Gibbs Gage Architects

South Winnipeg Recreation Campus

Feasibility study

FINAL REPORT

May, 2019 | Project # 18059

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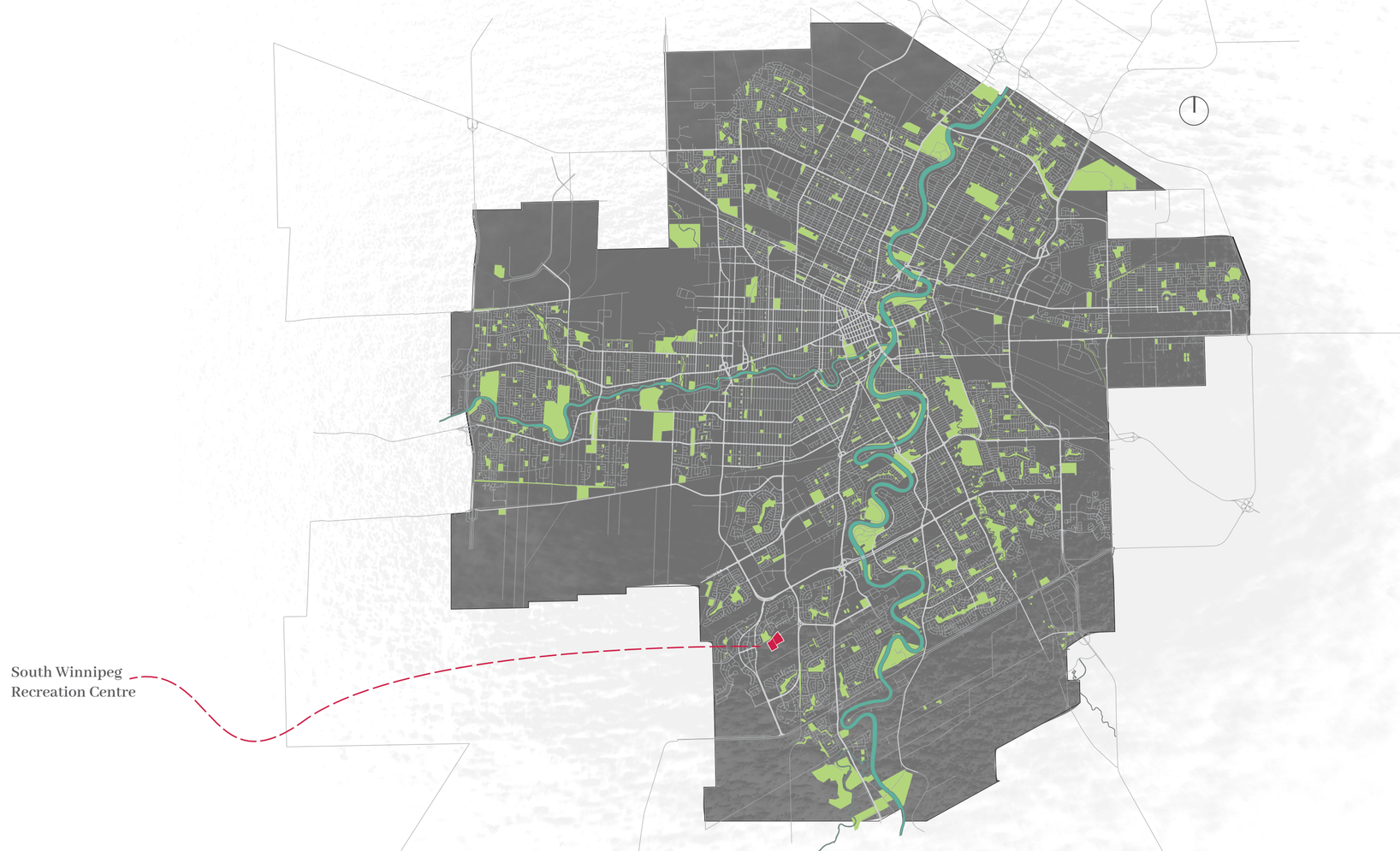


Executive Summary

This document represents the culmination of several months of study into the size, feasibility, configuration, and site design of a regional recreation centre in the South West community of Waverley West. The intent of the study was to determine the appropriate size of a recreation facility and test it's ability to fit on a site and work in conjunction with the development of both a K-8 school and a high school. A separate and parallel exercise to evaluate the governance model and business case of the recreation facilities was also carried out.

It was confirmed through this process that there is a great deal of benefit for the operations of both sites adjacent to each other. The combined vitality of locating schools with recreation facilities is well documented and summarized in the case study section of this report. The intent of co-location and potentially shared facilities was to create a "campus-like" environment.

With the size of the high school and k-8 already determined, this study illustrates a concept for a complex of approximately 230,000 sf, split into 2 phases. The first phase was developed out of a larger version of a typical YMCA facility, featuring more leisure amenities in the aquatic component and more space for community use activities needed in Southwest Winnipeg. The resulting recreation centre is approximately 105,000 sf, with an additional 6,500 sf daycare space. The additional daycare space may ultimately be determined to be redundant with the requirement for daycare facilities at both school sites. At the time of this study it was determined that the daycare would benefit the operational model of a 3rd party operator. In addition to the recreation centre and the daycare is a 14,000 sf public library based off recent similarly-scaled libraries built in the City of Winnipeg. The only other areas which are part of the first phase are common area elements which include limited food service spaces.

The second phase of the project includes the development of a concept for twin ice arenas, with supporting space and more community use spaces. The development of the project in 2 phases is based on the present need for ice arenas, the inventory in South Winnipeg, and the City's policy on no new ice sheets. Since the scope of this work did not include evaluation of the other existing arenas, the certainty around the timing of the twin arenas was not clear.

As noted above, the emphasis for this facility was on providing more community space, namely gyms, multi-purpose rooms and a stronger body of leisure water for the City of Winnipeg. This facility, similar in scale to the proposed East of the Red Rec Plex, suggests that the lack of new leisure water built in the City has created a pent up demand. The program amenities in the natatorium were not studied in detail but suggested to be about 11,400 sf of water with a total natatorium space of 22,000 sf. Included in this is a 6-lane 25m program tank, a hot pool, lazy river, wave pool and slides. Based on reviewing both industry best practice for leisure space and what is currently available in Winnipeg, this would provide users the best "watertainment" value. In support of this space, a larger proportion of the locker room is designed as a universal change room ,representing approximately two thirds of the space dedicated to change facilities.

During the course of this study it was determined that the best operational model for this facility was through a single entity. As noted in this report, the community associations in the area were looking for additional inventory of space and not necessarily operations of that space. There are several methods and models for managing the use of the space to meet the needs of users and community members that are captured in the parallel studies noted above.

The development of the site, concept and test fit with the two school buildings was guided by the vision to create a campus feel. The layout is oriented south around a central quad space and provides an interior link from the high school to the recreation facility. The K-8 school remains the only unattached building on the site as it had the least ability to benefit from the connection and it was determined that a connection between the schools would not be of benefit. The architectural expression is inspired by the land and the strong winds that shape patterns in the land, in particular the snow. Through the prairie winter, the snow is shaped in drifts on the prairies, which in turn become a shelter from the wind. These respites from winds were the recreational grounds of children over the years. Farmers deliberately plant trees to effect these drifts which provide a capture of moisture for spring irrigation. The idea of harnessing the wind as a place to play, to nurture and grow seemed a fitting narrative for a recreation facility that will shape and grow the wellness of the community in South Winnipeg.

Terms of Reference

In August of 2018, Gibbs Gage Architects with David Hewko of DHPPM, were engaged by the Recreation department at the City of Winnipeg to develop a program and concept plan for a joint use site in the area of Waverley West. The intent of the exercise was to engage the stakeholders who were directly involved in the site and develop the report by the mid October. Organization of the stakeholders and meetings held with City of Winnipeg departments was done by the Recreation Department. No public engagement was required for the exercise.

Due to unforeseen circumstances with the land acquisition of the Pembina Trails School Division, the terms of reference changed in October, putting the study on hold until the new year. In January of 2019 the work resumed and in March some additional scope was added in the form of evaluating a Governance Model and developing a Business Case. This work was completed in a separate report by David Hewko of DHPPM.

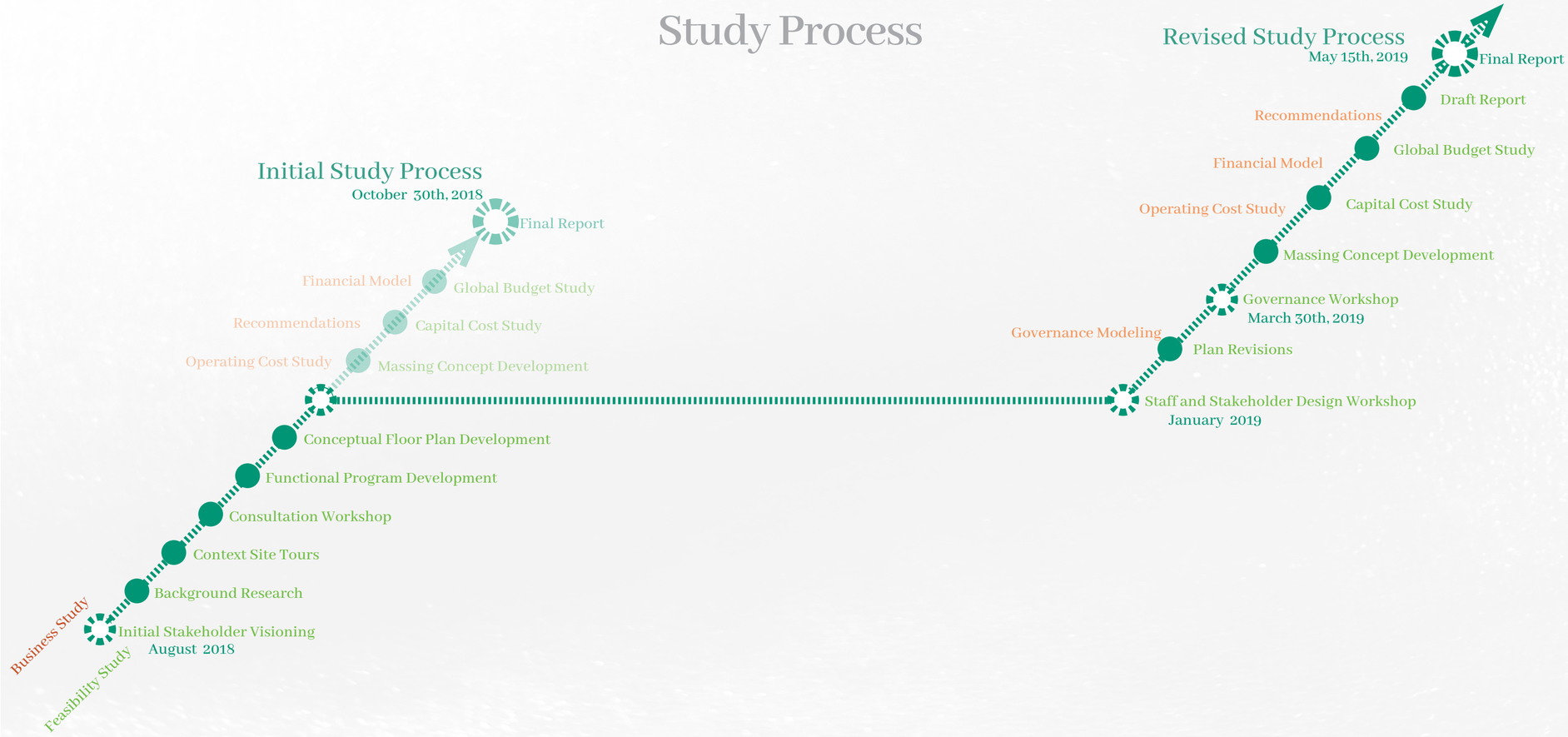
During the course of this study, many members of the City, council, and stakeholders were engaged. The main points of contact for this study were:

