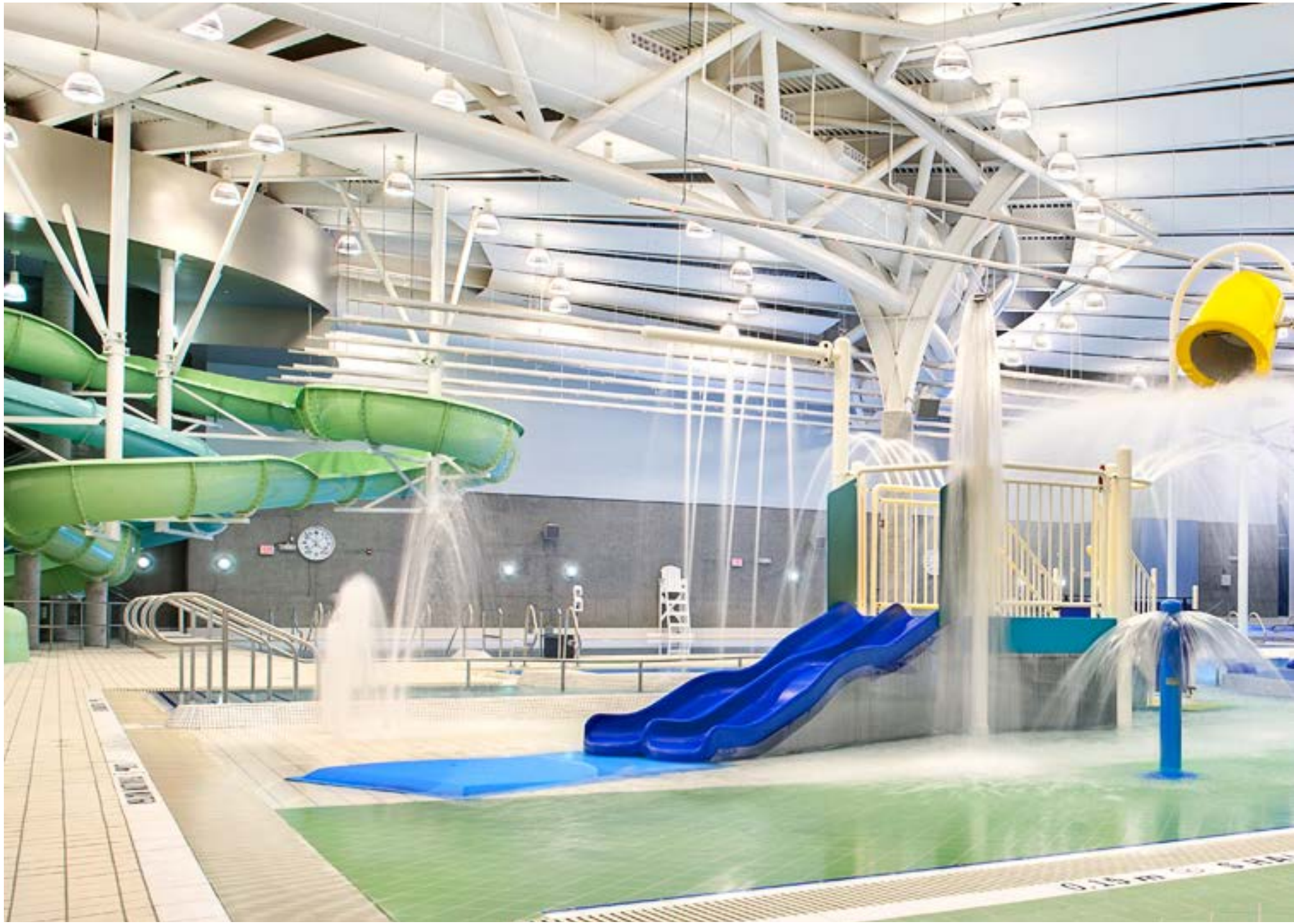
Parksville Pool + Multiplex Facility

FEASIBILITY STUDY - FINAL REPORT

2020.12.14

City of Parksville

HDR



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APPENDICES

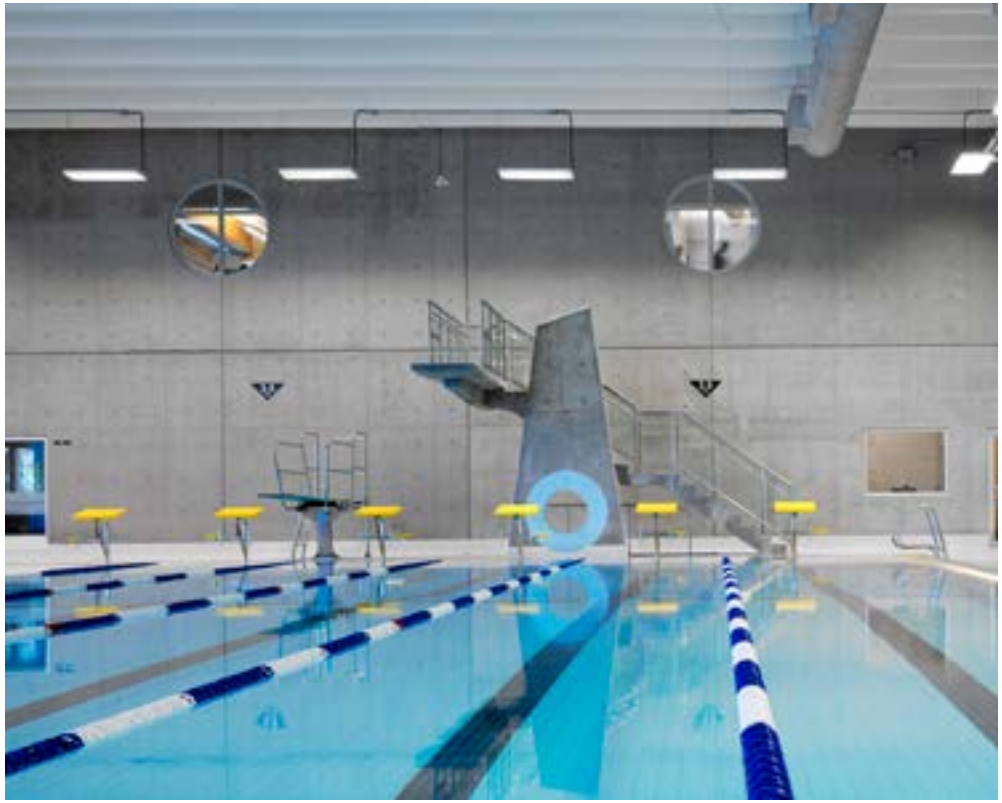
INTRODUCTION

There has been extensive studies over the years by the RDN and other consultant groups, including the Oceanside Recreation Master Plan, Community Park Master Plan, Parks Trails and the Opens Spaces Master Plan. The work to date has led to the Feasibility Study for a Parksville Swimming Pool and Multiplex Facility. The first phase of this study was to provide the City of Parksville with a Needs Assessment Report, an early step to evaluate whether the area tested could support a conceptual design of a pool and multiplex facility.

Through meeting with City of Parksville Council members, representatives from local stakeholder groups and City staff at the senior level, all who have provided valuable commentary and opinions, we compared the needs for an aquatic-only facility and one that can reach more through a variety of programmatic offerings. The first phase of the study documents the process and concludes with Council's decision to move forward to Phase 2 - Concept Design.

In this first phase, we provided two options for high level concept designs to be considered:

1. Aquatic and Multi-Use Facility
2. Aquatic-only Facility, with the option to expand in future.



As part of the study key consultants were engaged to provide expert input and recommendations. A Quantify Surveyor was consulted for an early stage construction budget and a Class ‘D’ Cost estimate. Construction budgets were provide for both concept design options. Through consulting with an expert in operating a recreation centre, a variety of strategies and key insights on operating costs were provided. In addition to the high level analysis and investigations into the Despard Ave site provided by HDR the test site proved to be an ideal location on many fronts and provoked an enhanced Civil services review and land survey.

There are multiple steps to move the exciting project forward, which will include developing the concept design further, with multiple opportunites for input from the community of Parksville including a referendum on costs of the facility and the willingness to pay for key elements of the multi-use program. The following pages will report back and highlight the processes and input from the variety of engagement, input, strategies and analysis from an array of City Council, community members, City staff, and design professionals.

PHASE 1 - NEEDS ASSESSMENT

ENGAGEMENT SESSIONS

There has been extensive studies over the years by the RDN and other consultant groups, including the Oceanside Recreation Master Plan, Community Park Master Plan, Parks Trails and the Opens Spaces Master Plan. The work to date has led to the Feasibility Study for a Parksville Swimming Pool and Multiplex Facility. The first phase of this study was to provide the City of Parksville with a Needs Assessment. Through meeting with City of Parksville Council members, representatives from local stakeholder groups and City staff at the senior level, all who have provided valuable commentary and opinions, we compared the needs for an aquatic-only facility and one that can reach more through a variety of programmatic offerings. This section of the report documents key findings from the series of choreographed sessions with the various groups

* This document is a draft report prepared by HDR for Council review. If Council, Stakeholders, or City Staff have concerns about the content of this draft report, it can be reviewed upon request.




COUNCIL MEMBERS, STAKEHOLDER & CITY STAFF SESSIONS

KEY FINDINGS + INSIGHTS

In early March, HDR planned nine in-person sessions (pre-COVID) and met with key members of the community including City of Parksville Council members, key community stakeholder groups and senior level City staff. The objectives from these sessions were to gauge the needs and visions and to better understand and assess what kind of pool facility would suit the needs of the community of Parksville. Several hours were spent in discussions and the views evolved throughout the day from a multiplex facility which included an aquatic centre, to an aquatic-only facility stacked with all the trending aquatic components, back to a multiplex facility with an aquatics centre that complements Ravensong and provides program area that is both useable and desired by community majorities. In-person design charette workshops which were planned for the summer and with the gereral public have been postponed to the detailed design phase due to the pandemic.

ENGAGEMENT SESSIONS 2-DAY AGENDA

DAY 1

Session 1 - City of Parksville Senior Staff discussed goals and objectives of the project; HDR gathered background information and the group discussed blue sky visioning for the project.
Session 2 - City of Parksville Council Members discussed their goals and objectives of the project, collective and individual perspectives were heard, and potential concerns from the community were identified.
Sssion 3 - Recreation Needs - City of Parksville Staff discussed recreation needs which has driven the preliminary program; and how nearby facilities may influence program needs of Parksville, and how a new facility could complement what already exists.
Session 4 - Stakeholder Group 1 - consisting mainly of water sports and recreation groups, with the addition of local associations and regional districts in the community that have an interest in Parksville's aquatic and multi-use facility.
Session 5 - Stakeholder Group 2 - represented a diverse group of sports and recreation stakeholders to provide input on what is lacking in the community and how this project might meet their needs and those they represent.

DAY 2

Session 6 - Operations - Recresynthesis Consulting reviewed business operations of an aquatics and multiplex facility.
Session 7 - Aquatics Workshop - HDR represented trends in aquatic recreation design.
Session 8 - Trends in Recreation - HDR presented trends in recreation, public and community focused design and architecture.
Session 9 - Programming Workshop - HDR provided recreation and aquatic components with rough areas and preliminary costs associated in order to refine the initial proposed program.

STAKEHOLDER GROUP 1

- Ravensong Waterdancers
- Parksville Qualicum Beach Tourism Assoc.
- School District 69
- Regional District of Nanaimo
- Parksville + District Chamber of Commerce
- Parksville Newcomers Club
- Qualicum Beach Triathlon
- Parksville Beach Festival Society
- Ravensong Aquatic Club
- Universal Access Qualicum Beach / Access Oceanside Assoc.

STAKEHOLDER GROUP 2

- Oceanside Soccer
- Oceanside Track + Field Club
- Parksville Indoor Slow Pitch League
- ORCA / Mid Island Distance Running Club
- Oceanside Minor Lacrosse
- Oceanside Pickleball
- Parksville Golden Oldies Sports Assoc.
- Bayside Racquets Club
- Curling Club

BLUE SKY VISION

- Connectivity to the outdoors, examples of: retractable roof / glass roof - to see, hear and feel the rainforest, roll-up doors
- Viewing platforms and decks to see the views of the beach, to read a book
- Incorporate climbing walls
- Wild play adventure / American gladiator (would suit a mix of abilities and ages)
- Unstructured and free play
- Multiple spots for vendors, food trucks, social gathering, meeting places, place to mingle + have a drink.
- Viewing areas into the programmed spaces.
- Arts + Culture + Sports together, cross-involvment'

Note: Blue Sky Vision was an exercise intented to inspire big ideas and creative concepts which could make their way into the design in some shape or form, without being bogged down with the reality of budgets and practical logistics.

KEY INSIGHTS

- Child and youth-friendly activities and programming with a family-friendly atmosphere.
- Separate areas of pool amenities, spray components, with a a focus on unprogrammed leisure pool; must complement neighboring pools by being something different.
- Drop-in focus, pick-up games, unprogrammed multi-use space would be an asset
- Larger gym for higher level of practice and training, therefore also providing a flexible space.
- Balance of form, function and character of facility matter.
- Indoor track would appeal to the masses.
- Meeting rooms with servery and storage to cater to local clubs and community groups would be beneficial.
- Developing a service or facility for the shoulder / off-season.
- Community lacks multi-purpose community rooms and spaces for various community groups.
- Demographics are shifting, need to accomodate for a growing young family population, while also providing for active senior population.
- Provide a facility that can host a variety of activities and be a place where those who wish to train as athletes can as well be a host facility for competitive sports.

A complete document of the sessions findings, can be read in the appendix A, Needs Assessment Report, dated April 30th, 2020




OPERATIONS SESSION

Session 6: Chris Nelson from Recresynthesis Consulting Ltd led a staffing and operations session to both inform and explore with City staff what the business operations of an aquatics and multiplex facility might look like.

The upfront costs associated with planning and developing new recreation infrastructure are high, however the long-term costs associated with the ongoing maintenance and operations of facilities over the complete life cycle are even greater.

An important consideration will be the service delivery model the City of Parksville will use for its proposed activity centre:

- Either direct delivery as the sole funder and operator of the facility.
- Provision by a community professional services partner with the City operating in a supportive role, or
- Delivery by an independent third-party with limited support from the City. A range of combinations of service delivery models may need to be explored, with consideration given to the practical feasibility, financial sustainability and resource allocation of each.

A complete document of the Operational Strategies can be read on pages, 47-54.

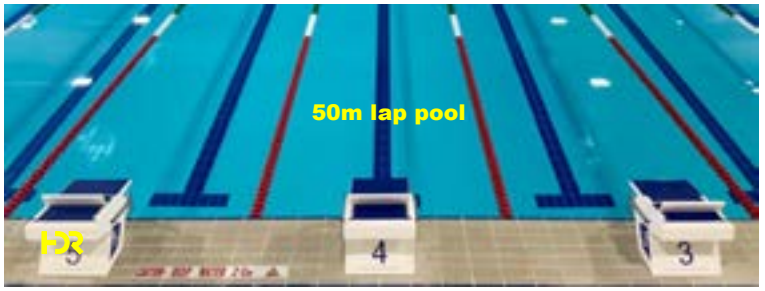
AQUATICS WORKSHOP

Session 7: HDR presented trends in aquatic recreation design.* Topics included: universal changeroom design and layouts, saltwater vs chlorinated water, tank sizes and temperatures, various types of leisure water and pool components.

Discussions on how Parksville's pool facility could complement neighboring pools, such as Ravensong and Nanaimo Aquatic Centre aided in program definition and how to meet the needs of the community now and into the future.

Understanding the many components of a potential pool layout provoked the conversation of how to balance the dry program features with the scale and complexity of aquatic design.

*See appendix 1 for the entire presentation, Parksville Pool Study Aquatics Workshop



TRENDS IN RECREATION

Session 8: HDR presented the Council members and City staff trends in architecture that are recreation and community focused.* The projects selected were from around the globe and centered around four themes: Nature, Heart, Versatility and Play. Topics of inclusivity + accessibility, sustainability + resiliency, playfulness + program components were discussed. This session was an opportunity to explore big design concepts and allowed for participant's ideas to be documented through a sticky note exercise. After each theme the group paused to reflect on the projects and concepts presented, then were asked to transcribe what impressed or affected them, and how those ideas might be translated into the Parksville project.

KEY INSIGHTS

THEMES FROM STICKY NOTE COMMENTS

- Take advantage of views and landscape; orient the building towards views (ocean/mountains/forest); take advantage of the rooftop.
- Connect to the outdoors / provide indoor-outdoor connection / views through the building / access walking tracks + trails.
- Interest in creating a building with a balance of visual attractiveness and functionality.
- Multi-purpose spaces that are flexible, provide space for gathering, activate in-between spaces.
- Incorporate climbing walls and indoor/outdoor walking and running track (connect track through the community)
- Incorporate aspects of fun, creativity, risk, unstructured indoor/outdoor components (Exploratorium).
- The centre has the ability to be a multi-seasonal attraction and an economic driver (attract and retain), but should not compete with private business.

YEAR-ROUND OUTDOOR SWIMMING / DESTINATION / COMMUNITY HUB / LEISURE + COMPETITIVE FUNCTIONS / PROGRAM SPACE

PROGRAM NEEDS

Key to the effectiveness of this study is the creation of a functional program that represents needs and objectives expressed by the City's elected officials, key staff and a number of important and active City user group representatives. From these dialogues, in session 9, a program was confirmed, to be used to develop a conceptual design option. The purpose of this concept design option is to confirm City needs, anticipate capital and operation costs, suggest an effective operations model and provide the City with a useful tool to further evaluate the viability of a new recreation facility for Parksville. Key to the program proposed in this section of the report, is through the dialogues referenced above a general consensus was met that proposed a combination of aquatics components with dry floor community activity spaces would best meet the needs of the City. This is reflected in the program chart and is intended (notwithstanding adjustments made at the instruction of the City) to be used as the basis of design in the next phase of this study.

PREFERRED PROGRAM DEVELOPED DURING ENGAGEMENT SESSIONS

Area	Element	Cost/sf	Element Cost
9000	6 x 25m Pool	$700	$6,300,000
3000	Change Rooms	$700	$2,100,000
1500	Admininstration & Staff	$700	$1,050,000
1000	Lobby/Lounge	$700	$700,000
1200	Therapeutic Channel	$700	$840,000
3000	Leisure Pool (w 0 entry)	$700	$2,100,000
900	Hot Tub	$700	$630,000
2000	X2 Multi-Purpose Rooms	$450	$900,000
7000	Single Gym	$450	$3,150,000
6500	Indoor Walk/Running Track	$450	$2,925,000
35100	Net Program Total		
12285	Gross Up Factor @ 1.35	$500	$6,142,500
47385	**Total Area**	Bldg Cost	$26,837,500
		Site Costs	$1,341,875
		Const. Cost	**$28,179,375**
		Soft Costs	$12,500,000
		Project Cost	**$40,679,375**

PREFERRED PROGRAM NOTES:

1. *The program illustrated in the chart on the right was developed during the consultation sessions held at the City of Parksville during phase 1 of the study.*
2. *This program indicates a "working program" that will be used during phase two of the study.*
3. *Areas noted for program elements have some flexibility and may be modified to suit the concept study to follow.*
4. *Preferred program to be confirmed by City of Parksville in advance of concept study commencement.*

TEST SITE

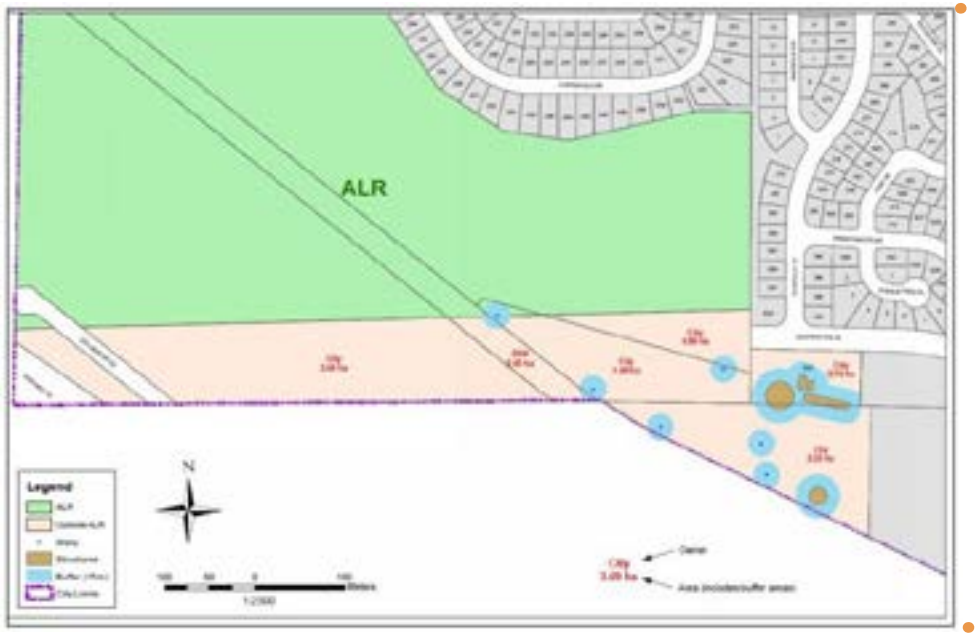
For the purpose of Phase 1 of this study one site location was selected to be used as a test site for conceptual design purposes. The selected site at Despard Avenue is City owned property, on the border of the city limits to the south. Although at the edge of the city, this site is a short distance from a well populated residential area as well as from the centre of the City.

The site is adjacent to an existing recreational and sports hub, adjacent to green space, open areas and athletic fields, outdoor running tracks and other related sports and recreation amenities. It is also directly adjacent to the Springwood Elementary school which will provide excellent opportunity to enhance programming for school age residents.

Recent population assessments reveal this site is well situated near a multi-family residential neighborhood and is within reasonable wallking distance. Approximately 273 households (x2.0 persons per dwelling unit) are located within 400 metres of the site and 1190 households located within 800 metres. The industry standards for walking distance range from 400-800 metres depending on individual mobility and fitness levels. From the downtown core, the site is approximately 20-30 minute walk.

This is a green field site on the border of the city limits. The Parksville Wetlands are adjacent to the test site, overlapping aspects of the designated subject area.

The Despard Avenue site consists of several parcels of City owned lands which are currently designated as park and valued for their ecological diversity. The southern portion is outside of the Agricultural Land Reserve, while the area to the north remains in the ALR. The larger Parksville Wetlands parcel is a valuable passive recreation area and contains several trails. The site area contains several watercourse channels and municipal wells. Opportunities exist to enhance the ecological elements on this site and to the north of the project area and create a more nautralized park.



Several detailed assessments will be needed to ensure the final design and siting integrates with these important features. This work will occur in the next phase. Recreation facilities can be noisy and are typically well lit at all times, so the lack of immediate residential neighbors is a positive for this site location.

**The final building design and siting is subject to extensive geotechnical, hydrogeological, environmental and servicing assessments, occuring in the next phase of study.*


BALLENAS OUTDOOR RUNNING TRACK
island hwy east
#88
CITY CENTRE
chestnut st
7 min bike ride / 30 min walk
moilliet st
alberni hwy
OFF-LEASH DOG PARK
TEST SITE
despard ave
TRILLIUM LODGE
SPRINGWOOD SPORTS FIELD + TENNIS COURTS
Google Earth

TO SUMMARIZE AND NEXT STEPS

Through the engagement sessions a significant amount of information was provided by the City Council members, residents representing the various Stakeholder group and City staff. Consideration was given to how nearby facilities might influence program needs of Parksville. Also established was the desire to be something different and provide the residents of Parksville a centre unique to their community.

After hearing from each other it was communicated that the centre could be more than an aquatic-only facility and that this was their opportunity to provide Parksville with an individialized centre just for them, to fill their needs now and into the future. This recreation facilityhas the potential to reach further than the RDN and could be a draw for hosting tournaments and attract and retain skilled talent and young families.

By providing the right site location and program amenities, the multiplex facility can connect to nature, promote active aging, physical literacy, intergenerational connectivity and be accessible to a wider demographic of community members.

Phase 2 of this study uses the information gathered in this Needs Assessment Phase in conjunction with the test site to develop a high level conceptual design which captures the desired program and the associated magnitude of cost.

The following pages and chapters dive deeper into site analysis to evaluate Despard Avenue as being the ideal location. Collaboration with City Staff and Civil Engineers provides site information that assist in understanding benefits, challenges and limitations of this site.

In later sections, a further refinement of strategies proposed by Recresynthesis for the operations of an aqautic only or a multiplex facility is laid out and provides the City of Parksville options in how they see their new facility being organized, staffed and operated in way that suits their community.

PHASE 2 - CONCEPT DESIGN

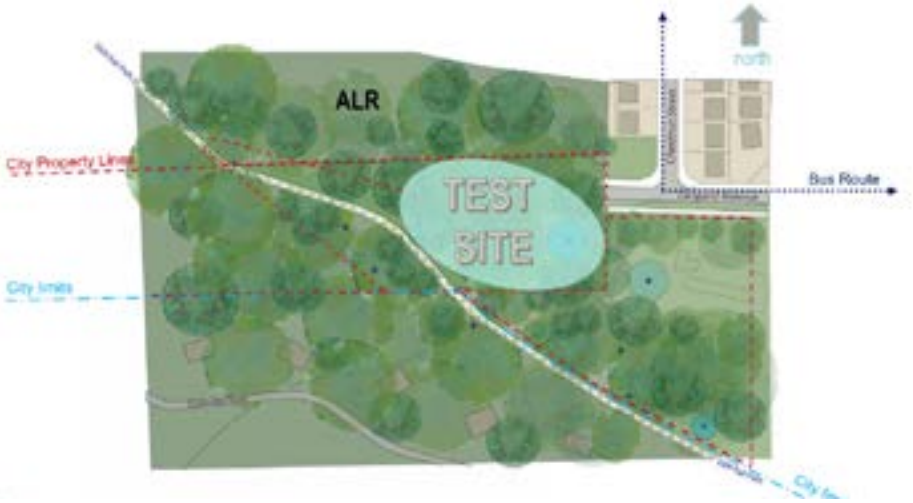
Synthesizing the Parts

As part of Phase 2, we have taken what we learned from the Needs Assessment Report and synthesized community needs, the site analysis, and programmic requirements and combined them into a coherent whole that relates to the environment and end user.

We have looked at environmental factors that might dictate orientation of the building, and factored in how natural daylighting can aid in operational costs and comfort for the users. Tapping into the natural beauty of the place provides enormous materiality inspiration and spacial qualities.

In July 2020, we put together a presentation of the Concept Design providing Council with two options:

1. Multiplex Facility
2. Aquatic-only Facility, with the option to expand in future.



The entire presentation can be reviewed in Appendix 4, Phase 2: Concept Design

We looked to the insights and comments we heard....

Promote being Active (all-ages)

Look for opportunities to create synergies

Refocus on families + youth

Multiplex should attract people to the City of Parksville

Provide more amenities for residents under one roof

Building should relate to site

Flexible Space

Take advantage of views

Promote Biking, Walking, Transit Use

Accessible Location

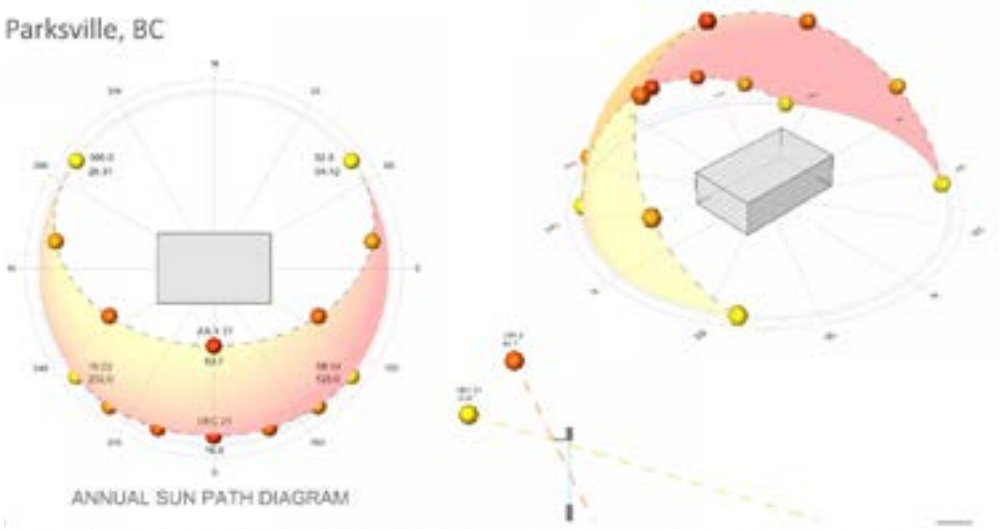
Provide something Unique to Parksville

Provide complementary components + program opportunities

Promote intergenerational connections

Connect to Nature

Parksville, BC



ANNUAL SUN PATH DIAGRAM

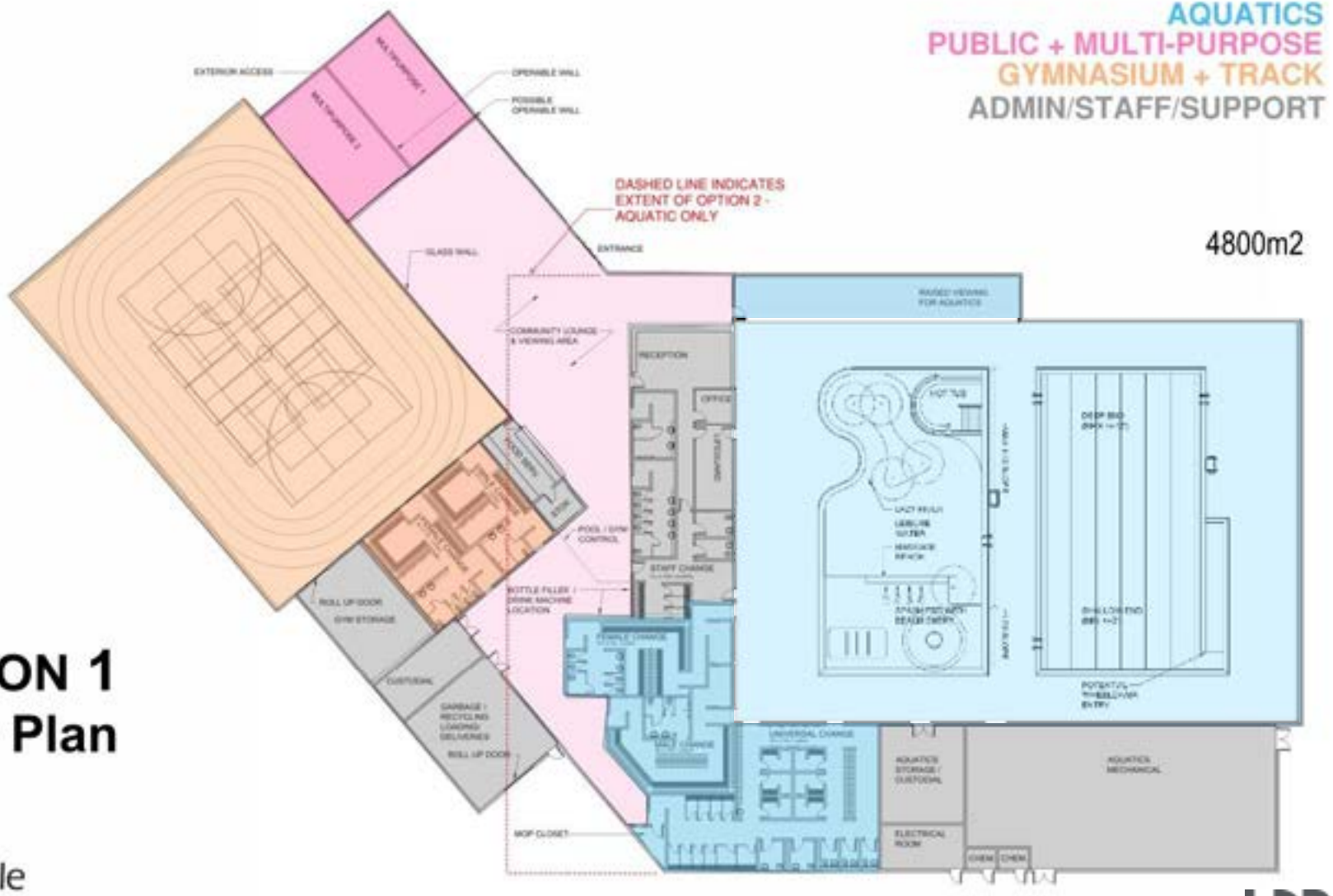
We can do so much from just orienting the building to the suns path and seasonal angles and understanding what can be achieved passively and through architecture in order to create comfortable, healthy and energy efficient buildings.

