated change room areas in the existing building and new change room's in the addition will be heated and ventilated by two roof mounted HRV units. These units will provide exhaust air for all washroom area's and provide heated make-up air back into the change room area's.

2. The existing building utilizes a Low Pressure Hot Water heating system with terminal heating unit's to provide heat to entrance foyer's, hall way's and storage room's etc. This system will be modified and up dated to provide heating to the new addition entrance lobby, corridors, change room area's and Multi-purpose room.
3. It is recommended that the change room area's be provided with an in-floor heating system which will utilize heat reclaimed from the refrigeration plant with back-up from the low pressure hot water heating system.
4. Heating over the viewing area will be provided by high efficiency gas fire radiant tube heaters.
5. Air conditioning and ventilation shall be provided to the Multi-purpose room (if required) by a ductless split system using a ceiling cassette supply air unit.
6. Ventilation for the addition arena shall be provide by two wall exhaust fans interconnected with two air intake louver's at the opposite end of the building, this system shall be controlled by a CO detection system with manual override. A separate

Mechanical Green Initiatives

Electrical Option:

1. Control System. Trending of the operation of system to lower the peak electrical demand. Units go into set back mode when spaces are not occupied.

Gas Options:

1. Efficiency condensing boilers for heating. Up to 97% efficient.
2. Heat Recovery ventilation units. Fresh air required to the building for occupancy is preheated by exhaust air from the building before heating the air for delivery into the building.
3. Building Management control system. Space set point temperatures are set back when the building is unoccupied.

Water Usage:

1. Low-flow plumbing fixtures.
2. Electronic hands free faucets and flush valves. Controlled water usage.

HVAC Equipment:

1. CFC and HCFC Reduction. Equipment using latest CFC free refrigerants
2. High-efficiency motors.
3. Systems design to meet ASHRAE standard 90.1

Refrigeration Systems

1. The ice surface and de-humidification systems for the addition arena shall be designed and provide by the refrigeration contractor and is not included in the Mechanical Scope of Work.

APPENDIX B

ELECTRICAL ENGINEERING DESIGN BRIEF

Main Electrical Service & Distribution

1. The existing building is equipped with a 600A 347/600V 3Ø electrical service, which is assumed to be inadequate to accommodate the expanded building.
2. The current rating of the new main electrical service will be confirmed once the electrical loads are finalized during detailed design. It is expected to be in the range of 800A-1,000A.
3. The new electrical service will be located in a service room within the addition and fed underground from a pad-mounted transformer furnished by the local electrical utility (Energy+). It is expected that Energy+ will also supply and install the connection to the local high-voltage power grid.
4. The location of the pad-mount transformer and associated primary and secondary feeders will be coordinated with Energy+ and confirmed during the detailed design.
5. The existing electrical metering equipment is to be removed. The existing switchboard will remain and be sub-feed from the new electrical service.
6. New panelboards will be strategically located throughout the addition to minimize the cost of branch circuit wiring and to facilitate the addition of circuits in the future.

Stand-By Power (Optional)

1. There is no requirement in the OBC (Ontario Building Code) for an `emergency generator` for a building of this size and use. However, a generator could be included to provide stand-by power to the entire building, or portions thereof, during a power failure if requested by the owner.
2. At this time it is assumed that a generator is not part of the scope of work.

Outdoor Lighting (Optional)

1. There will be wall and/or soffit-mounted LED fixtures on the exterior of the building to illuminate areas close to the building - especially the main entrances.
2. The fixtures will have appropriate light output and zero cutoff photometrics so there is minimal light spill onto adjacent properties or into the sky.
3. At this time it is assumed that the outdoor lighting fixtures will be specified with bi-level lighting output, an integral photocell and a motion detector. This would allow individual fixtures go ON-OFF to low level at dusk and dawn; then to high level upon detection of motion.

Interior Lighting

1. Lighting over the ice surface will be by robust LED hi-bay fixtures with wire guards.
2. Recessed LED fixtures will be used in offices, washrooms and other spaces fitted with acoustic tile ceilings.
3. Industrial strip LED fixtures will be specified in change rooms, utility and service rooms without ceilings.
4. Dimmable fixtures or those capable of multiple lighting levels will be used in specific spaces as directed by the owner.
5. Occupancy sensors along with bi-level lighting fixtures will be used in corridors to automatically reduce the lighting to minimum levels when no one is present.
6. Lighting in the rink will be controlled ON-OFF manually with provision to manipulate lighting levels.
7. The lighting in change rooms, washrooms, storage rooms and utility rooms will be controlled automatically ON-OFF by occupancy sensors.
8. The lighting in offices be controlled by vacancy sensors so that the lighting is turned ON manually and OFF automatically by the sensor when motion is no longer detected.