City of Winnipeg – Ken McKim

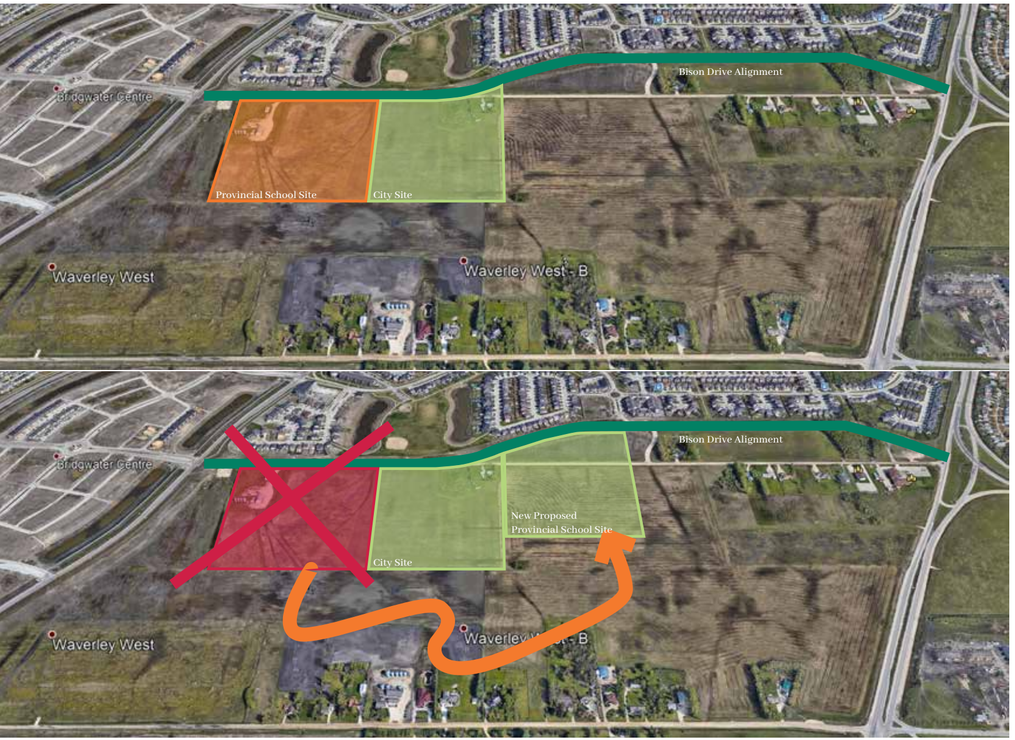
City of Winnipeg – Jennifer Hansell

A more detailed description of the engagement with key site stakeholders and City departments is contained in the following pages.

Study Process



Stakeholder Engagement



August 2018

Due to the quick time frame of the initial schedule, the extent of consultation with stakeholders was limited to the initial visit and involved 3 fact-finding discussions with different groups: the YMCA, Winnipeg Public Library, and the Public Schools Finance Board's South Winnipeg Action Team (PSFB SWAT). These vested stakeholders met to discuss the needs of each of their facilities and the implications of a joint-use site. Through a morning session we collectively outlined project needs that could be shaped into a gross program. We also established guiding principles that would achieve the common goals of the entire group. It was largely agreed that adjacencies were beneficial, and that these adjacencies did not necessarily require a physical connection.

Following the discussion with the building partners, a meeting with the planning department was held to discuss the status of the land and the area development. At this point in the project much was uncertain about the land, as it had recently been acquired through appropriation. The school board land was tentatively being shown to the west of the City land (see diagram opposite).

At the outset of the project, meetings were held with various city planning departments to determine the servicing and timing of the surrounding infrastructure. Representatives from major City departments provided insight on potential timing for infrastructure, where servicing will be coming from and transportation implications. No detailed servicing or Transportation studies were done as part of this exercise.

January 2019

With the new location of the school board site, planning and design work began again in January. Meetings were held with key stakeholders in the later part of January to review the implications of a draft layout for the facility and the site. The direction at the time was to focus on the rec site, as the Public Schools Finance Board was working on their site independently. The meeting involved the Library, City of Winnipeg recreation staff, the YMCA, and volunteer members of the community association SWAT.

The most significant outcome of this meeting was the new understanding that the community association was not necessarily looking for space to own/operate. This essentially led to the need for an understanding of governance for the facility. It was agreed to schedule this follow up on governance in March

At the same time in January a meeting with some of the area councilors and senior City of Winnipeg officials took place to highlight the status of the project and review the concept plan. At that meeting, some concerns were raised about the interaction between the school site and the rec site and it was determined that the two facilities needed to better interact with each other.

March 2019

The engagement in March focused on two things: governance and joint-use site planning. Initial discussions on governance involved the YMCA, the City of Winnipeg, and the community association members. The governance & business case was not part of this work

Meetings with the park department were held to review the implications of additional land dedication for parks use, as tentatively outlined in the secondary plan. This led to the discussion of connecting the open recreation spaces more cohesively from the school site through to the parks site.

In the meetings with the Public Schools Finance Board, a renewed commitment to collaborative planning was established, which led to direction to the consultant team to examine how a physical connection from the high school to the recreation multiplex could be achieved. While spaces like the daycare and library were discussed as potential shared elements, the logistics and management of these types of spaces suggested that they would need to be separate and independent. A summary of this is noted in the program section of the document. The major conclusion to this session was that having the high school gym abut the recreation facility gym space would allow for the best flexibility of use, and the school board could have the ability to provided extended access to some of the school spaces like the culinary classroom, maker spaces, or wood shops. The exact design and intent of shared spaces in the school was not part of this study and will be determined by the work done by the PSFB.

Site Analysis
MAPS & DIAGRAMS

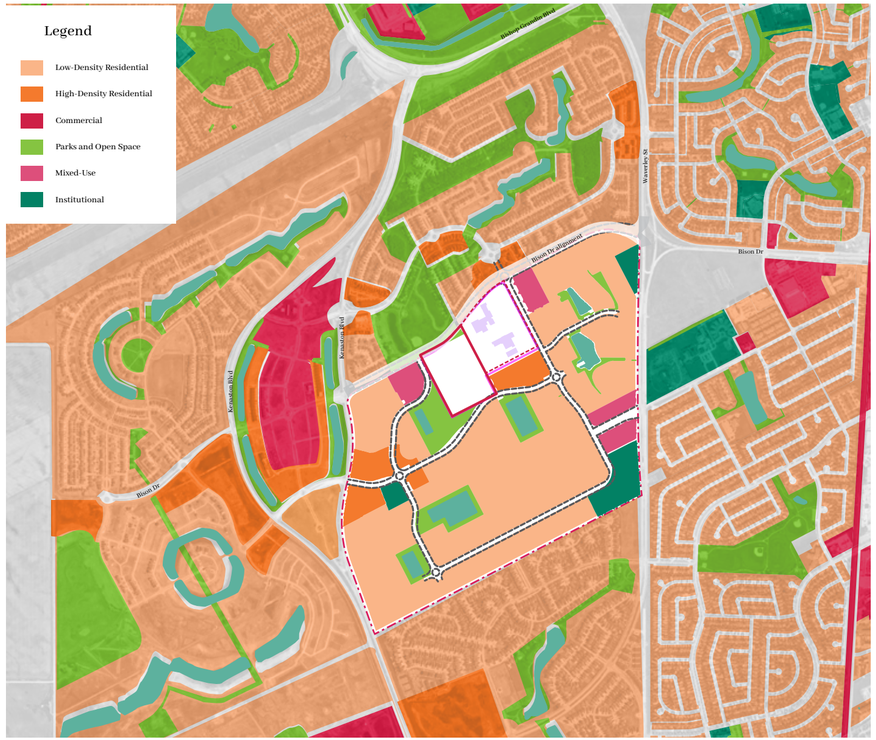
Context & Land Use

The SWRC site is in Waverley West B, a Neighbourhood Plan Area which itself falls under the Waverley West Area Structure Plan in southwest Winnipeg.

Waverley West B is bounded by Waverley Street and Kenaston Boulevard to the east and west, by the planned Bison Drive alignment to the north, and by the neighbourhood of South Pointe (formerly Waverley West C) to the south.

The Bison Drive alignment provides direct connections to both the retail district of Bridgwater Centre and the University of Manitoba campus.

Thanks to the Bison Drive alignment, as well as planned connector roads, there are also strong connections between the SWRC site and the neighbourhoods of Waverley Heights and Bridgwater Forest, Centre, Lakes, and Trails. Despite their proximity, South Pointe, South Pointe West, Fairfield Park, and Richmond West are not as well connected.



Site Analysis

Pedestrian Considerations

The SWRC site is well-connected to the Waverley West trail network via planned linear parkways, especially along the Bison Drive alignment. The site is less well-connected to the rest of Winnipeg's path and trail system, with a particular lack of active-mode connections across Waverley Street.

The major pedestrian entry points to the combined site are at the northwest corner of the SWRC site and the northeast corner of the school site, thanks to planned linear parkways along the Bison Drive alignment, the west edge of the SWRC site, and the east edge of the school site, likely active edges along adjacent planned mixed-use parcels, and likely pedestrian crossings of Bison Drive at North Town Road and Bridgwater Park 18.

Internal pedestrian circulation will need to connect to those entry points and provide access to the SWRC itself, the schools, and the park space to the southwest of the site.

Site Analysis

Transportation Networks

Two Winnipeg Transit routes pass within 600 m of either the SWRC site or the adjacent school site: Route 86 Bridgwater and Route 163 Waverley Heights Express. The Southwest Transitway Markham Station is about 2.5 km from the site, and there are no contiguous path or trail connections in between.

There may be an opportunity for "park and ride" service on the SWRC site with new transit service along Bison Drive. While this will increase the parking load on site, it may also provide more Winnipeggers with exposure and access to SWRC facilities and programs.

Vehicular Considerations

The collector roads planned for Waverley West B provide opportunities for three potential vehicular access points to the combined SWRC and school site. School access for buses and private vehicles will be via an access point to the east of the school site.

SWRC access for visitors, staff, and other users may be via an access point to the west, which could conflict both with queueing to the intersection with Bison Drive and with pedestrians immediately around the building; or via an access point to the south, which may introduce wayfinding problems from Bison Drive and conflict with parks and athletic fields in the southern portion of the site. It may be worth examining the possibility of an access farther south along the collector road from Bison Drive (see "Site Planning Configuration" on page 38).

Site Analysis

Environment

Situated just south of the 50th parallel, the SWRC site experiences seasonal fluctuations in sun direction and intensity typical of a southern Canadian prairie city. Daylight is both longest and most intense at the summer solstice, and sunshine comes from the broadest range of directions. Conversely, at the winter solstice daylight is shorter, less intense, and comes predominantly from the south-east-through-south-west.

By frequency, the single most-common wind direction in Winnipeg is from the south, though winds also commonly come from the range of directions from due west through north-north east. These directions should be considered both in terms of facility entrance orientation and wind shelter - especially tree planting - on site.