Strategies

CONCEPT DESIGN OPTIONS

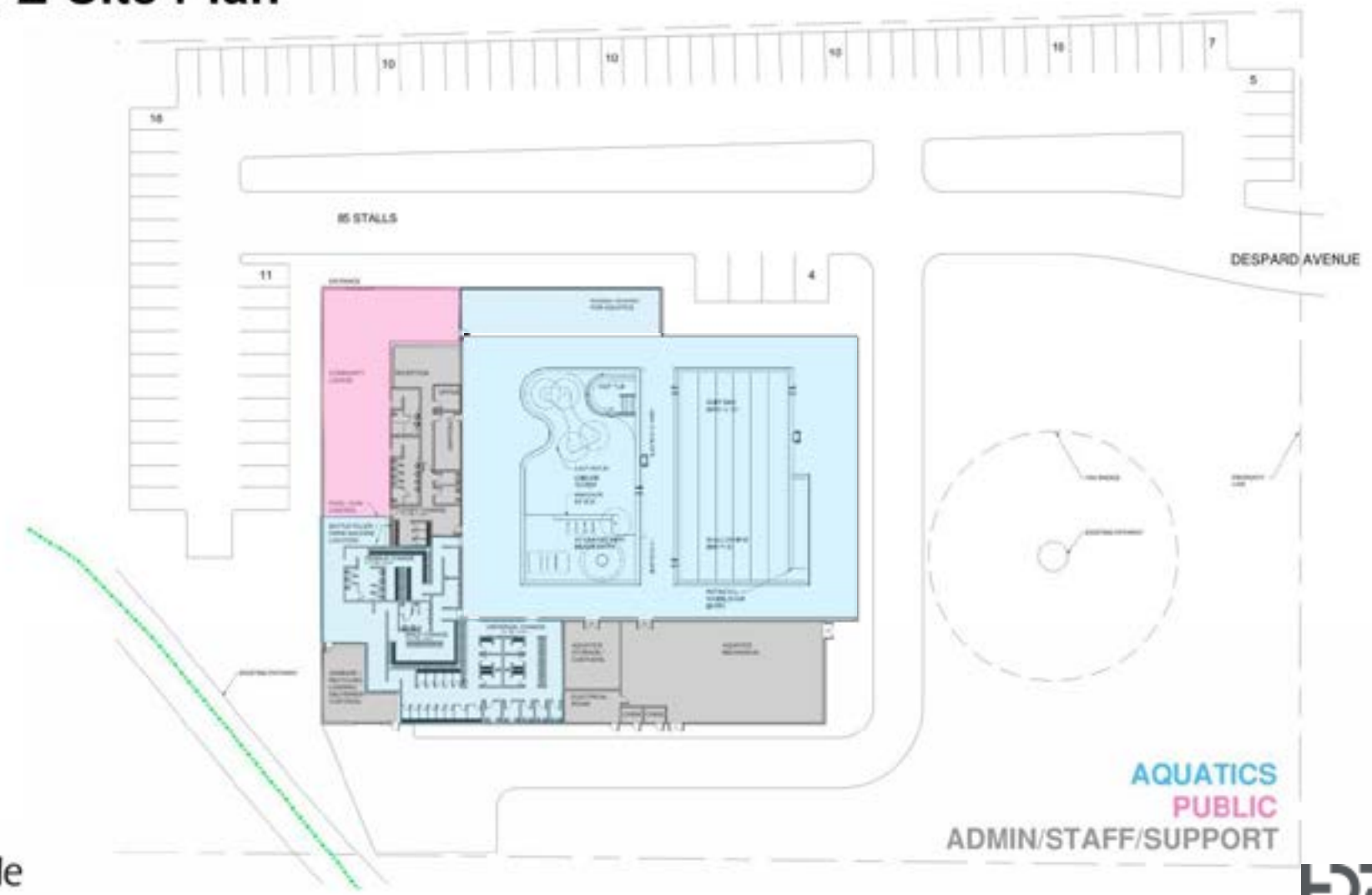
OPTION 1
Site Plan

OPTION 1
Floor Plan



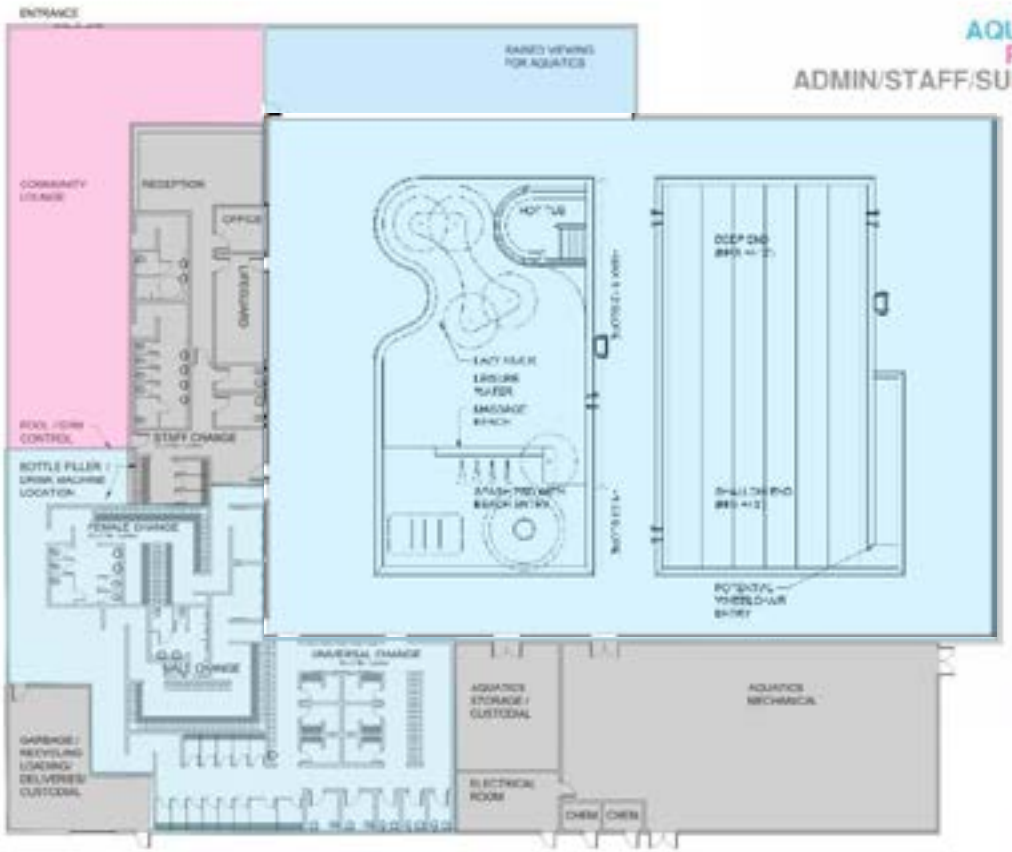
Parksville

OPTION 2 Site Plan



Providing a variety of aquatic amenities will provide the community of Parksville with a pool that reflects their individual needs and complements neighboring facilities

OPTION 2 Floor Plan



3,250m2

Parksville Precedents

Natural materials, layered views, diffusing and taking advantage of natural light





Material Palette and Precedents











Birds-Eye View of
Front Entrance

Approach to
Front Entrance

Approach to
Front Entrance

Birds=Eye View of Rear

Wood fins could provide shading, reflective surfaces, activate the façade both during the day and at night Provide a natural material and reference the wooded forest of Vancouver Island.

Rear Elevation of Gymnasium

Rear Elevation of Gymnasium

Rear Elevation of Gymnasium

**The images and design are conceptual and will change based on community consultation and more in-depth site analysis.*

View through Pool
to Nature

Views to nature, both vertical and

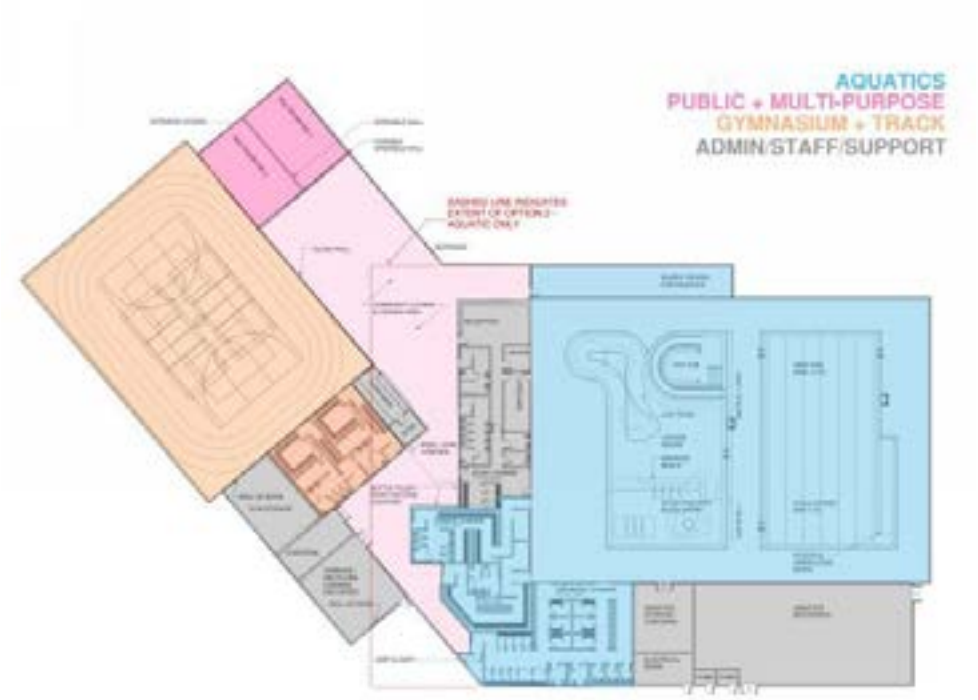
horizontal planes, through

clerestory, slivers and skylights

CLASS ‘D’ COST ESTIMATE

As part of Phase 2 we worked with Ross Templeton Associates Quantity Surveyors to complete a Class ‘D’ Funtional Program Order of Magnitude estimate for both options based on conceptual design sketches, functional program information and outline specification, provided by HDR.
Pricing for this estimate has been included at Q3 2020 local unit rates noting the current uncertainty and volatility of the market. Supply chain issues currently being experienced due to Covid-19 pandemic may have unknown (short and long term) impacts on pricing levels and anticipated projected construction escalation.

The complete details of the cost estimate can be reviewed in Appendix 4, Class ‘D” Cost Estimate.



OPTION 1

$49,811,000

OPTION 2

$37,289,600

OPTION 1

Class 'D' Function Program Order of Magnitude Estimate

Option 1

Total estimated project cost:

$49,811,000

Excludes:

Land
Legal fees
Unforeseen ground/site conditions
Off-site works
Phasing of works
Café tenant fit-out (base build is included)
Etc.

RTA QS

Parksville Sportsplex
Parksville, BC
Class D Estimate (Concept Program)
July 7, 2020

PROJECT COST ESTIMATE OPTION 1			TOTAL ESTIMATED COST
A. LAND COST			**Excluded**
1 Land			Excluded
2 Legal Fees			Excluded
B. ESTIMATED CONSTRUCTION COST (NET Q3 2020 $)			**$30,473,900**
1 Net Building Cost (Q3 2020 $) excluding all contingencies	4,801 m²	$5,622/m²	26,993,900
2 On Grade Site Parking (allowance, including parking circulation, lighting, civils)	120 stalls	$6,500/m²	780,000
3 On Site General Works (allowance)			2,700,000
4 Demolition & HazMat Abatement (if any)			Excluded
5 Off Site Works			Excluded
C. CONSTRUCTION CONTINGENCIES			**$8,816,300**
1 Design Contingency (Design & Program Changes) (Item B x %)	10.0%		3,047,400
2 Escalation Contingency (assumed mid-point construction - Q4 2022) (Item B + C1 x %)	11.6%		3,897,900
3 Post Tender Change Order Contingency (Item B + C1 + C2 x %)	5.0%		1,871,000
D. PROFESSIONAL FEES (ALLOWANCE of B + C)			**$4,321,900**
1 Allowance for Professional Fees	11.00%		4,321,900
E. CONNECTION FEES & PERMITS (ALLOWANCES)			**$1,390,000**
1 Allowance for Development Cost Charges	Allow		660,000
2 Allowance for Building Permits	Allow		230,000
3 Allowance for Utility Connection Fees (Hydro, Fortis, Telus Charges) (Site TBC)	Allow		500,000
F. OWNERS MANAGEMENT & OVERHEAD (ALLOWANCES of B + C)			**$2,062,800**
1 Owners Project Management Fee (allowance)	2.50%		982,300
2 Owners Planning and Administrative Cost (allowance)	1.00%		392,900
3 Project Insurance (allowance)	1.25%		491,100
4 Project Commissioning (allowance)	0.50%		196,500
G. OWNERS SOFT COST PROJECT CONTINGENCY (5% of Items D to F)	5.0%		**$388,700**
SUB-TOTAL (Excluding FF&E)			**$47,453,600**
H. FURNISHINGS, FITTINGS & EQUIPMENT (Allowance of B + C)	6.0%		**$2,357,400**
SUB-TOTAL (Including FF&E)			**$49,811,000**
I. GST (Excluded)	0.0%		**$0**
J. TOTAL PROJECT COST (Excluding Finance Charges & GST)			**$49,811,000**
K. FINANCING CHARGES			**$0**
1 Financing Interest Charges (Excluded)	0.00%		0
L. ESCALATED PROJECT COST (Excluding GST)			**$49,811,000**

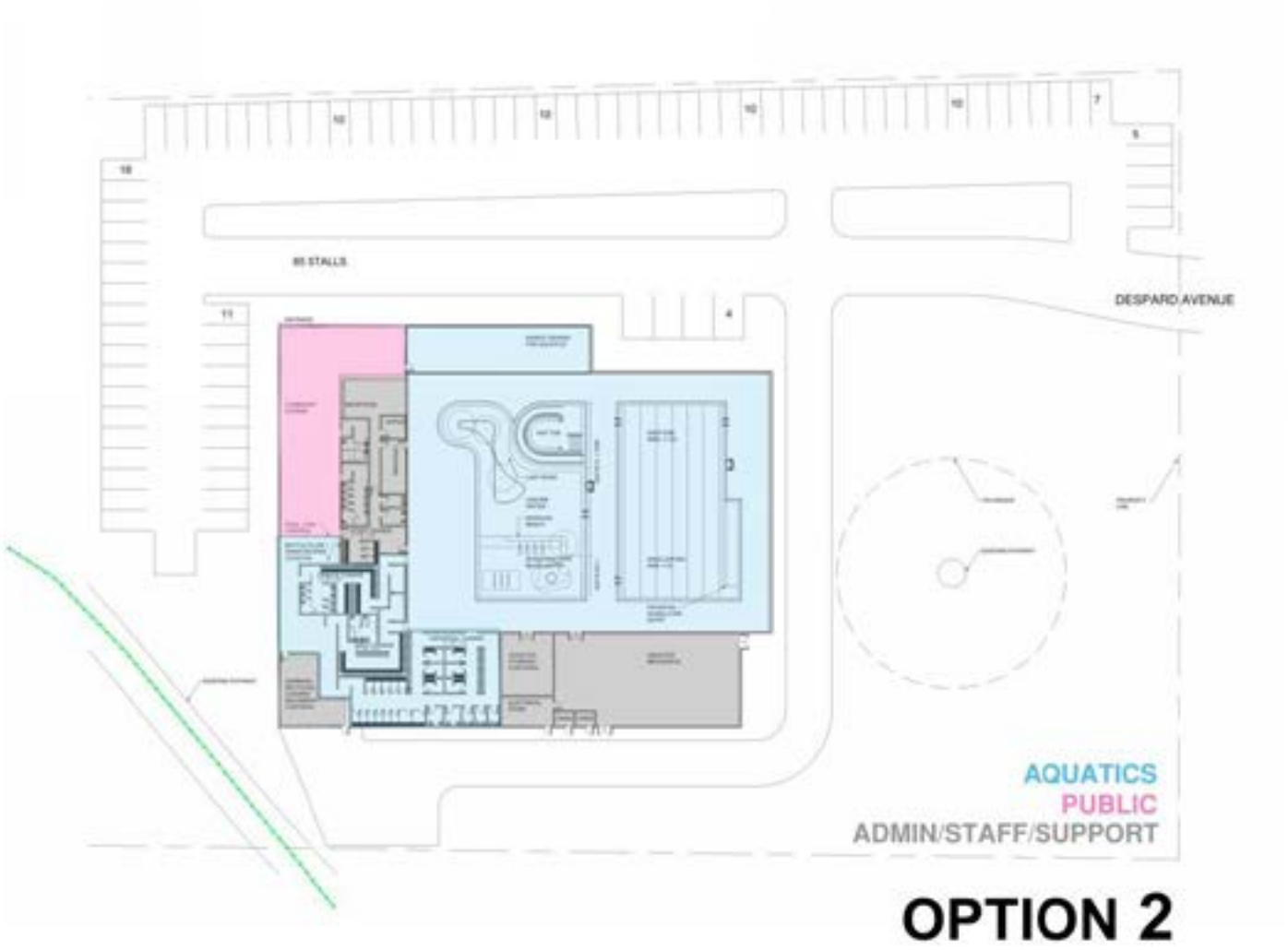
STATISTICS	
1 Gross Floor Area (m^2)	4,801 m²
2 Net Building Cost $/$m^2$ (Item B1) (Q3 2020 $ excluding contingencies)	$5,622/m²
3 Total Construction Cost $/$m^2$ (Item B)	$6,347/m²

BUILDING COST ESTIMATE - OPTION 1 (Q3 2020 Net $ Excluding all contingencies) OPTION 1

	Component	Area m²	Total $/m²	Total $
1	Multi-Purpose	155	4,750	734,400
2	Reception	47	4,350	204,900
3	Community Lounge and Viewing Area	607	4,450	2,699,400
4	Food services	23	6,149	140,200
5	Storage (dry)	10	3,959	38,400
6	Sports courts, running track	869	5,150	4,472,800
7	Gym Storage	69	3,951	271,400
8	Female Change (sports)	59	5,350	316,700
9	Male Change (sports)	60	5,350	318,300
10	Office (dry)	9	4,054	37,300
11	Lifeguard (wet)	23	4,251	96,500
12	Public washrooms - Male (sports side)	19	5,149	99,900
13	Public washrooms - Female (sports side)	28	5,151	143,200
14	Staff change	54	5,350	287,300
15	Staff corridor at reception	14	4,050	56,300
16	Main custodial	33	3,952	130,800
17	Garbage Recycling/loading/ deliveries	84	4,099	342,700
18	Mop closet	6	3,946	22,100
19	Female Change (Pool)	81	5,650	457,100
20	Male Change (Pool)	80	5,650	452,600
21	Universal Change (Pool)	173	5,750	994,800
22	Aquatics storage/custodial (wet)	58	4,050	235,700
23	Electrical Room	26	3,950	102,300
24	Chemicals	10	3,959	38,400
25	Aquatics Mechanical	309	3,950	1,219,400
26	Raised Aquatic Viewing	96	5,150	495,400
27	Leisure Pool	322	7,250	2,337,400
28	Pool play equipment (lump sum allowance)			1,300,000
29	Hot Tub	76	8,150	615,300
30	Lap Pool	404	7,650	3,089,100
31	Pool Deck	814	5,150	4,193,600
	Sub-Total	4,614	5,622	25,943,700
	Building Gross-Up for non-allocated space, interior/exterior walls, voids	187	5,622	1,050,200
	TOTAL NET BUILDING COST (Q3 2020)	**4,801 m²**	**$5,622/m²**	**$26,993,900**

Exclusions from Net Building Estimate (refer to project pro-forma summary):

- The above estimate is for net building construction cost only.
- Design contingency (10%) and construction contingency (5%) are excluded (refer to project pro-forma summary).
- Site development is excluded (refer to project pro-forma summary).
- Off-site works are excluded (refer to project pro-forma summary).
- Soft costs such as professional fees, DCCs and building permits, management, FF&E are excluded (refer to project pro-forma).
- The above net estimate is priced in current Q3 2020 local dollars. No escalation has been included (refer to project pro-forma).
- Goods & Services Tax



OPTION 2

Class 'D' Function Program
Order of Magnitude Estimate
Option 2
Total estimated project cost:

$37,289,600

Excludes:

- Land
- Legal fees
- Unforeseen ground/site conditions
- Off-site works
- Phasing of works
- Café tenant fit-out (base build is included)
- Etc.

RTA QS

Parksville Sportsplex
Parksville, BC
Class D Estimate (Concept Program)
July 7, 2020

PROJECT COST ESTIMATE OPTION 2			TOTAL ESTIMATED COST
A. LAND COST			**Excluded**
1 Land			Excluded
2 Legal Fees			Excluded
B. ESTIMATED CONSTRUCTION COST (NET Q3 2020 $)			**$22,754,300**
1 Net Building Cost (Q3 2020 $) excluding all contingencies	3,236 m²	$5,965/m²	19,301,800
2 On Grade Site Parking (allowance, including parking circulation, lighting, civils)	85 stalls	$6,500/m²	552,500
3 On Site General Works (allowance)			2,900,000
4 Demolition & HazMat Abatement (if any)			Excluded
5 Off Site Works			Excluded
C. CONSTRUCTION CONTINGENCIES			**$6,582,900**
1 Design Contingency (Design & Program Changes) (Item B x %)	10.0%		2,275,400
2 Escalation Contingency (assumed mid-point construction - Q4 2022) (Item B + C1 x %)	11.6%		2,910,500
3 Post Tender Change Order Contingency (Item B + C1 + C2 x %)	5.0%		1,397,000
D. PROFESSIONAL FEES (ALLOWANCE of B + C)			**$3,227,100**
1 Allowance for Professional Fees	11.00%		3,227,100
E. CONNECTION FEES & PERMITS (ALLOWANCES)			**$1,130,000**
1 Allowance for Development Cost Charges	Allow		450,000
2 Allowance for Building Permits	Allow		180,000
3 Allowance for Utility Connection Fees (Hydro, Fortis, Telus Charges) (Site TBC)	Allow		500,000
F. OWNERS MANAGEMENT & OVERHEAD (ALLOWANCES of B + C)			**$1,540,200**
1 Owners Project Management Fee (allowance)	2.50%		733,400
2 Owners Planning and Administrative Cost (allowance)	1.00%		293,400
3 Project Insurance (allowance)	1.25%		366,700
4 Project Commissioning (allowance)	0.50%		146,700
G. OWNERS SOFT COST PROJECT CONTINGENCY (5% of Items D to F)	5.0%		**$294,900**
SUB-TOTAL (Excluding FF&E)			**$35,529,400**
H. FURNISHINGS, FITTINGS & EQUIPMENT (Allowance of B + C)	6.0%		**$1,760,200**
SUB-TOTAL (Including FF&E)			**$37,289,600**
I. GST (Excluded)	0.0%		**$0**
J. TOTAL PROJECT COST (Excluding Finance Charges & GST)			**$37,289,600**
K. FINANCING CHARGES			**$0**
1 Financing Interest Charges (Excluded)	0.00%		0
L. ESCALATED PROJECT COST (Excluding GST)			**$37,289,600**
STATISTICS			
1 Gross Floor Area (m^2)			3,236 m²
2 Net Building Cost $/$m^2$ (Item B1) (Q3 2020 $ excluding contingencies)			$5,965/m²
3 Total Construction Cost $/$m^2$ (Item B)			$7,032/m²

BUILDING COST ESTIMATE - OPTION 2 (Q3 2020 Net $ Excluding all contingencies) OPTION 2

	Component	Area m²	Total $/m²	Total $
1	Reception	47	4,349	203,100
2	Community Lounge and Viewing Area	368	4,450	1,637,600
3	Office (dry)	10	4,052	39,300
4	Lifeguard (wet)	23	4,253	95,700
12	Public washrooms - Male	19	5,149	99,900
13	Public washrooms - Female	28	5,149	145,200
14	Staff change	53	5,351	283,600
15	Staff corridor at reception	14	4,052	54,700
17	Garbage Recycling/loading/ deliveries	65	4,100	265,700
19	Female Change (Pool)	82	5,650	460,500
20	Male Change (Pool)	73	5,650	411,900
21	Universal Change (Pool)	184	5,750	1,059,100
22	Aquatics storage (wet)	57	4,051	228,900
23	Electrical Room	25	3,949	100,300
24	Chemicals	10	3,948	37,900
25	Aquatics Mechanical	286	3,950	1,131,300
26	Raised Aquatic Viewing	144	5,150	739,500
27	Leisure Pool	322	7,250	2,337,400
28	Pool play equipment (lump sum allowance)			1,300,000
29	Hot Tub	76	8,150	615,300
30	Lap Pool	404	7,650	3,089,100
31	Pool Deck	848	5,150	4,368,200
	Sub-Total	3,136	5,965	18,704,200
	Building Gross-Up for non-allocated space, interior/exterior walls, voids	100	5,964	597,600
	TOTAL NET BUILDING COST (Q3 2020)	**3,236 m²**	**$5,965/m²**	**$19,301,800**

Exclusions from Net Building Estimate (refer to project pro-forma summary):

- The above estimate is for net building construction cost only.
- Design contingency (10%) and construction contingency (5%) are excluded (refer to project pro-forma summary).
- Site development is excluded (refer to project pro-forma summary).
- Off-site works are excluded (refer to project pro-forma summary).
- Soft costs such as professional fees, DCCs and building permits, management, FF&E are excluded (refer to project pro-forma).
- The above net estimate is priced in current Q3 2020 local dollars. No escalation has been included (refer to project pro-forma).
- Goods & Services Tax

SITE SYNERGIES & ENHANCED SITE ANALYSIS

SITE SYNERGIES

As concept designs were being executed, ideas around ways to connect to nature and community were realized in more detail. The following ideas and design concepts examine ways to provide blue sky vision for exterior connections to outdoor space, nature, views, trails and enhance the facility to be a destination and a unique hub for the community members of Parksville.

At the City's request, further investigations were needed to better understand the test site, as early analysis presented the site as an ideal location on many fronts as listed above. This portion of the report summarizes the analysis and provides the final documents required to conclude the study and enable the City of Parksville to make an informed decision on next steps.

