

REGIONAL DISTRICT OF NANAIMO  
REGULAR BOARD MEETING  
REVISED AGENDA

Tuesday, October 8, 2024

1:00 P.M.

Board Chambers (Webstreamed)

*This meeting will be recorded*

Pages

1. CALL TO ORDER

2. TERRITORIAL ACKNOWLEDGEMENT

The Chair will respectfully acknowledge the Coast Salish Nations on whose traditional territory this meeting takes place.

3. APPROVAL OF THE AGENDA

(All Directors - One Vote)

That the agenda be approved as presented.

4. IN CAMERA

(All Directors - One Vote)

That pursuant to the following sections of the *Community Charter* the Board proceed to an In Camera meeting:

- 90(1)(k) negotiations and related discussions respecting the proposed provision of a municipal service that are at their preliminary stages and that, in the view of the council, could reasonably be expected to harm the interests of the municipality if they were held in public;
- 90(1)(m) a matter that, under another enactment, is such that the public may be excluded from the meeting;
- 90(1)(o) the consideration of whether the authority under section 91 [other persons attending closed meetings] should be exercised in relation to a council meeting; and
- 90(2)(b) the consideration of information received and held in confidence relating to negotiations between the municipality and a provincial government or the federal government or both, or between a provincial government or the federal government or both and a third party.

5. RECONVENE

6. ADOPTION OF MINUTES

(All Directors - One Vote)

That the following minutes be adopted:

6.1 Regular Board Meeting - September 24, 2024 8

7. INVITED PRESENTATIONS

7.1 Dave Devana, President and CEO, and Harpreet Minhas, Board Director, Nanaimo Airport Commission, re Nanaimo Airport YCD Presentation - Attending in Person

8. CORRESPONDENCE

(All Directors - One Vote)

That the following correspondence be received for information:

8.1 Nathan Cullen, Minister of Water, Land and Resource Stewardship, re Water Supply Planning in the French Creek Water Region, Oceanside Area, Reference 42509 17

8.2 Ravi Kahlon, Minister of Housing, re Letter - Small Scale Multi-Unit Housing Zoning Bylaw, Reference 70193 23

9. COMMITTEE MINUTES

(All Directors - One Vote)

That the following minutes be received for information:

9.1 Drinking Water and Watershed Protection Technical Advisory Committee Meeting - September 11, 2024 25

9.2 Oceanside Services Committee Meeting - September 23, 2024 28

10. CONSENT AGENDA

*Note: Directors may adopt in one motion all recommendations appearing on the Consent Agenda or, prior to the vote, request an item be removed from the Consent Agenda for debate or discussion, voting in opposition to a recommendation, or declaring a conflict of interest with an item.*

*Committee recommendations on the Consent Agenda were Carried Unanimously at the Committee level.*

(Voting rule varies as noted - Unanimous vote required)

That the following items on the Consent Agenda be adopted by consent:

10.1 OCEANSIDE SERVICES COMMITTEE RECOMMENDATIONS

10.1.1 Oceanside Recreation Services Performance Recognition Program 31



(All Directors - One Vote)

That the Board endorse the amended Oceanside Recreation Services Performance Recognition Program Policy C2.2 as provided in Attachment 2.

**11. ITEMS REMOVED FROM THE CONSENT AGENDA**

**12. COMMITTEE RECOMMENDATIONS**

**12.1 OCEANSIDE SERVICES COMMITTEE RECOMMENDATIONS**

**12.1.1 Ravensong Aquatic Centre Expansion Class B Cost Estimate and Project Status September 2024 Update**

38

*Please note: The materials from the presentation made at the Oceanside Services Committee meeting have been added as attachment 6.*

(All Directors - One Vote)

1. That staff be directed to proceed with preparations for a Spring 2025 referendum on borrowing up to thirty million (\$30,000,000) for an expansion to the Ravensong Aquatic Centre.

(Parksville, Qualicum Beach, Electoral Areas E, F, G, H - Weighted Vote)

2. That a contribution of 1.3 million dollars to the Ravensong Aquatic Centre capital reserve fund be reinstated in 2025 to support the expansion project and continued capital maintenance of Ravensong Aquatic Centre.

(All Directors - Weighted Vote)

3. That the 2024-2028 Financial Plan be amended to move \$365,098 of reserve spending from 2025 to 2024 for the Class B costing fees from FaulknerBrowns Architects in the Ravensong Expansion project budget to support resolution #24-172.

(All Directors - Weighted Vote)

4. That a grant application be prepared and submitted to the Federal Green and Inclusive Community Buildings program in support of the Ravensong Aquatic Centre expansion project, and the financial plan be amended accordingly if the grant is successful.

**13. REPORTS**

**13.1 Community Efficiency Financing Feasibility Study Results**

125

(All Directors - One Vote)

That the Regional District of Nanaimo not proceed with the design and implementation of a Community Efficiency Financing Program.

**13.2 Engagement Plan for Phase 2 of the Sea Level Rise and Climate Adaptation Program**

135

(All Directors - One Vote)

1. That the Board approve the Engagement Plan for Phase 2 of the Sea Level Rise and Climate Adaptation Program.

(All Directors - One Vote)

2. That the Board direct staff to communicate the launch of Phase 2 of the Sea level Rise and Climate Adaptation program to the member municipalities and Snuneymuxw, Snaw-Naw-As, and Qualicum First Nations.

**13.3 Development Permit Area for Coastal Flood Hazard — Third Reading and Adoption**

139

*Please note: These bylaws were previously brought forward to the September 10, 2024 Board meeting but were missing maps. The maps are now attached and the bylaws can be read.*

(Electoral Area Directors, except EA B - One Vote)

1. That the Board give third reading to the following Official Community Plan and Zoning amendment bylaws:

a. “Regional District of Nanaimo Electoral Area ‘A’ Official Community Plan Amendment Bylaw No. 1620.10, 2023”;

b. “Regional District of Nanaimo Electoral Area ‘E’ Official Community Plan Amendment Bylaw No. 1400.06, 2023”;

c. “Regional District of Nanaimo Electoral Area ‘G’ Official Community Plan Amendment Bylaw No. 1540.06, 2023”;

d. “Regional District of Nanaimo Electoral Area ‘H’ Official Community Plan Amendment Bylaw No. 1335.09, 2023”, and

e. “Regional District of Nanaimo Land Use and Subdivision Amendment Bylaw No. 500.445, 2023”.

(Electoral Area Directors, except EA B - One Vote / 2/3)

2. That the Board adopt the following Official Community Plan and Zoning amendment bylaws:

a. “Regional District of Nanaimo Electoral Area ‘A’ Official Community Plan Amendment Bylaw No. 1620.10, 2023”;

b. “Regional District of Nanaimo Electoral Area ‘E’ Official Community Plan Amendment Bylaw No. 1400.06, 2023”;

c. “Regional District of Nanaimo Electoral Area ‘G’ Official Community Plan Amendment Bylaw No. 1540.06, 2023”;

d. “Regional District of Nanaimo Electoral Area ‘H’ Official Community Plan Amendment Bylaw No. 1335.09, 2023”, and

e. “Regional District of Nanaimo Land Use and Subdivision Amendment Bylaw

No. 500.445, 2023”.

**13.4 South Wellington School Remediation Project - Recommendation to Allocate Additional Funding** 187

(All Directors - Weighted Vote)

That an additional \$1,100,000 be allocated to the South Wellington School Remediation project from the Electoral Area A Recreation and Culture Reserve Fund and that the 2024-2028 Financial Plan be amended accordingly.

**13.5 Bylaws No. 1917, 1918, 1919 and 1920 - Reserve Fund Establishment** 190

(All Directors - One Vote)

1. That “Administration Operating Reserve Fund Establishment Bylaw No. 1917, 2024” be introduced and read three times.

(All Directors - One Vote / 2/3)

2. That “Administration Operating Reserve Fund Establishment Bylaw No. 1917, 2024” be adopted.

(All Directors - One Vote)

3. That “River’s Edge Water Supply Service Area Operating Reserve Fund Establishment Bylaw No. 1918, 2024” be introduced and read three times.

(All Directors - One Vote / 2/3)

4. That “River’s Edge Water Supply Service Area Operating Reserve Fund Establishment Bylaw No. 1918, 2024” be adopted.

(All Directors - One Vote)

5. That “Nanoose Bay Peninsula Water Service Area Operating Reserve Fund Establishment Bylaw No. 1919, 2024” be introduced and read three times.

(All Directors - One Vote / 2/3)

6. That “Nanoose Bay Peninsula Water Service Area Operating Reserve Fund Establishment Bylaw No. 1919, 2024” be adopted.

(Parksville, Qualicum Beach, Electoral Areas E, F, G, H - Weighted Vote)

7. That “Regional District of Nanaimo District 69 Swimming Pool Local Service Area Operating Reserve Fund Establishment Bylaw No. 1920, 2024” be introduced and read three times.

(Parksville, Qualicum Beach, Electoral Areas E, F, G, H - Weighted Vote / 2/3)

8. That “Regional District of Nanaimo District 69 Swimming Pool Local Service Area Operating Reserve Fund Establishment Bylaw No. 1920, 2024” be adopted.

**14. BYLAWS - WITH NO ACCOMPANYING REPORT**

**14.1 Bow Horn Bay Fire Protection Service Amendment Bylaw No. 1385.12, 2024**

(All Directors - One Vote)

That "Bow Horn Bay Fire Protection Service Amendment Bylaw No. 1385.12, 2024" be adopted.

**15. BUSINESS ARISING FROM DELEGATIONS AND CORRESPONDENCE****16. MOTIONS FOR WHICH NOTICE HAS BEEN GIVEN****16.1 Pilot Program for Hydrogen Fuel Cell Buses**

Director Geselbracht provided notice of the following motion to the Corporate Officer:

(All Directors, except Electoral Areas B and F - Weighted Vote)

That the Regional District of Nanaimo write a letter to the Minister of Transportation and Infrastructure requesting partnership with BC Transit in a pilot program for hydrogen fuel cell buses in the RDN Transit system, which will leverage the local production of hydrogen set to commence in 2026.

**16.2 Coast Waste Management Association Annual Conference**

Director Geselbracht provided notice of the following motion to the Corporate Officer:

(All Directors - Weighted Vote)

That the Regional District of Nanaimo cover the costs for Ben Geselbracht to attend the Coast Waste Management Association annual conference virtually, from October 23-25, 2024, as Regional District of Nanaimo representative to and Chair of the Vancouver Island and Coastal Communities Committee on Solid Waste and Circular Economy.

**17. NEW BUSINESS****18. IN CAMERA**

(All Directors - One Vote)

That pursuant to the following sections of the *Community Charter* the Board proceed to an In Camera meeting:

- 90(1)(a) personal information about an identifiable individual who holds or is being considered for a position as an officer, employee or agent of the municipality or another position appointed by the municipality;
- 90(1)(e) the acquisition, disposition or expropriation of land or improvements, if the council considers that disclosure could reasonably be expected to harm the interests of the municipality;
- 90(1)(g) litigation or potential litigation affecting the municipality;
- 90(1)(i) the receipt of advice that is subject to solicitor-client privilege, including communications necessary for that purpose;

- 90(1)(k) negotiations and related discussions respecting the proposed provision of a municipal service that are at their preliminary stages and that, in the view of the council, could reasonably be expected to harm the interests of the municipality if they were held in public; and
- 90(1)(m) a matter that, under another enactment, is such that the public may be excluded from the meeting.

**\*18.1 Add Community Charter Sections 90(1)(a)(g)(i)**

90(1)(a) personal information about an identifiable individual who holds or is being considered for a position as an officer, employee or agent of the municipality or another position appointed by the municipality;  
90(1)(g) litigation or potential litigation affecting the municipality; and  
90(1)(i) the receipt of advice that is subject to solicitor-client privilege, including communications necessary for that purpose.

**19. ADJOURNMENT**

(All Directors - One Vote)

That the meeting be adjourned.

**REGIONAL DISTRICT OF NANAIMO  
MINUTES OF THE REGULAR BOARD MEETING**

**Tuesday, September 24, 2024  
1:00 P.M.  
Board Chambers (Webstreamed)**

In Attendance:	Director V. Craig*	Chair
	Director S. McLean	Vice Chair
	Director J. Stanley	Electoral Area A
	Director L. Melanson	Electoral Area C
	Director B. Rogers	Electoral Area E
	Director L. Salter	Electoral Area F
	Director L. Wallace	Electoral Area G
	Director L. Krog	City of Nanaimo
	Director S. Armstrong	City of Nanaimo
	Director T. Brown*	City of Nanaimo
	Director B. Geselbracht*	City of Nanaimo
	Director E. Hemmens	City of Nanaimo
	Director P. Manly*	City of Nanaimo
	Director J. Perrino*	City of Nanaimo
	Director I. W. Thorpe*	City of Nanaimo
	Director D. O'Brien	City of Parksville
	Director S. Wood	City of Parksville
	Director M. Swain	District of Lantzville
	Director T. Westbroek*	Town of Qualicum Beach
Also in Attendance:	Alternate	
	Director J. Ringwald	Electoral Area E
	Alternate	
	Director H. Eastmure*	City of Nanaimo
	Alternate	
	Director J. Grenz*	City of Parksville
	T. Osborne	A/Chief Administrative Officer
	C. Crabtree	Gen. Mgr. Corporate & Transportation Services
	B. Routledge	A/Gen. Mgr. Regional & Community Utilities
	P. Thompson	A/Gen. Mgr. Development & Emergency Services
	J. Hill	Corporate Officer
	S. Patrickson	Zoom Moderator
	S. Keizer	Recording Secretary

\* Denotes electronic meeting participation as authorized by Section 10 of "Regional District of Nanaimo Board Procedure Bylaw No. 1862, 2022".

**CALL TO ORDER**

The Chair called the meeting to order.

**TERRITORIAL ACKNOWLEDGEMENT**

The Chair respectfully acknowledged the Coast Salish Nations on whose traditional territory this meeting took place.

Chair Craig passed the Chair to Vice Chair McLean.

Vice Chair McLean assumed the role of Chair for the remainder of the meeting.

Director Geselbracht joined the meeting at 1:01 P.M.

Director Westbroek joined the meeting at 1:02 P.M.

Director Brown joined the meeting at 1:02 P.M.

**APPROVAL OF THE AGENDA**

24-474

It was moved and seconded that the agenda be approved as presented.

CARRIED UNANIMOUSLY

**ADOPTION OF MINUTES**

24-475

It was moved and seconded that the following minutes be adopted:

Regular Board Meeting - September 10, 2024

CARRIED UNANIMOUSLY

**DELEGATIONS - ITEMS NOT ON THE AGENDA**

**Jack Tieleman and Paul Chapman, Nanaimo & Area Land Trust, re Annual Report - Attending in Person**

Jack Tieleman and Paul Chapman provided an overview of the Nanaimo & Area Land Trust (NALT) and provided an update of NALT's activities in 2023. The delegate requested that the Board continue annual funding of \$40,000 in 2025.

**COMMITTEE MINUTES**

24-476

It was moved and seconded that the following minutes be received for information:

Electoral Area Services Committee Meeting - September 5, 2024

Special Electoral Area Services Committee Meeting - June 19, 2024

Special Electoral Area Services Committee Meeting - July 4, 2024

Special Electoral Area Services Committee Meeting - September 9, 2024

Regular Committee of the Whole Meeting - September 10, 2024

CARRIED UNANIMOUSLY

## **CONSENT AGENDA**

24-477

It was moved and seconded that the following items on the Consent Agenda be adopted by consent:

8.1.1 Development Permit and Site Specific Exemption Application No. PL2024-009, Lot B Ruffels Road, Electoral Area F

8.1.2 French Creek Estuary Nature Preserve Management Plan

8.1.3 Review of Manufactured Home Park Redevelopment Tenant Assistance Policy

8.2.1 Bylaw Enforcement and Length of Stay in Recreational Vehicles

8.2.2 Bylaw 500 Review and Update Project

CARRIED UNANIMOUSLY

The items and recommendations referred to above are as follows:

## **ELECTORAL AREA SERVICES COMMITTEE RECOMMENDATIONS**

**Development Permit and Site Specific Exemption Application No. PL2024-009, Lot B Ruffels Road, Electoral Area F**

24-478

That the Board approve Development Permit No. PL2024-009 to permit the construction of a dwelling unit subject to the conditions outlined in Attachment 3.

ADOPTED ON CONSENT

24-479

That the Board exempt Lot B, District Lot 139, Nanoose District, Plan EPP135642 from Section 11(d) of Bylaw 1872 to allow the construction of a dwelling unit less than 1.5 metres above the natural boundary of a pond.

ADOPTED ON CONSENT



**French Creek Estuary Nature Preserve Management Plan**

24-480

To refer the French Creek Estuary Nature Preserve Management Plan to Emergency Services to ensure the fire services access and egress is confirmed with the City of Parksville and the Town of Qualicum Beach Fire Departments.

ADOPTED ON CONSENT

**Review of Manufactured Home Park Redevelopment Tenant Assistance Policy**

24-481

That a review of the Manufactured Home Park Redevelopment Tenant Assistance Policy be undertaken during Phase 2 of the Bylaw 500 update project.

ADOPTED ON CONSENT

**SPECIAL ELECTORAL AREA SERVICES COMMITTEE RECOMMENDATIONS**

**Bylaw Enforcement and Length of Stay in Recreational Vehicles**

24-482

That the Board suspend bylaw enforcement for length of stay of existing recreational vehicles located in Campgrounds, Resort Vehicle Parks and Recreational Vehicle Parks in Electoral Areas A, C, E, F, G, and H until the completion of Phase Two of the Bylaw 500 Review except in circumstances where:

- a. It is determined that there are risks to health and safety;
- b. It is determined there is a risk to the environment;
- c. It is determined that sewage is not being disposed of in an approved septic or sewage disposal system; or that septic or sewage disposal systems are being used in excess of capacity;
- d. It is determined that there is contamination of wells or other drinking water sources.

ADOPTED ON CONSENT

24-483

That no additional contravention or unlawful expansion of a Campground, Resort Vehicle Parks and Recreational Vehicle Parks takes place during the enforcement of length of stay suspension.

ADOPTED ON CONSENT

**Bylaw 500 Review and Update Project**

24-484

That the Board direct staff, following the adoption of Bylaw 2500 and in conjunction with Phase 2 of Bylaw 500 review and update project, to review the limitation on length of stay in a recreational vehicle and provide recommendations and community input on potential options to allow full time stays within a recreational vehicle.

ADOPTED ON CONSENT

24-485

That the Board direct staff, following the adoption of Bylaw 2500, to prepare a report and updated draft Policy B1.7 – Strata Conversion Policy and Guidelines for the Board’s consideration.

ADOPTED ON CONSENT

24-486

That the Board direct staff, following the adoption of Bylaw 2500, to prepare a report and recommendations for allowing building strata conversion in more land use designations and exploring the possibility of amending the Regional Growth Strategy and applicable Official Community Plans to develop a density neutral approach to allowing the conversion of existing two lot rural building strata developments to a bare land strata or fee simple subdivision.

ADOPTED ON CONSENT

24-487

That the Board direct staff, following the adoption of Bylaw 2500, to prepare a draft policy and guidelines on Additions, Replacement, and New Buildings on Parcels Containing a Building Strata Development.

ADOPTED ON CONSENT

24-488

That the Board direct staff, following the adoption of Bylaw 2500, as a priority project to prepare a separate report and recommendations for initiating a process to consider amendments to the Regional Growth Strategy, applicable Official Community Plans, and zoning regulations for all parcels zoned Rural Residential 2 by Bylaw 2500 that are designated Subdivision District ‘D’ that allow two dwelling units on a parcel greater than 2.0 hectare to reduce the minimum parcel size to Subdivision District ‘F’ (1.0 hectare minimum parcel size) with one dwelling unit per parcel.

ADOPTED ON CONSENT

**ITEMS REMOVED FROM THE CONSENT AGENDA**

None

**COMMITTEE RECOMMENDATIONS**

**ELECTORAL AREA SERVICES COMMITTEE RECOMMENDATIONS**

**Development Permit with Variance Application No. PL2022-100, 3702 Alberni Highway, Electoral Area F**

The Chair called for members of the public wishing to speak to Development Permit with Variance Application No. PL2022-100, 3702 Alberni Highway, Electoral Area F.

No one in attendance wished to speak.

24-489

It was moved and seconded that the Board approve Development Permit with Variance No. PL2022-100 to permit the construction of a convenience store and gas station subject to the terms and conditions outlined in Attachment 3.

CARRIED UNANIMOUSLY

**Development Permit with Variance and Site Specific Exemption Application No. PL2021-191, 6265 Island Highway West, Electoral Area H**

The Chair called for members of the public wishing to speak to Development Permit with Variance and Site Specific Exemption Application No. PL2021-191, 6265 Island Highway West, Electoral Area H.

No one in attendance wished to speak.

24-490

It was moved and seconded:

1. That the Board approve Development Permit with Variance No. PL2021-191 to reduce the setback from a watercourse from 18 metres from the stream centerline to 3.9 metres for a proposed dwelling unit subject to the conditions outlined in Attachment 3.
2. That the Board exempt Lot 2, District Lot 21, Newcastle District, Plan 11567 from Section 10(b) of "Regional District of Nanaimo Flood Hazard Mitigation Bylaw No. 1872, 2023" to allow structural support for a dwelling unit within 15 metres of the natural boundary of a watercourse.

CARRIED UNANIMOUSLY

**Zoning Amendment Application No. PL2022-026, 1211 & 1221 Meadowood Way, Electoral Area F, Amendment Bylaw 1285.40, 2024 - Introduction**

24-491

It was moved and seconded that the Board receive the Summary Report of the Community Engagement as provided in Attachment 3.

Opposed (1): Director Stanley

CARRIED

24-492

It was moved and seconded that the Conditions of Approval as provided in Attachment 5 be completed prior to Amendment Bylaw No. 1285.40 being considered for adoption.

Opposed (1): Director Stanley

CARRIED

24-493

It was moved and seconded that the Board read “Regional District of Nanaimo Electoral Area ‘F’ Zoning and Subdivision Amendment Bylaw No. 1285.40, 2024” as provided in Attachment 6, two times.

Opposed (1): Director Stanley

CARRIED

24-494

It was moved and seconded that the Board direct the Public Hearing on “Regional District of Nanaimo Electoral Area ‘F’ Zoning and Subdivision Amendment Bylaw No. 1285.40, 2024”, be delegated to Director Salter.

CARRIED UNANIMOUSLY

### **Bylaw Amendments 991 and 1022 - Coombs-Hilliers and Nanoose Bay Fire Departments**

Director Melanson left the meeting at 1:19 P.M.

24-495

It was moved and seconded that the “Nanoose Fire Protection Local Service Area Establishment and Boundary Amendment Bylaw No. 991.04, 2024” be introduced and read three times.

CARRIED UNANIMOUSLY

24-496

It was moved and seconded that the “Coombs-Hilliers Fire Protection Service Amendment Bylaw No. 1022.09, 2024” be introduced and read three times.

CARRIED UNANIMOUSLY

**Bylaw 1385 Amendment - Bow Horn Bay Fire Protection Area**

Director Melanson rejoined the meeting at 1:20 P.M.

24-497

It was moved and seconded that the “Bow Horn Bay Fire Protection Service Amendment Bylaw No. 1385.12, 2024” be introduced and read three times.

CARRIED UNANIMOUSLY

**SPECIAL ELECTORAL AREA SERVICES COMMITTEE RECOMMENDATIONS**

**Bylaw 500 Review and Update Project - Section 3 Amendments**

24-498

It was moved and seconded that:

1. Phase two of the Bylaw 500 update and review project begin as soon as possible, with a first draft presented by the end of 2025, and that the 2025-2029 financial plan be prepared accordingly.
2. The Board direct staff to not define heat pumps as a structure in Bylaw 2500 and that any potential regulation of heat pumps be considered in phase 3 of the Bylaw 2500 process.

CARRIED UNANIMOUSLY

**REPORTS**

**Bylaw 500 Review and Update Project - Bylaw 2500 Second Reading**

24-499

It was moved and seconded that the Board receive the Summary of What We Heard included as Attachment 1.

CARRIED UNANIMOUSLY

24-500

It was moved and seconded that the Board give second reading, as amended, to “Regional District of Nanaimo Zoning Bylaw No. 2500, 2024” as provided in Attachment 5.

CARRIED UNANIMOUSLY

24-501

It was moved and seconded that the Public Hearing on “Regional District of Nanaimo Zoning Bylaw No. 2500, 2024” be chaired by Director Rogers or alternatively another Electoral Area Director.

CARRIED UNANIMOUSLY

**NEW BUSINESS**

Director Geselbracht provided notice of the following motion to the Board for consideration at the next Board meeting:

That the Regional District of Nanaimo write a letter to the Minister of Transportation and Infrastructure requesting partnership with BC Transit in a pilot program for hydrogen fuel cell buses in the Regional District of Nanaimo Transit System, which will leverage the local production of hydrogen set to commence in 2026.

**ADJOURNMENT**

It was moved and seconded that the meeting be adjourned.

CARRIED UNANIMOUSLY

TIME: 1:27 P.M.

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CHAIR

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CORPORATE OFFICER

**From:** Minister, WLRS WLRS:EX <[WLRS.Minister@gov.bc.ca](mailto:WLRS.Minister@gov.bc.ca)>

**Sent:** Wednesday, September 4, 2024 11:00 AM

**To:** Vanessa Craig <[vanessa.craig@rdn.bc.ca](mailto:vanessa.craig@rdn.bc.ca)>

**Cc:** Miller, Lana L WLRS:EX <[Lana.Miller@gov.bc.ca](mailto:Lana.Miller@gov.bc.ca)>

**Subject:** Re: Water Supply Planning in the French Creek Water Region (Oceanside Area) (Reference: 42509)

Reference: 42509

September 4, 2024

**VIA EMAIL:** [vanessa.craig@rdn.bc.ca](mailto:vanessa.craig@rdn.bc.ca)

Dear Vanessa Craig:

Please find attached a letter from Honourable Nathan Cullen, regarding water supply planning in the French Creek Water Region.

Sincerely,

Office of the Minister  
Ministry of Water, Land and Resource Stewardship

Attachments (2)

pc: Lana Miller, Director of Water Sustainability, Watershed Stewardship and Security Branch



Reference: 42509

September 4, 2024

**VIA EMAIL:** [vanessa.craig@rdn.bc.ca](mailto:vanessa.craig@rdn.bc.ca)

Vanessa Craig, Board Chair  
Regional District of Nanaimo

Dear Vanessa Craig:

Thank you for your letter of July 3, 2024, regarding water supply planning in the French Creek Water Region (Oceanside Area). I appreciate the effort the Regional District of Nanaimo has put towards the recent technical work undertaken with the Phase 3 Water Budget Model and other work identifying water supply issues for French Creek.

I understand the Regional District is requesting the Province establish and resource a multi-agency organization to discuss a regional water supply strategy for the French Creek Water Region. I agree that developing collaborative, multi-jurisdictional relationships and a shared understanding of the issues for a particular watershed are important for advancing long-term water planning work.

In the Ministry of Water, Land and Resource Stewardship (WLRS), the Watershed Stewardship and Security Branch supports water governance and planning initiatives. This branch extends knowledge and expertise in watershed planning tools and governance approaches available through the *Water Sustainability Act*. Much has been learned from the recent experience of co-developing the first and currently only designated Water Sustainability Plan with Cowichan Tribes for the Koksilah Watershed. While it would not be appropriate in the context of a pending provincial election to launch new planning projects and/or commit to providing multi-year resourcing, your request is noted and will be tracked by the Watershed Stewardship and Security Branch.

As with any watershed initiative, it is important to connect with potential project partners, to collaboratively identify watershed goals, define the issues, and determine priorities. This work will be valuable preparation for formally establishing a water planning initiative. Early discussions about potential options for resource requirements will also be helpful. Thank you for your ongoing efforts in this regard.

Page 1 of 2



Vanessa Craig, Board Chair, Regional District of Nanaimo

On March 6, 2023, the Province made a historic investment of \$100 million towards the formation of the Watershed Security Fund. The Fund was established through collaboration between the Province of British Columbia and the BC First Nations Water Table and represents a significant milestone in safeguarding the health of our province's watersheds. For more information about Fund's grant program and current call for proposals for 2024/25, go to: <https://watershedsecurityfund.ca/>.

I encourage you to reach out to Lana Miller ([Lana.Miller@gov.bc.ca](mailto:Lana.Miller@gov.bc.ca)) to discuss how some of the water planning and governance tools in the *Water Sustainability Act* may help to address priorities for the French Creek Water Region.

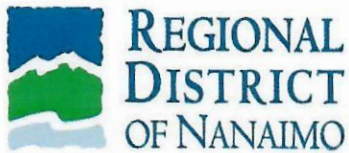
Again, thank you for writing and sharing your concerns.

Sincerely,



Nathan Cullen  
Minister

pc: Lana Miller, Director of Water Sustainability, Watershed Stewardship and Security Branch



July 3, 2024

The Honourable Nathan Cullen  
Minister of Water, Land and Resource Stewardship  
PO Box 9012 Stn Prov Govt  
Victoria, BC V8M 9L6

VIA EMAIL: [WLRs.Minister@gov.bc.ca](mailto:WLRs.Minister@gov.bc.ca)

**Re: Water Supply Planning in the French Creek Water Region (Oceanside Area)**

Dear Minister:

On behalf of the Regional District of Nanaimo (RDN) Board, I am writing to inform you of an important technical study recently received by the RDN regarding water supply in the French Creek Water Region, and to formally request of your ministry that an appropriately resourced body be struck to initiate discussions on a regional water supply strategy for the French Creek Water Region/Oceanside Area.

On February 27, 2024, the Regional District of Nanaimo (RDN) Board received the *Phase 3 Water Budget Model for French Creek Water Region*<sup>1</sup> (the Study), a significant technical report summarizing detailed numerical modelling and assessment of the surface water and groundwater sources in the French Creek Water Region. This study provides a foundational scientific basis for water supply planning on a regional scale, in an area commonly known as "Oceanside" that extends from Parksville to Qualicum Beach and includes the surrounding rural areas such as Coombs and Errington.

This area on the east coast of Vancouver Island is generally bounded by the surface water bodies of Little Qualicum River to the northwest and Englishman River to the southeast, with the focus on French Creek in the centre of the region. All three of these watercourses are provincially designated sensitive streams (per Water Sustainability Regulation Schedule B). The Study area also includes the ten groundwater aquifers that intersect the French Creek basin. These aquifers include the groundwater supply areas for four RDN Water Service Areas, the Town of Qualicum Beach, the City of Parksville, EPCOR French Creek, along with other smaller privately operated water systems and many private wells.

The French Creek Water Region is within the traditional territory of the Qualicum, Snaw-Naw-As, K'ómoks and Snuneymuxw First Nations. These Nations do not currently source community drinking water supply from the aquifers and surface water bodies in this Study, as their drinking water supplies come from other sources in the region. The waterbodies and aquifers in this area are nevertheless ecologically and culturally important, as well as important community drinking water sources.

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<sup>1</sup> Phase 3 Water Budget Model for French Creek Water Region - final report (Dec 2023) <https://rdn-pub.escribemeetings.com/filestream.ashx?DocumentId=35683>



The numerical model developed for this Study characterized water input (supply) and output (demand) within the surface water and groundwater sources in the French Creek Water Region. It assembled available data to calculate water budgets and conduct stress assessments for current average, dry, and wet season conditions for the ten aquifers in the Study Area, including assessment of potential effects on groundwater baseflow in major rivers/creeks within the area. The Study also included a preliminary Environmental Flow Needs (EFN) assessment for French Creek, using the provincial EFN Policy's interim risk management framework. It is worth noting that the Study's focus was regional in scale and not intended to dictate operational requirements or restrictions on any specific ground water user. Notable in this context is that the Town of Qualicum Beach has initiated localized, more granular studies to provide better insight into the flow of groundwater to their specific well fields.

The Study shows that several aquifers in the Study area are currently under high stress, with the inflow to the aquifers not always keeping up with the outflow. Under future scenarios of climate change, build-out, and land cover change, these areas will remain highly stressed. The model also suggests that in certain aquifers within the study area, groundwater contributing to river baseflow is a significant factor, alongside the demands from communities and industries. The input or supply of precipitation alone is insufficient to meet these demands, especially considering climate change scenarios.

The stressors facing the water supply in the French Creek Water Region can be summarized as:

- 1) localized drought and climate change impacts resulting in low streamflows, declining groundwater levels and mounting seasonal water demands;
- 2) growth and development pressures, both within municipal boundaries per recent housing legislation (Bill 44) and in rural/semi-rural communities outside of municipally serviced areas (due to the general desirability of the area);
- 3) fragmented water service delivery (i.e., numerous water purveyors with different governance structures, varying levels of infrastructure, shared and differing sources (both groundwater and surface water), and uneven natural availability/resilience of supply).

Addressing these challenges effectively will require a coordinated, regional approach. The results from the Phase 3 French Creek Water Budget project, though coarse, indicate the critical need for collaboration, strategizing, and joint decision-making across multiple levels of government and water purveyors to support long-term water supply planning, management, and distribution in the region.<sup>2</sup>

After receiving the Study at their February 27, 2024 meeting, the RDN Board passed the following motions:

1. *That the Board receive the Phase 3 Water Budget Model for French Creek Water Region report.*
2. *That Regional District of Nanaimo staff consider the results of the French Creek Water Budget when developing Official Community Plan updates and related policies such as Development Permit Areas for aquifer protection and rainwater management.*

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<sup>2</sup> This finding is consistent with resolution EB38 on Regional Water Supply Strategies endorsed at the Union of BC Municipalities Convention in 2023. As stated in that resolution, the RDN sees the Provincial government as best positioned to compel participation and formalize a process for this type of collaboration to take place.

3. *That the Regional District of Nanaimo Board take advantage of any available opportunity to encourage the major water purveyors in the French Creek Water Region to undertake more granular studies of their well fields and make that work publicly available to advance understanding of the water resources available in the region.*
4. *That the Regional District of Nanaimo Board direct staff to write a letter on behalf of the Regional District of Nanaimo to the Ministry of Water, Land and Resource Stewardship to formally request that an appropriately resourced body be struck to initiate discussions on a regional water supply strategy for the French Creek Water Region/Oceanside Area.*

To advance this fourth motion, the RDN is formally requesting, by way of this letter, the leadership, functional participation, and supportive resources of the Ministry of Water, Land and Resource Stewardship and other relevant provincial ministries in initiating a body to facilitate inter-agency discussions on this topic. Members of the inter-agency body (e.g., an advisory board, working group, or commission) could include the Regional District of Nanaimo, First Nations, Provincial ministries, and municipal and community water purveyors.

The focus of this body would be long-term water supply planning across service areas, given the geographic disparity in water supply and demand, and given the current and future outlook on aquifer stress in the French Creek Water Region/Oceanside area, demonstrated by the Study findings described above. At the direction of the Province, the body could explore a more coordinated, regional approach to water supply planning, management, and distribution, and contemplate relevant area-based plans and/or new regulatory tools available under the *Water Sustainability Act* for a regional water supply strategy in the French Creek Water Region. It could also explore major infrastructure needs or landscape scale environmental protections.

Formal multi-agency discussions are the next step forward to address long-term water supply planning and collaborative governance for this drought-prone and growing area of British Columbia. The Province's ability to compel participation and provide resources to support engagement will be necessary to support this work. The RDN's Drinking Water and Watershed Protection service is available to help facilitate the process in any way that would be helpful. We look forward to hearing from you and your staff on advancing this request.

Sincerely,



Vanessa Craig, Chair

Regional District of Nanaimo

T: 250-741-4589 | Email: [vanessa.craig@rdn.bc.ca](mailto:vanessa.craig@rdn.bc.ca)

cc: Douglas Holmes, Chief Administrative Officer, RDN  
Keeva Kehler, Chief Administrative Officer, City of Parksville  
Lou Varela, Chief Administrative Officer, Town of Qualicum Beach  
Elizabeth Hughes, Senior Manager, Strategy and Intergovernmental Services, RDN  
Murray Walters, Manager, Water Services, RDN  
Erica Forssman, Program Coordinator, Drinking Water and Watershed Protection, RDN



September 16, 2024

Reference: 70193

Jacquie Hill  
Manager of Legislative Services/Corporate Officer  
Regional District of Nanaimo  
6300 Hammond Bay Road  
Nanaimo BC V9T 6N2  
Email: [jhill@rdn.bc.ca](mailto:jhill@rdn.bc.ca)

Dear Jacquie Hill:

Thank you for the Regional District of Nanaimo's applications for extensions to the small-scale multi-unit housing (SSMUH) zoning bylaw requirements pursuant to section 786 of the *Local Government Act* ("Act"), submitted to the Province on May 29, 2024. I apologize for the delay in responding.

I have considered the applications in accordance with the legislation. The extensions requested are refused as they lack sufficient evidence to demonstrate that immediate infrastructure upgrades are needed to mitigate risk to public health, safety, or the environment, nor that any of the other requisite conditions for an extension to be granted exist.

The Regional District of Nanaimo must adopt a zoning bylaw that complies with section 481.3 of the Act in relation to the areas for which an extension has been requested within 90 days from when this letter is dated.

As with all new legislation, the Province will be monitoring the SSMUH framework closely to ensure it is working as intended. To date, the majority of communities throughout BC have adopted SSMUH legislation through the passing of local bylaws. Given the urgency of the housing crisis, I urge the Regional District of Nanaimo to adopt a SSMUH-compliant bylaw for these areas at the earliest opportunity.

Page 1 of 2

Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ravi Kahlon', with a stylized flourish at the end.

Ravi Kahlon  
Minister of Housing

CC: Paul Thompson, Manager of Current Planning  
Douglas Holmes, Chief Administrative Officer  
The Honourable Josie Osborne, MLA, Mid Island-Pacific Rim  
The Honourable Sheila Malcomson, MLA, Nanaimo  
Doug Routley, MLA, Nanaimo-Cowichan



**REGIONAL DISTRICT OF NANAIMO**  
**MINUTES OF THE DRINKING WATER AND WATERSHED PROTECTION TECHNICAL**  
**ADVISORY COMMITTEE MEETING**

**Wednesday, September 11, 2024**  
**12:30 P.M.**  
**Board Chambers**

In Attendance: M. Walters Chair  
S. Barroso Hydrogeologist  
S. Doiron City of Parksville  
R. Dickinson Town of Qualicum Beach  
J. Doyle Ministry of Water, Land and Resource Stewardship  
M. Estok Environmental Community  
N. Goeller Hydrologist  
P. Law General Public (North)  
W. Luedke Fisheries and Oceans Canada  
P. Jorgenson Forest Industry  
M. Ryn Agricultural Community  
W. Shulba Islands Trust  
S. Sowa Island Health  
M. Squire City of Nanaimo

Regrets: R. Barlak Ministry of Environment & Climate Change Strategy  
S. Blackburn General Public (South)  
V. Rogers Water Purveyors  
G. Morphy District of Lantzville  
A. Gilchrist Academic Community (Vancouver Island University)  
N. Schneider Ministry of Transportation and Infrastructure

Also in Attendance: S. Boven City of Parksville  
A. Defoor City of Parksville  
E. Forssman Regional District of Nanaimo  
L. Fegan Regional District of Nanaimo  
C. Brugge Regional District of Nanaimo  
O. Thoms Regional District of Nanaimo  
R. Graves Recording Secretary

## **CALL TO ORDER**

The Chair called the meeting to order.

## **TERRITORIAL ACKNOWLEDGEMENT**

The Chair respectfully acknowledged the Coast Salish Nations on whose traditional territory this meeting took place.

## **APPROVAL OF THE AGENDA**

It was moved and seconded that the agenda be approved as presented.

CARRIED UNANIMOUSLY

## **ADOPTION OF MINUTES**

It was moved and seconded that the minutes of the Drinking Water and Watershed Protection Technical Advisory Committee meeting held May 22, 2024, be adopted.

CARRIED UNANIMOUSLY

## **ROUNDTABLE UPDATES**

Committee members provided updates on current issues and projects from their perspectives / organizations.

## **INVITED PRESENTATIONS**

### **William Shulba, Islands Trust, re Freshwater Balance Methodology Project with Gabriola Island as a Case Study**

William Shulba, Islands Trust, presented the upcoming Islands Trust Area Freshwater Footprint Methodology Project that will seek to address freshwater vulnerabilities posed by development, population growth, and climate change in the Islands Trust Area. This project is being initiated with Gabriola Island as a practical case study to support the ongoing Gabriola Official Community Plan project.

## **STAFF PRESENTATIONS**

### **Summer 2024 Regional Drought Response Summary**

Staff presented on the Summer 2024 Regional Drought Response. This season, the Drinking Water and Watershed Protection program coordinated an update to the Regional Water Conservation Framework and convened regular meetings of regional water suppliers. Regional District of Nanaimo Water Systems responded to drought through implementing water conservation stages that aligned with Provincial drought ratings. The Drinking Water and Watershed Protection program also developed and distributed communication and outreach materials to educate residents on water conservation strategies highlighting connections between drinking water sources and the health of freshwater ecosystems.



## **Community Watershed Monitoring Network 2023 Results and Sub Watershed Trend Analysis**

Staff shared highlights of results from the 2023 Community Watershed Monitoring Network which collected surface water quality samples on 66 sites, 40 streams, and 26 watersheds across the region. In this program, the Regional District of Nanaimo partners with stewardship groups across the region to collect data on turbidity, oxygen, temperature, and specific conductivity on stream systems. This informs restoration and enhancement prioritization and will feed into a strategic planning process for the Drinking Water and Watershed Protection's water monitoring programs in 2025.

## **Team Water Smart – Summer Review & Upcoming Outreach**

Staff provided an overview of recent Team Water Smart events and upcoming events for the rest of 2024. Over the next few months, Team Water Smart will be participating in World Rivers Day events on September 22 and 23 on the Nanaimo River and Englishman River, they will have a booth at the Cedar Farmers Market, and they will be hosting two WellSmart Workshops for private domestic well users. Drinking Water and Watershed Protection will also be running watershed field trips for students in School District 68 and 69, and hosting events for the Youth Ambassadors Program.

## **Residential Irrigation Check-Ups / Irrigation Calculator**

Staff provided a presentation on the summer Residential Irrigation Check program. This summer, 18 check-ups were conducted. Staff also shared information about the BC Landscape Water Calculator that will provide Regional District of Nanaimo residents with specific information on irrigation efficiency and water smart garden planning using a GIS mapping application.

## **Stewardship Seed Funding 2024 Projects**

This presentation was deferred to the next Drinking Water and Watershed Protection Technical Advisory Committee meeting in November.

## **NEW BUSINESS**

### **Cedar Yellowpoint Water Budget Phase 3 Scoping**

Staff introduced the scope for the upcoming Phase 3 Cedar Yellowpoint Water Budget which will look at surface water and groundwater quantity and connectivity in eight aquifers and several surface water sources in the Regional District of Nanaimo's Electoral Areas A and C, the southern extent of the City of Nanaimo, as well as in the Cowichan Valley Regional District's Area H. This project aims to look at current and future scenarios that include climate change, water use, and land cover change to better understand sustainable groundwater extraction levels. This upcoming study is an ongoing component of the Regional District of Nanaimo's Water Budget Project which is looking at priority areas in the region that are seeing stress on local water sources.

## **ADJOURNMENT**

It was moved and seconded that the meeting be adjourned.

CARRIED UNANIMOUSLY

TIME: 3:19 P.M.

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CHAIR

**REGIONAL DISTRICT OF NANAIMO  
MINUTES OF THE OCEANSIDE SERVICES COMMITTEE MEETING**

**Monday, September 23, 2024  
1:30 P.M.**

**City of Parksville Council Chambers (Webstreamed)**

In Attendance:	Director S. Wood	Chair
	Director T. Westbroek	Vice Chair
	Director B. Rogers	Electoral Area E
	Director L. Salter	Electoral Area F
	Director S. McLean	Electoral Area H
	Director D. O'Brien	City of Parksville
Regrets:	Director L. Wallace	Electoral Area G
Also in Attendance:	Alternate	
	Director J. Ringwald	Electoral Area E
	T. Osborne	Gen. Mgr. Recreation & Parks
	L. Grant	Gen. Mgr. Development & Emergency Services
	D. Marshall	Sr. Mgr. Transportation Services
	D. Banman	Mgr. Recreation Services
	E. Beauchamp	Mgr. Emergency Services
	J. Hill	Mgr. Legislative Services
	J. Hopewell	Supt. Recreation Program Services (North)
	H. Mahoney	Supt. Aquatic Services
	J. Beaubier	Climate Change & Resilience Coordinator
	K. Komjati	Business Administrator
	C. Holt	Committee Clerk
	A. Harvey	Recording Secretary

**CALL TO ORDER**

The Chair called the meeting to order.

**TERRITORIAL ACKNOWLEDGMENT**

The Chair respectfully acknowledged the Coast Salish Nations on whose traditional territory this meeting took place.

**APPROVAL OF THE AGENDA**

It was moved and seconded that the agenda be approved as presented.

CARRIED UNANIMOUSLY

**ADOPTION OF MINUTES**

It was moved and seconded that the following minutes be adopted:

Oceanside Services Committee Meeting - June 10, 2024

CARRIED UNANIMOUSLY

## **CORRESPONDENCE**

It was moved and seconded that the following correspondence be received for information:

T. Cargo-White, Arrowsmith Community Recreation Association, re Leader in Training Program Support

B. McGibbon, Former Leader in Training, re Leader in Training Program Support

Constable M. Eills, RCMP School Liaison Officer, re Leader in Training Program Support

Arrowsmith Community Recreation Association, re 2025 Recreation Services Agreement Budget Proposal

Lighthouse Recreation, re Lighthouse Recreation Services Report 2024

CARRIED UNANIMOUSLY

## **INVITED PRESENTATIONS**

**Warren Scheske and Kate Busby, FaulknerBrowns Architects Inc., re Updated Design and Class B Costing for Ravensong Aquatic Centre September 2024 Report - Attending in Person**

Warren Scheske presented the updated design and Class B costing for the Ravensong expansion project and answered questions from the committee.

## **REPORTS**

**Ravensong Aquatic Centre Expansion Class B Cost Estimate and Project Status September 2024 Update**

It was moved and seconded that staff be directed to proceed with preparations for a Spring 2025 referendum on borrowing up to thirty million (\$30,000,000) for an expansion to the Ravensong Aquatic Centre.

CARRIED UNANIMOUSLY

It was moved and seconded that a contribution of 1.3 million dollars to the Ravensong Aquatic Centre capital reserve fund be reinstated in 2025 to support the expansion project and continued capital maintenance of Ravensong Aquatic Centre.

Opposed (2): Director Rogers and Director Salter

CARRIED

It was moved and seconded that the 2024-2028 Financial Plan be amended to move \$365,098 of reserve spending from 2025 to 2024 for the Class B costing fees from FaulknerBrowns Architects in the Ravensong Expansion project budget to support resolution #24-172.

CARRIED UNANIMOUSLY

It was moved and seconded that a grant application be prepared and submitted to the Federal Green and Inclusive Community Buildings program in support of the Ravensong Aquatic Centre expansion project, and the financial plan be amended accordingly if the grant is successful.

CARRIED UNANIMOUSLY

**Oceanside Recreation Services Performance Recognition Program**

It was moved and seconded that the Board endorse the amended Oceanside Recreation Services Performance Recognition Program Policy C2.2 as provided in Attachment 2.

CARRIED UNANIMOUSLY

**2024 Oceanside Community Safety Grant**

It was moved and seconded that \$1,500 of the Oceanside Community Safety Grant be awarded to the Parksville Chamber of Commerce to support cybersecurity training and the relaunch of the Oceanside Volunteer Association.

DEFEATED UNANIMOUSLY

**STAFF PRESENTATION**

**Kelly Valade, Recreation Coordinator, Youth, re Youth Recreation**

Kelly Valade presented to the committee about youth recreation services and programs, such as community partnerships and Leaders in Training, in District 69.

**IN CAMERA**

It was moved and seconded that pursuant to the following sections of the *Community Charter* the Committee proceed to an In Camera meeting:

- 90(1)(e) the acquisition, disposition or expropriation of land or improvements, if the council considers that disclosure could reasonably be expected to harm the interests of the municipality; and
- 90(1)(k) negotiations and related discussions respecting the proposed provision of a municipal service that are at their preliminary stages and that, in the view of the council, could reasonably be expected to harm the interests of the municipality if they were held in public.

CARRIED UNANIMOUSLY

TIME: 3:20 P.M.

**ADJOURNMENT**

It was moved and seconded that the meeting be adjourned.

CARRIED UNANIMOUSLY

TIME: 3:45 P.M.

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CHAIR



REGIONAL  
DISTRICT  
OF NANAIMO

## OCEANSIDE RECREATION SERVICES PERFORMANCE RECOGNITION PROGRAM

### **RECOMMENDATION**

That the Board endorse the amended Oceanside Recreation Services Performance Recognition Program Policy C2.2 as provided in Attachment 2.

### **BACKGROUND**

The Performance Recognition Program Policy C2.2 was approved by the RDN Board in 2010 after recommendation from the District 69 Recreation Commission (Attachment 1). The program was created in response to a request from a delegation from the BC Seniors Games representatives at a District 69 Recreation Commission meeting.

The first recognition ceremony took place in 2010. There were regular ceremonies held twice annually until 2020, when the COVID-19 pandemic led to an interruption of competition and an inability to host events. In 2023, the recognition ceremony resumed with 53 nominees who had achieved first place standings in their sport, arts or cultural events since the last ceremony.

The recognition of the achievements has been well received by both the recipients and the Electoral Area Directors involved in the ceremony and there is interest in continuing the recognition of commitment to an active and engaged lifestyle.

The recommended changes included in the amended policy as Attachment 2 include:

- Definitions added
- Replaces District 69 Recreation Commission with Oceanside Services Committee
- The Performance Recognition Ceremony will be held once annually instead of twice
- Specifies what type of recognition recipients will receive
- Outlines responsibilities
- Reformats Section 5 Eligibility requirements and 5.1 Eligibility to include; Amateur competitors who have been chosen by their sport, art or cultural organization to represent Canada at a recognized international competition. This change is an enhancement from the original requirement that they must achieve gold or first place standing at this level.

## **FINANCIAL IMPLICATIONS**

The 2025-2029 Financial Plan includes \$4,200 for the redemption of gift certificates and ceremony costs for 2025, this is a \$1,000 increase from 2024. There have been 415 nominees who have redeemed 246 gift certificates with combined value of \$18,450 over the 14 years since the program's inception in 2010. Most of the costs incurred are for the gift certificates with a small portion allocated to the celebration event.

## **STRATEGIC PLAN ALIGNMENT**

Planning and Managing for Growth - Understand and develop an inter-connected framework of strategies and plans to manage growth to support complete communities, including planning, transportation, infrastructure, and fiscal sustainability.

## **REVIEWED BY:**

- D. Banman, Manager, Recreation Services
- T. Osborne, General Manager, Recreation and Parks Services
- D. Holmes, Chief Administrative Officer

## **ATTACHMENTS**

1. 2010 Performance Recognition Program for District 69 Individuals or Groups Board Policy C2.2
2. 2024 Oceanside Recreation Services Performance Recognition Board Policy C2.2

# REGIONAL DISTRICT OF NANAIMO

## POLICY

SUBJECT:	<b><i>Performance Recognition Program for District 69 Individuals or Groups</i></b> (Recreation and Parks)	POLICY NO: C2.2 CROSS REF.:
EFFECTIVE DATE:	June 22, 2010	APPROVED BY: BOARD
REVISION DATE:		PAGE: 1 of 2

### PURPOSE

To establish a policy for the recognition of individuals or groups who have achieved a gold medal or first place standing in a provincial, inter-provincial, national or international sport or arts competition.

### POLICY

Performance recognition is given to:

1. Gold medalists in a recognized sport at a provincial, inter-provincial, national or international championship.
2. Gold medalist or highest standing in visual or performing arts in a provincial, inter-provincial, national or international competition.
3. Residents of Electoral Area's 'E', 'F', 'G' and 'H', City of Parksville or the Town of Qualicum Beach.
4. Amateur athletes, performers and artists.

Nominations must be made in writing using the applicable nomination form, providing details of the recipient and the competition.

Eligible recipients will be recognized by the District 69 Recreation Commission during a regular meeting or at a special meeting/ceremony.



Performance Recognition Program  
Nomination Form

Nominee's Name \_\_\_\_\_

Address \_\_\_\_\_

Postal Code \_\_\_\_\_ Telephone \_\_\_\_\_

Email \_\_\_\_\_

Sport or artistic endeavour \_\_\_\_\_

Name of club/association represented \_\_\_\_\_

Circle the appropriate level of competition/championship/arts festival:

Provincial      Inter-Provincial      National      International

Name of competition/championship/arts festival \_\_\_\_\_

Place/rank/standing achieved \_\_\_\_\_

Date of competition/championship/arts festival \_\_\_\_\_

Nominated by \_\_\_\_\_ Signature \_\_\_\_\_

Address \_\_\_\_\_

Postal Code \_\_\_\_\_ Telephone \_\_\_\_\_

Email \_\_\_\_\_

Date Submitted \_\_\_\_\_



## 1. PURPOSE

- 1.1. To establish a policy for the recognition of individuals who have committed themselves to an active and engaged lifestyle in their pursuit of recreational activities and achieved high level accomplishments in a sport, artistic or cultural competition.

## 2. DEFINITIONS

“Board” means the Regional District of Nanaimo Board of Directors.

“RDN” means the Regional District of Nanaimo.

“Amateur” means they engage in the activity for recreation and not as a profession.

## 3. SCOPE

- 3.1. This policy applies to the City of Parksville, Town of Qualicum Beach, Electoral Area E, F, G and H.

## 4. RESPONSIBILITY

- 4.1. The RDN Recreation department staff are responsible for accepting the nominations and reviewing them for eligibility and coordinating recognition for all qualified applicants.
- 4.2. The Oceanside Services Committee Chair or designate is responsible for the annual delivery of the recognition at an event scheduled at or around an Oceanside Services Committee meeting.

## 5. POLICY

### 5.1. Eligibility Criteria

- 5.1.1. Amateur competitors who achieve first place standing in a sport, artistic or cultural competition at a provincial, inter-provincial or national competition.
- 5.1.2. Amateur competitors who have been chosen by their sport, art or cultural organization to represent Canada at a recognized international competition.

5.2. Application Process

5.2.1. Applications will be accepted throughout the year and collected for the next eligible intake by Recreation staff.

5.3. Recognition

5.3.1. All eligible applicants will receive:

- a) A certificate of recognition from the Oceanside Services Committee
- b) A gift certificate for RDN Recreation up to a maximum of \$75.00
- c) An invitation for an annual recognition ceremony at or around an Oceanside Services Committee meeting.