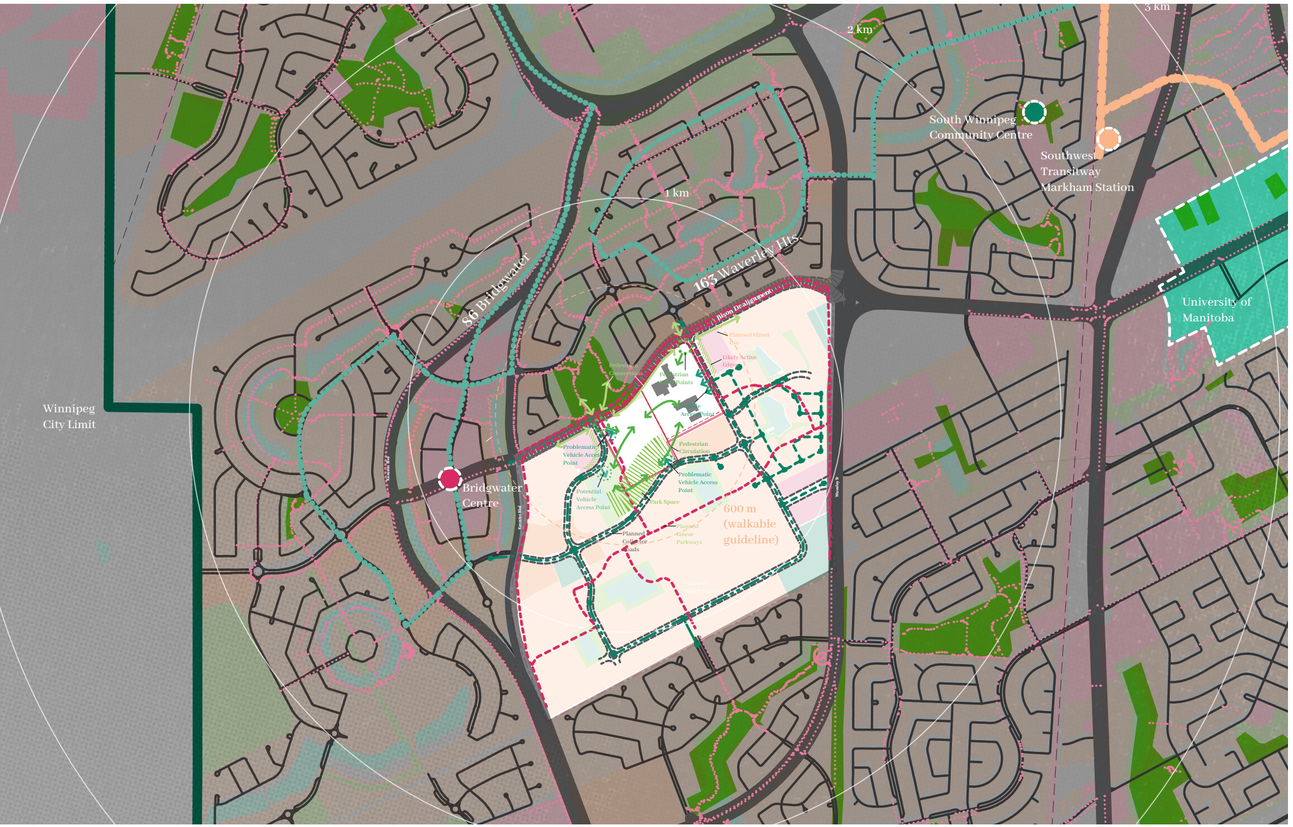
The SWRC site sits on the planned Bison Drive alignment as well as a planned collector road, both of which will be sources of traffic noise.

Water and Sewer

Planned main water supply lines in Waverley West B should be able to service both the SWRC and schools.

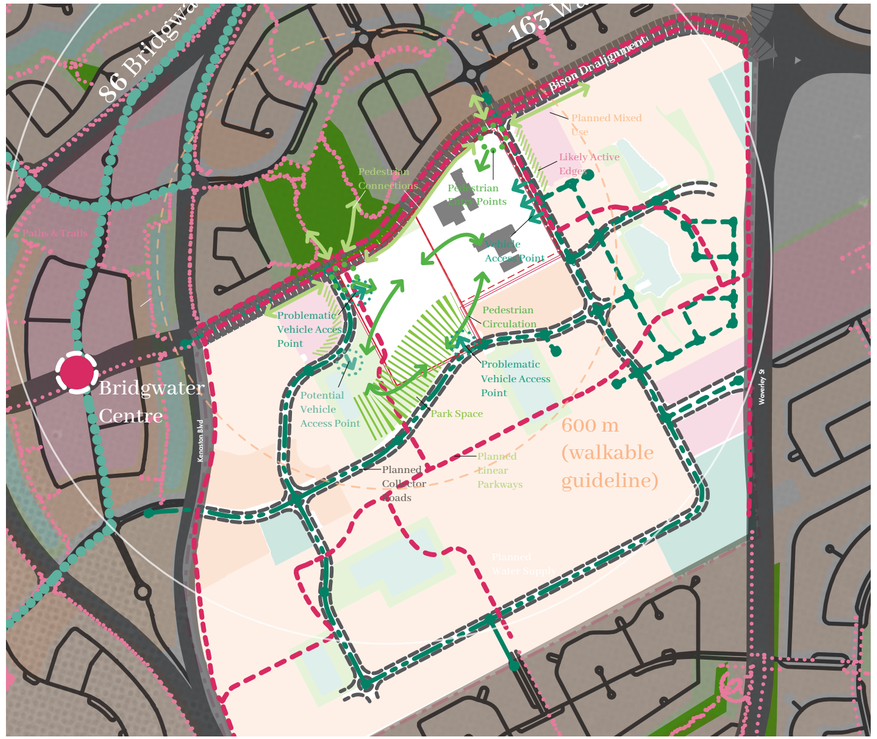
Storm Sewer and Waste Water plans for Waverley West B are not yet available at time of writing, but nearby major connections exist for both.

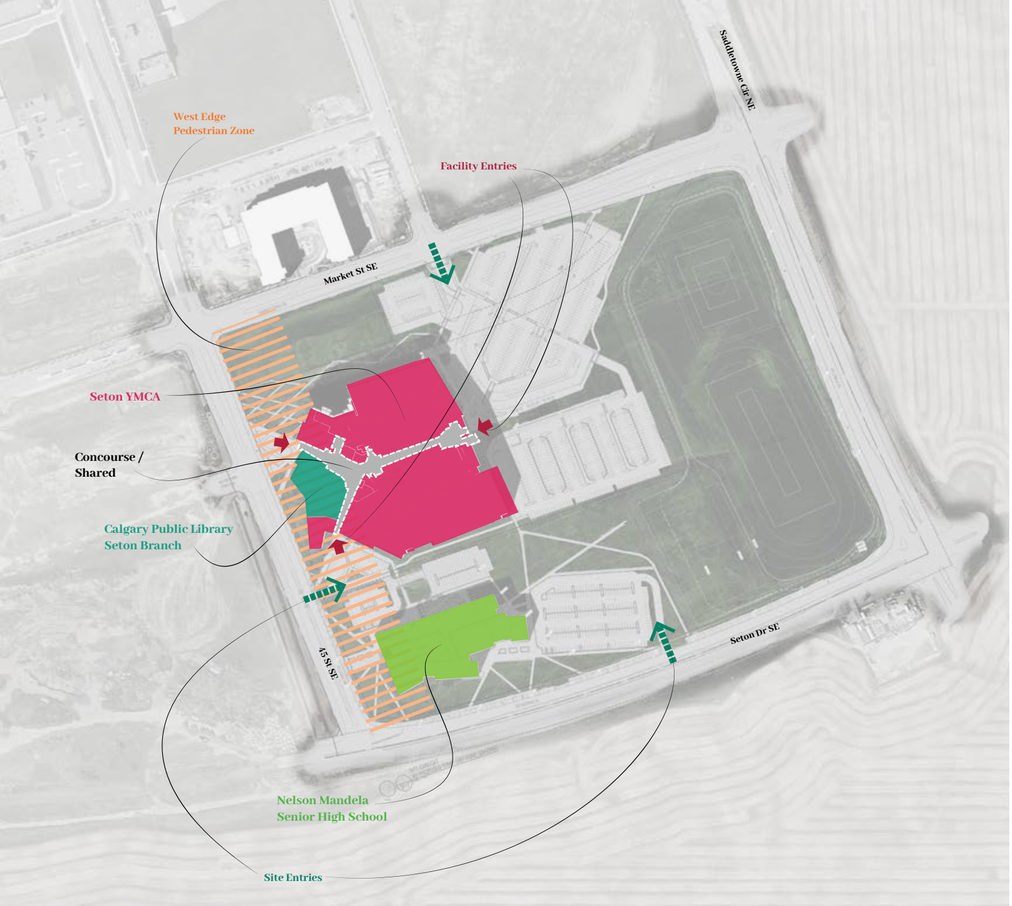
Site Analysis



Summary

Taken together, these analyses suggest more intensive development in the north of the sites, with Bison Drive running along the north edge of the site, site access concentrated to the northeast and northwest corners, green networks and linear parks filtering down to the south, and most sunshine coming from the south.





Case Study
SETON RECREATION FACILITY

Project Process

The planning for this site took place after the joint use site was identified. The focus of the masterplan for the site was the spatial accommodation of the site as the site was and is encumbered by a temporary storm pond located along the west side of the site.

The site includes a 330,000 sf recreation facility, an 1800 capacity high school, an underground LRT tunnel, playfields and a park and ride site.

The initial concerns regarding the constraints of the site were tested and dismissed through several planning iterations. The focus then turned to how the joint use community amenities worked together to compliment each other and support the neighborhood.

With a regional park to the west, the masterplan focused on creating a public areas precinct focused on 45th street that connected to the main commercial area of the neighborhood. This west side of the site was developed as a pedestrian connection and synergistic elements of the building programs were oriented along this side. The library faced this west side with reading gardens along the street. The daycare and theatre were also oriented to the western edge, as were the school's main public and staff entrance.

Case Study
GENESIS CENTRE OF COMMUNITY WELLNESS

Project Process

The planning of this facility began with the development of the Genesis Centre concept by 3 community groups together called the North East Centre of Community Society, the Calgary Public Library, the City of Calgary and the YMCA.

Since the timing of the adjacent high school was not known during the process, the planning for the site needed inherent flexibility. Positioned at the centre of 3 distinct and cultural diverse communities, the site needed a complex that would function as its heart.

The planning of the site focused on the commons of the Genesis Centre and the design of that facility. The commons features two promenades linked through the middle to the north and the south, acting like a tapestry connecting to the commercial heart of this northeast community. The high school's circulation is aligned along this north link.

At the outset of the planning for the 2100 student high school, the Calgary Board of Eduction anticipated not building a gymnasium due to the number of gym/fieldhouse space in the Genesis Centre. As the genesis Centre evolved, their operational model evolved too, and the understanding of sharing gym space with the school board was challenged to the point that the school board has built their own gymnasium.

The most successful aspect of the shared use is the additional fitness and wellness opportunities that have been provided to the students through reduced rates. The only physical sharing of space is through the fields and one of the parking lots, thereby reducing the overall parking and fields required.

Case Study
SOUTH FISH CREEK RECREATION COMPLEX

Project History

This joint use site began from the premise of physically connecting a Catholic School with a YMCA, Community Association and Public Library.

The intention was that this physical connection would reduce the duplication of program spaces and usages. At the outset of this process the partners could not agree on a model for sharing facilities and as a result the buildings are connected by a gate that closes after school hours.

Parking on the site was spread around the building and not clearly identified between users which has be a source of contention. Fields and access to exterior space has been made more efficient by the co-location. The students benefit by their proximity to a library and full-service YMCA.

Guiding Principles

Campus Development

The benefit of a closely linked site for education, cultural and recreational uses was roundly supported by the stakeholders although physical links were not deemed critical

Integration and Efficiency of Spaces

The hope of sharing a joint use site was to leverage the use of shared and co-located facilities

Phase-able

With funding currently not available it was widely agreed that the project would not occur all at once and the design would need to acknowledge an ability to phase projects in a non-specific order.

Identifiable Entrances and Multiple Operators

The operating model, while not completely known, was to have independent operators for the Recreation/Aquatic Centre, the Library and the Community Association/ Arenas.

Shared Field Space

Centralizing and sharing field space activity and use can increase safety and functionality

Shared Parking Strategy

The ability to vary parking based on different periods of use was perceived by all as a benefit

Safe and Walkable

An important consideration was to have well-supervised, visible spaces, and to promote walking between buildings if separate buildings were suggested, with parking at the perimeter but not fronting the site. Parking was to be connected internally, but not be one massive parking lot.