Integrate into the landscape / separate and express the program by introducing a green roof between the volumes

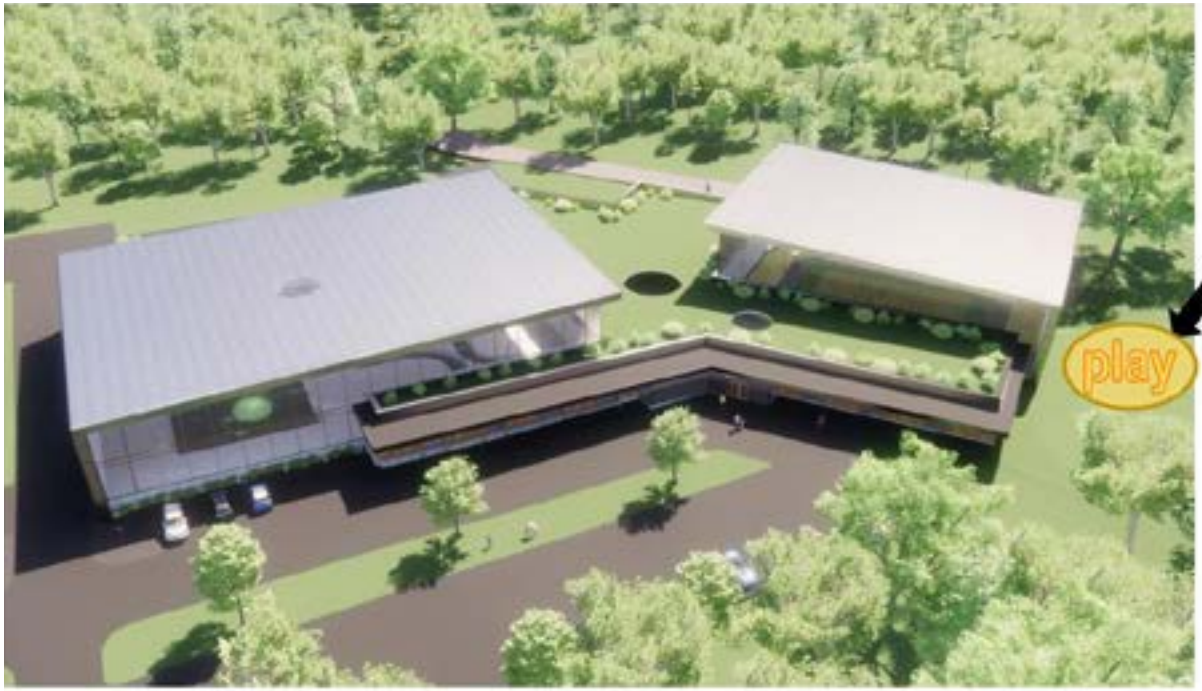
**The final building design and siting is subject to extensive geotechnical, hydrogeological, environmental and servicing assessments, occuring in the next phase of study.*

Rear Elevation of Potential Green Roof

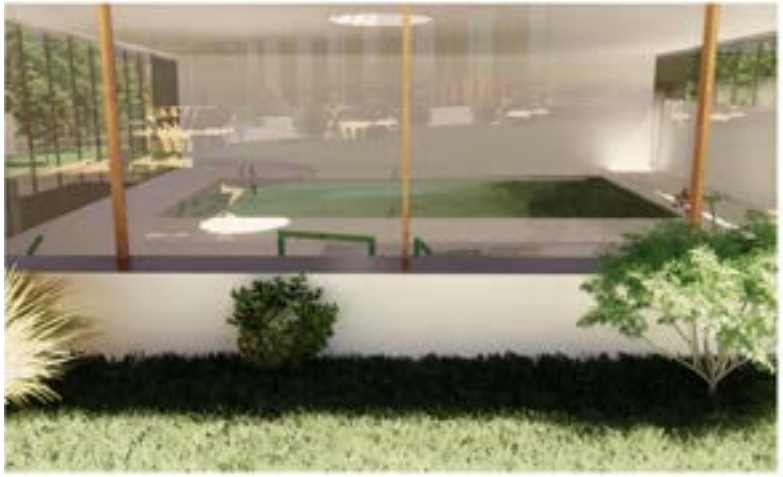
View of Potential Green Roof

View from Green Roof through to Gymnasium

Birds-Eye View of Green Roof from the Front



An idea about a natural play yard, that connects the facility to the community and residential area, place it close to the path so that it can be a place to pause when enroute.



View from Green Roof to Pool

Activate the Rooftop,
Provide Views,
Connect to Nature

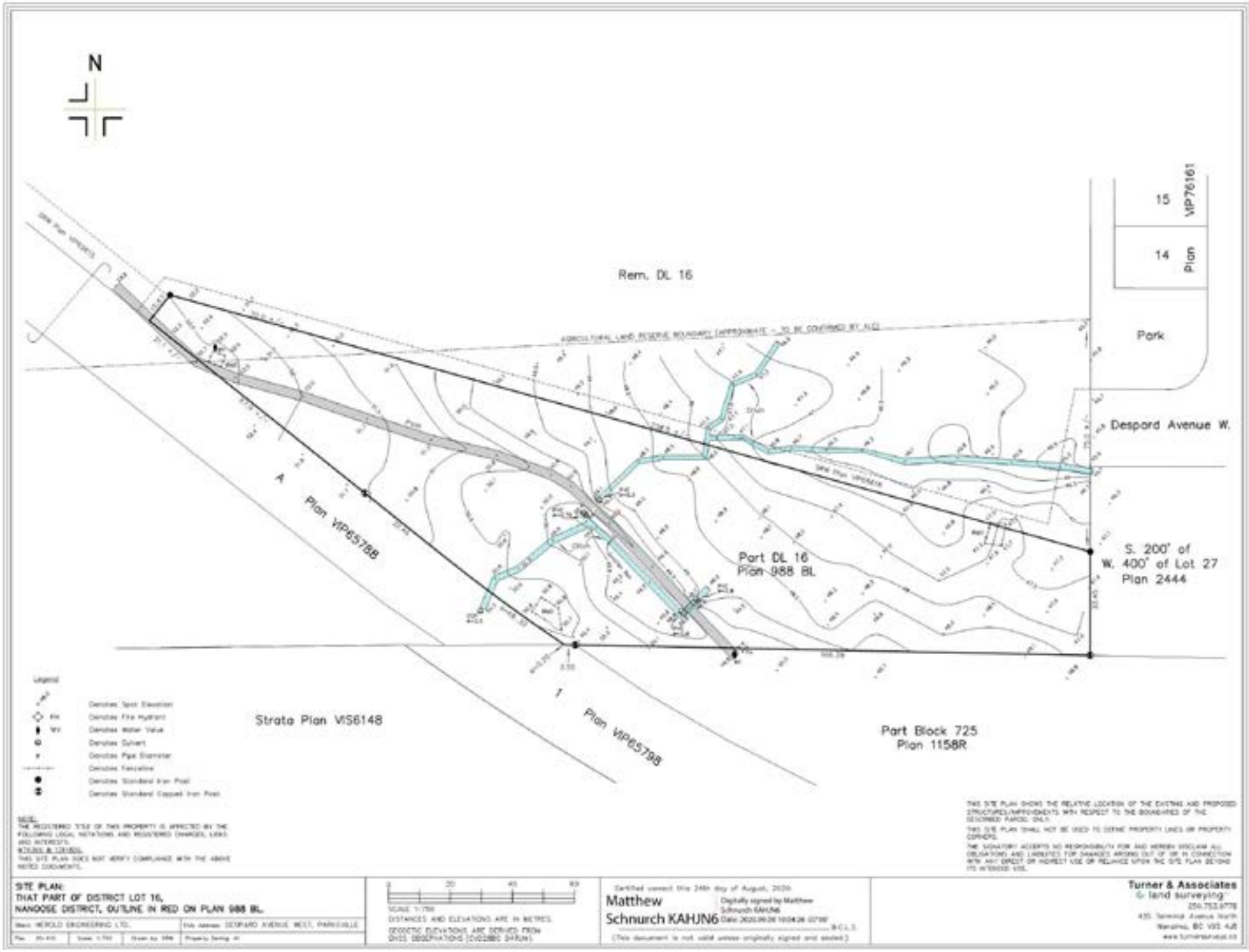
What if we could create enhanced synergies with the trails and provide a rooftop viewing garden?

Rear views of potential to connect trail to rooftop

**The images and design are conceptual and will change based on community consultation and more in-depth site analysis.*

ENHANCED SITE ANALYSIS

Collaborations with City of Parksville expertise, geotechincal professsionals at Tetra Tech and Herold Engineering for the civil services, has provided an enhanced site analysis as we examine further the feasibility of this particular site. The test site proves to be an ideal location with its views and connections to existing and proposed trails and related amenities. Included in this portion of the study are the findings of a preliminary geotechnical exporation, further information on civil services and a land survey.


N
Rem. DL 16
15 VIP76161
14 Plan
Park
Despard Avenue W.
A Plan VIP65788
Part DL 16
Plan 988 BL
S. 200' of
W. 400' of Lot 27
Plan 2444
Strata Plan VIS6148
1 Plan VIP65798
Part Block 725
Plan 1158R
Legend
Denotes Spot Elevation
Denotes Fire Hydrant
Denotes Water Valve
Denotes Culvert
Denotes Pipe Diameter
Denotes Fenceline
Denotes Standard Iron Post
Denotes Standard Capped Iron Post
NOTE:
THE REGISTERED TITLE OF THIS PROPERTY IS AFFECTED BY THE FOLLOWING LEGAL NOTATIONS AND REGISTERED CHARGES, LIENS AND INTERESTS:
NONE IN CHARGE.
THIS SITE PLAN DOES NOT VERIFY COMPLIANCE WITH THE ABOVE NOTED DOCUMENTS.
THIS SITE PLAN SHOWS THE RELATIVE LOCATION OF THE EXISTING AND PROPOSED STRUCTURES/IMPROVEMENTS WITH RESPECT TO THE BOUNDARIES OF THE DESCRIBED PARCEL ONLY.
THIS SITE PLAN SHALL NOT BE USED TO DEFINE PROPERTY LINES OR PROPERTY CORNERS.
THE SIGNATORY ACCEPTS NO RESPONSIBILITY FOR AND HEREBY DISCLAIMS ALL OBLIGATIONS AND LIABILITIES FOR DAMAGES ARISING OUT OF OR IN CONNECTION WITH ANY DIRECT OR INDIRECT USE OR RELIANCE UPON THE SITE PLAN BEYOND ITS INTENDED USE.
SITE PLAN:
THAT PART OF DISTRICT LOT 16,
NANOOSE DISTRICT, OUTLINE IN RED ON PLAN 988 BL.
HEROLD ENGINEERING LTD.
DESPARD AVENUE WEST, PARKSVILLE
SCALE 1:750
DISTANCES AND ELEVATIONS ARE IN METRES.
GEODETIC ELEVATIONS ARE DERIVED FROM GNSS OBSERVATIONS (CVG2020 DATUM).
Certified correct this 24th day of August, 2020.
Matthew Schnurch KAHJN6
Digitally signed by Matthew Schnurch KAHJN6
B.C.L.S.
(This document is not valid unless originally signed and sealed.)
Turner & Associates
land surveying
250.753.9778
435 Terminal Avenue North
Nanaimo, BC V9S 4J8
www.turnersurveys.ca

PARKSVILLE POOL FEASIBILITY STUDY
CIVIL ENGINEERING ACCESS & SITE SERVICING REPORT

1.0 INTRODUCTION

The intent of this Report is to identify any possible issues related to servicing or accessing this development and to suggest appropriate approaches for the design of this development.

The proposed development consists of an indoor pool and recreation centre facility, with onsite parking and servicing infrastructure. The project is located within the City of Parksville (CoP), west of the intersection of Despard Avenue and Chestnut Street. The site is also west of the adjacent Springwood Water Supply Complex.

This report is to be read in conjunction with the Preliminary Exploration report prepared by Tetra Tech, dated September 4, 2020, which summarizes test pitting which took place on the site as well as ground conditions and applicability of this development from a geotechnical perspective.

Figure 1: Footprint of Proposed Development
Credit: Google Earth/HDR

2.0 SITE CONDITIONS

The existing site is approximately 2.5ha in size and is bounded on the west by the E & N Railway and Romney Creek to the south. The Site is vegetated with mature trees and thick brush making access difficult. The site slopes from the southwest (Elev. 51.0m) to the northeast

(Elev. 45.5m). There is one supply well for the adjacent reservoir within the proposed facility footprint.

Test pits completed indicate 0-1.2m of Sand and Silt underlain by 1.2m to 3.0m Clay at the northern edge of the proposed facility footprint.

3.0 ROADS AND ACCESS

The current property has no access but Despard Avenue dead ends at the eastern property line. Despard Avenue and Chestnut Street are classified as Urban Collector Roads. Despard Avenue has existing bicycle lanes, as well as a separated asphalt trailway and concrete sidewalk on the south side.

There is an existing 3m wide trailway that runs south of the site.

CoP Transportation Master Plan Update 2016 indicated that Despard Avenue may be extended west towards Humphrey Road/Church Road which would be in conflict with the proposed facility location.

Figure 2: Despard Avenue Looking West at Chestnut Street
Credit: Google Maps

4.0 WATERMAINS

There is an existing 250Ø PVC watermain from Despard Avenue, capped with a flush out at the west end of the road. Due to the close proximity to the reservoir facility, available water pressure should be confirmed for domestic and fire suppression needs. The closest fire hydrant is approximately 125m east on Despard Avenue and onsite fire hydrants would be required.

There is an abandoned 250Ø AC watermain through the proposed facility footprint, as well as a 250Ø PVC watermain that runs south of the proposed facility, including a 150 PVC water service that extends to the proposed facility footprint. Two existing hydrants are located on the 250 Ø PVC watermain.

The proposed facility is located within the 'high pressure zone' of the CoP water distribution system. Actual pressures are unknown but could be in the range of 60psi. It is recommended that preliminary water system modelling be completed to ensure that typical pool & recreational facility water demands are available, or what the required offsite upgrades are.

5.0 SANITARY SEWER

The site is not included in the 2015 Sanitary Master Plan for future development.

There is an existing sanitary sewer manhole at the intersection of Despard Avenue and Chestnut Street, with a 200Ø PVC sanitary sewer flowing north along Chestnut Street. The invert of the manhole is 43.62m. It is expected that the facility could be serviced by a gravity sanitary connection, should downstream capacity permit.

6.0 STORM DRAINAGE AND STORMWATER MANAGEMENT

Several dry channels exist over the site, noted in the geotechnical exploration, and based on vegetation observed, it appears that the area may experience seasonal flooding.

Romney Creek runs south-north, southwest of the proposed facility and converges with Carey Creek which runs west-east through the site and outlets to an existing 900Ø concrete storm sewer which flows north under Chestnut Street.

Stormwater management considerations for the development of this facility:

1. The existing alignment of Carey Creek is in conflict with the footprint of the proposed facility. Depending on environmental setbacks through Riparian Area Protection Regulations (RAPR), the footprint of the proposed facility may need to change and/or there may be opportunities to develop the site plan around the existing creek alignment.

2. Alternatively, should environmental regulations permit, the Creek could be realigned to suit the site plan and could be an opportunity for enhancement as well as function as a stormwater management feature for the development.

3. There will be approximately 1.3ha of impermeable surfaces (building, parking), requiring a stormwater detention facility that will need to be sized to maintain pre-development discharge for the site. The site offers opportunities for natural stormwater management such as overland runoff, vegetated swales & rain gardens, permeable surfaces, and other Low Impact Design (LID) features that would enhance the sustainability of the development.

4. Currently, overland flow from a 100-year rainfall event would travel northeast through Agricultural lands and north on Chestnut Street. It is not known if the capacity of the

existing 900Ø concrete storm sewer can convey the 100 year rainfall event stormwater flows.

7.0 CONCLUSIONS AND RECOMMENDATIONS

From a servicing and access perspective, this site appears to be well suited for this development.

The primary constraints around development of this site relate to environmental and stormwater management challenges. In addition to the recommendations made in the Tetra Tech Preliminary Exploration Report, the following steps are recommended to further investigate the suitability of this site for this development:

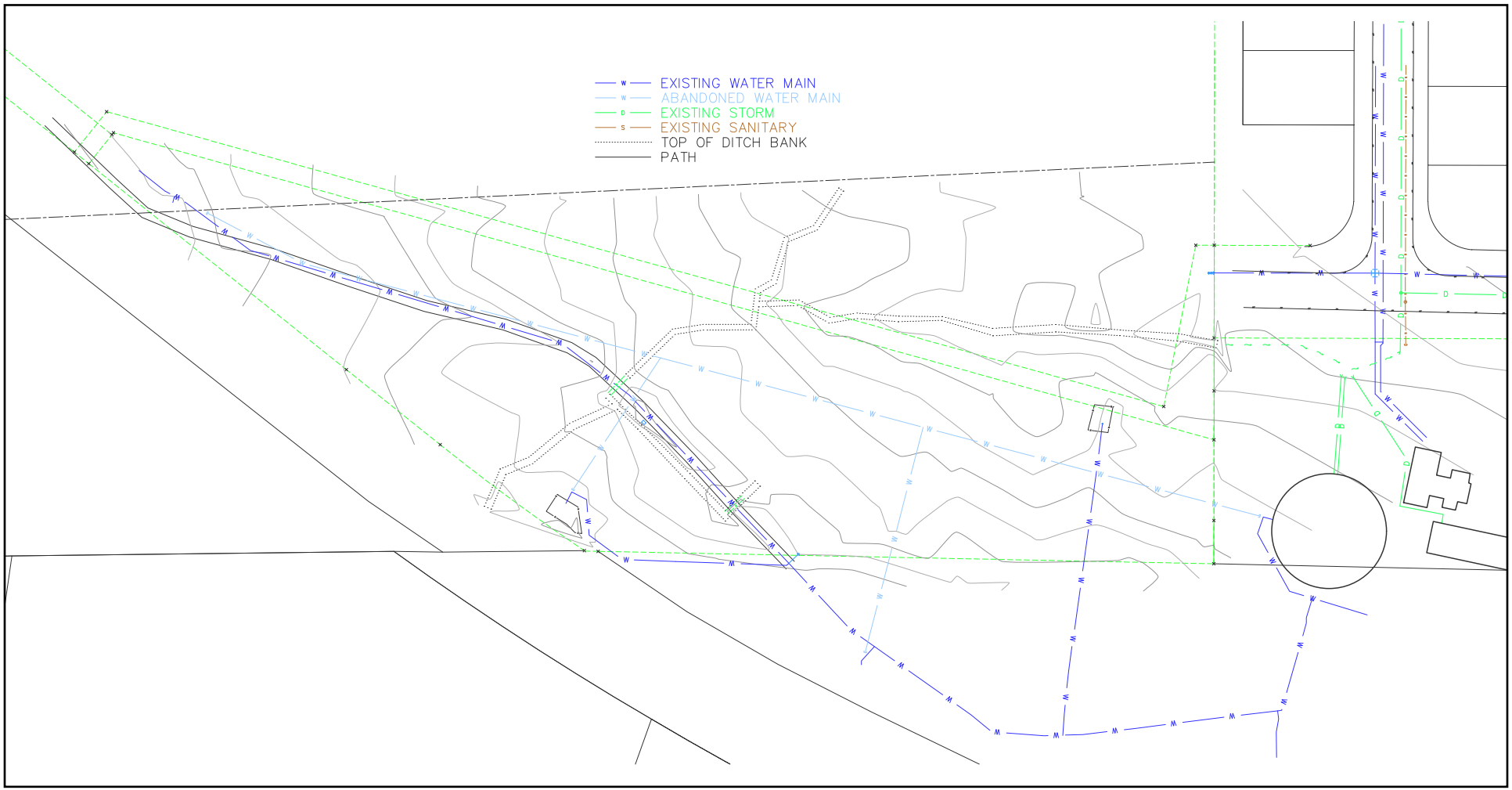
1. Conduct an Environmental Assessment of the existing Romney Creek / Carey Creek system to clearly define the environmental sensitivities and regulation setbacks, as well as better define the scale of any seasonal overland flooding.

2. Water modelling to review the existing pressures and demand for this type of facility.

3. The CoP Transportation Master Plan Update 2016 should be reviewed for its applicability in relation to this development.

Submitted by:

HEROLD ENGINEERING LIMITED


EXISTING WATER MAIN
ABANDONED WATER MAIN
EXISTING STORM
EXISTING SANITARY
TOP OF DITCH BANK
PATH


Despard
Google Earth
FOR INFORMATION ONLY
LEGEND
Tetra Tech
Site Boundary
Dry Creek Bed
Herold Engineering Ltd.
PARKSVILLE POOL - PRELIMINARY EXPLORATION ON DESPARD AVENUE W
Site Exploration Plan
TETRA TECH
Figure 1

OPERATION STRATEGIES

Chris Nelson from Recresynthesis Consulting Ltd led a staffing and operations session during the Needs Assessment Phase to both inform and explore with City Council and staff what the business operations of an aquatics and multiplex facility might look like. In the following pages, he has provided his expertise on how to operate a community-focused recreation facility from a business point of view. He provides strategies and cost estimates for potential facility expenses and revenues and has tailored his recommendations based on his observations, and discussions with the City of Parksville providing input that is based on Parksville's individual opportunities and needs.

PARKSVILLE COMMUNITY/AQUATIC HUB OPERATION STRATEGIES

The upfront costs associated with planning and developing new recreation infrastructure are high, however the long-term costs associated with the ongoing maintenance and operations of facilities over the complete life cycle are even greater.

An important consideration will be the service delivery model the City of Parksville will use for its proposed community/aquatic hub:

- either direct delivery as the sole funder and operator of the facility.
- provision by a community professional services partner with the City operating in a supportive role, or
- delivery by an independent third-party with limited support from the City.

It is recommended that a range of combinations of service delivery models should be explored, with consideration given to the practical feasibility, financial sustainability, and resource allocation of each.

There are a few guiding principles that should be considered to establish the proposed community/aquatic hub and its respective services for the City of Parksville:

1. The facility and its services are essential to quality of life in Parksville

- A commitment to be a high-functioning organization through the engagement of best practices.
- A delivery system that leverages municipal resources and those of non-municipal partners.
- Long-term financial sustainability through the fiscally responsible and efficient management of resources.

2. The facility and its services are accessible for a wide range of people

- A community-oriented facility with affordable services and programs for people of all ages.
- Accessible and inclusive opportunities to participate in recreation activities for all residents, regardless of physical ability, ethnic origin, and economic means.
- A community facility without barriers to participation in introductory-level leisure activities.
- Active engagement of under-represented groups (including – but not limited to – those with culturally diverse backgrounds, persons of low income, persons with disabilities, and youth) in program and service planning and delivery.
- Facility programs are diverse and reflective of community needs and interests.
- A recreation facility that provides spaces and environments that are flexible and multi-use.

3. Facility service delivery is enhanced through collaborative partnerships

- A vibrant community that builds leadership and capacity through participation and social engagement.
- Strong relationships and coordination between the City and community support groups, volunteers, and partners.
- Develop meaningful and effective methods of engaging the community voice (general public).
- Define and strengthen community capacity.

4. A community facility and its services that aim to be environmentally and financially sustainable

- A recreation facility designed with quality and a source of pride for Parksville, connected and integrated into the fabric of the community.

In aligning these strategies with your operations will create a community facility that is engaged, agile, and viable.

BUILDING YOUR FACILITY'S OPERATIONAL FOUNDATION

Up until this point in its growth the City of Parksville has not had the direct responsibility and budget requirements of owning and operating major indoor recreation facilities. With an increasing population there will, no doubt, be a demand for further facilities to meet the challenges of the community. The City of Parksville has the opportunity to do the right things the right way, leading the path for future positive facility operation.

The initial step arises from clarity of purpose and mandate, or "Why the service (facility) exists". From this base of understanding, an effective and efficient operating model can be designed with each step being a prerequisite for the next. In other words, clarity about purpose leads to an informed choice of service offerings and service levels that align with customer, community, and corporate needs.

Questions for the City of Parksville to ask and answer:

- ✓ Why does the facility exist?
- ✓ Is the facility aligned with community and user priorities?
- ✓ Is there a reliable support for why the facility exists?

} step1. Facility Role & Purpose

- ✓ Define service levels & performance measures
- ✓ Service levels required to meet above purposes
- ✓ Definition & prioritized

} step 2. Facility Operational Offerings

Your Operational (Business) Model

As previously mentioned, the City of Parksville is well positioned with an chance to move to the future with a mindset that is a balance between meeting community needs and applying business practices to attain sustainable operation outcomes for its community/aquatic hub facility.

The City of Parksville should focus on:

- ✓ Develop a business case and governance structure to ensure alignment with the operating model for a balanced focus on service delivery, both direct and indirect.
- ✓ Define the desired operating level of service menu for the entire facility's service delivery to maximize results.
- ✓ Aligning facility operating hours with customer usage.
- ✓ Develop a comprehensive pricing structure for the community/aquatic hub's services and activities which would include a long-term recovery rate and rationale for setting fees.
- ✓ Develop and implement performance measures to assess the effectiveness of the product and service mix, and to ensure it is achieving its intended results.

Potential Governance Structure

The City of Parksville should consider the establishment of a local committee to assist in making the Community/Aquatic Hub a reality. Committee members would be individuals well connected in the community, understand the City's recreation activity needs and have varying degrees of expertise that could be beneficial to success of the proposed facility. Later in the process this Committee could become a liaison group that would act as a conduit of information from the community and user

groups to the City of Parksville and the facility's management team. The Committee's role would be solely advisory - it would not have approval or decision-making authority.

As the City of Parksville does not have a recreation department at the time of writing, it is recommended that an "asset-based management approach" should be used in operating the City's proposed community/aquatic hub. This is the most common management and operating practice utilized by recreation and community service departments throughout Canada.

Facility Staffing

The proposed staffing plan for the Community/Aquatic Hub should reflect the operation strategy the facility undertakes. With the magnitude of the new facility and the expanded breadth of programming, the City of Parksville will have to take on additional or adjusted positions in the new facility's staffing scheme. It is beyond the scope of this report to recommend staffing levels; however, the City may wish to consider some of the following.

Administration Section could comprise a team of staff that manages and administers the new facility. The positions that could make up this area are the Facilities Supervisor/Coordinator, and the Administration Assistant/Client Services.

Aquatics and Program Section will be responsible for supervising and delivering programs in the aquatic portion and dry floor areas of the facility. Staffing could include a Program Expert, an Aquatic Leader as well as lifeguards and instructors that will be largely part time personnel. The Program Area would manage all of the new facility's active living programs as well as the ongoing supervision of the dry floor areas. Finding the right instructors for the right programs is a challenge, and staffing of an aquatic center in general, will be challenging. Lifeguards are not necessarily good swim lesson instructors and vice versa.

Operations/Maintenance Section will be responsible for all of the facility's systems and maintenance. The Area will be staffed by a Facility Maintenance Specialist as well as maintenance and custodial workers.

It is assumed that the City of Parksville would initially take on the responsibility of finance and may also take on the role of marketing in developing and implementing a healthy customer service program for the facility.

Staffing Model

Recreation is a staff-intensive business with ±60% of operating budget going to salary and wages. The City of Parksville has the opportunity to develop a staffing model which enables the sharing of employees (and equipment) in the proposed complex and perhaps other parts of the City. Cross training of staff would result in more efficient use of all personnel and allow supervisory employees to have time to focus on operations as well as allowing more flexibility, reduce overlap in work functions, and better align skills and resources to the respective tasks.

Pricing Your Facility

In view of the scale and scope of the proposed facility and potential programs that could be available at the Community/Aquatic Hub, it would seem reasonable to assume that the City of Parksville will develop its pricing policy when the new Centre is close to completion. For the purposes of the sample financial projections included in this report, we have employed admission and membership prices based on facilities and their respective service area that are similar to the proposed.

Program Effects

As the Community/Aquatic Hub will provide Parksville's first venture into delivering programming to its customers, the city has the opportunity to create an inclusionary environment in their facility, build community, and inspire participants of all ages and abilities as they inhabit the same spaces. The possibilities of unique programming options to integrate both pool areas as well as dry floor spaces are only limited by imagination.

From the standard recreation activity classes to more unique programs like stand-up paddleboard yoga, water climbing walls, swim-up movies, inflatable obstacle courses and water basketball sessions, programming options are seemingly endless.

The success and profitability of the Community/Aquatic Hub will rely on offering diverse user groups a wide range of programs to pique their interests. However, what is successful for one organization may be a flop in another, and that is why it is crucial to have a solid understanding of who your customers are. By understanding their demographic characteristics, you can formulate a programming mix that fits the generational, cultural, and family lifecycle make-up of the community, Knowing your members is one thing, but figuring out exactly what programs and activities fit their needs and wants can be the challenging part. As an example, Saturday mornings may be optimal for learn-to-swim classes with adequate space and minimal distractions, while on weekday mid-mornings a dormant pool can be filled with seniors looking for a water aerobics class.

One important factor for your facility operators to consider when looking for additional programs to run is program differentiation. This involves becoming familiar with what is offered at surrounding facilities and then deciding about whether to directly compete with those facilities or pursue more success by filling in the gaps left by neighboring facilities. Essentially, an empty facility is going to lose money and full facility may break even. Reach out to local agencies such as the homeschooling community, local therapists, your hospital, or similar systems, in order to build support with groups that typically could use your facility during the slower times.

Setting the Hub

The Community/Aquatic Hub will be positioned as a uniquely different venue in Parksville. Featuring a flexible design that offers numerous recreational features under one roof, the Hub will be a premium site for fitness and sport training, wellness activities, family enjoyment and relaxation in a warm and welcoming environment. The proposed facility will be located in close proximity to the downtown core and adjacent neighborhoods. Equally important is the fact that the Hub's services will focus on health and wellness instruction, fitness and recreation training and cross generational programming which will influence personal and social behaviors for Parksville residents for the foreseeable future. Finally, the Hub's distinct position will differentiate it from the other facilities - supplying sport and recreation opportunities available to Parksville and area residents.

Principles of Operation Budgeting

The premise that underpins the revenue and cost estimates contained in this business plan is that they must be realistic, defensible, and consistent with the City of Parksville's customary operating performances. As is the case in a business planning exercise, revenue is the usually most difficult component to accurately forecast. To safeguard against providing overly optimistic revenue projections, we have adopted a conservative approach realizing that the first few years of operation will be the facility's 'honeymoon' period. On the expense side, we have based our figures on information from facilities similar in size to the proposed Hub, which has resulted in financial projections that are realistic yet conservative.

Revenue Projections (see Figure 1)

Revenue estimates for the Community/Aquatic Hub are based on the typical following programs being offered:

Instructional – learn to swim, therapeutic, dry floor fitness, wellness instruction, etc.
Facility rentals – pool rental, dry floor rentals, room rentals, special events, etc.
General admission – public swims, dry floor activities (gym & multi-purpose)
Locker rentals – pool and gym changeroom lockers
Facility memberships – monthly, annual, special memberships
Concession/retail – food and beverage kiosk and/or retail items (swim goggles, caps, etc.)

Operation Cost Projections (see Figure 2)

Cost estimates are based on the following traditional expenses:

Labor – staffing costs are always the most significant expense item in your operating budget, as stated earlier, usually ±60%.