Emergency and Exit Lighting

1. Pictogram exit signs will be positioned, as required by the OBC, to identify exit doors and routes to exits throughout the addition. The signs will be equipped with onboard batteries and chargers to eliminate the need to connect them to an external back-up power supply.
2. Emergency lighting will be provided throughout the building as stipulated in the OBC. Central battery units will provide power to remote lighting heads, which will be energized during a power failure.
3. The lettered exit signs in the existing building will be replaced by pictogram signs; so that the same style is used throughout the expanded building.

APPENDIX B ELECTRICAL ENGINEERING DESIGN BRIEF continued

Fire Alarm System

1. There is a fire alarm system in the existing building. During the detailed design it will be determined if it has the capacity to handle the zones incorporated into the addition. If not a new fire alarm control panel will be specified.
2. Fire detectors, manual pull stations and signal devices will be installed throughout the addition as required by the OBC.
3. Sprinkler and/or standpipe devices will be monitored by the fire alarm panel for both alarm (water flow) and supervision (valves & low pressure) if applicable.

Equipment Wiring

1. Power wiring will be provided to building equipment such as motorized doors
2. Mechanical equipment will receive power supply wiring.
3. Ice making equipment will receive power supply wiring.

Electrical Devices

1. Receptacles will be installed throughout the facility to serve the needs of the building users.
2. Specialized receptacles will be used where required.

Other Electrical Systems

1. Equipment and power supplies will be included for electrical systems such as...
 - Supplemental electric heaters
 - Electric hand dryers
 - Electric vehicle chargers
 - Call-for-Assistance systems in Universal Washrooms and Change Room

Electrical Work For Owner's Systems

1. It is anticipated that the existing demarcation point inside the existing building will remain. A conduit will be provided to facilitate the expansion of IT systems into the addition.
2. Raceways, outlet boxes and power supplies will be provided within the addition for owner's systems such as...
 - IT Systems
 - Audio/Visual Systems
 - Access Control and Intrusion Alarm Systems
 - Public Address/Intercom System(s)
 - CCTV System
 - Telephone System
 - Scoreboards

APPENDIX C

STRUCTURAL ENGINEERING DESIGN BRIEF

1. The proposed super structure consists of pre-engineered steel ridge frames at 24' on centre, spanning 115' over the rink surface, which support 10" cold rolled purlins at 5'-0" o.c. The roof is covered with standing seam steel pre-finished roofing. The roof slope will be one in twenty-four. The space between the interior steel liner attached to the underside of the purlins and the roof deck is insulated.
2. The eave height of the pre-engineered frame is proposed to be 26'.
3. The structure over the new dressing rooms between the new rink enclosure and the existing building is constructed of open webbed steel joist at 5'-0" o.c. , supporting galvanized steel roof decking rigid insulation and a single-ply roof membrane.
4. The open webbed steel joists are supported on load bearing masonry walls and structural steel framing. The underside of steel decking will be 16'-0" above finished floor.
5. The exterior walls of the rink enclosure are framed with cold rolled steel girts, steel cladding on the exterior insulated cavity, and steel liner panel.
6. The roof of the refrigeration room and ice resurfacing room will be framed using open webbed steel joist covered with galvanized steel roof deck, insulation, and single-ply roof membrane.
7. The front of the building exterior will be framed with structural steel studs and clad with aluminum composite panels.
8. The footings and foundation walls are reinforced poured concrete.