Definitions

Certain terms are commonly used in functional programs, including:

- Assigned Area - The area of space measured from wall face to wall face, excluding columns and plenums (ducting and mechanical chases). Assigned spaces are used for a specific identified activity or function that may determine minimum critical dimensions (such as regulation field of play) or expected occupant load.
  Most spaces sizes are based on common standards.
- Building Systems Allowance - An area allowance for space for building walls and structure, mechanical and electrical equipment and plenum spaces, circulation allowance and washrooms. Each varies by building type but typically structure is in the order of 2.5 to 3.0% of above the assigned area total. Mechanical space allowance is also dependent on building complexity but is also typically in the range of 6-7%.
- Circulation - Circulation occurs in two forms, internal circulation within a component, and major circulation linking the components of a building together. Circulation area calculation is a function of occupant load and anticipated travel distances to exits. Major circulation has to link all functional components and required points of entry. Circulation includes horizontal circulation such as halls and corridors, and vertical circulation such as stairwells and elevators. Two types of circulation are included here: Commons Lobby and Circulation of about 10%, as well as each component carrying a allowance for internal circulation of between 5-7.5%.
- Building Gross Area - All area within the exterior perimeter face of wall for the entire facility including all assigned spaces and all building systems allowances.
  Building gross area is a larger number than building footprint area as it assumes a purely two-dimensional allocation of space without implying stacking which is identified later in the concept.
- Net-to-Gross Ratio - An architectural convention, is an expression of gross area over usable or assignable area. Buildings of this type are typically in the range of 1:1.25 to 1:1.4. The inverse expression of net to gross is assigned area over gross area for a percentage value of usable space. In this case, 1:1.31 is about 76% usable (the sum of the component assigned areas).

Functional Program
SPACE & USES

SWRC Functional Space Program

A functional space program establishes the purpose and conceptual framework for an architectural solution – simply, a building is a physical response to quantifiable demand. The program document identifies the users, the activities to be accommodated, where a space is located relative to other spaces, and how access to a space is controlled. It identifies the internal program priorities and the external urban planning considerations necessary to ensure a successful building. The process of translating program needs into area requirements requires an understanding of how recreation buildings work and how the public and staff will use them. Area allocations and allowances are based on and compared with established programming and planning standards.

Component Descriptions and Area Requirements

This space program has been organized into five major component parts, based primarily on functional grouping and /or building shell-type, meaning the uses and characteristics of the spaces are what define the component categories. Functional commonalities and zoning and control requirements also figure into the groupings. The five functional component groupings are listed here, and broken down on the following pages.

South Winnipeg Recreation Campus
Overall Area Summary

		m^2	ft^2
1.0	YMCA Recreation Centre Gross Area	9933	106934
2.0	YMCA Childcare - Separate Building Gross Area	612	6591
3.0	Winnipeg Public Library Gross Area	1329	14311
4.0	Common Area	1926	20732
	Gross Facility Area - Excluding Childcare	13801	148567
5.0	Ice Arenas Gross Area (Future Phase)	7710	82995
	Gross Facility Area - Including Future Arenas	21511	231563

NOMINAL PEAK OCCUPANT LOAD CALCULATION*

Nominal peak occupant load during peak times such as 5-8pm. Average occupant load for all operating hours would be in the order of 50% of this number.

		Staff	Peak Users	Spectators	Total
1.0	YMCA Recreation Centre				
	• Nantorium Bather Load	6	425	25	456
	• Fitness Centre (150 stations)	2	150	n/a	152
	• Dryland Other Areas	18	300	n/a	318
	• Childcare	12	100	n/a	112
2.0	Winnipeg Public Library	8	275	n/a	283
3.0	Future Ice Arenas	5	80	400	485
Total Occupant Load		51	1330	425	1806

* Based on Health Act bather loads, activity stations and room nominal capacities for intended uses. It is not based on Part 3 definitions of occupant load in the Manitoba Building Code which would be a substantially higher number. This nominal occupant load calculation will assist in calculating parking requirements, washroom stall counts and egress requirements.

** In the event of large assembly gatherings in the quadruple gymnasiums, an occupant load of about 2,000 could be expected. In this situation additional portable washrooms may need to be brought to the site as opposed to over-building washrooms for day-to-day use. This infrequent situation would result in a peak occupancy for the entire complex of about 3,000 persons.

Functional Program
1.0 YMCA

Administration/Front of house

			m²	ft²
1.1.1	Reception and Control			
	1.1.1.2	Control Desk	20	215
	1.1.1.3	Membership Services	30	323
		Sub-Total	50	538
1.1.2	Administrative Offices			
	1.1.2.1	General Manager's Office	12	129
	1.1.2.2	Program and Facility Staff Offices (5)	50	538
	1.1.2.3	Staff Room	20	215
	1.1.2.4	Copy Room / Storage	15	161
		Sub-Total	97	1044
1.1.3	Support Spaces			
	1.1.3.1	Childminding Room	25	269
	1.1.3.3	First Aid Room	10	108
	1.1.3.4	Maintenance Shop	20	215
	1.1.3.5	Bicycle Storage (enclosed)	25	269
	1.1.3.6	Loading Dock / Waste Management / Recycling	60	646
		Sub-Total	140	1507
	Area Total		287	3,090

Change Rooms

			m²	ft²
1.2.1	Universal Change Rooms			
	1.2.1.1	Universal Change Cubicles (with Shower) x 40	200	2153
	1.2.1.2	Locker Columns and Aisle (250 full-height columns, 300 lockers)	150	1615
	1.2.1.3	Accessible Washrooms x 6	40	431
	1.2.1.4	Vanity Stations x 5	20	215
	1.2.1.5	Stroller / Wheelchair Area	20	215
		Sub-Total	430	4629
1.2.2	Adult Gender Locker Rooms / Staff Locker Rooms			
	1.2.2.1	Women's Locker Room (50 columns, 75 lockers)	60	646
	1.2.2.2	Women's WCs, Showers, Vanities (3 of each)	30	323
	1.2.2.3	Men's Locker Room (50 columns, 75 lockers)	60	646
	1.2.2.4	Men's WCs, Showers, Vanities (3 of each)	30	323
	1.2.2.5	Staff Universal Change Cubicles (w. Shower) x 4	20	215
	1.2.2.6	Staff Universal Change Lockers (30 columns)	20	215
	1.2.2.7	Custodial Closet x 3	10	108
		Sub-Total	230	2476
	Area Total		660	7,105

There are two versions of the recreation centre program, contingent on whether the YMCA were to operate the facility, or if the City of Winnipeg were to operate the component. The YMCA version of the spacelist would have a six-lane 25-metre program tank and a Leisure pool, slightly larger in area than the program tank. If City-operated, staff has indicated the program tank should be ten 25-metre lanes and the leisure water doubled in size.

Aquatics

			m²	ft²
1.3.1	Program Water			
	1.3.1.1	Lap Pool 25m - 6 Lane (bather load 125 swimmers)	425	4575
	1.3.1.2	Deck Area (average width 3M, 5M one end)	350	3768
		Sub-Total	775	8343
1.3.2	Leisure Water			
	1.3.2.1	Leisure Pool (bather load 300 swimmers)	500	5383
	1.3.2.2	Hot Pool (25-person capacity x 2) with Ramp	50	538
	1.3.2.3	Viewing Area (capacity 25 persons)	40	431
	1.3.2.4	Deck Area (average width 4M)	500	5383
	1.3.2.5	Waterslide (tower and runout; slide over water)	80	861
		Sub-Total	1170	12595
1.3.3	Ancillary Spaces			
	1.3.3.1	Lifeguarding Office / First Aid	30	323
	1.3.3.2	On Deck Washrooms	15	161
	1.3.3.3	Steam Room	15	161
	1.3.3.4	Pool Storage	45	484
	1.3.3.5	Chemical Storage (located with Pool Mechanical)	10	108
		Sub-Total	115	1238
	Area Total		2,060	22,176

The second major sub-component area of the recreation centre is the Fitness Centre and Dryland recreation spaces. This includes a fitness centre or weights room of about 1,150 SM, large enough for 125 to 150 equipment and activity stations (depending on layout and spacing/density of equipment). The sub-component also includes three gymnasiums with an elevated indoor jogging track, about 200 metres in length depending on final configuration. The gymnasiums will be separate from, but adjacent to the high school double gymnasiums. During evenings and weekends, community access to all gyms would be controlled and managed through the recreation centre (and the remainder of the school locked off after hours). In terms of inventory then, at times the community will have access to up to five gymnasiums (as defined by the largest footprint activity, the basketball court).

The space grouping within the Fitness/Dryland sub-component is the multi-purpose spaces, some of which should be located so they can be accessed during extended hours (late evenings, weekends) via the major circulation or commons lobby. Some of these multi-purpose spaces have been identified as movement studios that will require sprung wood floors and mirrors along one wall. Others should have a more durable flooring that doesn't necessarily have to be cushioned and would be used for programs, instruction or training, lectures and meetings, rehearsal space, arts and crafts, and so on.

Dryland Activities

			m²	ft²
1.4.1	Fitness Centre			
	1.4.1.1	Cardio, Strength Machines and Free Weights	1025	11034
	1.4.1.2	Functional Training Area (open)	85	915
	1.4.1.3	Stretching	40	431
		Sub-Total	1150	12380
1.4.2	Gymnasium and Indoor Track			
	1.4.2.1	Single Gymnasium (programs/drop in)	750	8074
	1.4.2.2	Double Gymnasium (Sports/Community)	1560	16793
	1.4.2.2	Indoor Track (200-Metre; 3 lane)	500	5383
	1.4.2.3	Gymnasium Storage	90	969
	1.4.2.4	Servery Kitchen (catering only - not commercial kitchen)	40	431
	1.4.2.5	Washrooms (for occupancy capacity of quad gym)	60	646
		Sub-Total	3000	32295
1.4.3	Multi-Purpose Spaces and Movement Studios			
	1.4.3.1	Group Fitness Studio (sprung floor, mirrors)	190	2045
	1.4.3.2	Mindfulness Studio	95	1023
	1.4.3.3	Cycling Studio (SPIN)	55	592
	1.4.3.4	Multi-Purpose Rooms x 6	370	3983
	1.4.3.5	Storage for Studio and Multi-Purpose Rooms x 8	60	646
		Sub-Total	770	8289
	Area Total		4,920	52,964

Other Components

	m²	ft²
Internal Circulation Allowance 7.5%	595	6400
Building Mechanical Pro-Rated 6%	476	5120
Pool Tunnel to Lap Pool	300	3230
Pool Mechanical	240	2584
Walls and Structure 5%	396	4267

Total Area: 9,933m² 106,934 ft²

Net to gross: 80%

Functional Program
2.0 YMCA DAYCARE

If the YMCA were to operate this component and the recreation centre, the 100-child capacity childcare facility would be included, and could be located contiguous with one or both schools or located in the recreation centre.

If the City were to operate the recreation centre, it is not interested in operating a childcare facility. Therefore siad facility would be co-located away from the recreation centre at the schools and possibly operated by a third-party. Capital for this component would actually be provided by the schools who are obligated by the province to provide childcare spaces in close proximity to their school buildings.

Childcare Licensed (100 spaces)

		m²	ft²
2.1.1	Reception / Marshalling Area / Stroller Storage	30	323
2.1.2	Offices (2)	28	301
2.1.3	Staff Lunch Room and Washroom	25	269
2.1.4	Kitchen and Laundry	22	237
2.1.5	Storage	18	194
2.1.6	Babies Rooms / Babies Sleeping Rooms	145	1561
2.1.7	Babies Washrooms	20	215
2.1.8	Toddlers Rooms	115	1238
2.1.9	Toddlers Washrooms	18	194
2.1.10	Pre-Schoolers Room	70	754
2.1.11	Pre-Schoolers Washrooms	15	161
2.1.12	Outdoor Play Area (Fenced; 50% of interior area or 190 sm)	Not in Building Area Total	
2.1.13	Drop-off Parking	Not in Building Area Total	
	Area Total	506	5,447

Other Components

	m²	ft²
Internal Circulation Allowance/ Lobby 10%	51	545
Building Mechanical Pro-Rated 6%	30	327
Walls and Structure 5%	25	272

Total Area: 612 m² 6,591 ft²

Net to gross: 83%

Functional Program
3.0 WINNIPEG PUBLIC LIBRARY

The Winnipeg Public Library has outlined space program requirements for a new branch library at the entry-level size of 1,300 square metres or about 14,000 square feet.

If financial resources can be expanded, the WPL would envision building a larger space, quite possibly up to 1,00 SM or 20,000 SF. About 36% of the library gross area would be allocated for printed and multi-media materials storage and 43% of gross area for study and program spaces.

The remaining 21% of space would be for staff areas, building support spaces and grossing allowances.