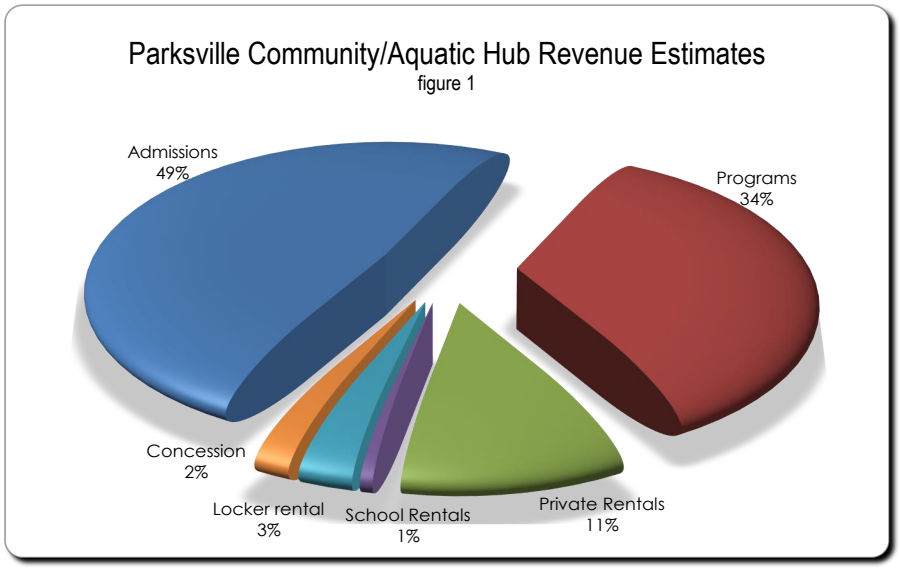
Utilities – the proposed facility will consume a substantial quantity of natural gas, hydro, and water. It is assumed that in the design phase the most up-to-date technology and equipment will be considered to ensure that overall energy conservation costs can be maintained. It is recommended that an integrated design process be instituted, one where from the beginning of the actual design there is interactive dialogue and collaboration to determine the most appropriate solutions for sustainability and energy reduction. As well, staff training on the proper use of energy-saving strategies will assist in ensuring an effective energy—saving program is established.

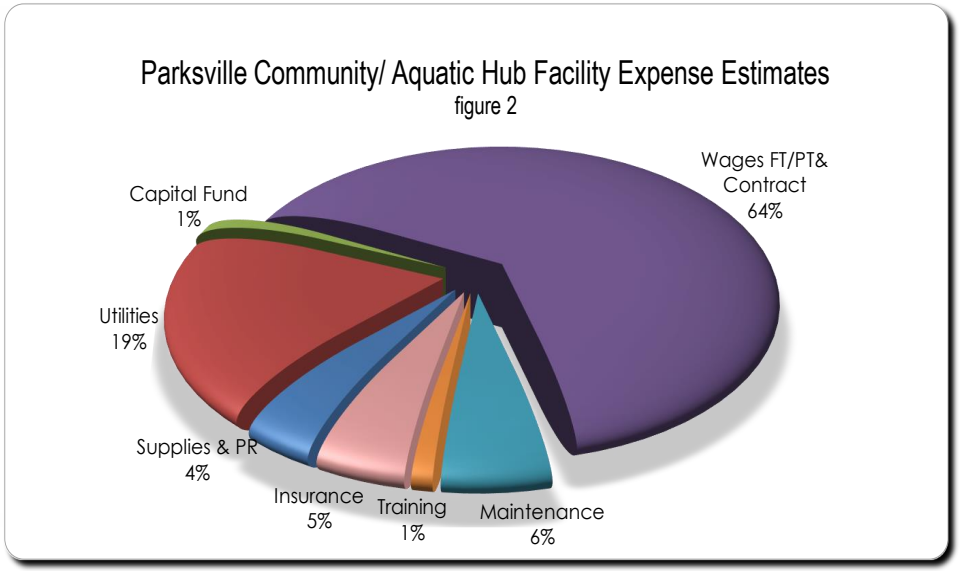
Repairs & maintenance – being a new facility repairs and maintenance for the first several years should be minimal. As warrantees on new equipment abate, usually 4 to 5-year period, these costs will increase. Establishment of a preventative maintenance program at the outset

will contribute to optimum performance and reliability of the building and its associated plant systems and equipment. Development of a comprehensive *operation and maintenance manual* tailored to meet the specific needs of the Community/Aquatic Hub will form an integral part of maintaining consistent, ongoing operations, supporting the various activities the facility will present.

Training – for all staff is critical to ensure effective implementation of control of operational endeavors and community program activities the facility will host. Operation and maintenance training will improve and develop the knowledge and skills necessary to perform assigned job functions. Aquatic personnel are mandated to be certified on a regular basis through their respective agencies (Red Cross, Royal Life, etc.) to ensure their knowledge and performance will support safe and reliable water-based activities and programs.

Capital Replacement Reserve Fund - should be considered a required part of the facility's overall budget. As mentioned earlier in this document following an asset management plan is becoming seen as a best practice to support informed and accountable municipal decision-making. An important aspect of asset management is making long-term budgeting decisions with service levels and capital asset deterioration in mind. Instituting a capital reserve fund for the Community/Aquatic Hub could be done after the equipment warrantees have expired, or earlier if so desired.





	Revenue Estimates - Aquatics
General Admissions	260,000
Admissions - Passes	150,000
Program Fees – Youth Learn-to-swim	65,000
Program Fees - Adult	23,000
Program Fees – Private, Aquafit, Rehab, etc	60,000
Special Events	7,000
Rentals – Lockers	13,000
Rentals – Teams (swim club, Masters, etc.)	32,000
Rentals - Schools	2,500
Rentals - Private	8,000
Revenue Aquatics	*625,000*
General Admissions (open gym)	18,000
Program Fees - Gym	15,000
Program Fees – Multi-use area	10,000
Program Fees - Private	12,000
Special Events	4,000
Rentals - Lockers	8,000
Rentals – Club Teams	9,000
Rentals – Multi-purpose rooms	2,500
Rentals - Private	8,000
Retail – Concession, Vending	10,000
Revenue Dry Floor	*86,500*
Total Revenue	**711,500**

The above revenue projections do not indicate any alternate funding strategies the City of Parksville may undertake including accessing federal and provincial infrastructure program funds, utilizing funds from municipal reserves, undertaking a fund-raising campaign, and/or facility partnerships.

Salaries FT - Aquatics	234000
Salaries PT - Aquatics	500000
Salaries FT - Dry Floor	44000
Salaries PT - Dry Floor	26000
Maintenance Salaries - Aquatics/Building	61000
Utilities - Natural Gas	37500
Utilities - Hydro	180000
Utilities - Water	8000
Utilities - Other	14000
Repairs/Maintenance - Building & Equipment*	16000
Repairs/Maintenance - Supplies	32000
Chemicals - Aquatics	39000
General Insurance	64000
Training	7000
Advertising/Public Relations	21000
Capital Reserve Fund**	15,000
Total Expenditure	**1298500**

*should be minimal as most under warranty 4-5 years

**start in Year 3 or 4 of operation

The above expenditure projections do not indicate costing from funding partners for debenture payments, employer contributions, administration, other financing charges, and marketing.

THE NEXT PHASES

REQUEST FOR PROPOSALS

- 6-8 weeks for consultants to prepare proposals
- 2-3 weeks for city of parksville to select prime consultant and sign prime contract
- 1-2 weeks for prime consultant to sign conntracts with subs and gather preliminary data

DESIGN PHASE

- Minimum 12 months for design
    - 2 months minimum - Schematic Design - this will include one charette with key town staff (rec department etc), and/ or third party operators (ie. YMCA)
    - 3 months minimum - Design Development - this will include materials for public consultation (Open House), regular meetings with Key City and Staff, and all consultant teams
    - 6 months - Construction Documents - this includes Permit and Tender drawings sets
    - 1 month (minimum) - Building Permit application
    - 1 month - Tender period

CONSTRUCTION PHASE

- Minimum 20-24 months for construction


COMMUNITY

SUMMARY

Multi-use and recreation facilities have an important role in a community. They need to be a hub for community groups, a destination for athletic teams and events, a social gathering space for seniors and young families, a place to learn a new skill or, maintain a healthy active lifestyle. It can express the individuality of a community physically through the spaces and architecture, how it takes advantage of the views and site opportunities, through the programming and schedule of activities, and by the many diverse groups it will cater to. Through siting and smart design the building can be situated and operated in a responsible way to reduce their enviromental footprint, and have the potential to give back to their community in numerous ways. A community Pool and Multi-Use Facility is vital in maintaining a healthy, active and vibrant community of Parksville.

This report summarizes the feasibility and benefit of a Multi-Use Aquatic Centre in Parksville, and shows that the test site to situate this facility at Depard Ave to be an ideal location. It explains cost and operational strategies, expected timelines and blue sky vision. However, there is much more opportunity for fine-tuning and ensuring the Centre is exactly what the City of Parksville needs. Through the next phase, there will be a collaborative effort of City Council and Staff, design consultants, and community input and engagement and to provide an enhanced level of refinement and insight which will push forward the design of this project while showcasing the uniqueness that is Parksville.

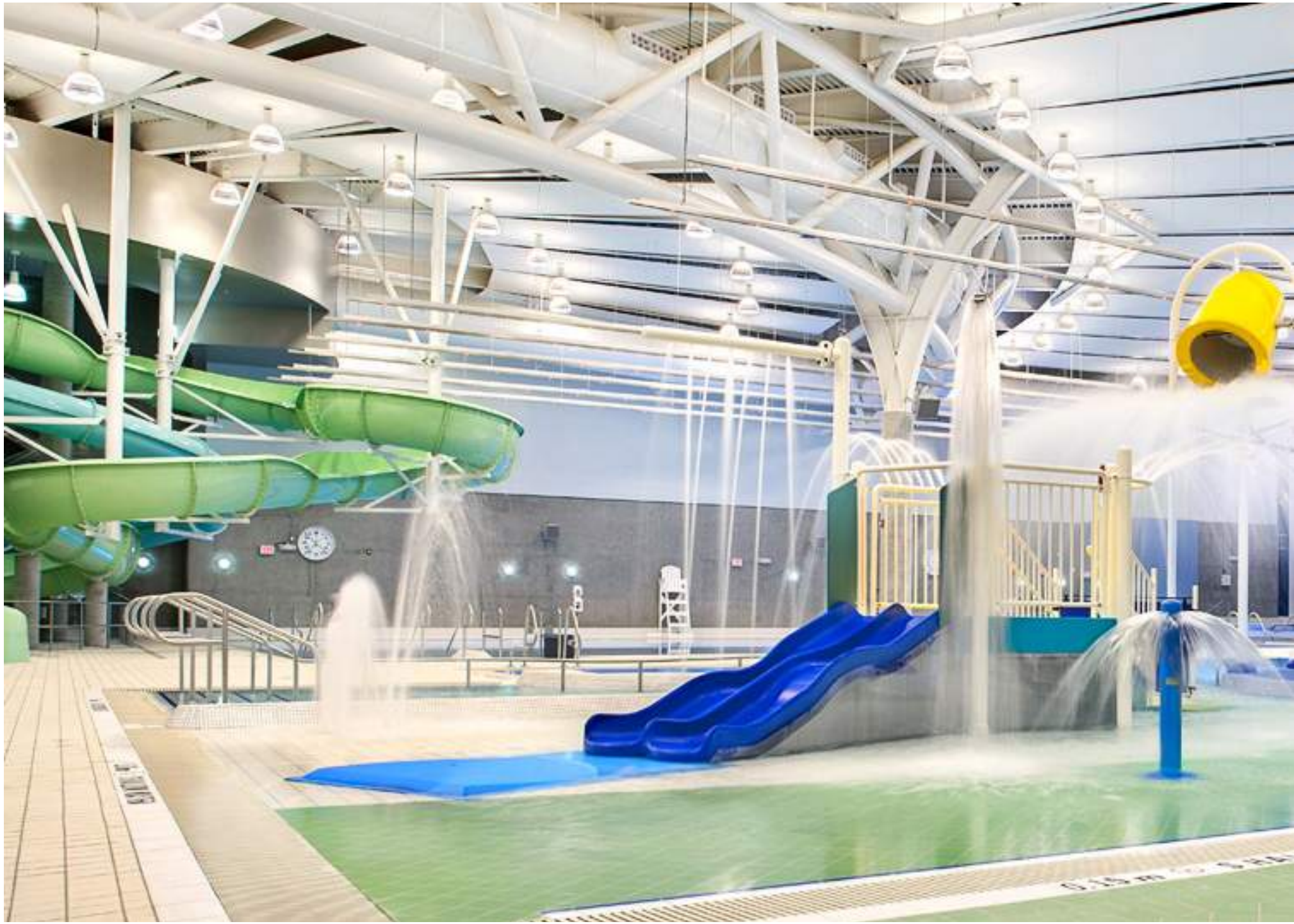
appendix 01

Needs Assessment Report

Needs Assessment Report

Parksville Swimming Pool + Multiplex Facility

City of Parksville, 2020.04.24

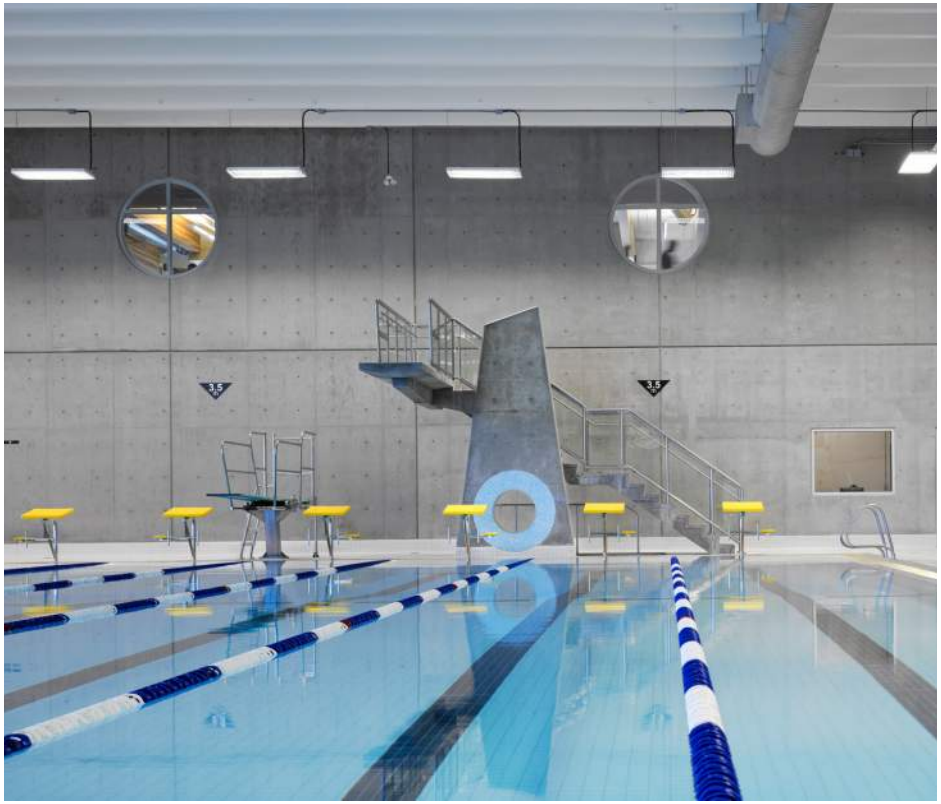


CONTENTS

APPENDICES

INTRODUCTION

There has been extensive studies over the years by the RDN and other consultant groups, including the Oceanside Recreation Master Plan, Community Park Master Plan, Parks Trails and the Opens Spaces Master Plan. The work to date has led to the Feasibility Study for a Parksville Swimming Pool and Multiplex Facility. The first phase of this study is to provide the City of Parksville with a Needs Assessment. Through meeting with city staff at the senior level, City of Parksville council members, and representatives from local stakeholder groups, all who have provided valuable commentary and opinions, we compared the needs for an aquatic-only facility and one that can reach more through a variety of programmatic offerings. This report documents key findings from the series of choreographed sessions with the various groups, provides analysis on a test site and concludes with next steps on how this study will develop into a high level concept design.

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CITY STAFF, COUNCIL + STAKEHOLDER SESSIONS

KEY FINDINGS + INSIGHTS

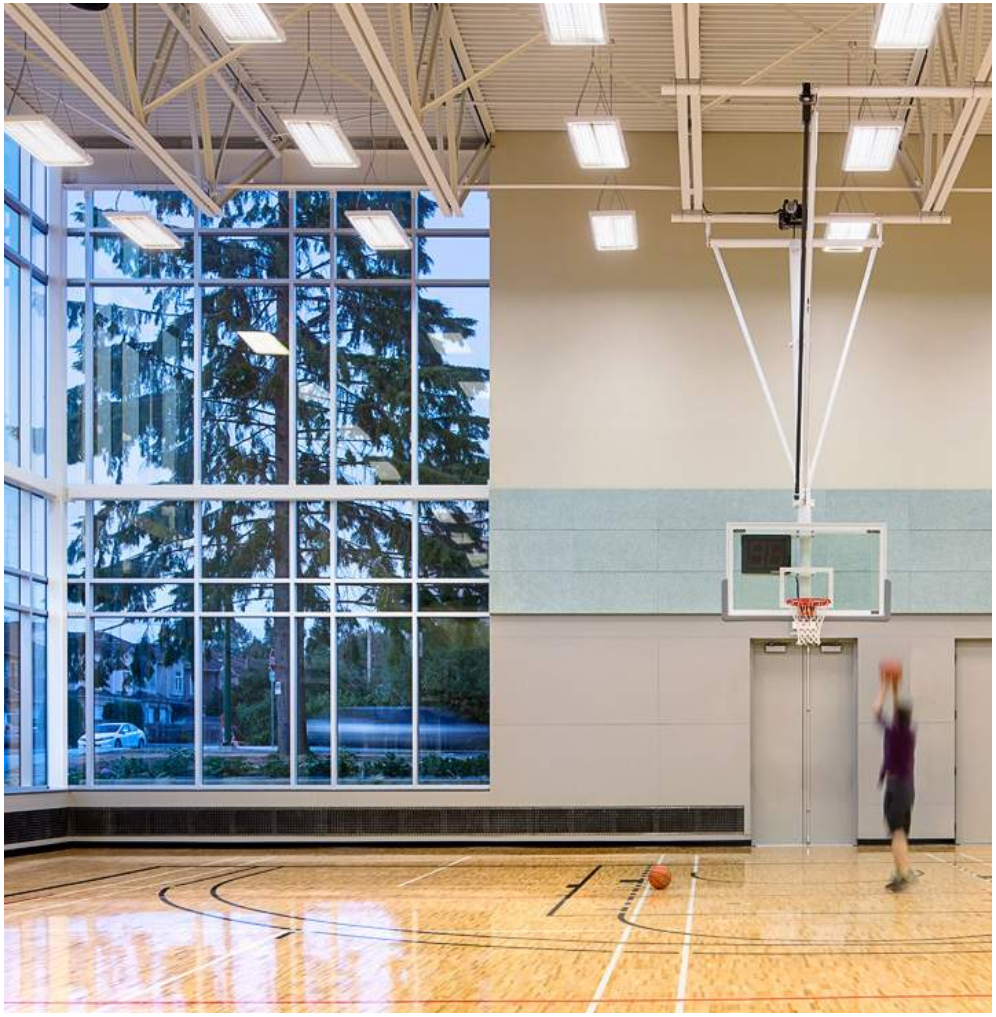
In five separate sessions HDR met with key members of the community including senior level city staff, council members and stakeholder groups. The objectives from these sessions were to gauge the needs and visions from the various representatives and staff members to better understand and assess what kind of pool facility would suit the needs of the community of Parksville. The views evolved throughout the day from a multiplex facility which included an aquatics component, to an aquatic-only facility stacked with all the trending aquatic components, back to a multiplex facility with an aquatics centre that compliments Ravensong and provides program area that is both useable and desired by community majorities.

SENIOR STAFF SESSIONS

Session 1: City of Parksville senior staff discussed their goals and objectives of the project. Conversations were directed towards learning the individual and shared visions of the facility, as well as identifying key activities and program spaces that are lacking in the community. This session looked for staff's comments on how gaps might be filled, touching on concerns, potential disadvantages, and fears they might have. Concluding this session, participants were asked to speak to what is unique about Parksville, adding some big ideas and blue sky visions.

KEY INSIGHTS

- Staff have observed the increase in young families in Parksville and acknowledge the need to attract and retain young people to help increase the range in demographics. Comments led to discussions on how a multiplex facility could not only attract people, but create new jobs, and recruit staff from other facilities. The only drawback that was mentioned was regarding the above, that they currently do not have a recreation department, so recruiting the right capable and qualified staff to operate the facility could be a challenge for City staff.
- Importance for the City of Parksville to have its own community and recreation centre and pool.
- The residents of Parksville need more amenities, "things to do" and "places to go", especially in the non-summer months.
- Importance of location for accessibility of facility for residents to bike, walk and take transit. They saw a need for the mom with young children needing a place to go, that was easy to get to with or without a car.
- With senior staff being parents themselves, they pointed out the lack of adult amenities in one facility, so that while kids were in classes the parents could be in a viewing /concession area or participating in their own classes and activities. Also acknowledged was the benefit of offering amenities and space for those that are not swimmers, such as indoor rec space, climbing walls, non-sport youth classes + activities (arts + sciences).
- Parksville lacks space for high performing athletes to train, practice and compete. It would not only fill a gap for training but provide an economic opportunity to attract people for competitions and tournaments, increasing tourism in the shoulder season.
- Staff see a lack of flexible space for the local sports and community groups such as pickle ball, basketball, volleyball, floor hockey etc, and would like to take advantage of the technologies to make a gym space adaptable, so that it could be used for more than just athletic activities. It needs to be a space that is not utilitarian, a space they can be proud of.
- Other neighboring facilities: Lack the multi-purpose spaces, classes and swims are at capacity at peak times, are challenging for some to get to, and felt they do not cater to youth and young families.
- Synergies between young and old could be celebrated and was described as what makes Parkville unique, in addition to the beauty of the landscape, and their outdoor amenities.
- Staff were confident of the willingness for residents to take on a tax increase to receive the services they sought, therefore it would be important to build what the population needs and wants.



BLUE SKY VISION

- Connectivity to the outdoors, examples of: retractable roof / glass roof - to see, hear and feel the rainforest, roll-up doors
- Viewing platforms and decks to see the views of the beach, to read a book
- Incorporate climbing walls
- Wild play adventure / American gladiator (would suit a mix of abilities and ages)
- Unstructured and free play
- Multiple spots for vendors, food trucks, social gathering, meeting places, place to mingle + have a drink.
- Viewing areas into the programmed spaces.
- Arts + Culture + Sports together, cross-involvment.

COUNCIL SESSIONS

Session 2: City of Parksville Council members discussed the goals and objectives of the project. Conversations around individual and shared visions of the facility, as well as indentifying concerns from the people of the community.

KEY INSIGHTS

- Growing population and a desire to provide for a changing demographic
- Financial support for the new facility should not burden the community
- The new facility should address the issues with Ravensong, such as accessibility, access, programming and provide a pool with complementary components.
- Varied opinions on 25m versus 50m lap pool.
- Varied opinions on aquatic only facility versus a multiplex community centre
- Think to the future and plan for expansion now
- Location and site is important in addressing accessibility and expansion potential

RECREATION NEEDS SESSIONS

Session 3: In this session HDR and City of Parksville Staff members continued the discussion of recreation needs that have driven the preliminary program and how a new recreation centre can meet various needs now and into the future. Also considered was how nearby facilities may influence program needs of Parksville.

KEY INSIGHTS

- Child and youth-friendly activities and programming with a family-friendly atmosphere.
- Separate areas of pool amenities, spray components, with a less programmed leisure pool, and must complement neighboring pools by being something different.
- Drop-in focus, pick-up games, unprogrammed space would be an asset
- Larger gym for higher level of practice and training, therefore also providing a flexible space.
- Balance of form, function and character of facility matter.
- Indoor track would appeal to the masses.
- Meeting rooms with servery and storage to cater to local clubs and community groups would be beneficial.
- Provide opportunities for new activities by offering purpose-based rooms, i.e. cooking classes, pottery and photography.

STAKEHOLDER SESSIONS

Stakeholder sessions were divided into two groups with the first group consisting of mainly water sports + recreation groups, with the addition of other associations and regional districts in the community who would have an interest in Parksville's pool and multiplex facility. The second session was represented by a diverse group of sports and recreation stakeholders in the local community. The objective of these sessions was to find out more about each group's needs and how they might use a new aquatics centre and multiplex facility. It was an opportunity for the stakeholders to provide input on what is lacking in the community and how this project might meet their needs and those that they represent.

STAKEHOLDER GROUP 1

- Ravensong Waterdancers
- Parksville Qualicum Beach Tourism Assoc.
- School District 69
- Regional District of Nanaimo
- Parksville + District Chamber of Commerce
- Parksville Newcomers Club
- Qualicum Beach Triathlon
- Parksville Beach Festival Society
- Ravensong Aquatic Club
- Universal Access Qualicum Beach / Access Oceanside Assoc.

SESSION 4 GENERAL COMMENTS + IDEAS

- Developing a product for the shoulder / off-season.
- Leisure / rainy day activities.
- Aqua fit.
- Somewhere to play indoor volleyball league / pickle ball.
- Connection to outside / Concept of wellness.
- BMX / hiking trails / zip lines / rope structures.
- Climbing walls.
- Ravensong's rental rates are 25% more than other facilities.
- New centre needs to be flexible, reconfigurable.
- Space for arts + culture.
- Complement what other local community centers have.
- Pickle ball tournaments could be hosted.
- Indoor walking track would be useful.
- Arbutus Meadows is a local facility that needs to be considered when talking about the complementary facilities + amenities.
- First Nations engagement – Nanoose Bay, respect their traditional territory.

KEY INSIGHTS

RAVENSONG WATERDANCERS

- Their group is growing in numbers and could increase scheduled classes
- Require a pool depth of 10 ft. and a minimum of 4 lanes
- Waterdancers cater to youth 7-17 and provide classes for adults also
- A new facility that accommodated their needs could provide them with the opportunity to host competitions, which they are not able to do in their current facility.
- This group would utilize multi-purpose rooms, classrooms, gym facilities and weights

NEWCOMERS CLUB

- The people in this club would use a pool frequently for exercise and rehabilitation
- They currently meet at the community centre but feel that there is a shortage of meeting space for community groups
- 100% non-profit
- An indoor track would be a benefit for intergenerational connections

BEACH FESTIVALSOCIETY

- 130,000 visitors over 5 weeks
- Designing a new facility provides an opportunity to build a unique identifier in the City of Parksville, which could have the potential to retain visitors beyond the 5 weeks.
- Multiplex could provide jobs, enhance skills, as well as teach sports

SCHOOL DISTRICT 69

- The kids don't swim unless they go to Nanaimo, because RS is too busy, so there is a lack of availability of swimming for youth in their immediate community
- Need to focus on youth and families
- Need to lower the average age and raise the average wage
- Need amenities to attract, for athletic endeavors (Aquatics Academy like at Commonwealth Pool)
- The communities in the Region need to share, together they mean something therefore a complementary piece is important

TOURISM ASSOCIATION

- Parksville has the ability to host tournaments with their hotel capacity they could support sports tourism

CHAMBER OF COMMERCE

- They see the demographics changing and growing and the facility needs to represent that otherwise they will miss their target
- Young families need somewhere to go and enhanced activities in their community
- Take this opportunity to maximize the facility
- RDN doesn't own a lot of multi-use spaces and currently have to rent from others
- Cost factor for non-profits needs to be considered




STAKEHOLDER SESSIONS

STAKEHOLDER GROUP 2

- Oceanside Soccer
- Oceanside Track + Field Club
- Parksville Indoor Slow Pitch League
- ORCA / Mid Island Distance Running Club
- Oceanside Minor Lacrosse
- Oceanside Pickleball
- Parksville Golden Oldies Sports Assoc.
- Bayside Racquets Club
- Curling Club

SESSION 5 GENERAL COMMENTS + IDEAS

- There was a consensus that a recreation commission should be put together again to meet regularly, with consistent stakeholder engagement + involvement
- Arbutus Meadows to be considered as a complementary amenity/facility; could be organized differently to house various sports more efficiently and affectively; due to the location in an agricultural zone the owner is required to provide equestrian amenities to satisfy the zoning requirements, therefore limiting their offerings
- Need flexible facilities where it can be one thing in AM and another in PM
- Currently losing out on economic opportunity, so the new facility should be large enough for competitive events
- Bring $ into the community
- Vibrant centre / Intergenerational – for youth and seniors to recreate together
- Forest / oceanside / bioreserve / rivers / tracks
- There are more hotels in Parksville than in Nanaimo
- Social community / meeting place / diversity of activities
- Offer the opportunity for people to try new things

KEY INSIGHTS

BAYSIDE RACQUET CLUB

- Limited by the facilities here (lack of and they are aged) / engaged in school district / international clubs
- Want to promote youth activities, women's squash / squash BC
- People are looking for things to do
- People are moving here
- Kids and students need to be engaged
- Squash is the #1 sports (Forbes)
- Haven't been able to engage students because of lack of facilities

OCEANSIDE MINOR LACROSSE

- Advocate for some upgrades
- Field lacrosse / women's team
- Interested in sharing with pickle ball
- Would host lacrosse events annually

PARKSVILLE CURLING CLUB

- Facilities here, people would come out of the woodwork
- Curling club replacement should be synergistic with the pool

ORCA / MID-ISLAND DISTANCE RUNNING CLUB

- There is a demand for a multiplex at all levels
- This community is growing and all organizations are growing
- They would host annual Marathons and hold events in a gym type space
- They would use: training and track facilities, meetings rooms, organizational rooms and have a need to house events for 400-500 people
- Seniors here are active + physical
- Triathlon athletes would use a second pool

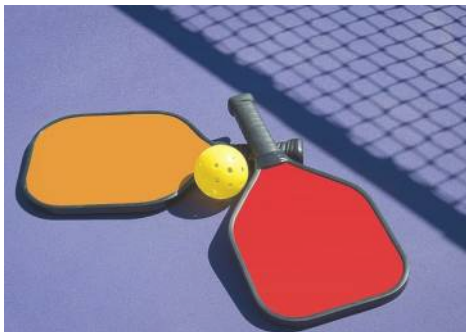
OCEANSIDE TRACK+FIELD / YOUTH SOCCER

- Something in the south end would complement the other facilities like Arbutus Meadows

PARKSVILLE SLOW PITCH

- Outside/inside connection important (racquet sports)
- Gym for playing multiple sports
- We should be incorporating the pool and the curling rinks together
- Look for a large piece of land



OPERATIONS SESSION

Session 6: Chris Nelson from Recresynthesis Consulting Ltd led a staffing and operations session to both inform and explore with city staff what the business operations of an aquatics and multiplex facility might look like.