**6. APPENDICES**

6.1. The following appendices are attached hereto and form part of this policy:

Appendix A: Oceanside Recreation Services Performance Recognition Nomination Form

<b>Department</b>	Recreation	<b>Approval Date</b>	
<b>Resolution No.</b>		<b>Amendment Date(s)</b>	
		<b>Next Scheduled Review Date</b>	

Appendix A

Oceanside Recreation Services  
Performance Recognition Nomination Form

Individuals Name \_\_\_\_\_

Address \_\_\_\_\_

Postal Code \_\_\_\_\_ Phone \_\_\_\_\_

Email \_\_\_\_\_

Type of sport artistic or cultural endeavor: \_\_\_\_\_

Name of organization, club or association nominee represented at event:

\_\_\_\_\_

Competition level:

Provincial  Inter-Provincial  National  International

Event Name (sport, artistic or cultural event) \_\_\_\_\_

Individual's achievement (placement in competition) \_\_\_\_\_

Date and year of competition \_\_\_\_\_

Nominated by \_\_\_\_\_

Phone \_\_\_\_\_

Email \_\_\_\_\_

Date signed \_\_\_\_\_



REGIONAL  
DISTRICT  
OF NANAIMO

**RAVENSONG AQUATIC CENTRE EXPANSION CLASS B COST ESTIMATE AND PROJECT STATUS  
SEPTEMBER 2024 UPDATE**

Please note: The materials from the presentation made at the Oceanside Services Committee meeting have been added as attachment 6.

**RECOMMENDATIONS**

1. That staff be directed to proceed with preparations for a Spring 2025 referendum on borrowing up to thirty million (\$30,000,000) for an expansion to the Ravensong Aquatic Centre.
2. That a contribution of 1.3 million dollars to the Ravensong Aquatic Centre capital reserve fund be reinstated in 2025 to support the expansion project and continued capital maintenance of Ravensong Aquatic Centre.
3. That the 2024-2028 Financial Plan be amended to move \$365,098 of reserve spending from 2025 to 2024 for the Class B costing fees from FaulknerBrowns Architects in the Ravensong Expansion project budget to support resolution #24-172.
4. That a grant application be prepared and submitted to the Federal Green and Inclusive Community Buildings program in support of the Ravensong Aquatic Centre expansion project, and the financial plan be amended accordingly if the grant is successful.

**BACKGROUND**

At the March 26, 2024, Regional Board Meeting the following resolution was approved as recommended by the District 69 Swimming Pool Service Select Committee on March 7, 2024:

*#24-172*

*That the Ravensong Aquatic Centre Expansion Project proceed with Class B costing for the Original Option (OO) ref # 21-628 for advancement to an Elector Approval process to secure the required funds for the project.*

The staff report that was considered at both the March 7, 2024 District 69 Swimming Pool Service Select Committee and the March 26, 2024 Regional Board Meeting is included for reference (Attachment 1).

As part of the costing exercise an updated Class C estimate was prepared and presented to the Oceanside Services Committee on June 10, 2024, with a progress update.

FaulknerBrowns Architects have completed the Class B costing estimates and will be providing a presentation to the Oceanside Services Committee to review the key details. A summary of their presentation has been included as Attachment 2. The Class B Estimate is included as Attachment 3. As outlined on page 2 and summarized in Table 1, the Class B estimate for the project is \$29,219,700. For reference, Class B Estimates are based on design development drawings and outline specifications, which include the preliminary design of all major systems and subsystems, whereas Class C Estimates are based on schematic or conception designs. Further class definitions can be found in the Public Service and Procurement Canada [Documentation and Deliverable Manual](#).

Author: Dean Banman, Manager, Recreation Services

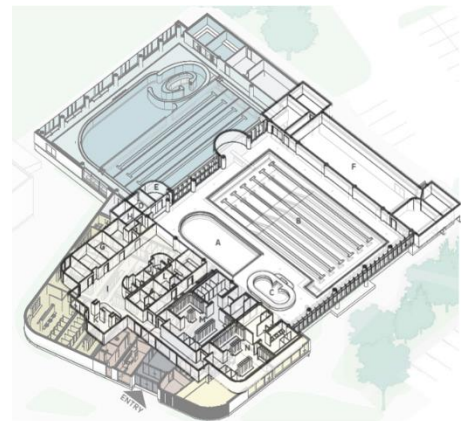
Table 1 Class B Cost Estimate

<b>Construction Cost Summary</b>	<b>Class B Estimate August 2024</b>	<b>Class C Estimate April 2024</b>	<b>2024 Class B-C Variance</b>	<b>Class C Estimate June 2022</b>
Site Development	1,238,700	1,232,000		1,115,000
New Building Construction	16,805,100	14,889,700		13,524,000
Existing Building Interior Renovations	1,968,000	3,086,000		2,694,100
Off Site Work Allowances	120,000	120,000		100,000
<b>Construction Subtotal</b>	<b>20,131,800</b>	<b>19,327,700</b>	<b>4%</b>	<b>17,433,100</b>
Soft & Project Costs	7,578,000	6,997,000		6,310,000
<b>Project Total</b>	<b>27,709,800</b>	<b>26,324,700</b>	<b>5%</b>	<b>23,743,100</b>
Construction Escalation Contingency (12 months)	1,509,900	1,932,800		1,743,300
<b>Project Total with Escalation</b>	<b>29,219,700</b>	<b>28,257,500</b>	<b>3%</b>	<b>25,486,400</b>

The key design elements have focused on the priorities identified in stakeholder engagement sessions. The aquatic features include an additional lane pool, leisure pool and a lazy river, additional universal change rooms, improved gendered changerooms and on deck viewing options. Non-aquatic features include two multipurpose rooms, a gathering space with view of the pool and improved steam and dry sauna amenities. Table 2 outlines the overall impact on the space of the building.

Table 2 Ravensong Aquatic Centre Expansion Overview

<b>Overall Building</b>	<b>Area</b>
Retained	1,019 m <sup>2</sup>
New Additions	1,814 m <sup>2</sup>
<b>New Design Total</b>	<b>2,833 m<sup>2</sup></b>
Area Difference	x1.70



A separate price item that staff feel is important to the project is a sequenced construction to strive for minimal disruption to aquatic services for both staff and the public. The workplan includes three closures throughout the construction period. The first closure would be at start of construction, another at the transition between the existing facilities to the new natatorium (swimming pool) space and a short closure at the end of construction. The cost premium of the sequenced construction is estimated to be \$642,100 found on page 3 of Attachment 3 and an addition to the overall construction schedule of a minimum six (6) months. The overall construction schedule including the sequencing is estimated to be 24 - 28 months. The Class C estimate completed in 2022 provided for the structural preparations for a future second floor in the amount of \$560,000 and has been included in the project cost.

In addition to the base expansion design (Class B Estimate), under a separate agreement with FaulknerBrowns, the RDN commissioned an energy and emissions modelling study of the Ravensong Aquatic Centre for the RDN's Corporate Carbon Neutral 2032 initiative, Green Building Policy, Energy Policy, and Wood First Policy. This work identified design features needed to: align with the RDN's policy requirements, achieve sustained corporate carbon neutrality by 2032 and be competitive for high value grants.

In addition to the base expansion design (Class B Estimate), which already reduces emissions and energy use with highly efficient electric air source heat pumps, two options were examined for impacts to cost, greenhouse gas emissions, and energy: an Enhanced Design, and a Net Zero Design.

The Enhanced Design meets the requirements of the RDN’s Wood First Policy, Energy Policy, and Green Building policy. It focuses primarily on measures to reduce emissions from materials and implement the wood first policy, improve energy efficiency, and implement onsite renewable energy generation. The Net Zero Design includes all measures in the Enhanced Design but achieves further emission reductions through full facility electrification, including a required electrical service upgrade. This level (Net Zero) of emission reductions meets the RDN’s policies and aligns best with the RDN’s target for sustained corporate carbon neutrality. Attributes of the two designs are presented in the table below, alongside those of the base expansion design.

**Table3 Energy Modelling Emission Reductions and Lifetime Energy Savings**

	<b>Base Expansion<sup>2</sup></b>	<b>Enhanced Design</b>	<b>Net Zero Design</b>
<b>Lifetime emissions (tCO<sub>2</sub>e)<sup>1</sup> – 30 years</b>	1,254	1,173	600
<b>Lifetime energy savings (\$) <sup>3</sup> – 30 years</b>	-	\$156,690	\$595,590
<b>Capital cost</b>	Base + \$0	Base + \$823,350	Base + \$5,489,550

<sup>1</sup>Calculation excludes emissions savings achieved from using low carbon materials

<sup>2</sup> Base Expansion = Class B Cost estimate of \$29,219,700

<sup>3</sup>Compared to Base Expansion design

The costs to implement a Net Zero design are significantly higher due to the approximately \$2 million electrical service upgraded needed for additional electrification. It is recommended that the RDN include the costs (\$5,489,550) of the Net Zero design option in the total borrowing cost as it aligns best with the decarbonization objectives of the RDN’s Corporate Carbon Neutral 2032 Plan and makes the RDN eligible to apply for the competitive federal Green and Inclusive Community Buildings Grant (GIBC), which covers up to 60% of capital costs but has stringent requirements for minimizing carbon emissions and energy use. The project value is above the normal \$25 million cut-off for the grant but would be considered by the funder on a case-by-case basis.

The Net Zero Design option allows the RDN to demonstrate community leadership in facility design and emissions reductions, while meeting policy requirements and decarbonization objectives. The decision to pursue this option needs to be weighed with the following fiscal considerations: 1) the additional greenhouse gas reductions achieved come at a very high cost for the emissions avoided, 2) there is also more uncertainty in the added electrification costs as these are provided at a lower than class B estimate accuracy.

Attachment 4 provides a summary of key dates in the workplan leading to a Spring 2025 referendum and through to project completion. If recommended by the Oceanside Services Committee and approved by the Board, a subsequent report will be presented at the October 22, 2024, regular Board meeting, that fulfills the legislative requirements to proceed with a Spring 2025 referendum. This report will include the bylaw establishing the question to be used for the referendum and the Loan Authorization Bylaw for consideration of the Board. Additionally, recommendations will be made to the Board for appointing election officials (regional voting officer, deputy regional voting officer, chief election officer and deputy chief election officer) as required under the *Local Government Act*.

Provided the recommendations are supported by the Board, staff will work with RDN Communications to develop an engagement plan for the referendum that will be shared with the Board at a later date.

## **FINANCIAL IMPLICATIONS**

The 2024-2028 Financial Plan included project costs for the Ravensong Aquatic Centre Expansion project in the amount of \$31,541,799. The funding of this project was budgeted as \$7,123,758 from the reserve fund, \$24,261,117 from long-term borrowing, and an additional \$156,924 in operational funds. The 2024-2028 Financial Plan also included \$240,000 for referendum costs. This amount will be carried forward to 2025 in anticipation of a spring 2025 referendum.

The 2024-2028 Financial Plan also includes projected changes (Pro forma) to both annual revenue and expenses with an expansion to Ravensong Aquatic Centre. Upon completion annual operating expense are projected to increase by \$1 million dollars with revenue increasing annually by \$100,000 initially and 2% in later years. These projections do not include any savings or reductions shown in Table 3 above.

The Class B Estimate is \$29,219,700, the energy and emissions reduction costs are estimated at \$5,489,550 and project management costs for RDN staff plus any other professional fees are estimated at \$775,850 for 36 months of construction and building commissioning time. The table below summarizes the expenses and the project funding.

<b>Expenses</b>	
Class B Estimate	29,219,700
Sequenced construction	642,100
Energy and emissions costs (Net Zero Design)	5,489,550
Project Management Staff and other fees	1,050,632
<b>Total</b>	<b>\$36,401,982</b>
<b>Revenue</b>	
Long-term borrowing	30,000,000
Operating fund	274,782
Reserve funds	6,127,200
<b>Total</b>	<b>\$36,401,982</b>

The project budget includes costs for construction elements identified as priorities including structural preparations for a future second floor and a sequenced construction to strive for minimal disruption to aquatic services. The estimated incremental cost for these items is \$1,202,100 (\$642,100 for sequenced construction and \$560,000 for structural preparations).

Staff recommended the RDN apply to the federal Green and Inclusive Community Buildings Fund for grant funding. The application window for this grant closes October 16, 2024. This fund provides up to 60% of capital funding for buildings that provide services to currently underserved communities and achieve very high standards of energy efficiency and emissions management. The RDN would only be eligible to apply for this highly competitive grant if the Net Zero design, including all recommended emission and energy reduction measures is submitted. Lower amounts of funding may also be available through the Federation of Canadian Municipalities (FCM) Green Municipal Fund, BC Hydro, and Fortis BC. Receiving the grant funding would significantly reduce the borrowing required for the project.

The long-term borrowing amount of \$30,000,000 results in annual debt repayments of approximately \$2,399,977 assuming a 20-year borrowing period and an estimated interest rate of 4.5%. Using the 2024 Revised Roll Assessment and the 2024 Average Residential Values, the annual cost of debt servicing to area residents has been approximated in the table below.

Participant	Annual Debt Repayment (\$)	Impact per Avg Household (\$)	Average Residential Value (\$)
City of Parksville	633,594	70.49	745,143
Town of Qualicum Beach	650,394	122.48	937,823
EA E	107,999	29.12	1,260,809
EA F	400,796	92.80	802,034
EA G	436,796	109.46	996,940
EA H	170,398	60.86	902,915
<b>Total</b>	<b>2,399,977</b>		

All amounts are approximate as interest rates are subject to change and grant funding could reduce borrowing costs. Future staff implications have been reflected in the Financial Plan.

Another item to be addressed is funding of the reserve fund for the facility. At the September 12, 2023 Board meeting, the following resolution was approved as recommended by the District 69 Swimming Pool Service Select Committee as the expansion project was on hold at that time.:

*#23-439*

*That the renovation of the Ravensong Aquatic Facility be put on hold and be re-examined in 2025, and that contributions to reserves for renovations at the Ravensong Aquatic Centre be set at zero for the 2024 budget.*

As noted in the March 7, 2024 staff report (Attachment 1) that upon approval of the above resolution, the 2024 budget and approved Five Year Financial Plan were reduced by \$1,328,392. With the expansion project now taking place in addition to ongoing capital infrastructure and equipment needs for the existing facility, staff are recommending a contribution of \$1,300,000 be reinstated in 2025 to support the expansion project and continued capital maintenance of Ravensong Aquatic Centre. The Ravensong Aquatic Centre Expansion project budget has accounted for an annual contribution and any reduction of the contribution would increase the requirement for borrowing.

Attachment 5 provides a financial plan capital summary of this project.

**STRATEGIC PLAN ALIGNMENT**

Planning and Managing for Growth - Understand and develop an inter-connected framework of strategies and plans to manage growth to support complete communities, including planning, transportation, infrastructure, and fiscal sustainability.

**REVIEWED BY:**

- K. Komjati, Business Administrator
- J. Beaubier, Climate Change and Resilience Coordinator
- J. Hill, Manager, Legislative Services
- T. Moore, Chief Financial Officer
- T. Osborne, General Manager, Recreation and Parks
- D. Holmes, Chief Administrative Officer

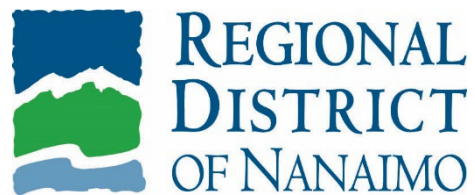


## **ATTACHMENTS**

1. Attachment 1 - March 7, 2024 Staff Report - Expansion Options for Ravensong Aquatic Centre - D69SPSC
2. Attachment 2 – FaulkerBrowns OSC Presentation Summary
3. Attachment 3 - Ravensong Aquatic Centre Expansion - Class B Estimate
4. Attachment 4 - Design Development/Class B Costing Schedule Update
5. Attachment 5 - Ravensong Aquatic Centre Expansion Financial Plan Summary
6. Attachment 6 - FaulknerBrowns Architects Sep. 23 Presentation to OSC, re Updated Design and Class B Costing for RAC

## ATTACHMENT 1

### March 7, 2024 Staff Report - Expansion Options for Ravensong Aquatic Centre - D69SPSC





## EXPANSION OPTIONS FOR RAVENSONG AQUATIC CENTRE

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### **RECOMMENDATIONS**

That the Ravensong Aquatic Centre Expansion Project proceed with Class B costing for the full expansion (Phase 1 and 2 combined) for advancement to an Elector Approval process to secure the required funds for the project.

### **BACKGROUND**

The need for additional aquatic space in the Oceanside area was confirmed in the RDN District 69 (Oceanside) 2018 Recreation Services Master Plan. The Plan recommended the Ravensong Aquatic Centre be expanded for operational efficiencies in addition to lower construction costs in order to provide more aquatic space in the area noting the Oceanside area population wasn't at the threshold (60,000-70,000) to support a second pool.

The plan provided for the option to construct a second pool, which was favoured by many residents in the Parksville area of the region. While the RDN worked on the Ravensong expansion, the City of Parksville directed their staff to undertake a pool feasibility study for a City of Parksville owned and operated facility.

At the February 11, 2021 Oceanside Services Committee (OSC) meeting, staff, and FaulknerBrowns Architects, were directed to continue to plan for an expansion of Ravensong Aquatic Centre in phases that could be aligned and adapted to the outcome of the City of Parksville's efforts for their own Pool/Multiplex facility.

Parallel to the discussions on the pool facilities, work was also taking place on amending Bylaw 899 for inclusion of Electoral Area E as a participant in District 69 Swimming Pool Service per resolution (21-103) from the February 23, 2021 Board meeting, that directed staff to provide a report on alternative funding models for Ravensong Aquatic Centre.

#### *#21-103*

*That consideration of the motion regarding the Regional District of Nanaimo District 69 Swimming Pool Local Service Area Establishment Bylaw No. 899, 1993 (Ravensong Aquatic Centre Service) be deferred to a future Board meeting after the Board has conducted the externally facilitated workshop that is to be scheduled to discuss governance and regional service arrangements.*

At the June 10, 2021 Regular Meeting of the Oceanside Services Committee (OSC), both a staff report and presentation from Kate Busby, lead architect with FaulknerBrowns, were presented on phased expansion options for Ravensong Aquatic Centre. At this same June 10, 2021 OSC meeting and at the Regular RDN Board meeting on June 22, 2021, the following motions were approved:

*#21-333*

*That the design, project planning and financial planning for an expansion to Ravensong Aquatic Centre proceed with the assumption that there will be a need for a second pool tank in the future.*

*#21-334*

*That should an expansion to Ravensong Aquatic Centre be completed in a phased approach over several years that Expansion Option OO (Original Option) and Expansion Option C be the preferred options.*

*#21-335*

*That the design, project planning, and financial planning for an expansion to Ravensong Aquatic Centre continue with a target start date of 2023.*

*#21-336*

*That a final preferred expansion option for Ravensong Aquatic Centre that considers the effects of the City of Parksville's progress on an aquatic centre be provided at the November 17, 2021, Oceanside Services Committee meeting or sooner.*

At the November 22, 2021 Oceanside Services Committee (OSC) meeting, committee members recommended to the RDN Board that staff continue to plan for an expansion of Ravensong Aquatic Centre in two phases that could be aligned and adapted to the outcome of the City of Parksville's efforts for their own Pool/Multiplex facility.

At the regular December 7, 2021 RDN Board meeting, the following resolutions were made:

*#21-628*

*That the preferred Ravensong Aquatic Centre expansion option be Option OO (Original Option).*

*#21-629*

*That the financial planning for Phase 1 of Option OO (Original Option) expansion to Ravensong Aquatic Centre, including funding for a referendum, continue within the 2022 Financial Plan.*

*#21-630*

*That the next phase for an expansion to Ravensong Aquatic Centre be focused on a review of providing regional aquatic services through either the preferred expansion option (Option OO) to Ravensong Aquatic Centre or a separate stand-alone facility at another location within Oceanside.*

At the June 27, 2022 Oceanside Services Committee, the attached report (Attachment 1) was provided which outlines options for expansion to Ravensong Aquatic in two phases or in one build.

From this meeting the two following recommendations were carried and later supported at the RDN Board Meeting held July 12, 2022.

*#22-455*

*That the Regional District of Nanaimo proceed with option 1B as noted on page 4 of the Ravensong Aquatic Centre Expansion and Regional Aquatics for Oceanside Communities 2022-2024 Plan staff report and a referendum occur concurrently with the referendum for the amendment to Bylaw 899.*

*#22-453*

*That should funds be awarded to the Ravensong Aquatic Centre Expansion Project from the Canada Community Building Fund Strategic Priorities Fund program stream, the timelines, including phasing options for the project, be re-evaluated, and revised to capitalize on awarded funds.*

Throughout the remainder of 2022 and into 2023 the RDN Board and staff focused on the amendment of Bylaw 899 including a public engagement process which ultimately led to Bylaw 899 being amended on January 9, 2024, with Electoral Area E as a participant and the tax apportionment based on 100% usage.

At the September 12, 2023 Board meeting the Board received correspondence from the City of Parksville regarding constructing a pool in Parksville. As a result, a motion was proposed which was then carried as follows:

*#23-444*

*That the Board support the request to examine the feasibility of a pool in the Parksville area based on a letter dated July 17, 2023, from Mayor O'Brien*

At the same meeting, the Board carried the following motion that halted the Ravensong Aquatic Centre expansion project.

*#23-439*

*That the renovation of the Ravensong Aquatic Centre Facility be put on hold and be re-examined in 2025 and that the contributions to reserves for renovation at the Ravensong Aquatic Centre be set at zero for the 2024 budget.*

As a result of this motion, reserve contributions of \$1,328,392 were removed from the 2024 budget reducing the amount available for the expansion project and potentially increasing the reliance on borrowing. The amount available in the District 69 Swimming Pool Reserve for asset management and replacement is \$6,578,941. The majority of this amount is allocated to Phase 1 of the Ravensong Expansion project in 2025 based on motion #22-455 from the July 12, 2022 Board meeting.

Subsequent reports were then provided to the Board in the Fall of 2023 to set up a feasibility service Bylaw (1894) to support the above resolution regarding a pool based in Parksville. The feasibility bylaw was developed, introduced and read three times but did not receive consent from all the service participants as required, with the Electoral Area F Director not signing the consent form. At the January 30, 2024 Board meeting, the Board voted to abandon the feasibility bylaw.

After the January 30, 2024 Board meeting, the Board Chair informed the Board there had been interest from some directors to reconvene the District 69 Swimming Pool Service Select Committee to discuss the options for the Ravensong Aquatic Centre project.

#### Ravensong Aquatic Centre Expansion Options for Consideration

The June 27, 2022 Oceanside Services Committee report (Attachment #1) is the most relevant report to focus on currently regarding expanding the Ravensong Aquatic Centre. Although the costs within the report will need to be updated and timelines adjusted, the fundamental options to expand the facility remain as follows:

1. Undertake Phase 1 only (Changeroom / Admin / Dry Space Only – No Aquatic Space – Phase 2)
2. Undertake Phase 1 and 2 at same time.
3. Undertake Phase 1 then in three years undertake Phase 2

As there is no Board support to develop a second pool in Parksville and holding back on Phase 2 was in place until this matter was concluded, the need for aquatic space remains in order to meet existing and future needs of residents of the Oceanside area.

As noted in the June 27, 2022 report, there is added costs to breaking the project in two phases that will need to be considered under this approach. Adding an updated changeroom and improved dry space will not solve the need for additional aquatic space identified in the 2018 Master Plan.

With this information, Board direction is required to either update the full costs of construction to expand the Ravensong Aquatic Centre to then take to Electoral Approval (Alternative Approval Process or referendum) or end the expansion project at this time and remove it from the Five-Year Financial Plan.

Should the Board decide the cost, timing or other reasons of advancing this project is not appropriate, the proposed motion below can be considered as an alternative option to the report's recommendation.

Alternative Option Motion:

*That the expansion project for the Ravensong Aquatic Centre cease, the District 69 Pool Service reserve funds allocated for expansion costs be reallocated to asset management replacement of the facility's existing infrastructure and equipment and the 2024 – 2028 Five Year Financial Plan be amended accordingly.*

## **FINANCIAL IMPLICATIONS**

Should the Board provide direction to advance the expansion of the Ravensong Aquatic Centre, it is estimated that \$1,600 is required to update the Quantity Survey project costs (Class C update) before advancing to design development and Class B costing. This review will take into consideration changes to the BC Building Code that come into effect on March 8, 2024.

The estimated costs to have a design and Class B costing report prepared for Phase 1 and 2 is \$364,000. Staff are recommending going forward with both phases at once to address the need for additional aquatic space in the Oceanside area. In the originally budgeted plan, Phase 1 would have been started in 2024 and Phase 2 in 2026.

By taking on Phase 1 and 2 together, the project can attempt to get back onto a similar schedule and hopefully avoid the inevitable cost increases that come with extending timelines. As an alternative, the estimated cost to have a design and Class B costing report prepared for Phase 1 alone would be \$228,000 and would require another report to be prepared in the future for Phase 2. Phase 1 focuses on the support areas of the facility such as reception and changerooms and does not provide any enhancements to the pool area. An additional \$25,000 is required to undertake a Geotechnical Assessment of the site for either approach. This would provide all the materials necessary to move to electoral approval. Should the Board advance the project to electoral approval, the costs to conduct a referendum are in the range of \$120,000.

At present there is \$240,000 in the approved 2024-2028 Financial Plan for referendums. There is also the opportunity to use reserves funds to further advance the project to the electoral approval stage. With these in place, an increase to the 2024 tax requisition will not be required. A report will be provided following the completion of the updating of the Class C estimates.

The 2024-2028 Financial Plan includes a project budget of \$9,777,384 for phase 1 in 2025 of which \$6,123,758 is funded from reserves, \$3,575,164 from borrowing with the remainder funded from operations. It also includes \$21,764,415 in 2027 for phase 2 with \$1,000,000 funded from reserves, \$20,685,953 funded from borrowing and the remainder funded from operations. These amounts were based on the report from June 27, 2022.

### **STRATEGIC PLAN ALIGNMENT**

Planning and Managing for Growth - Understand and develop an inter-connected framework of strategies and plans to manage growth to support complete communities, including planning, transportation, infrastructure, and fiscal sustainability.

### **REVIEWED BY:**

- D. Banman, Manager, Recreation Services
- K. Komjati, Business Administrator, Recreation and Parks
- T. Moore, Chief Financial Officer
- D. Holmes, Chief Administrative Officer

### **ATTACHMENT**

1. Staff report to Oceanside Services Committee – June 27, 2022



REGIONAL  
DISTRICT  
OF NANAIMO

**RAVENSONG AQUATIC CENTRE EXPANSION AND REGIONAL AQUATICS FOR OCEANSIDE COMMUNITIES 2022-2024 PLAN**

**RECOMMENDATIONS**

1. That proceeding with Phase 1 or both Phases of the Ravensong Aquatic Centre be determined after the amendments to Bylaw 899 have been approved such that any changes to participating jurisdictions have been determined.
2. That should funds be awarded to the Ravensong Aquatic Centre Expansion Project from the Canada Community Building Fund Strategic Priorities Fund program stream, the timelines, including phasing options for the project, be re-evaluated and revised to capitalize on awarded funds.

**BACKGROUND**

At the November 22, 2021, Oceanside Services Committee (OSC) meeting, committee members recommended to the RDN Board that staff continue to plan for an expansion of Ravensong Aquatic Centre in two phases that could be aligned and adapted to the final outcome of the City of Parksville's efforts for their own Pool/Multiplex facility.

At the regular December 7, 2021, RDN Board meeting, the following resolutions were made:

*#21-628*

*That the preferred Ravensong Aquatic Centre expansion option be Option OO (Original Option).*

*#21-629*

*That the financial planning for Phase 1 of Option OO (Original Option) expansion to Ravensong Aquatic Centre, including funding for a referendum, continue within the 2022 Financial Plan.*

*#21-630*

*That the next phase for an expansion to Ravensong Aquatic Centre be focused on a review of providing regional aquatic services through either the preferred expansion option (Option OO) to Ravensong Aquatic Centre or a separate stand-alone facility at another location within Oceanside.*

Work related to resolution #21-629 that has been completed and includes the following:

- Prepared a schematic design for a Class C Costing (Attachment 1)
- Development of financial options and implications on funding both a phased and unphased expansion of the selected option (OO) per the financial section below.
- Commissioning a Class C costing for the expansion (Attachment 2)



- Prepared cost per funding participant for illustrative purposes the operational costs for the facility including EA E and all participants and the recently proposed tax apportionment model for Bylaw 899 at 1/3 Usage, 1/3 Assessment and 1/3 Population (Attachment 3)

Further RDN Board direction will be required after other significant influences on an expansion to Ravensong have been addressed. These include possible changes to the existing funding formula and contributing members as proposed by the District 69 Pool Select Committee at their June 7, 2022 meeting and endorsed by the Regional Board on June 14, 2022 which were as follows:

*That a referendum be held with public engagement, at the “involve” level of participation within the Board’s engagement policy, to amend the Regional District of Nanaimo District 69 Swimming Pool Service Establishment Bylaw No. 899, 1993 (Bylaw 899), to include Electoral Areas E, F, G, H, City of Parksville and Town of Qualicum Beach, based on an apportionment model of 1/3 assessment, 1/3 population, and 1/3 usage.*

*That staff prepare a report on the possibility of holding the referendum during the upcoming election on October 15, 2022, as well as other options.*

Staff have been in communication with City of Parksville staff to receive updates on the status of the City’s pool/multiplex project. City of Parksville Council discussed the project at their Committee of the Whole meeting on February 16 and at the March 7, 2022, Council Meeting, the following motions were approved:

1. *THAT Council agrees to identify priority sites that are large enough to accommodate the full-scale multiplex and pool and allow future expansion opportunities and clarified the selection of a site does not compel Council to construct the full-scale multiplex and pool in the immediate term; project scope will be determined at a later date based on cost assessments and public input.*
2. *THAT Council identify its top three priority sites as the City owned lands located at Tuan Road, a privately owned site at the corner of Alberni Highway and Despard Avenue, and the Parksville Community Park and will explore the feasibility of these three sites as suitable locations for the future development of the facility.*
3. *THAT staff be directed to reach out to applicable private property owners to see if there is a willingness to sell the private lands or a portion of the lands to accommodate a pool and multiplex facility with space for future expansion.*
4. *THAT staff be directed to conduct an internal preliminary technical review of the three priority sites and report back to Council, at which time Council will consider referring the report to the Advisory Technical Working Group and the public for comment.*

Parksville staff are anticipating the next update on the Parksville project will be provided at the July 18, 2022, Parksville Council Meeting.

Prior to the Board’s and the District 69 Pool Select Committee’s recent work reviewing the funding partners and current funding formula, staff were prepared to recommend to the Board that both phases of Original Option (OO) expansion to Ravensong Aquatic Centre be completed at one time and 20-year borrowing be sought through elector approval. This recommendation was based on the likelihood of another aquatic centre being built in the area within the next three years being low, the significant additional cost of \$2.35 million to phase an expansion to Ravensong Aquatic Centre, annual cost escalations at 10% per year totalling \$2.92 million by 2026 and the need for expansion of Ravensong Aquatic Centre as shown in the 2019 - 2029 Oceanside Services Recreation Master Plan.

Taking into consideration the recent Board decisions to amend Bylaw 899 to include Electoral Area E, amend the funding apportionment to the pool service and conduct a referendum for amendments to Bylaw 899, proceeding with the expansion prior to this talking place would not be prudent. Further, in the interest of considering the

total suite of aquatic facilities that may best serve the public, the Committee may wish to evaluate the service that includes a potential pool and multiplex project in or around the City of Parksville.

**FINANCIAL IMPLICATIONS**

The recent Board direction to change to the existing funding formula of 50% usage and 50% assessment and EA E joining as a funding partner have not been factored into any of the financial implications included in this report. However, Attachment 3 does show for illustrative purposes how the 2023 tax requisition of \$3,393,590 shown in the tables below would be funded by each contributing member with EA E added in and the formula being 1/3 usage, 1/3 assessment and 1/3 population. These calculations use current usage, current assessment values and last census populations and do not include any forecasting, adjustments or changes to any of these variables. As work progresses on possible changes to the current funding model and participants and upon Board direction staff would update the financial implications related to expansion.

Funding sources for an expansion to Ravensong Aquatic Centre used in the Tables below include borrowing (short or long) and utilization of reserve funds. In May of this year, the RDN Board approved the Ravensong Aquatic Centre expansion as a project to be submitted to the Strategic Priorities Fund grant program. If successful, grant funding from this program could possibly fund up to \$6 million of expansion costs. Funding from this grant program, or any others, have not been included in any of the financial implications shown.

The tables also include adjustments to operating revenues and expenses starting in 2025 to reflect the operating impact of an expansion. Reserve balances for Ravensong Aquatic Centre are maintained through an expansion to fund non-expansion capital projects over the next ten (10) years in the amount of \$2,449,216.

**Option 1A - \$9,075,164 Project Cost**  
(Phase 1 financed over a 5-year period, no Phase 2)

**Option 1a:**

Phases: Phase 1 only (no Phase 2)  
 Total Project Cost: \$ 9,075,164  
 Debt term: 5 year short-term borrowing  
 Estimated Annual Interest Rate: 3.50%

	2023	2024	2025	2026	2027	2028	2029
Tax Requisition	3,393,590	3,495,398	3,600,260	3,672,265	3,745,710	3,820,624	3,362,149
Tax Req % Change	10%	3%	3%	2%	2%	2%	-12%
Project Cost	9,075,164	-	-	-	-	-	-
Reserve Funded	5,500,000	-	-	-	-	-	-
Debt Issued	3,575,164	-	-	-	-	-	-
Debt Issue Cost	-	-	-	-	-	-	-
Annual Debt Repayment	-	805,294	805,294	805,294	805,294	805,294	-

Notes: Short-term borrowing of less than five years would not require elector approval. This option would allow the Board to directly approve expansion to Phase 1.

**Option 1B \$9,075,164 Project Cost**  
(Phase 1 financed over a 20-year period, no Phase 2)

**Option 1b:**

Phases: Phase 1 only (no Phase 2)  
 Total Project Cost: \$ 9,075,164  
 Debt term: 20 year borrowing  
 Estimated Annual Interest Rate: 4.50%

	2023	2024	2025	2026	2027	2028	2029
Tax Requisition	3,393,590	3,461,462	3,530,691	3,601,305	3,673,331	3,746,798	3,821,734
Tax Req % Change	10%	2%	2%	2%	2%	2%	2%
Project Cost	9,075,164	-	-	-	-	-	-
Reserve Funded	5,500,000	-	-	-	-	-	-
Debt Issued	3,575,164	-	-	-	-	-	-
Debt Issue Cost	35,752	-	-	-	-	-	-
Annual Debt Repayment	-	300,840	300,840	300,840	300,840	300,840	300,840

Notes: This option using some of the current Ravensong reserves (same amount as Option 1A \$5,500,000) and long-term borrowing, would require elector approval and spreads the funding over a 20 period longer of time.

**Option 2 \$25,486,100 Project Cost**  
(Phase 1 and 2 both completed at the same time and financed over a 20-year period)

**Option 2:**

Phases: Both Phases split 50/50 over 2023 and 2024  
 Total Project Cost: \$ 25,486,100  
 Debt term: 20 year borrowing  
 Estimated Annual Interest Rate: 4.50%

	2023	2024	2025	2026	2027	2028	2029
Tax Requisition	3,393,590	3,902,629	4,488,023	4,936,825	5,233,035	5,337,695	5,444,449
Tax Req % Change	10%	15%	15%	10%	6%	2%	2%
Project Cost	12,743,050	12,743,050	-	-	-	-	-
Reserve Funded	5,500,000	-	-	-	-	-	-
Debt Issued	7,243,050	12,743,050	-	-	-	-	-
Debt Issue Cost	72,431	127,431	-	-	-	-	-
Annual Debt Repayment	-	609,482	1,681,773	1,681,773	1,681,773	1,681,773	1,681,773

Notes: This option is the quickest and most cost-effective path to expand both Phase 1 and 2 as it does not incur the estimated \$2,354,441 in additional cost to complete the full expansion in two separate phases and an estimated annual increase in project costs of 10% due to price escalation

### Option 3 - \$30,761,117 Project Cost

(Phase 1 starting in 2023 and financed over a 20-year period and Phase 2 starting in 2026 over a 20 - year period)

**Option 3:**

Phases: Phase 1 (2023) and Phase 2 (2026)  
 Total Project Cost: \$ 30,761,117  
 Debt term: 20 year borrowing  
 Estimated Annual Interest Rate: 4.50%

	2023	2024	2025	2026	2027	2028	2029
Tax Requisition	3,393,590	3,563,270	3,848,331	4,233,164	4,741,144	4,835,967	4,932,686
Tax Req % Change	10%	5%	8%	10%	12%	2%	2%
Project Cost	9,075,164	-	-	21,685,953	-	-	-
Reserve Funded	5,500,000	-	-	-	-	-	-
Debt Issued	3,575,164	-	-	21,685,953	-	-	-
Debt Issue Cost	35,752	-	-	216,860	-	-	-
Annual Debt Repayment	-	300,840	300,840	300,840	2,125,651	2,125,651	2,125,651

Notes: There is a \$5,275,017 premium on this option compared to Option 2 due to the additional cost (\$2,354,441) to complete the expansion in two separate phases plus an estimated annual cost escalation factor of 10% per year totalling \$2,920,576 by 2026. This option does allow the Board to defer the completion of Phase 2 to a later date to consider progress on a City of Parksville pool/multiplex project or time to decide on future pool apportionment formula and funding partners.

Separate price items have been identified on possible facility features that could be added or subtracted from the project costs shown in the above options. These are shown on page 3 of Attachment 2 and include the following:

- Reduced tank size of Phase 2, cost reduction of \$1,732,500
- Upgrade building structure for future second floor fitness centre at \$490,000
- Cost of \$340,000 for a 60m<sup>2</sup> (650 sq<sup>2</sup>) restorative health space. Staff have been in conversations with Island Health staff on the possible opportunity to add this additional space. Still to be discussed and finalized is whether Island Heath would finance this additional space and pay a tenancy fee for services and utilities provided by the RDN or whether the RDN would finance the additional space and charge Island Health, or a private provider, a fee to cover both services and utilities provided plus capital cost recovery. Island Heath’s purpose for the space would be to provide residents of the Oceanside area local rehabilitation services for post knee and hip surgeries.

There is \$120,000 included in the 2022 Financial Plan that can be utilized for expenses related to the project for referendum purposes. This amount can be used to undertake a referendum to amend Bylaw 899 per the Board direction on June 14, 2022.

**STRATEGIC PLAN ALIGNMENT**

Growth Management - Provide effective regional land use planning and responsible asset management for both physical infrastructure and natural assets.

Social Wellbeing - Make the Region a safe and vibrant place for all, with a focus on children and families in programs and planning.

People and Partnerships - Seek opportunities to partner with the provincial and federal governments, other government agencies, and community stakeholder groups in order to advance strategic plan goals and objectives.

## **REVIEWED BY:**

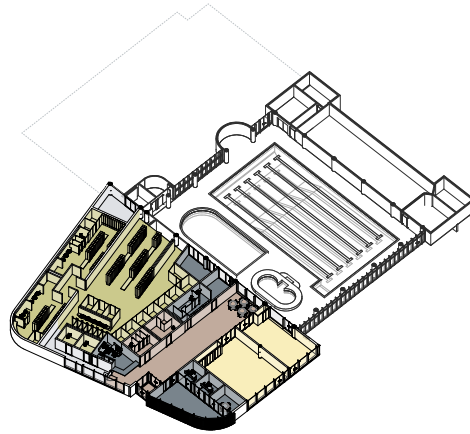
T. Moore, Acting Director of Finance  
D. Wells, General Manager, Corporate Services  
T. Osborne, General Manager, Recreation and Parks  
D. Holmes, Chief Administrative Officer

## **ATTACHMENTS**

1. Ravensong Aquatic Centre Design and Phasing Options Summary
2. Class C Cost Estimates Ravensong Aquatic Centre Original Option (OO)
3. Ravensong Aquatic Centre Tax Requisition Per Funding Member – EA E Included at 1/3 Usage, 1/3 Assessment and 1/3 Population (*for illustrative purposes only*)

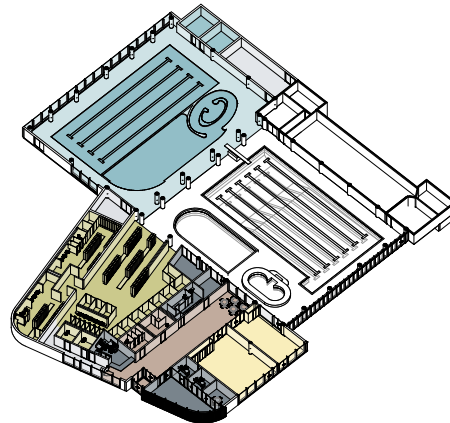
**OPTION 1A/1B**

Single Phase: Support Spaces



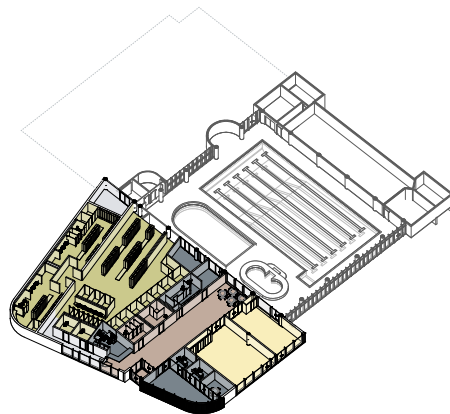
**OPTION 2**

Single Phase: Support Spaces +  
Aquatics Expansion

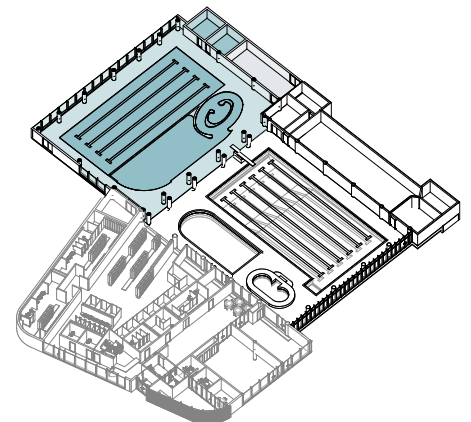


**OPTION 3**

Phase 1: Support Spaces  
Phase 2: Aquatics Expansion



*Phase 1*



*Phase 2*



# RAVENSONG AQUATIC CENTRE EXPANSION

737 Jones Street, Qualicum Beach, BC  
for Regional District of Nanaimo  
design by FAULKNERBROWNS ARCHITECTS

## Class C Estimate

Issue for Class C Costing, May 31, 2022

**James Bush & Associates Ltd**

Professional Quantity Surveyors  
Construction Cost Managers  
Value Analysts  
LEED Accredited Professional  
Green Building Specialist

3722-197<sup>th</sup> Street  
Langley, BC  
V3A 1B3

☎ 604 533 8004  
✉ jim@jba.bc.ca  
🌐 www.jba.bc.ca

**June 9, 2022**

# RAVENSONG AQUATIC CENTRE EXPANSION

June 9, 2022

737 Jones Street, Qualicum Beach, BC  
for Regional District of Nanaimo  
design by FAULKNERBROWNS ARCHITECTS

EXECUTIVE CONSTRUCTION COST SUMMARY			Class C Estimate	
<b>Site Development</b>			<b>\$1,115,000</b>	
<b>NEW Building Construction</b> (Refer to Detailed Estimate)	1,717 m2		\$7,874.69	<b>\$13,524,000</b>
PHASE 1 - Support Space	830.0 m2	\$6,334.34	\$5,257,500	
PHASE 2 - Aquatic Expansion	887.4 m2	\$9,315.42	\$8,266,500	
<b>Existing Building INTERIOR RENOVATIONS</b>			\$2,578.09	<b>\$2,694,100</b>
<b>OFFSITE Work Allowances</b>			Allowance	<b>\$100,000</b>
<b>SUB-TOTAL CONSTRUCTION (Excluding GST)</b>			<b>\$17,433,100</b>	
<b>SOFT &amp; PROJECT COSTS</b>			<b>36%</b>	<b>\$6,310,000</b>
Professional Design Fees & Expenses			\$1,743,000	
Project Management			\$523,000	
Furniture & Furnishings & Equipment			\$872,000	
Project Contingency (incl Change Orders)			\$872,000	
Permits, Insurance, Project Administration, Legal Fees etc			\$261,000	
Goods & Services Tax (rebated)			\$296,000	
PROJECT RESERVE			1,743,000	
<b>TOTAL PROJECT COST</b>			<b>\$23,743,100</b>	
<b>CONSTRUCTION ESCALATION CONTINGENCY</b>			<b>\$1,743,300</b>	
Assume construction tender - 12mths			10%	1,743,300

## NOTES & CLARIFICATIONS

This estimate is based on a lump sum, competitively bid form of contract.

Priced in JUNE 2022 dollars, with an allowance of 10% for Escalation to start of construction assumed to be in the next 12 months

This estimate represents a fair and reasonable construction cost of the work based on an understanding of the work as outlined on the design drawings, reports and details by FAULKNERBROWNS ARCHITECTS, dated MAY 31, 2022, which includes Engineering consultant reports (structural, mechanical, electrical, civil, code, landscape).

The estimate prepared by JBA reflects probable construction costs prevailing at the date of this report and is a determination of fair market value for the construction of this project and should not be taken as a prediction of the lowest bid price. The Construction market remains variable with prices continuing to rise.

JBA does not have control over the cost of labour, materials, equipment, over a contractor's method of determining bid prices, or over competitive bidding, market conditions. Accordingly JBA cannot and does not warrant or represent that bid prices will not vary from this estimate.



# Ravensong Aquatic Centre Expansion

June 9, 2022

## PREFERRED DESIGN OPTIONS

for the Regional District of Nanaimo

concept design options by: FAULKNERBROWNS ARCHITECTS

SEPARATE PRICES	Class C Estimate	
<b><u>PHASE COSTS</u></b>	Buidling only	\$13,524,000
PHASE 1 - Support Space                      830.0 m2                      \$6,334.34	\$5,257,500	
PHASE 2 - Aquatic Expansion                      887.4 m2                      \$9,315.42	\$8,266,500	
<i>(REFER TO SEPARATE ESTIMATE SUMMARY)</i>		
<b><u>PHASED CONSTRUCTION PREMIUM</u></b>	11.7%	\$274,700
Premium cost for Phased Construction - delayed 2nd stage construction after completion of Phase 1 work - assume 14mths (10% pa) on Phase 2 Costs	2,354,441	
<b><u>REDUCED POOL EXPANSION</u></b>		(\$1,732,500)
Cost Saving for reduced Pool Expansion as per Architectural Drwg A2.1b (approximately 210m2)	(1,732,500)	
<b><u>FUTURE SECOND FLOOR</u></b>		\$490,000
Premium cost to upgrade existing structure from roof only to future second floor and roof for Fitness Centre. (approximate area 1000m2) Includes elevator shaft/pit.	490,000	
<b><u>INTERIOR RENOVATIONS FOR TOT</u></b>		\$98,000
Renovation to the TOT Pool including removal of Whale Tail Water feature and remedial works	98,000	
<b><u>ISLAND HEALTH RESTORATIVE HEALTH</u></b>		\$340,800
Cost to construction new building area for the RESTORATIVE HEALTH SPACE	340,800	

Costs above are NET ADD/DEDUCT Construction Costs only. Excluding Soft Costs and Escalation.

# Ravensong Aquatic Centre Expansion

June 9, 2022

## PREFERRED DESIGN OPTIONS

for the Regional District of Nanaimo

concept design options by: FAULKNERBROWNS ARCHITECTS

SUSTAINABLE ENGINEERING STRATEGIES	Class C Estimate
<b>EXTERIOR ENVELOPE</b>	
(reference RJC Building Enclosure Design Brief – REV.01)	
<b><u>Increase Exterior Wall Insulation (+3" Insulation)</u></b>	83,900
New Building	83,900
Existing Building	n/a
<b><u>Wood Stud Exterior Framing</u></b>	99,100
New Building (requires, engineered product)	99,100
Existing Building	n/a
<b><u>Roofing - Replace with High Performance Roof 7" insulation</u></b>	655,500
New Building (requires, engineered product)	n/a
Existing Building	655,500
<b>MECHANICAL STRATEGIES</b>	
(reference AME Group Mechanical Report May 25, 2020)	
<b><u>Replace Air-Cooled Heat Pumps (300 Tons) with Gas Fired Boiler Plant-</u></b> Includes deduction for ACHP plant	(381,250)
<b><u>Replace Air-Cooled Heat Pumps (300 Tons) with Bio-Mass Plant</u></b> (3.0Million BTU) - Includes upgrade FRR to boiler room, out-building for wood pellet storage, site work for unloading and truck turnaround (incl. credit for ACHP plant)	25,000
<b><u>Capture Waste Heat from Showers, Deck Drains and Pool Backwashing -</u></b> Sharc Piranha T10 water to water heat pump and 1000gal storage tank	150,000
<b><u>Install Photovoltaic Panels to offset electrical Load</u></b>  Using a cost of \$2250 per kW for a ballasted rooftop PV array system, using the total available roof area would cost approximately \$900,000 for 400kW DC of PV arrays. If BC Hydro allows only a single meter, a maximum of 100kW DC of PV panels will provide energy savings and the cost will be approximately \$225,000 for a 100kW DC PV system.	900,000

Costs above are NET ADD/DEDUCT Construction Costs only. Excluding Soft Costs and Escalation.