Administration/Front of house

		m²	ft²
3.1.1	Checkout Automated / Circulation Counter	50	538
3.1.2	Library Services Workroom	45	484
3.1.3	Branch Mamger's Office	12	129
3.1.4	Staff Room	20	215
3.1.5	Staff Washroom	5	54
3.1.6	Book Drop-off (near complex main entrance)	4	43
3.1.7	Janitor Closet	5	54
	Area Total	141	1,518

Study and Program Spaces

		m²	ft²
3.3.1	Computer Stations (15 stations)	50	538
3.3.2	Maker-Space (contents TBD)	50	538
3.3.3	Study Lounges (soft-seating, carrels and table/chair areas)	200	2153
3.3.4	Quiet Study Room	30	323
3.3.5	Childrens Area	60	646
3.3.6	Program Room (capacity 30; includes storage)	120	1292
3.3.7	Program Room Storage	5	54
3.3.8	Group Study / Tutoring Rooms (2)	25	269
3.3.9	Universal Washrooms (3)	15	161
3.3.10	Outdoor Reading Garden (+/- 50 sm)	Not in Building Area Total	
	Area Total	555	5,975

Administration/Front of house

		m²	ft²
3.2.1	Stacks - Adult (40,000 items; 5-shelf height)	200	2153
3.2.2	Stacks - Children (20,000 items; 3-shelf height)	140	1507
3.2.3	Stacks - Youth (10,000 items; 5-shelf height)	50	538
3.2.4	Stacks - Multi-Media / Magazines (15,000 items)	35	377
3.2.5	Stacks - Reference (3,000 items)	25	269
	Area Total	450	4,844

Other Components

	m²	ft²
Internal Circulation (Corridors) Allowance 5%	57	617
Building Mechanical / Electrical Pro-Rated 6%	69	740
Walls and Structure 5%	57	617

Total Area: 1,329 m² 14,311 ft²

Net to gross: 86%

Functional Program
4.0 COMMON AREAS

The Common Areas component includes the Lobby, major circulation and a contained (control-able) indoor playground area. The primary function of the area is to link the recreation centre and library with the connection point of the high school (allowing for students circulation and for community extended hours use of the gyms), and with the future arenas.

A portion of the lobby area should be square-ish in configuration to allow for public events such as assemblies, performances, craft fairs and displays. This component also includes tenant spaces for food services as well as office spaces for the Community Associations.

Social Gathering

		m²	ft²
4.1.1	Lobby/ Gathering Space	1500	16148
4.1.2	Indoor Play Area	50	538
4.1.3	Washrooms	60	646
	Area Total	1,610	17,332

Tenant Spaces

		m²	ft²
4.2.1	Food Services (2@ 40)	80	861
4.2.3	Community Association Office Space	45	484
	Area Total	125	1,346

Other Components

	m²	ft²
Building Mechanical Pro-Rated 6%	104	1121
Walls and Structure 5%	87	934

Total Area: 1,926 m² 20,732 ft²

Net to gross: 90%

Functional Program
5.0 ICE ARENAS

The ice arenas component is being deferred to a future phase till a point in time when the demand for a twin-sheet facility can be justified and funded.

For the present, site and building planning would accommodate the footprint requirements of the two ice sheets and support spaces. Each NHL regulation-size ice sheet would include spectator seating for 200, as well five team rooms per sheet, refs' dressing rooms, and back-of-house operations space. Shared by the two arenas would be a meeting room, first aid space, arena manager's office, skate shop, and ice resurfacer parking along with ice shavings melting pit.

Arena No. 1

		m²	ft²
5.1.1	NHL-size Ice Arena (dasherboards, benches)	1590	17116
5.1.2	Arena Apron (spectator bench seating capacity 200, circulation, header trench)	670	7213
5.1.3	Spectator Seating (200 Capacity)	200	2153
5.1.4	Public Skate Change Area (additional apron area)	225	2422
5.1.5	Skate Shop	30	323
5.1.6	Team Rooms with Washrooms and Showers (5)	375	4037
5.1.7	Referees Change Rooms (2)	40	431
5.1.8	Multi-Purpose Room	80	861
5.1.9	First Aid Room	12	129
5.1.10	Press / Coaches Spotter Boxes	20	215
5.1.11	Maintenance Workshop	25	269
5.1.12	Staff Change / Lunch Room	20	215
5.1.13	Arena Manager's Office	10	108
5.1.14	Ice Resurfacer Parking and Snow Melt Pit (shared both sheets)	75	807
	Area Total	3,372	36,300

Arena No. 2

		m²	ft²
5.2.1	NHL-size Ice Arena (dasherboards, benches)	1590	17116
5.2.2	Arena Apron (spectator bench seating capacity 200, circulation, header trench)	870	9366
5.2.3	Team Rooms with Washrooms and Showers (5)	375	4037
5.2.4	Referees Change Rooms (2)	40	431
5.2.5	Press / Coaches Spotter Boxes	20	215
	Area Total	2,895	31,165

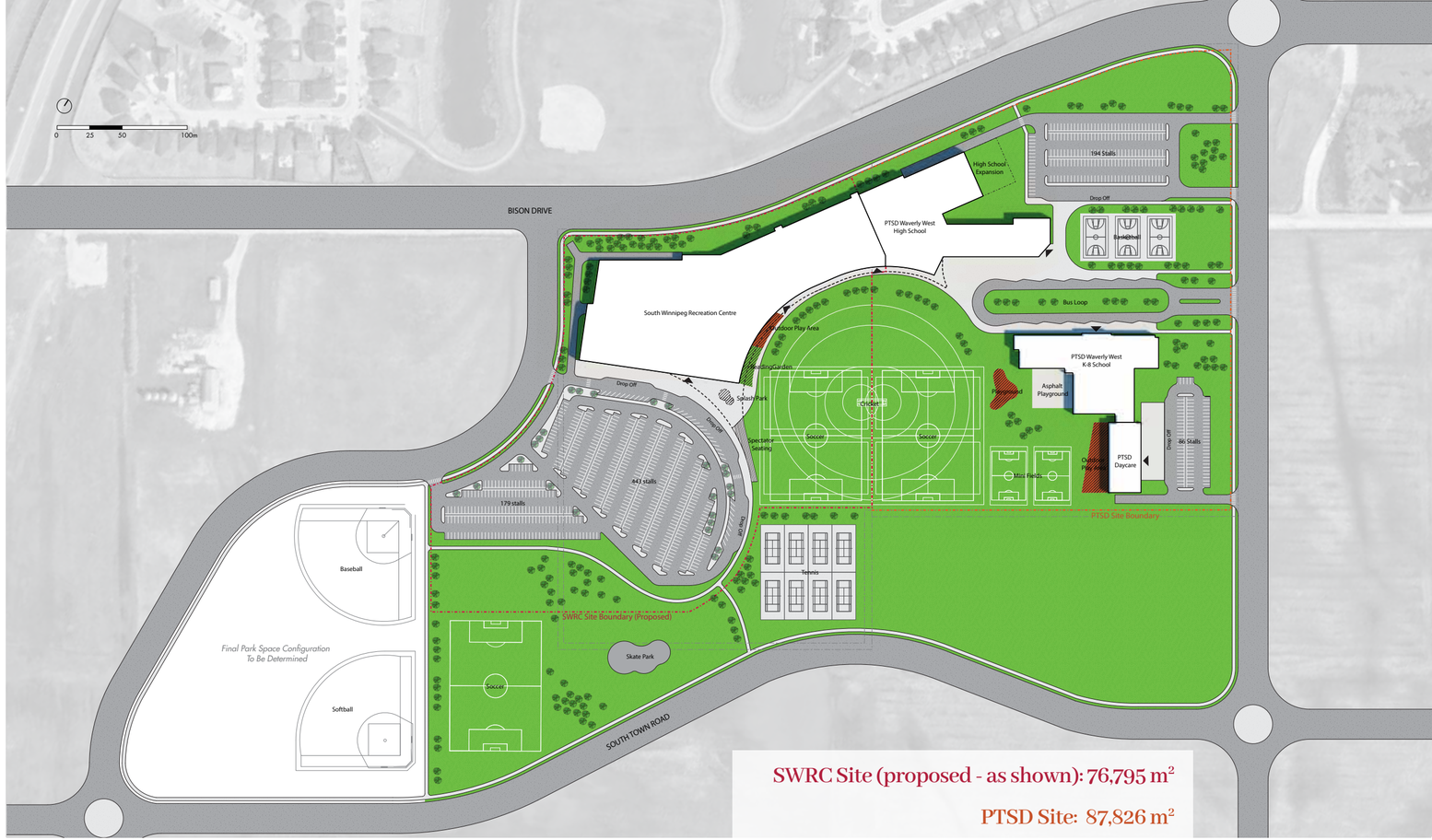
Other Components

	m²	ft²
Lobby Area	250	2691
Internal Circulation Allowance 5%	313	3373
Building Mechanical Pro-Rated 6%	376	4048
Arena Mechanical (Ice Plant sized for two ice sheets)	190	2045
Ice Plant Chiller (located outside of building)	Not in Building Area Total	
Walls and Structure 5%	313	3373