The upfront costs associated with planning and developing new recreation infrastructure are high, however the long-term costs associated with the ongoing maintenance and operations of facilities over the complete life cycle are even greater.

An important consideration will be the service delivery model the City of Parksville will use for its proposed activity center:

- Either direct delivery as the sole funder and operator of the facility.
- Provision by a community professional services partner with the City operating in a supportive role, or
- Delivery by an independent third-party with limited support from the City. A range of combinations of service delivery models may need to be explored, with consideration given to the practical feasibility, financial sustainability and resource allocation of each.

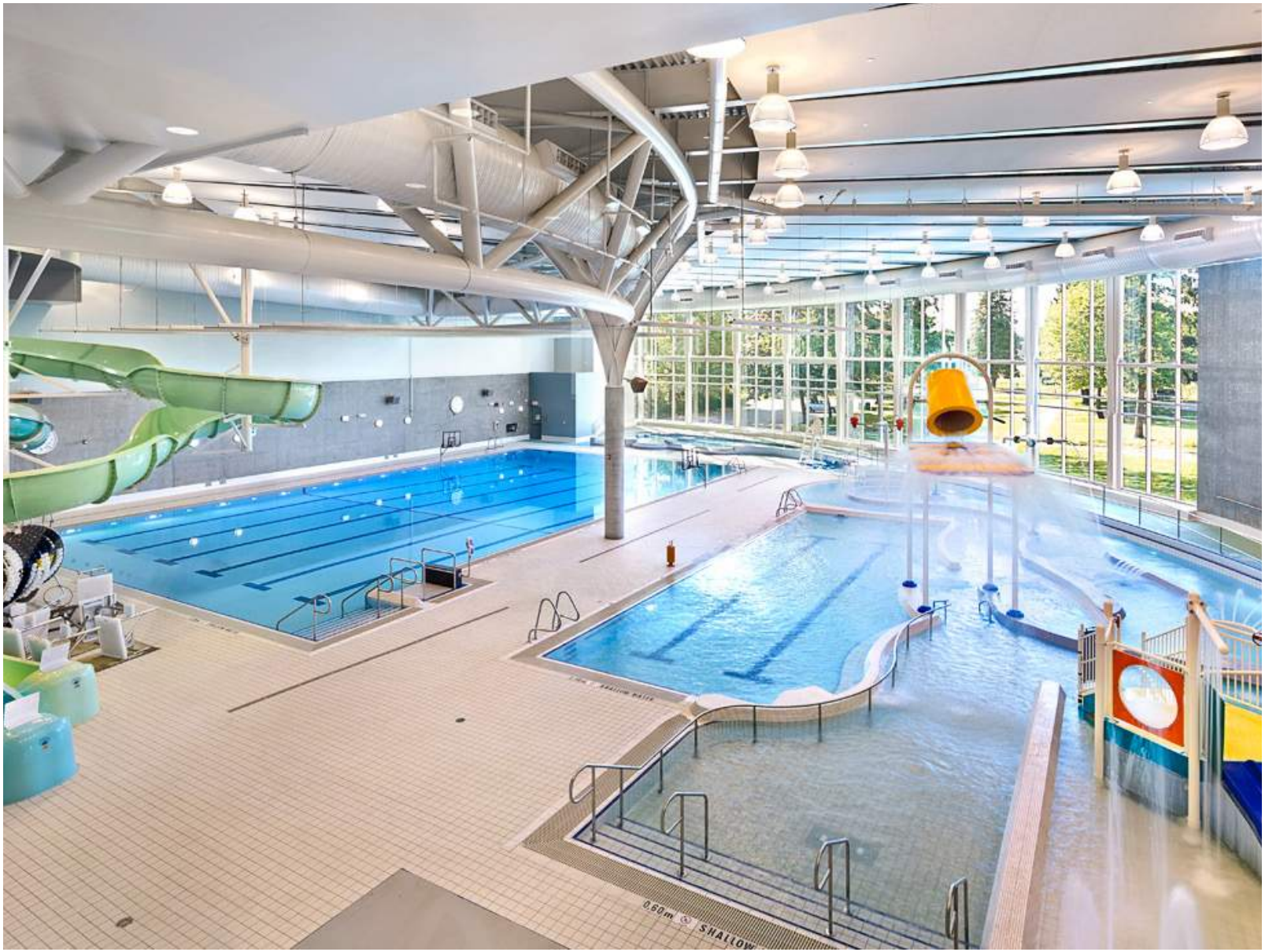
A few Guiding Principles required to establish the proposed recreation facility and services for the City of Parksville:

1. Recreation facilities and services are essential to quality of life in Parksville
    a) A commitment to be a high-performance organization through the employment of best practices.
    b) A delivery system that leverages municipal resources and those of non-municipal partners.
    c) Long-term financial sustainability through the fiscally responsible and efficient management of resources.

2. Recreation facilities and services are accessible for a wide range of people
    a) A complete community with affordable services and programs for people of all ages, including children, youth, adults, and seniors.
    b) Accessible and inclusive opportunities to participate in recreation, parks, and cultural activities for all residents, regardless of physical ability, ethnic origin, and economic means.
    c) A community without barriers to participation in introductory-level recreational and cultural activities.
    d) Active engagement of under-represented groups (including – but not limited to – those with culturally diverse backgrounds, persons of low income, persons with disabilities, and youth) in program and service planning and delivery
    e) Recreation programs are diverse and reflective of community needs and interests
    f) A recreation facility that provides spaces and environments that are flexible and multi-use

3. Recreation service delivery is enhanced through collaborative partnerships
    a) A vibrant community that builds leadership and capacity through participation and social engagement.
    b) Strong relationships and coordination between the City and community support groups, volunteers, and partners.
    c) Develop meaningful and effective methods of engaging the community voice (general public).
    d) Define and strengthen community capacity.

4. Recreation facilities and services aim to be environmentally and financially sustainable
    a) A recreation facility designed with quality and a source of pride for Parksville connected and integrated into the fabric of the community.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SHALLOW

AQUATICS WORKSHOP

Session 7: In this session HDR presented trends in aquatic recreation design.* Topics included: universal changeroom design and layouts, saltwater vs chlorinated water, tank sizes and temperatures, various types of leisure water and pool components.

Discussions on how Parksville's pool facility could complement neighboring pools, such as Ravensong and Nanaimo Aquatic Centre aided in program definition and how to meet the needs of the community now and into the future.

Understanding the many components of a potential pool layout, provoked the conversation of how to balance the dry program features with the scale and complexity of aquatic design.

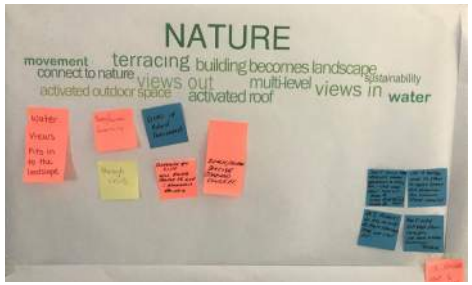
*See appendix 1 for the entire presentation, Parksville Pool Study Aquatics Workshop

TRENDS IN REC

Session 8: HDR presented the staff and council members trends in architecture that are recreation and community focused.* The projects selected were from around the globe and centered around four themes: Nature, Heart, Versatility and Play. Topics of inclusivity + accessibility, sustainability + resiliency, playfulness + program components were discussed. This session was an opportunity for big ideas on design to be discussed and allowed for participant's ideas to be documented. After each theme the group paused to reflect on the projects and concepts presented, then were asked to transcribe what impressed or affected them, and how those ideas might be translated into the Parksville project.

*See appendix 2 for the entire presentation, Trends in Rec

Aldergrove Credit Union Community Centre, Langley
HDR Architects





YEAR-ROUND OUTDOOR SWIMMING / DESTINATION / COMMUNITY HUB / LEISURE + COMPETITIVE FUNCTIONS / PROGRAM SPACE

KEY INSIGHTS

THEMES FROM STICKY COMMENTS

- Take advantage of views and landscape; orient the building towards views (ocean/mountains/forest); take advantage of the rooftop.
- Connect to the outdoors / provide indoor-outdoor connection / views through the building / access walking tracks + trails.
- Interest in creating a building with a balance of visual attractiveness and functionality.
- Multi-purpose spaces that are flexible, provide space for gathering, activate in between spaces.
- Incorporate climbing walls and indoor/outdoor walking and running track (connect track through the community)
- Incorporate aspects of fun, creativity, risk, unstructured indoor/outdoor components (Exploratorium).
- The centre has the ability to be a multi-seasonal attraction and an economic driver (attract and retain), but should not compete with private business.

PROGRAM NEEDS

Key to the effectiveness of this study is the creation of a functional program that represents needs and objectives expressed by the City's elected officials, key staff and a number of important and active City user group representatives. From these dialogues, we have proposed a program that will be used to develop a conceptual design option. The purpose of this concept design option is to confirm City needs, anticipate capital and operation costs, suggest an effective operations model and provide the City with a useful tool to further evaluate the viability of a new recreation facility for Parksville. Key to the program proposed in this section of the report is that through the dialogues referenced above a general consensus was met that proposed that a combination of Aquatics components with dry floor community activity spaces would best meet the needs of the City. This is reflected in the program chart on the following page and is intended (notwithstanding adjustments made at the instruction of the City) to be used as the basis of design in the next phase of this study.

PREFERRED PROGRAM DEVELOPED DURING ENGAGEMENT SESSIONS			
Area	Element	Cost/sf	Element Cost
9000	6 x 25m Pool	$700	$6,300,000
3000	Change Rooms	$700	$2,100,000
1500	Admininstration & Staff	$700	$1,050,000
1000	Lobby	$700	$700,000
1200	Lazy River	$700	$840,000
3000	Leisure Pool (w 0 entry)	$700	$2,100,000
900	Hot Tub	$700	$630,000
2000	2-MP Rooms	$450	$900,000
7000	Single Gym	$450	$3,150,000
6500	Running Track	$450	$2,925,000
35100	Net Program Total		
12285	Gross Up Factor @ 1.35	$500	$6,142,500
47385	**Total Area**	Bldg Cost	$26,837,500
		Site Costs	$1,341,875
		Const. Cost	**$28,179,375**
		Soft Costs	$12,500,000
		Project Cost	**$40,679,375**

WET

DRY

PREFERRED PROGRAM NOTES:

1. *The program illustrated in the chart on the right was developed during the consultation sessions held at the City of Parksville during phase 1 of the study.*
2. *This program indicates a "working program" that will be used during phase two of the study.*
3. *Areas noted for program elements have some flexibility and may be modified to suit the concept study to follow.*
4. *Preferred program to be confirmed by City of Parksville in advance of concept study commencement.*

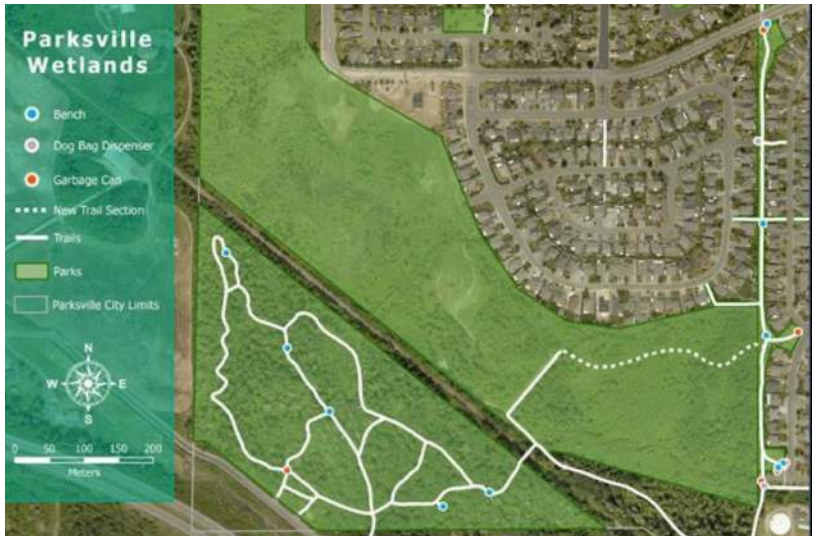
TEST SITE

For the purpose of this study one site location was selected to be used as a sample or test site for conceptual design purposes and is not the final site location for the facility. The selected site at Despard Avenue is City owned property, on the border of the city limits to the south. Although at the edge of the city, this site is a short distance by car, by bicycle and approximately a 20-30 min walk into the centre of town. The site is adjacent to green space, open areas and athletic fields, running tracks and other related amenities. There is an opportunity for this site to connect to nearby existing trails and potential to create synergies between nature, recreation and the community, and as a result promote active aging and physical literacy in diverse ways. The #88 bus route is in close proximity to the site making it an accessible and walkable location for residents of Parksville.

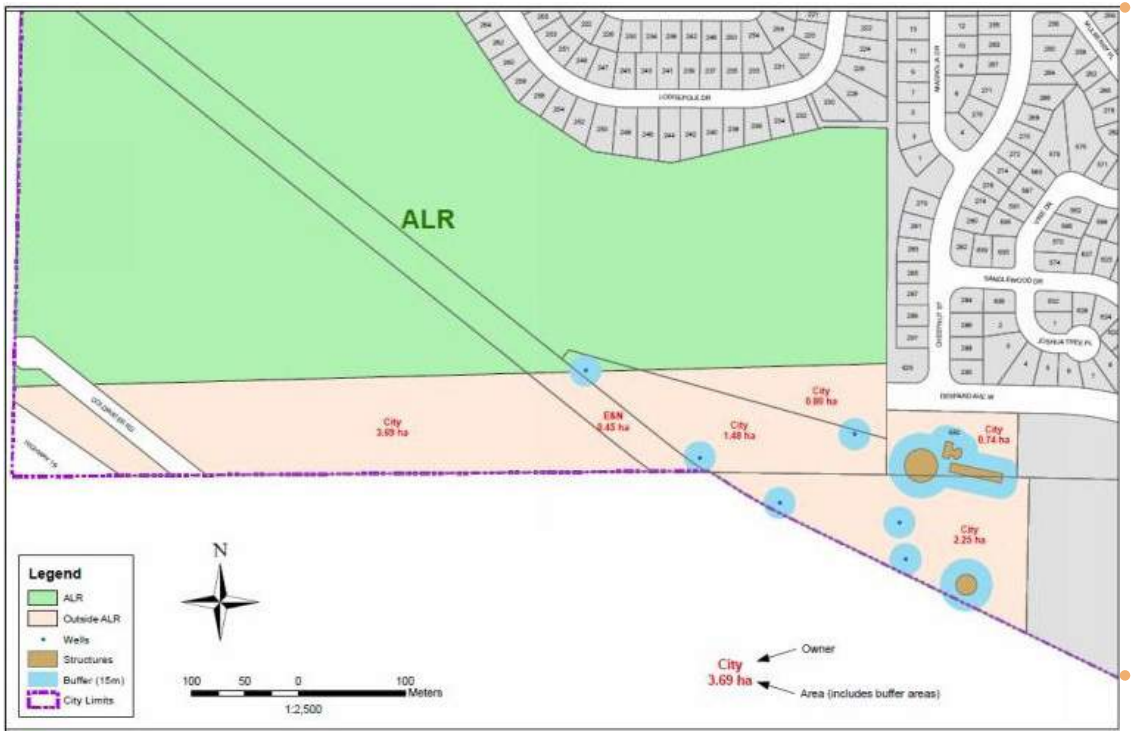
The Despard Ave site consists of several pieces of undeveloped lands with the parcels totaling approximately 8 ha, however, there are some developed areas containing municipal wells and drinking water facilities that must be considered. The subject area consists of lands with A-1 Agricultural and P-1 Public Institutional zoning.

P-1 Public Institutional allows for the permitted land uses such as: public school, public administration, public assembly, public utility, community care facility, park, outdoor recreation. There are height restrictions, principal buildings maximum 11.0 m and accessory buildings and structures, maximum height 5.0m. Floor Area Ratio max is 1.0 and max. lot coverage is 60%.

A-1 Agricultural zone is intended to provide land for diversity of rural land uses and does not allow for a recreation facility as a permitted use.



This is a green field site on the border of the city limits. The Parksville Wetlands are adjacent to the test site, overlapping aspects of the designated subject area.




BALLENAS OUTDOOR RUNNING TRACK
island hwy east
CITY CENTRE
Parksville
Parksville
#88
chestnut st
7 min bike ride / 30 min walk
OFF-LEASH DOG PARK
TEST SITE
#88
despard ave
TRILLIUM LODGE
SPRINGWOOD SPORTS FIELD + TENNIS COURTS
alberni hwy
mollie t st
Google Earth
Inland Island Hwy
19
4A
Wildgreen Way
2000 ft
N

TO SUMMARIZE

Through the eight sessions over two days, a significant amount of information was provided by the City staff, Council members and residents representing the various Stakeholder groups. Consideration was given to how nearby facilities might influence program needs of Parksville. Also it was established the desire to be something different and provide the residents of Parksville a centre unique to their community.

After hearing from each other it was communicated that the centre could be more than an aquatic only facility, and that this was their opportunity to provide Parksville with an individialized centre just for them to fill their needs now and into the future, as well as be more than that. This recreation facility can reach further than the RDN and could be a draw for hosting tournaments and attract and retain skilled talent and young families.

By providing the right site location and program amenities, the multiplex facility can connect to nature, promote active aging, physical literacy, intergenerational connectivity and be accessible to a wider demographic of community members.

NEXT STEPS

The information gathered in this Needs Assessment Phase will be used in conjunction with the test site to develop a high level concept design which will capture the desired program and the associated magnitude of cost.

appendix 02

Aquatics Workshop

Parksville Aquatics Workshop

March 5, 2020

Remington YMCA in Calgary by GEC Architects with HDR as programming and sport design specialists.

01 **Trending Topics**

02 **Aquatics Components**

03 **Universal Change Rooms**

04 **Salt versus Chlorine**

05 **50m v 25m**

06 **Costs**

01

Trending Topics

Accessibility

Facility Condition & Appearance

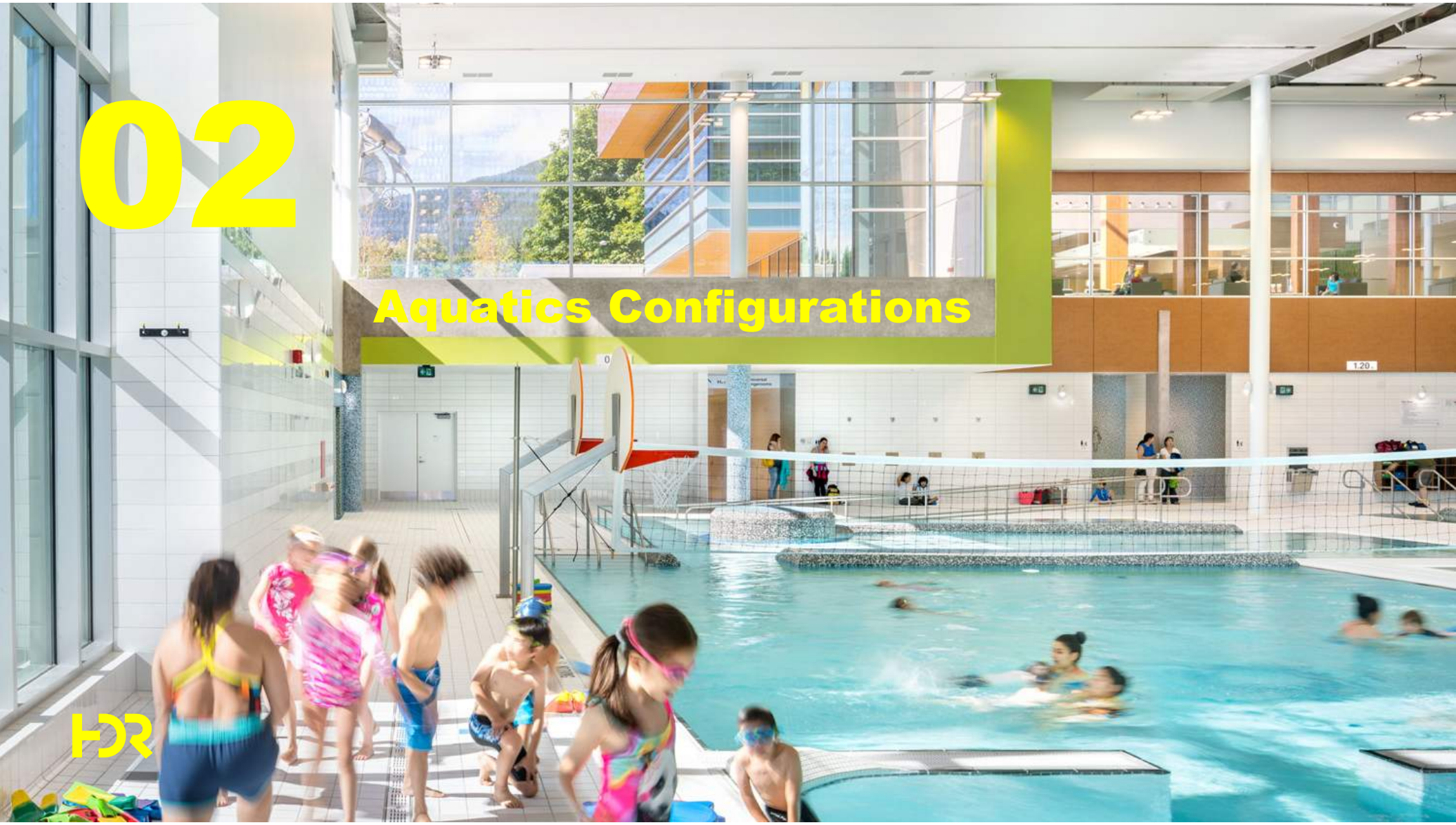
Shortage of Pool Time for Programs

Lack of Family Change Rooms

Overall Health and Wellness

Acoustics

Security


02
Aquatics Configurations


25m lap pool
0.8
1.45
1.65

Zero Beach Entry


Leisure
&
Lessons


Lazy River/ Current Channel
1.05"
1.05"
1.05"
0.8M
0.8M


Diving

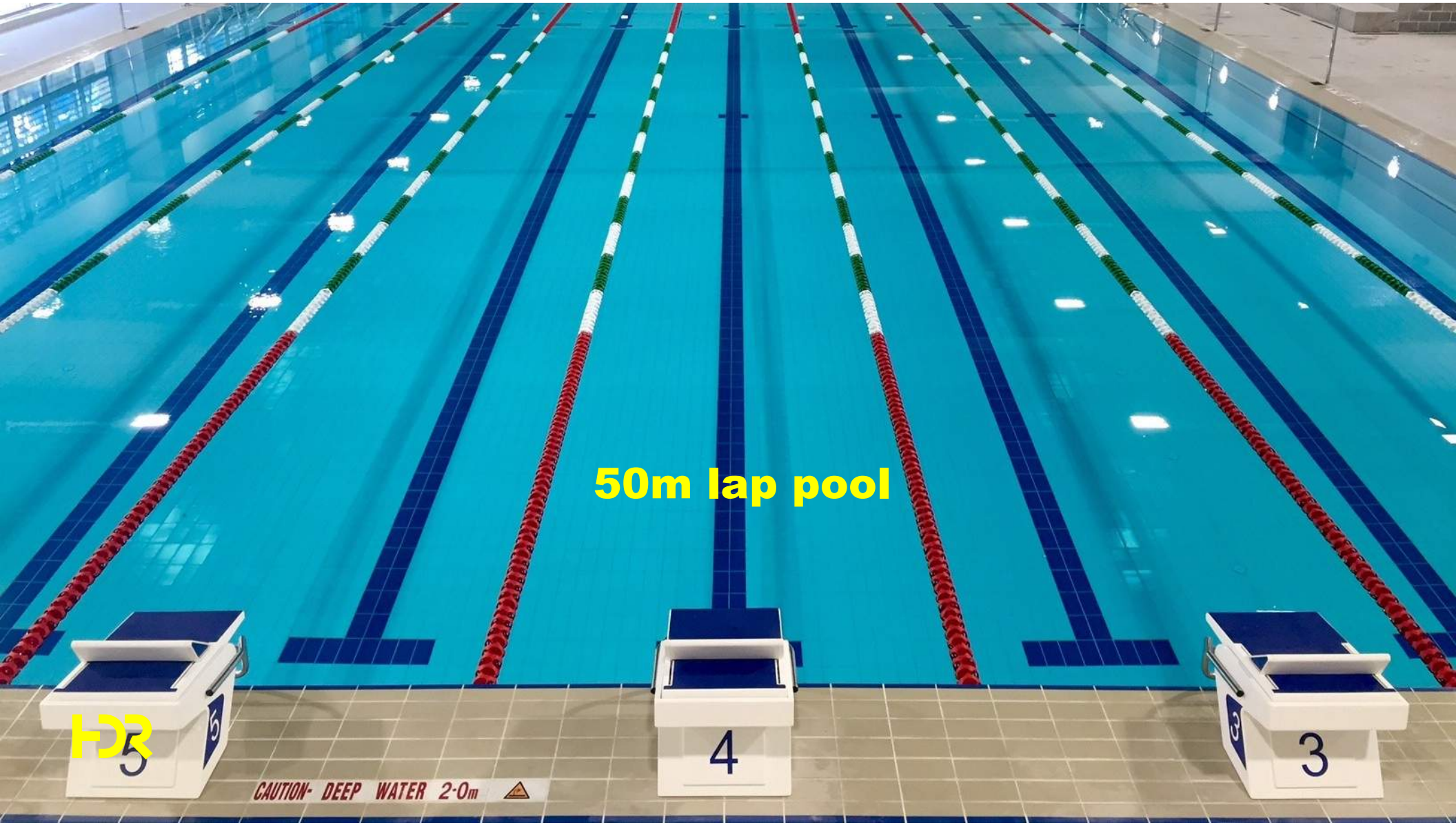

Water Slides


Hot Tub/ Spa Pool


Fully Featured

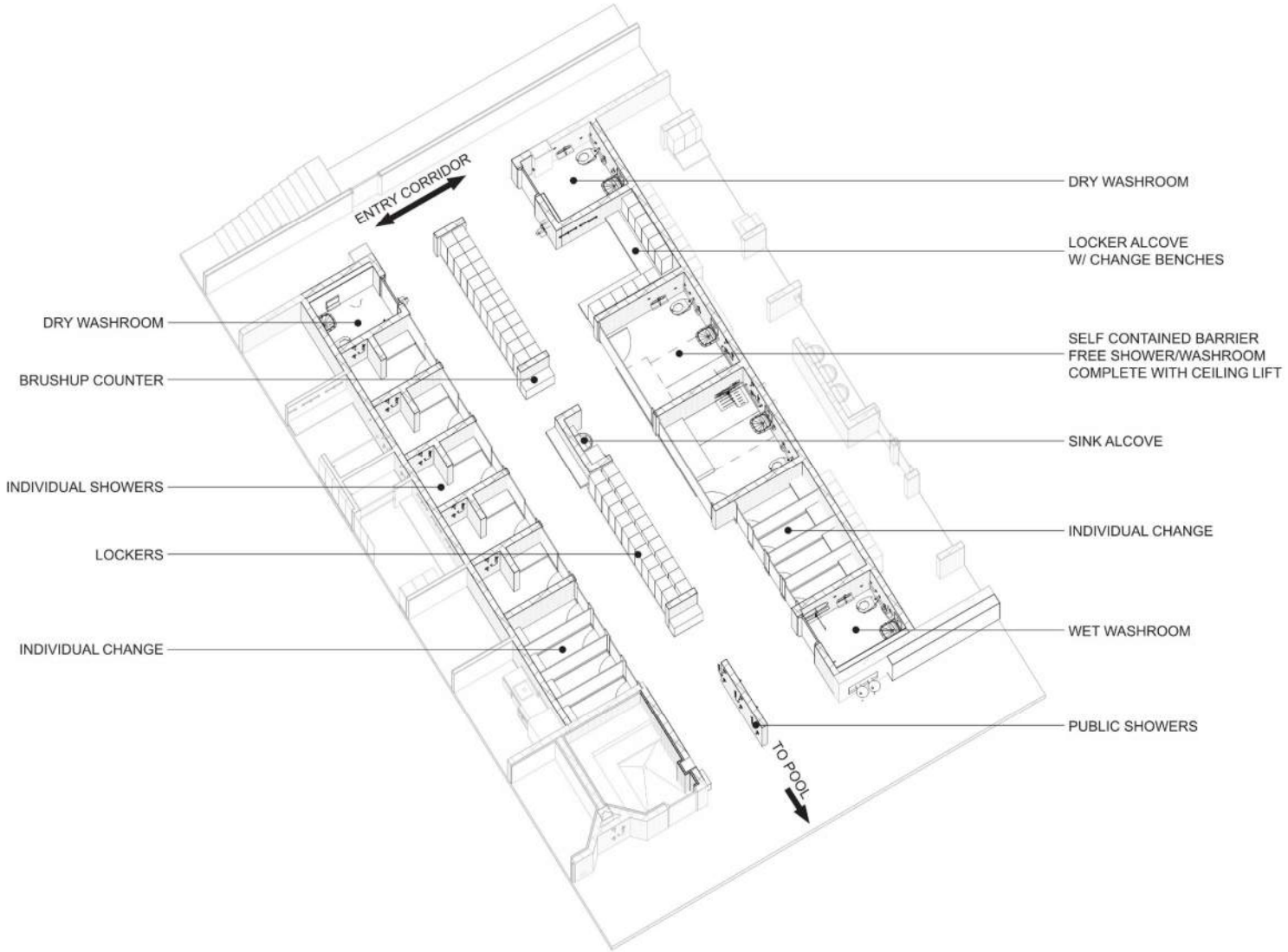

Play Features

Tide/ Wave Pool


50m lap pool
5
4
3
CAUTION- DEEP WATER 2·0m

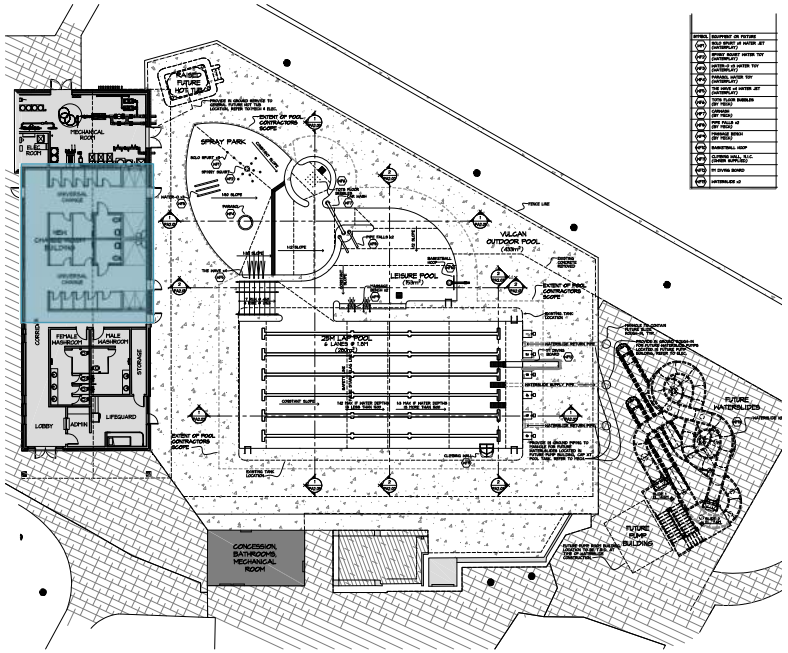
03

Universal Change Rooms


ENTRY CORRIDOR
DRY WASHROOM
LOCKER ALCOVE
W/ CHANGE BENCHES
DRY WASHROOM
SELF CONTAINED BARRIER
FREE SHOWER/WASHROOM
COMPLETE WITH CEILING LIFT
BRUSHUP COUNTER
SINK ALCOVE
INDIVIDUAL SHOWERS
INDIVIDUAL CHANGE
LOCKERS
WET WASHROOM
INDIVIDUAL CHANGE
PUBLIC SHOWERS
TO POOL