# RAVENSONG AQUATIC CENTRE EXPANSION

June 9, 2022

737 Jones Street, Qualicum Beach, BC

for Regional District of Nanaimo

design by FAULKNERBROWNS ARCHITECTS

EXECUTIVE CONSTRUCTION COST SUMMARY		Class C Estimate	
<b>Site Development</b>			<b>\$1,115,000</b>
Site clearing & Preparation, remove organics, earthworks		50,000	
Existing Services - Relocations, Abandon	350 m2	50,000	
Roads - Asphalt Paving & Curbs	450 m2	Existing Remain	
Sidewalks and Decorative Paving		180,000	
Hard landscaping, planters, steps, features, signage		100,000	
Soft Landscaping / Planting / Irrigation		110,000	
Mechanical Civil Services (storm, sewer, water & gas)			
• Water Main - new 150mm dia required for Fire Service, relocate existing		65,000	
• Storm drainage - for addition		60,000	
• Sanitary Connection - remain		35,000	
• Gas		Remain	
Electrical Civil Services			
• Hydro Charge for new 1200A 347/600v Service		100,000	
• New Incoming Underground Service Ducts/Telus/Cable, Conc Tranf Pad		80,000	
• Site Lighting		75,000	
General Contractor Overheads & Fee		109,000	
Design Contingency		101,000	
<b>NEW Building Construction (REFER TO SEPARATE DETAILED ESTIMATE)</b>	<b>18,486 SF</b>	<b>\$731.58</b>	<b>\$13,524,000</b>
Substructure & Foundations, Earthworks, Soils Anchors		1,019,600	
Slab on grade, upper floor structure & roof structure		2,152,100	
Exterior Envelope		2,055,100	
Interior Construction (partitions, doors, finishes, fittings)		363,500	
Stairs, Elevator		0	
Finishes		687,100	
Fittings, Equipment, Specialties & Millwork		467,900	
Electrical		798,700	
Mechanical (Plumbing, Sprinklers & HVAC / Controls)		3,259,900	
Overhead, Supervision & General Conditions, GC Fee		1,294,000	
Existing Building Demolition		196,600	
Cash Allowances (As built, Testing)		0	
Design Contingency	10.0%	1,229,500	
<b>Existing Building RENOVATIONS &amp; UPGRADES</b>	<b>1,045 m2</b>	<b>\$2,578.09</b>	<b>\$2,694,100</b>
Seismic Upgrade (Foundations, Brace Bay, Diaphragm upgrade)	1,045 m2	685,000	
Re-roofing		Not Included	
Mechanical Upgrades, incl. Fire Protection Sprinklers		997,500	
Electrical Upgrades include Upgrade Incoming Service		562,500	
Site Overhead, Supervision & General Conditions, CM Fee		201,900	
Design Contingency		247,200	
<b>PHOTVOLTAICS</b>			<b>Separate Price</b>
<b>OFFSITE Work Allowances</b>		<b>Allowance</b>	<b>\$100,000</b>
Roads & Intersections		N/A	
Services Upgrades		100,000	
<b>SUB-TOTAL CONSTRUCTION (Excluding GST)</b>			<b>\$17,433,100</b>
<b>SOFT &amp; PROJECT COSTS</b>	<b>ALLOWANCE</b>	<b>30%</b>	<b>\$6,310,000</b>
Professional Design Fees & Expenses	10.0%	\$1,743,000	
Project Management	3.0%	\$523,000	
Furniture & Furnishings & Equipment	5.0%	\$872,000	
Project Contingency (incl Change Orders)	5.0%	\$872,000	
Permits, Insurance, Project Administration, Legal Fees etc	1.5%	\$261,000	
Goods & Services Tax (rebated)	1.7%	\$296,000	
PROJECT RESERVE	10.0%	1,743,000	
<b>TOTAL PROJECT COST</b>			<b>\$23,743,100</b>
<b>CONSTRUCTION ESCALATION CONTINGENCY</b>			<b>\$1,743,300</b>
Assume construction tender - 12mths	10.0%	1,743,300	

**Attachment 3 Ravensong Aquatic Centre -Tax Requisition Per Funding Member – EA E Included at 1/3 Usage, 1/3 Assessment and 1/3 Population**  
 (for illustrative purposes only)

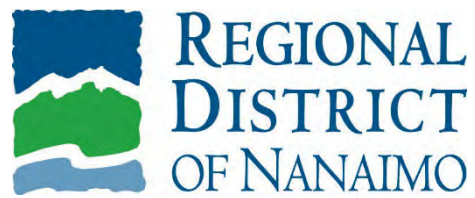
Statutory Limitations: Annual levy not to exceed a maximum of \$770,000, or a levy of \$0.434 per Thousand \$ based on above assessments (Bylaw 899)

Proposed Annual Requisition: 2023  
 Assessment values: 2022 Revised Roll

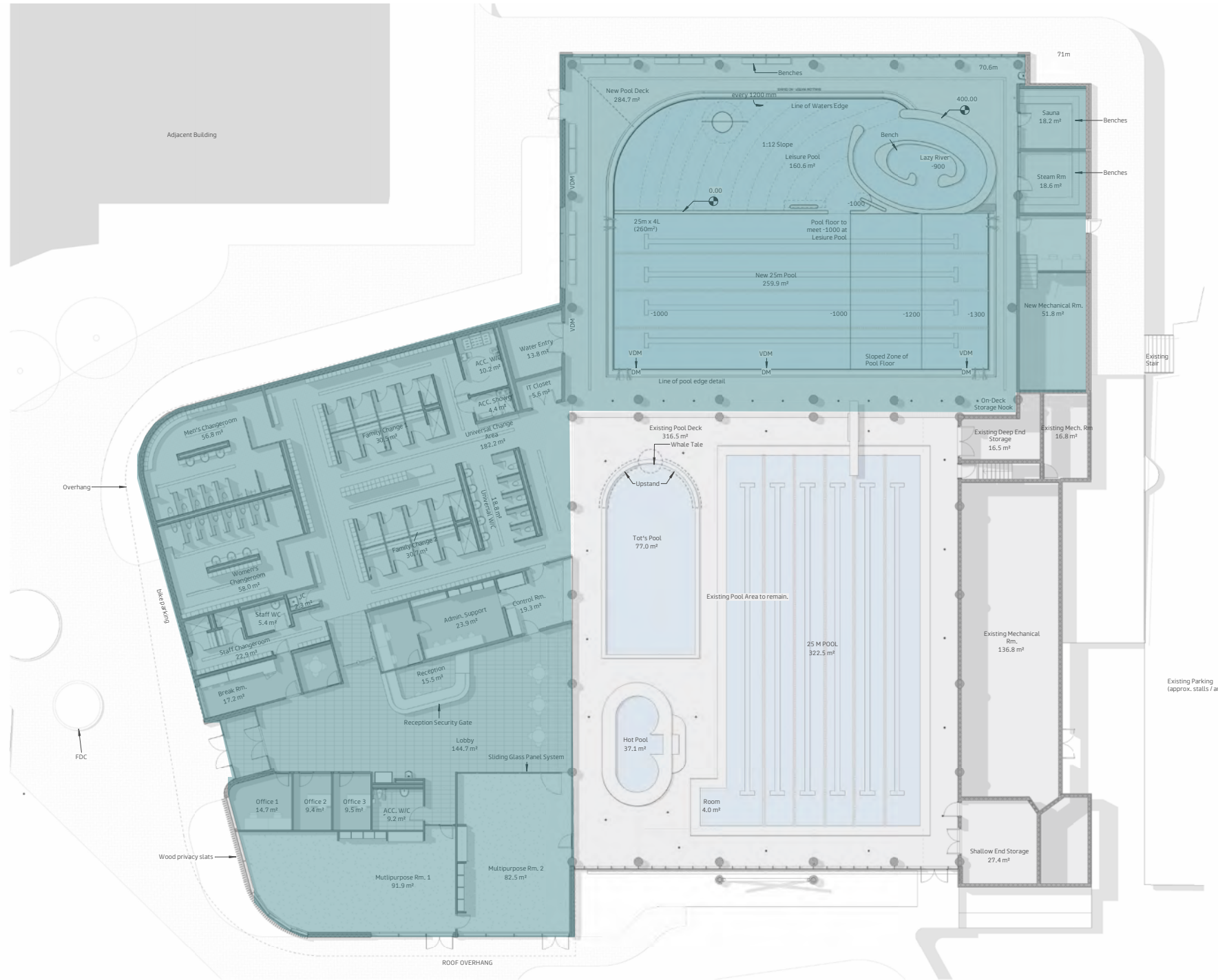
Basis of Apportionment:  
 usage share 33%  
 assessment share 33%  
 population share 33%

AREAS	Usage	Population	MEMBERS	MEMBERS	MEMBERS	TOTAL	RES COST PER THOU.
			SHARE	SHARE	SHARE	MEMBERS SHARE	
			<u>Assessment</u>	<u>Population</u>	<u>Usage</u>		
City of Parksville	26.2%	13,642	279,189	306,637	296,866	882,692	0.152
Town of Qualicum Beach	25.7%	9,303	221,248	209,107	290,233	720,588	0.157
Electoral Area E	4.6%	6,765	200,269	152,060	51,469	403,798	0.097
Electoral Area F	18.1%	8,216	143,818	184,674	204,267	532,759	0.178
Electoral Area G	18.3%	8,109	179,499	182,269	206,882	568,650	0.152
Electoral Area H	7.2%	4,291	107,174	96,450	81,479	285,103	0.128
<b>TOTALS</b>	<b>1.00</b>	<b>50,326</b>	<b>1,131,197</b>	<b>1,131,197</b>	<b>1,131,197</b>	<b>3,393,590</b>	
			1,131,197	1,131,197	1,131,196	3,393,590	

ATTACHMENT 2  
FaulkerBrowns OSC Presentation Summary



# EXECUTIVE SUMMARY



## PROJECT GOAL

To plan for deliverable additional aquatics and wellness amenities that will meet the evolving needs and resources of the Oceanside community

## KEY PROJECT STATISTICS

### Complete Area:

2,833 m<sup>2</sup> Total

1,019m<sup>2</sup> Existing to remain

1,814m<sup>2</sup> New Area

### Added Program Facilities:

New Leisure Pool with Vortex and water features

New 25m Lap Pool

2x New Multipurpose Rooms

Expanded Staff Support space

Expanded Changeroom space

### Capital Cost Projection:

~\$30 Million

### Construction Timeline:

20-28 Months (Q1 2026 - Q4 2027)

### Minimize Closure Time During Construction



## PROJECT RECAP



VISUALIZATION FROM SCHEMATIC DESIGN - 2022

## GOALS AND OBJECTIVES

### Project Goal

To plan for deliverable additional aquatics and wellness amenities that will meet the evolving needs and resources of the Oceanside community

### Existing Facility Utilization

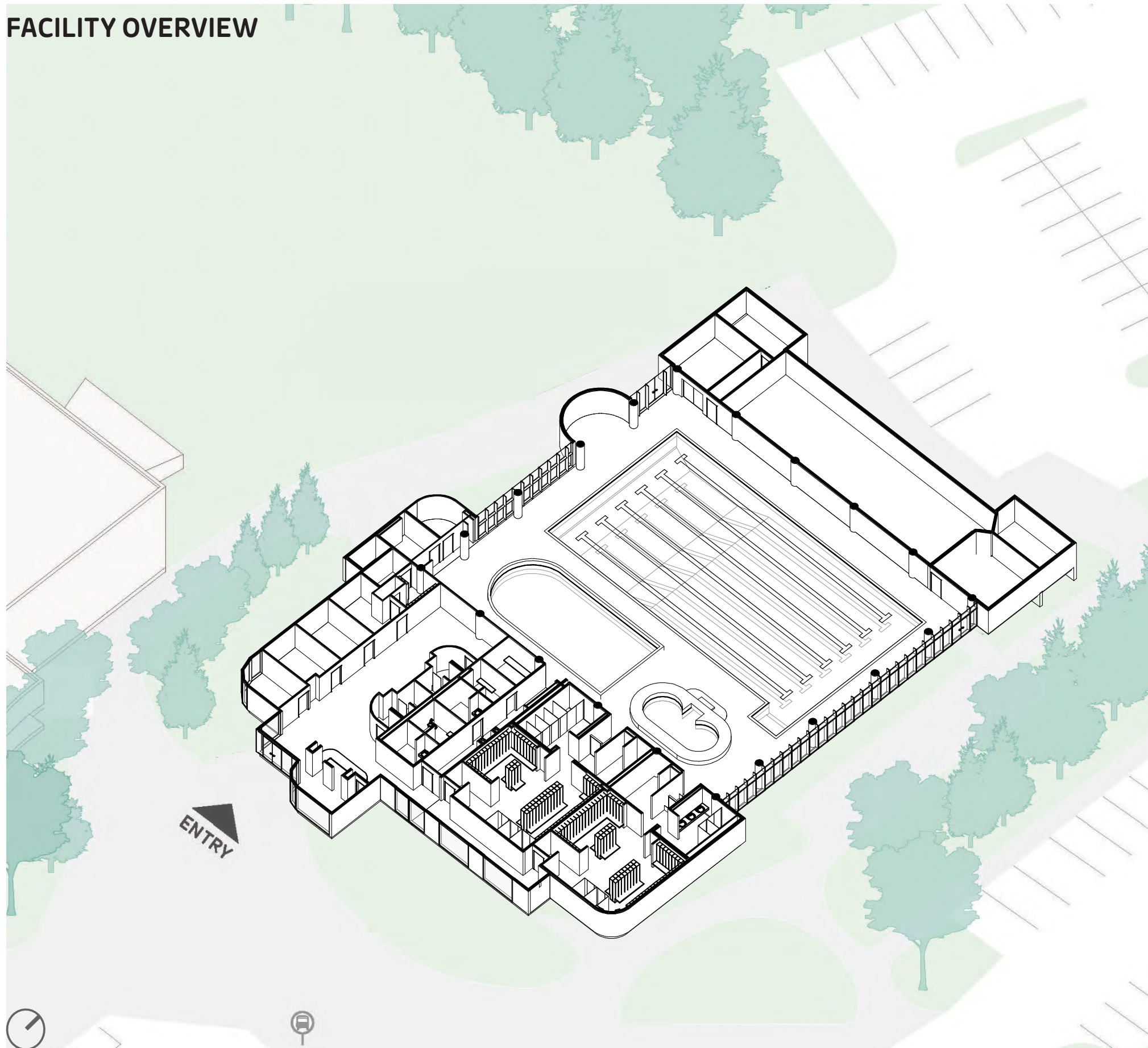
- Ravensong Aquatic Centre is the most used recreation facility in Oceanside
- Swim visits and program attendance continue to increase
- At capacity and not meeting community needs

### Observed Factors to Meet Project Goal

- Any expansion or development option to increase indoor aquatics provision will require a significant and ongoing financial investment.
- Ravensong Expansion to be "right sized" to the market area.
- Leisure aquatics drive visitation numbers
- Ravensong Aquatic Centre to remain open as much as possible to minimize disruption to the community.



## FACILITY OVERVIEW



## EXISTING BUILDING SUMMARY

### Existing Amenities

- |                 |                   |
|-----------------|-------------------|
| A. Leisure Pool | H. Staff Support  |
| B. Lap Pool     | I. Lobby          |
| C. Hot Tub      | J. Washrooms      |
| D. Sauna        | K. Reception      |
| E. Steam Room   | L. Family Change  |
| F. Mechanical   | M. Women's Change |
| G. Offices      | N. Men's Change   |

Pool	Area
Lap	327.9 m <sup>2</sup>
Leisure	73.4 m <sup>2</sup>
Hot Tub	16.7 m <sup>2</sup>
<b>Total</b>	<b>418 m<sup>2</sup></b>

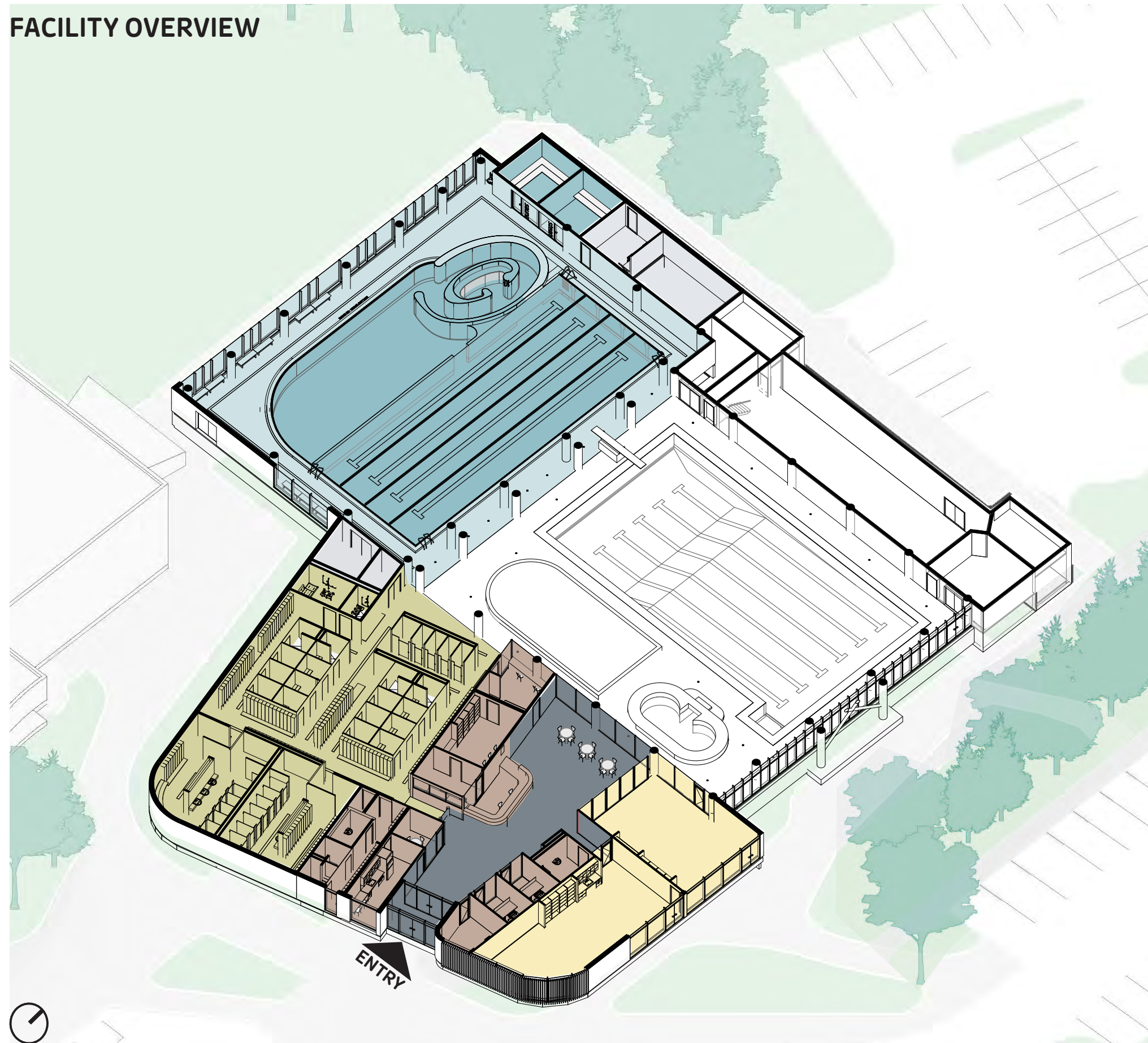
Change Room	Area
Family	57.2 m <sup>2</sup>
Men	104.6 m <sup>2</sup>
Women	106.1 m <sup>2</sup>
<b>Total</b>	<b>267.9 m<sup>2</sup></b>
Staff	12.4 m <sup>2</sup>

Fixture Count			
Zone	WC	Sink	Showers
Family	3	4	4
Men	2 + 3U	3	5
Women	5	3	5
Public	2	2	0
<b>Total</b>	<b>12 + 3U</b>	<b>12</b>	<b>14</b>
Staff	0	0	1

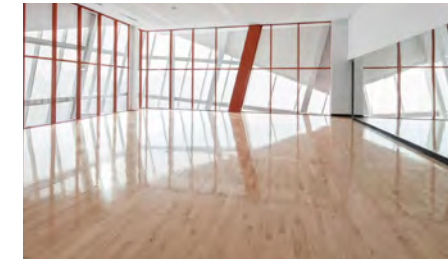
Overall Building	Area
Existing Facility	1,683 m <sup>2</sup>



# FACILITY OVERVIEW



# NEW DESIGN FEATURES



**Multipurpose Rooms**  
Flexible-use space for programmed activities such as yoga, aerobics, party rentals and meetings.



**New Steam Room & Sauna**  
Improved accessible steam & dry sauna amenities for therapeutic and recreation purposes.



**Lobby**  
A welcoming space with seating and pool viewing.



**Lazy River**  
Shallow pool that flows similarly to a river, for leisure and therapeutic use.



**New Change Rooms**  
Improved and expanded men's, women's and family/universal change rooms.



**Leisure Pool & Play Features**  
Warm water pool enjoyed by all ages, including beach entry & spray features.

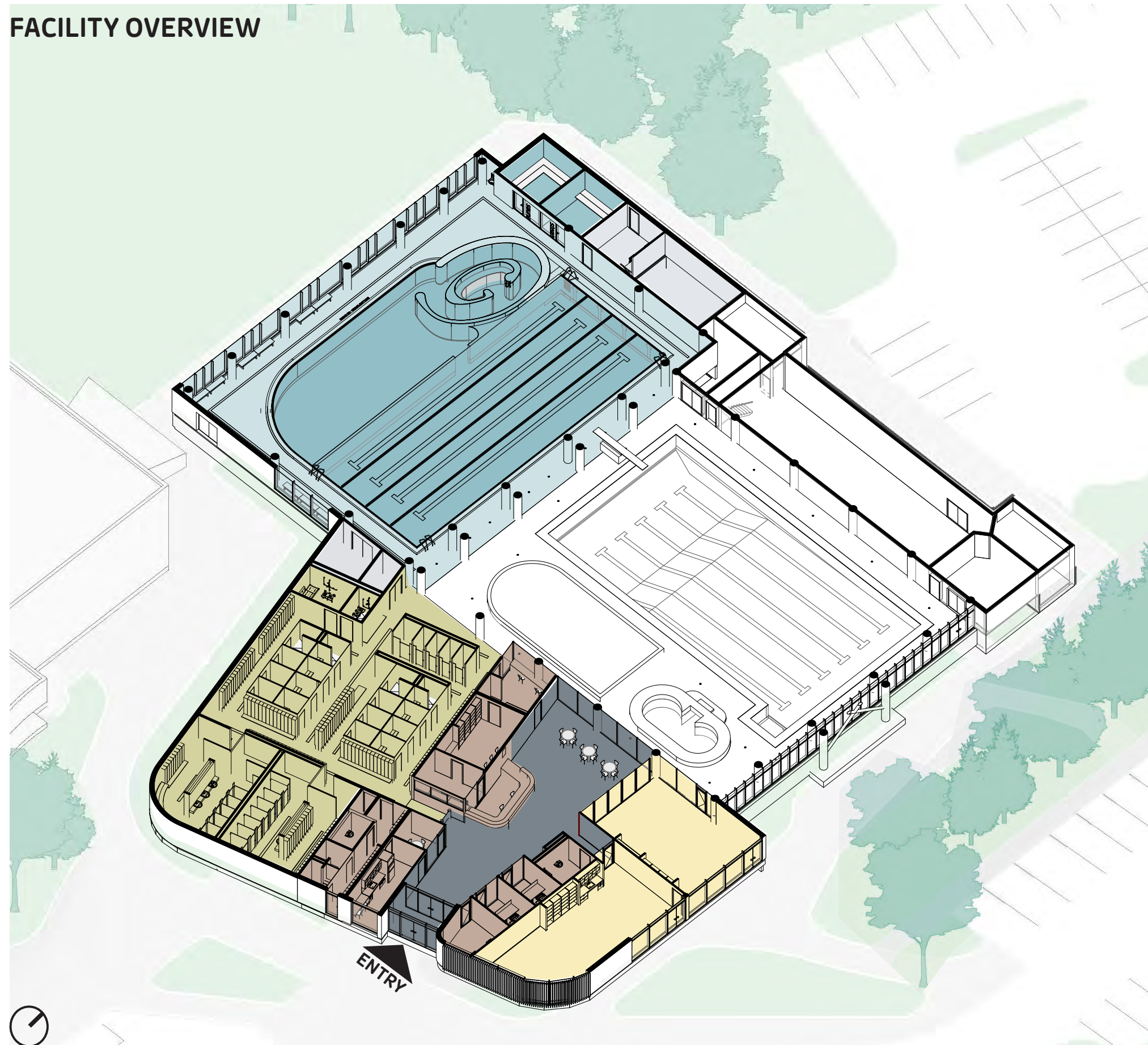
- New Amenities**
- Natatorium
  - Change Rooms
  - Multipurpose Rooms
  - Lobby / Public
  - Service / Circulation
  - Admin / Staff



**Lap Pool**  
4 lane, 25 meter pool for fitness and competition



# FACILITY OVERVIEW



# NEW DESIGN AREAS

## Proposed Amenities

- Natatorium
- Change Rooms
- Multipurpose Rooms
- Lobby
- Staff
- Service / Circulation
- Existing Retained

Pool	Area	Difference
Lap	582.43 m <sup>2</sup>	x1.78
Leisure	237.65 m <sup>2</sup>	x3.24
Hot Tub	16.7 m <sup>2</sup>	x1.00
<b>Total</b>	<b>836.78 m<sup>2</sup></b>	<b>x2.01</b>

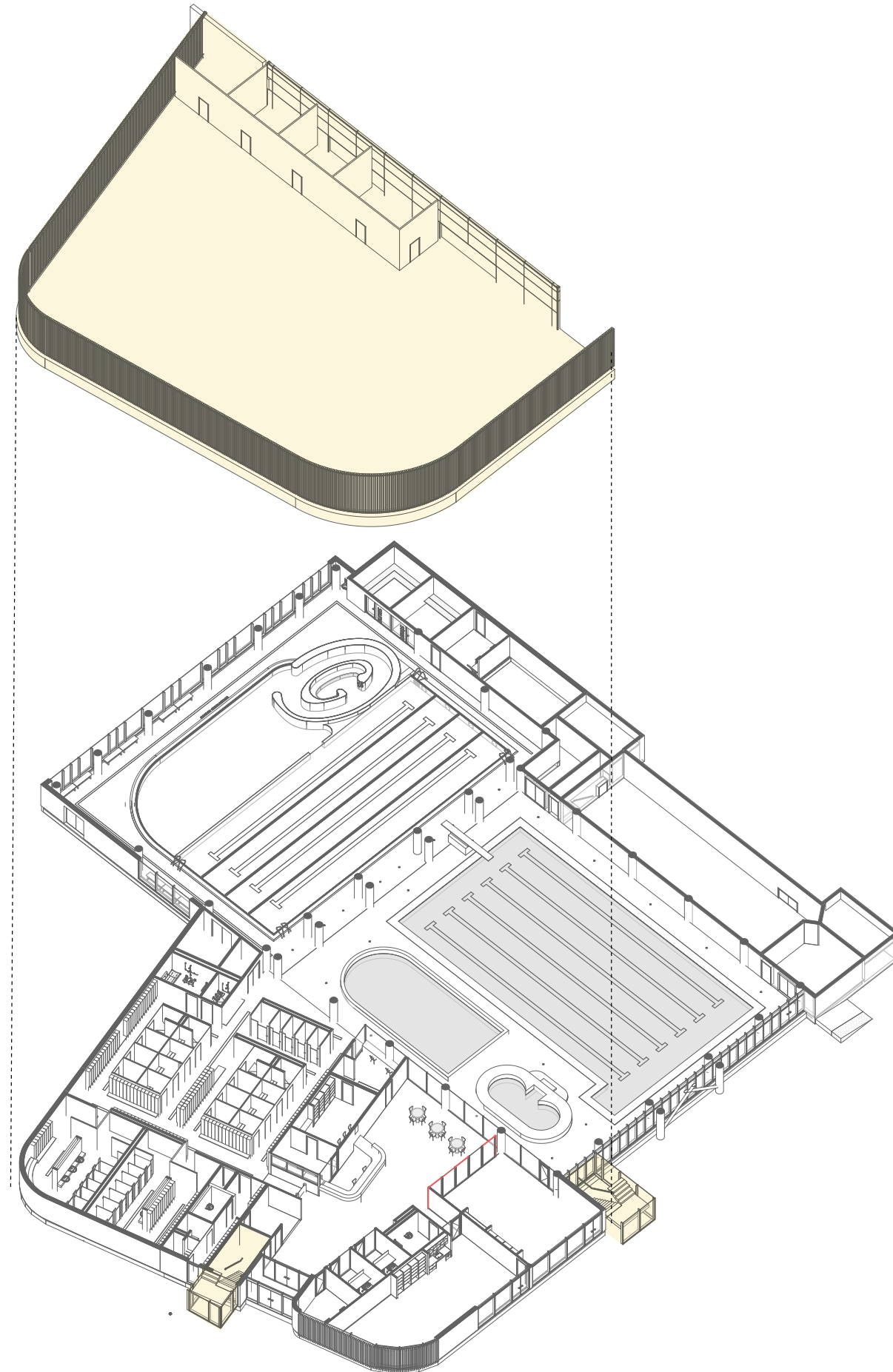
Change Room	Area	Difference
Family	300.64m <sup>2</sup>	x4.26
Men	55.7 m <sup>2</sup>	x0.54
Women	62.5 m <sup>2</sup>	x0.55
<b>Total</b>	<b>340.8 m<sup>2</sup></b>	<b>x1.38</b>
Staff	22.8 m <sup>2</sup>	x1.85

Fixture Count			
Zone	WC	Sink	Shower
Universal	5	6	5
Men	4 + 2U	3	4
Women	6	3	4
Public	1	1	5
<b>Total</b>	<b>17 + 4U</b>	<b>20</b>	<b>18</b>
Staff	1	1	1

Overall Building	Area
Retained	1,019 m <sup>2</sup>
New Additions	1,814 m <sup>2</sup>
<b>New Design Total</b>	<b>2,833 m<sup>2</sup></b>
Area Difference	x1.70



## FACILITY OVERVIEW



## FUTURE FITNESS EXPANSION OPTION

### Second Storey Addition Option

The original concept design report work identified need for a fitness centre and explore a second storey addition in the future.

### Required Systems Supports

Additional structural, a circulation core for the expanded mechanical, electrical and plumbing capacity for a future second storey to be viable.

### Cost for Upgrade

Upgraded structure for future second floor (updated 2024)	\$560,000 Included in Class B Est.
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# CONSTRUCTION SEQUENCING

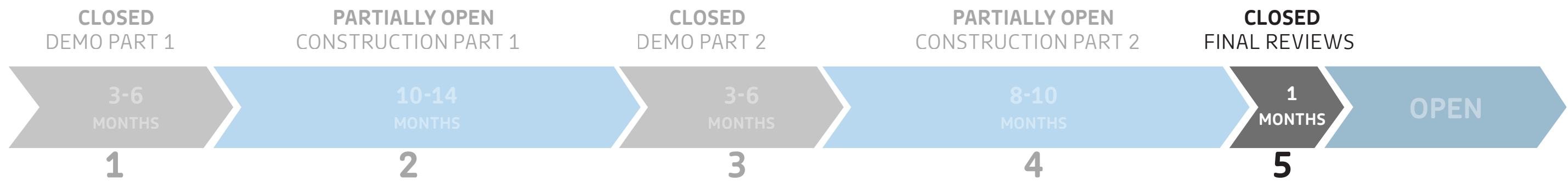
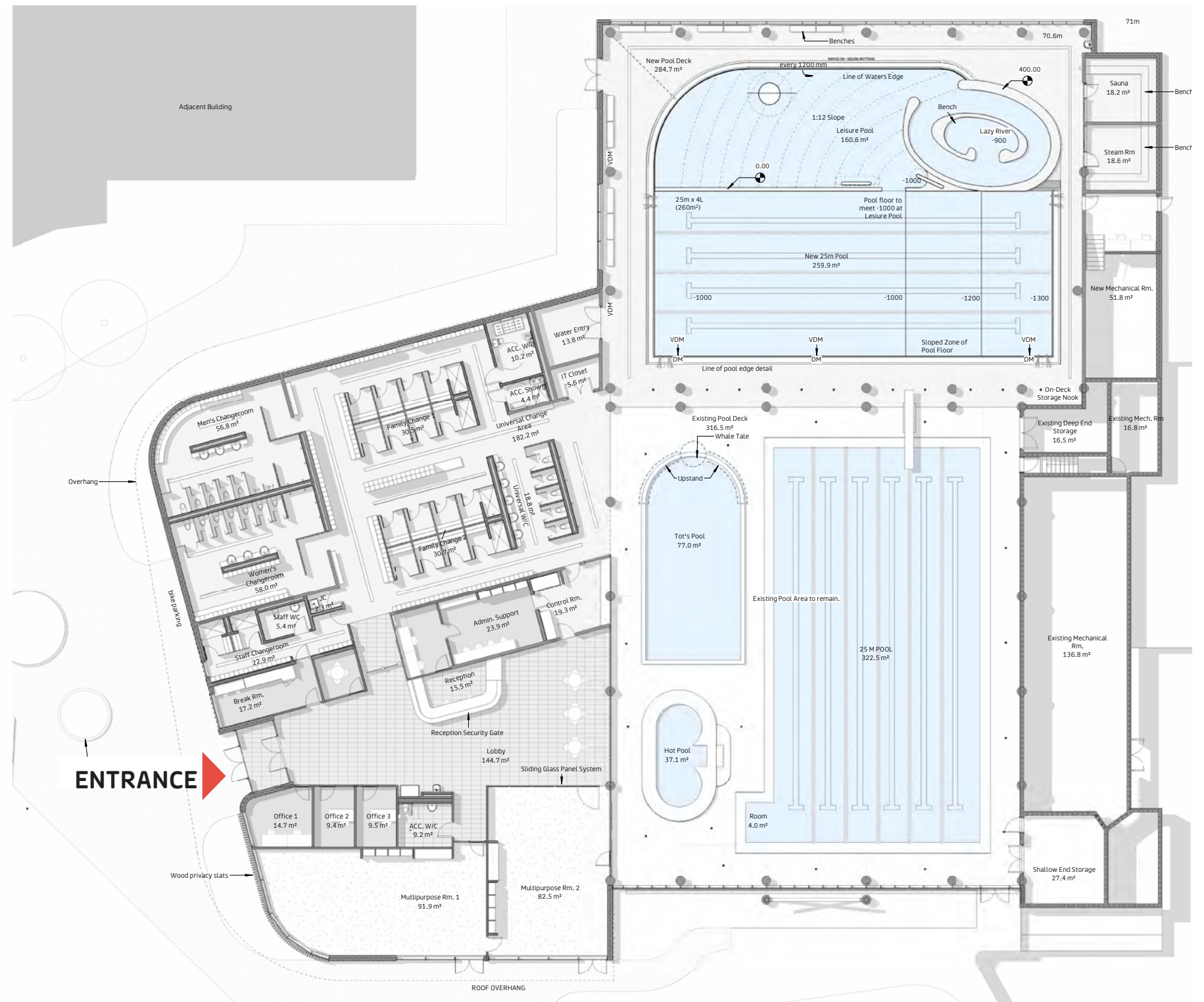
## FINAL OCCUPANCY AND OPENING

1 Month

### Description:

After all the sequences are complete, the entire Facility can be opened to the Public. A short closure will allow for the removal of any temporary work, final commissioning and inspections, and staff mobilization.

★ All dates are estimates only and subject to change.

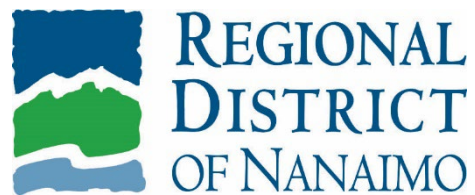








ATTACHMENT 3  
Ravensong Aquatic Centre Expansion  
Class B Estimate





# RAVENSONG AQUATIC CENTRE EXPANSION

737 Jones Street, Qualicum Beach, BC  
for Regional District of Nanaimo  
design by FAULKNERBROWNS ARCHITECTS

## Class B Estimate

Issue for Class B Costing, July 26, 2024

### James Bush & Associates Ltd

Professional Quantity Surveyors  
Construction Cost Managers  
Value Analysts  
LEED Accredited Professional  
Green Building Specialist

3722-197<sup>th</sup> Street  
Langley, BC  
V3A 1B3

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**September 16, 2024**

# RAVENSONG AQUATIC CENTRE EXPANSION

September 15, 2024

737 Jones Street, Qualicum Beach, BC

for Regional District of Nanaimo

design by FAULKNERBROWNS ARCHITECTS

EXECUTIVE CONSTRUCTION COST SUMMARY		Class B Estimate July 2024		Class C Estimate, Update April 2024	
<b>Site Development</b>			<b>\$1,238,700</b>		\$1,232,000
<b>NEW Building Construction</b> (Refer to Detailed Estimat	1,858 m2	\$9,044.73	<b>\$16,805,100</b>	\$8,669.91	\$14,889,700
PHASE 1 - Aquatic Expansion & Change Rooms					
PHASE 2 - Admin					
<b>Existing Building INTERIOR RENOVATIONS</b>	1,045 m2	\$1,883.25	<b>\$1,968,000</b>	\$2,953.11	\$3,086,000
<b>OFFSITE Work Allowances</b>		Allowance	<b>\$120,000</b>	Allowance	\$120,000
<b>SUB-TOTAL CONSTRUCTION (Excluding GST)</b>			<b>\$20,131,800</b>		<b>\$19,327,700</b>
<b>SOFT &amp; PROJECT COSTS</b>	<b>ALLOWANCE</b>	<b>38%</b>	<b>\$7,578,000</b>	<b>36%</b>	<b>\$6,997,000</b>
Professional Design Fees & Expenses		\$2,013,000		\$1,933,000	
Project Management		\$604,000		\$580,000	
Furniture & Furnishings & Equipment		\$1,007,000		\$966,000	
Project Contingency (incl Change Orders)		\$1,007,000		\$966,000	
Permits, Insurance, Project Administration, Legal Fees, DCC's		\$592,000		\$290,000	
Goods & Services Tax (rebated)		\$342,000		\$329,000	
PROJECT RESERVE		2,013,000		1,933,000	
<b>TOTAL PROJECT COST</b>			<b>\$27,709,800</b>		<b>\$26,324,700</b>
<b>CONSTRUCTION ESCALATION CONTINGENCY</b>			<b>\$1,509,900</b>		<b>\$1,932,800</b>
Assume construction tender - 12mths	8%	1,509,900		1,932,800	
<b>TOTAL PROJECT - INCLUDING ESCALATION</b>			<b>\$29,219,700</b>		<b>\$28,257,500</b>

## NOTES & CLARIFICATIONS

This estimate is based on a lump sum, competitively bid form of contract.

Priced in JULY 2024 dollars, with an allowance of 7.5% for Escalation to start of construction assumed to be in the next 12 months

This estimate represents a fair and reasonable construction cost of the work based on an understanding of the work as outlined on the design drawings, reports and details by FAULKNERBROWNS ARCHITECTS, dated July 26, 2024 which includes Engineering consultant reports and drawings (structural, mechanical, electrical, civil, code, landscape).

The estimate prepared by JBA reflects probable construction costs prevailing at the date of this report and is a determination of fair market value for the construction of this project and should not be taken as a prediction of the lowest bid price. The Construction market remains variable with prices continuing to rise.

JBA does not have control over the cost of labour, materials, equipment, over a contractor's method of determining bid prices, or over competitive bidding, market conditions. Accordingly JBA cannot and does not warrant or represent that bid prices will not vary from this estimate.



# Ravensong Aquatic Centre Expansion

September 16, 2024

## PREFERRED DESIGN OPTIONS

for the Regional District of Nanaimo

concept design options by: FAULKNERBROWNS ARCHITECTS

SEPARATE PRICES	Class B Estimate	
<b>Construction Sequencing Cost</b>	ADD	642,100
Temporary Entrance Pravilions		147,000
Relocation of Electrical during Fire Alarm panel		25,000
Temporary Water Line Installation for Pool system		51,300
Temporary Wall Construction to partition Natatoirum Space		115,000
Relocation of AHU-1/2 on Existing Roof		80,000
Overhead, Supervision & General Conditions, GC Fee		73,200
Design Contingency		24,600
Consultant CA fee impact for schedule delay (\$42,000/mth x 6mths)		126,000
<b>Upgraded Exterior Envelope</b>	ADD	230,500
Upgraded Roof Insulation (7", R40+) - Base 5.5"		28,500
Improved Wall Insulation with upgraded thermal clips		38,500
Triple Pane IGU (high performance) on New Curtainwall Spec		74,100
Insulated Slab-on-Grade and foundation walls (R20)		45,700
Overhead, Supervision & General Conditions, GC Fee		32,700
Design Contingency		11,000
<b>Provide Pool Covers</b>		to be determined
Pool cover for 25m Lap Pool		
GC Work, Installation and Markup		
<b>Vertical Sand Pool Filters w/ Glass Bead</b>	SAVING	(333,200)
New Filters to Glass (from Regenerative) - 2 No.		(90,000)
Existing Filters to Glass (from Regenerative) - 4 No.		(180,000)
Overhead, Supervision & General Conditions, GC Fee		(47,300)
Design Contingency		(15,900)
<b>Replace Existing Gas Boilers with Electric System</b>	ADD	666,200
Replace existing Boilers with Electric (3x2000MBH)		540,000
New Gas Backup Boiler		not incl.
Upgrade Electrical Service		1600A Service Incl.
Overhead, Supervision & General Conditions, GC Fee		94,500
Design Contingency		31,700
<b>Capture Waste Heat from Showers, Deck Drains and Pool Backwashing</b>	ADD	203,600
Sharc Piranha T10 water to water heat pump and 1000gal storage tank		165,000
Overhead, Supervision & General Conditions, GC Fee		28,900
Design Contingency		9,700
<b>Mechanical Separate Prices</b>	ADD	123,400
CHEMICAL SYSTEM UPGRADE OF EXISTING (LIQUID CHLORINE)		50,000
VARIABLE SPEED PUMPING WITH TURBIDITY METERS		40,000
ADD VARIABLE SPEED PUMP TO EXISTING (Existing Pool Baskwash)		10,000
Replace 2019 extg AHU with Air-cooled Heat pump		size to be confirmed
Overhead, Supervision & General Conditions, GC Fee		17,500
Design Contingency		5,900
<b>Mechanical - Existing POOL WATER SYSTEMS - Separate Price</b>	ADD	1,198,600
Mechanical Upgrades - POOL WATER SYSTEMS		1,198,600
<b>Electrical Separate Prices</b>	ADD	14,800
Occupancy Sensors for Lighting System		12,000
Overhead, Supervision & General Conditions, GC Fee		2,100
Design Contingency		700
<b>Photovoltaics</b>	SAVING	(267,300)
Delete Photovoltaics		(267,300)
<b>Mass Timber Decking</b>	ADD	184,500
Replace metal deck to Natatorium roof with Mass Timber (CLT) 755m2		149,500
Overhead, Supervision & General Conditions, GC Fee		26,200
Design Contingency		8,800

Costs above are NET ADD/DEDUCT Construction Costs only. Excluding Soft Costs and Escalation.

**RAVENSONG AQUATIC CENTRE EXPANSION**

September 16, 2024

737 Jones Street, Qualicum Beach, BC

for Regional District of Nanaimo

design by FAULKNERBROWNS ARCHITECTS

EXECUTIVE CONSTRUCTION COST SUMMARY		Class B Estimate		Class C Estimate - April 2024	
<b>Site Development</b>		<b>\$1,238,700</b>		<b>\$1,232,000</b>	
Site clearing & Site preparation, remove organics, earthworks		185,200		50,000	
Roads - Asphalt Paving & Curbs - revision to extg		11,500		Existing Remain	
Sidewalks and Decorative Paving, Hardlandscaping		217,700		325,000	
Furniture & Signage		33,200			
Soft Landscaping / Planting / Irrigation		112,300		120,000	
Mechanical Civil Services (storm, sewer, water & gas)					
• Existing Services - Relocations, Abandon		50,000		50,000	
• Water Main - new 150mm dia required for Fire Service, relocate existing		35,800		75,000	
• Storm drainage - for addition		144,100		100,000	
• Sanitary Connection - remain		Remain		Remain	
• Gas		Remain		Remain	
Electrical Civil Services & New 1600A 347/600V Service		250,000		200,000	
Site Lighting		None Shown		80,000	
General Contractor Overheads & Fee		139,900		120,000	
Design Contingency		59,000		112,000	
<b>NEW Building Construction (REFER TO DETAILED ESTIMATE)</b>	<b>20,000 SF</b>	<b>\$840.28</b>	<b>\$16,805,100</b>	<b>\$805.45</b>	<b>\$14,889,700</b>
Substructure & Foundations, Earthworks, Soils Anchors		1,374,200		1,118,100	
Slab on grade, upper floor structure & roof structure		2,569,900		2,390,900	
Exterior Envelope		2,420,500		2,357,800	
Interior Construction (partitions, doors, finishes, fittings)		608,800		421,000	
Stairs, Elevator		0		0	
Finishes		978,100		741,500	
Fittings, Equipment, Specialties & Millwork		596,700		477,100	
Electrical		994,000		858,700	
Mechanical (Plumbing, Sprinklers & HVAC / Controls / Pool Water Systems)		2,714,700		2,408,200	
New POOL WATER SYSTEMS		1,628,100		980,000	
Existing Building Demolition		201,800		196,600	
TEMPORARY WORKS & PHASING		See Sep Price		See Sep Price	
Overhead, Supervision & General Conditions, GC Fee		1,846,600		1,586,200	
CM PRE-CONSTRUCTION ADVISORY SERVICES		75,000			
Design Contingency	5.0%	796,700		1,353,600	
<b>Existing Building RENOVATIONS &amp; UPGRADES</b>	<b>1,045 m2</b>	<b>\$1,883.25</b>	<b>\$1,968,000</b>	<b>\$2,953.11</b>	<b>\$3,086,000</b>
Seismic Upgrade (Foundations, Brace Bay, Diaphragm upgrade)	1,045 m2	685,000		771,300	
Re-roofing		Not Included		Not Included	
Mechanical Upgrades, incl. Fire Protection Sprinklers		101,300		1,134,400 (incl. AHU Replace)	
Existing POOL WATER SYSTEMS		See Sep Price		Not Included	
Electrical Upgrades include Upgrade Incoming Service		914,400		668,800	
Site Overhead, Supervision & General Conditions, CM Fee		incl		228,700	
Design Contingency		incl		282,800	
PHOTOVOLTAICS		267,300		Separate Price	
<b>OFFSITE Work Allowances</b>		<b>Allowance</b>	<b>\$120,000</b>	<b>Allowance</b>	<b>\$120,000</b>
Roads & Intersections		N/A		N/A	
Services Upgrades		120,000		120,000	
<b>SUB-TOTAL CONSTRUCTION (Excluding GST)</b>		<b>\$20,131,800</b>		<b>\$19,327,700</b>	
<b>SOFT &amp; PROJECT COSTS</b>		<b>ALLOWANCE</b>	<b>30%</b>	<b>\$7,578,000</b>	<b>30%</b>
Professional Design Fees & Expenses	10.0%	\$2,013,000		\$1,933,000	
Project Management	3.0%	\$604,000		\$580,000	
Furniture & Furnishings & Equipment	5.0%	\$1,007,000		\$966,000	
Project Contingency (incl Change Orders)	5.0%	\$1,007,000		\$966,000	
Permits, Insurance, Project Administration, Legal Fees, DCC's	2.9%	\$592,000		\$290,000	
Goods & Services Tax (rebated)	1.7%	\$342,000		\$329,000	
PROJECT RESERVE	10.0%	2,013,000		1,933,000	
<b>TOTAL PROJECT COST</b>		<b>\$27,709,800</b>		<b>\$26,324,700</b>	
<b>CONSTRUCTION ESCALATION CONTINGENCY</b>		<b>\$1,509,900</b>		<b>\$1,932,800</b>	
Assume construction tender - 12mths	7.5%	1,509,900		1,932,800	
<b>TOTAL PROJECT - INCLUDING ESCALATION</b>		<b>\$29,219,700</b>		<b>\$28,257,500</b>	

# RAVENSONG AQUATIC CENTRE EXPANSION

Date: September 16, 2024

737 Jones Street, Qualicum Beach, BC  
for Regional District of Nanaimo  
design by FAULKNERBROWNS ARCHITECTS

BUILDING - ELEMENTAL COST SUMMARY		Class B Estimate - Phase 1 & 2 BUILDING ADDITION						
Element	Ratio to GFA	Element Cost			Total Cost		Rate per m2	
		Quantity	Unit Rate	Sub-total	Sub-total	Total	%	
<b>1. SUBSTRUCTURE</b>					<b>1,374,200</b>		739.61	8.2
(a) Normal foundations	0.710	1,320 m2	533.03	703,600		378.69		
(b) Earthwork for Building	0.710	1,320 m2	508.03	670,600		360.93		
(c) Special conditions - PILING	0.710	1,320 m2	0.00	0		0.00		
<b>2. STRUCTURE</b>					<b>2,569,900</b>		1,383.15	15.3
(a) Slab at Grade	0.710	1,320 m2	294.47	388,700		209.20		
(b) Suspended floor construction	0.000			0		0.00		
(c) Roof Construction	0.720	1,338 m2	1,335.58	1,787,000		961.79		
(d) Structural Walls	0.307	570 m2	691.28	394,200		212.16		
<b>3. EXTERIOR CLADDING</b>					<b>2,420,500</b>		1,302.74	14.4
(a) Roof finish	1.058	1,965 m2	409.72	805,100		433.32		
(b) Walls below ground floor	0.125	232 m2	185.23	42,900		23.09		
(c) Walls above ground floor	0.461	857 m2	1,053.82	902,700		485.84		
(d) Windows	0.190	353 m2	1,599.91	564,400		303.77		
(e) Exterior doors & screens	0.004	7 No.	9,057.14	63,400		34.12		
(g) Sunshades	0.000			36,600		19.70		
(h) Balcony & Projections	0.010	18 m2	300.00	5,400		2.91		
<b>4. INTERIOR PARTITIONS</b>					<b>608,800</b>		327.66	3.6
(a) Permanent partitions	0.127	236 m2	1,575.20	372,000		200.22		
(b) Interior Windows	0.048	90 m2	1,050.00	94,500		50.86		
(c.1) Security Grille	0.000		Item	0		0.00		
(c.2) Operable Walls - Folding Doors	0.000		Item	66,900		36.01		
(d) Interior Doors	0.012	22 lvs	2,627.27	57,800		31.11		
(e) Hardware	0.007	13 lvs	1,353.85	17,600		9.47		
<b>5. VERTICAL MOVEMENT</b>					<b>0</b>		0.00	0.0
(a) Stairs	0.000	0 No.	0.00	0		0.00		
(b) Elevator	0.000			0		0.00		
(c) Ramps & Steps	0.000			0		0.00		
<b>6. INTERIOR FINISHES</b>					<b>978,100</b>		526.43	5.8
(a) Floor finishes	0.798	1,483 m2	225.16	333,800		179.66		
(b) Ceiling finishes	0.798	1,483 m2	222.53	329,900		177.56		
(c) Wall finishes	0.680	1,263 m2	248.92	314,400		169.21		
<b>7. FITTINGS &amp; EQUIPMENT</b>					<b>596,700</b>		321.15	3.6
(a) Millwork	1.000	1,858 m2	80.36	149,300		80.36		
(b) Whiteboards / Tackboards	1.000	1,858 m2	1.35	2,500		1.35		
(c) Miscell Specialties	1.000	1,858 m2	0.81	1,500		0.81		
(d) Miscell Metals	1.000	1,858 m2	1.35	2,500		1.35		
(e) WC Access/Ptns	1.000	1,858 m2	48.44	90,000		48.44		
(f) Lockers	0.000		Item	134,300		72.28		
(g) Counter Grill	0.000			29,100		15.66		
(h) Walk Off Mats	0.000		Item	5,000		2.69		
(i) Signage	0.000		Item	15,000		8.07		
(j) Mirrors	0.000		Item	10,000		5.38		
(k) Rough Carpentry, Caulking, Fireproofing	0.000		Item	5,000		2.69		
(l) Kitchen Equipment	0.000			0		0.00		
(m) POOL Specialties & Equipment	0.000		Item	150,000		80.73		
(n) Sealants & Firestopping	0.000		Item	2,500		1.35		
<b>8. ELECTRICAL</b>		1858 m2	534.98		<b>994,000</b>		534.98	5.9
(a) Service & Distribution	1.000	1,858 m2	129.60	240,800		129.60		
(b) Lighting	1.000	1,858 m2	215.39	400,200		215.39		
(c) Power	1.000	1,858 m2	48.01	89,200		48.01		
(d) Fire Alarm	1.000	1,858 m2	26.00	48,300		26.00		
(f) Tel / Data	1.000	1,858 m2	29.98	55,700		29.98		
(e) Security	1.000	1,858 m2	50.00	92,900		50.00		
(d) PA & Ancillary Systems	1.000	1,858 m2	36.01	66,900		36.01		
<b>9. MECHANICAL</b>		1858 m2	2,337.35		<b>4,342,800</b>		2,337.35	25.8
(a) Plumbing & drainage	1.000	1,858 m2	236.65	439,700		236.65		
(b) Fire protection	1.000	1,858 m2	57.37	106,600		57.37		
(c) HVAC	1.000	1,858 m2	1,072.07	1,991,900		1,072.07		
(d) Controls	1.000	1,858 m2	94.99	176,500		94.99		
(e) POOL EQUIPMENT		426,118 Litr	3.82	1,628,100		876.26		
<b>EXISTING BUILDING -DEMOLITION</b>					<b>201,800</b>		108.61	1.2
<b>TEMPORARY WORKS &amp; PHASING</b>					<b>See Sep Price</b>			
<b>OVERHEADS &amp; PROFIT, GC FEE</b>					<b>1,846,600</b>		993.86	11.0
<b>CM PRE-CONSTRUCTION ADVISORY SERVICES</b>					<b>75,000</b>		40.37	0.4
<b>DESIGN CONTINGENCY</b>				5%	<b>796,700</b>		428.79	4.7
<b>NET BUILDING COST</b>				GST is Excluded	<b>\$16,805,100</b>		9,044.73	100.0
GROSS FLOOR AREA:							1,858 m2	

# RAVENSONG AQUATIC CENTRE EXPANSION

September 16, 2024

737 Jones Street, Qualicum Beach, BC  
for Regional District of Nanaimo  
design by FAULKNERBROWNS ARCHITECTS

DETAILED COST ESTIMATE:	Class B Estimate - Phase 1 & 2 BUILDING ADDITION				
Element	Element Cost				
	Quantity	Unit Rate	total	Sub-total	Total Cost
<b>1. SUBSTRUCTURE</b>					<b>1,374,200</b>
<b>(a) Foundations</b>	1,858	m2	378.69	<b>703,600</b>	
<u>Spread Footings and Pool Construction</u>					
• Formwork	1,210	m2	275.00	332,600	
• Rebar	36,783	kg	4.00	147,100	
• Concrete Supply	350	m3	300.00	105,100	
• Concrete placing incl. Labour & pumping costs	350	m3	125.00	43,800	
• Work adjacent building	58	m	Item	15,000	
• Installation, blocksouts etc Water Jets, Outlets, pipes etc			Item	60,000	
<b>FOUNDATIONS</b>					
	Length	Width	Height	QTY	
SF1	53	0.500	0.250	1	
SF2	99	0.900	0.300	1	
SF3	71	1.500	0.450	1	
SF4	26	1.800	0.600		
PF1	2	1.600	0.300	3	
PF2	2	1.750	0.300	2	
PF3	2	2.000	0.450	1	
PF4	2	2.200	0.450	1	
PF5	3	2.500	0.450	1	
PF6	5	12.000	0.600	3	
Pool Walls	134	0.300	1.500	1	
Perimeter Walls - pool	106	0.200	1.500	1	
Surge gutter	70	0.600	0.400	1	
Perimeter Walls	146	0.200	0.500	1	
Bracebay	22	0.350	1.500	1	
<b>(b) Earthwork for building</b>	1,858	m2	75.00	<b>670,600</b>	
Site Preparation, clearing, demol, extg paving, fences etc	1,858	m2		See Site	
Bulk excavation site - 1500mm	3,033	m3	25.00	75,800	
Detailed excavation for foundations	461	m3	98.00	45,100	
Disposal off site	3,494	m3	95.00	331,900	
Backfilling - import granular supply	746	m3	54.00	40,300	
Place import, compact structural fill	746	m3	30.00	22,400	
Import 75 crush gravel slab base - supply	372	m3	78.00	29,000	
Place import & compact slab base - fine grade	1,320	m2	15.00	19,800	
Civil work for buried conduits, drains etc.	75	m	250.00	18,800	
Erosion & Sedimentation Control, Traffic control			15%	87,500	
<b>(c) Special Conditions</b>					<b>0</b>
Piling					N/A
Preload					N/A
Shotcrete shoring with anchors					N/A
Underpinning existing building foundations					N/A
Soils Anchors for seismic brace bays					N/A
Dewatering / Pumping					N/A

# RAVENSONG AQUATIC CENTRE EXPANSION

September 16, 2024

737 Jones Street, Qualicum Beach, BC  
for Regional District of Nanaimo  
design by FAULKNERBROWNS ARCHITECTS

DETAILED COST ESTIMATE:	Class B Estimate - Phase 1 & 2 BUILDING ADDITION				
Element	Element Cost				
	Quantity	Unit Rate	total	Sub-total	Total Cost
<b>2. STRUCTURE</b>					<b>2,569,900</b>
<b>(a) Slab on Grade - reinf conc slab</b>					<b>388,700</b>
Rebar	1,320	m2	294.47		
Concrete Supply (100, 150 plus 300 thickening)	12,756	Kg	4.00	51,000	
Placing incl. Pumping & labour	213	m3	300.00	63,800	
Rigid insulation under slab at perimeter	213	m3	145.00	30,800	
Trenches/drains/depressions/pits/sump	98	m2	68.00	6,700	
Finishing & Control joints, poly			Item	15,000	
Extra cost pool base - topping, sloped	1,320	m2	21.00	27,700	
Pool Edge detail	473	m2	135.00	63,900	
Pool Edge trench detail	74	m	400.00	29,600	
Linear drain in pool deck slab, incl. thickening	26	m	400.00	10,400	
Linear drain in change slab, incl. thickening	70	m	350.00	24,500	
Linear drain in pool tank slab, incl. thickening	86	m	350.00	30,200	
	78	m	450.00	35,100	
<b>(b) Upper Floor Construction</b>					<b>0</b>
<b>(c) Roof construction incl. overhangs.canopy</b>					<b>1,787,000</b>
<u>Mid Level Concrete Structure (Columns/Beam)</u>	1,338	m2	1,335.58		
• Formwork 650x650mm beam	104	m	2,068.27		
• Formwork - circular columns	203	m2	380.00	77,100	
• Rebar	90	m	518.00	46,600	
• Concrete Supply	11,623	kg	4.00	46,500	
• Concrete placing incl. Labour & pumping costs	80	m3	300.00	24,000	
• Finishing	80	m3	145.00	11,600	
	372	m2	25.00	9,300	
<u>Natatorium Roof - Steel Cols/Braces, Glu Lams, Metal Deck,</u>	755	m2	1,321.85		
• Structural steel framing - HSS section, Cols, braces	23,560	kg	15.00	353,400	
• Metal deck	755	m2	190.00	143,500	
• GLU LAM 130x532 Joists & Perim	256	m	290.47	74,400	
• GLU LAM 365x1330 Beams	114	m	2,184.53	247,900	
• Connections hardware - brackets, bolts etc	755	m2	28.00	21,100	
• Hoisting	755	m2	32.00	24,200	
• Labour install Glulam roof	755	m2	125.00	94,400	
• Moment connections steel framing	7	No.	3,500.00	24,500	
• Perimeter blocking for roof upstand	104	m	140.00	14,600	
<u>Roof Construction - Low Roofs/Canopy</u>	583	m2	800.00		
• Structural steel framing - W section/OWSJ Joists	23,903	kg	15.00	358,500	
• Metal deck	583	m2	185.00	107,900	
• Perimeter framing for 1m high roof upstand	168	m	640.00	107,500	
<b>(d) Structural Walls</b>					<b>394,200</b>
<u>Concrete Walls</u>					
Concrete shear wall	32	m2	1,180.00	37,800	
<u>Masonry Walls</u>					
Reinforced masonry walls - Exterior	570	m2	624.99		
	570	m2	625.00	356,400	