tillmann
architects ruth
robinson

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Project Report

15 August 2018 - 20 December 2020

EngageWR

Preston Auditorium Improvements and Expansion



Visitors Summary

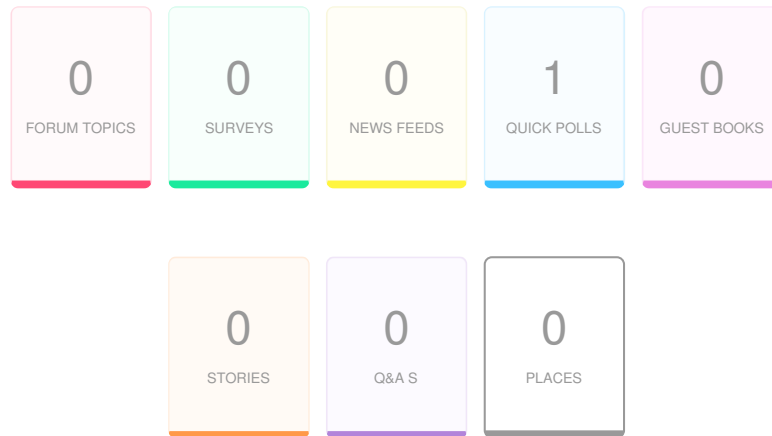


Highlights

TOTAL VISITS	MAX VISITORS PER DAY	
1.1 k	283	
NEW REGISTRATIONS		
1		
ENGAGED VISITORS	INFORMED VISITORS	AWARE VISITORS
113	535	839

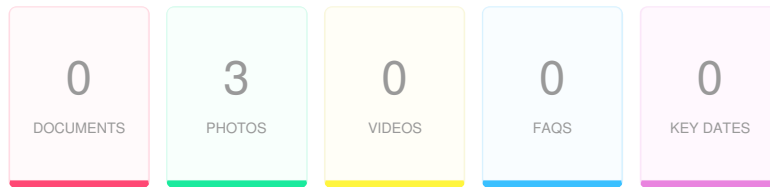
Aware Participants839		Engaged Participants113			
Aware Actions PerformedParticipants		Engaged Actions Performed	Registered	Unverified	Anonymous
Visited a Project or Tool Page839					
Informed Participants535		Contributed on Forums	0	0	0
Informed Actions PerformedParticipants		Participated in Surveys	0	0	0
Viewed a video	0	Contributed to Newsfeeds	0	0	0
Viewed a photo	402	Participated in Quick Polls	4	4	70
Downloaded a document	0	Posted on Guestbooks	0	0	0
Visited the Key Dates page	0	Contributed to Stories	0	0	0
Visited an FAQ list Page	0	Asked Questions	0	0	0
Visited Instagram Page	0	Placed Pins on Places	0	0	0
Visited Multiple Project Pages	340	Contributed to Ideas	4	18	27
Contributed to a tool (engaged)	113				

ENGAGEMENT TOOLS SUMMARY



Tool Type	Engagement Tool Name	Tool Status	Visitors	Contributors		
				Registered	Unverified	Anonymous
Quick Poll	What would you most like to see at Preston Auditorium?	Archived	79	4	4	70
Ideas	Share your thoughts...	Archived	146	4	18	27

INFORMATION WIDGET SUMMARY



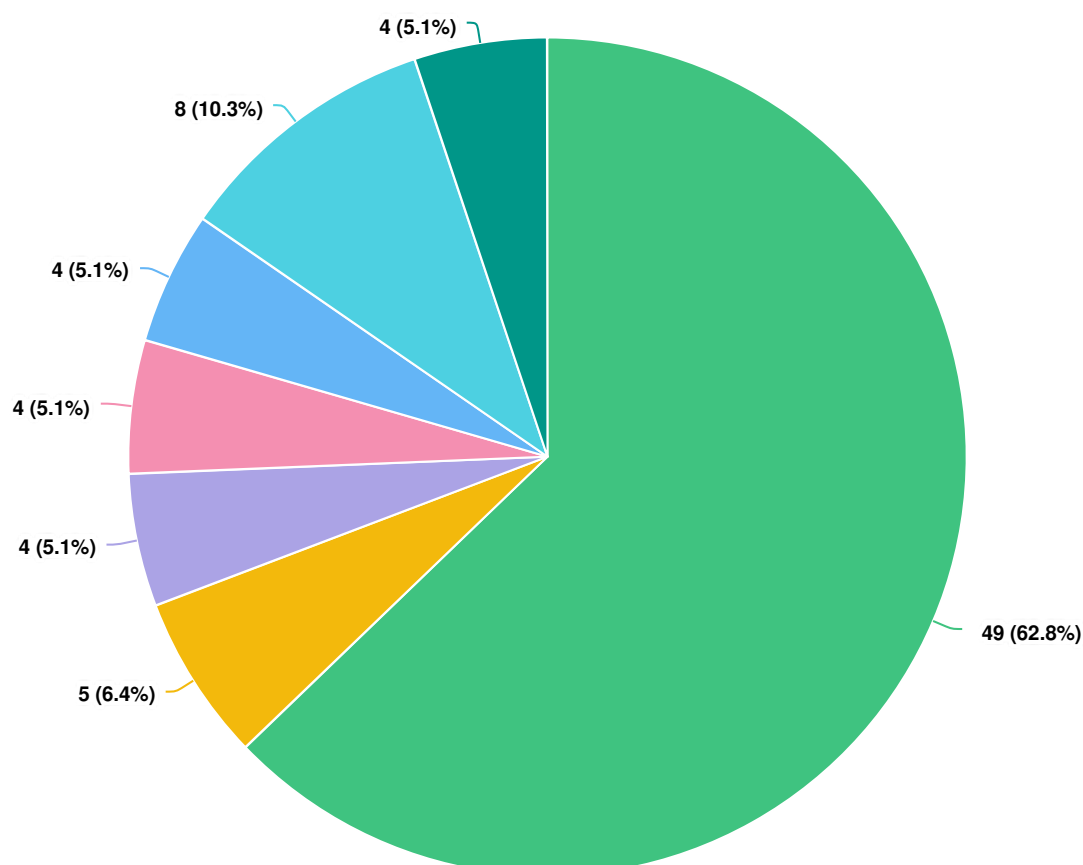
Widget Type	Engagement Tool Name	Visitors	Views/Downloads
Photo	Proposed design	368	401
Photo	Proposed site plan	163	174
Photo	Aerial view of the site	158	169