Prince George 2020

Vulcan 2020



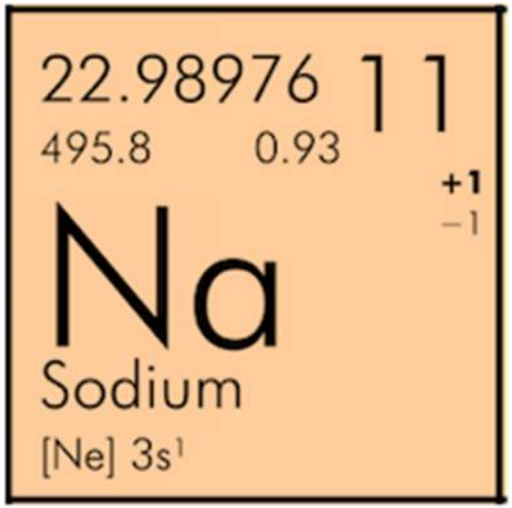
North Vancouver 2017

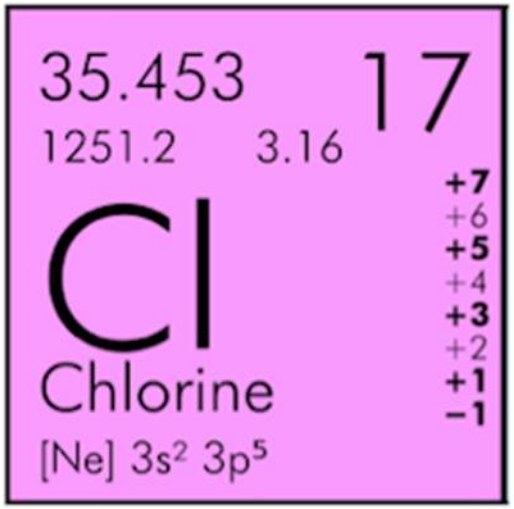
Burnaby 2014

Water Access to Shallow End

04

Saline v Chlorine Pool





*Information in this sections been developed in collaboration with Watertechnology Inc, with whom HDR has completed multiple aquatic centre projects.

There is a common misconception that a saline pool is a “chlorine free” pool, which is false. The same concentrations of chlorine are present in a saline pool as is in a traditionally disinfected pool. A saline pool simply uses a different process to produce the chlorine.

Benefits

Swimmer Experience - Many swimmers and bathers report pool water with a high salt concentration feels “soft” and “smooth,” and is, in general, more pleasing than fresh water. While some swimmers may notice there is salt in the pool water, the concentration is only approximately 10% to 15% of the salt concentration of the ocean.

Reduced Storage of Hazardous Chemicals - Storage in large tanks or pallets of hazardous chemicals are usually no longer necessary, and replaced by bags of salt. The offsetting properties of sodium hydroxide and hydrochloric acid during electrolysis make the process largely pH neutral. Therefore, only a small amount of hazardous balance chemicals is typically needed to be used and stored on premise.

Chemical Availability and Cost - Sodium chloride, or “table salt,” is one of the most readily available compounds on the planet. Salt is also relatively inexpensive as an industrial chemical.

Challenges

Conductivity - The addition of sodium chloride to the pool water increases conductivity. Higher conductivity makes proper grounding and bonding of all metal components in or near the pool even more crucial. With greater conductivity, there is a greater risk of stray voltage damaging equipment, corroding metals, and staining surfaces.

Corrosion - The addition of sodium chloride to the pool water also increases corrosion potential. Metal surfaces and some forms of stone are susceptible to advanced and premature corrosion when exposed to high concentrations of salt. Metal pump impellers, metal grating, handrails, grab rails, lane anchors, and other hardware are corroded by saltwater and dry salt deposits. Higher grades of metal and stronger metal coatings may be used for this hardware, which can greatly increase the capital cost of the project and will likely still experience corrosion.

Challenges

Salt Deposits - When water evaporates all quantities of salt remain. Therefore, water splashed out of the pool, carried out by bathers, or droplets from spray features will leave dried salt deposits on the pool deck, or any other surface in close proximity to the pool, including handrails, benches, and windows.

Capital Costs - The capital cost of an in-line chlorine generation system is significantly greater than a traditional water treatment system. The exact cost of either system is contingent on the number of bodies of water and the volume of water to be treated. However, as the size of the pool facility increases this disparity in capital cost also increases.

Replacement Expenses - The electrolytic cells, comprised of semi-precious metals, is one of the most expensive components of the in-line chlorine generation system. These electrolytic cells are known to have a limited lifespan, and typically fail in approximately three to five years after installation.

Challenges

Required Operator Involvement - In-line chlorine generators are frequently sold as “completely automated” and without the need for operator involvement. In-line chlorine generation systems contain automatic monitoring and control of pH levels, chlorine levels, and/or oxidation reduction potential, just as traditional water treatment systems also contain these automated abilities. However, daily involvement of an operator is still necessary for a safe and balanced pool.
Contaminant Reaction Capacity - Many in-line chlorine generation systems are designed to produce chlorine levels within a narrow range. These systems may lack the capacity to make quick adjustments to react to large influxes in contamination, typically from sudden increases in bather loads. Facilities with events such as competitive swim meets, large attendance on weekends or holidays, or strong participation on special promotional days may require manual adjustments with supplemental chemicals.

05

50m v 25m

6 Lane

15m x 25m

375sm

8 Lane

20m x 25m

500sm

10 Lane

25m x 25m

625sm

8 Lane

20m x 50m

1000sm

10 Lane

25m x 50m

1250sm

Cost Influencers

- Natatorium (Deck + Pool) Area drives costs on $/sf basis
- Water Volume in 50m v 25m pool is more than double due to depth
- FINA tolerances for 50m costs extra money
- Pool Mechanical systems cost more (re volume)
- Seating for competition pool = more washrooms
- Lifecycle costing is higher

Which gets more use 50m or Leisure Water?

VDA FACILITY	POOL TANK PROG.	POP	POOL USAGE	50m	50m % USAGE	LEISURE	LEISURE % USAGE	PERIOD
Prince George Aquatic Centre	50m pool and large wave / leisure pool	73,004	282,900	99,015	35%	183,885	65%	2016
Nanaimo Aquatic Centre	50m pool and large wave / leisure pool	158,767	399,903	199,951	50%	199,951	50%	2016
Saanich Commonwealth Place	2 x 50m pool and small wave / leisure pool	113,624	370,667	185,334	50%	185,334	50%	2016
Terwillegar SWMP	50m pool and large wave / leisure pool	928,182	883,790	371,645	42%	512,325	58%	2017
Average annual visits per 1,000 population		*318,394*	*484,315*	*213,941*	*44%*	*270,374*	*56%*	
				442 per 1,000		*558 per 1,000*		

Statistics Courtesy of VDA.

06

Costs

BORROWING VALUES			PROEJCT COST CATEGORIES			TOTALPROJECTED BUILDING AREA					
Total Borrowing	Annual Repayment	Avg Annual Taxation	Soft Cost (25% of Borrow)	Site Development (10% of Hard Costs)	Building Budget (90% of Hard Costs)		All Aquatics at $1000/sf		75% Aquatics/ 25% Dry at $800/sf		50% Aquatics/ 50% Dry at $650/sf
$30,000,000	$1,634,000	$181	$7,500,000	$2,250,000	$20,250,000	A1	20,250	B1	25,313	C1	31,154
$40,000,000	$2,179,000	$241	$10,000,000	$3,000,000	$27,000,000	A2	27,000	B2	33,750	C2	41,538
$50,000,000	$2,724,000	$301	$12,500,000	$3,750,000	$33,750,000	A3	33,750	B3	42,188	C3	51,923

Program v Cost Matrix

AQUATICS	PROGRAM COMPONENT	Area (sf)
	6 x 25m Pool	9000
	Leisure Pool (w 0 entry)	3000
	Lazy River	1200
	4 Lane Lessons Pool	5000
	Water Slide	1400
	Hot Tub/ Spa	900
	Steam	200
	Sauna	200
	Change Rooms	3000
	Admininstration & Staff	2000
	Entry Lobby	1000
	Viewing Area	2000
	MP Room (s)	1100
DRY FLOOR	PROGRAM COMPONENT	Area (sf)
	Single Gym	7000
	Running Track	6500
	Multi Use Room	1750
	NET	45250
	Gross Up Factor	1.35
	Gross Up Total	61088

$30M

A1	Projected Program	B1	Projected Program	B2	Projected Program
9000	6 x 25m Pool	9000	6 x 25m Pool	6030	6 x 25m Pool
2600	Change Rooms	2600	Change Rooms	2900	Change Rooms
1200	Admininstration & Staff	1200	Admininstration & Staff	1200	Admininstration & Staff
500	Lobby	500	Lobby	500	Lobby
200	Steam	5500	Mini Gym	7000	Single Gym
200	Sauna			6000	Running Track
900	Hot Tub				
Net Area	14600		18800		23630
Gross Up 1.35	5110		6580		8271
TOTAL AREA	19710		25380		31901

$40M

A2	Projected Program	B2	Projected Program	C2	Projected Program
9000	6 x 25m Pool	9000	6 x 25m Pool	6030	6 x 25m Pool
3000	Change Rooms	3000	Change Rooms	3000	Change Rooms
1200	Admininstration & Staff	1500	Admininstration & Staff	1500	Admininstration & Staff
600	Lobby	800	Lobby	500	Lobby
200	Steam	200	Steam	200	Steam
200	Sauna	200	Sauna	2500	Leisure Pool (w 0 entry)
900	Hot Tub	500	Hot Tub	500	Hot Tub
3000	Leisure Pool (w 0 entry)	2000	Leisure Pool (w 0 entry)	3000	Multi Use Rooms
2000	MP Room (s)	7000	Single Gym	7000	Single Gym
		1000	Multi Use Room	6500	Running Track
Net Area	20100		25200		30730
Gross Up 1.35	7035		8820		10756
TOTAL AREA	**27135**		**34020**		**41486**

$50M

A3	Projected Program	B3	Projected Program	C3	Projected Program
9000	6 x 25m Pool	9000	6 x 25m Pool	6030	6 x 25m Pool
3000	Change Rooms	3000	Change Rooms	3000	Change Rooms
1500	Admininstration & Staff	1800	Admininstration & Staff	2000	Admininstration & Staff
1000	Lobby	1000	Lobby	1000	Lobby
200	Steam	200	Steam	200	Steam
200	Sauna	200	Sauna	4000	Leisure Pool (w 0 entry)
900	Hot Tub	500	Hot Tub	500	Hot Tub
4000	Leisure Pool (w) entry)	4000	Leisure Pool (w 0 entry)	3000	Multi Use Rooms
900	Hot Tub/ Spa	7000	Single Gym	7000	Single Gym
1100	MP Room (s)	1000	Multi Use Room	6500	Running Track
1400	Water Slide	4000	Running Track	5000	Fitness Centre
1500	Viewing Area				
Net Area	24700		31700		38230
Gross Up 1.35	8645		11095		13381
TOTAL AREA	**33345**		**42795**		**51611**



appendix 03

Trends in Recreation



Trends in Recreation

March 5, 2020

City of Parksville

HDR

NATURE
HEART
VERSATILITY
PLAY+

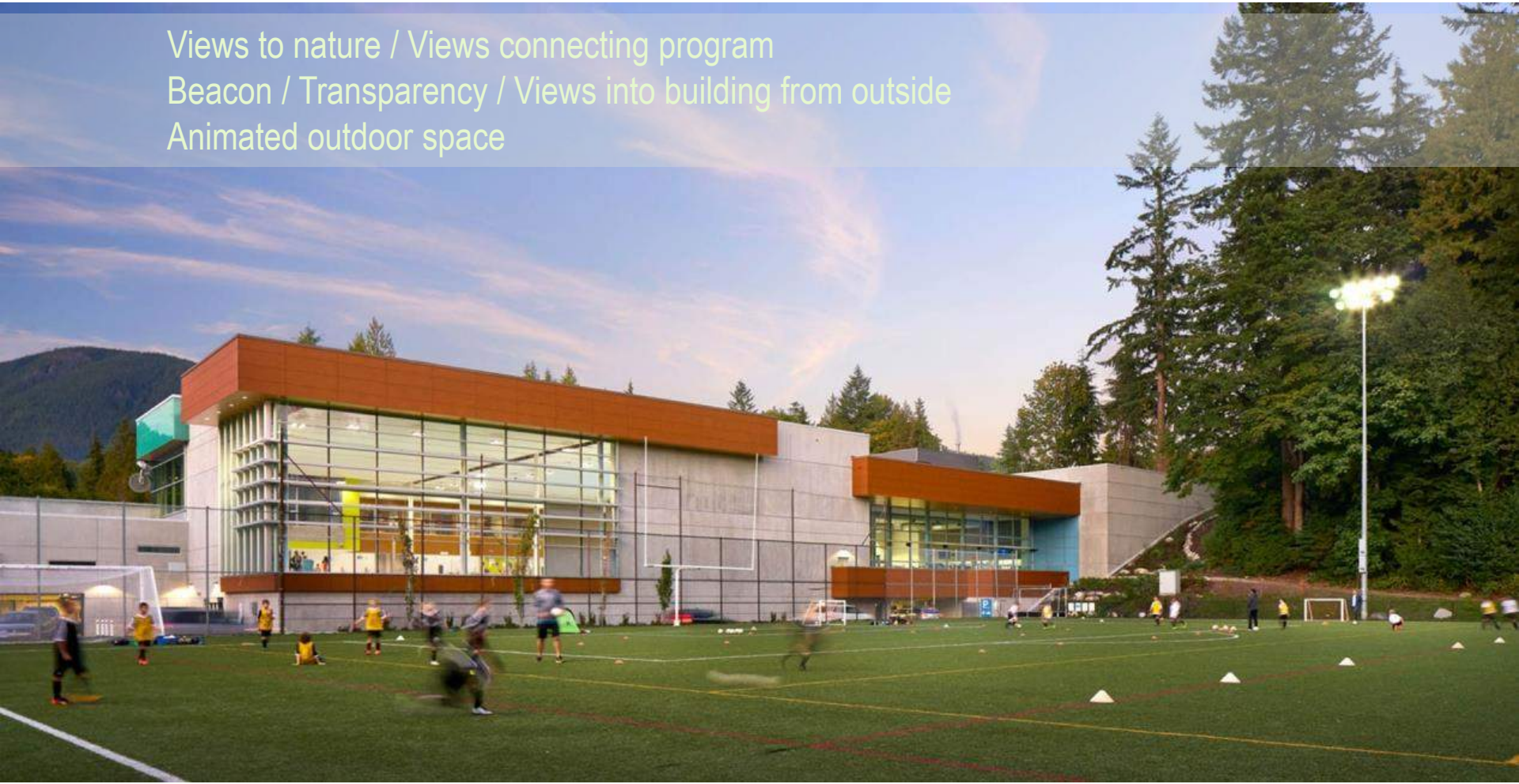
NATURE

views / activated roof + outdoor space
connect to nature + the landscape
sustainability / water / parks + trails

Delbrook Community Centre, N. Vancouver

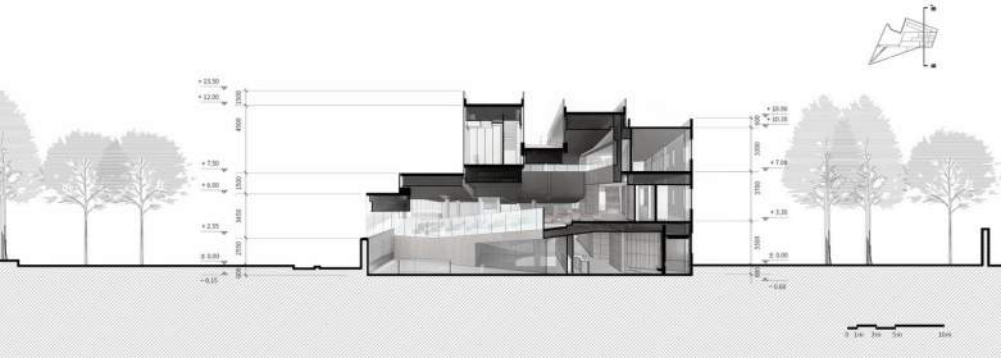
HDR Architects

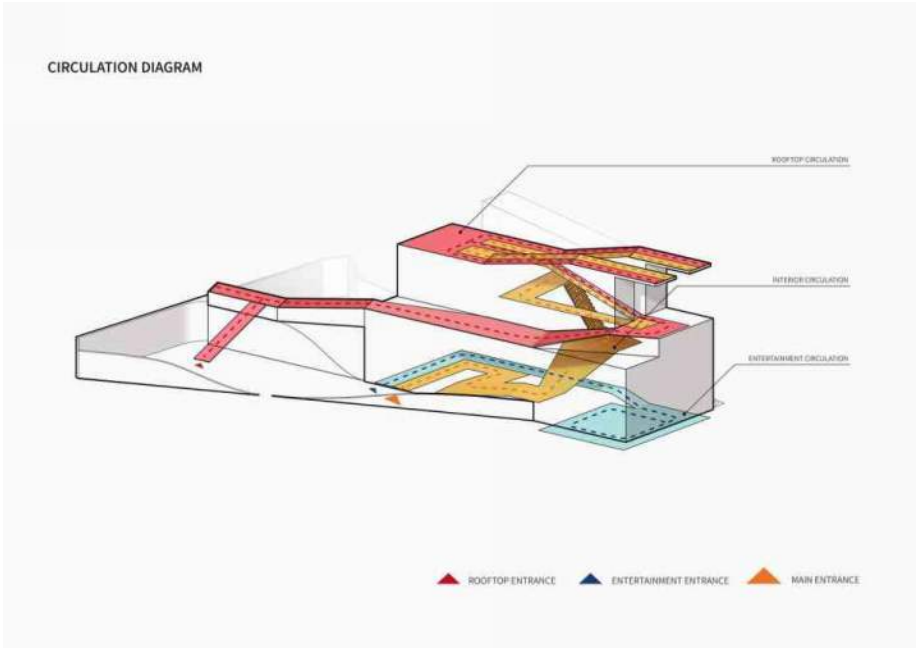
Views to nature / Views connecting program
Beacon / Transparency / Views into building from outside
Animated outdoor space



Sloped site
Views to nature / Views connecting program
Transparency / Light-filled

Framing views to nature / Views connecting program
Transparency / Light-filled
Spaces between are activated



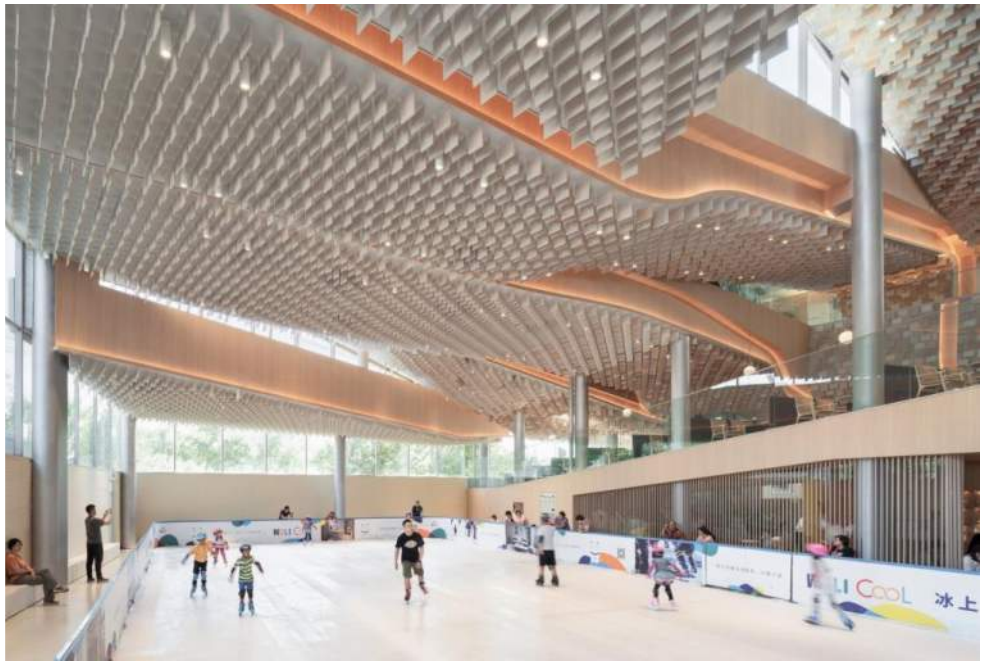


WuliEpoch Cultural Centre, Beijing

Atelier Alter Architects

Views / Nature + Landscape Inspire Building Form
Layered / Site Terracing / Ramped Floors Interconnecting Programs /
Materiality / Movement / Social Gathering

Views / Nature + Landscape Inspire Building Form
Layered / Site Terracing / Ramped Floors Interconnecting /
Materiality / Movement /
Unexpected Program Adjacencies / Social Gathering



Mountainside / Views / Nature + Landscape Inspire Building Form
Layered / Site Terracing / Ramped Floors Interconnecting /
Materiality / Movement / Unexpected Program Adjacencies / Social Gathering

HEART

social heart / diversity /
destination year-round / culture / all-ages
community hub / inclusivity /
transparency / public space

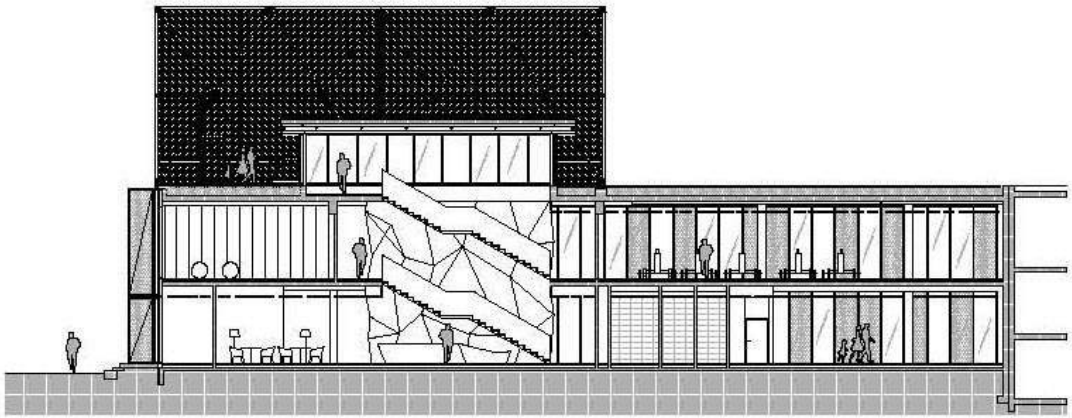
Aaniin Community Centre, Ontario

Perkins+Will

Community Hub / Destination
Multi-Use / Adaptable Spaces
Transparency / Interconnectedness /
Spontaneous Happenings

Transparency / Light-filled / Interconnectedness / Multi-function


INTERIOR
DESIGN



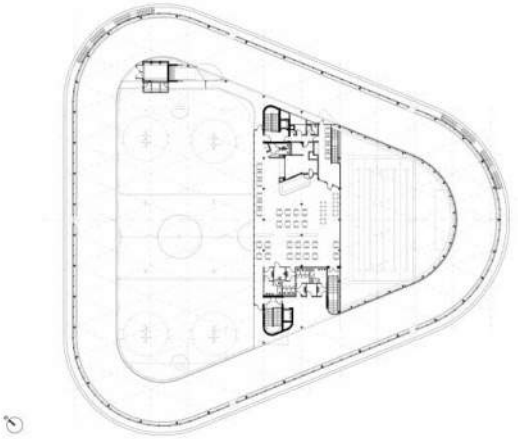
Fala Park Sports + Recreation Centre, Poland

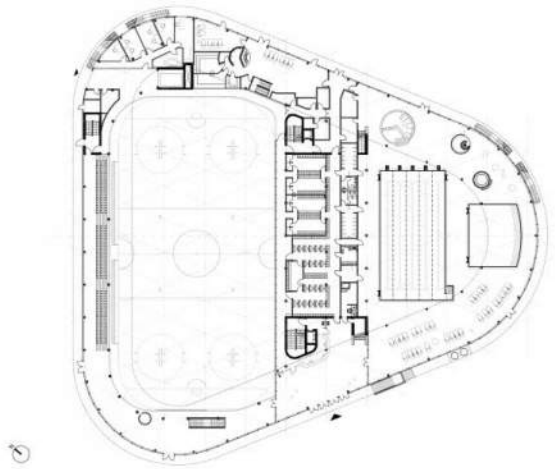
PL Architekci

Transparency / Views in and out
Active Rooftop w/ City Views
Destination Place / Community Hub / Social Gathering
Diverse Programming Fosters Intergenerational Socialization

Transparency / Views in and out
Active Rooftop w/ City Views
Destination Place / Community Hub / Social Gathering /
Diverse Programming Fosters Intergenerational Socialization

Views in and out
Destination Place / Community Hub / Social Gathering
Diverse Programming Fosters Intergenerational Socialization





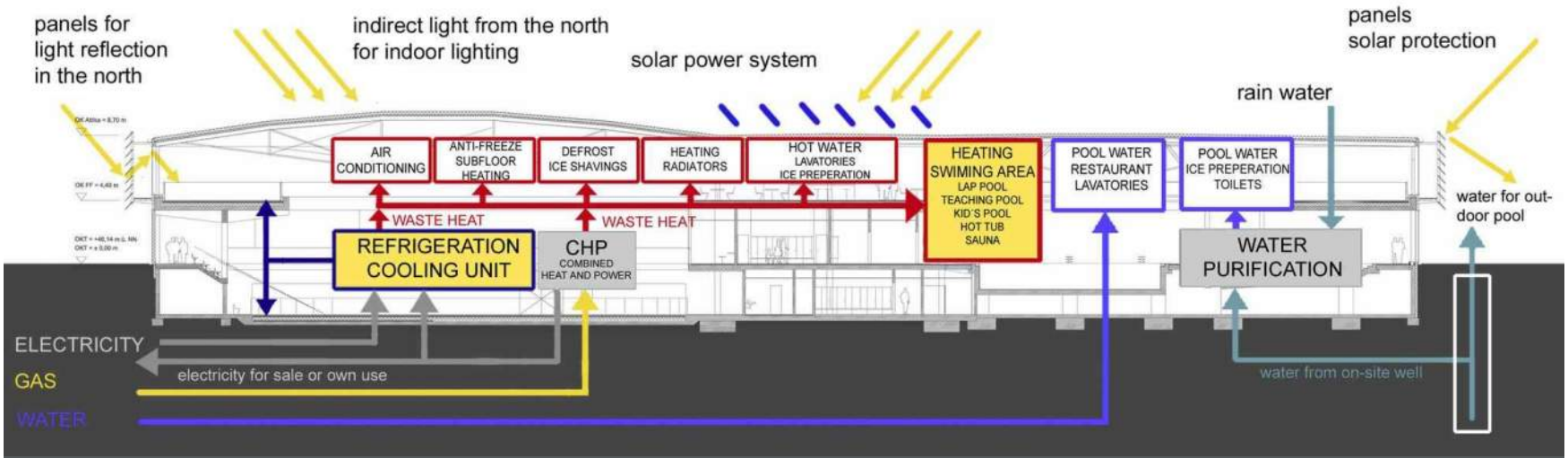
Lent Park, Cologne

Schulitz Architekten

OVERLAPPING FITNESS + PROGRAMS / INTERCONNECTIVITY
SKATING RE-IMAGINED / OUTDOOR POOLS + SUANA YEAR-ROUND
BEACON / TRANSPARENCY / VIEWS THROUGH BUILDING + TO NATURE