Total Area: 7,710 m² 82,955 ft²

Net to gross: 81%

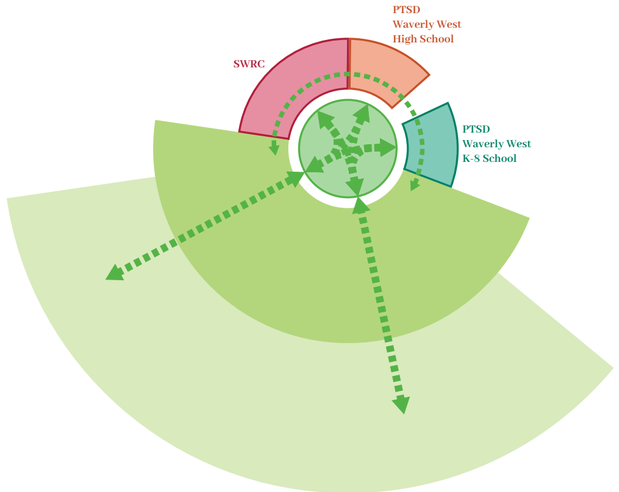
Concept Development
RECREATIONAL DRIFT

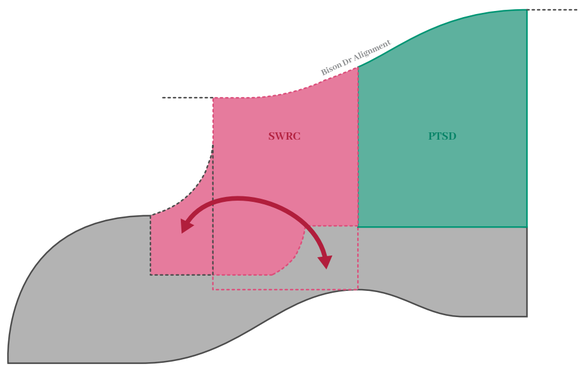


Concept Development
RECREATIONAL DRIFT

Site Planning Configuration

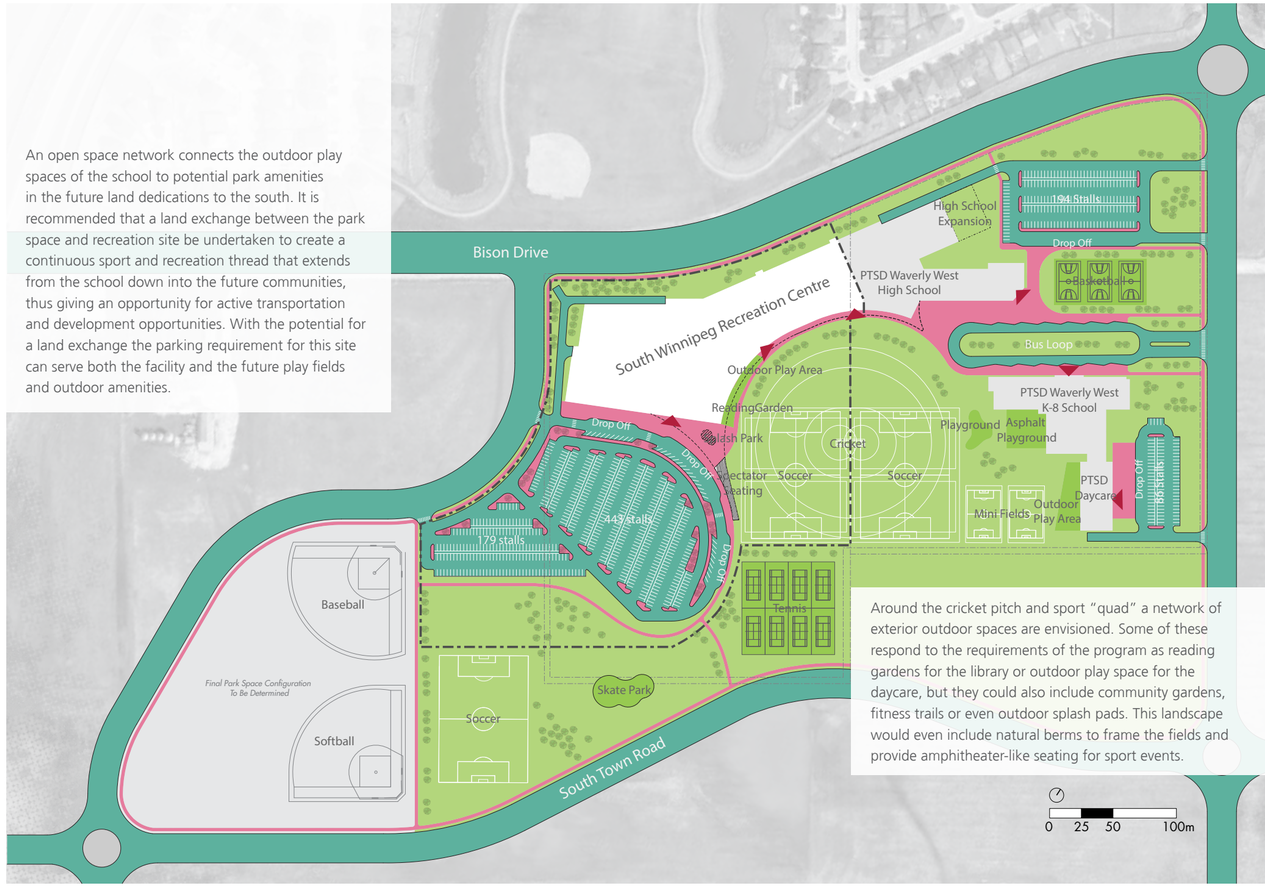
The design of the overall site is highly influenced by the campus plan and the desire to create a regional facility that draws from communities from every part of the City. With limited access along Bison Dr. to the north for vehicles, the logical location of the building is along the road. This provides both a visually compelling draw from the road networks but also the opportunity to shield the entrances from the more inclement weather patterns. The south facing entrance also engages the more social aspects of the facility with the fields and green spaces of the project.





One of the important strategies in developing the notional qualities of a campus was to create the sense of a "quad". This open space that fronts the entrance to buildings provides a centralized meeting or common space. We see the potential of the requirement of soccer fields to be this space. This design combines those together to create a large open and active space at the heart of this joint use site. This also gave us the ability to accommodate a cricket pitch. Given the ethnic diversity in the area, this could be a great way to address the changing sporting needs in the City of Winnipeg.

An open space network connects the outdoor play spaces of the school to potential park amenities in the future land dedications to the south. It is recommended that a land exchange between the park space and recreation site be undertaken to create a continuous sport and recreation thread that extends from the school down into the future communities, thus giving an opportunity for active transportation and development opportunities. With the potential for a land exchange the parking requirement for this site can serve both the facility and the future play fields and outdoor amenities.



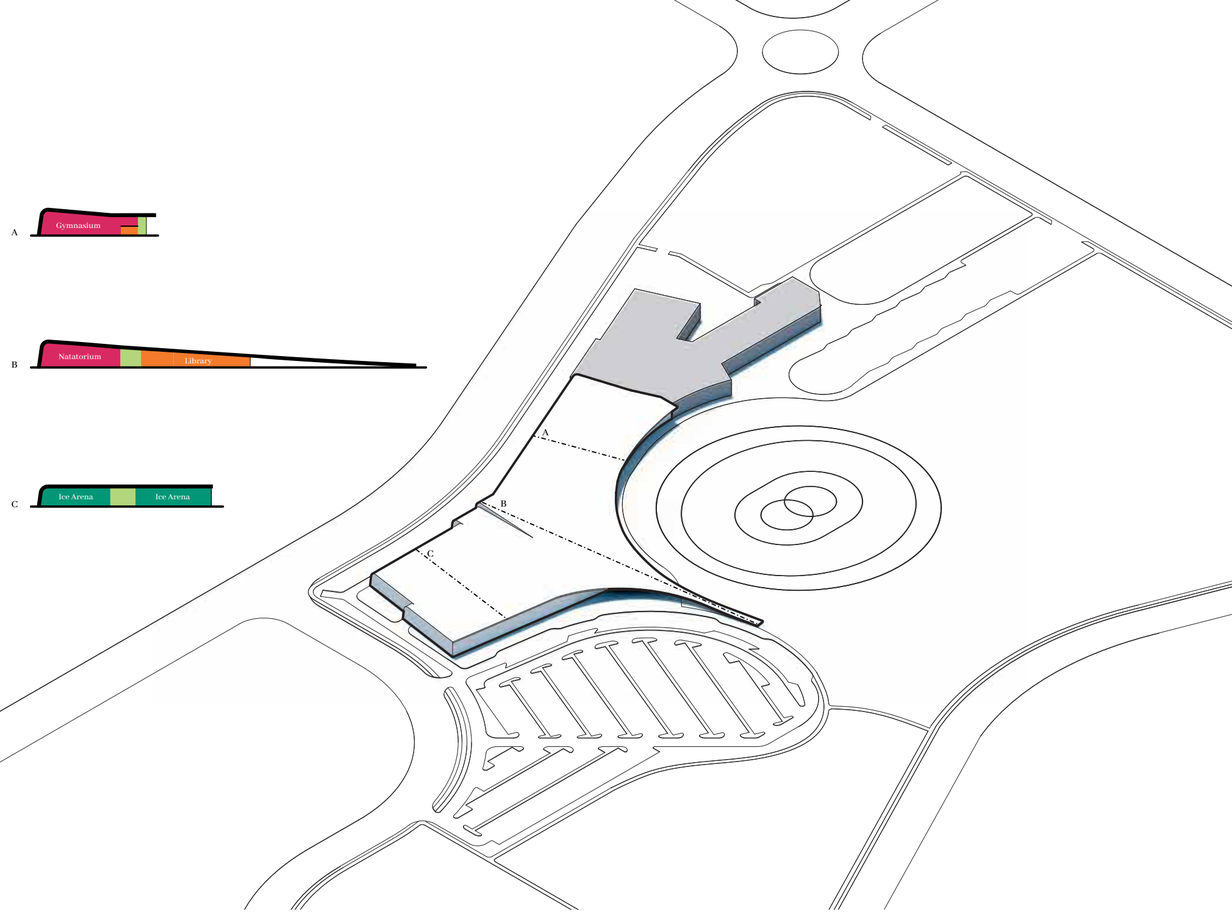
Around the cricket pitch and sport "quad" a network of exterior outdoor spaces are envisioned. Some of these respond to the requirements of the program as reading gardens for the library or outdoor play space for the daycare, but they could also include community gardens, fitness trails or even outdoor splash pads. This landscape would even include natural berms to frame the fields and provide amphitheater-like seating for sport events.

Concept Development
RECREATIONAL DRIFT

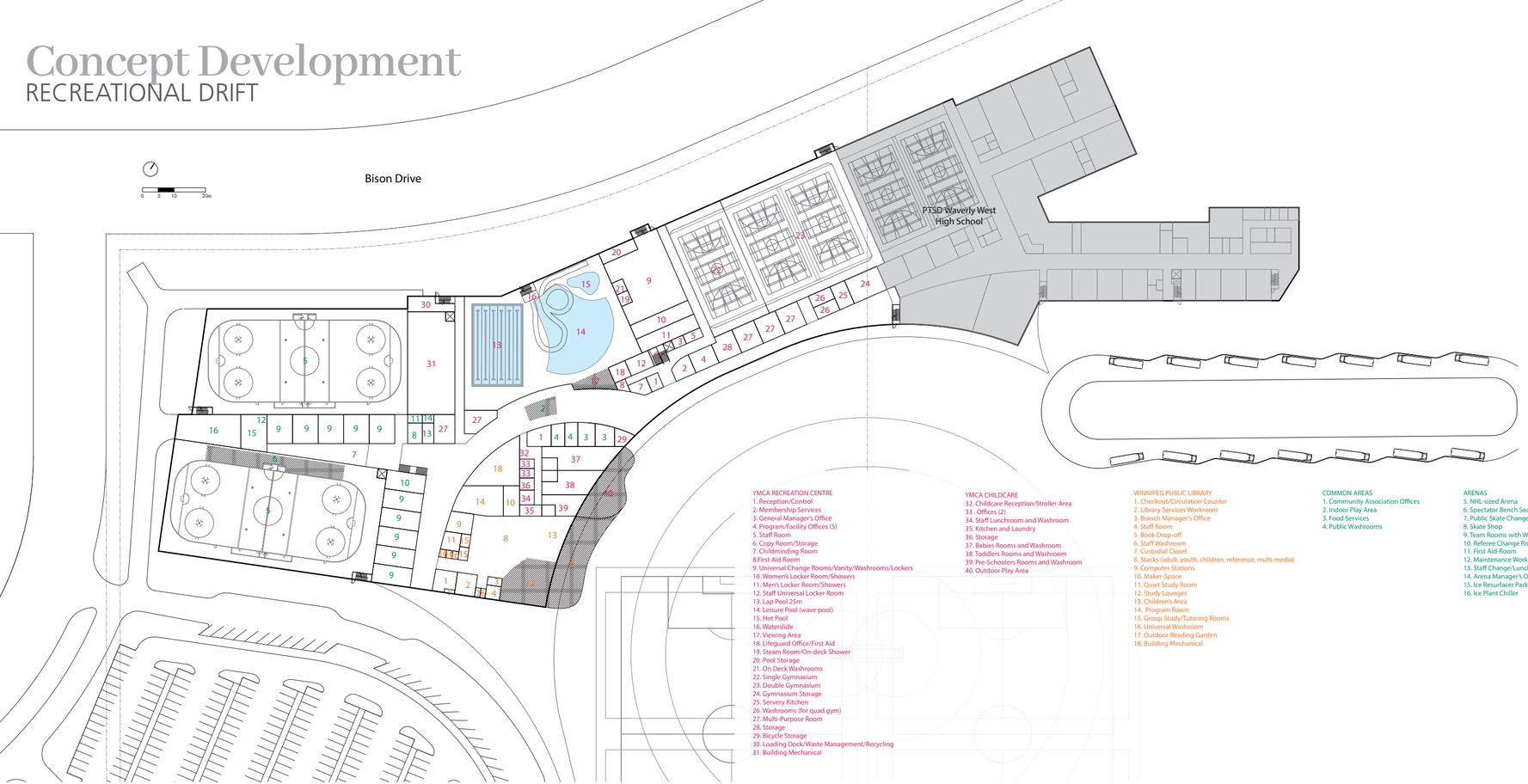
Architectural Expression

The idea for the form of the building is influenced heavily by the geography and climate of Winnipeg. The building is seen as a large snow drift, the kind created along the windrows of the prairie farms and a type of temporal form created by the confluence of the land and a peoples intervention in that land. The planting of the windrows traps the snow and creates the drift, which in turn becomes the recreation and play opportunity for children.

In this setting the "drift" begins along the north side of the site allowing some strategic perforation of the façade to control light and provide a better envelope to the north. The overhang of the drift reaches out to the south creating pleasant exterior spaces along the south side of the building for the hotter and more intense summer sun. The south side of the building also drops in scale to the more intimate scaled spaces of the library and daycare. To the West the arenas in a twin format tie into the form in a more consistent manner. The south side of the building is anticipated to feature more extensive glazing to connect the social spaces of the circulation, fitness and multi-purpose spaces.