ENGAGEMENT TOOL: QUICK POLL

What would you most like to see at Preston Auditorium?

Visitors 79	Contributors 78	CONTRIBUTIONS 78
--------------------	------------------------	-------------------------

What would you most like to see at Preston Auditorium?



Question options

- Increase capacity with installation of a second ice pad
 ● Maintain the existing facility as-is.
 ● Expand change room facilities
- Improve change room facilities
 ● Creation of a community room / space
 ● Something else not listed here
- Improvements to existing rink

Mandatory Question (78 response(s))

Question type: Radio Button Question

IDEAS

Share your thoughts...

Visitors 146		Contributors 49	CONTRIBUTIONS 127
08 December 20			
Coronita			
VOTES	UNVOTES		
3	0		
		Preston needs a swimming pool. Reduce sports complex on East side to share multiple venues equally throughout city. Scrap the 7th library.	
		Needs for community as a whole	
08 December 20			
scottm2015			
VOTES	UNVOTES		
0	0		
		Stop spending	
		We can't afford this right now. Make do with what we have. We don't need an nhl sized rink.	
08 December 20			
RockQuarrie			
VOTES	UNVOTES		
7	0		
		Let's get going with this!	
		We can't afford to NOT do this. Our decaying facilities are embarrassing and expensive to maintain. We are missing out on sports tourism \$ by not having proper facilities to host tournaments. We are way behind other centres in terms of our recreation facilities.	
08 December 20			
RockQuarrie			
VOTES	UNVOTES		
5	0		
		Rink Design	
		-Please make sure there are seats for viewing, especially for the elderly and small children. -make sure the dressing rooms are large enough to accommodate teams -the lobby needs to be large enough for groups of parents and players to congregate before and after games -I would NOT like to see Olympic sized ice, it should be NHL sized ice. A walking/running track around the top of the rink would be a nice addition, and provide seniors with a place to walk in the winter.	
08 December 20			
Prestongirl			
VOTES	UNVOTES		
9	0		
		A walking track around the arena	
		A walking/ running track above the ice surface that does not affect the viewing of others.	

IDEAS

Share your thoughts...