# RAVENSONG AQUATIC CENTRE EXPANSION

September 16, 2024

737 Jones Street, Qualicum Beach, BC  
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DETAILED COST ESTIMATE:	Class B Estimate - Phase 1 & 2 BUILDING ADDITION				
Element	Element Cost				
	Quantity	Unit Rate	total	Sub-total	Total Cost
<b>3. EXTERIOR CLADDING</b>					<b>2,420,500</b>
<b>(a) Roof finish</b>	1,965 m2	409.72			<b>805,100</b>
SBS Membrane roofing, 5.5" insulation, Densdeck	1,965 m2	340.00	668,100		
Roof Hatch			0		
Skylights	10 m2	1,800.00	18,000		
Parapet upstand, back cladding and cant	272 m	210.00	57,100		
Flashings - wall, curb adjacent extg	30 m	96.00	2,900		
Flashings - parapet top	272 m	135.00	36,700		
Expansion Joint at Natatorium	32 m	400.00	12,800		
Concrete pads		Item	2,000		
Roof Ladders		Item	2,500		
Fall Restraint/roof anchors		Item	5,000		
<b>(b) Walls below ground floor</b>					<b>42,900</b>
Waterproofing, protection board, damproofing, drain mat	232 m2	120.00	27,800		
Below grade insulation	232 m2	65.00	15,100		
<b>(c) Exterior Wall Cladding</b>	857 m2	1,053.82			<b>902,700</b>
<u>Exterior Wall Backup/Insulation/AVB</u>					
• 125mm semi-rigid Insulation	857 m2	72.00	61,700		
• metal stud framing, AVB, sheathing	677 m2	124.00	83,900		
• metal furring, AVB, sheathing	180 m2	90.00	16,200		
• interior drywall	677 m2	60.00	40,600		
• performance/air tightness, barrier tapes, testing	857 m2	80.00	68,500		
<u>Exterior Cladding</u>					
• Wood cladding	W1	m2	480.00	0	
• Prefinished Metal Siding	W2/3/4	m2	720.00	616,800	
• Louvres & miscellaneous		Item	15,000		
<b>(d) Aluminum Windows &amp; Curtainwall</b>	353 m2	1,599.91			<b>564,400</b>
Aluminum windows - operable		m2	1,350.00	0	
Curtainwall	353 m2	1,600.00	564,400		
Aluminum Clerestory Windows		m2	1,200.00	0	
<b>(e) Exterior doors &amp; screens</b>	7 Lvs	9,057.14			<b>63,400</b>
H/M Door and Frame solid doors - insulated - single	1 No.	2,200.00	2,200		
H/M Door and Frame doors - insulated, double	2 Set	3,850.00	7,700		
Glazed aluminum frame entrance doors - Single	1 Lvs	5,400.00	5,400		
Glazed aluminum frame entrance doors - PAIR	3 Set	10,300.00	30,900		
Hardware	9 Lvs	1,350.00	12,200		
Auto Operator		Item	5,000		
<b>(g) Sunshades</b>					<b>36,600</b>
Wood privacy screen to Admin	49 m2	750.00	36,600		
<b>(h) Canopy &amp; Projections, Soffits</b>	18 m2				<b>5,400</b>
Soffit finish - prefinished metal perf	18 m2	300.00	5,400		
Roof Screen			0		

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<b>4. INTERIOR PARTITIONS</b>					<b>608,800</b>
<b>(a) Permanent partitions</b>	236	m2	1,575.20		<b>372,000</b>
P1a Metal Stud Partitions, Drywall each side	236	m2	250.00	59,000	
P2a Metal Stud Partitions, Tile backer each side	38	m2	380.00	14,400	
P2C Metal Stud Plumbing space furring	299	m2	195.00	58,300	
Acoustic measures (acoustic batt insulation)	83	m2	72.00	6,000	
P3 90mm Masonry walls	223	m2	510.00	113,800	
P4 190mm Masonry walls	183	m2	620.00	113,600	
Shaftwall, firestopping		Item		5,000	
Blocking and supports in wall	118	m2	16.00	1,900	
<b>(b) Glazed Interior Windows &amp; Frames</b>	90	m2	1,050.00		<b>94,500</b>
GP1 Interior glazing	90	m2	1,050.00	94,500	
GP3 Interior glazing	14	m2	1,050.00	15,100	
<b>(c.1) Security Grille</b>					<b>0</b>
<b>(c.2) Operable Walls - Folding Doors</b>	7.6	m		8,800.00	<b>66,900</b>
<b>(d) Interior Doors, frames - Supply/Install</b>	22	lvs	2,627.27		<b>57,800</b>
Doors, Frames Supply					
• Wood door	9	Lvs	680.00	6,100	
• Hollow Metal doors	4	Lvs	700.00	2,800	
• PM frame - single	13	No.	350.00	4,600	
• PM Frames - double	2	No.	600.00	1,200	
Fully Glazed doors - aluminum frame	4	No.	5,400.00	21,600	
Entrance Vestibule Pair of Doors	1	Set	10,300.00	10,300	
Auto Operator		Item		5,000	
Labour install door	13	Lvs	180.00	2,300	
Painting door/frame	13	Lvs	300.00	3,900	
<b>(e) Finish Hardware</b>	13	lvs	1,350.00		<b>17,600</b>
<b>5. VERTICAL MOVEMENT</b>					<b>0</b>
<b>(a) Stairs</b>					<b>0</b>
<b>(b) Elevator - 5 stop</b>					<b>0</b>
<b>(c) Ramps &amp; Steps</b>					<b>0</b>
<b>6. INTERIOR FINISHES</b>					<b>978,100</b>
<b>(a) Floor finishes &amp; Rubber Base</b>	1,483	m2	225.16		<b>333,800</b>
Exposed concrete - epoxy painted	52	m2	25.00	1,300	
Sheet vinyl flooring	163	m2	105.00	17,100	
Seamless troweled Epoxy Flooring - Washrooms	440	m2	140.00	61,600	
Carpet tile	58	m2	120.00	6,900	
POOL TILE	770	m2	225.00	173,200	
POOL TILE - Edge	100	m	400.00	40,000	
Resilient Sport	174	m2	165.00	28,700	
Base		Item		5,000	
<b>(b) Ceiling finishes</b>	1,483	m2	222.53		<b>329,900</b>
Exposed structure - Painted/Stained Natatorium	733	m2	48.00	35,200	
Acoustic Tile	659	m2	110.00	72,500	
Wood Suspended ceiling	163	m2	375.00	61,100	
Drywall on framing - dropped ceiling, ptd	85	m2	145.00	12,300	
Acoustic panels Natatorium	309	m2	450.00	138,800	
Drywall on framing - vertical bulkheads, recept/entry		Item		10,000	
<b>(c) Wall finish</b>	1,263	m2	248.92		<b>314,400</b>
Expoxy paint block walls	1,383	m2	48.00	66,400	
Ceramic tile	375	m2	185.00	69,300	
Tectum 2.4m Pool	120	m2	265.00	31,800	
MDF panel	60	m2	245.00	14,700	
Acoustic Panels - Lobby		Allow		5,000	
Wood Panel - Cedar, Sauna	76	m2	425.00	32,500	
Paint Finish drywall	1,263	m2	26.00	32,800	
POOL TILE - vertical walls	234	m2	265.00	61,900	

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<b>7 a. FITTINGS &amp; EQUIPMENT</b>					<b>596,700</b>
<b>(a) Millwork</b>	1,858 m2	80.36			<b>149,300</b>
Cabinet Work - Supply & Install					
• Sink Counter/cupboards - Control	2 m	2,100.00	4,200		
• Sink Counter/cupboards - Break	5.4 m	2,100.00	11,300		
• Control Counter - open below	4.4 m	1,800.00	7,900		
• Counter/cupboards - MPR	4.6 m	2,100.00	9,700		
• Counter/cupboards - Admin Support	5.8 m	2,100.00	12,200		
• Admin Control Counter - open below	5.4 m	1,800.00	9,700		
• Overhead cupboards	10 m	1,050.00	10,100		
• Reception	9.7 m	2,500.00	24,300		
• Vanities	13 m	900.00	11,300		
• Locker change bench	20 m	1,200.00	24,000		
• MPR Storage	8 No.	1,200.00	9,600		
• Corridor Display etc.		Item	10,000		
• Storage & Miscell		Item	5,000		
<b>(b) Tackboards / Whiteboards</b>				Item	<b>2,500</b>
2400mm Whiteboard					
1200mm Tackboard				0	
<b>(c) Miscell Specialties - access panels, fire extg</b>					<b>1,500</b>
<b>(d) Miscell Metals</b>					<b>2,500</b>
General Miscell Metals		Item	2,500		
<b>(e) WC Accessories &amp; Partitions</b>	19 Sets	4,736.84			<b>90,000</b>
WC accessories	19 No.	800.00	15,200		
WC Partitions with door	5 No.	1,200.00	6,000		
WC Partitions with divider & door	10 No.	2,200.00	22,000		
Handicapped Wrm Accessories	6 Sets	2,200.00	13,200		
Change Cubicles - front & door	16 No.	2,100.00	33,600		
<b>(f) Lockers</b>					<b>134,300</b>
Lockers (Mix single/touble/triple teir)	207 No.	650.00	134,300		
<b>(g) Counter Grill</b>	10 m		3,060.00		<b>29,100</b>
<b>(h) Walk off Mats</b>				Item	<b>5,000</b>
<b>(i) Signage - Room/Entry</b>				Item	<b>15,000</b>
<b>(j) Mirrors</b>				Item	<b>10,000</b>
<b>(k) Rough Carpentry</b>				Item	<b>5,000</b>
<b>(l) Kitchen Equipment</b>					<b>0</b>
<b>(m) POOL Specialties &amp; Equipment</b>				Item	<b>150,000</b>
<b>(n) Sealants and Firestopping</b>				Item	<b>2,500</b>



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Element		Element Cost				
		Quantity	Unit Rate	total	Sub-total	Total Cost
<b>8. ELECTRICAL</b>		1,858 m2	\$534.98			<b>994,000</b>
<b>(a) Distribution</b>		1,858 m2	129.60		<b>240,800</b>	
Permit & site set-up					15,000	
New MDC / Service, Meters 1600a		In Extg			See Renovation	
800A HV Feeder from new MDP				1 No.	Item	20,000
SDC 800A 600/347V 1x250A 4x?				1 No.	Item	40,000
Feeder 600A HV from MDC to SDC				1 No.	Item	15,000
Transformer 225kVa				1 No.	Item	58,000
SDP 600A 208/120V, 5x100A				1 No.	Item	8,500
Feeder 250A 208/120V to SDP				1 No.	Item	6,500
SubPanel 125A 208/120V 3x100A				2 No.	Item	11,200
Feeder 100a 208/120V to SP				2 No.	Item	5,600
Panelboards				6 No.	Item	21,000
Capacitors						0
TVSS						0
Metering					Item	15,000
Power factor correction						0
Grounding & bonding					Item	25,000
<b>(b) Lighting</b>		1,858 m2	215.39			<b>400,200</b>
Fixture type - Pool Light 240dia (Lap pool)		N1	20 No.	850.00		17,000
Fixture type - Pool Light 150dia (Leisure pool)		N2	20 No.	800.00		16,000
Fixture type - linear fluorescent/LED 4FT		K	20 No.	650.00		13,000
Fixture type - linear fluorescent/LED 8FT		K1	10 No.	980.00		9,800
Fixture type - 4" recessed downlight round		G	25 No.	700.00		17,500
Fixture type - wall mounted LED Indirect 24"		D	25 No.	1,250.00		31,300
Fixture type - pendant LED indiret up 24"		w	10 No.	1,250.00		12,500
Fixture type - exterior wall-mounted LED		A	30 No.	1,300.00		39,000
Fixture type - Natatorium 4ft hanging slim		R	38 No.	950.00		36,100
Fixture type - 2" recessed downlight, steam rm		R	8 No.	1,100.00		8,800
Fixture type - linear vapour tite 4ft		V	20 No.	800.00		16,000
Fixture type - single battery unit			10 No.	600.00		6,000
Fixture type - remote heads			12 No.	600.00		7,200
Exit signs - running man			12 No.	800.00		9,600
Fixture installation			220 No.	85.00		18,700
Conduit & wire			220 No.	365.00		80,300
Fixture installation - WP pool fixtures			40 No.	140.00		5,600
Conduit & wire - WP pool fixtures			40 No.	520.00		20,800
Lighting control systems - diming						25,000
Switches - single pole						10,000
Occupancy sensors					see Sep Price	
<b>(c) Power</b>		1,858 m2	48.00			<b>89,200</b>
Duplex receptacle - 15/20Amp						
Duplex receptacle - (four) quad						
Ceiling mounted receptacle - WAP/AV						
Duplex receptacle GFI						
Hand-dryers & hair dryers (power supplies only)						
Miscellaneous power supplies & conduits - electronic / infra-red faucets (plumbing fixtures)						
Mechanical Power Supplies - ASHP						
Mechanical Power Supplies - Fans						
Mechanical Power Supplies - FC						
Handicapped door power supply						
Push-buttons						
Clocks						
Miscellaneous power supplies						
Occupancy sensors - power switching						
Mechanical power wiring supplies						
<b>(d) Fire Alarm</b>		1,858 m2	26.00			<b>48,300</b>
Fire Alarm Panel, Annunciator incl. graphics						
Bells/strobes combination						
Bells / gongs						
Magnetic door holders						
Strobe lights						
Pull stations						
Duct detectors						
Smoke detectors						
Heat detectors						
Fire alarm zones / signals						
Sprinkler valves						
Fan shut down relays						
Conduit & wire						
Verification						

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DETAILED COST ESTIMATE:	Class B Estimate - Phase 1 & 2 BUILDING ADDITION				
Element	Element Cost				
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<b>8. ELECTRICAL (continued)</b>					
<b>(e) Telephone, Data &amp; communications</b>	1,858	m2	30.00	<b>55,700</b>	
Telephone/data single outlets					
Telephone/data wiring					
Telephone/data double outlets					
Telephone/data wiring					
Plywood backboards					
Tie into Back-bone cabling, patch panels - comm's room					
L/mtr telephone 300mm cable tray					
L/mtr wiremold					
Miscellaneous conduits					
Telephone hand sets - By Owner					
Wireless access points					
<b>(f) Security, PA</b>	1,858	m2	50.00	<b>92,900</b>	
Cameras					
Security & intruder alarm panel					
Conduit & wire - rough in for					
• Siren					
• Motion detectors					
• Card readers					
• Digital key-pad					
• Electric-strike					
• Glass Break Detectors					
• Magnetic door holders					
• Door contacts					
• Emergency call system					
<b>(g) Public Address</b>	1,858	m2	36.00	<b>66,900</b>	
AV outlets/wiring in MPR					
Speakers					
Tie into existing					

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Element	Element Cost					
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<b>9. MECHANICAL</b>	1,858 m2	\$1,461.09			<b>2,714,700</b>	
<b>(a) Plumbing &amp; drainage, gas piping, roof drains</b>	1,858 m2	236.65		<b>439,700</b>		
Roof drainage incl. underslab piping	1,338 m2	21.00	28,100			
Drain tile	146 m	320.00	46,700			
Sediment sump		Item	8,500			
Gas piping		Item	8,000			
Incoming water PRV		Item	24,000			
DHW boiler, tanks, pumps & recirc mains		Item	60,000			
DCW Pipework to fixtures	22 Fxt	800.00	17,600			
DCW/DHW pipework to fixtures	15 Fxt	1,800.00	27,000			
Fixtures incl. valves/brass, drains etc	65 Fxt					
• sinks	1 Fxt	2,580.00	2,600			
• lav	14 Fxt	3,500.00	49,000			
• WC	19 Fxt	2,900.00	55,100			
• Urinal	2 Fxt	2,750.00	5,500			
• Drinking fountain	1 Fxt	3,500.00	3,500			
• Janitor Sink	1 Fxt	3,100.00	3,100			
• Shower	7 Fxt	3,500.00	24,500			
• Floor drains	20 Fxt	900.00	18,000			
Drainage & Vent pipework	65 Fxt	900.00	58,500			
Underslab pipework			0			
<u>POOL WATER SYSTEMS (new pools)</u>			See Below			
<b>(b) Sprinkler Fire protection</b>	1,858 m2	57.37		<b>106,600</b>		
sprinkler valve station		l/s	18,000			
sprinkler coverage to new addition (cost per m2)	1,858 m2	43.00	79,900			
sprinkler coverage to soffits	107 m2	58.00	6,200			
fire extinguishers - allowance	4 No	250.00	1,000			
fill & test & commission sprinkler system - allowance		l/s	1,500			
<b>(c) Heating and Ventilation</b>	1,858 m2	1,072.07		<b>1,991,900</b>		
<u>Air Handling</u>						
Air Handling Unit - Natatorium AHU-1	35000CFM		Item	770,000		
Fan Coil Units (3/4HP)	FC1 - 8	8 No.	Item	68,000		
Heat Recovery Ventilator - Change	6000CFM		Item	132,000		
Heat Recovery Ventilator - Admin	2000CFM		Item	46,000		
Washroom / miscel / storage exhaust fans		4 No.	Item	35,000		
<u>Heating Plant</u>						
Air Source Heat Pumps	110T Ea	2 No.	Item	407,000		
Force Flows Cabinet heater		1 No.	Item	5,000		
Air Curtrain 3kw				0		
Unit Heaters, Kw				0		
Waste Water Heat Recovery (Shark)			Item	40,000		
<u>Piping</u>						
natural gas			Item	10,000		
heating water supply and return & gas pipework systems	1,858 m2	90.00	167,200			
condensate pipework			Item	25,000		
<u>Ductwork</u>						
galvanized steel ductwork	Natorium	850 m2	110.00	93,500		
galvanized steel ductwork	Change/Admin	1,008 m2	155.00	156,200		
external louvres			Item,	10,000		
air terminal grille				incl.		
diffusers, registers and grilles				incl.		
big ass fans 1.5HP		2 No.	6,000.00	12,000		
<u>HVAC</u>						
site set-up, test & commission/balancing, manuals, etc			Item	15,000		
<b>(d) Controls</b>	1,858 m2	95.00		<b>176,500</b>		
computer hardware & software, etc - tie to existing/reprogram						
exhaust fans						
air handling equipment						
fan coil units						
CO2 detectors						
motorized dampers						
boiler room controls, pumps/boilers						
convector & force-flow units heating thermostats						

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<b>MECHANICAL - POOL WATER SYSTEMS</b>					<b>1,628,100</b>
<b>(e) Pool Water Systems</b>	426,118	Litre		<b>1,628,100</b>	
Pool Heat Exchanger	3	No. Item	135,000		
Steam Generators 1125CF/27Kw	2	No. Item	60,000		
Pool Filter - regenerative 422.5GPM	2	No. Item	300,000		
Pool UV Filter 845GPM	1	No. Item	65,000		
Chemical Tanks - polyethylene	2	No. Item	36,000		
Circulation pumps - VFD	4	No. Item	100,000		
Circulation pumps - SS	5	No. Item	38,200		
Water Features - jets and pipework systems	7	Sets Item	280,000		
pipework connections to filtration systems, pumps etc		Item	100,000		
leisure & lap-pools circulation pipework, valves etc	473	m2 Item	180,000		
leisure & lap-pools new drainage systems	473	m2 Item	118,300		
steam pipeowrk, fittings, to steam rm/sauna		Item	60,000		
bulk-feed agitator / mixer & storage tank		Item	7,500		
er-lite & back-wash sumps, etc		Item	35,000		
air-compressors (assume small units)		Item	10,000		
grates and drain covers	260	m 300.00	78,100		
test & commission, manuals, etc		Item	25,000		
<b>EXISTING BUILDING -DEMOLITION</b>					<b>201,800</b>
Demolition and Hazmat existing building	621	m2	325.00	201,800	
<b>TEMPORARY WORKS &amp; PHASING</b>					<b>See Sep Price</b>
<b>DIRECT SITE OVERHEADS &amp; SUPERVISION</b>					<b>11.0% 1,354,300</b>
General Contractor, Mobilization, Setup				35,000	
Project Supervision	24	Mths	20,800.00	499,200	
On going project overhead - Monthly	24	Mths	28,000.00	672,000	
Insurance				98,100	
Bonding				0	
Project close out., Warranty Work, Final Cleaning				50,000	
<b>GENERAL CONTRACTOR FEE</b>					<b>3.5% 492,300</b>
<b>CM PRE-CONSTRUCTION ADVISORY SERVICES</b>					<b>75,000</b>
<b>DESIGN CONTINGENCY</b>					<b>5.0% 796,700</b>
<b>TOTAL NEW BUILDING CONSTRUCTION COST</b>					<b>\$16,805,100</b>
GROSS FLOOR AREA: (New)	20,000	SF	<b>1,858</b>	<b>m2</b>	

**Ravensong Aquatic Centre Expansion**  
**PREFERRED DESIGN OPTIONS**  
for the Regional District of Nanaimo  
concept design options by: FAULKNERBROWNS ARCHITECTS

September 16, 2024

PROJECT COST SUMMARY			MAIN POOL RENOVATIONS	
<b>EXISTING BUILDING RENOVATIONS &amp; UPGRADES</b>	1,683 m2	\$1,169.34	<b>\$1,968,000</b>	
<b>Interior Functional Renovations</b>			<b>See Separate Price</b>	
<b>Seismic Upgrade existing NATATORIUM</b>	1,079 m2	\$1,576.18	<b>\$685,000</b>	
Roof Diaphragm Upgrade - drag struts 205m (from underside)	205 m	\$450.00	92,000	
Installation premium over pool/high work, temp protection	1,079 m2	\$88.00	95,000	
Brace bay Foundations	45 m3	\$2,100.00	95,000	
Soils Anchors	8 No.	\$10,000.00	80,000	
Brace Bays	2 Lcn	\$48,000.00	96,000	
Re/re ceiling services due to seismic drag struts	1,079 m2	\$48.00	52,000	
Remove replace Roofing for Deck Upgrade			See Envelope	
GC Work, Demol, Hazmat, Temp Works	1,079 m2	\$35.00	38,000	
GC Overheads/Fee, Design/Existing Building Contingency			137,000	
<b>Exterior ENVELOPE Upgrades</b>			<b>Not Included</b>	
Re-roofing			Not Included	
<b>Mechanical Upgrades, incl. Fire Protection Sprinklers</b>	1,079 m2	\$93.88	<b>\$101,300</b>	
New Fire Protection Sprinklers to existing	1,079 m2	\$55.00	59,000	
Cutting/Patching, re/re ceilings/finishes for Sprinklers	1,079 m2	\$20.00	22,000	
Replace Natatorium 10,000CFM AHU			N/A	
Additional Heat Pumps/HRV - 180T			N/A	
Additional Boiler (2.0m BTU) Condensing Boiler			See Sep Price	
GC Overheads/Fee, Design/Existing Building Contingency			20,300	
<b>Mechanical Upgrades - POOL WATER SYSTEMS</b>			<b>See Below</b>	
<b>Electrical Upgrades include Upgrade Incoming Service</b>			<b>\$914,400</b>	
Demol/Removals/Removals in existing Main Electrical Room for new Service			50,000	
Modification, remedial civil works for new incoming HV feeders in extg elec room			30,000	
New MDC 1600a 600/347v, Feeder from PMT, 1x800A 1x300A			60,000	
New 300KVA Transformer / Feeder from MDC to SDC			95,000	
New 800A SDC 208/120V 1x600A,3x150A, 5x15A-125A			60,000	
Back feed existing panels in electrical room - 9 ccts (1x600A,3x150A, 5x15A-125A)			47,000	
Shut downs and tie ins for new electrical service			10,000	
New Pool Equipment Feeder, Disconnects, connections etc			40,000	
Existing AHU/HVAC equipment feeders/connections remedial work		Item	25,000	
Fire Alarm upgrade due to new sprinklers and addition	1,079 m2	\$45.00	49,000	
Fire Alarm Panel replacement incl. new graphics			30,000	
Replace Light fixtures in Existing Natatorium				
• Suspended 4ft Fxtures, incl. re/re circuits as rqd	17 No.	Item	59,500	
• Wall mount 4ft Fixtures, ditto	8 No.	Item	36,000	
Emergency Lighting, Exit Lighting replacement			25,000	
Data/Communication - relocate rack, upgrade wiring, WAP points			25,000	
Security Systems - CCTV Cameras in existing, Access control			60,000	
Audio Visual Systems - upgrades in existing			30,000	
GC Overheads/Fee, Design/Existing Building Contingency			182,900	
<b>PHOTOVOLTAICS</b>			<b>\$267,300</b>	

SEPARATE PRICE			<b>\$1,198,600</b>	
<b>Mechanical Upgrades - POOL WATER SYSTEMS</b>	1,079 m2	\$1,110.84	<b>\$1,198,600</b>	
Demol and removal existing filter Systems	4 No.		100,000	
Re/re strainers	4 No.	\$4,000.00	16,000	
New Regenerative Filters	4 No.	\$150,000.00	600,000	
Pipework modifications for new installation, incl. valves etc	4 No.	\$30,000.00	120,000	
Pumps, VFD's	13 No.	Item	110,500	
Miscellaneous remedial works to existing mech room			40,000	
GC Overheads/Fee, Design/Existing Building Contingency			212,100	

<b>COST ESTIMATE - SITE DEVELOPMENT</b>					
Element	Element Cost			Sub-total	Total Cost
	Quantity	Unit Rate	Unit Cost		
<b>SITE DEVELOPMENT</b>					<b>1,039,800</b>
<b>Site Clearing &amp; Rough Grading</b>				<b>185,200</b>	
Site Clearing, grass, trees	3,500 m2	12.00	42,000		
Demolish existing paving	600 m2	35.00	21,000		
Remove organics material offsite	350 m3	75.00	26,300		
Cut Site Levels, Rough Grade site to remove fill	2,153 m2	25.00	53,800		
Disposal off site - excavated fill materials, demo materials	413 m3	75.00	31,000		
Rock Excavation, Boulders			0		
Erosion and Sedimentation Control (ESC)		Item	11,100		
<b>Asphalt Parking &amp; Curbs</b>				<b>11,500</b>	
Asphalt Paving - Remedial works for Handicapped Stalls		Item	10,000		
Concrete curbs			0		
Wheelstops			0		
Line marking / Signs		Item	1,500		
<b>Sidewalks &amp; Hard Landscaping, Fencing, Retaining Walls</b>				<b>217,700</b>	
Concrete Sidewalks - Decorative	985 m2	185.00	182,200		
Crushed gravel	51 m2	38.00	1,900		
Garbage Enclosure			Existing		
Transformer Enclosure			Existing		
Chainlink fencing			0		
Gates			0		
Bollards			0		
Green Screen panels 1.2m x 3.3m h	3 No.	Item	10,500		
Seating wall - curved concrete base	12.4 m	1,100.00	13,600		
Seating wall - curved, with cedar slats with SS mounting	12.4 m	765.00	9,500		
<b>Furniture &amp; Signage</b>				<b>33,200</b>	
Bike Racks - SS pipe, surface mount	14 No.	Item	25,200		
Picnic Tables			0		
Benches	2 No.	Item	8,000		
Flagpoles		Item	0		
Site Signage			Existing		
<b>Soft Landscaping</b>				<b>112,300</b>	
Tree protection, Fencing, existing landscape area to remain		Item	4,000		
Tree removal		Item	2,500		
Tree relocation		Item	1,000		
Planting bed prepare, rough grading	1,294 m2	5.00	6,500		
Fine grade prep planting beds	379 m2	6.00	2,300		
Growing medium - imported, placed	194 m3	95.00	18,400		
Planting - grass (sod) - landscape areas	915 m2	15.00	13,700		
Planting - trees	3 No.	1,100.00	3,300		
Planting beds incl. shrubs, swale	379 m2	75.00	28,400		
Boulders, placed incl. granular pad	9 No.	800.00	7,200		
Bark Mulch		Item	0		
Irrigation		Item	20,000		
Maintenance, Warranty		Item	5,000		
<b>SITE UTILITIES &amp; CIVIL SERVICES</b>				<b>229,900</b>	
<b>Existing Services</b>			<b>50,000</b>		
• Remove cap off existing u/g services, Irrigation, storm, footing			50,000		
<b>Sanitary</b>			<b>0</b>		
<b>Storm Drainage</b>			<b>144,100</b>		
• New storm drain - incl. excavation 100mm leaders			2,000		
• New storm drain - incl. excavation 200mm			66,800		
• Footing drains & perimeter storm collection 100mm perf			26,300		
• Manholes - storm			36,000		
• Manholes - storm flow control			0		
• Catchbasin			8,000		
• Lawnbasin					
• New sediment sumps					
• Oil water separator					
• Connections			5,000		
• Storm detention tank			N/A		
<b>Domestic &amp; Fire Water Mains</b>			<b>35,800</b>		
• 150mm Water main incl. excavation and backfilling			16,800		
• 200mm Water main					
• valves and connections			3,500		
• Hydrant			0		
• Meter Chamber			12,500		
• Cinnction to existing 150mm PVC main			1,500		
• water service to irrigation, incl. termination box			1,500		
<b>Gas Main</b>			<b>0</b>		
• Gas service			Existing		
<b>Geothermal Pipework</b>			<b>0</b>		

**RAVENSONG AQUATIC CENTRE EXPANSION**

737 Jones Street, Qualicum Beach, BC

for Regional District of Nanaimo

design by FAULKNERBROWNS ARCHITECTS

11-Sep-24

<b>COST ESTIMATE - SITE DEVELOPMENT</b>					
Element	Element Cost				
	Quantity	Unit Rate	Unit Cost	Sub-total	Total Cost
<b>Site Electrical, Site Lighting</b>				<b>250,000</b>	
Incoming Electrical / TEL Duct Bank		Allow	250,000		
Hydro Fee, PMT and Connection			incl		
Telephone Connection Fees			incl		
Shaw Cable Connection Fees			incl		
Site Lighting, feeders, wiring			None Shown		
Pole mounted heads with single LED head			0		
Pole mounted heads with double LED head			0		
<b>11. DIRECT SITE OVERHEADS &amp; SUPERVISION</b>				<b>13.5%</b>	<b>139,900</b>
(a) GC Site Overhead					103,500
(b) GC Fee			3.5%		36,400
<b>12. DESIGN &amp; PRICING CONTINGENCY</b>				<b>5.0%</b>	<b>59,000</b>
<b>TOTAL SITE DEVELOPMENT COST</b>					<b>\$1,238,700</b>

# RAVENSONG AQUATIC CENTRE EXPANSION

September 16, 2024

737 Jones Street, Qualicum Beach, BC

for Regional District of Nanaimo

design by FAULKNERBROWNS ARCHITECTS

## BUILDING STATISTICS SUMMARY

<b>NEW BUILDING - Gross Floor Area (GFA)</b>	<b>m2</b>	<b>SF</b>
Main Floor Level - Phase 1	1,320.0	14,208.5
Main Floor Level - Phase 2	538.0	5,791.0
<b>TOTAL GROSS FLOOR AREA - ADDITION</b>	<b>1,858.0</b>	<b>19,999.5</b>

<b>BUILDING RENOVATIONS</b>	<b>m2</b>	<b>SF</b>
Natorium	795.0	8,557.4
Mechanical & Storage	250.0	2,691.0
<b>TOTAL GROSS FLOOR AREA - RENOVATIONS</b>	<b>1,045.0</b>	<b>11,248.4</b>

<b>EXISTING BUILDING DEMOLITION</b>	<b>m2</b>	<b>SF</b>
Phase 1	356.0	3,832.0
Phase 2	265.0	2,852.5
<b>TOTAL GROSS FLOOR AREA - BUILDING DEMOLITION</b>	<b>621.0</b>	<b>6,684.4</b>

<b>NEW Building Design Measurements</b>	<b>PHASE 1</b>		<b>PHASE 2</b>		<b>TOTAL</b>
<b>Gross Floor Area (GFA)</b>		<b>1,320.0</b>		<b>538.0</b>	<b>1,858.0</b>
<b>Footprint /GFA</b>		<b>1,320.0</b>		<b>538.0</b>	<b>1,858.0</b>
<b>Upper Floor</b>					
<b>Exterior Wall Length</b>		<b>118.0</b>		<b>48.0</b>	<b>166.0</b>
<b>Exterior Wall Area - Below Grade</b>					
<b>Exterior Wall Area - Finishes</b>		<b>856.6</b>		<b>163.7</b>	<b>1,020.3</b>
• W1			63.7		
• W2	766.6				
• W3 (Fascia)	90.0		100.0		
• W4					
<b>Window Area</b>		<b>352.8</b>		<b>103.6</b>	<b>456.4</b>
• Curtainwall	352.8		103.6		
• Clerestory					
<b>Roof Area</b>		<b>1,338.0</b>		<b>627.0</b>	<b>1,965.0</b>
• High Roof over NATATORIUM	755.0				
• Flat roofs	565.0		538.0		
• Canopy/Overhangs	18.0		89.0		
<b>Soffit Area</b>		<b>18.0</b>		<b>89.0</b>	<b>107.0</b>

<b>SPACE FUNCTION SUMMARY</b>		<b>m2</b>			
<b>Space Description</b>		<b>Room Area</b>	<b>Floor-Finish</b>	<b>Ceiling-Finish</b>	<b>Wall-Finish</b>
<b>NEW NATATORIUM - PHASE 1</b>	<b>850.0</b>				
POOL DECK		260.0	POOL TILE	ACT 3	TILE
POOL TANK		473.0	POOL TILE	ACT 3	TILE
STEAM		18.6	POOL TILE	WD INSUL PTD	WD
SAUNA		18.2	POOL TILE	WD INSUL PTD	WD
MECHANICAL		51.8	CONC	EXPOSED	PTD
Wall thickness	3.34%	28.4			
<b>MAIN FLOOR - PHASE 1</b>	<b>470.0</b>				
WATER ENTRY, STORAGE		19.5	TROWEL EPOXY	EXPOSED	
ACCESSIBLE SHOWER		4.4	TROWEL EPOXY	ACT 2	TILE
ACCESSIBLE WC		10.2	TROWEL EPOXY	ACT 2	TILE
FAMILY CHANGE ROOMS	2	61.0	TROWEL EPOXY	DW PTD	TILE
MENS CHANGE		55.5	TROWEL EPOXY	ACT 2	TILE
WOMENS CHANGE		56.7	TROWEL EPOXY	ACT 2	TILE
UNIVERSAL CHANGE		185.5	TROWEL EPOXY	ACT 2	TILE
UNIVERSAL WC		18.7	TROWEL EPOXY	ACT 2	TILE
Wall thickness	12.45%	58.5			



# RAVENSONG AQUATIC CENTRE EXPANSION

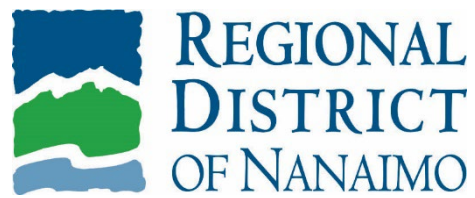
September 16, 2024

737 Jones Street, Qualicum Beach, BC  
 for Regional District of Nanaimo  
 design by FAULKNERBROWNS ARCHITECTS

## BUILDING STATISTICS SUMMARY

MAIN FLOOR - PHASE 2	538.0			
LOBBY, VESTIBULE		163.0	SHEET VINYL	WD ACT 3
CONTROL ROOM		19.3	CERAMIC TILE	ACT 2
RECEPTION		15.4	CERAMIC TILE	ACT 2
ADMIN- SUPPORT		23.9	CERAMIC TILE	ACT 2
RECEPTION- SUPPORT		23.9	CERAMIC TILE	DW PTD
JANITOR		2.3		
STAFF - WC		5.4	TROWEL EPOXY	ACT 2
STAFF CHANGE, SHOWER		23.2	TROWEL EPOXY	ACT 2
MEETING		7.1	CARPET TILE	ACT 2
BREAK ROOM		17.8	CARPET TILE	ACT 2
ACCESSIBLE WC		9.2	CERAMIC TILE	ACT 2
ADMIN- OFFICES	3	32.9	CARPET TILE	ACT 2
MPR 1		91.2	RESILITENT	ACT 2
MPR 2		82.5	RESILITENT	ACT 2
Wall thickness	3.88%	20.9		
<b>TOTAL</b>		<b>1,858.0</b>		

ATTACHMENT 4  
Design Development/Class B Costing  
Schedule Update



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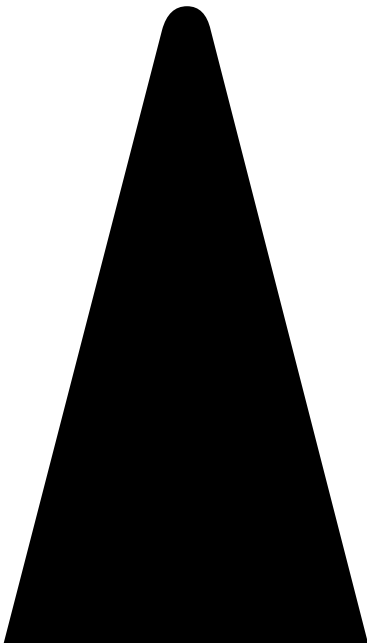
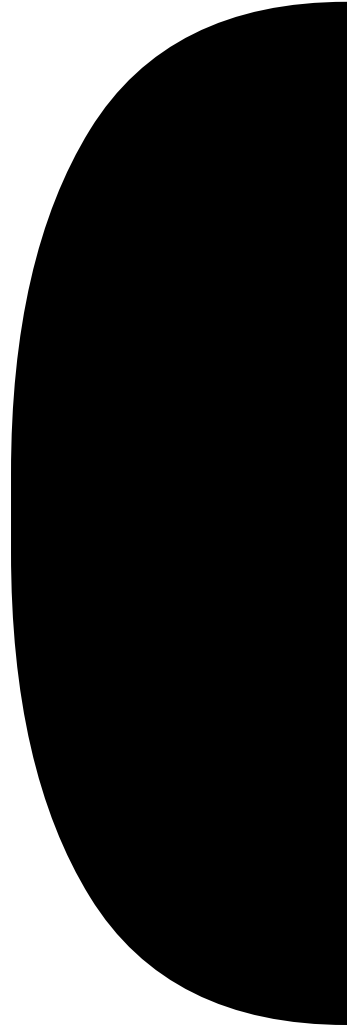
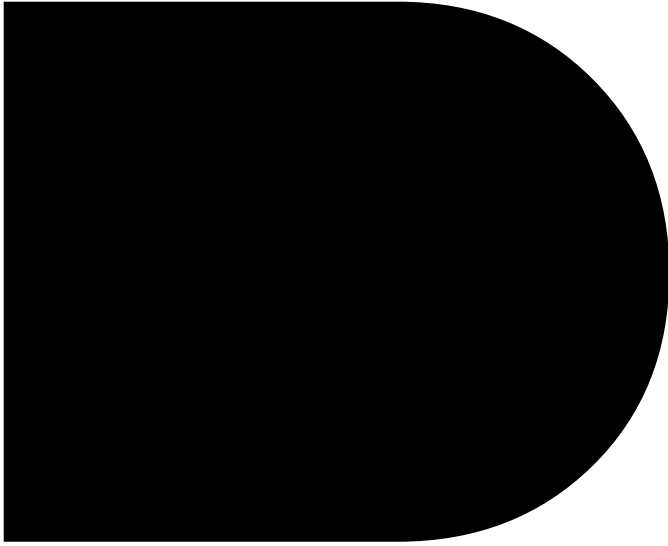
**FAULKNERBROWNS  
ARCHITECTS**

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Regional District of Nanaimo  
Expansion to Ravensong Aquatic Centre  
Proposal for Consulting Services  
following RFP No. 19-054  
Design Development and Project Planning

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**Design Development/Class B Costing  
Schedule Update Issued: Aug 30, 2024**

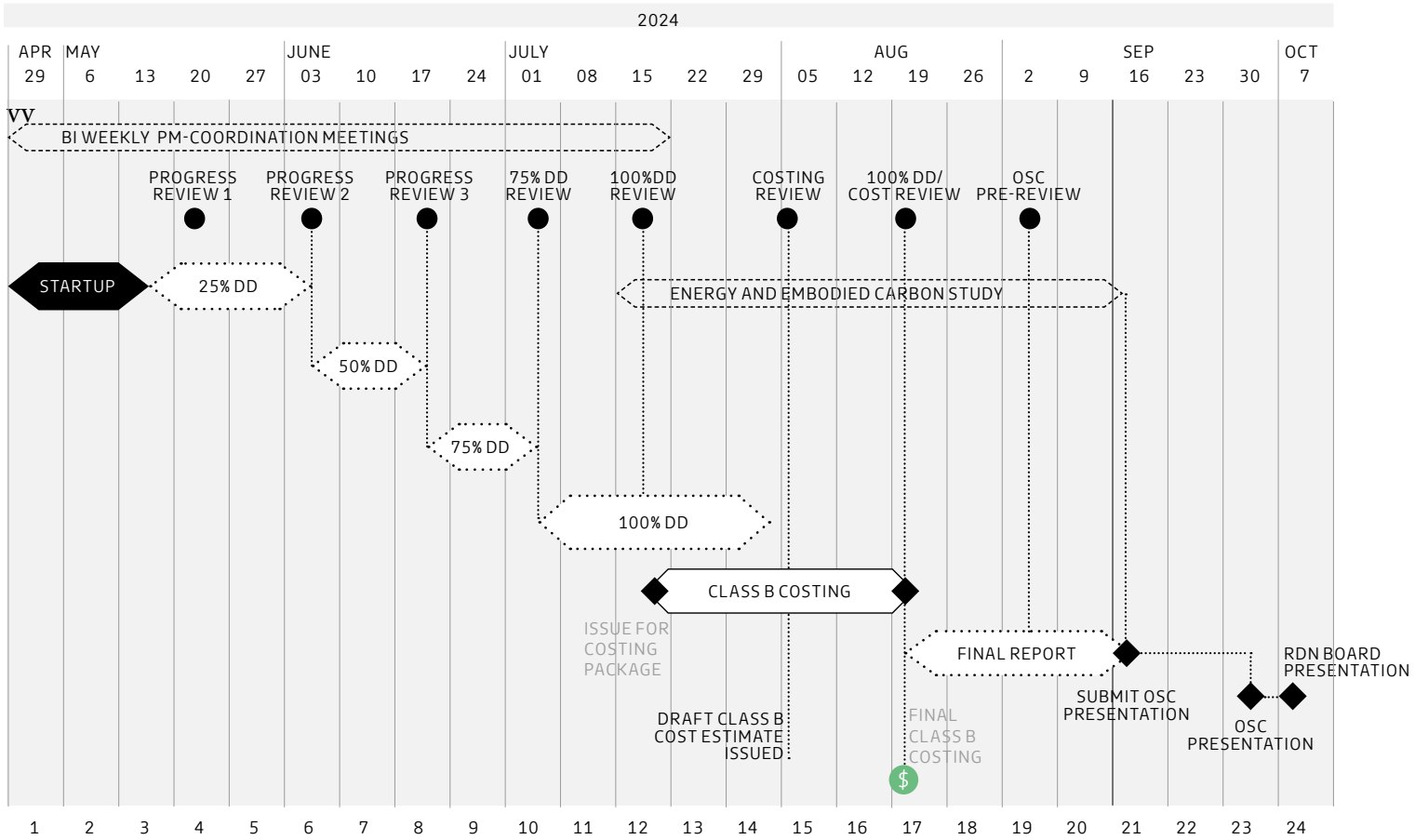


# WORKPLAN

MEETINGS/PRESENTATIONS/MILESTONES	DATES
<b>DESIGN DEVELOPMENT (DD)</b>	April 29 - Aug 16, 2024
<b>DD Kickoff Meeting</b>	April 29, 2024
<b>DD Field Review</b> Additional On-site Documentation	April 29-May 14, 2024
<b>DD Progress Client Review 1</b> <i>Interim DD Submission</i>	May 24, 2024
<b>DD Progress Client Review 2</b> <i>50% DD Submission</i>	June 5, 2024
<b>DD Progress Client Review 3</b> <i>Interim DD Submission</i>	June 19, 2024
<b>75% DD Review</b> <i>75% DD Submission</i>	Jul 3, 2024
<b>Issue for Costing Review</b> <i>Issue for Class B Costing Submission</i>	Jul 15, 2024
<b>Issue for Class B Costing</b> Submission deadline	Jul 25, 2024
Preparation of Class B Costing (JBAQS)	Jul 15 - Aug 13, 2024
<b>100% DD/Class B Costing Review</b> <i>Class B Estimate</i>	Aug 16th, 2024
Final Presentation Review	Sep 3rd, 2024
Preparation of Final Report	Aug 16th - Sept 16th
Submit OSC Presentation for Council Meeting	Sept 16th, 2024
<b>Oceanside Services Committee Meeting Presentation</b>	<b>Sept 23rd, 2024</b>
<b>RDN Board Presentation</b>	<b>Oct 8th, 2024</b>
<b>REFERENDUM</b>	Spring 2025
<b>CONSTRUCTION DOCUMENTS</b>	
<b>CD Progress Client Review 1</b> <i>Interim 100% CD Submission</i>	
<b>CD Progress Client Review 2/DP Review</b> <i>Pre-DP Submission Review</i>	
<i>Issue for DP Submission</i>	
<b>75% CD Progress Client Review 3/IFT Review</b>	<i>All post referendum dates to be confirmed/ reviewed.</i>
<i>Issue for Health Permit/Building Permit</i>	
<i>Issue for Class A Costing Submission</i>	
<i>Class A Costing</i>	
<b>100% CD Class A Costing Client Review</b> <i>Class A Estimate/draft IFT Review</i>	
<i>Issue for IFT Review Submission</i>	May - Oct 2025
<b>Issue for Tender</b>	Nov, 2025
<b>TENDER/BIDDING</b>	
<b>Tender Open</b>	Nov, 2025
<b>Tender Walkthrough</b>	
<b>Tender Close/ Tender Award Review Meeting</b>	
<b>Issue for Construction</b>	
<b>CONSTRUCTION ADMINISTRATION</b>	
<b>Mobilization &amp; Long Lead Time Item Procurement</b>	Jan 2026
<b>Bi-weekly Construction Meetings/Field Reviews</b>	Jan 2026 - Dec 2027
<b>Post Occupancy Contract Deficiencies and Warranty Period</b>	12 months

# SCHEDULE

## GRAPHIC PROJECT SCHEDULE: DESIGN DEVELOPMENT RAVENSONG AQUATIC CENTRE EXPANSION



### LEGEND

- ◆ Presentation / Issuance
- Meeting
- Ⓢ Cost Estimate

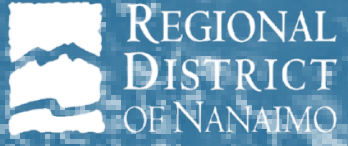
SCHEDULE BY PROJECT STAGE: RAC RENOVATIONS		
Exact Dates to be coordinated with RDN/Selected General Contractor		
<b>Design Development</b>		
1	Design Development/Class B Costing	April 29 - Aug 16, 2024
2	Board Presentations	September/October 2024
<b>Referendum</b>		
2	Construction Documents 100%	2025
3	Tender/Bidding	Early 2025
<b>Construction Administration</b>		
4	Construction/Contract Admin	10-28 months(TBC)
3.2	Post Construction	12 months

ATTACHMENT 5  
Ravensong Aquatic Centre Expansion  
Financial Plan Summary



**Ravensong Aquatic Centre Expansion Project  
FINANCIAL PLAN SUMMARY  
2025 to 2029**

	2025	2026	2027	2028	2029	Total
<b>Capital Asset Expenditures</b>						
Capital expenditures	5,790,000	14,838,000	14,838,000			35,466,000
Transfer from reserves	(4,790,000)	(338,000)	(338,000)			(5,466,000)
New borrowing	(1,000,000)	(14,500,000)	(14,500,000)			(30,000,000)
<b>Net Capital Assets funded from Operations</b>						



**RAVENSONG AQUATIC CENTRE EXPANSION**  
Updated Design and Class B Costing for  
Ravensong Aquatic Centre

Oceanside Services Committee Meeting  
Sept 23, 2024





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# AGENDA

*15-20 Minutes*

## INTRODUCTION

- Project Recap
- Executive Summary
- Timeline

## FACILITIES OVERVIEW: RAVENSONG AQUATIC CENTRE

- Existing Building
- Proposed Expansion
- Future Provisions

## PROJECT PLANNING

- Class B Cost Estimate
- Construction Sequence

## SUSTAINABILITY STRATEGIES

- Scenario Review : Pathway to Zero Emissions
- Comparison to Existing
- Greenhouse Gas Emissions
- Energy Consumption

# CONSULTANTS

**FAULKNERBROWNS ARCHITECTS** **FaulknerBrowns Architects**  
Architectural Design

**LANARC** **Lanarc**  
Landscape Architecture

**JBA|QS** **JBA Quantity Surveyors**  
Capital Costing

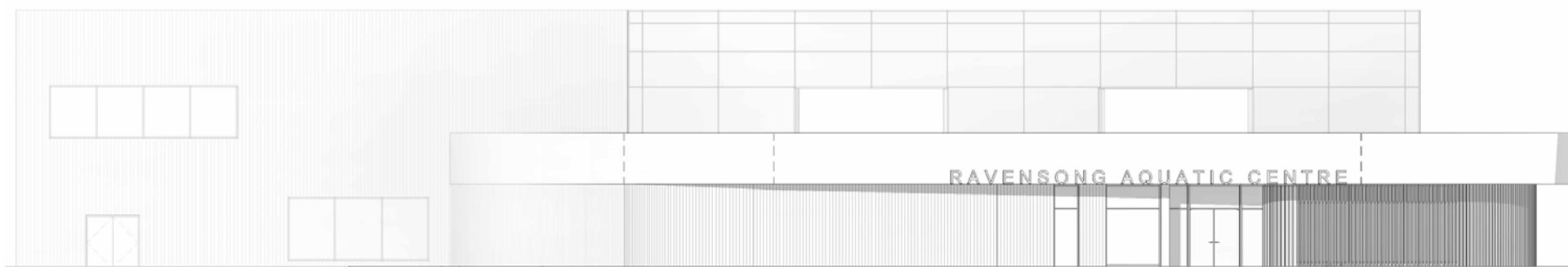
**AME Group** **AME Group**  
Mechanical & Energy Modelling

**rjc** **RJC Engineers**  
Structural & Building Envelope

**LMDG** **LMDG**  
Building Code Consultants Ltd  
Building Code

**AES** **AES Engineering**  
Electrical

**HEROLD ENGINEERING** **25** **Herold Engineering**  
Civil



## PROJECT RECAP



VISUALIZATION FROM SCHEMATIC DESIGN - 2022

## GOALS AND OBJECTIVES

### Project Goal

To plan for deliverable additional aquatics and wellness amenities that will meet the evolving needs and resources of the Oceanside community

### Existing Facility Utilization

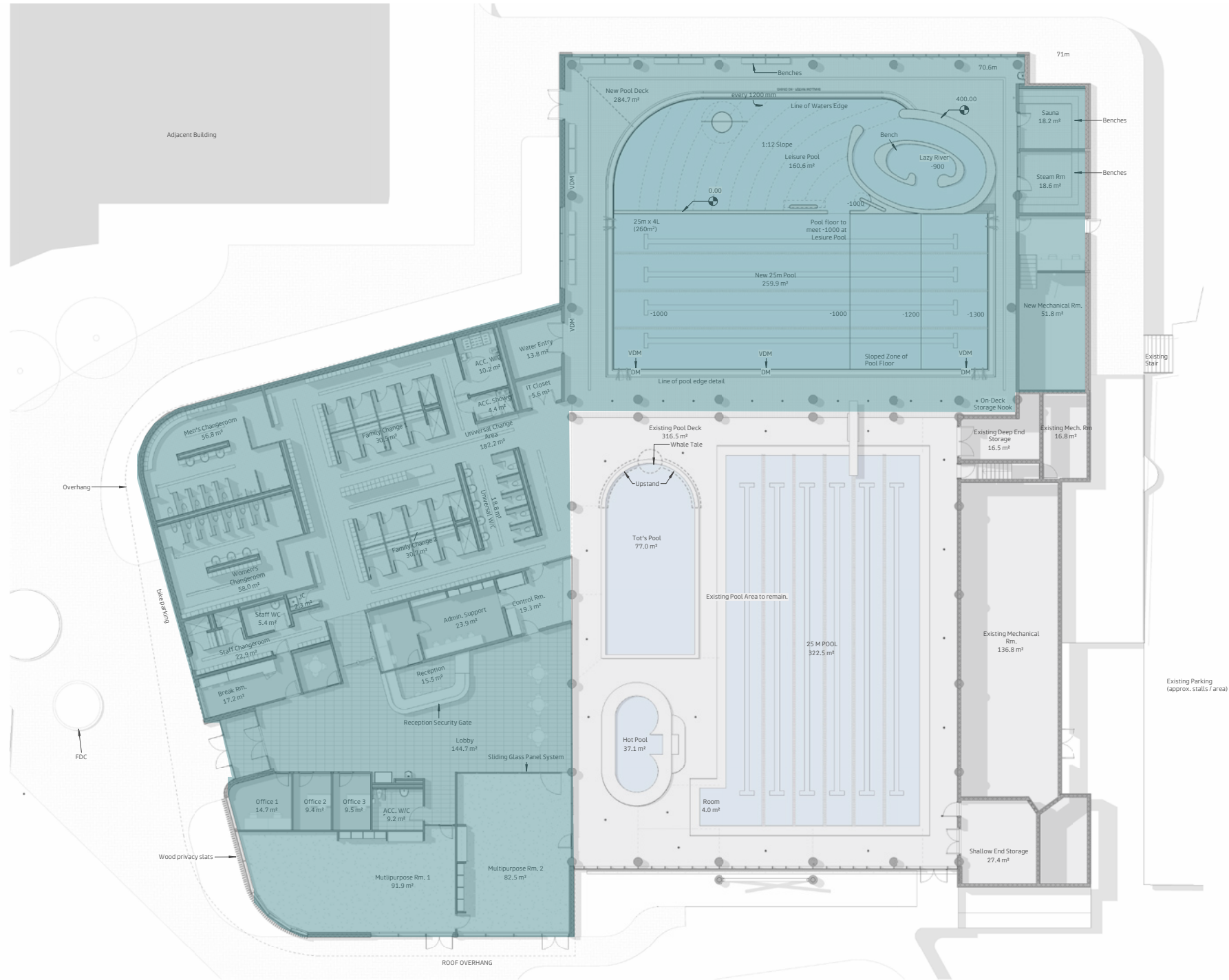
- Ravensong Aquatic Centre is the most used recreation facility in Oceanside
- Swim visits and program attendance continue to increase
- At capacity and not meeting community needs

### Observed Factors to Meet Project Goal

- Any expansion or development option to increase indoor aquatics provision will require a significant and ongoing financial investment.
- Ravensong Expansion to be "right sized" to the market area.
- Leisure aquatics drive visitation numbers
- Ravensong Aquatic Centre to remain open as much as possible to minimize disruption to the community.