Concept Development
RECREATIONAL DRIFT



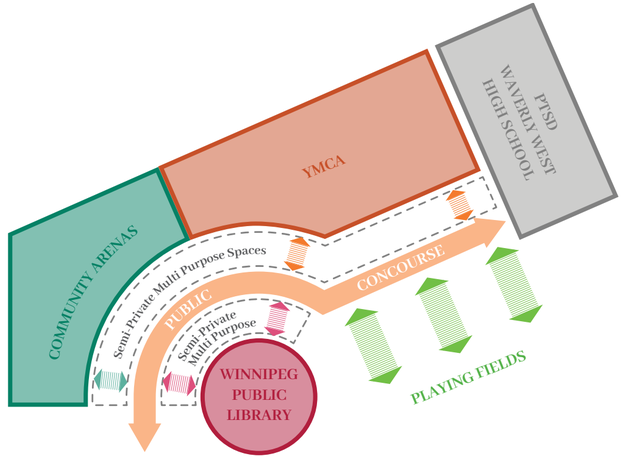
YMCA RECREATION CENTRE
1. Reception/Control
2. Membership Services
3. General Manager's Office
4. Program/Facility Offices (5)
5. Staff Room
6. Copy Room/Storage
7. Childminding Room
8.First Aid Room
9. Universal Change Rooms/Vanity/Washrooms/Lockers
10. Women's Locker Room/Showers
11. Men's Locker Room/Showers
12. Staff Universal Locker Room
13. Lap Pool 25m
14. Leisure Pool (wave pool)
15. Hot Pool
16. Waterslide
17. Viewing Area
18. Lifeguard Office/First Aid
19. Steam Room/On-deck Shower
20. Pool Storage
21. On Deck Washrooms
22. Single Gymnasium
23. Double Gymnasium
24. Gymnasium Storage
25. Servery Kitchen
26. Washrooms (for quad gym)
27. Multi-Purpose Room
28. Storage
29. Bicycle Storage
30. Loading Dock/Waste Management/Recycling
31. Building Mechanical

YMCA CHILDCARE
32. Childcare Reception/Stroller Area
33 . Offices (2)
34. Staff Lunchroom and Washroom
35. Kitchen and Laundry
36. Storage
37. Babies Rooms and Washroom
38. Toddlers Rooms and Washroom
39. Pre-Schoolers Rooms and Washroom
40. Outdoor Play Area

WINNIPEG PUBLIC LIBRARY
1. Checkout/Circulation Counter
2. Library Services Workroom
3. Branch Manager's Office
4. Staff Room
5. Book Drop-off
6. Staff Washroom
7. Custodial Closet
8. Stacks (adult, youth, children, reference, multi-media)
9. Computer Stations
10. Maker-Space
11. Quiet Study Room
12. Study Lounges
13. Children's Area
14. Program Room
15. Group Study/Tutoring Rooms
16. Universal Washroom
17. Outdoor Reading Garden
18. Building Mechanical

COMMON AREAS
1. Community Association Offices
2. Indoor Play Area
3. Food Services
4. Public Washrooms

ARENAS
5. NHL-sized Arena
6. Spectator Bench Seating - 200
7. Public Skate Change Area
8. Skate Shop
9. Team Rooms with Washrooms and Showers
10. Referee Change Rooms
11. First Aid-Room
12. Maintenance Workshop
13. Staff Change/Lunch Room
14. Arena Manager's Office
15. Ice Resurfacer Parking and Snow Melt Pit
16. Ice Plant Chiller

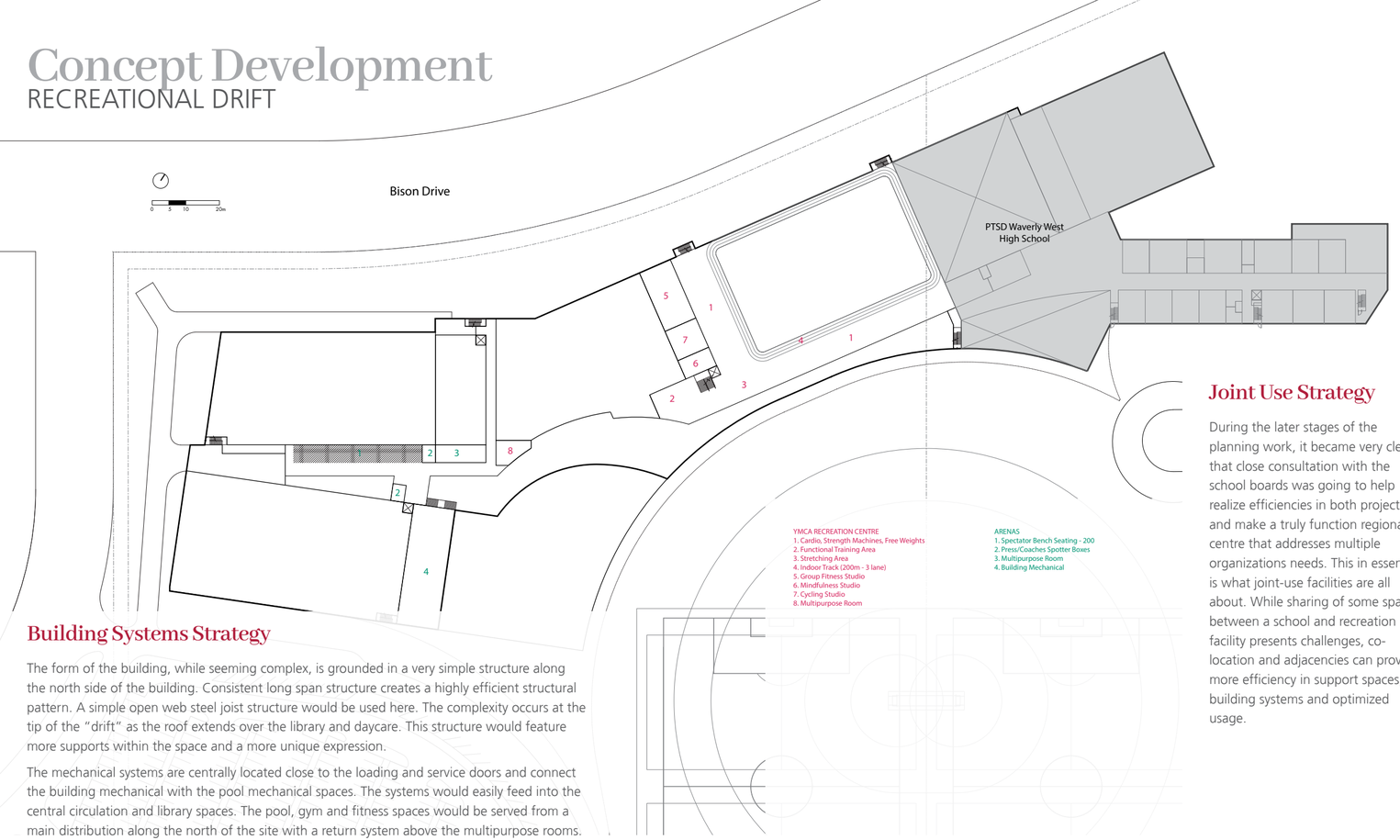


Interior Layout

The interior layout is organized along the circulation spine which arcs around the quad starting at the west end of the building as a double loaded corridor and connecting at the East end of the site to the high school as a single loaded corridor. The circulation is meant to be reflective of the architectural expression and provide controlled access to spaces along the circulation. The main control point to the facility occurs towards the centre of the building adjacent to the locker rooms. In either direction there are spaces that could be accessible from the corridor for potential "out of skin" opportunities like parent viewing of swim lesson or a community association meeting in a multi-purpose system. The large-volume spaces such as fitness studios, fitness spaces, gymnasiums, and natatoriums form the next layer of spaces along the north side of the building.

The circulation is designed as a wide street where programming and social spaces spill from, provided a place where students will hang out. A couple of food service stations are included in the common area to provide a dynamic social vitality to the overall space. The interior is meant to interact with the fields and exterior spaces, flooded with natural light. With niches and scaled spaces there is opportunity to create a variety of social spaces for groups of all sizes. All of this in clear site lines of security and public supervision.

Concept Development
RECREATIONAL DRIFT



Building Systems Strategy

The form of the building, while seeming complex, is grounded in a very simple structure along the north side of the building. Consistent long span structure creates a highly efficient structural pattern. A simple open web steel joist structure would be used here. The complexity occurs at the tip of the "drift" as the roof extends over the library and daycare. This structure would feature more supports within the space and a more unique expression.

The mechanical systems are centrally located close to the loading and service doors and connect the building mechanical with the pool mechanical spaces. The systems would easily feed into the central circulation and library spaces. The pool, gym and fitness spaces would be served from a main distribution along the north of the site with a return system above the multipurpose rooms.

Joint Use Strategy

During the later stages of the planning work, it became very clear that close consultation with the school boards was going to help realize efficiencies in both projects and make a truly function regional centre that addresses multiple organizations needs. This in essence, is what joint-use facilities are all about. While sharing of some spaces between a school and recreation facility presents challenges, co-location and adjacencies can provide more efficiency in support spaces, building systems and optimized usage.

Shared space

As the concept plan evolved and collaboration between the City and PSFB developed, a discussion occurred around the types of spaces that could be shared. The most applicable were the library, the daycare and the gyms.

The Library

One of the significant challenges in creating a safe school environment and a public library is the notion of control. In our experience, the benefit of sharing these facilities is complicated by the networks they are part of. The Winnipeg Library is part of collection of libraries that share and move books between branches, where quick and efficient access to loading and drop-off is desired. This poses a problem for a High School Library which needs to be located close to the other parts of the school. At the same time, High School Libraries as part of a large curriculum need access to spaces during school hours. Controlling public into a school environment or a teaching environment poses significant problems in the planning of this space.

That being said, the movement towards a Learning Commons in school design presents an opportunity where some of the library spaces could potentially be shared, such as maker spaces, meeting rooms and collaboration areas. The end result was a location of the library at the East side of the school in close proximity to the Multiuse facility.

Daycare

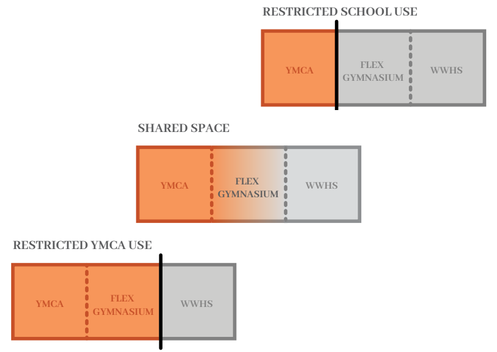
There is a daycare in each of the two proposed school programs on the School site as mandated by government funding and curriculum guidelines. As part of a 3rd party operated facility, the daycare is an important aspect of a multi-use facility as it can leverage the access to recreation and wellness very well. The City does not operate daycare facilities.

Through the course of the discussion it was suggested that combining the school daycare components could be a possibility. These may or may not be operated by a 3rd party operator of the recreation site. In either scenario a separate daycare for the recreation site was seen as providing value in the proforma for the recreation centre if a 3rd party operator was engaged.