<div>08 December 20</div> <div>Megan</div> <table> <tr> <td>VOTES</td> <td>UNVOTES</td> </tr> <tr> <td>8</td> <td>0</td> </tr> </table>	VOTES	UNVOTES	8	0	<div>Twin pad with accessible change rooms and stretching area</div> <p>Twin pad to enhance tournament and sport event hosting ability! Have inclusive accessible change rooms for everyone. Better signage for enhancing visitor experience. Have drop off parking zone and carpool parking zone. Stretching area for sports teams to train and warm up!</p>
VOTES	UNVOTES				
8	0				
<div>09 December 20</div> <div>MultiSportMom</div> <table> <tr> <td>VOTES</td> <td>UNVOTES</td> </tr> <tr> <td>5</td> <td>0</td> </tr> </table>	VOTES	UNVOTES	5	0	<div>All the above and MORE!</div> <p>Cambridge is so far behind it is embarrassing! It is so disappointing that we have to fight for this...change rooms...washrooms...accessibility??? I don't want to see the city wasting time and money on doing the minimum. Listen the the user groups for a change and build something that will last, that we can use and that we can be proud of!</p>
VOTES	UNVOTES				
5	0				
<div>09 December 20</div> <div>MultiSportMom</div> <table> <tr> <td>VOTES</td> <td>UNVOTES</td> </tr> <tr> <td>4</td> <td>0</td> </tr> </table>	VOTES	UNVOTES	4	0	<div>The Plans Fall Short!</div> <p>So very disappointed with the drawings of the new Preston Aud. Why do you ask for our input when you NEVER listen?</p>
VOTES	UNVOTES				
4	0				
<div>10 December 20</div> <div>Leonard Porter</div> <table> <tr> <td>VOTES</td> <td>UNVOTES</td> </tr> <tr> <td>1</td> <td>0</td> </tr> </table>	VOTES	UNVOTES	1	0	<div>Change seating to on top of dressing rooms. For safety from Zamboni and rink attendants. Move player , timer and penalty box opposite side</div> <p>Better flow of people from seating area above dressing rooms to exit.</p>
VOTES	UNVOTES				
1	0				
<div>10 December 20</div> <div>HelpOurKids</div> <table> <tr> <td>VOTES</td> <td>UNVOTES</td> </tr> <tr> <td>5</td> <td>0</td> </tr> </table>	VOTES	UNVOTES	5	0	<div>So Far Behind other Cities</div> <p>We need a facility that can properly host tournaments. We are so far behind that our Minor Sports Associations lose out on a lot of revenue and our City loses out on a lot of tourism. Invest to make us attractive. That means space for spectators and players and proper seating.</p>
VOTES	UNVOTES				
5	0				
<div>11 December 20</div> <div>CommunityParent</div> <table> <tr> <td>VOTES</td> <td>UNVOTES</td> </tr> <tr> <td>1</td> <td>0</td> </tr> </table>	VOTES	UNVOTES	1	0	<div>Track around the arena</div> <p>A track around the rink that can be used by spectators and community members, as well as for off ice training by various user groups. Help this benefit more of the community than just the children whose parents can afford to put them in ice sports.</p>
VOTES	UNVOTES				
1	0				
<div>11 December 20</div> <div>Jenn Annett</div> <table> <tr> <td>VOTES</td> <td>UNVOTES</td> </tr> <tr> <td>3</td> <td>0</td> </tr> </table>	VOTES	UNVOTES	3	0	<div>Ensure no stairs for players</div> <p>Stairs should be eliminated for players walking from entrance to dressing rooms. This is a safety and accessibility recommendation.</p>
VOTES	UNVOTES				
3	0				

IDEAS

Share your thoughts...

11 December 20	Jenn Annett	Sledge Hockey
VOTES 1	UNVOTES 0	Can the new rink be sledge hockey friendly?
11 December 20	Jenn Annett	3rd party Concessions
VOTES 1	UNVOTES 0	Can there be room for 3rd party Concessions, like Tim Hortons, Pizza Pizza, etc. This serves spectators and players far more effectively than 1 single concession.
11 December 20	Jenn Annett	Mini goalie training rink
VOTES 1	UNVOTES 0	Add a small goalie training rink that can be rented. Gretzky Centre has this feature.
11 December 20	Jenn Annett	Licensed social area
VOTES 1	UNVOTES 0	Similar to Galt Arena, add a heated area for spectators to watch the game.
12 December 20	Audrey	Would love to see a walking track. Activia, in kitchen er, has a good one
VOTES 1	UNVOTES 0	
16 December 20	Mia Landry.	Inclusion for Junior Teams
VOTES 8	UNVOTES 0	The Rivulettes Jr. team has played at Preston for numerous years, and have created a home there not only for themselves but for their fans. The seating would not do teams and their fans justice (as the women's hockey fanbase is continually expanding every year.) There needs to be accommodating change rooms / Jr level sized change room and at least 500 seats for it to make sense.
17 December 20	Craig Healey	Rivulettes change room
VOTES 8	UNVOTES 0	The Rivs change room is currently a step below the boys Waterloo AAA minor midget and midget change rooms at RIM park. Cambridge should be able to provide a better environment for some of the top Jr players in the province than Waterloo provides for their AAA boys. My daughters have also been in a few of the other Jr girls teams facilities in the league and they are literally twice the size of the Rivs current change room. This is a great opportunity for Cambridge to step it up and show their support for women's hockey creating the proper facility for these young women to prepare to represent your city.