# EXECUTIVE SUMMARY



## PROJECT GOAL

To plan for deliverable additional aquatics and wellness amenities that will meet the evolving needs and resources of the Oceanside community

## KEY PROJECT STATISTICS

### Complete Area:

2,833 m<sup>2</sup> Total

1,019m<sup>2</sup> Existing to remain

1,814m<sup>2</sup> New Area

### Added Program Facilities:

New Leisure Pool with Vortex and water features

New 25m Lap Pool

2x New Multipurpose Rooms

Expanded Staff Support space

Expanded Changeroom space

### Capital Cost Projection:

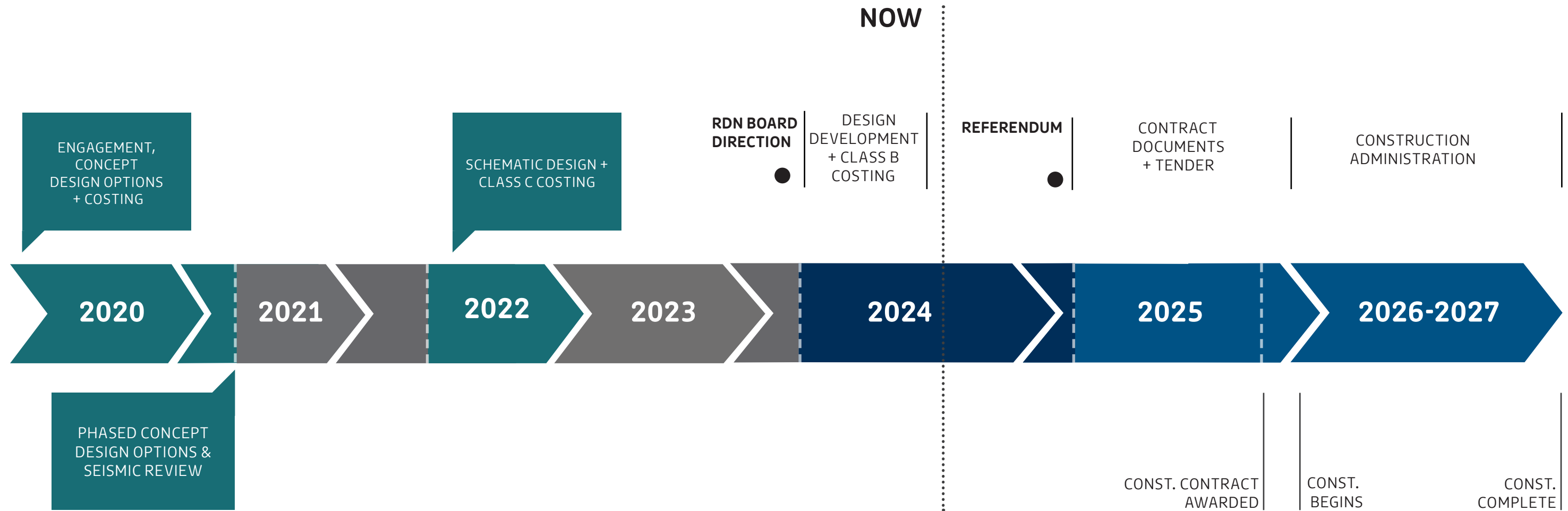
~\$36 Million (Net-Zero Target Design)

### Construction Timeline:

24-28 Months (Q1 2026 - Q4 2027)

### Minimize Closure Time During Construction

# TIMELINE



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# AGENDA

## INTRODUCTION

- Project Recap
- Executive Summary
- Timeline

## FACILITIES OVERVIEW: RAVENSONG AQUATIC CENTRE

- Existing Building
- Proposed Expansion
- Future Provisions

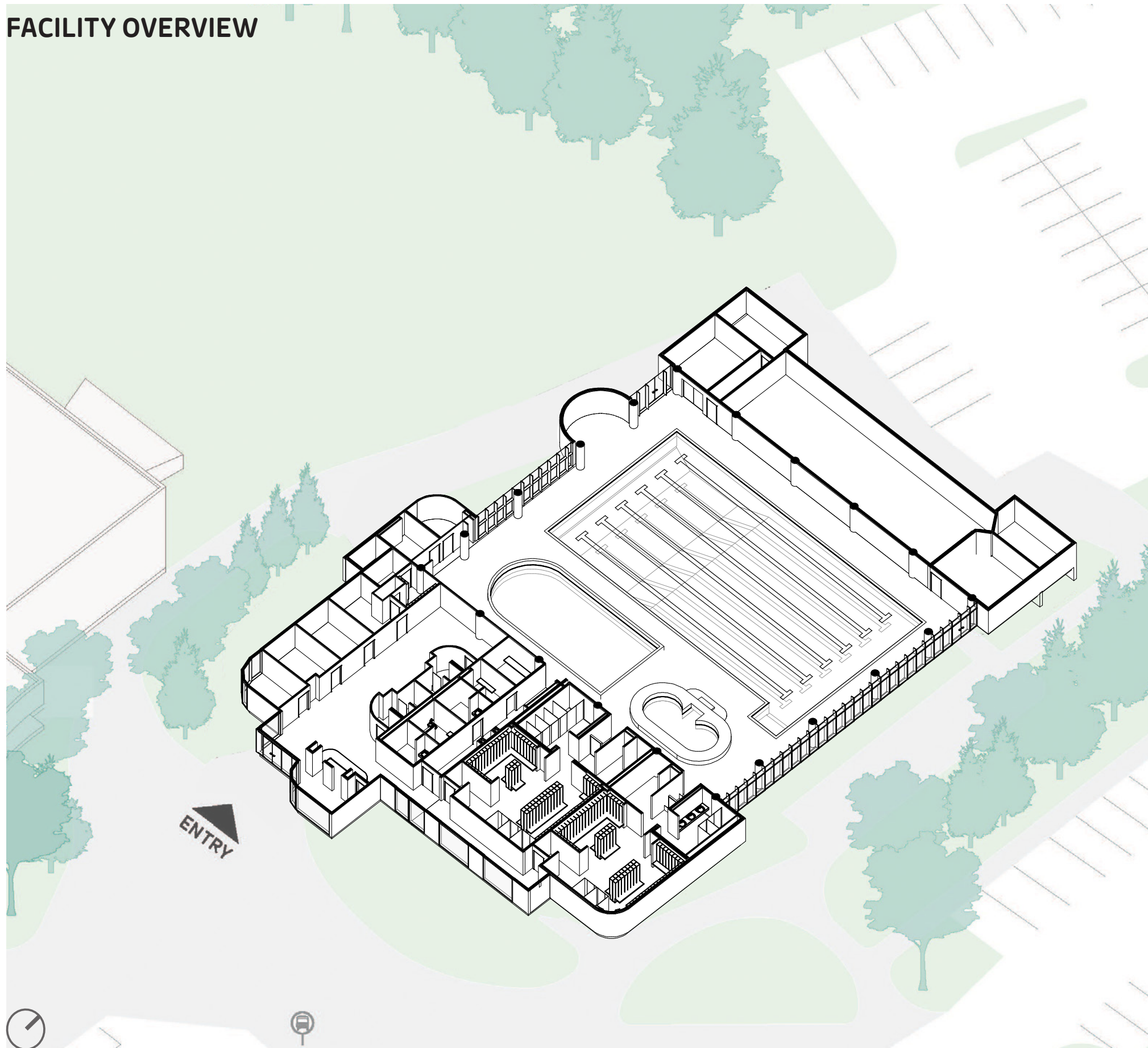
## PROJECT PLANNING

- Cost Estimate
- Construction Sequence

## SUSTAINABILITY STRATEGIES

- Scenario Review : Pathway to Zero Emissions
- Comparison to Existing
- Greenhouse Gas Emissions
- Energy Consumption

## FACILITY OVERVIEW



## EXISTING BUILDING SUMMARY

### Existing Amenities

- |                 |                   |
|-----------------|-------------------|
| A. Leisure Pool | H. Staff Support  |
| B. Lap Pool     | I. Lobby          |
| C. Hot Tub      | J. Washrooms      |
| D. Sauna        | K. Reception      |
| E. Steam Room   | L. Family Change  |
| F. Mechanical   | M. Women's Change |
| G. Offices      | N. Men's Change   |

Pool	Area
Lap	327.9 m <sup>2</sup>
Leisure	73.4 m <sup>2</sup>
Hot Tub	16.7 m <sup>2</sup>
<b>Total</b>	<b>418 m<sup>2</sup></b>

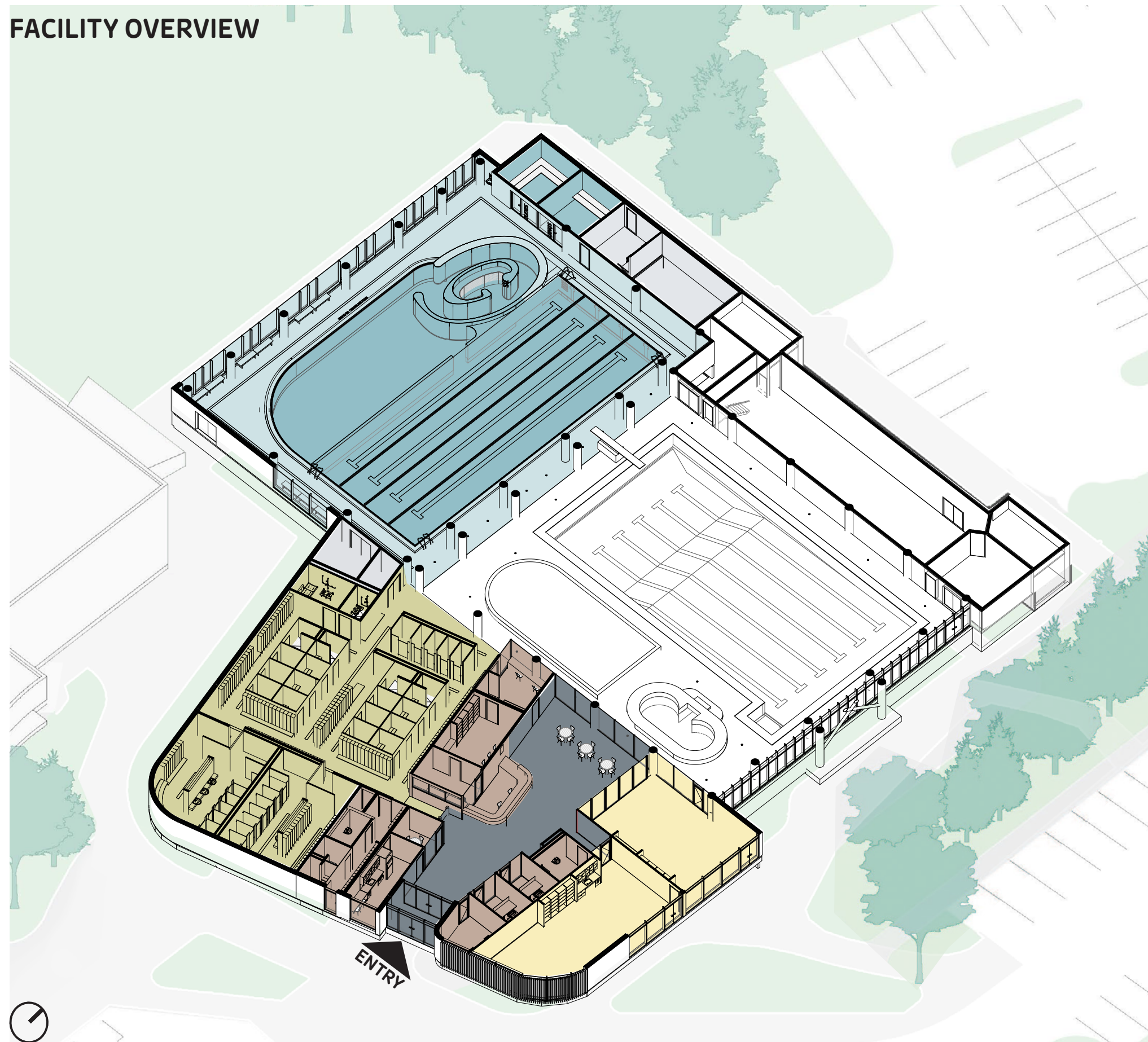
Change Room	Area
Family	57.2 m <sup>2</sup>
Men	104.6 m <sup>2</sup>
Women	106.1 m <sup>2</sup>
<b>Total</b>	<b>267.9 m<sup>2</sup></b>
Staff	12.4 m <sup>2</sup>

Fixture Count			
Zone	WC	Sink	Showers
Family	3	4	4
Men	2 + 3U	3	5
Women	5	3	5
Public	2	2	0
<b>Total</b>	<b>12 + 3U</b>	<b>12</b>	<b>14</b>
Staff	0	0	1

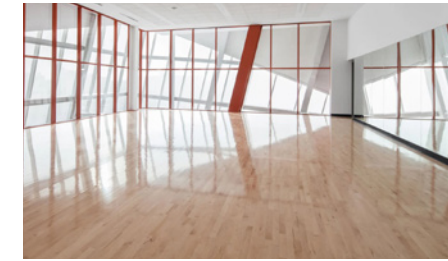
Overall Building	Area
Existing Facility	1,683 m <sup>2</sup>



# FACILITY OVERVIEW



# NEW DESIGN FEATURES



**Multipurpose Rooms**  
Flexible-use space for programmed activities such as yoga, aerobics, party rentals and meetings.



**New Steam Room & Sauna**  
Improved accessible steam & dry sauna amenities for therapeutic and recreation purposes.



**Lobby**  
A welcoming space with seating and pool viewing.



**Lazy River**  
Shallow pool that flows similarly to a river, for leisure and therapeutic use.



**New Change Rooms**  
Improved and expanded men's, women's and family/universal change rooms.



**Leisure Pool & Play Features**  
Warm water pool enjoyed by all ages, including beach entry & spray features.

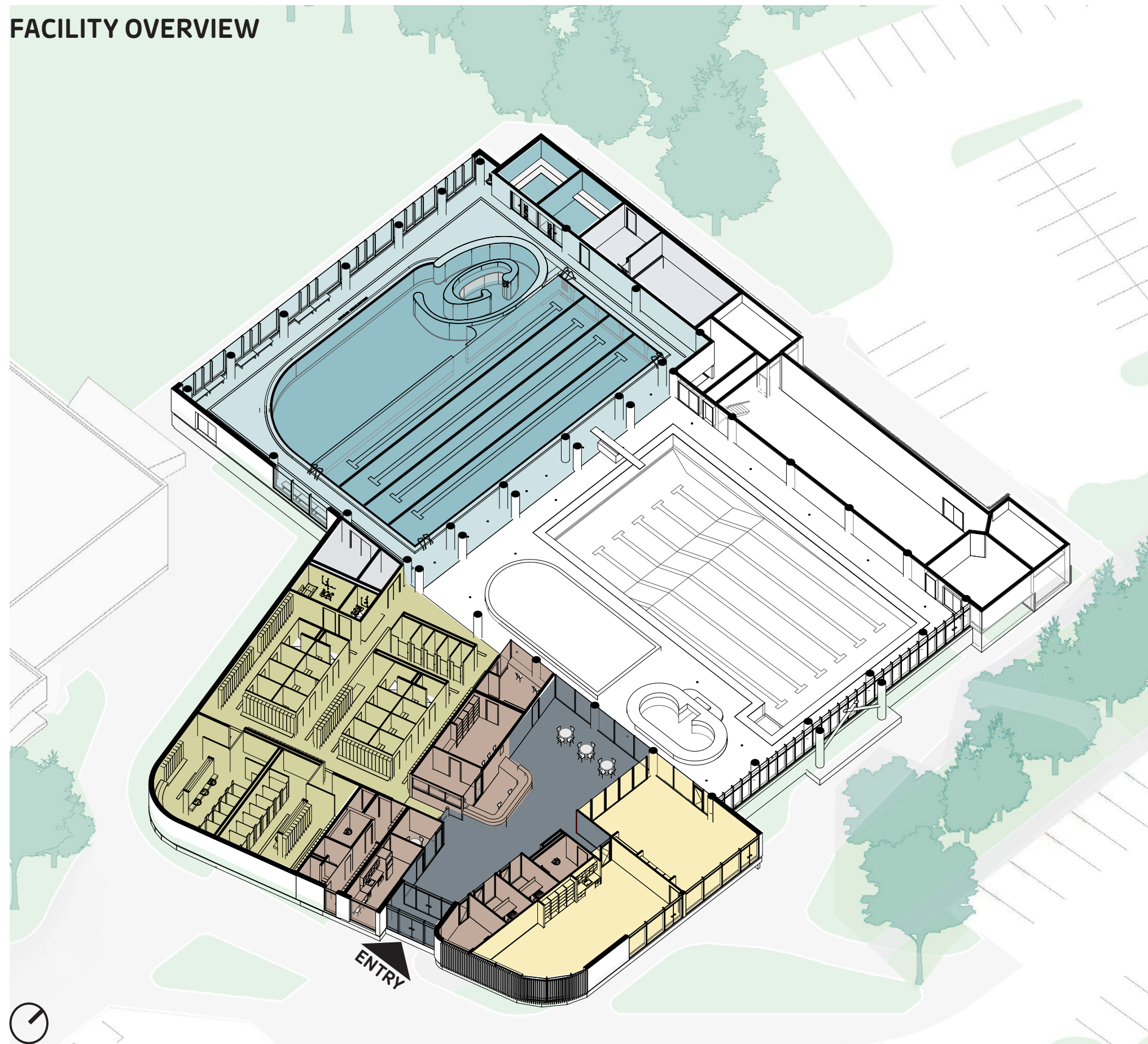
- New Amenities**
- Natatorium
  - Change Rooms
  - Multipurpose Rooms
  - Lobby / Public
  - Service / Circulation
  - Admin / Staff



**Lap Pool**  
4 lane, 25 meter pool for fitness and competition



# FACILITY OVERVIEW



# NEW DESIGN AREAS

## Proposed Amenities

- Natatorium
- Change Rooms
- Multipurpose Rooms
- Lobby
- Staff
- Service / Circulation
- Existing Retained

Pool	Area	Difference
Lap	582.43 m <sup>2</sup>	x1.78
Leisure	237.65 m <sup>2</sup>	x3.24
Hot Tub	16.7 m <sup>2</sup>	x1.00
<b>Total</b>	<b>836.78 m<sup>2</sup></b>	<b>x2.01</b>

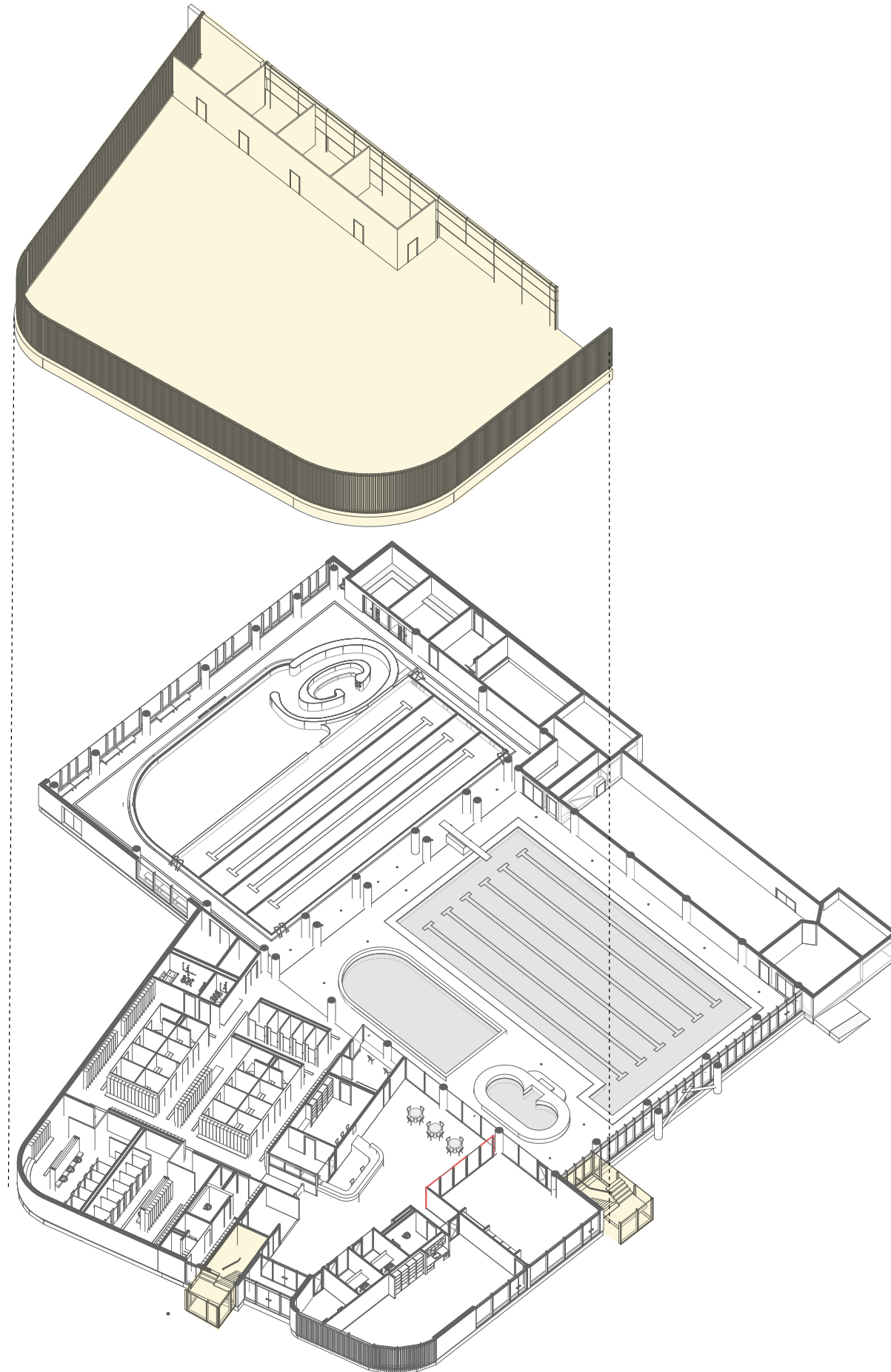
Change Room	Area	Difference
Family	300.64m <sup>2</sup>	x4.26
Men	55.7 m <sup>2</sup>	x0.54
Women	62.5 m <sup>2</sup>	x0.55
<b>Total</b>	<b>340.8 m<sup>2</sup></b>	<b>x1.38</b>
Staff	22.8 m <sup>2</sup>	x1.85

Fixture Count			
Zone	WC	Sink	Shower
Universal	5	6	5
Men	4 + 2U	3	4
Women	6	3	4
Public	1	1	5
<b>Total</b>	<b>17 + 4U</b>	<b>20</b>	<b>18</b>
Staff	1	1	1

Overall Building	Area
Retained	1,019 m <sup>2</sup>
New Additions	1,814 m <sup>2</sup>
<b>New Design Total</b>	<b>2,833 m<sup>2</sup></b>
Area Difference	x1.70



## FACILITY OVERVIEW



## FUTURE FITNESS EXPANSION OPTION

### Second Storey Addition Option

The original concept design report work identified need for a fitness centre and explore a second storey addition in the future.

### Required Systems Supports

Additional structural, a circulation core for the expanded mechanical, electrical and plumbing capacity for a future second storey to be viable.

### Cost for Upgrade

Upgraded structure for future second floor (updated 2024)	\$560,000 Included in Class B Est.
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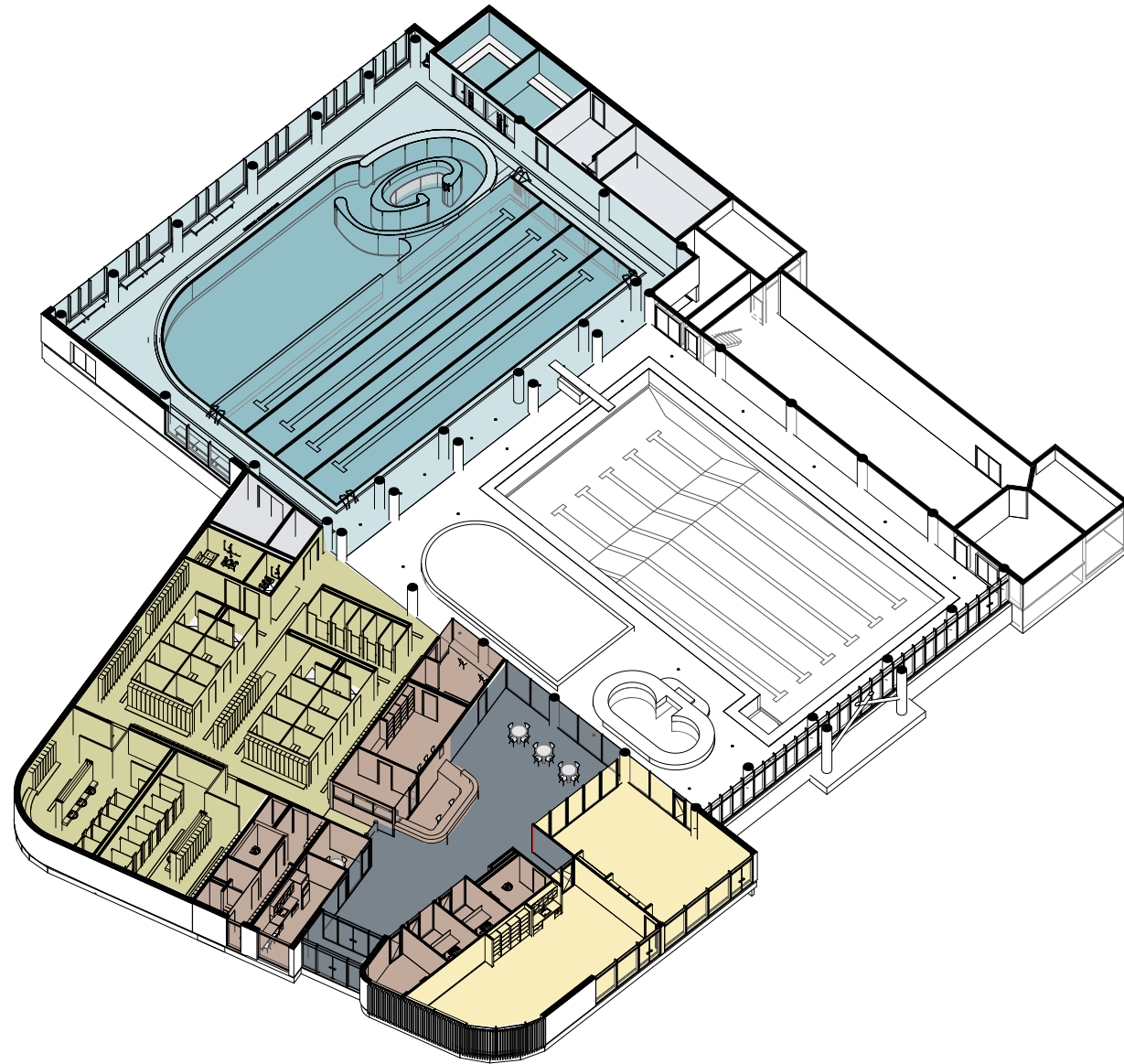
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## SUSTAINABILITY STRATEGIES

- Scenario Review : Pathway to Zero Emissions
- Comparison to Existing
- Greenhouse Gas Emissions
- Energy Consumption



Construction Cost Summary	Sept 2024
Site Development	\$1,238,700
New Building Construction	\$16,805,100
Existing Building Interior Renovations	\$1,968,000
Off Site Work Allowances	\$120,000
<i>Construction Subtotal</i>	<b>\$20,131,800</b>
Soft & Project Costs	\$7,578,000
<b>Project Total</b>	<b>\$27,709,800</b>
Construction Escalation Contingency (12 months)	\$1,509,900
<b>Project Total with Escalation</b>	<b>\$29,219,700</b>
<b>Enhanced Sustainability Design</b>	<b>+\$823,350 =</b>
<b>Net-Zero Ready Design</b>	<b>+\$5,489,550</b>

Based on a lump sum, competitively bid form of contract.



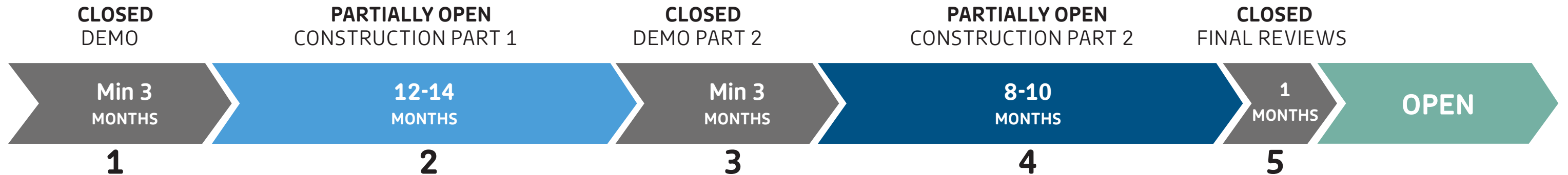
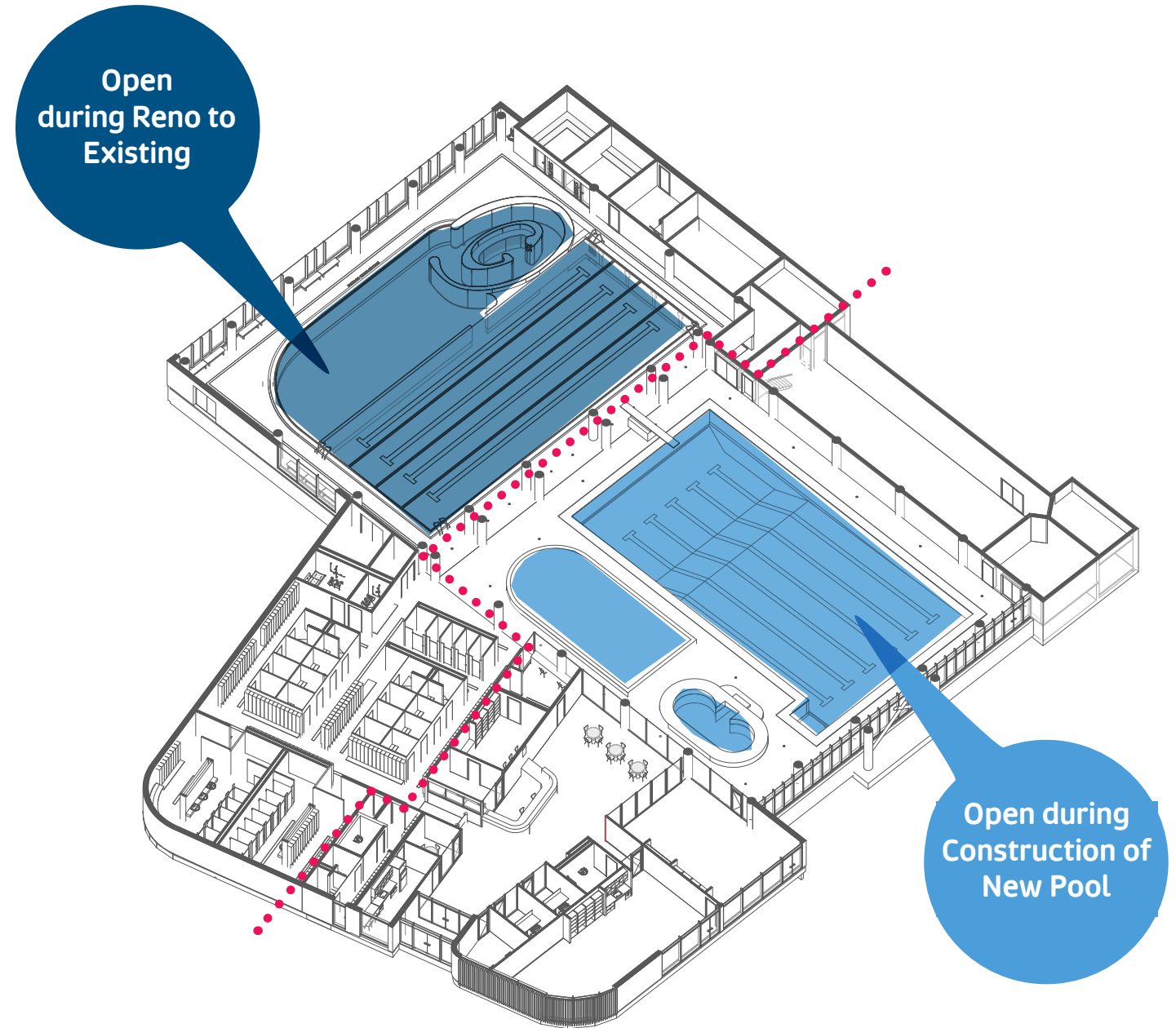
## CONSTRUCTION SEQUENCING

Recognizing the importance of Ravensong within the community, the project has been sequenced to keep portions of the facility open during construction when possible.

The plan is summarized in four sequential periods of construction which minimizes the amount of time the facility would be fully closed to the public.

### \$642,100 COST PREMIUM

*NOT INCLUDED IN BASE SCOPE OF CLASS B COSTING*



# CONSTRUCTION SEQUENCING

## SEQUENCE 1

3-4 Months: Jan-2026 to April-2026\*

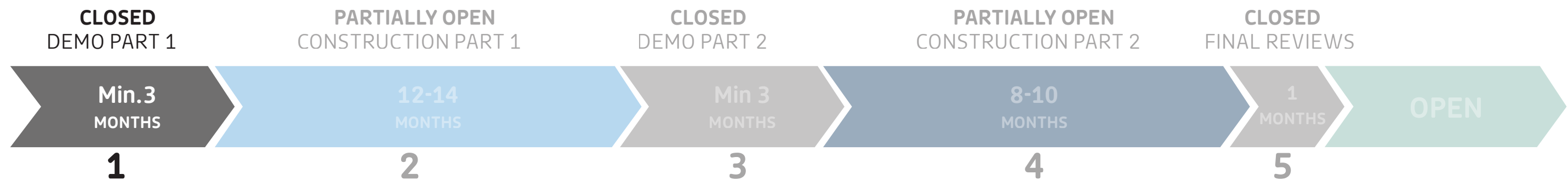
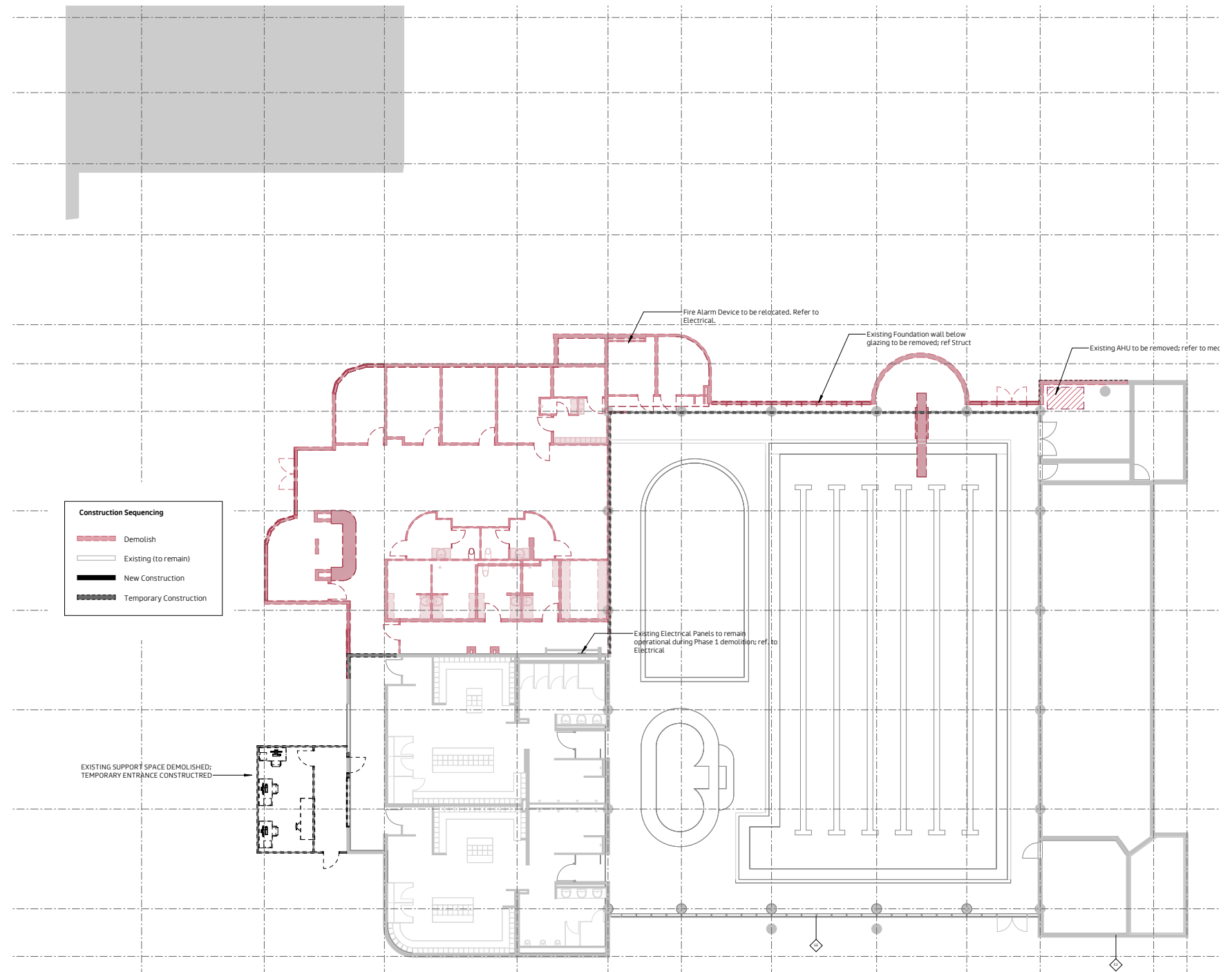
The facility is closed to the public for mobilization, construction staging and demolition. No public access.

Existing Offices, Lobby, and Family Changerooms are demolished. The existing Natatorium will remain intact, and any equipment located within the demolition area will be relocated to the area that remains in order to ensure the existing pool can continue to operate properly.

Temporary Walls are constructed to separate and protect potential occupants from ongoing construction during future sequences.

A Temporary Entrance is constructed and attached to the existing changerooms which will serve as the control point for staff during temporary occupancies.

\* All dates are estimates only and subject to change.



# CONSTRUCTION SEQUENCING

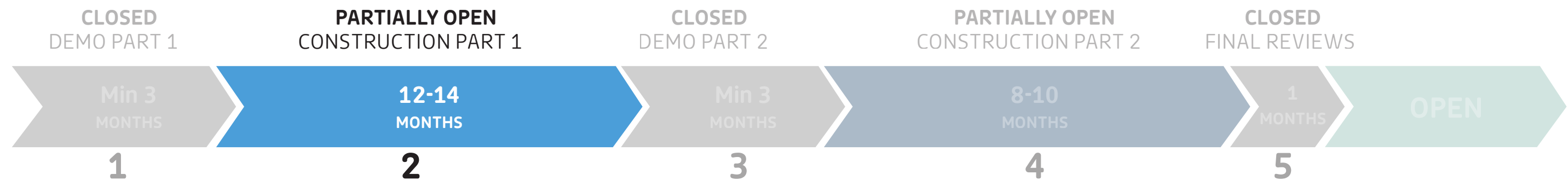
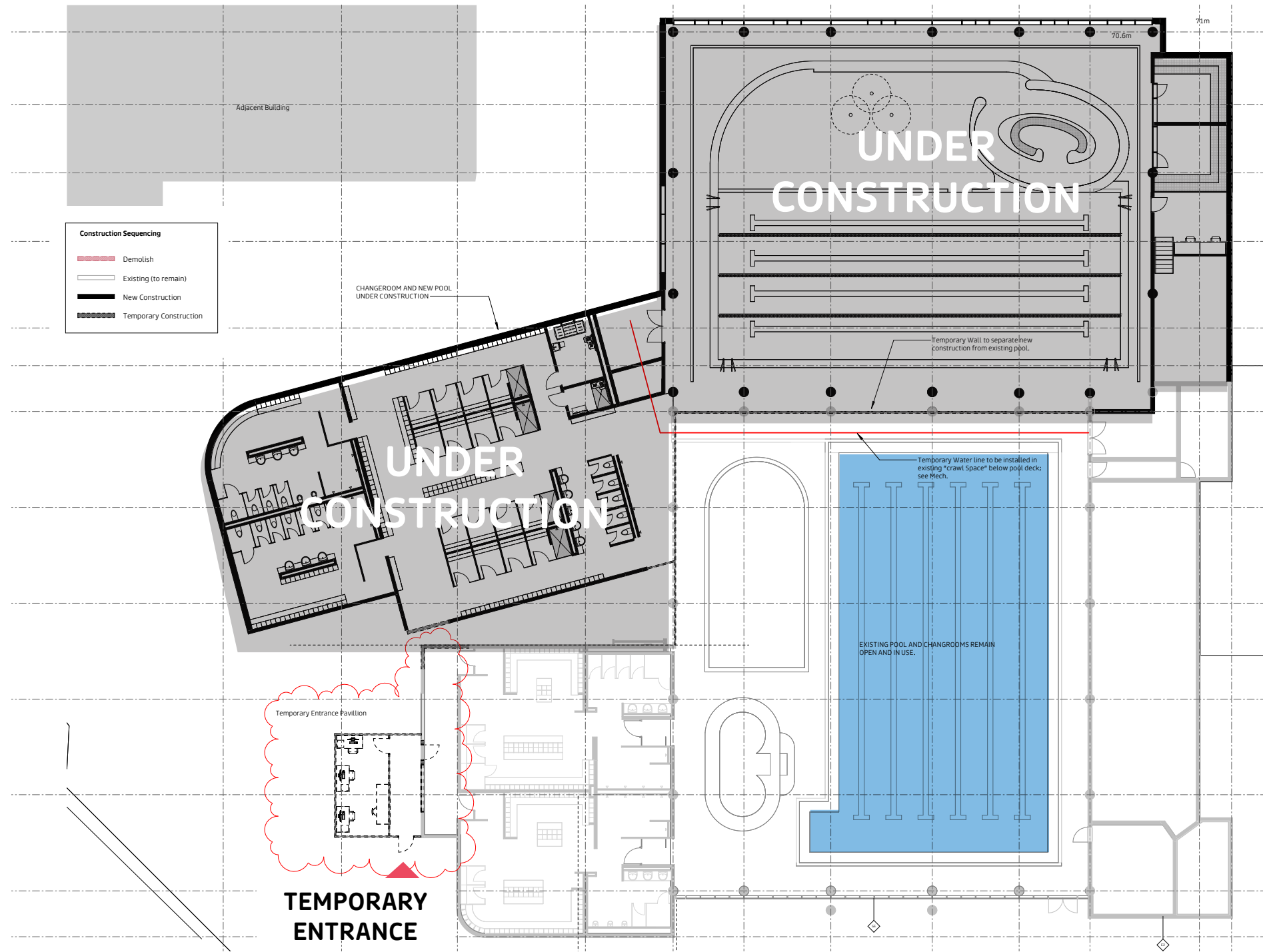
## SEQUENCE 2 12-14 Months★

During sequence 2, the public will be allowed to access the existing pool. However, occupancy numbers and programming will be reduced from the existing facility to reflect the reduction in changerooms and support space.

The temporary entrance will be opened providing controlled access into the existing M/F changerooms and Natatorium. On-Duty Lifeguards will have a temporary "control space" located on the pool deck.

While the existing pool remains operational, new changerooms and a new natatorium will be constructed on site in the locations indicated.

★ All dates are estimates only and subject to change.



# CONSTRUCTION SEQUENCING

## SEQUENCE 3

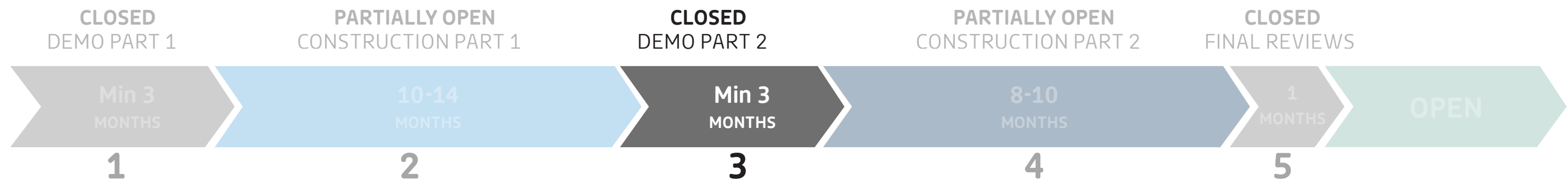
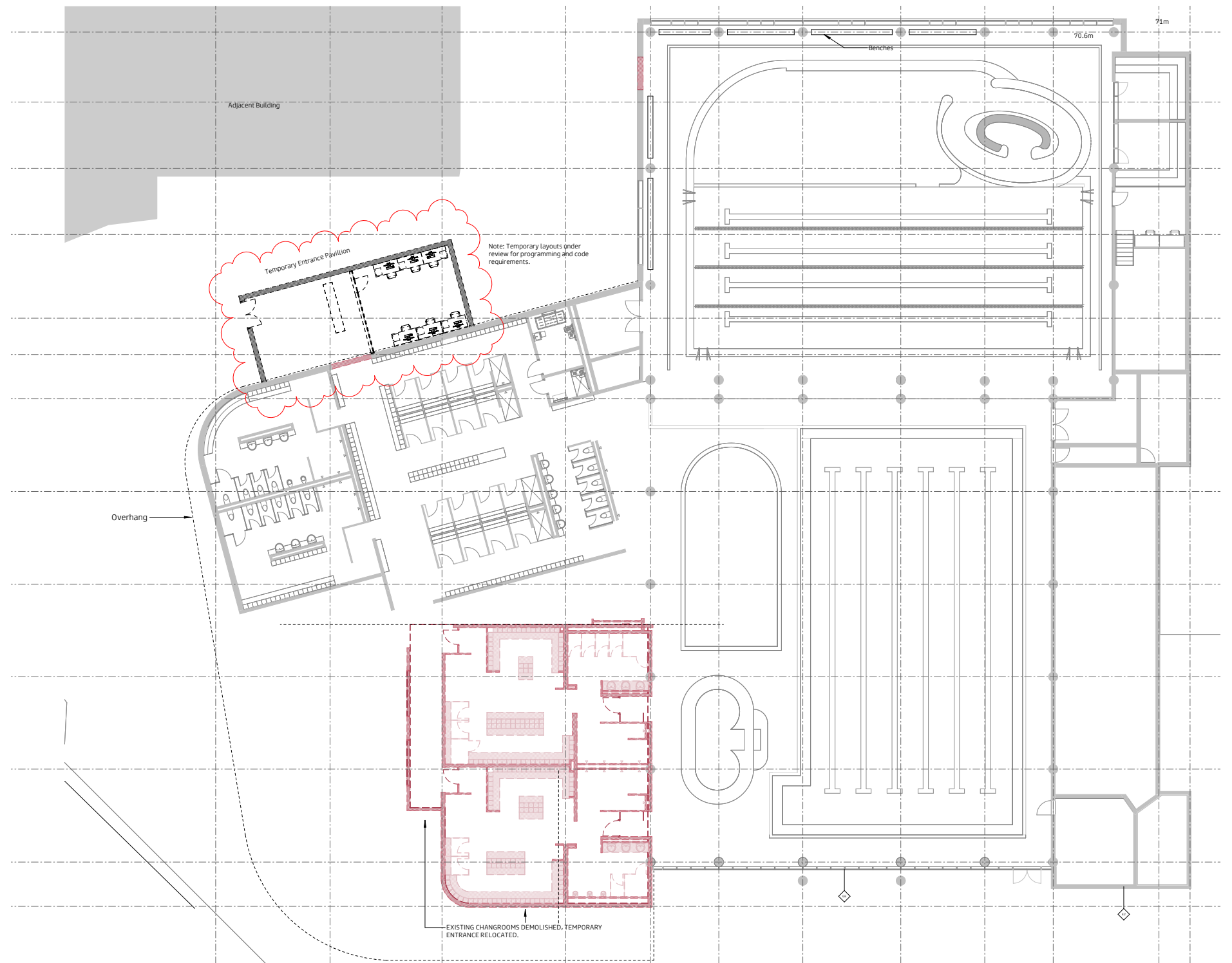
Min 3-4 Months ★

The facility will be closed to the public during Sequence 3 so that the temporarily occupied area can be transitioned from the existing facilities into the new Natatorium Space.

While closed, a new temporary entrance will be constructed and attached to the new Changrooms (Universal, Family, and M/F) providing safe and controlled access to the new space.

The old M/F changrooms will be demolished. The New Pool (Leisure and Lap) will be commissioned and made operational. Access to the old Natatorium will be closed prior to re-opening.

★ All dates are estimates only and subject to change.





# CONSTRUCTION SEQUENCING

## SEQUENCE 4

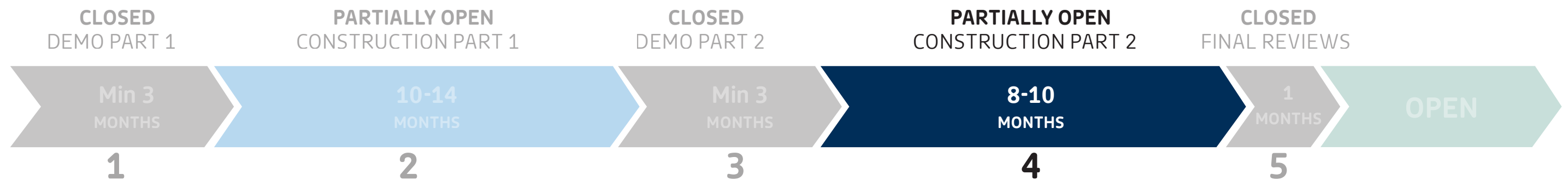
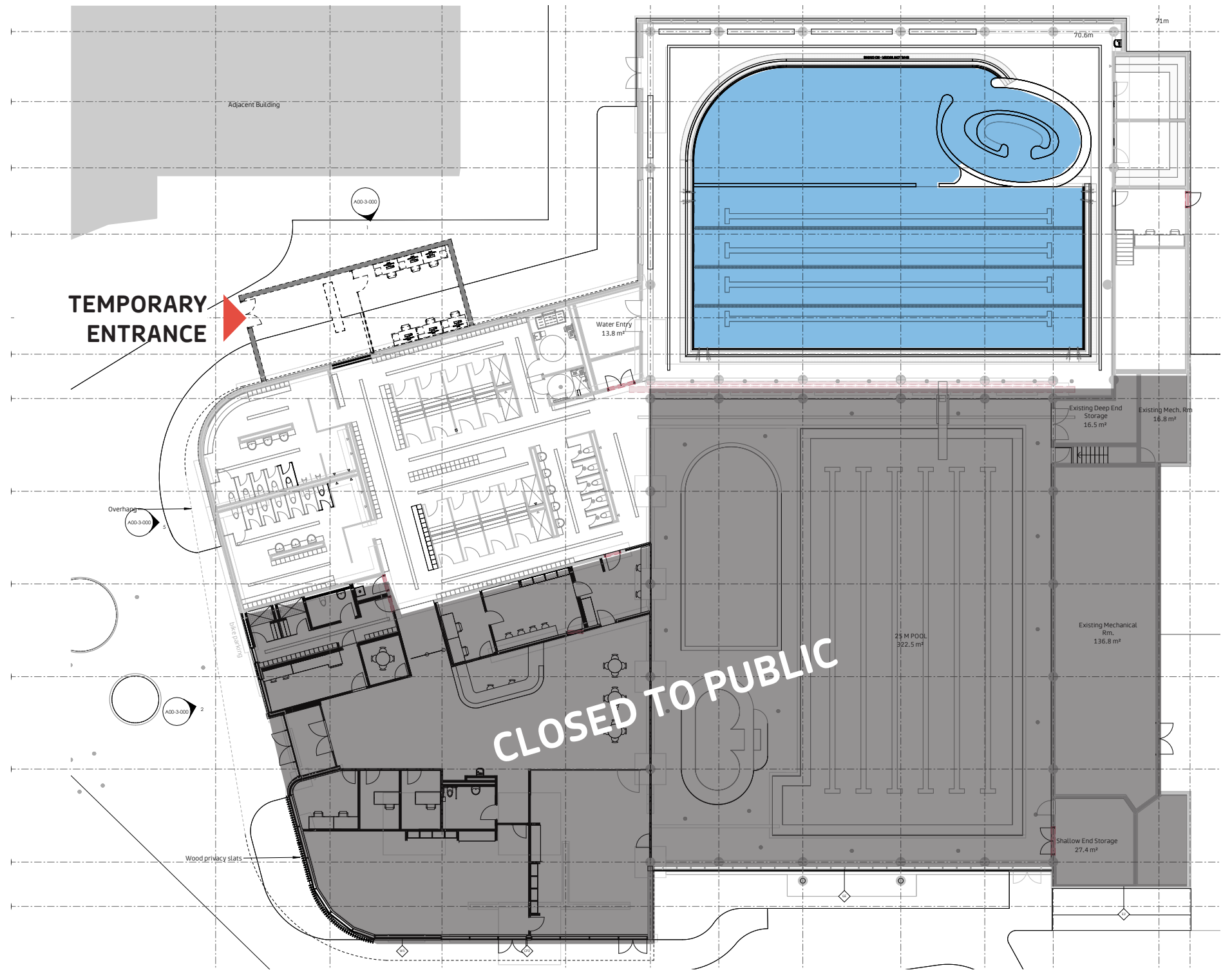
8-10 Months

### Description:

During this final sequence the new Changrooms and Natatorium will be open to the public. They will be accessed through the temporary entrance pavilion near the Civic Centre. Similar to Sequence 2, the occupancy will be limited to reflect the reduced operational support space available.

While the completed work is occupied, Construction will take place for a new Entrance, Lobby, Offices and Multipurpose Rooms. Additionally, any repairs and upgrades to the existing Natatorium and Pool Mechanical will be completed.

\* All dates are estimates only and subject to change.