Gymnasiums

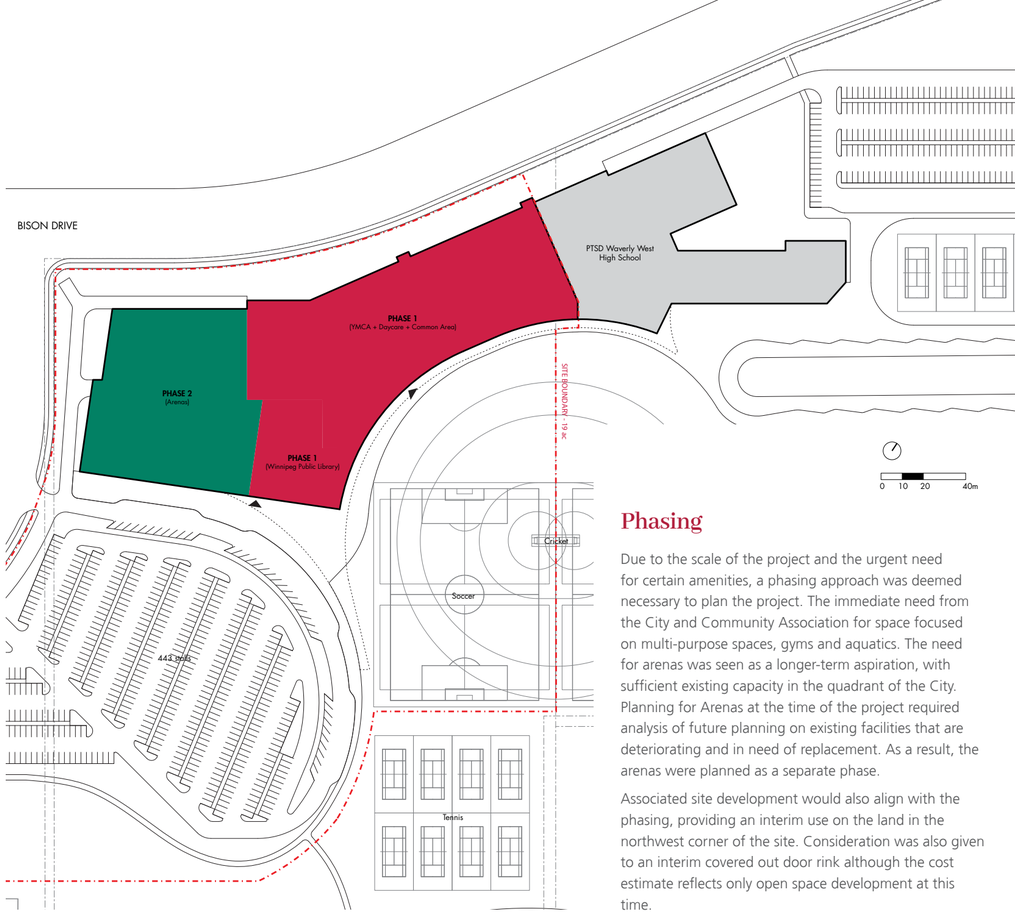
One of most realizable economies of scale was in the desire for gym space. Given the perceived benefit of locating the high School adjacent to the rec centre over the K-8, the number of gyms were able to be reduced in the planning of the rec centre.

As a strategy of physically connecting the High School to the Recreation site we developed a "canal" lock scenario that provides the ability to swing the gyms between the rec centre or the school. This provided an innovative solution realize shared infrastructure and control access to a building that is otherwise closed. Essentially when the school is closed the gyms become part of the recreation centre and potentially, if the High School is designed appropriately, could have access to some classrooms or multi-purpose spaces. If a governance, operation and maintenance agreement could be established between the recreation facility operator and the High School, extended use could even include the culinary kitchen or wood shop to provide community oriented continuing education opportunities.



Concept Development

RECREATIONAL DRIFT



Phasing

Due to the scale of the project and the urgent need for certain amenities, a phasing approach was deemed necessary to plan the project. The immediate need from the City and Community Association for space focused on multi-purpose spaces, gyms and aquatics. The need for arenas was seen as a longer-term aspiration, with sufficient existing capacity in the quadrant of the City. Planning for Arenas at the time of the project required analysis of future planning on existing facilities that are deteriorating and in need of replacement. As a result, the arenas were planned as a separate phase.

Associated site development would also align with the phasing, providing an interim use on the land in the northwest corner of the site. Consideration was also given to an interim covered out door rink although the cost estimate reflects only open space development at this time.

Concept Development
RECREATIONAL DRIFT

Sustainability

While the scope of this project did not delve into the specific details of the sustainability of this project, the costs assumed a LEED Gold project. There are several items that should be considered as the project moves forward to ensure the City of Winnipeg is following current standards and/or leading in sustainable design principles for Civic structures. The synergy between potential future ice plants and pools could produce efficiencies in heat recovery and using waste heat. The added cost of creating a green roof or supporting solar PVCs was considered in the costing and should be evaluated and considered for the development of the project.

Pools are large consumers of energy, and as such the project should consider low-flow fixtures in the change rooms and shower as well as a filtration medium for the pools that is efficient and easy to maintain, as dirty filters require considerably more energy. A maintenance program should also be established in the design stages to ensure the design considerations align with operational procedures and energy savings are realized.

The design of the building realizes environmentally sensitive solutions by creating a more integral envelope with limited glazing on the north side of the building. On the south, where glazing is more significant because of the desire for views, triple glazing and cantilevered canopies look to minimize heat gain in the summer. Major entrances are oriented towards the south to limit the impact of north winds on heat loss and building pressurization.

Cost Analysis
DEVELOPMENT & DISCUSSION

Introduction

The cost estimate was based on the drawings provided in this report and a basic massing model used to determine the scale of several spaces. The exercise was done as a functional program estimate and includes soft cost allowances based on common practices for facilities of a similar nature. The pricing is done in 2019 dollars and reflects the total project costs. The costs were identified in two phases based on the planning of the project and assumes that some soft landscaping would be required on a temporary basis for the location of the arenas in phase 1. While this was developed as a program estimate it can be assumed that the deletion of some program elements would realize a portion of that reduction in overall project cost but not the entirety.

Assumptions & Exclusions

These preliminary hard construction cost estimates for the new South Winnipeg Recreation Campus project have been developed from historical costs for comparable facilities and/or amenities to those described in the Functional Program (dated April 15, 2019) and received on May 3, 2019 as prepared by Gibbs Gage Architects. Project Phasing has been incorporated in keeping with the Site Phasing Diagrams provided by Gibbs Gage on May 14, 2019. Site Development costs have been prepared from Site fit calculations taking into consideration requirements for fields, internal land drainage, earthworks, surface parking, landscaping, pathways and site services.

Due to the preliminary nature of the available information, these estimates should be used as Order of Magnitude, budget guidelines only.

While estimates are shown for individual building components, these can not be used as stand alone estimates. They have been estimated based on inclusion in the total facility.

Notes and Assumptions:

- Unit rates were developed based solely upon the space descriptions shown.
- All costs are shown in current May 2019 dollars.
- As the available information is preliminary, all estimates include a 15% design contingency allowance.
- Estimates include for contractor overhead and fee based on a competitive tender approach for all work.
- Final size, configuration and stacking of functions could significantly impact the estimated construction costs.
- Building will generally meet LEED Gold standards; Net Zero Energy or Carbon not anticipated
- Furniture, Furnishings and Equipment is shown as an overall allowance on the Global Budget Summary

Excluded from these estimates are:

- Hazardous Material Remediation, if required
- Public Art
- Storm Water Volume Control Allowance
- Land costs (acquisition, assessments, levies, etc.)
- Interior development of Lease Space (by Tenant)
- Library collections / book sorting equipment
- Food Service Equipment
- All work beyond the construction boundary lines other than service connections
- Owner Internal Costs / Moving & Relocation Costs
- Operating and Lifecycle Maintenance Reserve Fund
- Post-disaster building requirements
- Goods and Services Tax and Provincial Sales Tax

South Winnipeg Recreation Campus
Preliminary Functional Program Estimate
May 14, 2019

Global Budget Summary Phase 1 YMCA & WPL

FUNCTIONAL PROGRAM - SOUTH WINNIPEG RECREATION CAMPUS - YMCA OPERATED — rounded to nearest $100,000

OVERALL AREA SUMMARY	Program Area in S.M.	Program Area in SQ.FT.	Cost per Square Meter	Cost per Square Foot	Total Construction
Facility Construction					
1.0 YMCA Recreation Centre Gross Area	9,933	106,934	$4,520	$420	$44,900,000
2.0 YMCA Childcare Gross Area	612	6,591	$3,757	$349	$2,300,000
3.0 Winnipeg Public Library Gross Area	1,329	14,311	$3,536	$328	$4,700,000
4.0 Common Area	1,926	20,732	$3,739	$347	$7,200,000
5.0 Ice Arenas Gross Area (Future Phase)	***See Separate Summary***				
Gross Facility Area - Including Future Arenas	**13,801**	**148,567**	**$4,282**	**$398**	**$59,100,000**
Site Development	Site Area	Area in Acres		$/Acre	
Playfields, internal land drainage, earthworks, surface parking, landscaping, pathways and site services	76,728	19.0	$188	$759,498	$14,400,000
Total Site Development Cost					**$14,400,000**
Total Hard Construction Costs					**$73,500,000**
Soft Costs					
Design, Testing, Permits & Project Management	(15% of Construction Costs)				$11,000,000
Owner's Internal Costs					Not Included
Total Soft Costs					**$11,000,000**
Post-tender Construction Contingency	(5% of Construction Costs)				**$3,700,000**
Lands (Acquisition, Acreage Assessments, etc.) - Not Included					**Not Included**
Total Facility Costs in current 2019 dollars					**$88,200,000**

Other Funding Requirements	
Furniture, Furnishings & Equipment - Allowance (5% of Building Construction)	$3,000,000
Interior Development of Tenant Spaces (by sub-tenant)	Not Included
Operating and Lifecycle Maintenance Reserve Funds	Not Included
Total Program Costs plus FF&E Allowance	**$91,200,000**

Construction Cost Escalation (No Escalation on Soft Costs) based on tender date in May 2021 (2 years)				
Cost Escalation to Time of Tender - **Low Range**	1% per annum	$1,500,000		
Cost Escalation to Time of Tender - **Likely Range**	2% per annum	$2,900,000	Budget-->	**$2,900,000**
Cost Escalation to Time of Tender - **High Range**	3% per annum	$4,400,000		
Total Escalation Consideration				**$2,900,000**

South Winnipeg Recreation Campus
Preliminary Functional Program Estimate
May 14, 2019

Global Budget Summary Phase 2 Twin Arena

FUNCTIONAL PROGRAM - SOUTH WINNIPEG RECREATION CAMPUS - YMCA OPERATED — rounded to nearest $100,000

OVERALL AREA SUMMARY	Program Area in S.M.	Program Area in SQ.FT.	Cost per Square Meter	Cost per Square Foot	Total Construction
Facility Construction					
1.0 YMCA Recreation Centre Gross Area	***See Separate Summary***				
2.0 YMCA Childcare Gross Area	***See Separate Summary***				
3.0 Winnipeg Public Library Gross Area	***See Separate Summary***				
4.0 Common Area	***See Separate Summary***				
5.0 Ice Arenas Gross Area (Future Phase)	7,710	82,995	$3,749	$348	$28,900,000
Gross Facility Area - Including Future Arenas	**7,710**	**82,995**	**$3,749**	**$348**	**$28,900,000**
Site Development	Site Area	Area in Acres		$/Acre	
Additional parking and related site work to accommodate added Twin Arena	12,854	3.2	$93	$377,811	$1,200,000
Total Site Development Cost					**$1,200,000**
Total Hard Construction Costs					**$30,100,000**
Soft Costs					
Design, Testing, Permits & Project Management	(15% of Construction Costs)				$4,500,000
Owner's Internal Costs					Not Included
Total Soft Costs					**$4,500,000**
Post-tender Construction Contingency	(5% of Construction Costs)				**$1,500,000**
Lands (Acquisition, Acreage Assessments, etc.) - Not Included					**Not Included**
Total Facility Costs in current 2019 dollars					**$36,100,000**

Other Funding Requirements	
Furniture, Furnishings & Equipment - Allowance (5% of Building Construction)	$1,400,000
Interior Development of Tenant Spaces (by sub-tenant)	Not Included
Operating and Lifecycle Maintenance Reserve Funds	Not Included
Total Program Costs plus FF&E Allowance	**$37,500,000**

Construction Cost Escalation (No Escalation on Soft Costs) based on tender date in May 2023 (4 years)				
Cost Escalation to Time of Tender - **Low Range**	1% per annum	$1,200,000		
Cost Escalation to Time of Tender - **Likely Range**	2% per annum	$2,400,000	Budget-->	**$2,400,000**
Cost Escalation to Time of Tender - **High Range**	3% per annum	$3,600,000		
Total Escalation Consideration				**$2,400,000**

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