IDEAS

Share your thoughts...

<div>17 December 20</div> <div>Erin</div> <table> <tr> <th>VOTES</th> <th>UNVOTES</th> </tr> <tr> <td>6</td> <td>0</td> </tr> </table>	VOTES	UNVOTES	6	0	<p>The Rivulettes currently takes up a lot of hallway space & have one shower. They need a training room, shower area same as the redhawks have</p> <p>Dressing Rooms</p>
VOTES	UNVOTES				
6	0				
<div>17 December 20</div> <div>Rob Hedges</div> <table> <tr> <th>VOTES</th> <th>UNVOTES</th> </tr> <tr> <td>7</td> <td>0</td> </tr> </table>	VOTES	UNVOTES	7	0	<p>Rivulettes</p> <p>It is time for the City of Cambridge to step up and provide the women of this community the same facilities as the men of this community. The twinning of the Preston Aud. is the perfect opportunity to do this but this current plan falls short in many ways and is a major disappointment after all the years of going back and forth on what started out as a multi million dollar Sports-Plex and now is widdle down to an NHL sheet of ice with next to no seating with lousy sight lines and facilities that continue to send the wrong message to the female hockey community. Please do the right thing and create something that all parts of the ice user community can be proud of.</p>
VOTES	UNVOTES				
7	0				
<div>17 December 20</div> <div>Disappointed</div> <table> <tr> <th>VOTES</th> <th>UNVOTES</th> </tr> <tr> <td>3</td> <td>0</td> </tr> </table>	VOTES	UNVOTES	3	0	<p>Does address the present or future</p> <p>These plans are a disgraceful turn away from what was planned. It does not address present or future needs for minor or Junior hockey. We need a true facility or will continue to lose talent and tournament opportunities.</p>
VOTES	UNVOTES				
3	0				
<div>18 December 20</div> <div>Brian Z</div> <table> <tr> <th>VOTES</th> <th>UNVOTES</th> </tr> <tr> <td>3</td> <td>0</td> </tr> </table>	VOTES	UNVOTES	3	0	<p>Women's junior hockey</p> <p>Cambridge is lucky enough to have a team at the HIGHEST level of women's junior hockey in Canada, however, they are treated second rate compared to boys Jr B. Why ? Please show a bit of respect for women and upgrade the Rivs dressing room to include more than 1 shower and also add a trainers room and coaches office. Make it a place they can be proud of!</p>
VOTES	UNVOTES				
3	0				
<div>18 December 20</div> <div>Adam C</div> <table> <tr> <th>VOTES</th> <th>UNVOTES</th> </tr> <tr> <td>0</td> <td>0</td> </tr> </table>	VOTES	UNVOTES	0	0	<p>increase lot capacity allowing more arena capacity</p> <p>is there any concessions to increase lot capacity thus in turn allowing for more seating. it would be ideal to have a twin pad system with back to back seating. ie. seating similar to the current set up on the proposed addition. a mirror image of the current arena with concessions up top that are accessed from both rinks.</p>
VOTES	UNVOTES				
0	0				
<div>18 December 20</div> <div>Lori z</div> <table> <tr> <th>VOTES</th> <th>UNVOTES</th> </tr> <tr> <td>2</td> <td>0</td> </tr> </table>	VOTES	UNVOTES	2	0	<p>Expand dressing room. Add a trainers room and coaches office</p> <p>It's a shame that Cambridge is taking steps backwards in today's society for women's hockey. Our young women should be given the same and equal opportunity as the young men do. Cambridge Rivulettes are a top women's team that continue to send many young women to Usports and NCAA each and every year. Why are they not being treated the same as a boys jr club ?</p>
VOTES	UNVOTES				
2	0				

IDEAS

Share your thoughts...

19 December 20		<p>Visit neighboring city facilities and understand that premier complexes generate major tournament revenue. Really disappointed with this.</p> <p>Current design is minimalist and will be regretted... revisit this design in its entirety (it's horrible).</p>
Blair de Verteuil		
VOTES	UNVOTES	
0	0	