# CONSTRUCTION SEQUENCING

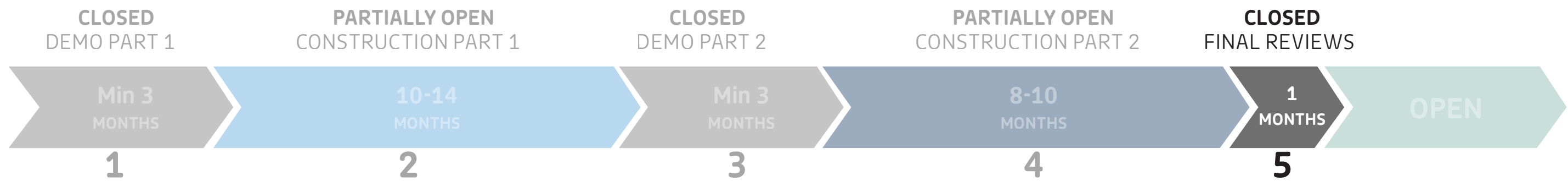
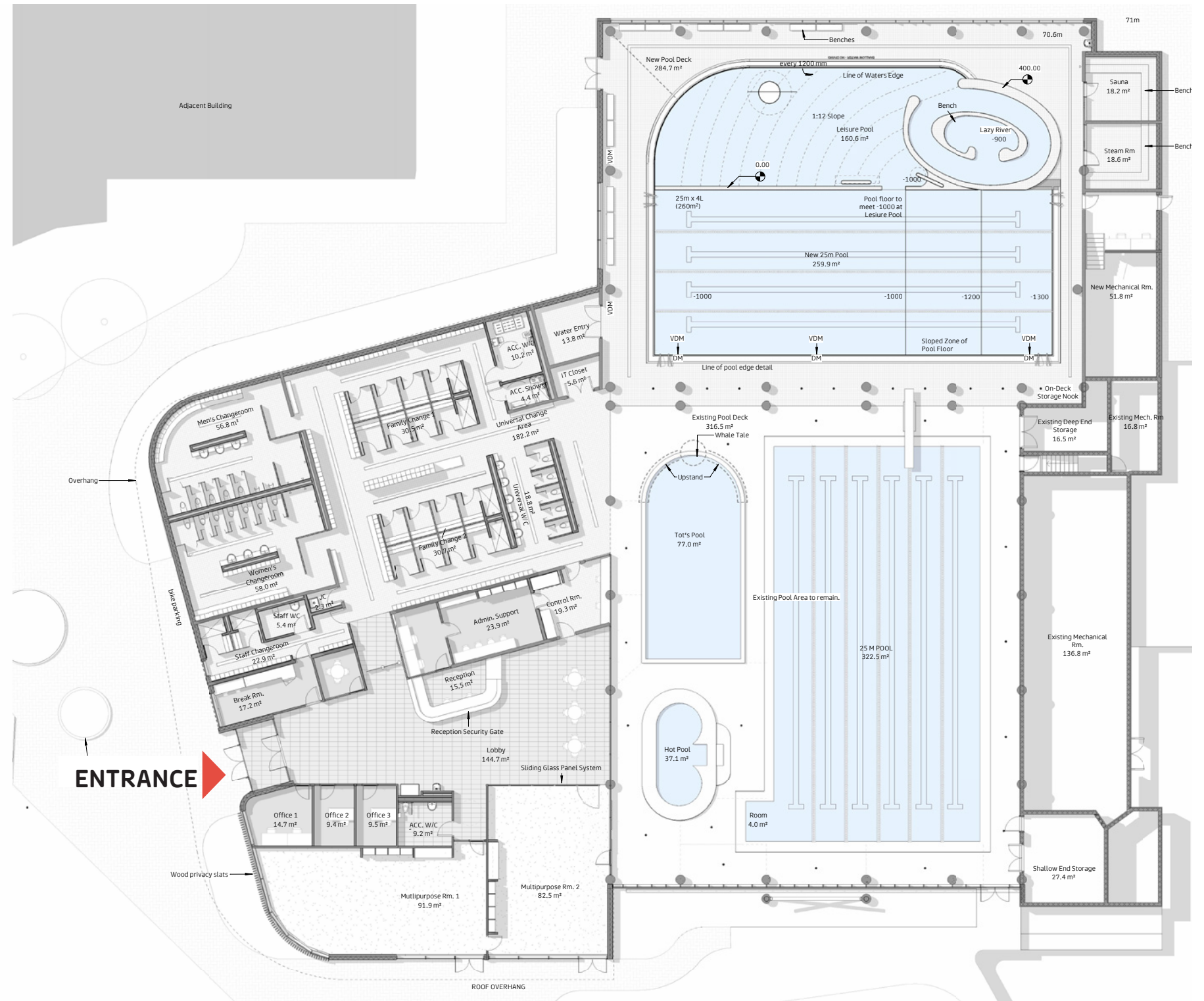
## FINAL OCCUPANCY AND OPENING

1 Month

### Description:

After all the sequences are complete, the entire Facility can be opened to the Public. A short closure will allow for the removal of any temporary work, final commissioning and inspections, and staff mobilization.

★ All dates are estimates only and subject to change.



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- Comparison to Existing
- Greenhouse Gas Emissions
- Energy Consumption

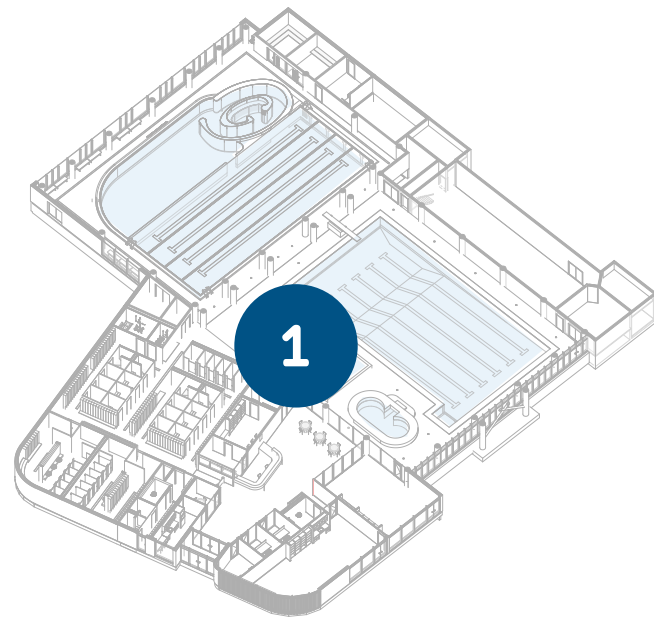
# PATHWAY TO NET ZERO CARBON OPERATIONS

MEETS RDN ENERGY AND GREEN BUILDING POLICY

MEETS RDN WOOD FIRST POLICY

ELIGIBLE FOR GRANT FUNDING\*

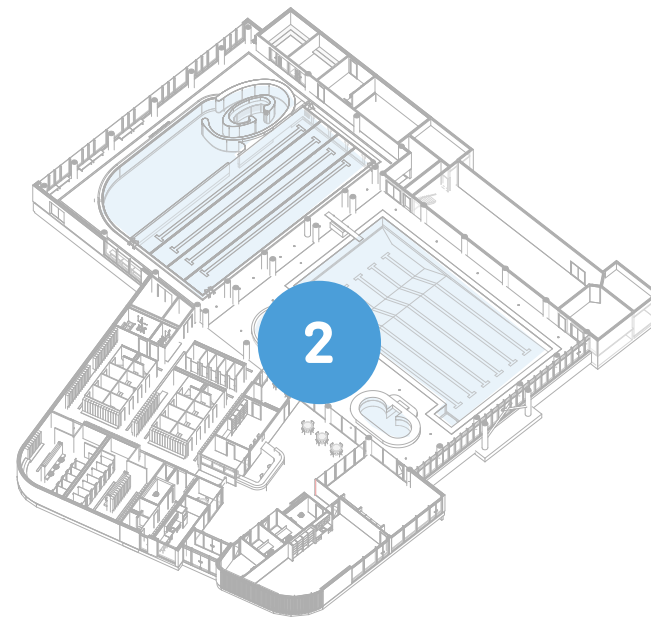
## BASELINE DESIGN



- Air Source Heat Pump for New Primary Heating
- Regenerative Filters (New Pool)
- Electric Boilers (New Pool)
- Variable Speed Pumping (New Pool)
- High Performaing Envleope Assemblies

**\$29.2 m** Construction cost

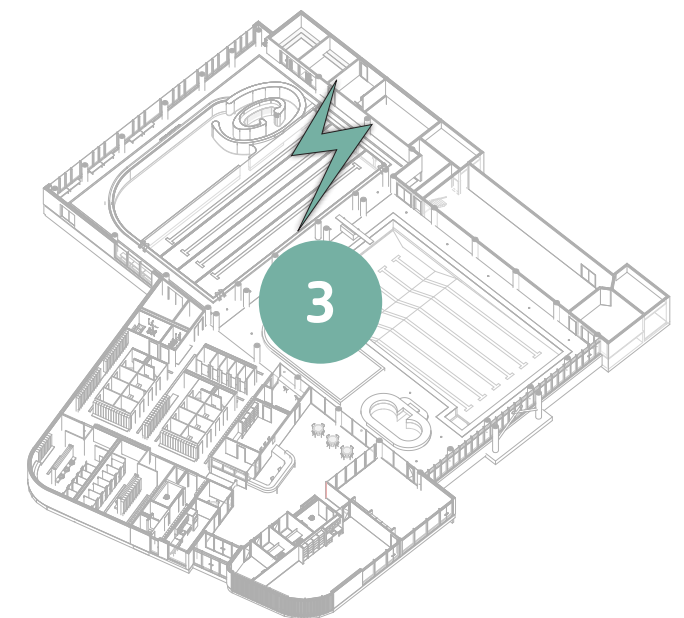
## ENHANCED DESIGN



- CLT Decking at Roof
- Add Solar Array
- Low-Carbon Concrete
- Upgraded envelope
- Add waste heat recovery
- Provide Pool Covers (New Pool)

**\$30m** Construction cost

## NET-ZERO TARGET RECOMMENDED VERSION



- Replace Existing Natural Gas Boilers
- Replacement of Natural Gas Air Handling Unit

**ELECTRICAL SERVICE UPGRADE REQUIRED**

**\$36m** Construction cost

\*Green and inclusive community buildings grant up to 60% project costs



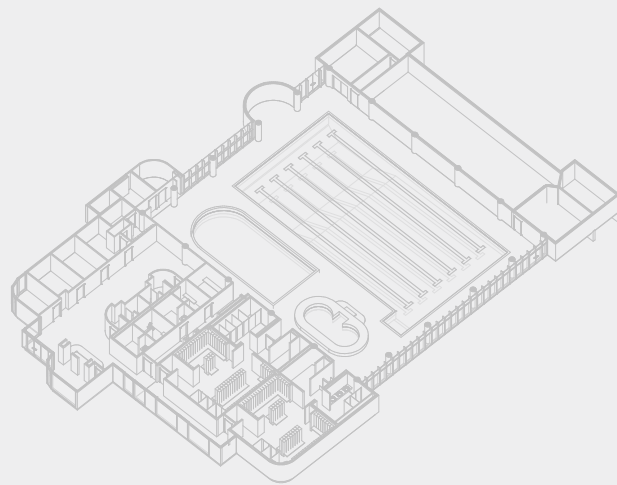
# PATHWAY TO NET ZERO CARBON OPERATIONS

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MEETS RDN WOOD FIRST POLICY

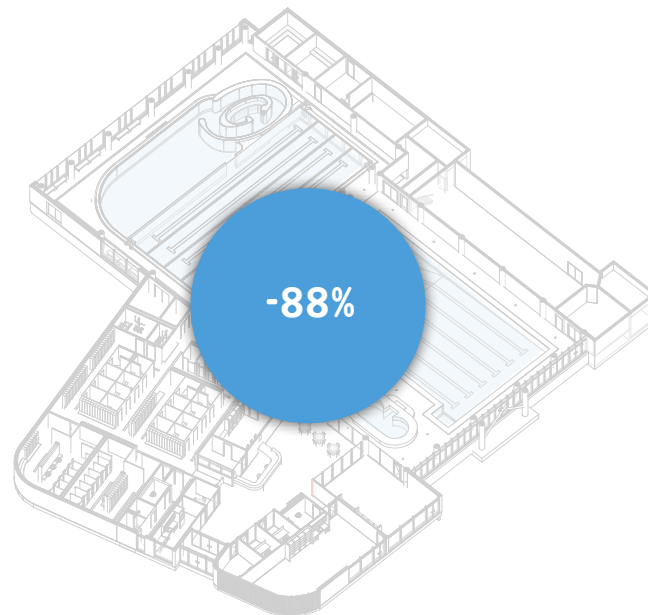
ELIGIBLE FOR GRANT FUNDING\*

## EXISTING FACILITY



**325** tonnes CO<sup>2</sup> / year

## ENHANCED DESIGN

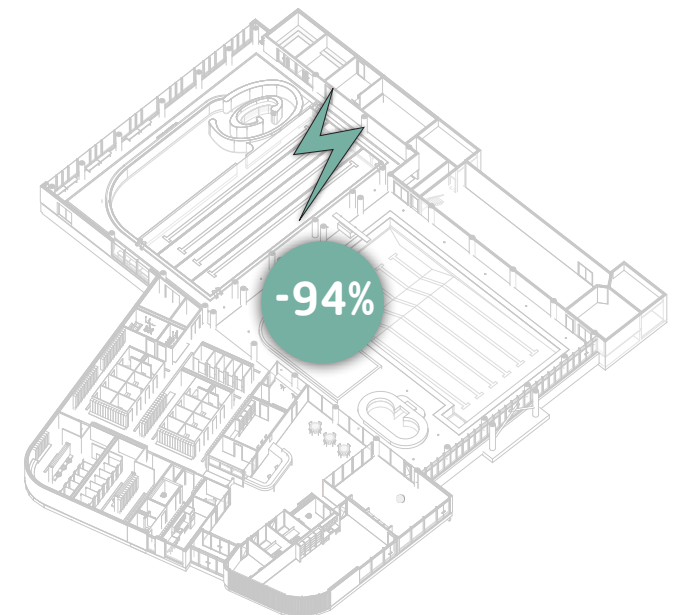


**39.1** tonnes CO<sup>2</sup> / year

**\$30m** Construction cost

**\$30m** Construction cost

## NET-ZERO TARGET RECOMMENDED VERSION



**20.1** tonnes CO<sup>2</sup> / year

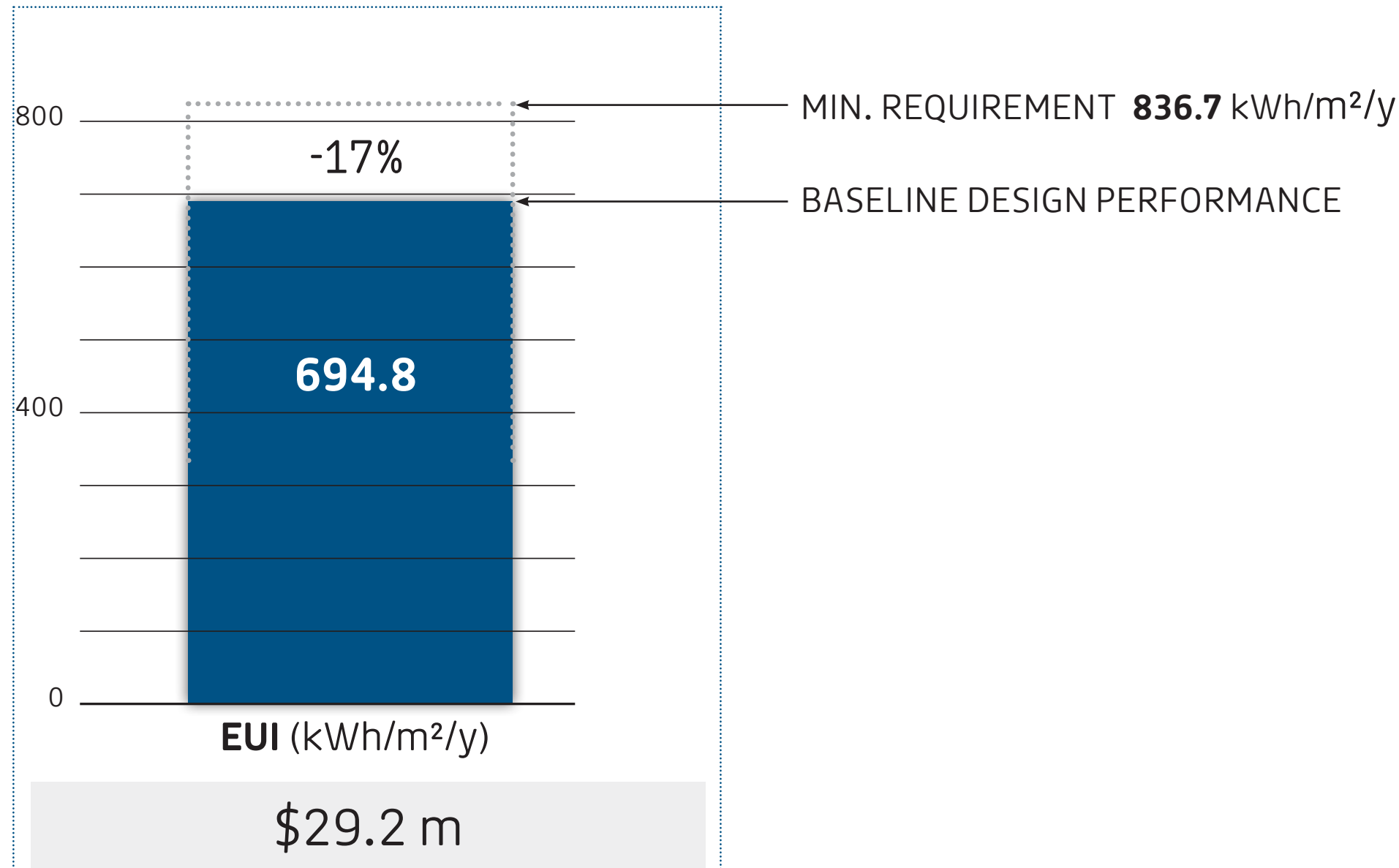
**\$36m** Construction cost

**\$36m** Construction cost

# CODE REQUIRED PERFORMANCE

MEETS RDN ENERGY AND GREEN BUILDING POLICY

## BASELINE DESIGN



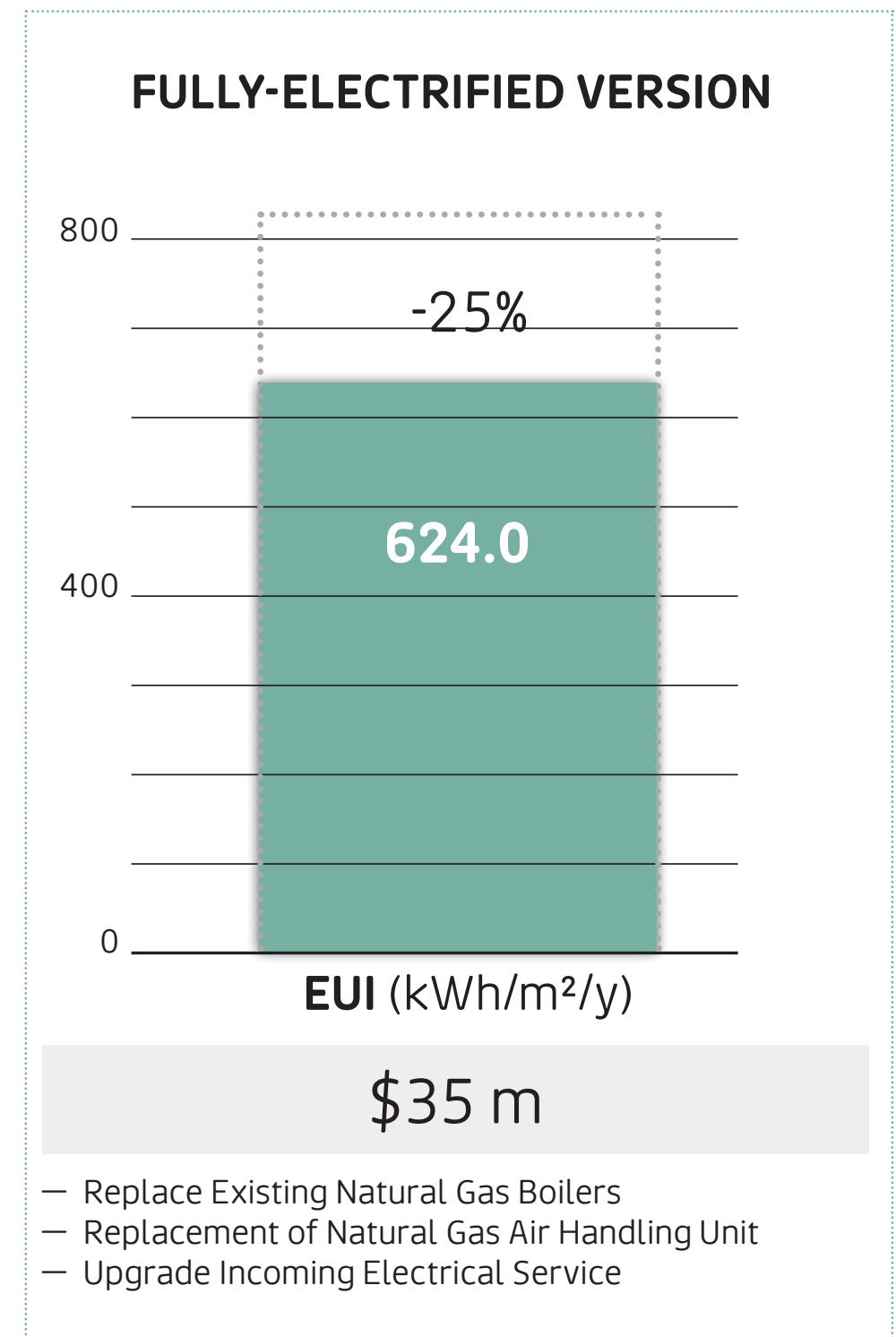
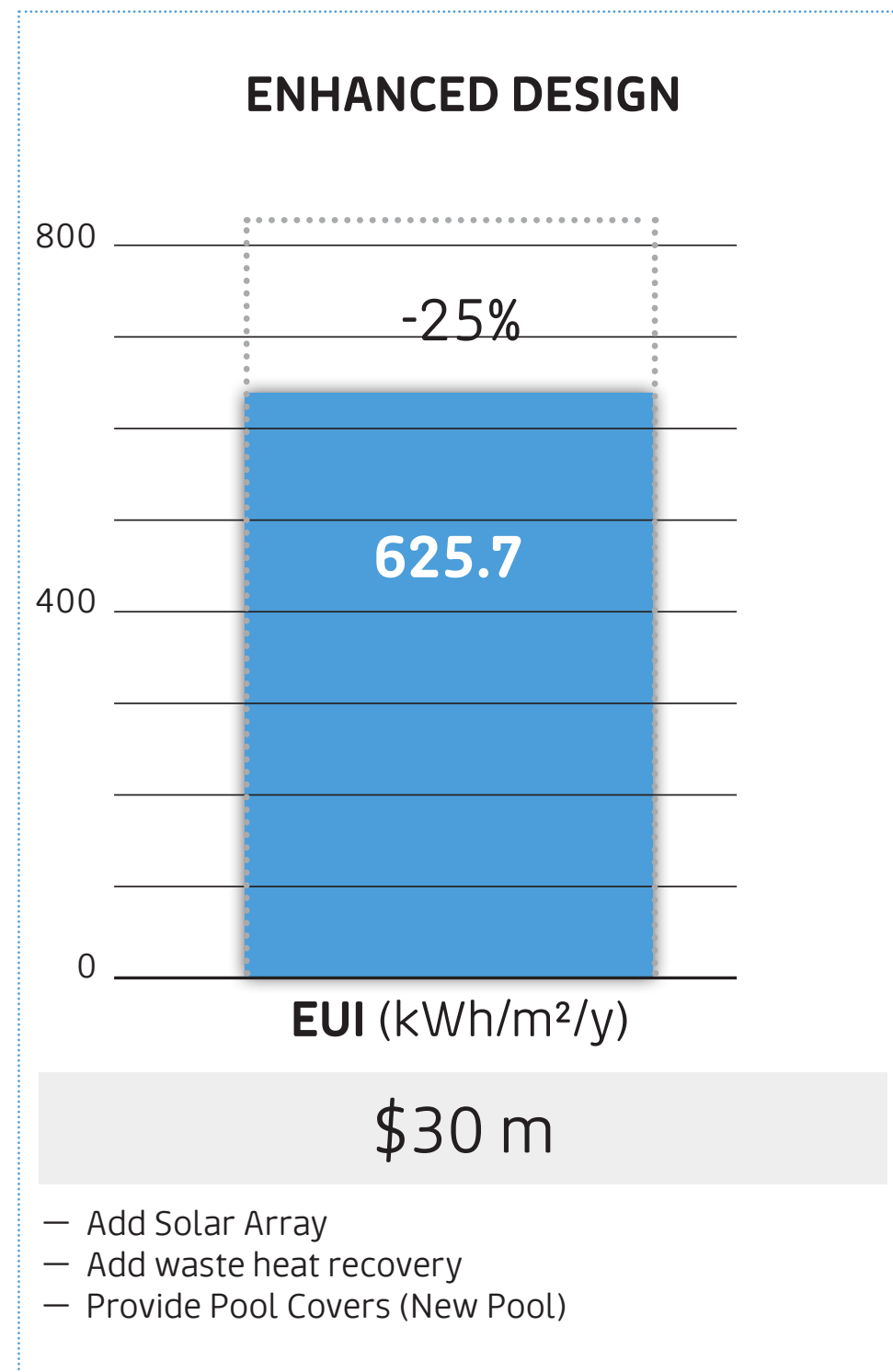
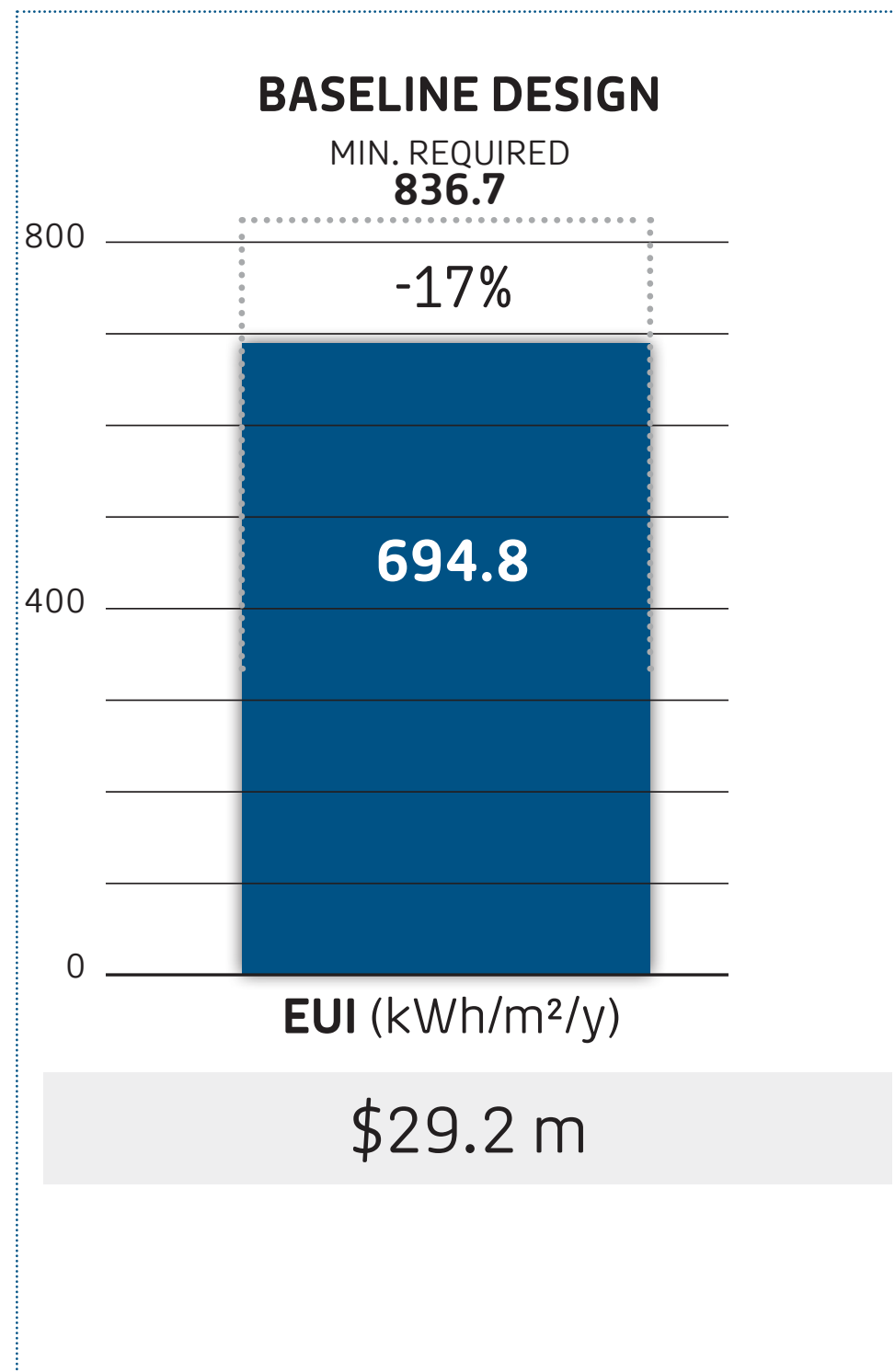
Note: The above target is generated based on NECB standards. Refer to energy model report for additional detail.

# ENERGY CONSUMPTION

MEETS RDN ENERGY AND GREEN BUILDING POLICY

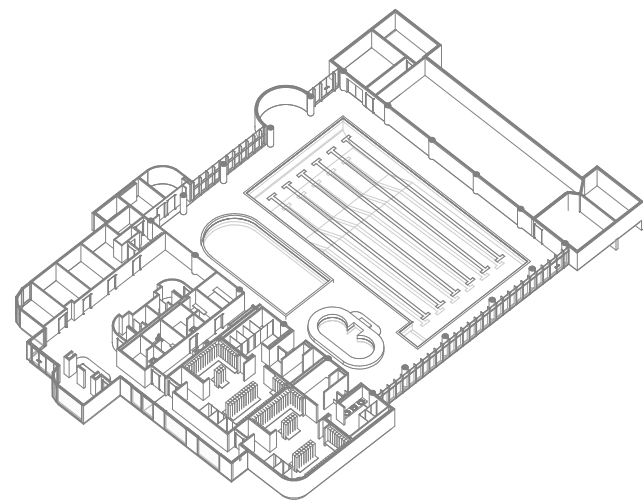
MEETS RDN WOOD FIRST POLICY

ELIGIBLE FOR GRANT FUNDING\*



# COMPARISON TO EXISTING

## EXISTING FACILITY



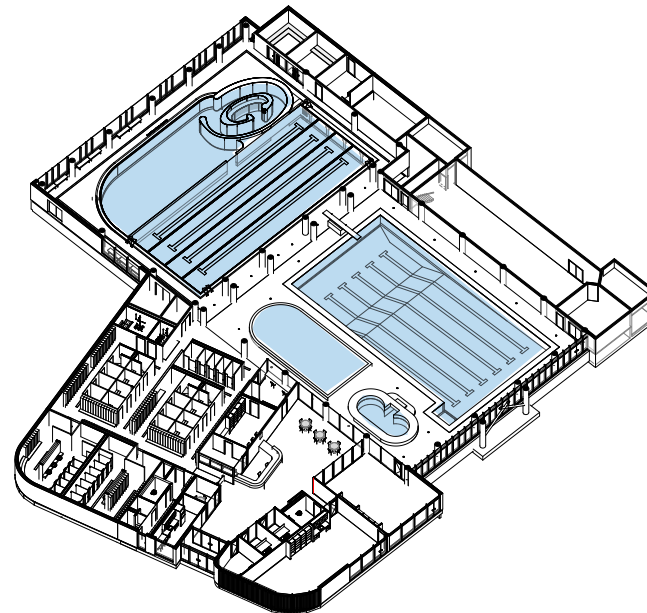
**1,683** m<sup>2</sup>  
**325** TONNES CO<sup>2</sup>/YEAR  
**1,786** kWh / m<sup>2</sup> / year  
**\$212,814** / year, operating Cost

MEETS RDN ENERGY AND GREEN BUILDING POLICY

MEETS RDN WOOD FIRST POLICY

ELIGIBLE FOR GRANT FUNDING\*

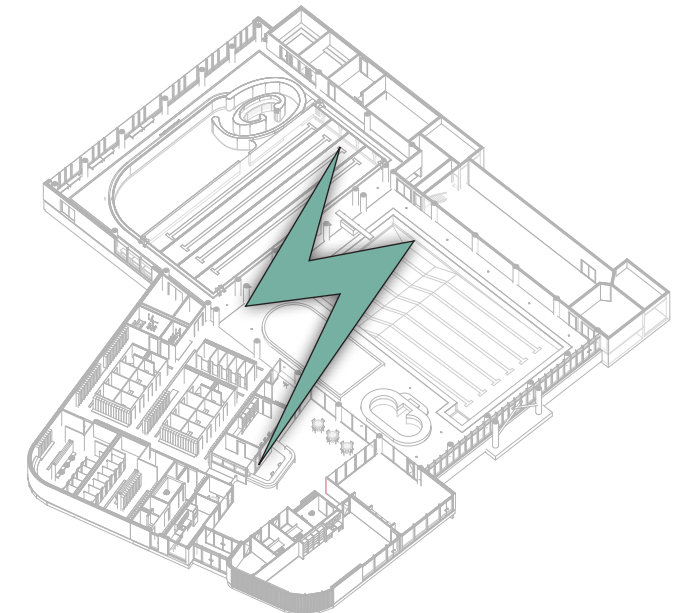
## ENHANCED DESIGN



**2,833** m<sup>2</sup>  
**39** Tonnes CO<sup>2</sup> / year  
**625** kWh / m<sup>2</sup> / year  
**\$197,000** / year, operating Cost

**\$30m** Construction cost

## FULLY-ELECTRIFIED VERSION



**2,833** m<sup>2</sup>  
**20** Tonnes CO<sup>2</sup> / year  
**624** kWh / m<sup>2</sup> / year  
**\$182,370** / year operating cost

**\$35m** Construction cost





IMAGE FROM SCHEMATIC DESIGN, 2022







REGIONAL  
DISTRICT  
OF NANAIMO

## Community Efficiency Financing Feasibility Study Results

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### **RECOMMENDATION**

1. That the RDN not proceed with the design and implementation of a Community Efficiency Financing Program.

### **BACKGROUND**

The Regional District of Nanaimo (RDN) and the City of Nanaimo have completed work on the “Financing for Deep Energy Retrofits in the Nanaimo Region Feasibility Study”. This work was part of the RDN’s Climate Action Technical Advisory Committee (CATAC) 2021-2024 Recommendations under Priority #3 – Advancing Climate Adaptive Home Retrofits in the Regional District of Nanaimo. The project was funded by the Federation of Canadian Municipalities (FCM) Green Municipal Fund (GMF), Community Efficiency Financing (CEF) stream and followed direction from RDN Board motion Nos. 21-238 and 21-239.

The study results (see Attachment 1 - Executive Summary) suggest a community efficiency financing program offered by the RDN would help support uptake of climate-adaptive home retrofits in our region. Subsequent review determined creating a program requires a new service bylaw, including with provincial approval by the Inspector of Municipalities. Provincial staff have indicated this bylaw would likely not be supported due to concerns over the legality of some forms of efficiency financing, such as property assessed clean energy (PACE), risk of low uptake from third party financiers and adding financial debt to homeowners.

Some municipal governments in British Columbia, including City of Nanaimo, are proceeding with PACE-style programs using a Local Improvement Charge under the Community Charter, which is not available to regional districts. These programs will continue to be monitored should provincial policies or legislation change in the future.

The RDN will continue to support residents on climate adaptive home retrofits through the 2025-2029 Climate Action Plan, including direct rebates to electoral area residents, ongoing provision of the Home Energy Navigator service, which is particularly helpful for those facing extra barriers to home retrofits (e.g. seniors, busy families), and by connecting residents with provincial and federal funding programs. The RDN can also continue to lobby for provincial action on PACE legislation and improved provincial and federal retrofit funding programs.

### **FINANCIAL IMPLICATIONS**

The \$30,000 in Local Government Climate Action Program (LGCAP) funding originally allocated for financing program design work in the 2024 budget is being re-allocated to fund 2025 climate action priorities, in accordance

with LGCAP conditions and the 2025-2029 Climate Action Plan, including ongoing implementation of the Home Energy Navigator Program. This change has been included in the draft 2025-2029 Financial Plan.

### **STRATEGIC PLAN ALIGNMENT**

Managing Impacts of Climate Change - Advance priority actions that are identified within RDN Board-approved plans and initiatives.

### **REVIEWED BY:**

- K. Fowler, Manager, Energy and Sustainability
- L. Grant, General Manager, Development and Emergency Services
- D. Holmes, Chief Administrative Officer

### **ATTACHMENT**

1. Executive Summary - Financing Deep Energy Retrofits in the Nanaimo Region



# Nanaimo Region Deep Energy Retrofits

**Feasibility Study** | March 2024

Prepared for:



**The City of Nanaimo**



**Submitted to:**



**City of Nanaimo**

David Stewart  
Environmental Planner, Sustainability  
[David.Stewart@nanaimo.ca](mailto:David.Stewart@nanaimo.ca)



**Regional District of Nanaimo**

Jessica Beaubier  
Climate Change and Resilience Coordinator  
[JBeaubier@rdn.bc.ca](mailto:JBeaubier@rdn.bc.ca)

Dunsky Project Number: 23026

**Prepared by:**



**Dunsky Energy + Climate Advisors**

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Montreal, QC, H2X 3V4

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+ 1 514 504 9030

With support from:  
Climative.ai  
Kambo Energy Group  
Mainstreet Marketing

# Executive Summary

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**The Regional District of Nanaimo (RDN) and its members - including the City of Nanaimo - are considering a local retrofit financing program to help accelerate low-carbon home retrofits in support of local energy and emission reduction goals.** The purpose of this study was to assess the context, feasibility and potential impacts of a local initiative. Project approach included the development of a community energy and emissions inventory (CEEI) for low-rise housing, representative residential archetypes and retrofit packages, engagement with local community organizations and industry partners to identify barriers and opportunities, and a feasibility and impact analysis to evaluate financing options.

**The Community Energy and Emissions Inventory and housing characterization reveal significant opportunities for energy and GHG reductions from heating electrification and energy efficiency retrofits in the region's low-density (Part 9) residential sector.**

Total estimated emissions across the entire RDN from low-density homes were 101,668 tCO<sub>2</sub>e, concentrated mostly in small (40,545 tCO<sub>2</sub>e, 40% of emissions) and medium (34,560 tCO<sub>2</sub>e, 34% of emissions) SFDs and duplexes (9,634 tCO<sub>2</sub>e, 9.5% of emissions). One-third (33%) of homes are reliant on carbon-intensive fossil fuels for primary space heating and they are responsible for 82% of GHG emissions from low-density homes in the RDN. Most (65%) homes were built >30 years ago to no or significantly less efficient building/energy codes.

**The "technical reduction potential" (what could theoretically be achieved) from space heating retrofits to low-density homes in the study region is estimated between 62% (62,542 tCO<sub>2</sub>e, heat pump only retrofits) to 63% (63,845 tCO<sub>2</sub>e, heat pump + insulation retrofits) of calculated low-density residential GHG emissions.** These reductions would contribute 44% - 45% of residential emission reductions needed to achieve the RDN's target of 80% reductions from the built environment by 2050 from a 2007 baseline (specific to total residential building emissions). In the City, reductions could be around 63% (37,422 tCO<sub>2</sub>e, heat pump-only retrofits) to 64% (38,182 tCO<sub>2</sub>e, heat pump + insulation retrofits). This could contribute 67% - 68% of reductions needed to achieve 50% GHG reductions of the residential building sector by 2030 in the City and 33 - 34% of the reductions needed to achieve 100% reductions by 2050 (both against a 2010 baseline).

**Targeted engagement with homeowners, industry and local community organizations confirms favourable local context and conditions for a well-designed financing program.** Local households and industry also appear ready to act. Strong uptake of an RDN-wide pilot energy concierge service, the Home Energy Navigator (HEN), indicates household interest in retrofits and a need for associated supports. There is adequate capacity in the local retrofit workforce to support anticipated program demand and the region has experienced significant growth in heat pump contractors and energy advisors in recent years. The HEN would be perfectly positioned to support households and local industry in a future financing program and is considered a critical success factor for program feasibility, uptake and impact.

**Financial barriers and risks are top of mind for surveyed households, community and industry organizations.** Residents and community groups cited household debt, a lack of available cash, and other financial priorities as important barriers, while community and industry organizations emphasized the need to improve financial literacy to reduce risks of participating in a financing program. Community organizations emphasized the need to

reduce participant risk of unrealized energy and bill savings and high-pressure contractor sales tactics via a mindful lending approach with strong participant safeguards.

**A local financing program could drive local energy and emissions reductions and complement GHG policies and regulations while proactively addressing rising fossil fuel energy costs.**

The potential uptake and impact of a local financing program was estimated for the study region and City of Nanaimo across a selection of 10 key retrofit packages targeted at the largest and/or most carbon-intensive segments of existing low-density homes. Anticipated energy reductions are primarily achieved through solar PV retrofits, which increase local climate resilience and reduce peak demand, and retrofits to homes using inefficient electric resistance heating. Conversely, GHG reductions are driven by retrofits to oil and natural gas heated homes. Over the five-year program period modeled for this analysis, a local financing program could reach between ~540 - 1,570 households in the study region and drive annual GHG emission reductions of between 240 - 670 tCO<sub>2</sub>e. Cumulative reductions over five years are estimated to be between 1,210 - 3,335 tCO<sub>2</sub>e and between 6,660 - 18,650 tCO<sub>2</sub>e over 20-year retrofit lifespans. These reductions could help the RDN achieve 0.5% of its target (specific to residential building emissions) to reduce annual GHG emissions from the built environment by 80% by 2050.

**At the same time, a local program could enable more equitable access to healthy, comfortable and energy efficient homes and help overcome retrofit barriers and reduce risks of participation.**

The program could offer accessible and low-cost financing for energy upgrades, strength energy and financial literacy in the community, and reduce risk for vulnerable households faced with high pressure contractor sales tactics combined with outsourced contractor financing. This can be achieved through customized energy concierge services, risk mitigation measures (e.g., contractor vetting, consumer protection measures), simplified underwriting criteria, and collaboration with local community groups who have built connections and trust with local communities vulnerable to program risks.

**Through the Community Efficiency Financing (CEF) initiative, FCM offers funding to local governments that establish a program to finance home energy upgrades.** The RDN and City would need to act quickly to benefit fully from the time-limited program expected to sunset in 2026. Three types of financing program model are eligible for CEF funding, and the feasibility and success factors of each in both the RDN and the City of Nanaimo was explored.

- **Property Assessed Clean Energy (PACE):** PACE financing is typically provided as a loan from a government (e.g., municipality) or third-party program partner. The loan is affixed to the property (rather than the individual) and transferred with property ownership. Loans are repaid via property tax bills. PACE financing often provides access to low-cost and long-term financing with a fixed interest rates.
- **Direct Lending:** A private lender offers an unsecured consumer loan for home energy upgrades. Local governments help de-risk investments using credit enhancement tools (e.g., loan loss reserves) to secure preferential lending terms (below-market interest rates, expanded underwriting criteria) and enable broader uptake.
- **Utility On-Bill Programs:** Utility-led programs where financing is repaid via customer utility bills. Capital is provided by either the utility, with underwriting based on customer payment history (on-bill financing), or by a third-party lender loaning directly to participants, after which payments are collected by the utility (on-bill repayment).

**Following detailed feasibility and alignment analysis of the above models, three financing products were developed and modeled to understand program costs, impacts and critical success factors.** These included two Direct Lending models (a 2-year bridge loan and 5-year personal loan), ideally implemented across the study region by the RDN, and a 10-year PACE loan most easily implemented by the City based on legislative and implementation conditions and precedent. On-bill programs were considered non-feasible due to firm lack of interest by key provincial utilities. See section 4.4 for detailed findings.

**The following recommendations and considerations are provided for the RDN and City of Nanaimo based on the results of the study.**

**Note that the Home Energy Navigator (HEN) is considered a critical success factor to any local financing program. In the absence of the HEN, a local financing program is considered significantly less viable.**

### **Regional District of Nanaimo**

A Direct Lending program implemented by the RDN across the study region, in conjunction with the Home Energy Navigator, is feasible and broadly aligned with households needs and program objectives. Capital is provided by the lending partner and program administration is distributed among program partners, so resource needs from local government are greatly reduced. Critical program success factors include:

- **Preferential lending terms:** Securing preferential lending terms (e.g., below-market interest rates) and expanded underwriting criteria is critical to program success. Ideally, the RDN would leverage credit enhancements (e.g., a loan loss reserve; interest rate buydowns) that minimize risk to the lending partner to enable broader and more equitable uptake; otherwise, even more significant focus and effort should be put on lender negotiations and establishment of program lending terms.
- **Investigation into legislative context for credit enhancement features:** As noted above, a successful Direct Lending program requires preferential lending terms. Credit enhancements help achieve such terms. The RDN should seek internal and external legal consultation, as well as liaise with the CEF, regarding the use of these features in the RDN.
- **Regional program:** Provides standardization for households and local industry and increases potential program uptake and impact.
- **Strategic eligibility criteria:** To add value above and beyond existing financing offers, a local program should allow additional measures beyond heat pumps, participation by electrically heated homes and combining financing with existing incentives.

### **City of Nanaimo**

If the RDN introduces a regional Direct Lending program, it is recommended that the City participates in the program and collaborates with the RDN on program development, implementation and marketing. If the RDN chooses not to move ahead with a Direct Lending program across the region, the City of Nanaimo could implement either a City-scale Direct Lending program or a PACE program. *Success factors for a Direct Lending program are broadly the same as for the RDN, while success factors for PACE are summarized below.*

- **Dedicated municipal reserve funds:** Options to capitalize a PACE program are constrained by MFA and Community Charter restrictions on long-term borrowing. The success of a local program to deliver financing at the scale needed to stimulate home energy retrofits relies on dedicating municipal reserve funds for program capital.
- **Preferential lending terms and expanded underwriting:** Local governments have more control and influence over financing terms in a PACE program and the ability to design financing specifically for vulnerable households to support more equitable uptake (e.g., Income-Qualified stream). To overcome barriers to traditional financing associated with credit checks, property tax standing can be used to underwrite loans.
- **Collaboration with the Districts of Saanich and Central Saanich:** To understand key design features, mitigate challenges and risks, and benefit from significant time and resource efficiencies by leveraging existing program materials (e.g., bylaws, forms).

**With program feasibility confirmed, local government staff can begin the program design process.** To fund this effort, the RDN and/or City may submit a grant application to FCM's CEF initiative. It's important to note that the CEF initiative is expected to sunset in 2026, so the RDN/City will need to advance through the application phases within this timeframe to take advantage of the opportunity. While this is underway, the RDN/City should continue to advance initiatives and other key actions related to home energy retrofits. These include:

- **Commit resources to the continuation of the Home Energy Navigator and related services.** The HEN is currently being piloted for a limited time in the RDN. Dunsky recommends that the RDN (or City) continue offering the HEN. Without the HEN, there would be significant challenges to deliver an effective and impactful financing program, regardless of chosen model. The HEN offers critical added value to a financial partner within a Direct Lending program and reduces staff impacts under a PACE model. In both models, the HEN provides key supports and helps raise awareness of the program. The HEN would be well-positioned to support a future financing program.
- **Continue offering and promoting local government top-ups.** The RDN and City should continue (and/or expand) their offerings of municipal top-up rebates for heat pumps, electrical upgrades, home energy assessments and renewable energy systems. To help alleviate contractor and homeowner uncertainty, the RDN and City should consider increasing the budget for these rebates to facilitate an accelerated pace of retrofits and higher confidence in access. Given the large potential market for rooftop solar installations, the City should consider introducing a renewable energy rebate.
- **Engage with industry groups and contractors on key technologies,** such as load shedding and/or load-sharing devices. These technologies support electrification retrofits by reducing or avoiding costs from electrical panel upgrades. Increased awareness and training benefits project economics in favour of deeper retrofits and better payback.
- **Engage proactively with the Province on provincial PACE.** In all scenarios, but especially if designing a PACE-style program, the RDN and City should liaise frequently with the Province, monitor developments and prepare for consultation as needed.



# Glossary of Key Terms

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**Archetype:** Representative examples of segments of the existing housing stock, each with an average profile including area, heating type, energy consumption and GHG emissions. This profile is applied to every dwelling in that archetype.

**Community Efficiency Financing (CEF) Initiative:** The CEF initiative is part of FCM's Green Municipal Fund and offers funding to communities undertaking steps to implement a local financing program for home energy upgrades.

**Community Energy and Emissions Inventory:** Provides an analysis of energy consumption and greenhouse gas (GHG) emissions of select sectors and sources within a set boundary.

**Credit Enhancement:** Financing program design tools intended to improve the credit risk profile for lenders to provide loans and provide greater assurance that their products will realize an adequate financial return to justify their investment. In turn, credit enhancement can improve financing terms for homeowners (e.g., lower interest rate, longer repayment timelines) and/or enable financing for homeowners that would otherwise not have access. Credit enhancements include loan loss reserves and interest rate buydowns.

- **Loan loss reserve (LLR):** Within this structure, a reserve fund is established to cover a portion of losses incurred by private lenders due to borrower defaults. A sum in proportion of the overall loan value is thus placed in an escrow fund and held until the loan is repaid by the homeowner. In cases of default, lenders can apply to the LLR.
- **Interest rate buydowns (IRB):** In this intervention, the local government pays the lender to provide a reduced interest rate. In the method applied in this assessment, an upfront payment is made by the local government (e.g., RDN) to the lender that is equivalent to the difference in interest payments between the standard lending rate and the preferential program rate over the lifetime of the loan. IRBs are flexible and can be customized by amount, term, qualifying borrowers, and project type. They can be applied in a targeted manner to support equity deserving groups, such as to improve low-to-moderate income access to lower-interest loans.

**Direct Lending:** A financing program in which a private lender offers eligible participants an unsecured consumer loan product for home energy upgrades. Local governments can help de-risk these investments to secure preferential lending terms for participants and enable broader uptake via credit enhancement. Preferential terms include below-market interest rates, extended repayment terms more closely aligned with the average lifespan of installed measures, larger loan amounts, and expanded underwriting criteria to enable participation by households with lower credit scores. A local government can offer credit enhancement in the form of a loan loss reserve to a private lender for partial coverage for losses on, for instance, 10% or 20% of the total loan portfolio (i.e. a leverage ratio of 10:1 or 5:1).

**Energy Concierge Service:** Energy concierge services are intended to facilitate the customer journey from the homeowner's perspective. Program officers are made available to walk homeowners through the retrofit process, offering guidance, support and education to simplify each step, connect them with existing offerings, and provide expert advice. The RDN's Home Energy Navigator is a pilot energy concierge service offer in the region.

**Home Energy Retrofit:** Upgrades to a building's energy systems to improve its energy performance. This can include energy measures such as heat pumps and insulation upgrades.

**Property Assessed Clean Energy (PACE):** PACE financing programs are typically provided as loans from a government (e.g., municipality) or third-party program partner. The loan is affixed to the property (rather than the individual) and transferred with property ownership. Loans are repaid via property tax bills. PACE financing often provides access to low-cost and long-term financing with fixed interest rates.

**Utility On-Bill Programs:** Utility-led financing programs, where financing is repaid via customer utility bills. Capital is provided by either the utility, with underwriting based on customer payment history (on-bill financing), or by a third-party lender loaning directly to participants, after which payments are collected by the utility (on-bill repayment).

## Engagement Plan for Phase 2 of the Sea Level Rise and Climate Adaptation Program

### **RECOMMENDATIONS**

1. That the Board approve the Engagement Plan for Phase 2 of the Sea Level Rise and Climate Adaptation Program.
2. That the Board direct staff to communicate the launch of Phase 2 of the Sea level Rise and Climate Adaptation program to the member municipalities and Snuneymuxw, Snaw-Naw-As, and Qualicum First Nations.

### **SUMMARY**

The Regional District of Nanaimo (RDN) has begun Phase 2 of its Sea Level Rise and Climate Adaptation Program for 2024-2027 under Board-approved terms of reference (Resolution No. 23-960). Phase 2 will combine technical studies and public outreach to help RDN residents, professionals and local governments better understand coastal natural hazards in the RDN area and how these may evolve under climate change. It also offers a starting point for conversations on how to best prepare for these anticipated changes. The draft Engagement Plan contains proposed public engagement activities for initial engagement during the fall of 2024 to the summer of 2025 and is recommended for Board approval. This initial engagement will enable the RDN to better understand resident concerns and awareness of coastal risk, which will then be used to design a more comprehensive outreach and engagement approach to further support resident awareness for 2025-2027.

### **BACKGROUND**

Phase 1 of the RDN's Sea Level Rise and Climate Adaptation Program is nearing completion (2019-2024). This phase has helped the RDN better understand flood hazards, slope hazards (e.g., landslides), and anticipated sea level rise conditions under climate change, and adapt local government policies, plans and land use regulations to help manage this evolving risk.

Building on this momentum, the RDN Board endorsed Terms of Reference and a financial plan for Phase 2 of this program to guide further technical and public outreach work for 2024-2027. Phase 2 includes technical work to determine areas of the coast most at risk from changing coastal processes, develop a Coastal Climate Adaptation Strategy, and provide public engagement. A general timeline for Phase 2, previously presented in the Board-endorsed Terms of Reference, is provided below. This work is supported by a team of technical and communication experts from Northwest Hydraulic Consulting (NHC) and Lanarc Consulting, and an RDN interdepartmental advisory group.

**Summary of Broader Project Elements, Tasks and Timeline**

Elements	Tasks	2024-2025	2025-2026	2026-2027
Engagement	Engagement Plan & Communication Materials			
Technical	Slope Hazard Study (incorporated)			
	Coastal Climate Risk Assessment			
	Erosion Hazard Assessment & Mapping			
Strategic Planning	Risk Tolerance Policy			
	Collaborative Framework			
	Coastal Climate Adaptation Strategy			

The current Engagement Plan addresses engagement planned from October 2024 to June 2025. Subsequent engagement plans will be provided for Board approval. Informed by best practices in climate communications, Lanarc Consulting will gather information to better understand residents’ experiences, values and concerns about coastal hazards, which will then inform a longer-term public engagement plan and related communication materials. The outreach approach and materials will inform residents and support their understanding of coastal risk, and residents’ contribution to decision-making, whether for their own properties or as part of developing the Coastal Adaptation Strategy. Local First Nations and RDN member municipalities will be invited to participant in ways most suitable for them. Further details are provided in Attachment 1: RDN Engagement Plan Highlights for Phase 2 of the Sea Level Rise and Climate Adaptation Program.

**FINANCIAL IMPLICATIONS**

The \$15,310 cost for the proposed Engagement Plan for Phase 2 of the RDN’s Sea Level Rise and Climate Adaptation Program is included in the 2024 - 2028 Financial Plan.

**STRATEGIC PLAN ALIGNMENT**

Managing Impacts of Climate Change - Plan and implement risk management and mitigation strategies for identified hazards and vulnerabilities associated with climate change.

**REVIEWED BY:**

- L. Moilanen, Engagement Coordinator
- K. Fowler, Manager, Energy and Sustainability
- L. Grant, General Manager, Development and Emergency Services
- D. Holmes, Chief Administrative Officer

**ATTACHMENT**

1. RDN Engagement Plan Highlights for Phase 2 of the Sea Level Rise and Climate Adaptation Program



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# Engagement Plan Highlights

**Project Name: Phase 2 of the Sea Level Rise and Climate Adaptation Program (Year 1)**

**Date Engagement Highlights and Plan Drafted:** September 12, 2024

**Date Engagement Highlights and Plan Approved:**

## Engagement Objective

1. Understand public relationship to coastal hazards (storm surge, flooding, erosion, slope stability and sea level rise), and explore topics, such as their experiences, concerns, preferred ways of communicating and their level of preparedness and attitude toward risk.
2. Engage development professionals, regional partners and others in the formation of the technical studies (e.g., project specific workshop).
3. Develop a longer-term engagement plan and materials to provide a consistent and coordinated approach to increase awareness and promote actions to help people adapt to a changing coastal environment.
4. Promote working together to discuss common interests, challenges and mutual opportunities for communities.

## Decision

At this time there is no decision to be made for this project. This engagement will help inform future engagement on later stages of the project.

## Promise to the Public/IAP2 spectrum

The public participation goals are a combination of 'inform' (providing balanced and objective information to assist in understanding the problem and opportunities), and 'consult' (obtaining feedback on key topics), based on the International Association of Public Participation (IAP2) spectrum. The RDN will keep the public informed, listen to and acknowledge concerns and aspirations and provide feedback on how public input influences any related project outcomes.

## Tools and Techniques

1. Get Involved RDN project page: Customized webpage to share background, purpose, timelines, update on progress and outcomes.
2. Public survey hosted on Get Involved RDN project page to inform key messages for engagement plan and development of outreach materials.