OVERLAPPING FITNESS + PROGRAMS / INTERCONNECTIVITY
SKATING RE-IMAGINED / OUTDOOR POOLS + SUANA YEAR-ROUND
BEACON / TRANSPARENCY / VIEWS THROUGH BUILDING + TO NATURE

OVERLAPPING FITNESS + PROGRAMS INTERCONNECTIVITY
SKATING RE-IMAGINED / INDOOR + OUTDOOR POOL AMENITIES
BEACON / TRANSPARENCY / VIEWS THROUGH BUILDING + TO NATURE



STACKED PROGRAM
PASSIVE + ACTIVE DESIGN STRATEGIES
SIMPLE BUILDING FORM / INTELLIGENT PLANNING + DESIGN

Aldergrove Credit Union Community Centre, Langley

HDR Architects

YEAR ROUND OUTDOOR SWIMMING
DESTINATION / COMMUNITY HUB
LEISURE & COMPETITIVE FUNCTION / PROGRAM SPACES

YEAR ROUND OUTDOOR SWIMMING
DESTINATION / COMMUNITY HUB
LEISURE & COMPETITIVE FUNCTION / PROGRAM SPACES

VERSATILITY

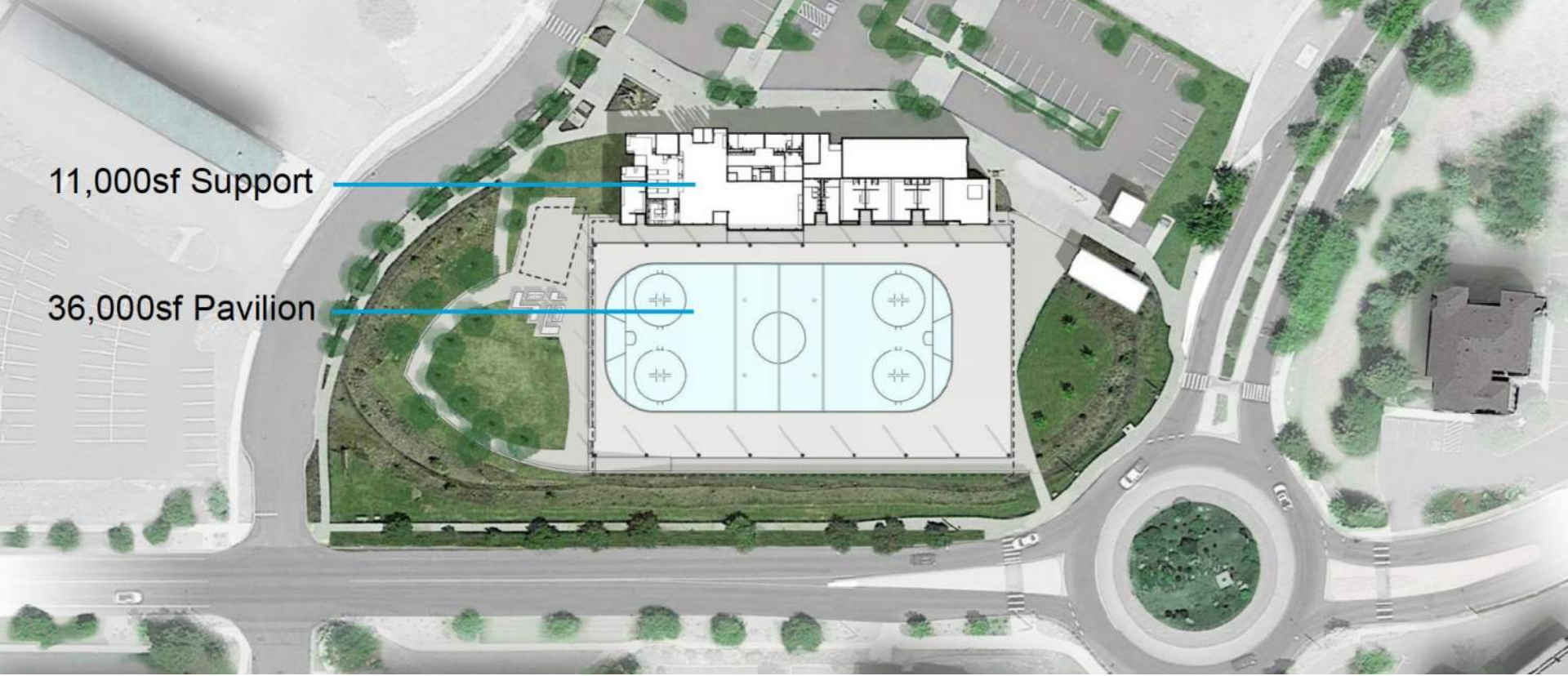
adaptable spaces / interconnectedness
spontaneous happenings / collaboration
flexible / multi-purpose / spaces between
multi-seasonal

summer

winter

The Pavilion, Oregon

Opsis Architecture



Multi-Use / Adaptable
Indoor / Outdoor / Year-round Programming
Community Gathering Space

Multi-Use / Adaptable
Indoor/ Outdoor / Year-round Programming
Transparent / Views in and out
Community Gathering Space

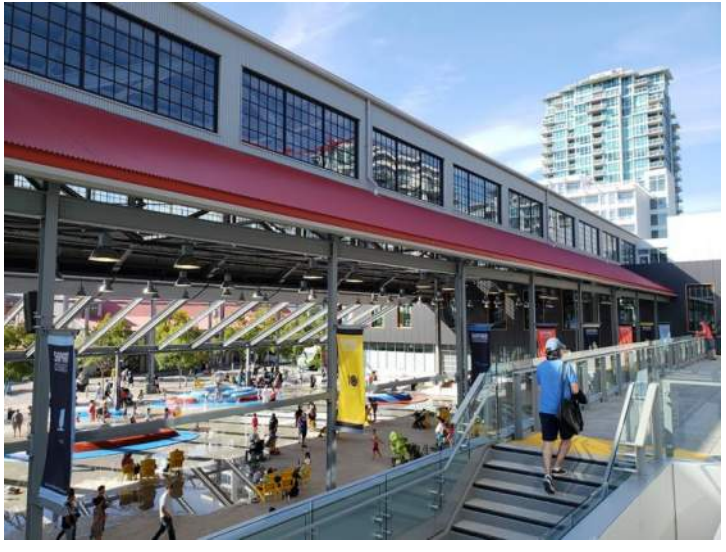
Multi-Use / Adaptable
Indoor/ Outdoor / Year-round Programming
Transparent / Views in and out
Community Gathering Space

The Shipyards, N. Vancouver

Dialogue

Flexible / Adaptable
Year round indoor / outdoor space
Community Gathering Space / Spontaneous Happenings
Views in and out

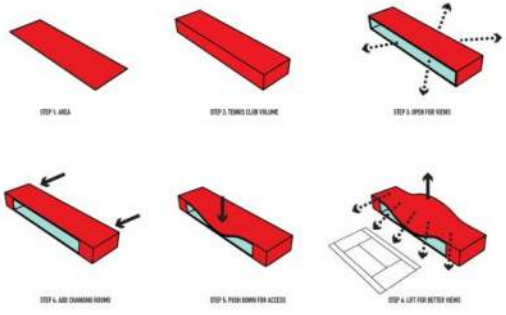
Flexible / Adaptable
Year round indoor / outdoor space
Community Gathering Space
Spontaneous Happenings
Views in and out



Tennis Clubhouse, Amsterdam

MVRDV

Activated Roof / Adaptable
Views from roof deck and from within
Gathering / Meeting Space



PLAY+

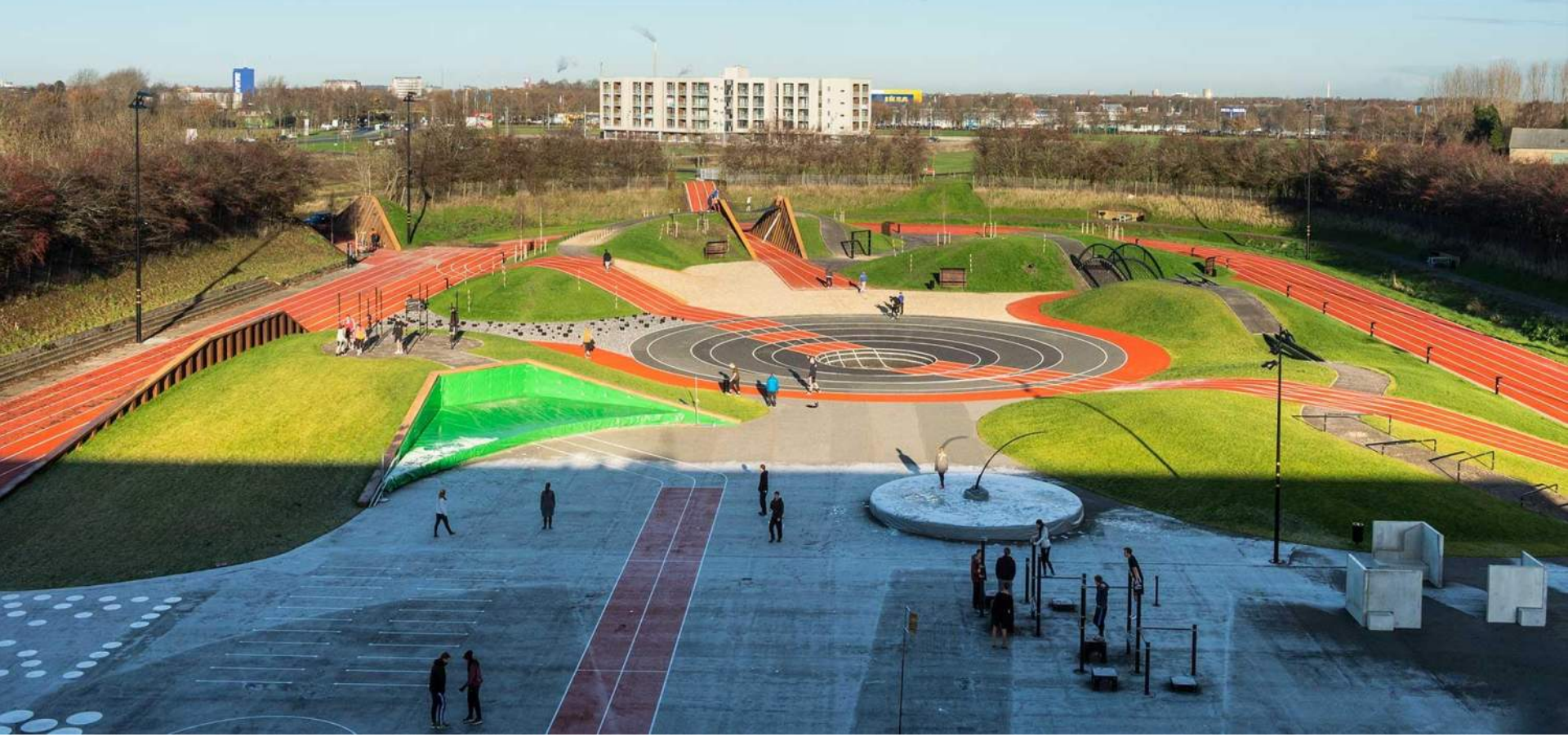
unstructured / re-imagined / overlapping / making
arts + culture / exploratory / movement /
inventive / creative / learning / all-ages

Ku.Be House of Culture in Movement, Copenhagen

MVRDV / Adept

Unstructured Play / Exploratory / Physical Literacy
Outdoor Amphitheatre / Urban Landscape
Playful design / Views in + out

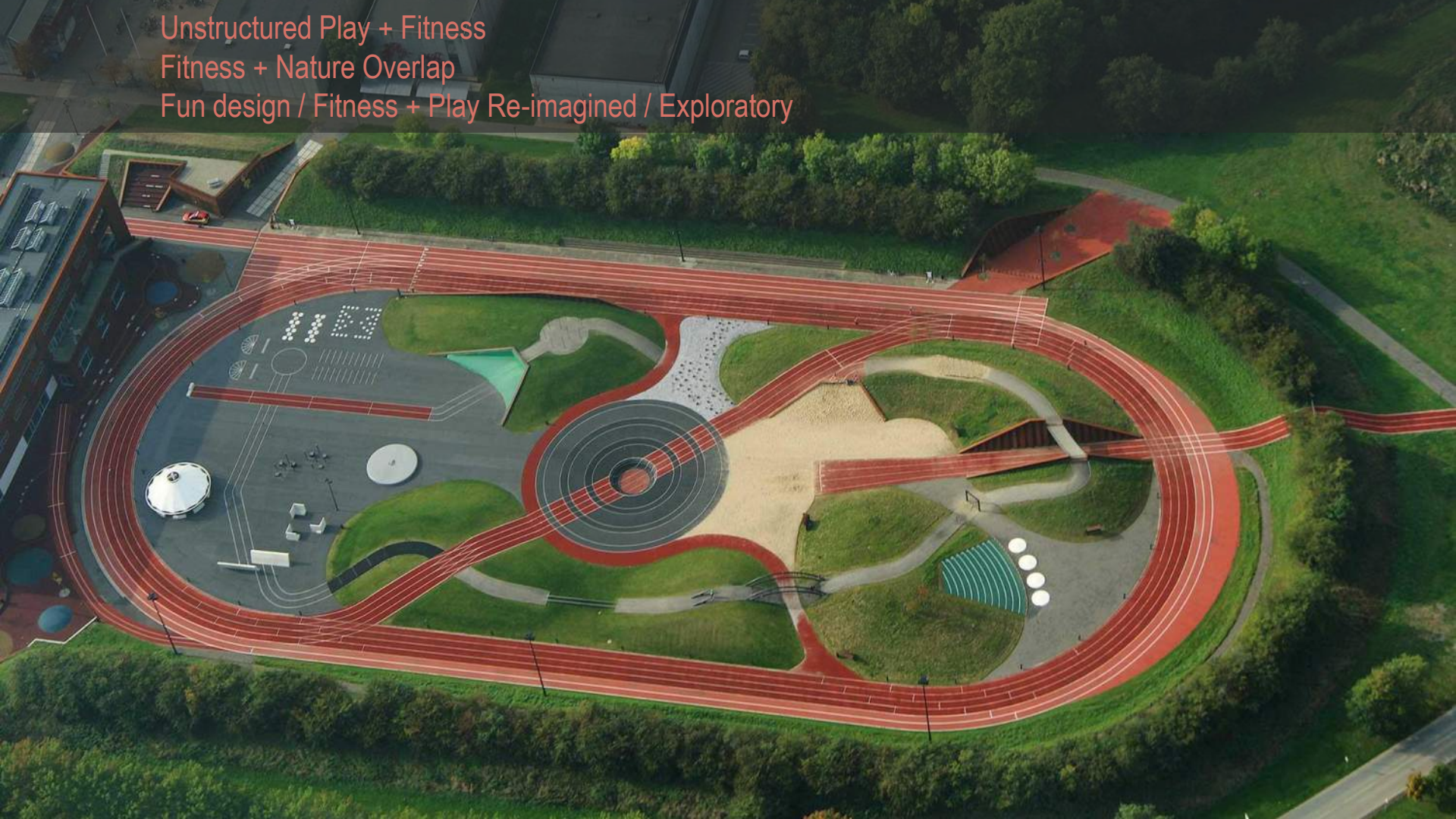
Unstructured Play / Exploratory
Fun design / Play Re-imagined
Views in + out



Exploratorium, Copenhagen

Keingart Space Activators

Unstructured Play + Fitness
Fitness + Nature Overlap
Fun design / Fitness + Play Re-imagined / Exploratory



Unstructured Play + Fitness
Fitness + Nature Overlap
Fun design / Fitness + Play Re-imagined / Exploratory

Peña Station, Denver

HDR Architects

Unstructured Play + Fitness / Fitness Re-imagined
Fitness + Urban Landscape Overlap / Community Hub
Fun design / Exploratory

Ecole et Centre de Loisirs, France

TANK architects

Spaces in between for community gathering
Unstructured Play
Flexible / Adaptable Spaces
Space between (courtyards) connecting various programs

Spaces in between for community gathering
Indoor / Outdoor Views
Unstructured Play
Flexible / Adaptable Spaces
Courtyard Space connecting various programs

appendix 04

Preliminary Geotechnical Explorations Report

September 4, 2020

ISSUED FOR REVIEW
FILE: VGEO03906-01
Via Email: pryan@heroldengineering.com

3701 Shenton Road
Nanaimo, BC
V9T 2H1

Attention: Mr. Patrick Ryan, P.Eng.

Subject: Parksville Pool – Preliminary Exploration

This 'Issued for Review' document is provided solely for the purpose of client review and presents our interim findings and recommendations to date. Our usable findings and recommendations are provided only through an 'Issued for Use' document, which will be issued subsequent to this review. Final design should not be undertaken based on the interim recommendations made herein. Once our report is issued for use, the 'Issued for Review' document should be either returned to Tetra Tech Canada Inc. (Tetra Tech) or destroyed.

1.0 INTRODUCTION

Tetra Tech Canada Inc. (Tetra Tech) was retained by Herold Engineering Ltd. (Herold) to conduct a preliminary geotechnical exploration for a pool complex at the west end of Despard Avenue, in Parksville, BC (the Site). This memo presents the results of the exploration and preliminary comments for development.

The main objective of this exploration was to determine the general subsurface conditions to determine if the Site is considered suitable for the proposed development.

2.0 PROJECT DESCRIPTION

We understand that the City of Parksville (the City), are looking to develop a site with a recreation facility including an indoor pool, multi-sport facility, parking and associated infrastructure. A plan indicating the proposed development was provided to Tetra Tech via email on August 12, 2020.

No sections or building elevations were available at the time of this study.

3.0 SITE DESCRIPTION

The Site is located just west of the Springwood Water Supply Complex. The Site is bounded on the west by the E & N Railway and Romney Creek to the south. The Site is vegetated with mature trees and thick brush making access difficult. During the site exploration, several dry channels were noted in the area. Based on vegetation observed, it appears that the area may experience seasonal flooding.

4.0 BACKGROUND INFORMATION

4.1 Water Resources

A brief search of the Ministry of Environment and Climate Change Strategy, BC Water Resources Atlas, shows that Romney Creek flows generally north through the study area, in the vicinity of the Springwood Complex. Romney Creek converges with Carey Creek and enters Parksville Bay approximately 2 km north of the Springwood Complex. Romney Creek is often locally referred to as “Carey Creek”.

It is understood that the City extracts groundwater from an underlying aquifer in the local area. Domestic wells are also utilized from properties about 400 m or more to the south. Subsurface information from the well records was limited but available well records generally describe a thin veneer of sand or silt, overlying silt or clay and gravel deposits. These deposits are shown to overlay fine water-bearing sand deposits (interpreted to be the Quadra Sands), underlain by till and shale bedrock.

Information from water well records is limited, however, the lithology record is in general agreement with the surficial geology expected at the Site.

A hydrogeological review was not included in the scope as part of this study but it is understood that Thurber Engineering Ltd. (Thurber) completed a hydrogeological study of the Springwood water supply in 1996.

4.2 Surficial Geology

According to Fyles (1963)[1], the surficial geology at the Site consists of a veneer of marine or glacio-marine deposits overlying Vashon Drift ground moraine deposits of till with lenses of gravel, sand and silt. These deposits subsequently overly the Quadra Sands. The Quadra Sands are deposits of horizontally and cross-stratified, well sorted sand with minor silt and gravel typically underlain by fluvial, estuarine, and marine sediments deposited during the preceding non-glacial interval.

5.0 SITE EXPLORATION

5.1 Site Accessibility

On August 26, Tetra Tech met with a private utility locator and a representative from the City to discuss accessibility and work area requirements. The vegetation at the Site limited access for the initially planned test pit locations and, as a result, more accessible locations were selected.

The City completed access trails and clearing of a work area at each testpit location on August 27, 2020. Kelly’s First Call Locating completed underground utility clearance on August 28, 2020.

Mature trees and heavy vegetation prevented access to the south west area of the proposed development footprint. Additionally, Romney Creek, although dry at the time, would need to be crossed to gain access and may be considered an environmentally sensitive area.

[1] Fyles, J.G. 1963. Surficial Geology of Horne Lake and Parksville Map-Areas, Vancouver Island, British Columbia 92F/7, 92F/8. Geological Survey of Canada Memoir 318, 142 pp.

5.2 Testpit Exploration

The field investigation was completed on August 31, 2020. Two testpits (TP20-01 and TP20-02) were excavated using a mini-excavator (operated by the City) to depths of about 3 m below ground surface, considered to be the practical reach for the mini-excavator.

Tetra Tech's representative for the fieldwork was Mr. Kurt Schluessel who supervised the testpitting, logged the soils and collected disturbed grab samples from the testpit walls up to a depth of 1.2 m. Disturbed grab samples below 1.2 m were collected from the excavator bucket. Soil consistency was inferred and based on visual observation relative to the sampling and excavation operations.

The ground surface elevations included on each of the testpit logs are estimated from a topographic survey provided by Herold.

6.0 LABORATORY TESTING

Natural moisture contents were carried out on select samples and Atterberg Limits (plasticity testing) was carried out on a sample taken at 2.1 m in 20TP-01 and at 3.1 m in 20TP-02 to further determine the soil behavior.

The results of the laboratory testing are presented in the test pit logs and included as Appendix C.

7.0 SUBSURFACE CONDITIONS

The two testpits encountered similar conditions and were in general accordance with surficial geology maps and anticipated conditions from the background review.

Generally, the testpits encountered an organic topsoil horizon overlying a veneer of sand, and silt deposits, overlying clay, inferred to be a glaciomarine deposit. Soil consistencies near surface were inferred to be dense transitioning to very stiff in clay deposits encountered at depths of 1.2 m in TP20-01 and 1.3 m in TP20-02. In 20TP-02, soil consistency was inferred to be firm at approximately 3 m.

Detailed descriptions of the subsurface conditions are presented in the test pit logs, attached as Appendix B.

7.1 Groundwater

Groundwater was not encountered in either test pit, however, the vegetation suggests surface flooding and or higher groundwater elevations likely occur over winter months.

8.0 PRELIMINARY COMMENTS AND RECOMMENDATIONS

Based on limited exploration, the Site is considered suitable for the proposed development. However, the following sections provide key discussion points to consider which were identified during our study.

8.1 Key Discussion Points

Based on our findings of the geotechnical site exploration, key issues to be discussed are as follows:

- *Ground/Surface Water*: Seasonal groundwater will need to be considered and the Hydrogeological/watershed impacts of the development may need further assessment;
- *High Plastic Clay*: Sample G4 at 2.1 m in 20TP-01 was identified as a high plastic clay, with a natural moisture content above the plastic limit. Although the soils have likely been subject to over-consolidative pressures, further exploration and Standard Penetration Testing (SPTs) or Cone Penetration Testing (CPTs) should be completed to confirm the historical stresses;
- *Foundations*: Shallow foundations are likely considered appropriate for this site, however, finished floor elevations and pool floors may need further consideration depending on seasonal groundwater and over-consolidation pressures subjected at the Site;
- *Additional Geotechnical Exploration*: Access was limited to the south west area of the proposed development and drilling to depths greater than 3 m should be completed to confirm site classification, over-consolidation pressures experienced by the clay, and confirm allowable bearing pressures.

8.2 Groundwater

As identified in our background review, the area includes several public and domestic water wells that extend into the underlying aquifer. Groundwater levels could rise significantly during periods of high precipitation and it is recommended that further study of seasonal fluctuations is completed to help determine appropriate floor and pool elevations, relative to the Site.

A hydrogeological assessment may be required as the development could impact the shallow aquifer or surface water flows.

8.3 High Plastic Clay

Atterberg Limits completed on the clay sample in testpit 20TP-01 at 2.1 m identified the clay to be high plastic, with a natural moisture content (34.1%) between the plastic limit (28%) and liquid limit (56%). Natural moisture content of sample G7 at a depth of 2.7 m was significantly higher (52%) and potentially closer to its liquid limit.

Fluctuating groundwater and a change in effective stress could alter the behavior of the clay soils. If the clay has not been subject to higher consolidation pressures, development of the Site could trigger potential settlement. While the results of the Atterberg Limits tests suggest the soils at depth have been subject to over-consolidation pressures, it would be prudent to complete additional SPTs or CPTs during detailed design to confirm the historical stresses of the underlying fine-grained soils.

8.4 Site Classification and Foundations

8.4.1 Site Classification

Based on the results of this study, the site could be classified as Site Class E, however, drilling explorations could confirm a Site Class D classification provided SPTs or CPTs are completed.

8.4.2 Shallow Foundations

A shallow foundation and slab-on-grade floor on the dense to very dense sand soils or engineered fill is considered the most suitable for development at the Site.

The following assumptions would need to be confirmed once additional exploration is completed and further building details are confirmed, such as loads and floor elevations.

Tetra Tech recommends the following parameters for preliminary design of the proposed development.

Table 1: Shallow Foundation Design Parameters

Parameter	Sand Soils or Engineered Fill*
Unfactored Limit State Bearing Capacity*	200 kPa
Geotechnical Resistance Factor	0.5
Factored Limit State Bearing Capacity	100 kPa
Total Settlement of Building Expected	<25 mm

Finished floor elevations and pool subgrades may be founded on different soil stratums which may provide different subgrade reactions. Bearing conditions and site preparations will need to be reviewed once sections are developed and finished floor elevations are established.

8.4.3 Site Preparation

All loose topsoil and organics will need to be removed for foundation preparation. Sub-excavations of about 0.5 m to 0.8 m are anticipated depending on the finished grades of the proposed development. Raising the Site may be desirable depending on seasonal groundwater fluctuations, however, over consolidation of the clay should be confirmed if site grading is to be raised.

Further recommendations on foundation preparations can be provided when further details are known, and additional explorations are completed.

8.4.4 Drainage

As previously noted, seasonal groundwater elevations should be reviewed to determine if specialized foundation drains are required or review if potential buoyancy concerns exist based on pool elevations.

Further comments on drainage can be provided as detailed design progresses.

8.5 Additional Geotechnical Exploration

Access to the footprint of the proposed development and availability of suitable equipment was limited at the time of this study. Clearing access to other areas of the proposed development and completing a drilling exploration is recommended to:

- Confirm subsurface information under the south west footprint of the development;
- Confirm subsurface information below 3 m and confirm Site Classification under Part 4 of the 2018 BCBC;
- Complete additional testing on the clay soils to confirm over consolidation pressures subjected at the Site; and
- Review seasonal groundwater fluctuations.

A recommended drilling program can be provided later during detailed design.

9.0 LIMITATIONS OF REPORT

This report and its contents are intended for the sole use of Herold Engineering Limited and their agents. Tetra Tech Canada Inc. (operating as Tetra Tech) does not accept any responsibility for the accuracy of any of the data, the analysis, or the recommendations contained or referenced in the report when the report is used or relied upon by any Party other than Herold Engineering Limited, or for any Project other than the proposed development at the subject site. Any such unauthorized use of this report is at the sole risk of the user. Use of this document is subject to the Limitations on the Use of this Document attached in the Appendix or Contractual Terms and Conditions executed by both parties.

10.0 CLOSURE

We trust this document meets your present requirements. If you have any questions or comments, please contact the undersigned.

Respectfully submitted,
Tetra Tech Canada Inc.

FILE: VGEO03906-01
FILE: VGEO03906-01
FILE: VGEO03906-01

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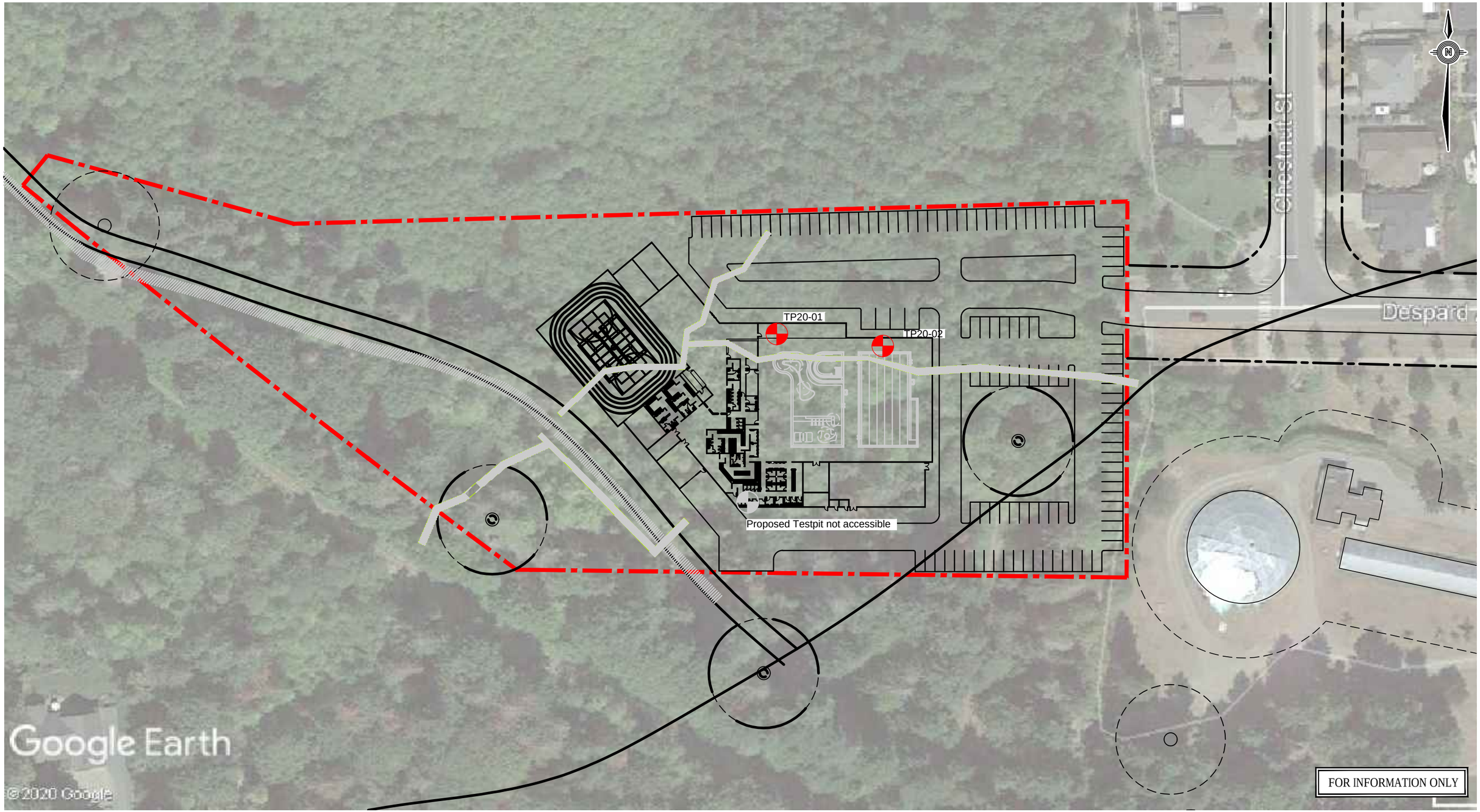
Initials/

FIGURES



LEGEND

Testpit
Site Boundary
Dry Creek Bed

0 50m

Scale: 1:1,000 @ 11"x17"

CLIENT

Herold Engineering Ltd.