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OF NANAIMO

# Engagement Plan Highlights

3. News release, newspaper advertising, GIRDN project page updates, and RDN social media.
4. Letters: Invitation to local First Nations to participate in a way that is suitable for them.
5. Meetings: Various through project life cycle, such as project team, RDN interdepartmental Advisory Group, member municipalities, local First Nations and other contributors as required.
6. Workshops: Year 1 - Primarily focused on regional professionals to refine data products (e.g. coastal risk assessment)





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## Development Permit Area for Coastal Flood Hazard - Third Reading and Adoption

Please note: these bylaws were previously brought forward to the September 10, 2024 Board meeting but were missing maps. The maps are now attached and the bylaws can be read.

### RECOMMENDATIONS

1. That the Board give third reading to the following Official Community Plan and Zoning amendment bylaws:
  - a. "Regional District of Nanaimo Electoral Area 'A' Official Community Plan Amendment Bylaw No. 1620.10, 2023";
  - b. "Regional District of Nanaimo Electoral Area 'E' Official Community Plan Amendment Bylaw No. 1400.06, 2023";
  - c. "Regional District of Nanaimo Electoral Area 'G' Official Community Plan Amendment Bylaw No. 1540.06, 2023";
  - d. "Regional District of Nanaimo Electoral Area 'H' Official Community Plan Amendment Bylaw No. 1335.09, 2023", and
  - e. "Regional District of Nanaimo Land Use and Subdivision Amendment Bylaw No. 500.445, 2023".
2. That the Board adopt the following Official Community Plan and Zoning amendment bylaws:
  - a. "Regional District of Nanaimo Electoral Area 'A' Official Community Plan Amendment Bylaw No. 1620.10, 2023";
  - b. "Regional District of Nanaimo Electoral Area 'E' Official Community Plan Amendment Bylaw No. 1400.06, 2023";
  - c. "Regional District of Nanaimo Electoral Area 'G' Official Community Plan Amendment Bylaw No. 1540.06, 2023";
  - d. "Regional District of Nanaimo Electoral Area 'H' Official Community Plan Amendment Bylaw No. 1335.09, 2023", and
  - e. "Regional District of Nanaimo Land Use and Subdivision Amendment Bylaw No. 500.445, 2023".

### SUMMARY

The development of the official community plan and zoning amendment bylaws is the result of feedback from the public and development professionals to provide clear and consistent information on the requirements for new development within the coastal floodplain for Electoral Areas A, E, G and H. The adoption of these bylaws adds to the adaptation strategies used by the Regional District, development professionals and property owners to reduce the anticipated impacts of coastal storm surge, flooding, erosion and over time sea level rise.

## **BACKGROUND**

The proposed Development Permit Area (DPA) is part of the Board approved workplan for implementing the coastal floodplain maps and is complimentary to the Regional District's flood hazard mitigation bylaw, adopted in July 2023<sup>1</sup>. If adopted, the proposed changes will maintain the provincial and RDN professional standards for flood mitigation, providing a consistent approach for new construction and subdivision by identifying the existing requirements as early as possible; at the planning/design stage.

June 13, 2024, the Board received a positive report from the engagement activities held in 2024 and directed staff to proceed to public hearing by unanimous decision as follows:

- 24-353 It was moved and seconded that the Board receive the report titled What We Heard Report for Development Permit Area for Coastal Flood Hazard, as provided in Attachment 1.
- 24-354 It was moved and seconded that "Regional District of Nanaimo Electoral Area 'A' Official Community Plan Amendment Bylaw No. 1620.10, 2023", be read a second time as amended.
- 24-355 It was moved and seconded that "Regional District of Nanaimo Electoral Area 'E' Official Community Plan Amendment Bylaw No. 1400.06, 2023", be read a second time as amended.
- 24-356 It was moved and seconded that "Regional District of Nanaimo Electoral Area 'G' Official Community Plan Amendment Bylaw No. 1540.06, 2023", be read a second time as amended.
- 24-357 It was moved and seconded that "Regional District of Nanaimo Electoral Area 'H' Official Community Plan Amendment Bylaw No. 1335.09, 2023", be read a second time as amended.
- 24-358 It was moved and seconded that "Regional District of Nanaimo Land Use and Subdivision Amendment Bylaw No. 500.445, 2023", having considered the impact of the current Financial Plan, Liquid Waste Management Plan and Solid Waste Management Plan, be read a second time as amended.
- 24-359 That the Board direct the public hearing be Chaired by Director Rogers for the following Official Community Plan and Zoning amendment bylaws:
  - a. "Regional District of Nanaimo Electoral Area 'A' Official Community Plan Amendment Bylaw No. 1620.10, 2023";
  - b. "Regional District of Nanaimo Electoral Area 'E' Official Community Plan Amendment Bylaw No. 1400.06, 2023";
  - c. "Regional District of Nanaimo Electoral Area 'G' Official Community Plan Amendment Bylaw No. 1540.06, 2023";
  - d. "Regional District of Nanaimo Electoral Area 'H' Official Community Plan Amendment Bylaw No. 1335.09, 2023", and
  - e. "Regional District of Nanaimo Land Use and Subdivision Amendment Bylaw No. 500.445, 2023".

November 23, 2023, the Board arrived at a unanimous decision to proceed by giving two readings to the OCP amendment bylaws and approving the Engagement Plan by passing the following resolutions:

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<sup>1</sup> Flood Hazard and Mitigation Bylaw No.1872, 2023, RDN webpage: [www.rdn.bc.ca/bylaws-policies-forms-maps](http://www.rdn.bc.ca/bylaws-policies-forms-maps)

- 23-584 That the Board approve the Engagement Plan for the proposed Coastal Flood Hazard Development Permit Areas.
- 23-585 That the Board introduce and give two reading to “Regional District of Nanaimo Electoral Area ‘A’ Official Community Plan Amendment Bylaw No. 1620.10, 2023” having considered the impact on the current Financial Plan, Liquid Waste Management Plan and Solid Waste Management Plan.
- 23-586 That the Board introduce and give two reading to “Regional District of Nanaimo Nanoose Bay Official Community Plan Amendment Bylaw No. 1400.06, 2023” having considered the impact on the current Financial Plan, Liquid Waste Management Plan and Solid Waste Management Plan.
- 23-587 That the Board introduce and give two reading to “Regional District of Nanaimo Electoral Area ‘G’ Official Community Plan Amendment Bylaw No. 1540.06, 2023” having considered the impact on the current Financial Plan, Liquid Waste Management Plan and Solid Waste Management Plan.
- 23-588 That the Board introduce and give two reading to “Regional District of Nanaimo Electoral Area ‘H’ Official Community Plan Amendment Bylaw No. 1335.09, 2023” having considered the impact on the current Financial Plan, Liquid Waste Management Plan and Solid Waste Management Plan.
- December 12, 2023, the Board unanimously gave two readings the zoning amendment bylaw:
- 23-692 That the Board introduce and give two readings to “Regional District of Nanaimo Land Use and Subdivision Amendment Bylaw No. 500.445, 2023”.

### **LEGISLATIVE CONSIDERATIONS**

The legislated process for amending OCP and zoning bylaws is established in the *Local Government Act*. Prior to second reading, the four OCP amendment bylaws, were considered within the context of the Liquid Waste Plan and Solid Waste Plan and found to align with the Plans objectives for climate change adaptation and mitigation, particularly as it relates to water quality and rainwater management.

A public hearing was held on Wednesday, July 10, 2024. Notification was provided in advance in the two regional newspapers, the RDN webpage<sup>2</sup> and via email to those registered to the RDN Get Involved project webpage<sup>3</sup>. One item of correspondence was received prior to the public hearing and entered into the record. No submissions were received at the public hearing. See Attachment 1 – Summary of Public Hearing.

The Board may consider third reading and adoption of the Bylaw with an affirmative vote of a majority of all Board members eligible to vote. Board approval will establish a new development permit area for Electoral Areas A, E, G and H.

### **FINANCIAL IMPLICATIONS**

The costs and staff resource the development, engagement and approvals process for the DPAs are included in the 2024 - 2028 Financial Plan and the 2024 Planning Department’s workplan. Proceeding with the request for third reading and adoption incurs no costs above the staff resources that are already allocated for this work.

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<sup>2</sup> RDN webpage: [www.rdn.bc.ca/public-notice](http://www.rdn.bc.ca/public-notice)

<sup>3</sup> RDN Get Involved project webpage: [www.getinvolved.rdn.ca/coastal-flood-hazard-dpa](http://www.getinvolved.rdn.ca/coastal-flood-hazard-dpa)

## **STRATEGIC PLAN ALIGNMENT**

Development Permit Areas for hazard areas are important tools for managing development in identified hazard areas under present-day and future land use conditions. The adoption of these bylaws directly aligns with the Board's strategic priorities by contributing to the RDN's on-going efforts to communicate and reduce the potential impact of coastal flood hazards on new development.

Managing Impacts of Climate Change - Plan and implement risk management and mitigation strategies for identified hazards and vulnerabilities associated with climate change.

## **REVIEWED BY:**

- P. Thompson, Manager of Current Planning
- L. Grant, General Manager, Development and Emergency Services
- D. Holmes, Chief Administrative Office

## **ATTACHMENTS:**

1. Electoral Area A OCP Amendment Bylaw No. 1620.10, 2023
2. Nanoose Bay OCP Amendment Bylaw No. 1400.06, 2023
3. Electoral Area G OCP Amendment Bylaw No. 1540.06, 2023
4. Electoral Area H OCP Amendment Bylaw No. 1335.09, 2023
5. Zoning Amendment Bylaw No. 500.445, 2023



**ATTACHMENT 1**

**REGIONAL DISTRICT OF NANAIMO  
BYLAW NO. 1620.10  
(Electoral Area A)**

**[BYLAW INSERTED AS NEXT PAGES]**

**REGIONAL DISTRICT OF NANAIMO  
BYLAW NO. 1620.10**

**A BYLAW TO AMEND REGIONAL DISTRICT OF NANAIMO ELECTORAL AREA 'A'  
OFFICIAL COMMUNITY PLAN BYLAW NO. 1620, 2011**

The Board of the Regional District of Nanaimo, in open meeting assembled, enacts as follows:

- A. This Bylaw may be cited as “Regional District of Nanaimo Electoral Area ‘A’ Official Community Plan Amendment Bylaw No. 1620.10, 2023”.
- B. The “Regional District of Nanaimo Electoral Area ‘A’ Official Community Plan Bylaw No. 1620, 2011” is here by amended as follows:
  1. Under Section 4 Protecting the Natural Environment, by renaming sub-section ‘4.7 Hazard Management’ to ‘4.7 Natural Hazard Mitigation’.
  2. Under Section ‘4.7 Natural Hazard Mitigation’, before the ‘Objectives and Policies’ tables, by deleting the paragraph text, and replacing it with new paragraph text, as set out in Schedule ‘1’ attached to and forming part of this bylaw.
  3. Under Section ‘4.7 Objectives and Policies’ tables, by deleting policies 4.7.4, 4.7.5 and 4.7.6 and replacing with the new policies as set out in Schedule ‘1A’ attached to and forming part of this bylaw.
  4. Under Section 12 Development Permit Areas, by renaming sub-section ‘12.6 Hazard Lands Development Permit Area’ to ‘12.6 River Flood and Slope Hazard Development Permit Area’.
  5. After Section ‘12.12 Yellow Point Aquifer Protection Development Permit Area’ by adding a new sub-section ‘12.13 Coastal Flood Hazard Development Permit Area’, as set out in Schedule ‘1B’ attached to and forming part of this bylaw.
  6. By deleting and replacing ‘Map No. 1 Environmentally Sensitive Features and Natural Hazard Areas’ and ‘Map No. 9 Development Permit Area for the Protection of the Natural Environment’, as set out in Schedule ‘2’ attached to and forming part of this bylaw.
  7. By adding ‘Map No. 11 Development Permit Area for Coastal Flood Hazard’, as set out in Schedule ‘2’ attached to and forming part of this bylaw.

Introduced and read two times this 28<sup>th</sup> day of November 2023.

Considered in conjunction with the Regional District of Nanaimo Financial Plan and any applicable Waste Management Plans this 28<sup>th</sup> day of November, 2023.

Read a second time, as amended, this 25<sup>th</sup> day of June, 2024.

Public Hearing held pursuant to Section 464 of the *Local Government Act* this 10<sup>th</sup> day of July, 2024.

Read a third time this \_\_\_ day of \_\_\_\_\_ 20XX.

Adopted this \_\_\_ day of \_\_\_\_\_ 20XX.

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CHAIR

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CORPORATE OFFICER

**REGIONAL DISTRICT OF NANAIMO  
BYLAW NO. 1620.10**

**Schedule '1'**

**4.7 Natural Hazard Mitigation**

Natural hazard areas are sources of potentially dangerous chance events such as lands which may be susceptible to damage from coastal storm surge, erosion, floods, mass movement of soil, landslides, earthquakes, or forest fire. Known natural hazard areas are identified on Map No. 1 Environmentally Sensitive Features and Natural Hazard Areas, Map No. 9 Development Permit Area for the Protection of the Natural Environment and Map No. 11 Development Permit Area for Coastal Flood Hazard.

A wildland fire protection plan for the North Cedar Improvement District, Snuneymuxw First Nation and Electoral Area 'A' was prepared. The report found that a large portion of Electoral Area 'A' is considered to have a moderate, high, or extreme forest fire risk.

Areas of the coastline are vulnerable to coastal hazards including storm surge, coastal and estuary flooding, erosion and over time sea level rise. Climate change will increase the intensity and frequency of natural hazard events if unmitigated.

Seismic activity is a distinct possibility within the plan area. South Central Vancouver Island is classified as a Zone 4 area according to the 2006 National Building Code Seismic Zoning Map. This indicates that the area is at high risk for seismic activity.

This section is intended to minimize the risk of potential hazards to persons and property.

**Schedule '1A'**

**4.7 Objectives and Policies**

- 4.7.4 All development proposals located within a designated floodplain must comply with the RDN Flood Hazard Mitigation Bylaw No.1872, 2023 as amended or replaced from time to time.
- 4.7.5 Areas susceptible to flooding, mass movement, unstable slopes, high rates of erosion, forest fire, steep slopes, or land that would pose a threat to property or lives if developed is deemed a natural hazard area. These areas are identified on Map No. 1 Environmentally Sensitive Features and Natural Hazard Areas, Map No. 9 Development Permit Area for the Protection of the Natural Environment and Map No. 11 Development Permit Area for Coastal Flood Hazard.
- 4.7.6 Natural Hazard Areas are not limited to the boundaries indicated on Map No. 1, No. 9 and No. 11 and adjustments may be made to reflect changing on-site conditions or hazard assessments.

## Schedule '1B'

### 12.13 Coastal Flood Hazard Development Permit

#### Area Designation of Applicable Area

Those parts of Electoral Area A of the Regional District of Nanaimo designated as the Coastal Flood Hazard Development Permit Area on Map No. 9 of the Official Community Plan, applying to areas that are at risk of flood hazards.

#### Authority Granted under the *Local Government Act*

These areas are designated as a development permit area to establish guidelines to protect development from hazardous conditions pursuant to sections 488(1)(a) & (b) of the *Local Government Act*.

#### Justification

Coastal communities are vulnerable to acute hazards like storm surge and coastal flooding to the widespread impacts of coastal erosion and sea level rise. These hazards can pose a risk to infrastructure, property and public safety, and can disrupt local economies and cause ecological damage unless mitigated. Coastal hazards and sea level rise are critical considerations for regions with a lengthy coastline.

The Regional District of Nanaimo is preparing for the impacts of climate change through the *Sea Level Rise and Climate Adaptation Program*. In 2022, the Coastal Floodplain Mapping Project was completed resulting in a better understanding of coastal flood hazards under present-day and future conditions. The flood analysis included the cumulative effects of high-tide, storm surge, wind and wave effect. The project also resulted in the production of regional-scale Regulatory Coastal Floodplain Maps used for designating the coastal floodplain area. The purpose of this development permit area is to ensure new development responds to coastal flood hazards by reducing the risk to people and property, and existing buildings are not altered or modified in ways that increase flood risk.

#### Objectives

The objectives of this development permit area are to:

1. minimize the risk to people and property from flood hazards;
2. encourage safety in construction, location and the manner of new construction in flood prone areas;
3. ensure new development does not increase flood hazards and mitigates flood risks for surrounding properties;
4. minimize the potential for damage to public infrastructure, facilities and utilities;
5. ensure lands are safe for the intended use;
6. preserve the natural environment and ecological functions of floodplains; and
7. increase awareness of designated floodplain areas and the implications of such a designation.



**REGIONAL DISTRICT OF NANAIMO  
BYLAW NO. 1620.10**

**Schedule '2'**

1. Delete existing 'Map No. 1 Environmentally Sensitive Features and Natural Hazard Areas' and replace with the new 'Map No. 1 Environmentally Sensitive Features and Natural Hazard Areas', dated September 8, 2023, attached as 'Schedule 2A' and forming part of this bylaw.
2. Delete existing 'Map No. 9 Development Permit Area for the Natural Environment' and replace with the new 'Map No. 9 Development Permit Area for the Natural Environment', dated September 8, 2023, attached as 'Schedule 2B' and forming part of this bylaw.
3. Add new map in numerical order, 'Map No. 11 Development Permit Area for Coastal Flood Hazard', dated September 13, 2023, attached as 'Schedule 2C' and forming part of this bylaw.

**REGIONAL DISTRICT OF NANAIMO  
BYLAW NO. 1620.10**

**Schedule '2A'**

**Map No. 1 Environmentally Sensitive Features and Natural Hazard Areas**

**[MAP INSERTED AS NEXT PAGE]**





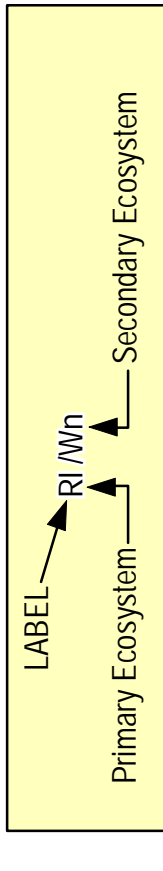
**MAP NO. 1**  
**Environmentally Sensitive Features**  
**& Natural Hazard Areas**

**Legend**

- Electoral Area Boundary
- Plan Area Boundary

**Sensitive Ecosystems**

- CB - Coastal Bluff**  
Vegetated rocky islet, rocky shoreline / grassland, rocky shoreline / moss
- HT - Terrestrial Herbaceous**  
Natural grasslands or bryophyte-dominated vegetation, including rock outcrop / grassland and rock outcrop / moss types; >20% shrub cover.
- OF - Older Forest**  
Forest ecosystem with dominant age class > 100 years; coniferous, mixed with broadleaf component > 15%.
- RI - Riparian**  
All stages of floodplain vegetation including riparian vegetation associated with gullies.
- WN - Wetland**  
Wetlands with wet soil and moisture dependent plants (sage, fern, marsh, swamp, shadow water, wet meadow).
- Areas with general biodiversity values**
- FS - Seasonally Flooded**  
Seasonally flooded Agricultural Field
- SG - Second Growth Forest**  
Forested ecosystem with dominant age class 60 - 100 years; coniferous, mixed with broadleaf component > 15%.



NOTE: The Sensitive Ecosystems Inventory of East Vancouver Island (Canada) (Nanaimo Wildlife Society) and the BC Ministry of Sustainable Resource Management (Conservation Data Centre) and Water, Land and Air Protection (Conservation Data Centre) and Water, Land and Air Protection (Conservation Data Centre) also received support and funding from Regional Districts, Local Governments and Industry.

**Watercourse**

- Great Blue Heron Colony**
- Bald Eagle Nest Tree**

**Known Occurrences of Rare & Endangered Species**

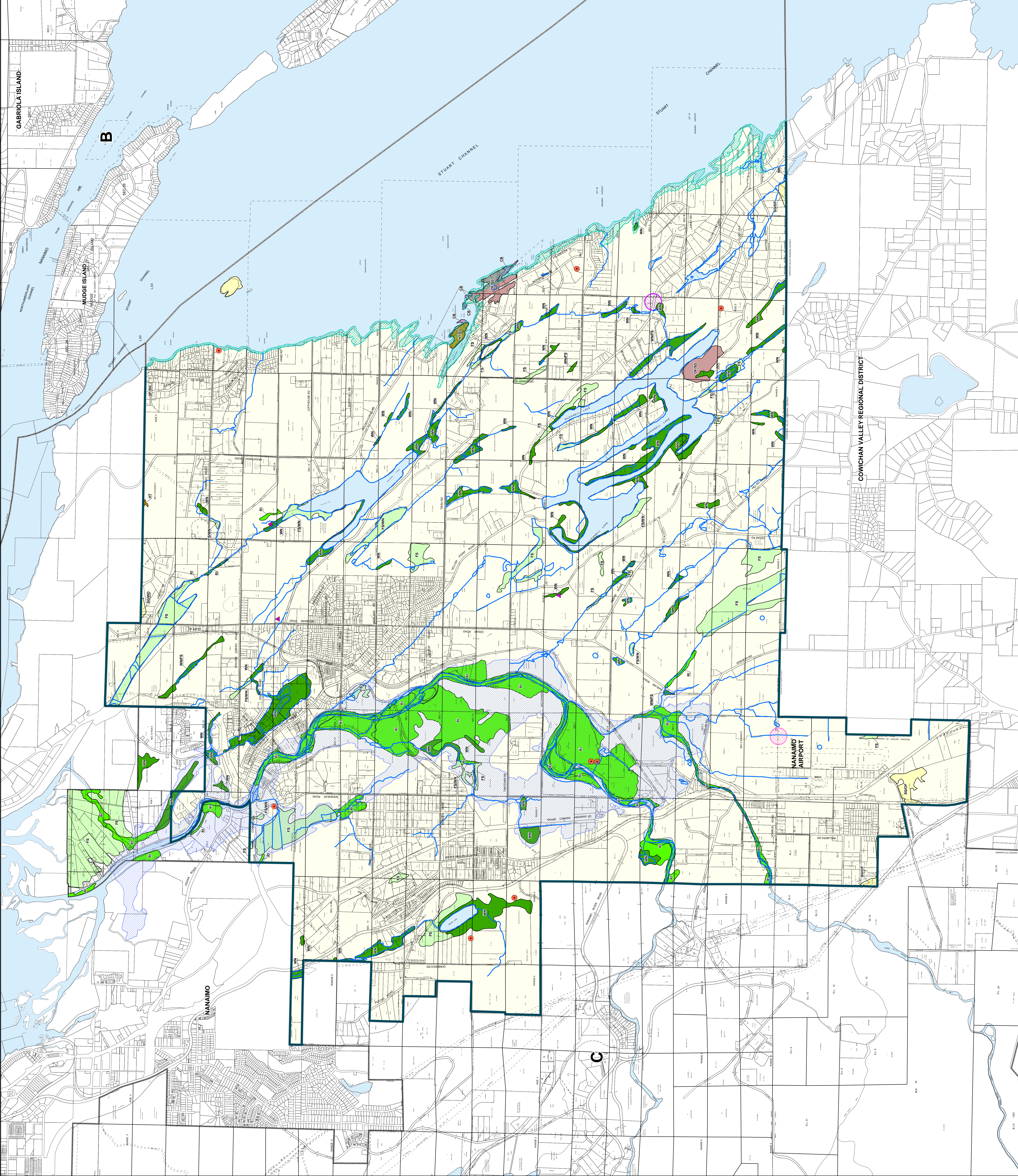
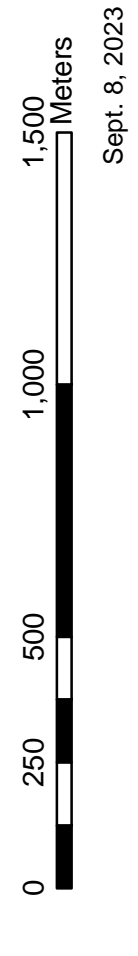
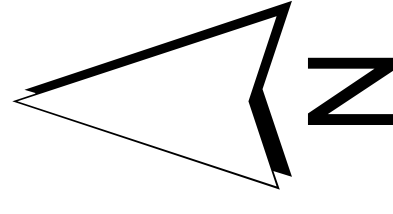
- Proterpius Duskywing (Butterfly) Status - BC Blue Listed**
- Vesper Sparrow, affinis subspecies Status - BC Red Listed, COSEWIC Endangered**

**Natural Hazard Areas**

- Nanaimo River Floodplain**
- Coastal Floodplain**

Charpterson  
 Corporate Officer

BYLAW NO. 1620.10.2023





**REGIONAL DISTRICT OF NANAIMO  
BYLAW NO. 1620.10**

**Schedule '2B'**

**Map No. 9 Development Permit Area for the Protection of the  
Natural Environment**

**[MAP INSERTED AS NEXT PAGE]**



**A Shared Community Vision**  
**Electoral Area A**  
**Official**  
**Community Plan**  
**MAP NO. 9**  
**Development Permit Areas**  
**for Protection**  
**of the Natural Environment**



**Legend**

- Electoral Area Boundary
- Plan Area Boundary
- Sensitive Ecosystems Development Permit Area**
- Coastal Bluff, Terrestrial Herbaceous and Old Forest Ecosystems  
SOURCE: Sensitive Ecosystem Inventory 2004
- Sensitive Species  
SOURCE: Conservation Data Centre

**Eagle and Heron Nesting Trees Development Permit Area**

- All Mapped and Unmapped eagle and heron nesting trees within the shaded area shown on inset map
- Eagle Nest Tree:  
60 metre radius from base of tree
- Heron Nest:  
60 metres from base of tree for lots ≤ 1.0 hectares  
100 metres from base of tree for lots > 1.0 hectares  
SOURCE: BC Ministry of Environment

**Freshwater and Fish Habitat Development Permit Area**

- All Mapped and Unmapped Streams that are Subject to the Riparian Areas Regulation within the shaded area shown on Inset
- Nanaimo River and Haslam Creek
- All other Watercourses
- Lake, Wetland, and Pond
- Wetland and Riparian Areas  
SOURCE: Sensitive Ecosystem Inventory 2004

**Marine Coast Development Permit Area**

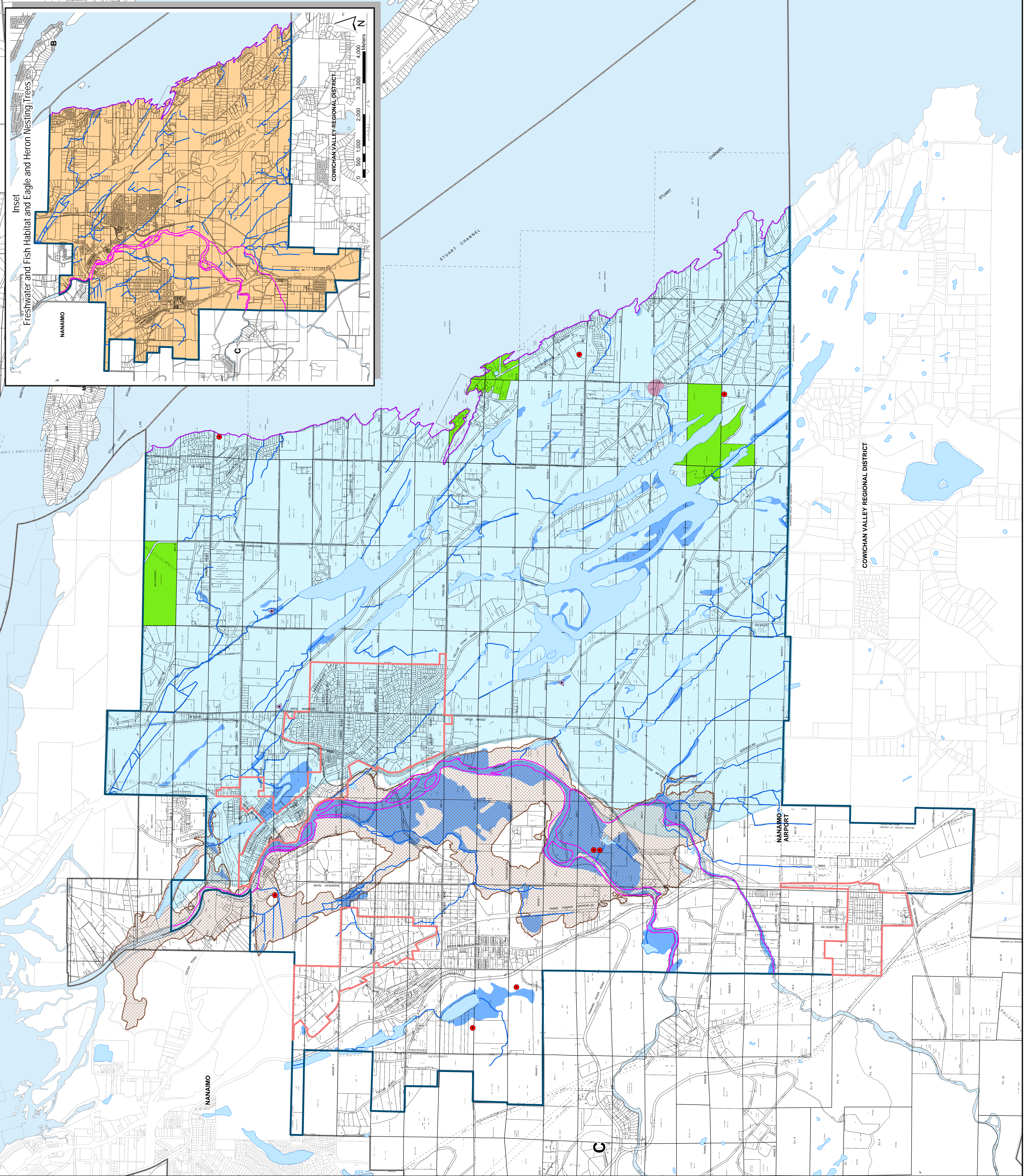
- Coastal Areas:  
15 metres from Natural Boundary

**Hazard Lands Development Permit Area**

- Nanaimo River Floodplain  
SOURCE: Nanaimo River Floodplain Mapping prepared by KWL Consulting April 14, 2023

**Aquifers Development Permit Area**

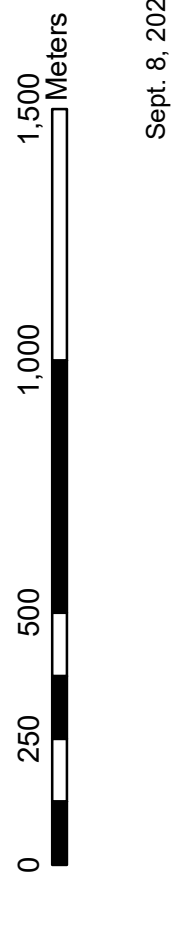
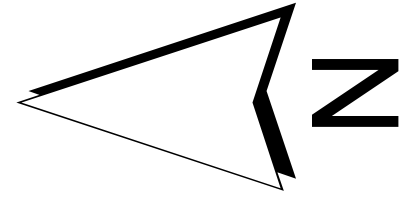
- Permit Area
- Yellowpoint Aquifer Development Permit Area  
SOURCE: B.C. Ministry of Environment



Chairperson

Corporate Officer

BYLAW NO. 1620.10, 2023



Sept. 8, 2023



**REGIONAL DISTRICT OF NANAIMO  
BYLAW NO. 1620.10**

**Schedule '2C'**

**Map No. 11 Development Permit Area for Coastal Flood Hazard**

**[MAP INSERTED AS NEXT PAGE]**



MAP NO. 11  
Development Permit Area  
for Coastal Flood Hazard

Legend

- Plan Area Boundary
- Electoral Area Boundary
- Municipality

Development Permit Areas

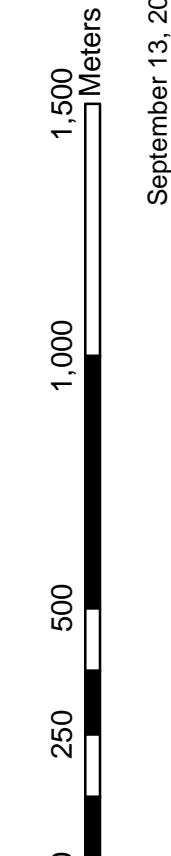
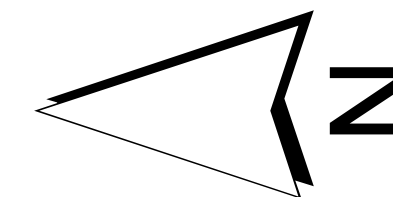
- Coastal Flood Hazard

SOURCE: Coastal Flood Hazard Study by  
Ebaner and GCR 2021 rev. April 25, 2022

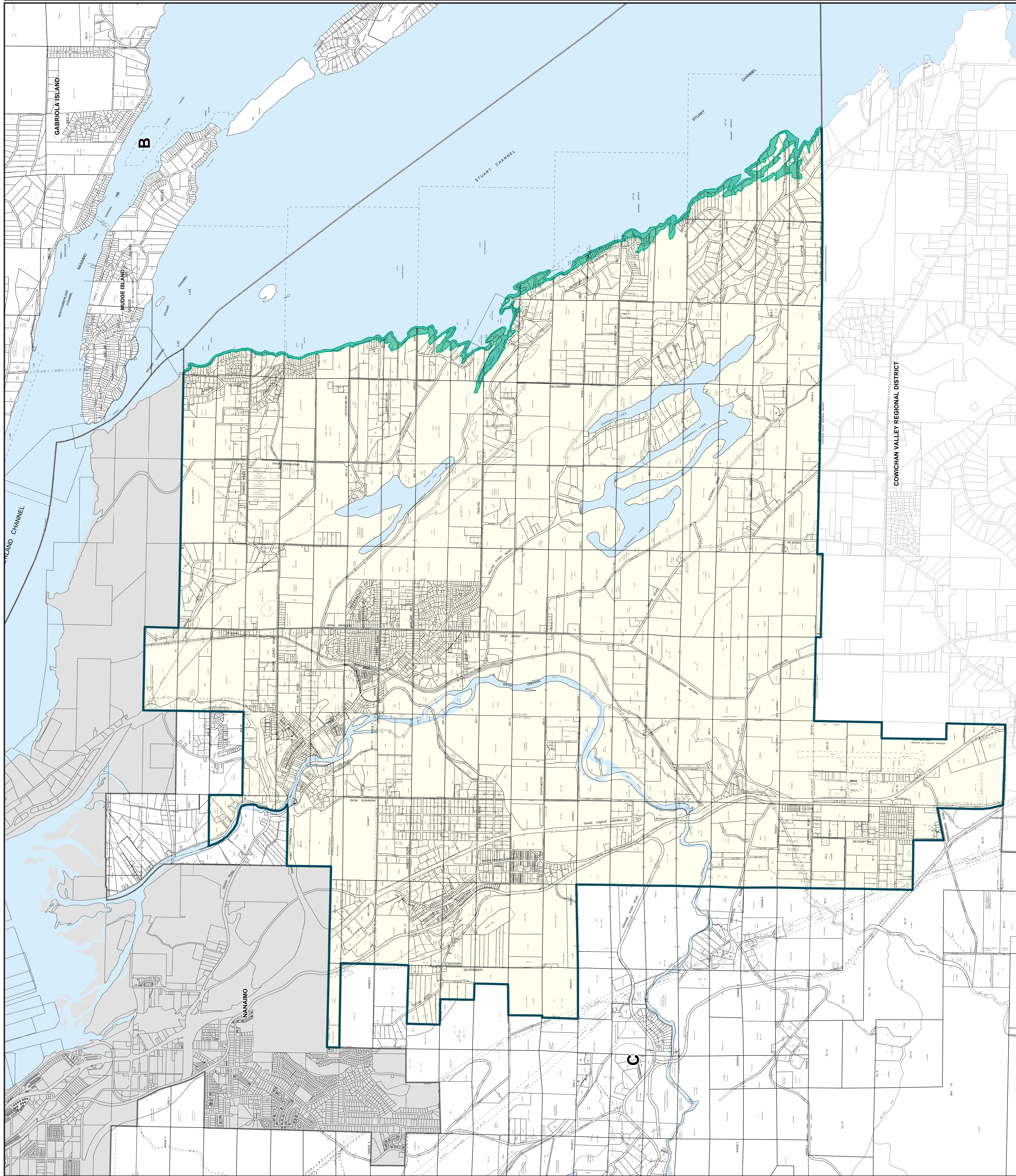
Chairperson

Corporate Officer

BYLAW NO. 1620.10. 2023



September 13, 2023



COWICHAN VALLEY REGIONAL DISTRICT



**ATTACHMENT 2**

**REGIONAL DISTRICT OF NANAIMO  
BYLAW NO. 1400.06  
(Electoral Area E)**

**[BYLAW INSERTED AS NEXT PAGES]**

**REGIONAL DISTRICT OF NANAIMO  
BYLAW NO. 1400.06**

**A BYLAW TO AMEND REGIONAL DISTRICT OF NANAIMO ELECTORAL AREA ‘E’  
OFFICIAL COMMUNITY PLAN BYLAW NO. 1400, 2005**

The Board of the Regional District of Nanaimo, in open meeting assembled, enacts as follows:

- A. This Bylaw may be cited as “Regional District of Nanaimo Electoral Area ‘E’ Official Community Plan Amendment Bylaw No. 1400.06, 2023”.
- B. The “Regional District of Nanaimo Nanoose Bay Official Community Plan Bylaw No. 1400, 2005”, is here by amended as follows:
  - 1. Under Section II Protection of the Natural Environment, sub-section ‘2.2 Coastal Zone’, before the list of ‘Objectives’, by deleting and replacing the last paragraph, as set out in Schedule ‘1’ attached to and forming part of this bylaw.
  - 2. Under Section 2.2 ‘Objectives’ by adding a new objective No. 5 after objective No. 4., as set out in Schedule ‘1A’ attached to and forming part of this bylaw.
  - 3. Under Section 2.2 ‘Policies’, by adding new policies No. 5 and No. 6 after policy No. 4, as set out in Schedule ‘1B’ attached to and forming part of this bylaw.
  - 4. Under Section IX Development Permit Areas, ‘DPA VI Highway Corridor Protection’, by deleting and replacing all text and sub-heading references containing ‘DPA V’ to ‘DPA VI’.
  - 5. Under Section IX Development Permit Areas, after ‘DPA VI Highway Corridor Protection’, by adding a new sub-section DPA VII Coastal Flood Hazard, as set out in Schedule ‘2’ of this bylaw.
  - 6. By adding a new map in numerical order, ‘Map No. 8 Development Permit Area for Coastal Flood Hazard’, as set out in Schedule ‘3’ attached to and forming part of this bylaw.

Introduced and read two times this 28<sup>th</sup> day of November, 2023.

Considered in conjunction with the Regional District of Nanaimo Financial Plan and any applicable Waste Management Plans this 28<sup>th</sup> day of November, 2023.

Read a second time, as amended, this 25<sup>th</sup> day of June, 2024.

Public Hearing held pursuant to Section 464 of the *Local Government Act* this 10<sup>th</sup> day of July, 2024.

Read a third time this \_\_\_ day of \_\_\_\_\_ 20XX.

Adopted this \_\_\_ day of \_\_\_\_\_ 20XX.

\_\_\_\_\_  
CHAIR

\_\_\_\_\_  
CORPORATE OFFICER



**REGIONAL DISTRICT OF NANAIMO  
BYLAW NO. 1400.06**

**Schedule '1'**

**2.2 Coastal Zone**

The coastal zone is home to a variety of marine and terrestrial wildlife. It is also a place of tourism, human habitation and industry. Damage to the coastal zone may result from excessive or inappropriate development and/or natural hazards. Examples of these hazards are coastal storm surge, coastal and river flooding, erosion and over time sea level rise. This is a critical time to identify ways to mitigate and adapt to coastal hazards by prioritizing the protection of property, people and ecological function in the Plan Area.

**Schedule '1A'**

**2.2 Objectives**

5. Reduce the risk of climate impacts on people, property and ecological function.

**Schedule '1B'**

**2.2 Policies**

5. Direct development away from natural hazard areas where possible, and where development does occur in or near a natural hazard area, ensure appropriate measures are taken to mitigate the impacts.
6. The Regional District will gather and communicate information about coastal hazards to help develop a better understanding of the long term impacts and consider implementing measures to mitigate and adapt to these impacts.

**REGIONAL DISTRICT OF NANAIMO  
BYLAW NO. 1400.06**

**Schedule '2'**

**DPA VII - Coastal Flood Hazard**

**Designation of Applicable Area**

Those parts of Electoral Area E of the Regional District of Nanaimo designated as the Coastal Flood Hazard Development Permit Area on Map No. 8 of the Official Community Plan, applying to areas that are at risk of flood hazards.

**Authority Granted under the *Local Government Act***

These areas are designated as a development permit area to establish guidelines to protect development from hazardous conditions pursuant to sections 488(1)(a) & (b) of the *Local Government Act*.

**Justification**

Coastal communities are vulnerable to acute hazards like storm surge and coastal flooding to the widespread impacts of coastal erosion and sea level rise. These hazards can pose a risk to infrastructure, property and public safety, and can disrupt local economies and cause ecological damage unless mitigated. Coastal hazards and sea level rise are critical considerations for regions with a lengthy coastline.

The Regional District of Nanaimo is preparing for the impacts of climate change through the *Sea Level Rise and Climate Adaptation Program*. In 2022, the Coastal Floodplain Mapping Project was completed resulting in a better understanding of coastal flood hazards under present-day and future conditions. The flood analysis included the cumulative effects of high-tide, storm surge, wind and wave effect. The project also resulted in the production of regional-scale Regulatory Coastal Floodplain Maps used for designating the coastal floodplain area. The purpose of this development permit area is to ensure new development responds to coastal flood hazards by reducing the risk to people and property, and existing buildings are not altered or modified in ways that increase flood risk.

**Objectives**

The objectives of this development permit area are to:

1. minimize the risk to people and property from flood hazards;
2. encourage safety in construction, location and the manner of new construction in flood prone areas;
3. ensure new development does not increase flood hazards and mitigate flood risks for surrounding properties;
2. minimize the potential for damage to public infrastructure, facilities and utilities;
3. ensure lands are safe for the intended use;
4. preserve the natural environment and ecological functions of floodplains; and
5. increase awareness of designated floodplain areas and the implications of such a designation.

**REGIONAL DISTRICT OF NANAIMO  
BYLAW NO. 1400.06**

**Schedule '3'**


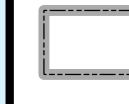

**Map No. 8 Development Permit Area for Coastal Flood Hazard**

**[NEW MAP INSERTED AS NEXT PAGE]**



Map No. 8  
Development Permit Area  
for Coastal Flood Hazard

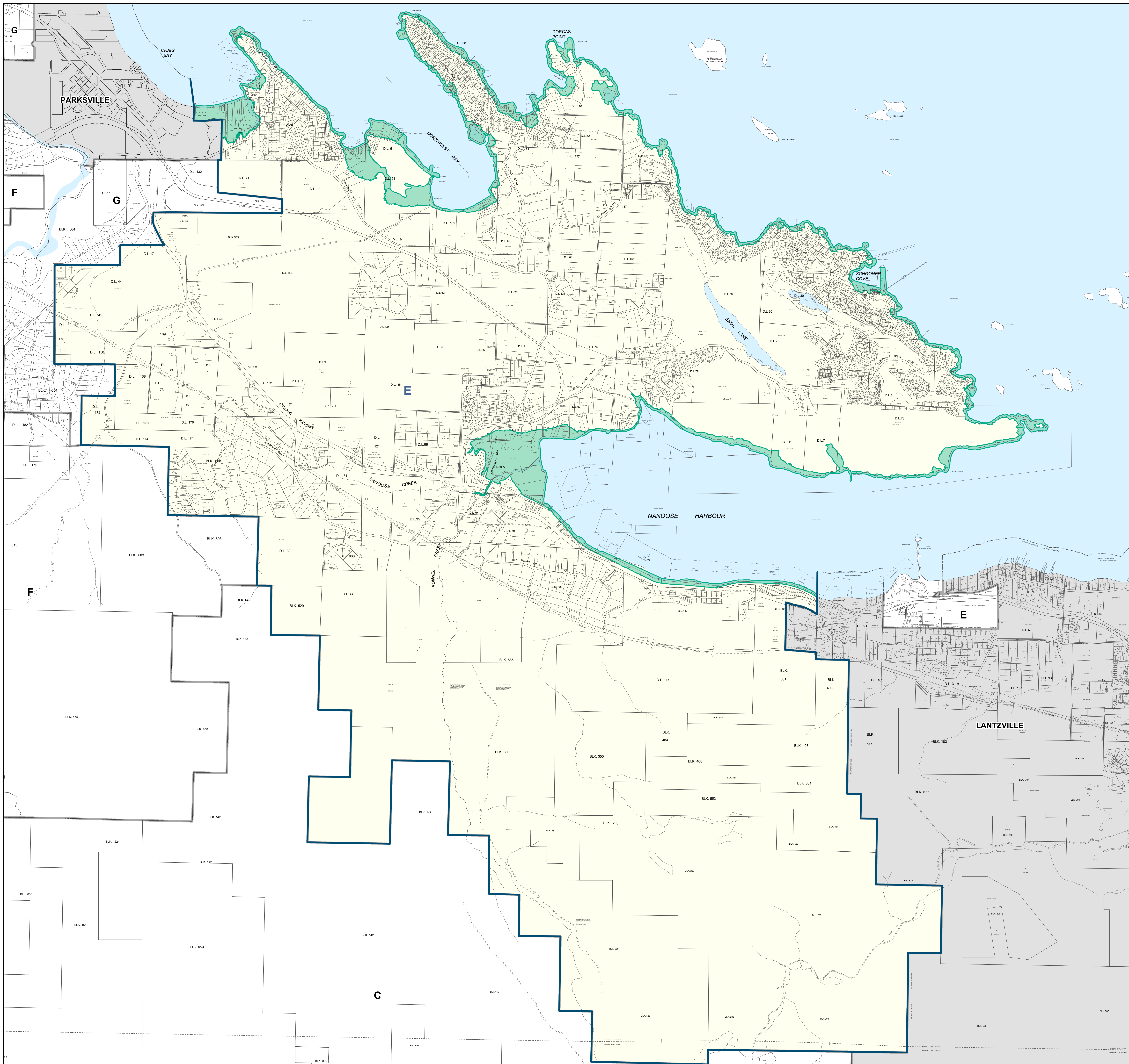
**Legend**

-  Plan Area Boundary
-  Electoral Area Boundary
-  Municipality

**Development Permit Areas**

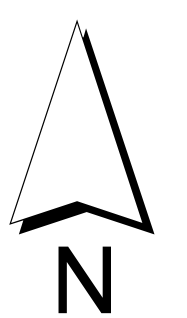
-  Coastal Flood Hazard

SOURCE: Coastal Floodplain Mapping prepared by  
Ebtwater and CCR 2021 rev. April 25, 2022



Chairperson \_\_\_\_\_ Corporate Officer \_\_\_\_\_

BYLAW NO. 1400.06, 2023



0 250 500 1,000  
Meters

September 13, 2023



**ATTACHMENT 3**

**REGIONAL DISTRICT OF NANAIMO  
BYLAW NO. 1540.06**

(Electoral Area G)

**[BYLAW INSERTED AS NEXT PAGES]**

**REGIONAL DISTRICT OF NANAIMO  
BYLAW NO. 1540.06**

**A BYLAW TO AMEND REGIONAL DISTRICT OF NANAIMO ELECTORAL AREA ‘G’  
OFFICIAL COMMUNITY PLAN BYLAW NO. 1540, 2008**

The Board of the Regional District of Nanaimo, in open meeting assembled, enacts as follows:

- A. This Bylaw may be cited as “Regional District of Nanaimo Electoral Area ‘G’ Official Community Plan Amendment Bylaw No. 1540.06, 2023”.
- B. The “Regional District of Nanaimo Electoral Area ‘G’ Official Community Plan Bylaw No. 1540, 2008” is here by amended as follows:
  - 1. Under Section 2 Protecting the Natural Environment, by renaming sub-section ‘2.5 Natural Hazard Areas Management’ to ‘2.5 Natural Hazard Mitigation’.
  - 2. Under Section ‘2.5 Natural Hazard Mitigation’, before the list of ‘Objectives’, by deleting the paragraph text and replacing it with the new paragraph text as set out in Schedule ‘1’ attached to and forming part of this bylaw.
  - 3. Under Section ‘2.5, Policies’ list, by deleting policies 1, 2 and 6 and replacing with the new policies as set out in Schedule ‘1A’ attached to and forming part of this bylaw.
  - 4. Under Section 10 Development Permit Areas, by renaming sub-section ‘10.6 Hazard Lands’ to ‘10.6 River Flood and Slope Hazard’.
  - 5. After Section ‘10.9 Multi Residential, Intensive Residential, Industrial, and Commercial Form and Character’, by adding a new sub-section ‘10.10 Coastal Flood Hazard Development Permit Area’, as set out in Schedule ‘1B’ attached to and forming part of this bylaw.
  - 6. By deleting Map No. 2 Environmentally Sensitive Features and Natural Hazard Areas and replacing it with the new Map No. 2, dated September 8, 2023, attached as Schedule ‘2’ and forming part of this bylaw.
  - 7. By deleting Map No. 9 Development Permit Area: Environmentally Sensitive Features and Hazard Lands and replacing it with the new Map No. 9, dated September 8, 2023, attached as Schedule ‘3’ and forming part of this bylaw.
  - 8. By adding a new map in numerical order, Map No. 11 Development Permit Area for Coastal Flood Hazard, dated September 13, 2023, attached as ‘Schedule 4’, and forming part of this bylaw.

Introduced and read two times this 28<sup>th</sup> day of November, 2023.

Considered in conjunction with the Regional District of Nanaimo Financial Plan and any applicable Waste Management Plans this 28<sup>th</sup> day of November, 2023.

Read a second time, as amended, this 25<sup>th</sup> day of June, 2024.

Public Hearing held pursuant to Section 464 of the *Local Government Act* this 10<sup>th</sup> day of July, 2024.

Read a third time this \_\_\_ day of \_\_\_\_\_ 20XX.

Adopted this \_\_\_ day of \_\_\_\_\_ 20XX.

\_\_\_\_\_  
CHAIR

\_\_\_\_\_  
CORPORATE OFFICER

**REGIONAL DISTRICT OF NANAIMO  
BYLAW NO. 1540.06**

**Schedule '1'**

**2.5 Natural Hazard Mitigation**

Natural hazard areas are sources of potentially dangerous chance events. Examples of natural hazard areas include lands which may be susceptible to damage from floods, mass movement of soil, landslides and earthquakes. Natural hazard areas are identified on (Map No. 2 Environmentally Sensitive Features and Natural Hazard Areas, Map No.9 Development Permit Area: Environmentally Sensitive Features and Hazard Lands Development Permit Areas and Map No. 11 Development Permit Area for Coastal Flood Hazard).

Potential landslides along the coastline are a major concern within the Plan Area. Some areas along the shore zone include steep wave-cut bluffs (with slopes between 30% and 60%) composed of unconsolidated sand. The threat of landslides is of particular concern in areas where homes have been constructed near the edges of these unstable slopes.

Areas of the coastline are also vulnerable to other coastal hazards including storm surge, coastal and estuary flooding, erosion and over time sea level rise. Climate change will increase the intensity and frequency of natural hazard events if unmitigated.

Seismic activity is a distinct possibility within the Plan Area. Vancouver Island is classified as a Zone 4 area according to the 1990 National Building Code Seismic Zoning Map. This indicates that the area is at high risk for seismic activity.

To help protect property, people and ecological function in development decisions, this Plan advocates the use of development permits to complement other regulatory devices, such as setbacks from unstable slopes and flood controls. Development permits offer the flexibility to customize development standards to reflect specific on-site conditions. Associated guidelines are designed to minimize the risk of potential hazards on persons and property.

## Schedule '1A'

### 2.5 Policies

1. Known land susceptible to flooding, mass movement, unstable slopes, high rates of erosion, steep slopes or land that would pose a threat to property or lives if developed is deemed a natural hazard area (NHA). These areas are identified on Map No. 2 Environmentally Sensitive Features and Natural Hazard Areas, Map No. 9 Environmentally Sensitive Features and Hazard Lands Development Permit Areas and Map No. 11 Development Permit Area for Coastal Flood Hazard.
2. Natural Hazard Areas are not limited to the boundaries indicated on Map No. 2, Map No.9 and Map No. 11 and adjustments may be made to reflect changing on-site conditions or environmental assessments.
6. Development proposals in floodplains must comply with the Regional District of Nanaimo Flood Hazard Mitigation Bylaw No.1872, 2023, including requiring future buildings and structures to be sited a minimum of 30 metres from the natural boundary of Englishman River, Little Qualicum River, and French Creek and 15 metres from all other watercourses, and satisfying flood control elevation requirements.

## Schedule '1B'

### 10.10 Coastal Flood Hazard Development Permit Area

#### Designation of Applicable Area

Those parts of Electoral Area G of the Regional District of Nanaimo designated as the Coastal Flood Hazard Development Permit Area on Map No. 11 of the Official Community Plan, applying to areas that are at risk of flood hazards.

#### Authority Granted Under the *Local Government Act*

These areas are designated as a development permit area to establish guidelines to protect development from hazardous conditions pursuant to sections 488(1)(a) & (b) of the *Local Government Act*.

#### Justification

Coastal communities are vulnerable to acute hazards like storm surge and coastal flooding to the widespread impacts of coastal erosion and sea level rise. These hazards can pose a risk to infrastructure, property and public safety, and can disrupt local economies and cause ecological damage unless mitigated. Coastal hazards and sea level rise are critical considerations for regions with a lengthy coastline.

The Regional District of Nanaimo is preparing for the impacts of climate change through the *Sea Level Rise and Climate Adaptation Program*. In 2022, the Coastal Floodplain Mapping Project was completed resulting in a better understanding of coastal flood hazards under present-day and future conditions. The



flood analysis included the cumulative effects of high-tide, storm surge, wind and wave effect. The project also resulted in the production of regional-scale Regulatory Coastal Floodplain Maps used for designating the coastal floodplain area. The purpose of this development permit area is to ensure new development responds to coastal flood hazards by reducing the risk to people and property, and existing buildings are not altered or modified in ways that increase flood risk.

### **Objectives**

The objectives of this development permit area are to:

1. minimize the risk to people and property from flood hazards;
2. encourage safety in construction, location and the manner of new construction in flood prone areas;
3. ensure new development does not increase flood hazards and mitigates flood risks for surrounding properties;
4. minimize the potential for damage to public infrastructure, facilities and utilities;
5. ensure lands are safe for the intended use;
6. preserve the natural environment and ecological functions of floodplains; and
7. increase awareness of designated floodplain areas and the implications of such a designation.