PARKSVILLE POOL - PRELIMINARY EXPLORATION ON DESPARD AVENUE W

Site Exploration Plan

TETRA TECH

PROJECT NO.	DWN	CKD	REV
VGEO03906-01	IK		0

OFFICE	DATE
Nanaimo	September 4, 2020

Figure 1

C:\Users\isaac.kitchingman\Desktop\Parksville\2020-06-02 - Parksville Site.dwg [FIGURE 1] September 04, 2020 - 2:18:30 pm (BY: KITCHINGMAN, ISAAC)

APPENDIX A

TETRA TECH'S SERVICES AGREEMENT AND LIMITATIONS ON THE USE OF THIS DOCUMENT

APPENDIX B

TEST PIT LOGS

Herold Engineering

Testpit No: **20TP-01**

Project: Preliminary Geotechnical Investigation	Project No: 704-ENG.VGEO03906-01
Location: Despard Ave W	Ground Elev: 47 m
Parksville, BC	UTM: 402900 E; 5463079 N; Z 10 WGS84

Depth (m)	Method	Core Diameter (mm)	Soil Description	Graphical Representation	Sample Type	Sample Number	Field Vane (kPa) / Plastic Limit, Moisture Content, Liquid Limit	Elevation (m)
0			TOPSOIL. Concrete fragments.					47
			SAND, some gravel, dry, dense (inferred), light brown; sub angular to subrounded gravel; fine to medium sand; rooty organics.			G1		
			SAND, some silt, trace gravel, trace organics, moist, very stiff or dense (inferred), brown; fine sand; ash fragments; rooty organics; fine sand.			G2		
1			- Ash fragments at 0.7 m.					46
	Excavator		- Cobbles at 1.2 m.					
			CLAY, some silt, trace organics, damp to very moist, very stiff (inferred), light brown grey; mottled oxidation; fractured; rooty organics.			G3		
			- Becomes blue grey and thinly bedded at 1.6 m.					
2			- Trace sand at 2.1 m.			G4		45
			- Trace gravel and trace sand at 2.7 m; rounded to subrounded gravel.			G5		
3			End of test pit at 3.0 m. Target depth reached. No groundwater observed. Backfilled with excavation cuttings.			G6		44
4								43
5								42

Field Vane (kPa): Post-Peak, Peak — 10 20 30 40

Plastic Limit, Moisture Content, Liquid Limit — 20 40 60 80

Contractor: City of Parksville	Completion Depth: 3 m
Drilling Rig Type: Excavator	Start Date: 2020 August 31
Logged By: KS	Completion Date: 2020 August 31
Reviewed By: IK	Page 1 of 1

TETRA TECH

Herold Engineering

Testpit No: **20TP-02**

Project: Preliminary Geotechnical Investigation	Project No: 704-ENG.VGEO03906-01
Location: Despard Ave W	Ground Elev: 46.5 m
Parksville, BC	UTM: 402924 E; 5463076 N; Z 10 WGS84

Depth (m)	Method	Core Diameter (mm)	Soil Description	Graphical Representation	Sample Type	Sample Number	Field Vane (kPa) Post-Peak / Peak (10 20 30 40); Plastic Limit / Moisture Content / Liquid Limit (20 40 60 80)	Elevation (m)
0			TOPSOIL.			G1		
			SAND, trace organics, dry, dense (inferred), light brown; mottled oxidation; fine to medium sand; rooty organics. - Silty layer from 0.3 to 0.4 m.			G2 G3		46
1			SAND, silty, trace organics, damp, very stiff (inferred), brown grey; mottled oxidation; rooty organics.			G4		
	Excavator		CLAY, some silt, trace organics, damp, very stiff (inferred), blue grey; mottled oxidation; fractured; rooty organics.			G5		45
2			- Cobbles at 2.0 m.			G6 G7		44
3			- Becomes trace gravel and trace to some sand at 2.9 m. - Becomes moist and firm to stiff (inferred) at 3.0 m.			G8		
			End of test pit at 3.1 m. Target depth reached. No groundwater observed. Backfilled with excavation cuttings.			G9		43
4								42
5								

TETRA TECH

Contractor: City of Parksville	Completion Depth: 3.1 m
Drilling Rig Type: Excavator	Start Date: 2020 August 31
Logged By: KS	Completion Date: 2020 August 31
Reviewed By: IK	Page 1 of 1

APPENDIX C

LABORATORY RESULTS

MOISTURE CONTENT TEST RESULTS

ASTM D2216

Project:	Parksville Pool	Sample No.:	320
Project No.:	704-ENG.VGEO03906-01	Date Tested:	September 1, 2020
Client:	Herold Engineering	Tested By:	EE
Project Engineer:	Andrew Walker, Kurt Schluessel	Page:	1 of 1

B.H. Number	Sample Number Depth (m)	Moisture Content (%)	Visual Description of Soil
20 TP - 01	G2 @ 0.8 m	15.6	SAND, some silt, trace gravel, trace organics, moist, brown
20 TP - 01	G5 @ 2.7 m	52.0	CLAY, trace sand, trace gravel, trace organics, very moist, grey
20 TP - 01	G6 @ 3.0 m	10.3	CLAY, trace sand, trace gravel, moist, grey

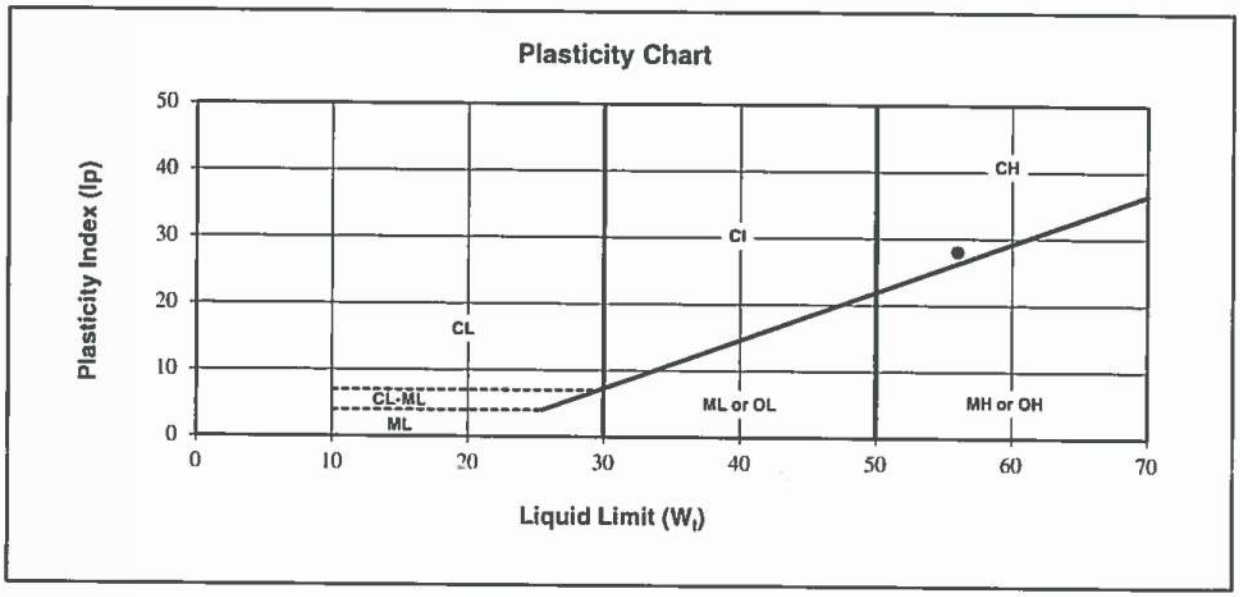
Reviewed By: _____ ASc.T.

ATTERBERG LIMITS TEST REPORT

ASTM D4318

Project:	Parksville Pool Preliminary Geotechnic Investigation	Sample Number:	321
		Borehole Number:	TP20-01
Project No:	704-ENG.VGEO03906-01	Depth:	G4 @ 2.1 m
Client:	Herold Engineering Ltd.	Sampled By:	KS Tested By: BG
Attention:		Date Sampled:	August 31, 2020
Email:		Date Tested:	September 2, 2020

Sample Description: CLAY, trace silt, trace sand, trace organics, moist, grey



Liquid Limit ($W_{1)}$:	56	Natural Moisture (%)	34.1
Plastic Limit :	28	Soil Plasticity:	High
Plasticity Index (Ip) :	28	Mod.USCS Symbol:	CH

Remarks:

Reviewed By: _____ P.Eng.

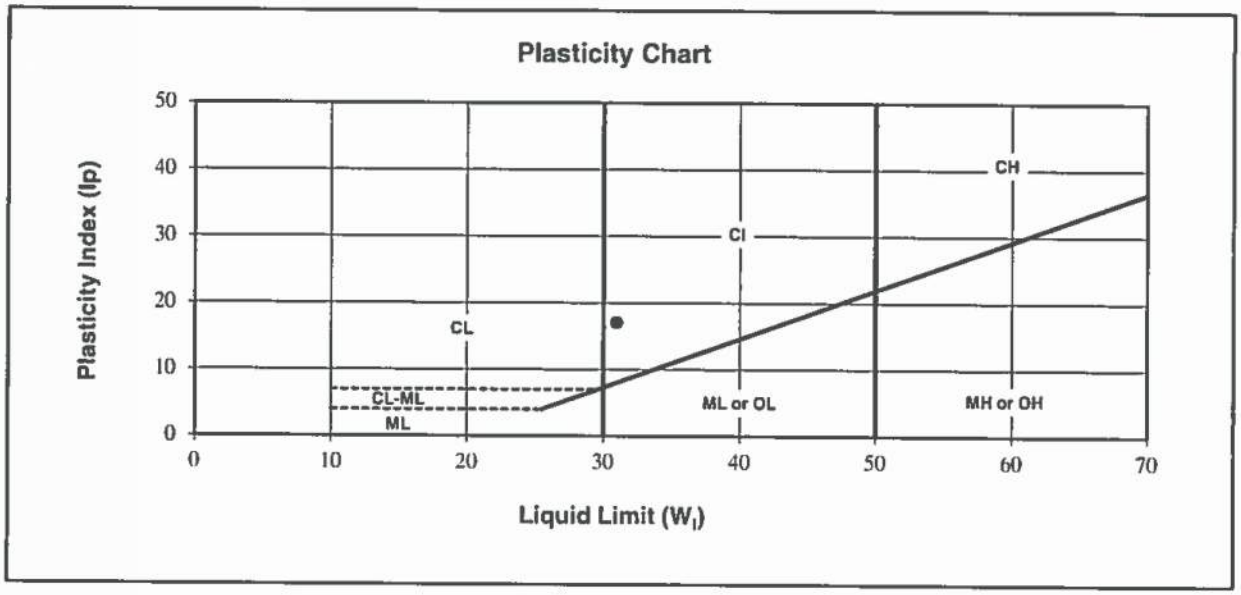
TETRA TECH

ATTERBERG LIMITS TEST REPORT

ASTM D4318

Project:	Parksville Pool Preliminary Geotechnic Investigation	Sample Number:	322
		Borehole Number:	TP20-02
Project No:	704-ENG.VGEO03906-01	Depth:	G9 @ 3.1 m
Client:	Herold Engineering Ltd.	Sampled By:	KS Tested By: BG
Attention:		Date Sampled:	August 31, 2020
Email:		Date Tested:	September 2, 2020

Sample Description: CLAY, some silt, some sand, trace gravel, moist, grey



Liquid Limit ($W_{l)}$:	31	Natural Moisture (%)	26.0
Plastic Limit :	14	Soil Plasticity:	Low to Medium
Plasticity Index (Ip) :	17	Mod.USCS Symbol:	CL-CI

Remarks:

Reviewed By: _____ P.Eng.

TETRA TECH

appendix 05

Class ‘D’ Cost Estimate

205 – 1777 56th Street
Tsawwassen (Delta)
BC V4L 0A6
Canada

T: 604.616.0285
E: info@rtaqs.com
W: www.rtaqs.com

July 7, 2020

HDR ARCHITECTURE ASSOCIATES, INC.
500-1500 West Georgia Street,
Vancouver, BC V6G 2Z6

Attention: **Kristal Stevenot**, OAA, LEED BD+C

PARKSVILLE SPORTSPLEX,
PARKSVILLE, BC
CLASS D CONCEPTUAL DESIGN PROJECT ESTIMATE

We have reviewed the design documents, prepared a Class 'D' Functional Program Order of Magnitude estimate for both options (based on conceptual design sketches and functional program information), and enclose our report.

Pricing has been included at Q3 2020 local unit rates noting the current uncertainty and volatility of the market. Supply chain issues currently being experienced may have unknown (short and long term) impacts on pricing levels and anticipated projected construction escalation.

Please note the conditions on which the costs are based, and the items excluded.

For RTAQS

Ross Templeton MRICS, PQS
Partner

ross@rtaqs.com

Daniel Holland MRICS
Partner

daniel@rtaqs.com

1338

PROJECT DESCRIPTION

The project involves the new build Parksville Sportsplex Facility located in Parksville, BC as described fully in the HDR Architecture concept design package designed and priced to achieve LEED Gold in local dollars:

- **Option 1**
  Pool, and associated rooms, offices, viewing area, storage, changerooms, etc
  Gym with running track surrounding it
  Dry change rooms
  2 multi-purpose rooms
  Café (tenant fit out)
  lobby space
  on grade parking

- **Option 2**
  Pool only and associated amenities and support space
  Associated parking for the pool only
  With the option to add the remainder of the dry services in the future. See attached colour drawing showing the red dashed line indicating where the future expansion would happen.

PROJECT CAPITAL COST ESTIMATE SUMMARY

Total Estimated Project Cost (excluding GST and noted exclusions) by option (all escalated to assumed construction mid-point of Q4 2022):

- **Option 1** $ 49,811,000
- **Option 2** $ 37,289,600

Please refer to the appended Class D estimate for the estimate detail of each component space and costing assumptions.

Class D estimates are typically +/- 25% in accuracy with many variables influencing the final construction price including most importantly the final design scope parameters, final specifications (including any output specification and performance specifications), final drawings, contractors' contractual obligations, extent of supplementary conditions, number of compliant bidders, volatility of the market, supply chain issues and market activity at time of tender.

Pricing has been included at Q3 2020 local unit rates noting the current uncertainty and volatility of the market. Supply chain issues currently being experienced may have unknown (short and long term) impacts on pricing levels and anticipated projected construction escalation.

Please refer to the exclusions section and appended Class D estimate detail and project summary.

PROJECT CALENDAR

A construction start date has not been indicated. We have included an allowance to cover projected anticipated construction escalation calculated to the assumed construction midpoint of Q4 2022.

AREA ANALYSIS

Gross floor areas as measured in conformance to the CIQS Rules of Measurement (excluding site and parking areas):

- Option 1 4,801 m² (51,680 sqft)
- Option 2 3,236 m² (34,832 sqft)

CONTRACT CONDITIONS

The costs are based on the work being executed through a fixed lump sum competitive tender contract on standard form documents with no onerous supplementary conditions. Tenders will be received from at least five qualified bidders with tenders received from three sub-contractors for each major sub-trade (civils, structure, drywall, exterior envelope, pool equipment, speciality construction, mechanical and electrical). Unknown market volatility and supply chain issues at the time of tender have been specifically excluded from this estimate.

EXCLUSIONS

- Legal, financing and soft costs not detailed are excluded
- Soft costs exceeding allowances included for budgeting purposes
- Unforeseen existing ground, site or dewatering conditions
- Out of hours working premium / restricted working hours / restricted noise conditions
- Off-site works (outside the property line)
- Off-site utility upgrades
- Site works beyond allowances included
- Utility company charges beyond allowance included
- Construction works outside the defined scope
- Hazmat Abatement (if any)
- Demolition
- Phasing of the works or Accelerated Schedule
- Development cost charges and Permits beyond allowances included
- Exhibits, Artwork, Public Art
- PassiveHouse or Net Zero design
- Temporary facilities, moving or decanting costs
- Operating, Maintenance and Facility Management Costs
- Loose Fixtures, Furnishings & Equipment (FF&E), Sport, Kitchen & A/V Equipment beyond allowances included
- Café tenant fit out (base build to occupancy is included)
- Pricing based on BCBC 2018 Step Code and does not include future unknown code change cost implications
- Goods & Services Tax (GST)
- Extraordinary market conditions, market volatility and supply chain issues
- Cost escalation past allowance included
- Items listed as ‘excluded’ in the estimate detail

DESIGN PRICING CONTINGENCY

The project is at concept design functional program stage and a design pricing contingency of ten percent (10%) has been included to cover pricing variances that may occur with specification changes, assumptions and design detailing clarifications. This contingency will ultimately reduce to zero at tender stage.

CONSTRUCTION CONTINGENCY

Construction projects are rarely completed without some level of change and often additional scopes of work are required. We recommend the owner carry an additional sum in their budget to help offset any unforeseen costs that may arise during construction. We recommend an amount of five percent (5%) of the construction cost is carried in a separate owner-owned budget which has been included in this estimate.

INFLATION AND MARKET CONDITIONS

Pricing has been included at Q3 2020 local unit rates noting the current uncertainty and volatility of the market. Supply chain issues currently being experienced may have unknown (short and long term) impacts on pricing levels and anticipated projected construction escalation.

Escalation of eleven-point-six percent (11.6%) has been included in the estimate for each option to cover projected anticipated construction escalation to the assumed construction midpoint of Q4 2022 using a projected escalation rate of five percent (5%) per annum (for 2020, 2021 and 2022) compound calculated (noting the above statement).

DOCUMENTS AND DATA

This cost plan estimate has been prepared using the following concept documents (file names noted for reference):

- 2020-06-15 - Parksville Plan-Opt1 Model (1) site
- 2020-06-15 - Parksville Plan-Opt1 Model (1)
- 2020-06-15 - Parksville Plan-Opt2 Model (1) site
- 2020-06-15 - Parksville Plan-Opt2 Model (1)
- 2020-06-17 - Parksville Ouline Spec2
- interactive map image
- CityOf Parksville_Civil dwgs
- Pool Sportsplex_RFP TOR - FINAL 9
- PoolProposal
- Site Pages_Needs Assess. Report_DRAFT_2020.04.29

RTA QS

OPTION 1

Parksville Sportsplex
Parksville, BC
Class D Estimate (Concept Program)
July 7, 2020

PROJECT COST ESTIMATE	OPTION 1		TOTAL ESTIMATED COST
A. LAND COST			**Excluded**
1 Land			Excluded
2 Legal Fees			Excluded
B. ESTIMATED CONSTRUCTION COST (NET Q3 2020 $)			**$30,473,900**
1 Net Building Cost (Q3 2020 $) excluding all contingencies	4,801 m²	$5,622/m²	26,993,900
2 On Grade Site Parking (allowance, including parking circulation, lighting, civils)	120 stalls	$6,500/m²	780,000
3 On Site General Works (allowance)			2,700,000
4 Demolition & HazMat Abatement (if any)			Excluded
5 Off Site Works			Excluded
C. CONSTRUCTION CONTINGENCIES			**$8,816,300**
1 Design Contingency (Design & Program Changes) (Item B x %)	10.0%		3,047,400
2 Escalation Contingency (assumed mid-point construction - Q4 2022) (Item B + C1 x %)	11.6%		3,897,900
3 Post Tender Change Order Contingency (Item B + C1 + C2 x %)	5.0%		1,871,000
D. PROFESSIONAL FEES (ALLOWANCE of B + C)			**$4,321,900**
1 Allowance for Professional Fees	11.00%		4,321,900
E. CONNECTION FEES & PERMITS (ALLOWANCES)			**$1,390,000**
1 Allowance for Development Cost Charges	Allow		660,000
2 Allowance for Building Permits	Allow		230,000
3 Allowance for Utility Connection Fees (Hydro, Fortis, Telus Charges) (Site TBC)	Allow		500,000
F. OWNERS MANAGEMENT & OVERHEAD (ALLOWANCES of B + C)			**$2,062,800**
1 Owners Project Management Fee (allowance)	2.50%		982,300
2 Owners Planning and Administrative Cost (allowance)	1.00%		392,900
3 Project Insurance (allowance)	1.25%		491,100
4 Project Commissioning (allowance)	0.50%		196,500
G. OWNERS SOFT COST PROJECT CONTINGENCY (5% of Items D to F)	5.0%		**$388,700**
SUB-TOTAL (Excluding FF&E)			**$47,453,600**
H. FURNISHINGS, FITTINGS & EQUIPMENT (Allowance of B + C)	6.0%		**$2,357,400**
SUB-TOTAL (Including FF&E)			**$49,811,000**
I. GST (Excluded)	0.0%		**$0**
J. TOTAL PROJECT COST (Excluding Finance Charges & GST)			**$49,811,000**
K. FINANCING CHARGES			**$0**
1 Financing Interest Charges (Excluded)	0.00%		0
L. ESCALATED PROJECT COST (Excluding GST)			**$49,811,000**

STATISTICS	
1 Gross Floor Area (m^2)	4,801 m²
2 Net Building Cost $/$m^2$ (Item B1) (Q3 2020 $ excluding contingencies)	$5,622/m²
3 Total Construction Cost $/$m^2$ (Item B)	$6,347/m²

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Parksville Sportsplex
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BUILDING COST ESTIMATE - OPTION 1 (Q3 2020 Net $ Excluding all contingencies) **OPTION 1**

	Component	Area	Total	
		m²	$/m²	$
1	Multi-Purpose	155	4,750	734,400
2	Reception	47	4,350	204,900
3	Community Lounge and Viewing Area	607	4,450	2,699,400
4	Food services	23	6,149	140,200
5	Storage (dry)	10	3,959	38,400
6	Sports courts, running track	869	5,150	4,472,800
7	Gym Storage	69	3,951	271,400
8	Female Change (sports)	59	5,350	316,700
9	Male Change (sports)	60	5,350	318,300
10	Office (dry)	9	4,054	37,300
11	Lifeguard (wet)	23	4,251	96,500
12	Public washrooms - Male (sports side)	19	5,149	99,900
13	Public washrooms - Female (sports side)	28	5,151	143,200
14	Staff change	54	5,350	287,300
15	Staff corridor at reception	14	4,050	56,300
16	Main custodial	33	3,952	130,800
17	Garbage Recycling/loading/ deliveries	84	4,099	342,700
18	Mop closet	6	3,946	22,100
19	Female Change (Pool)	81	5,650	457,100
20	Male Change (Pool)	80	5,650	452,600
21	Universal Change (Pool)	173	5,750	994,800
22	Aquatics storage/custodial (wet)	58	4,050	235,700
23	Electrical Room	26	3,950	102,300
24	Chemicals	10	3,959	38,400
25	Aquatics Mechanical	309	3,950	1,219,400
26	Raised Aquatic Viewing	96	5,150	495,400
27	Leisure Pool	322	7,250	2,337,400
28	Pool play equipment (lump sum allowance)			1,300,000
29	Hot Tub	76	8,150	615,300
30	Lap Pool	404	7,650	3,089,100
31	Pool Deck	814	5,150	4,193,600
	Sub-Total	4,614	5,622	25,943,700
	Building Gross-Up for non-allocated space, interior/exterior walls, voids	187	5,622	1,050,200
	TOTAL NET BUILDING COST (Q3 2020)	**4,801 m²**	**$5,622/m²**	**$26,993,900**

Exclusions from Net Building Estimate (refer to project pro-forma summary):

- The above estimate is for net building construction cost only.
- Design contingency (10%) and construction contingency (5%) are excluded (refer to project pro-forma summary).
- Site development is excluded (refer to project pro-forma summary).
- Off-site works are excluded (refer to project pro-forma summary).
- Soft costs such as professional fees, DCCs and building permits, management, FF&E are excluded (refer to project pro-forma).
- The above net estimate is priced in current Q3 2020 local dollars. No escalation has been included (refer to project pro-forma).
- Goods & Services Tax

OPTION 2

PROJECT COST ESTIMATE	OPTION 2		TOTAL ESTIMATED COST
A. LAND COST			**Excluded**
1 Land			Excluded
2 Legal Fees			Excluded
B. ESTIMATED CONSTRUCTION COST (NET Q3 2020 $)			**$22,754,300**
1 Net Building Cost (Q3 2020 $) excluding all contingencies	3,236 m²	$5,965/m²	19,301,800
2 On Grade Site Parking (allowance, including parking circulation, lighting, civils)	85 stalls	$6,500/m²	552,500
3 On Site General Works (allowance)			2,900,000
4 Demolition & HazMat Abatement (if any)			Excluded
5 Off Site Works			Excluded
C. CONSTRUCTION CONTINGENCIES			**$6,582,900**
1 Design Contingency (Design & Program Changes) (Item B x %)	10.0%		2,275,400
2 Escalation Contingency (assumed mid-point construction - Q4 2022) (Item B + C1 x %)	11.6%		2,910,500
3 Post Tender Change Order Contingency (Item B + C1 + C2 x %)	5.0%		1,397,000
D. PROFESSIONAL FEES (ALLOWANCE of B + C)			**$3,227,100**
1 Allowance for Professional Fees	11.00%		3,227,100
E. CONNECTION FEES & PERMITS (ALLOWANCES)			**$1,130,000**
1 Allowance for Development Cost Charges	Allow		450,000
2 Allowance for Building Permits	Allow		180,000
3 Allowance for Utility Connection Fees (Hydro, Fortis, Telus Charges) (Site TBC)	Allow		500,000
F. OWNERS MANAGEMENT & OVERHEAD (ALLOWANCES of B + C)			**$1,540,200**
1 Owners Project Management Fee (allowance)	2.50%		733,400
2 Owners Planning and Administrative Cost (allowance)	1.00%		293,400
3 Project Insurance (allowance)	1.25%		366,700
4 Project Commissioning (allowance)	0.50%		146,700
G. OWNERS SOFT COST PROJECT CONTINGENCY (5% of Items D to F)	5.0%		**$294,900**
SUB-TOTAL (Excluding FF&E)			**$35,529,400**
H. FURNISHINGS, FITTINGS & EQUIPMENT (Allowance of B + C)	6.0%		**$1,760,200**
SUB-TOTAL (Including FF&E)			**$37,289,600**
I. GST (Excluded)	0.0%		**$0**
J. TOTAL PROJECT COST (Excluding Finance Charges & GST)			**$37,289,600**
K. FINANCING CHARGES			**$0**
1 Financing Interest Charges (Excluded)	0.00%		0
L. ESCALATED PROJECT COST (Excluding GST)			**$37,289,600**

STATISTICS	
1 Gross Floor Area (m^2)	3,236 m²
2 Net Building Cost $/$m^2$ (Item B1) (Q3 2020 $ excluding contingencies)	$5,965/m²
3 Total Construction Cost $/$m^2$ (Item B)	$7,032/m²

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BUILDING COST ESTIMATE - OPTION 2 (Q3 2020 Net $ Excluding all contingencies) **OPTION 2**

	Component	Area	Total	
		m²	$/m²	$
1	Reception	47	4,349	203,100
2	Community Lounge and Viewing Area	368	4,450	1,637,600
3	Office (dry)	10	4,052	39,300
4	Lifeguard (wet)	23	4,253	95,700
12	Public washrooms - Male	19	5,149	99,900
13	Public washrooms - Female	28	5,149	145,200
14	Staff change	53	5,351	283,600
15	Staff corridor at reception	14	4,052	54,700
17	Garbage Recycling/loading/ deliveries	65	4,100	265,700
19	Female Change (Pool)	82	5,650	460,500
20	Male Change (Pool)	73	5,650	411,900
21	Universal Change (Pool)	184	5,750	1,059,100
22	Aquatics storage (wet)	57	4,051	228,900
23	Electrical Room	25	3,949	100,300
24	Chemicals	10	3,948	37,900
25	Aquatics Mechanical	286	3,950	1,131,300
26	Raised Aquatic Viewing	144	5,150	739,500
27	Leisure Pool	322	7,250	2,337,400
28	Pool play equipment (lump sum allowance)			1,300,000
29	Hot Tub	76	8,150	615,300
30	Lap Pool	404	7,650	3,089,100
31	Pool Deck	848	5,150	4,368,200
	Sub-Total	3,136	5,965	18,704,200
	Building Gross-Up for non-allocated space, interior/exterior walls, voids	100	5,964	597,600
	TOTAL NET BUILDING COST (Q3 2020)	**3,236 m²**	**$5,965/m²**	**$19,301,800**

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- Site development is excluded (refer to project pro-forma summary).
- Off-site works are excluded (refer to project pro-forma summary).
- Soft costs such as professional fees, DCCs and building permits, management, FF&E are excluded (refer to project pro-forma).
- The above net estimate is priced in current Q3 2020 local dollars. No escalation has been included (refer to project pro-forma).
- Goods & Services Tax