**REGIONAL DISTRICT OF NANAIMO  
BYLAW NO. 1540.06**

**Schedule '2'**

**Map No. 2 Environmentally Sensitive Features and Natural Hazard Area**

**[NEW MAP INSERTED AS NEXT PAGE]**



**ELECTORAL AREA G OFFICIAL COMMUNITY PLAN**

Map No. 2  
Environmentally Sensitive Features and Natural Hazard Areas

**Legend**

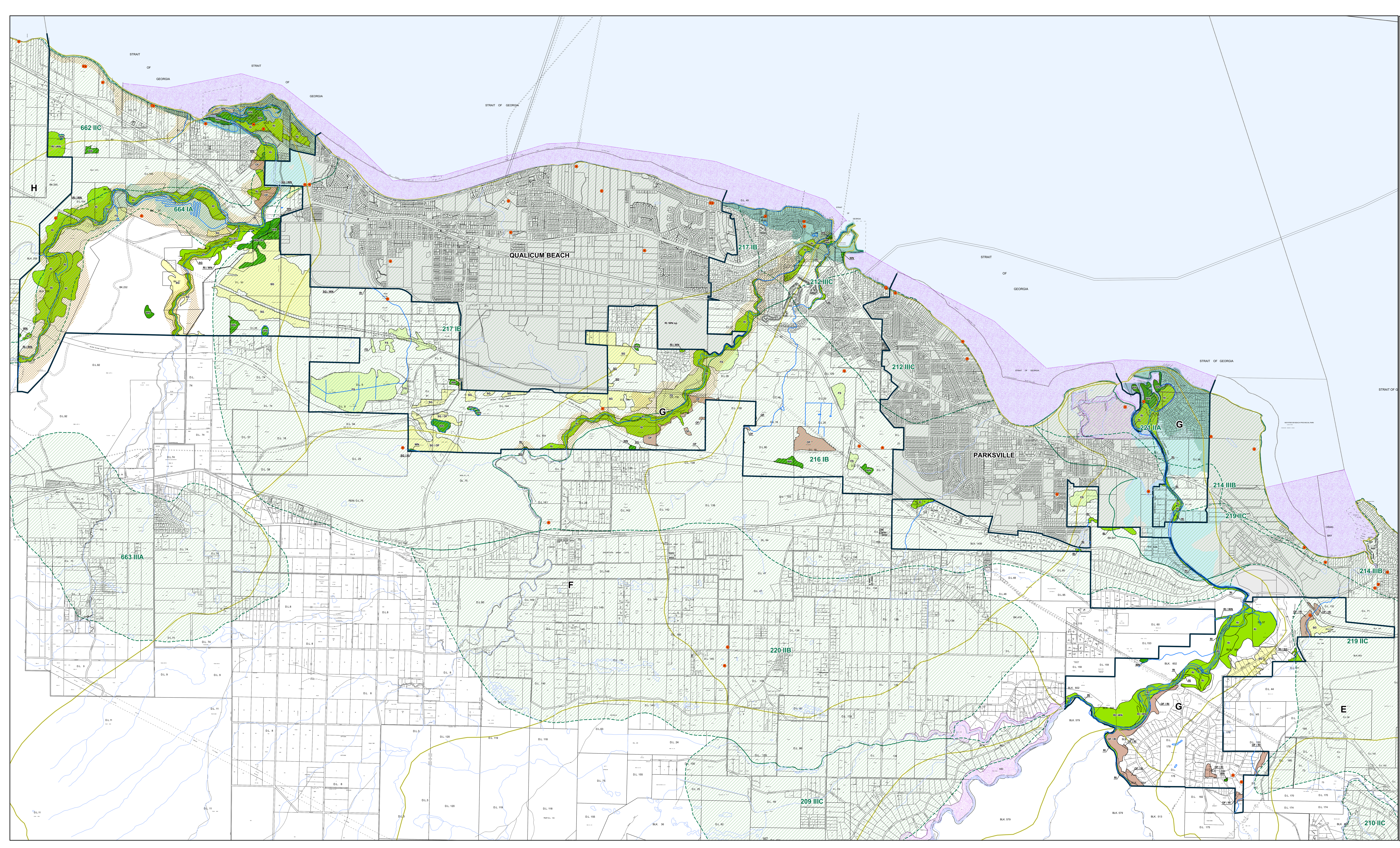
- Electoral Area Boundary
- Municipality
- Plan Area Boundary
- Eagle Nest Tree  
SOURCE: Ministry of Environment - Wildlife Tree Stewardship Atlas
- Watercourse  
SOURCE: Ministry of Environment
- Watershed
- Natural Hazard Areas
- Wildlife Management Area
- River Floodplain  
SOURCE: The Qualicum River Floodplain Mapping prepared by KWL Consulting Inc. 20, 2022 and Engleman River Floodplain Mapping prepared by KWL Consulting Inc. 27, 2021
- Coastal Floodplain  
SOURCE: Coastal Floodplain Mapping prepared by Edgewater and OCR 2021 Rev. April 25, 2022

Aquifer  
SOURCE: Aquifer Classification

**Classification**  
**Development Subclass**  
 I - Heavy  
(demand is high relative to productivity)  
 II - Moderate  
(demand is moderate relative to productivity)  
 III - Light  
(demand is low relative to productivity)  
**Vulnerability Subclass**  
 A - High  
(highly vulnerable to contamination from surface sources)  
 B - Moderate  
(moderately vulnerable to contamination from surface sources)  
 C - Low  
(not very vulnerable to contamination from surface sources)  
SOURCE: Ministry of Environment - Water Stewardship Division

**Sensitive Ecosystems**  
**OF - Older Forest**  
Forest ecosystem with dominant age class > 100 years; coniferous, mixed with broadleaf component > 15%  
**RI - Riparian**  
All stages of floodplain vegetation including riparian vegetation associated with gullies.  
**WN - Wetland**  
Ecosystem with wet soil and moisture-dependent plants; bog, fen, marsh, swamp, shallow water, wet meadow.  
**SV - Sparsely Vegetated**  
Ecosystems with sparse vegetation; cliff, sand dune, spit  
**Areas with general biodiversity values**  
**FS - Seasonally Flooded**  
Seasonally flooded Agricultural Field  
**SG - Second Growth Forest**  
Forested ecosystem with dominant age class 60 - 100 years; coniferous, mixed with broadleaf component > 15%  
**LABEL**  
 Primary Ecosystem → Secondary Ecosystem

NOTE: The Sensitive Ecosystems Inventory of East Vancouver Island and Gulf Islands is a joint collaborative project of Environment Canada (Canadian Wildlife Service) and the BC Ministry of Sustainable Resource Management (Conservation Data Centre and Water, Land and Air Protection) and the Habitat Conservation Trust Fund. SEI projects have been reported and funding from regional districts, local governments and industry.  
SOURCE: Sensitive Ecosystems Inventory of East Vancouver Island & Gulf Islands, Environment Canada and the BC Ministry of Environment.





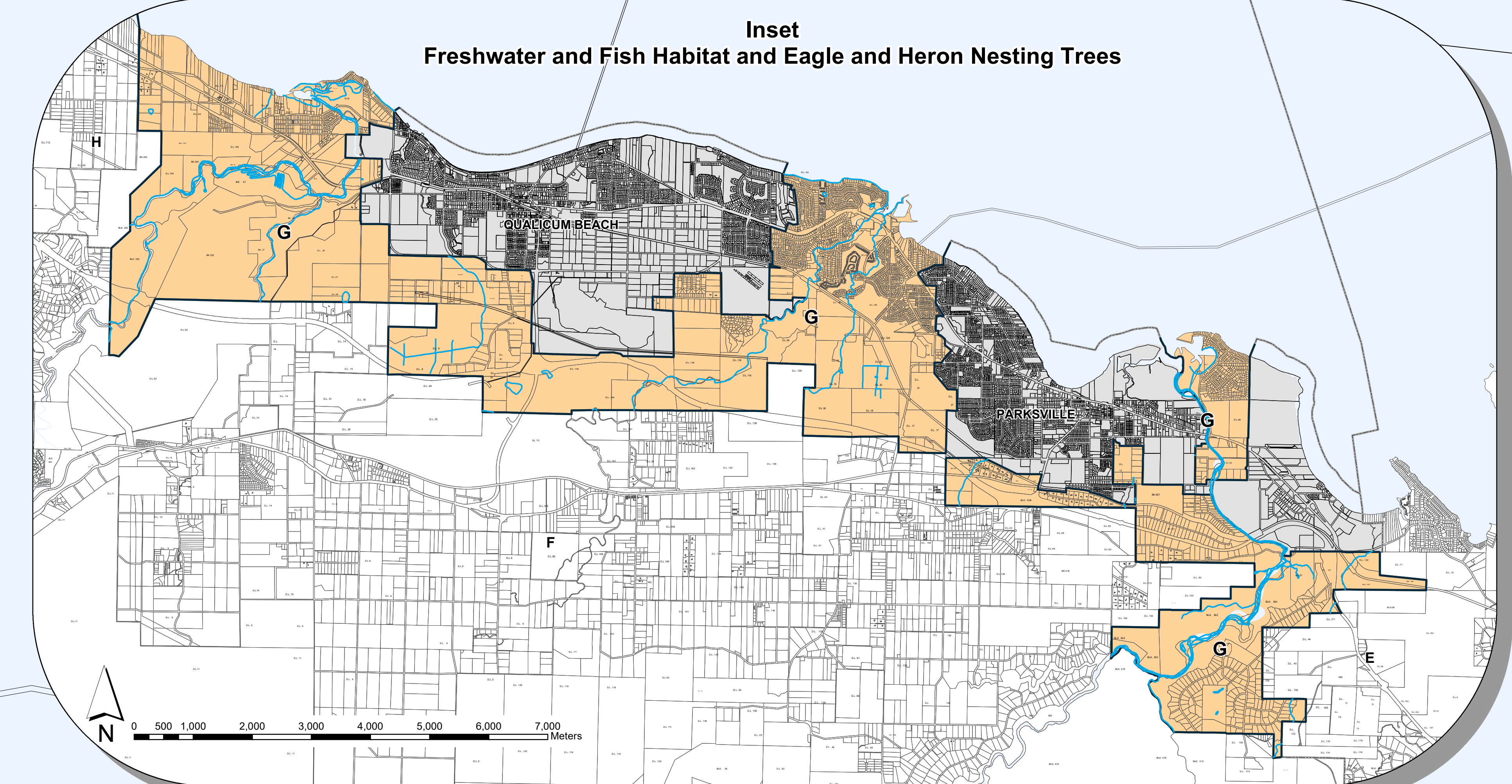
**REGIONAL DISTRICT OF NANAIMO  
BYLAW NO. 1540.06**

**Schedule '3'**

**Map No. 9 Development Permit Area: Environmentally  
Sensitive Features and Hazard Lands**

**[NEW MAP INSERTED AS NEXT PAGE]**





**Legend**

- Plan Area Boundary
- Municipality
- Electoral Area Boundary

**Sensitive Ecosystems Development Permit Area**

- Older Forest and Sparsely Vegetated Ecosystems
- SOURCE: Sensitive Ecosystem Inventory 2004

**Freshwater and Fish Habitat Development Permit Area**

- All Mapped and Unmapped Streams that are Subject to the "Riparian Areas Regulation" within the shaded area shown on Inset Map
  - Little Qualicum River, French Creek, and Englishman River
  - All other Watercourses
  - Lake, Wetland, and Pond
  - Wetland and Riparian Areas
- SOURCE: Sensitive Ecosystem Inventory 2004

**Eagle and Heron Nesting Trees Development Permit Area**

- All Mapped and Unmapped eagle and heron nesting trees within the shaded area shown on inset map.
  - Eagle Nest Tree: 60 metre Radius from Base of Tree
  - Heron Nest: 60 metres from base of tree for lots ≤ 1.0 hectares, 100 metres from base of tree for lots > 1.0 hectares
- SOURCE: BC Ministry of Environment

**Aquifers Development Permit Area**

- Aquifer No. Aquifer
- Aquifer Classification
- Classification Development Subclass
- I - Heavy (demand is high relative to productivity)
  - II - Moderate (demand is moderate relative to productivity)
  - III - Light (demand is low relative to productivity)
- Vulnerability Subclass
- A - High (highly vulnerable to contamination from surface sources)
  - B - Moderate (moderately vulnerable to contamination from surface sources)
  - C - Low (not very vulnerable to contamination from surface sources)
- SOURCE: BC Ministry of Environment - Water Stewardship Division

**Marine Coast Development Permit Area**

- Coastal Areas: 15 metres from Natural Boundary

**Hazard Lands Development Permit Area**

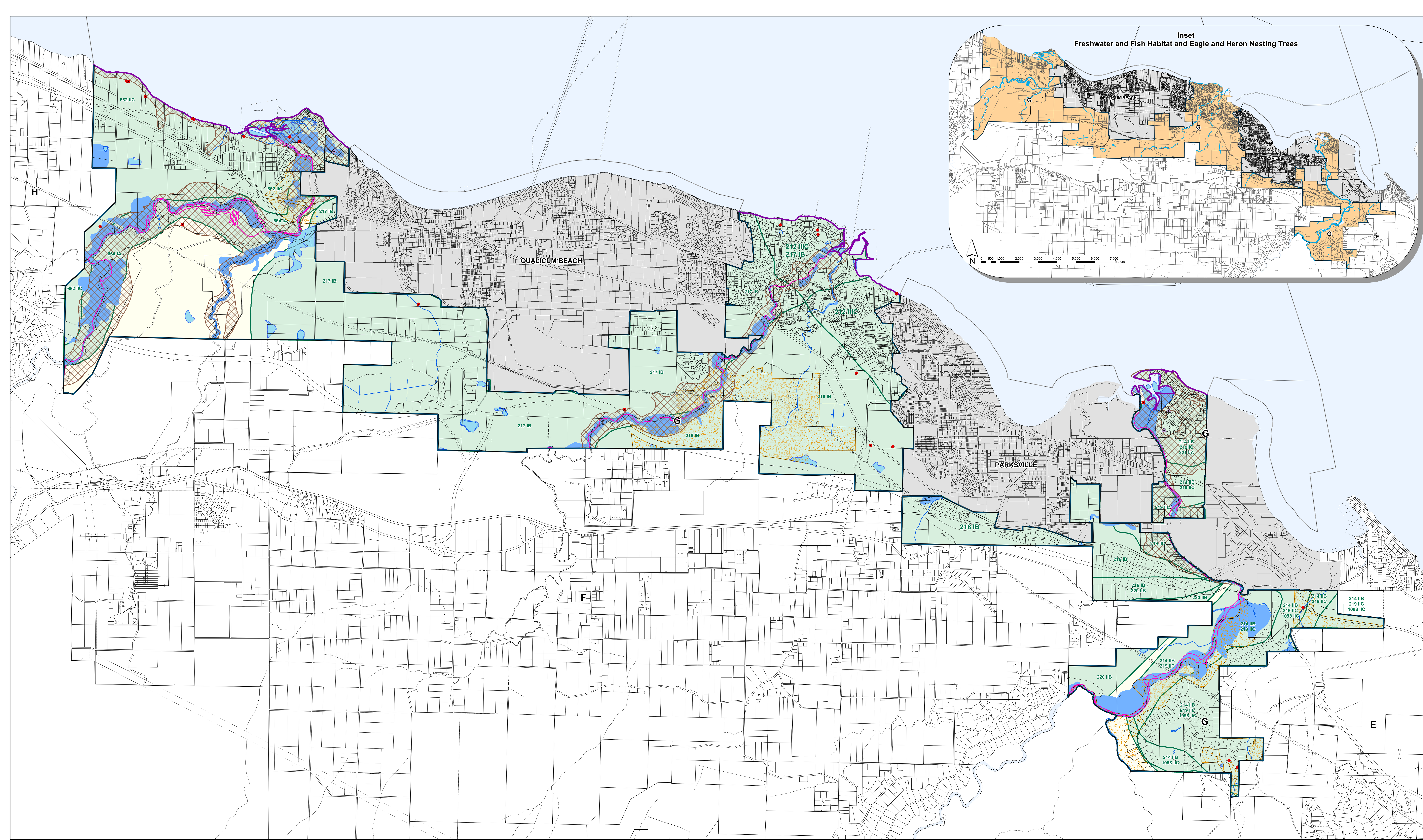
- Hazard Lands Development Permit Area

Chairperson Corporate Officer

BYLAW NO. 1540.06, 2023



1 1000 200 400 600 800 1000 1200 1400 1600 Meters  
 Sept. 8, 2023





**REGIONAL DISTRICT OF NANAIMO  
BYLAW NO. 1540.06**

**Schedule '4'**

**Map No. 11 Development Permit Area for Coastal Flood Hazard**

**[NEW MAP INSERTED AS NEXT PAGE]**



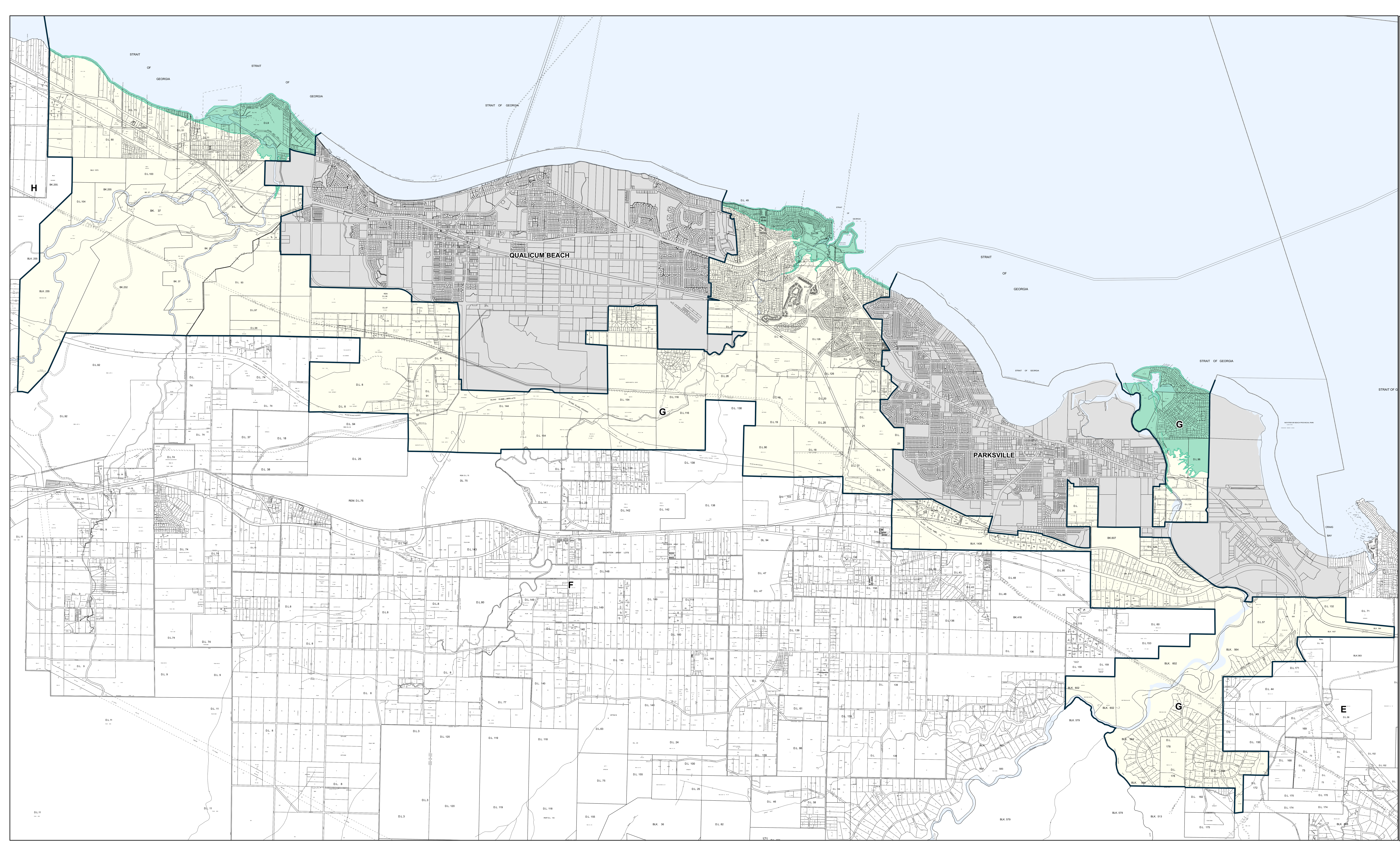
**Legend**

- Plan Area Boundary
- Electoral Area Boundary
- Municipality

**Development Permit Areas**

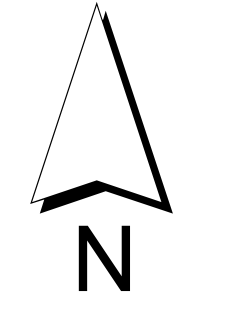
- Coastal Flood Hazard

SOURCE: Coastal Floodplain Mapping prepared by  
Eltwater and CCR 2021 rev. April 25, 2022



Chairperson Corporate Officer

BYLAW NO. 1540.06, 2023



0 100 200 400 600 800 1,000 1,200  
Meters



**ATTACHMENT 4**

**REGIONAL DISTRICT OF NANAIMO  
BYLAW NO. 1335.09**

(Electoral Area H)

**[BYLAW INSERTED AS NEXT PAGES]**

**REGIONAL DISTRICT OF NANAIMO  
BYLAW NO. 1335.09**

**A BYLAW TO AMEND REGIONAL DISTRICT OF NANAIMO ELECTORAL AREA ‘H’  
OFFICIAL COMMUNITY PLAN BYLAW NO. 1335, 2017**

The Board of the Regional District of Nanaimo, in open meeting assembled, enacts as follows:

- A. This Bylaw may be cited as “Regional District of Nanaimo Electoral Area ‘H’ Official Community Plan Amendment Bylaw No. 1335.09, 2023”.
- B. The “Regional District of Nanaimo Electoral Area ‘H’ Official Community Plan Bylaw No. 1335, 2017” is here by amended as follows:
  - 1. Under Section 2 The Natural Environment, sub-section ‘2.2 Natural Hazard Areas, Introduction’, by deleting and replacing the first paragraph with the text as set out in Schedule ‘1’ attached to and forming part of this bylaw.
  - 2. Under section ‘2.2 Natural Hazard Areas’, Objectives, by deleting objectives 1-4 and replacing with new objectives as set out in Schedule ‘1A’ attached to and forming part of this bylaw.
  - 3. Under section ‘2.2 Natural Hazard Areas’, Policies, by deleting policy No. 2 and replacing with the new policy No. 2 as set out in Schedule ‘1B’ attached to and forming part of this bylaw.
  - 4. Under Section 8 – Development Permit Areas, by renaming ‘DPA 5 – Hazard Lands’ to ‘DPA 5 – Slope Hazard’.
  - 5. Under Section 8 – Development Permit Areas, by adding ‘DPA 10 – Coastal Flood Hazard’ after ‘DPA 9 – Deep Bay Southwest’, as set out in Schedule ‘2’ attached to and forming part of this bylaw.
  - 6. By deleting Map No. 8 Hazard Lands Development Permit Area and replacing it with the new Map No. 8, dated September 22, 2023, attached as Schedule ‘3’ and forming part of this bylaw.
  - 7. By adding a new map in numerical order, ‘Map No. 9 Coastal Flood Hazard Development Permit Area’, attached as Schedule ‘4’ and forming part of this bylaw.

Introduced and read two times this 28<sup>th</sup> day of November, 2023.

Considered in conjunction with the Regional District of Nanaimo Financial Plan and any applicable Waste Management Plans this 28<sup>th</sup> day of November, 2023.

Read a second time, as amended, this 25<sup>th</sup> day of June, 2024.

Public Hearing held pursuant to Section 464 of the *Local Government Act* this 10<sup>th</sup> day of July, 2024.

Read a third time this \_\_\_ day of \_\_\_\_\_ 20XX.

Adopted this \_\_\_ day of \_\_\_\_\_ 20XX.

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CHAIR

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CORPORATE OFFICER

**REGIONAL DISTRICT OF NANAIMO  
BYLAW NO. 1335.09**

**Schedule '1'**

**2.2 Natural Hazard Areas**

**Introduction**

Natural hazard areas are sources of potentially dangerous chance events. Examples of natural hazards are: flooding, landslide, forest fire, strong winds, and earthquakes. Natural hazard areas are often also areas of high environmental value. Known areas of potential hazard are identified on Map No. 8 Slope Hazard Development Permit Area and Map No. 9 Coastal Flood Hazard Development Permit Area.

**Schedule '1A'**

**2.2 Natural Hazard Areas**

**Objectives**

1. *Prevent* adverse effects of natural hazards by maintaining protective areas and healthy ecological systems.
2. *Protect* area residents from loss of property and personal injury.
3. *Mitigate and adapt* to the impacts of natural hazards under climate change conditions within the Plan Area.
4. *Encourage* use of FireSmart recommendations to reduce the susceptibility of buildings and property to wildfire.

**Schedule '1B'**

**2.2 Natural Hazard Areas**

**Policies**

2. The Regional District will gather and communicate information about coastal hazards to help develop a better understanding of the long-term impacts and consider implementing measures to mitigate and adapt to these impacts.



**REGIONAL DISTRICT OF NANAIMO  
BYLAW NO. 1335.09**

**Schedule '2'**

**DPA 10 - Coastal Flood Hazard**

**Designation of Applicable Area**

Those parts of Electoral Area H of the Regional District of Nanaimo designated as the Coastal Flood Hazard Development Permit Area on Map No. 9 of the Official Community Plan, applying to areas that are at risk of flood hazards.

**Authority Granted Under the *Local Government Act***

These areas are designated as a development permit area to establish guidelines to protect development from hazardous conditions pursuant to sections 488(1)(a) & (b) of the *Local Government Act*.

**Justification**

Coastal communities are vulnerable to acute hazards like storm surge and coastal flooding to the widespread impacts of coastal erosion and sea level rise. These hazards can pose a risk to infrastructure, property and public safety, and can disrupt local economies and cause ecological damage unless mitigated. Coastal hazards and sea level rise are critical considerations for regions with a lengthy coastline.

The Regional District of Nanaimo is preparing for the impacts of climate change through the *Sea Level Rise and Climate Adaptation Program*. In 2022, the Coastal Floodplain Mapping Project was completed resulting in a better understanding of coastal flood hazards under present-day and future conditions. The flood analysis included the cumulative effects of high-tide, storm surge, wind and wave effect. The project also resulted in the production of regional-scale Regulatory Coastal Floodplain Maps used for designating the coastal floodplain area. The purpose of this development permit area is to ensure new development responds to coastal flood hazards by reducing the risk to people and property, and existing buildings are not altered or modified in ways that increase flood risk.

**Objectives**

The objectives of this development permit areas are to:

1. minimize the risk to people and property from flood hazards;
2. encourage safety in construction, location and the manner of new construction in flood prone areas;
3. ensure new development does not increase flood hazards and mitigates flood risks for surrounding properties;
4. minimize the potential for damage to public infrastructure, facilities and utilities;
5. ensure lands are safe for the intended use;
6. preserve the natural environment and ecological functions of floodplains; and
7. increase awareness of designated floodplain areas and the implications of such a designation.

**REGIONAL DISTRICT OF NANAIMO  
BYLAW NO. 1335.09**

**Schedule '3'**

**Map No. 8 Slope Hazard Development Permit Area**

**[NEW MAP INSERTED AS NEXT PAGE]**





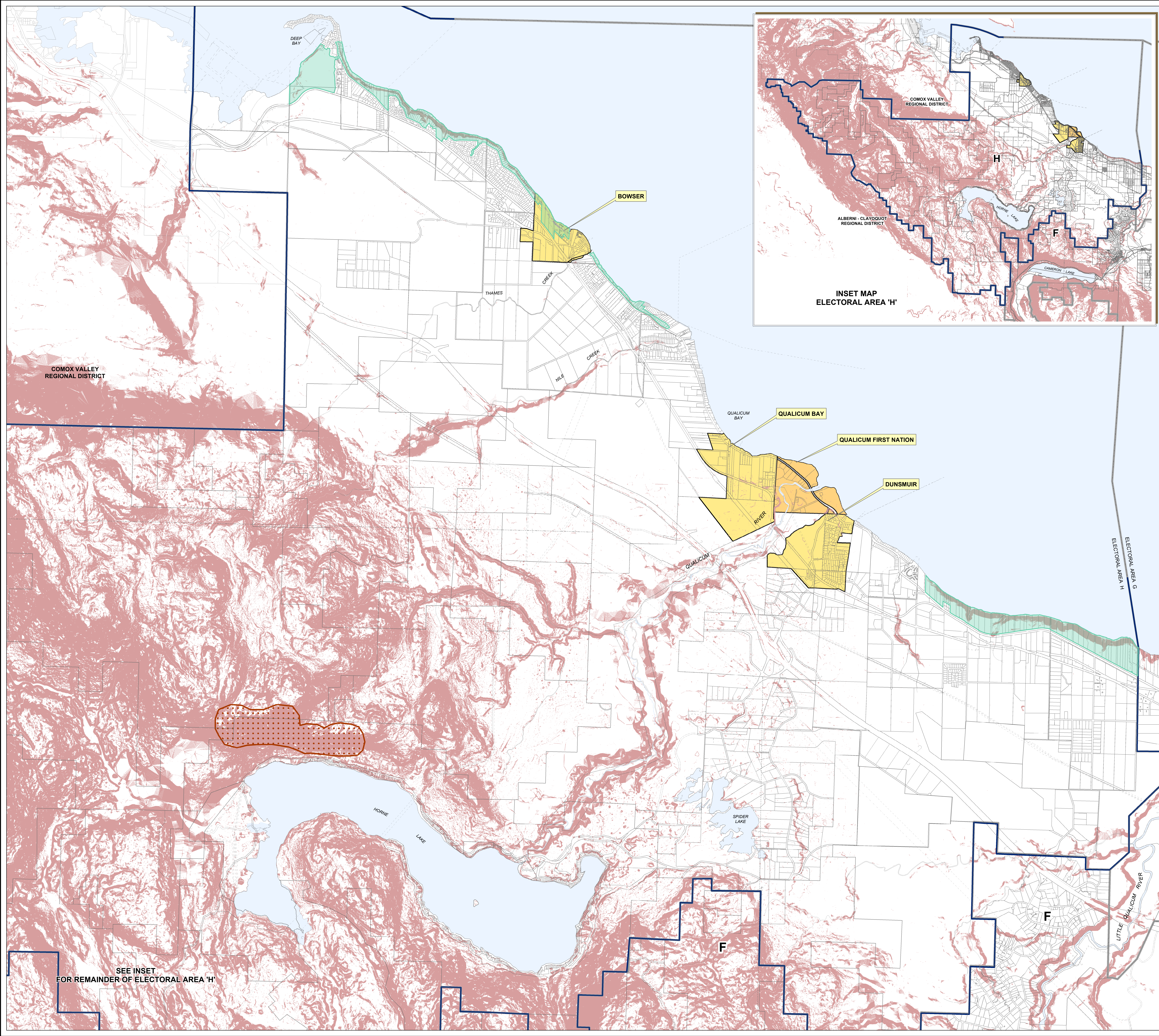
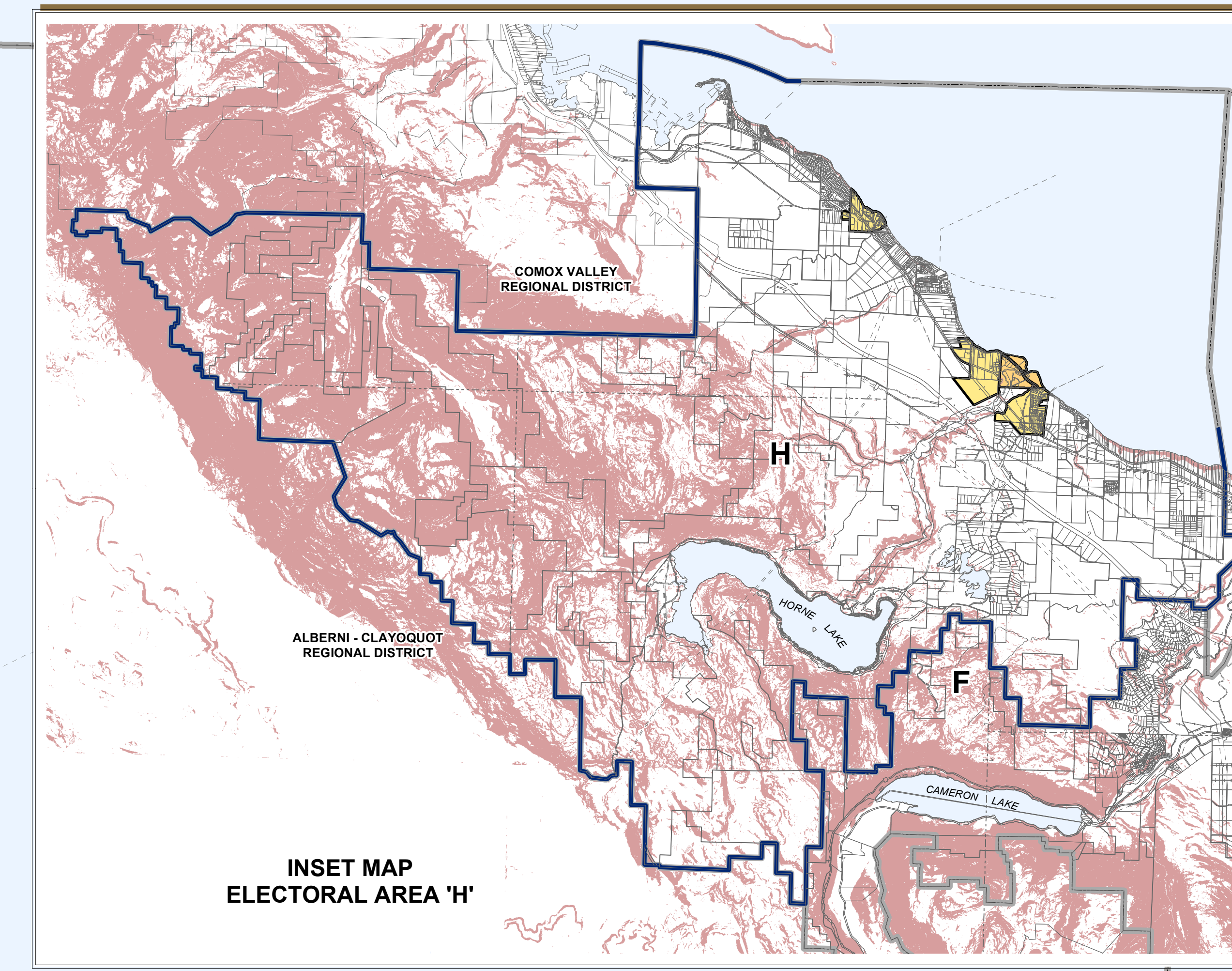
# ELECTORAL AREA H OFFICIAL COMMUNITY PLAN

## MAP NO. 8 SLOPE HAZARD DEVELOPMENT PERMIT AREA

- Electoral H Official Community Plan Area Boundary
- Electoral Area Boundary
- Village Centres
- Qualicum First Nation
- Land With 30 Percent Slope or Greater
- Mt. Mark Slide Area

### Development Permit Area No. 5 Slope Hazard

- Development Permit Area



SEE INSET  
FOR REMAINDER OF ELECTORAL AREA 'H'

Chairperson \_\_\_\_\_  
Corporate Officer \_\_\_\_\_

BYLAW NO. 1335.09

Sept. 22, 2023



**REGIONAL DISTRICT OF NANAIMO  
BYLAW NO. 1335.09**

**Schedule '4'**

**Map No.9 Coastal Flood Hazard Development Permit Area**




**[NEW MAP INSERTED AS NEXT PAGE]**






# ELECTORAL AREA H OFFICIAL COMMUNITY PLAN

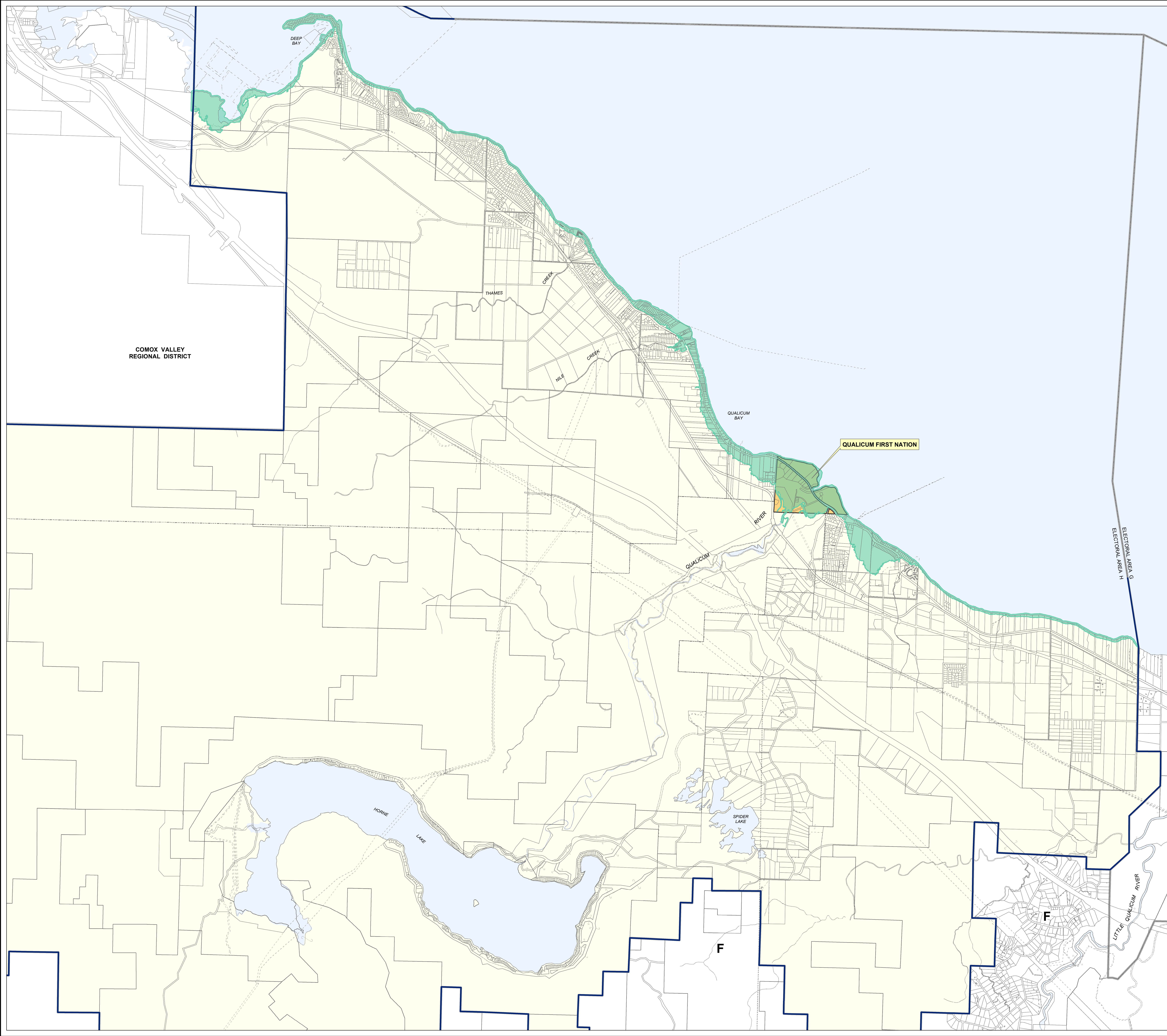
## MAP NO. 9 COASTAL FLOOD HAZARD DEVELOPMENT PERMIT AREA

-  Electoral Area H Official Community Plan Area Boundary
-  Qualicum First Nation
-  Electoral Area Boundary

### Development Permit Area No. 10

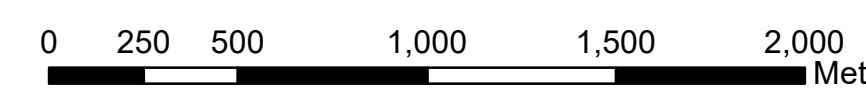

-  Coastal Flood Hazard
- SOURCE: Coastal Floodplain Mapping prepared by  
Ebwater and CCR 2021 rev. April 25, 2022

COMOX VALLEY  
REGIONAL DISTRICT



Chairperson \_\_\_\_\_ Corporate Officer \_\_\_\_\_

BYLAW NO. 1335.09

September 13, 2023



**ATTACHMENT 5**

**REGIONAL DISTRICT OF NANAIMO  
BYLAW NO. 500.445**

(Zoning Bylaw)

**[BYLAW INSERTED AS NEXT PAGES]**

**REGIONAL DISTRICT OF NANAIMO  
BYLAW NO. 500.445**

**A BYLAW TO AMEND REGIONAL DISTRICT OF NANAIMO LAND USE AND  
SUBDIVISION BYLAW NO. 500, 1987**

The Board of the Regional District of Nanaimo, in open meeting assembled, enacts as follows:

- A. This Bylaw may be cited as “Regional District of Nanaimo Land Use and Subdivision Amendment Bylaw No. 500.445, 2023”.
- B. The “Regional District of Nanaimo Land Use and Subdivision Bylaw No. 500, 1987” is here by amended as follows:
  - 1. Under Part 2 Interpretation, add new definitions as set out in Schedule ‘1’ attached to and forming part of this bylaw, and by inserting new definitions in alphabetical order.
  - 2. Under PART 4 Subdivision Regulations, Section 4.5 Parcel Shape and Dimensions by adding new text, as set out in Schedule ‘1A’ attached to and forming part of this bylaw.
  - 3. Under PART 5 Development Permit Areas by adding the new sub- section 5.1.22 Coastal Flood Hazard Development Permit Area, attached as Schedule ‘2’ and forming part of this bylaw.

Introduced and read two times this 12<sup>th</sup> day of December, 2023.

Read a second time, as amended, this 25<sup>th</sup> day of June, 2024.

Public Hearing held pursuant to Section 464 of the *Local Government Act* this 10<sup>th</sup> day of July, 2024.

Read a third time this \_\_\_ day of \_\_\_\_\_ 20XX.

Adopted this \_\_\_ day of \_\_\_\_\_ 20XX.

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CHAIR

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CORPORATE OFFICER



**REGIONAL DISTRICT OF NANAIMO  
BYLAW NO. 500.445**

**Schedule '1'**

**'annual exceedance probability (AEP)'** means the probability of an event occurring in any given year. For coastal storm events 1:200 years or 0.5% AEP is the minimum provincial standard.

**'crawlspace'** means the space at or below natural grade between the underside of the joists of the floor above and the floor slab or the ground surface below.

**'designated storm'** means a storm that occurs in any given year, of such a magnitude as to equal a storm having the designated annual exceedance probability, where the probability of a particular event being equal or exceeded in any one year.

**'floodplain'** means an area of low-lying ground, whether diked, flood proofed, or not which, by reasons of land elevation, is susceptible to flooding from an adjoining river, sea, lake or other body of water.

**'Flood Construction Level'** means the minimum elevation specified by a Qualified Professional in a flood hazard assessment report of the underside of a floor system or top of any structural support for any *habitable area* including any *manufactured home*.

**'flood hazard'** means a source (the sea) causing potential harm, or a situation with potential for causing harm, in terms of potential damage to property or loss of human life or injury.

**'flood report'** means a report prepared by a Qualified Professional in accordance with the Provincial Guidelines and Engineer and Geoscientists of British Columbia's "Professional Practice Guidelines for Flood Hazard Assessments".

**'habitable area'** means any room or space within a building or structure, used for human occupancy, commercial sales, or storage of goods, possessions or equipment (including furnaces) which would be subject to damage if flooded, and excludes any *Crawlspace*.

**'landfill'** means the placement of soil, gravel or similar structural material on the surface of land used to achieve an applicable *Flood Construction Level*.

**'manufactured home'** means a factory-built dwelling unit designed to be moved on site that is suitable for year-round, long-term occupancy but specifically excludes recreational vehicles.

**'Provincial Guidelines'** means policies, strategies, objectives, standards, guidelines and environmental management plans, in relation to flood control, flood hazard management and development of lands that is subject to flooding, prepared and published or commissioned by the Minister under Section 5 of the Environmental Management Act

**'Qualified Professional'** means a person who is registered or licensed under the provisions of the *Professional Governance Act and qualified* to conduct a Flood Hazard Assessment pursuant to the Provincial Guidelines and the Engineer and Geoscientists of British Columbia's "Professional Practice Guidelines for Flood Hazard Assessments".

### Schedule '1A'

#### 4.5 Parcel Shape and Dimensions

- 5) Where land is deemed to be in part or wholly with the designated coastal floodplain or to be influenced by the sea, each parcel created through subdivision shall:
- a) have a viable building envelope on natural grade that is above the Flood Construction Level for future sea level rise as set out in the applicable official community plan, and
  - b) complies with the setbacks from the sea as prescribed in the applicable official community plan, zoning bylaw and the "Regional District of Nanaimo Flood Hazard Mitigation Bylaw No. 1872, 2023".

### Schedule '2'

#### 5.1.22 Coastal Flood Hazard Development Permit Area

##### Applicable Activities

Unless otherwise exempt from this bylaw, a development permit is required for any development occurring on land within the Coastal Flood Hazard Development Permit Area that may be classified as one of the following activities, as per section 489 of the *Local Government Act*:

- subdivision of land;
- construction of, addition to, or alteration of a building or structure; and
- land alteration directly related to the construction of a building or structure, including without limitation, disturbance of soils including grubbing, scraping, removal of topsoil and the creation of non-structural impervious or semi-pervious surfaces.

##### Exemptions

A Coastal Flood Hazard Development Permit is not required for the following activities:

1. Those activities identified as exempt in the Regional District of Nanaimo Flood Hazard and Mitigation Bylaw No.1872, 2023.
2. Subdivision involving only lot line adjustment or lot consolidation. To be exempt, there must not be any net increase in permitted density and no new building construction or related land alterations proposed within the development permit area.
3. Subdivision where the following criteria is met:
  - a. the required minimum lot size is achieved exclusive of the development permit area, as confirmed in writing by a Qualified Professional or a BC Land Surveyor on the survey plan;



- b. no development activities including grading, clearing, trenching, or installation of pipes, relating to the creation of any lots will occur within the area encompassing the development permit area; and
- c. where a section 219 covenant is registered to prevent development on those portions of lands deemed subject to flood hazards in a manner consistent with the development permit area guidelines.

## **Guidelines**

### *General*

1. Timing of development and construction methods should consider and aim to avoid times of the year more prone to flood events.
2. Impervious surfaces should be limited, which may involve reducing the overall building footprint, roof size, and area of paved surfaces.
3. When retaining walls or structures are necessary due to site constraints, the height and width should be minimized wherever possible and where required designed by a Qualified Professional.

### *Flood Hazard/Risk Assessment*

New construction of a building or structure within the Coastal Flood Hazard Development Permit Area must address the risk of flooding and erosion from the sea. Where risk of river and coastal flooding co-exist, the combined effect shall be accounted for. Requirements include the following:

4. All applicants must submit:
  - a. a completed copy of the Regional District of Nanaimo's Sustainable Site Plan Checklist provided in the Sustainable Site Planning Guide;
  - b. a geotechnical evaluation (flood report) prepared by a Qualified Professional that:
    - i. includes a site plan identifying flood hazard, including areas susceptible to flooding, location of the sea, existing and proposed development, roads, trails, buildings, grading, on site topography and any areas that are to remain free from development;
    - ii. clearly states any conditions or recommendations to reduce flood hazards including without limitation recommendations for safe use of a habitable area, and to ensure the proposed development does not increase flood hazards to existing development on or near the subject property, and the rationale for conditions or recommendations provided;
    - iii. if applicable, outlines areas on the site that are more at risk of flood hazards and areas with a reduced risk to guide the location of future development on the site;
    - iv. calculates the flood construction level using the Canadian Geodetic Vertical Datum of 2013 as the baseline, where the flood construction level is determined as the sum of:

1. 1:200 (0.5%) Annual Exceedance Probability total water level of tides and storm surge;
  2. allowances for future sea level rise to 1.0 metres by year 2100 or sooner;
  3. allowances for regional uplift, or subsidence;
  4. estimated wave effects associated with a designated storm with a 0.5% Annual Exceedance Probability; and
  5. a minimum freeboard of 0.6 metres;
- v. cites the following when calculating the flood construction level:
1. the Regional District of Nanaimo Electoral Area Regulatory Coastal Floodplain Maps dated April 25, 2022; and
  2. background information on the flood hazards, including without limitation, storm surges, erosion, wave effects, high tides, sewers, groundwater, reservoirs, road runoff and other natural and artificial water sources; and
- vi. sets out any conditions to enable safe use of the land for the intended purpose. Any assumptions regarding future watershed and/or coastal conditions as they relate to the hazard assessments are to be clearly stated;
- vii. certify the “subject land may be used safely for the use intended”; and
- viii. provides a flood assurance statement that confirms that an appropriate assessment has been conducted and that the Qualified Professional has taken responsibility for the work in the form prescribed in the Engineer and Geoscientists of British Columbia’s Flood Assessment Guidelines.
5. Recommendations within the flood report will form part of the development permit terms and conditions and the applicant may be required to register a section 219 covenant incorporating the flood hazard assessment at the applicant’s expense and to the satisfaction of the Regional District of Nanaimo.
6. A Plan that demonstrates no habitable area below the flood construction level.

*Setbacks*

7. All development should be located in the least hazardous location on the property, as specified by the Qualified Professional.
8. Any proposed structural support or landfill used to achieve flood construction level must be:
  - a. setback a minimum of 15 metres from the natural boundary of the sea estimated for 1.0 metres of sea level rise; and
  - b. where the development site is at the top of a bluff that is 30 degrees or more from horizontal and where the toe of the bluff is subject to erosion and is less than 15 metres from a natural boundary of the sea, the minimum setback from the top of bluff must be



equal to 3 times the height of the bluff as measured from the toe of the bluff to the elevation of the building foundation at its lowest point.

*Crawlspace*

9. A crawlspace proposed to be constructed below the flood construction level must meet the following requirements:
  - a. the building must be designed and anchored to resist flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy; and
  - b. the height of the crawlspace, measured from the interior grade of the crawlspace to the underside of the floor system above must not exceed 1.2 metres at any point.

*Landfill*

10. Where landfill is used to raise the natural ground elevation, a **Drainage Plan** prepared by a Qualified Professional is required to establish run-off from the site, including from impervious and filled areas, will not be directed to adjacent properties. The drainage plan must indicate:
  - a. existing and proposed grades of the subject property;
  - b. existing grades of adjoining properties measured 3.0 metres from the common property line; and
  - c. proposed drainage treatments including any use of detention systems or permeable materials to limit or control runoff to adjacent properties.
11. The placement of landfill must be supervised by a Qualified Professional to ensure it will not increase flood hazards for adjacent properties or weaken the overall hydraulic conditions of the floodplain area.

*Subdivision*

12. The permitted building envelope for every proposed lot in a subdivision must:
  - a. have a viable building site on natural grade that is above the Flood Construction Level for sea level rise as set out in the Coastal Flood Hazard Development Permit Area in the applicable official community plan and zoning bylaw; and
  - b. complies with the setback from the sea as established in the “Regional District of Nanaimo Flood Hazard Mitigation Bylaw No. 1872, 2023”.



REGIONAL  
DISTRICT  
OF NANAIMO

**SOUTH WELLINGTON SCHOOL REMEDIATION PROJECT – RECOMMENDATION TO ALLOCATE  
ADDITIONAL FUNDING**

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**RECOMMENDATION**

That an additional \$1,100,000 be allocated to the South Wellington School Remediation project from the Electoral Area A Recreation and Culture Reserve Fund and that the 2024-2028 Financial Plan be amended accordingly.

**BACKGROUND**

In June 2021 the Regional District of Nanaimo (RDN) Board approved in principle a twenty - five (25) year lease with the Board of Education for School District No. 68 (Nanaimo-Ladysmith) for the former South Wellington School facility and site. The school, constructed in 1969, is located in Electoral Area A and was in operation until 2013. The facility includes 846 m<sup>2</sup> (9,108 sq. ft.) of functional indoor space with an additional 551 m<sup>2</sup> (5,932 sq. ft.) of storage and 205 m<sup>2</sup> (2,207 sq. ft.) of covered outdoor space. The property also includes a playing field, playground, and sports court. These outdoor spaces are now a community park.

In lieu of lease payments to Nanaimo Ladysmith Public Schools (NLPS), the RDN will complete capital improvements to remediate the school into a community centre and have use and authority of both the school and site for the remainder of the lease term to 2047.

Costing estimates in 2020, 2021 and 2023 of remediation were determined through non-invasive onsite reviews. Continued site work and intensive investigation into the building's operating systems and structure have recently determined that some systems originally thought to be in such condition that repair or upgraded was possible and regulatory approvals met, are in fact beyond such remediation and need to be replaced. Additionally, code requirements, specifically around the location of the facility's new parking lot and its proximity to the water source (well), have resulted in additional design work and will require additional site work.

Remediation to open the former school as a community centre will include:

1. Critical Building and Life Safety Systems - remediation and replacement:
  - a. Fire suppression system and emergency vehicle access
  - b. Potable water system - remediation and replacement
  - c. Septic system – remediation and replacement
  - d. Seismic improvements
2. Replacement of antiquated heating system (oil fired furnaces) and conversion to high efficiency heat pumps and improved ventilation, heating and cooling systems.
3. New access/egress and site parking for RDN Bylaw No. 500 compliance.
4. Site accessibility improvements.

Costing for the project is currently under its sixth review and has undergone a Quantity Survey. The scope of the work is now more clearly determined and approaching tender stage. Future cost savings are possible and will continue to be pursued throughout the project.

Costing leading to the recommendation of additional funding is summarized as follows:

- New 2024 BC Building Code adoption requires more area accessible and non-gendered washrooms.
- Existing exterior stairs proven to be unsuitable for retention and will need to be replaced entirely.
- The domestic water supply, septic system and distribution, and the fire suppression water reserve tank and plumbing require significant upgrades. Existing fire suppression water tank requires removal and new tank fabricated, transported and installed.
- Converting school site to a community centre requires sufficient parking be provided along with safe access to the site for the increased vehicle traffic. Current regulations and traffic impact assessments require significantly more parking spaces be provided.
- Hydro Design/Build costs for new electrical service. Conversion to heat-pump requires significantly more electrical energy than the existing system can supply.

Design work and capital costing through the remediation project include review, design and the inclusion of building systems to meet RDN strategic priorities related to; 2023 - 2026 RDN Strategic Plan, RDN Green Building Policy, Asset Management, RDN commitment to reducing community greenhouse emissions by 80% by 2050, objective to achieve corporate carbon neutrality by 2032 and Electoral Area A Official Community Plan (OCP) Sustainability Objectives.

## **FINANCIAL IMPLICATIONS**

The 2024-2028 Financial Plan included a project budget of \$2,843,396. The recent detailed project costing is now estimated at \$3,943,396. Under the current project delivery method of construction management, the ability to adapt the various divisions of the project to control costs is possible and could result in future cost savings.

Staff recommend allocating the additional funds of \$1,100,000 from the Electoral Area A Recreation and Culture Reserve Fund. There is currently an unallocated balance of approximately \$1,400,000 in EA A Recreation and Culture Reserve. Approval of the recommendation would leave approximately \$370,000 remaining in this reserve at the end of 2024 and no established future capital projects have been identified that would be affected by the additional funding increase for the South Wellington School remediation project.

<b>Project Budget</b>	<b>Amount</b>
Projected Construction Budget	3,259,409
Soft Costs plus Contingency	683,987
<b>Total project Budget</b>	<b>\$3,943,396</b>
<b>Funding Source</b>	<b>Amount</b>
Community Works Funds	2,482,631
Growing Community Fund	360,765
<b>Subtotal</b>	<b>2,843,396</b>
Reserve funds	1,100,000
<b>Total</b>	<b>\$3,943,396</b>



## **STRATEGIC PLAN ALIGNMENT**

Planning and Managing for Growth - Understand and develop an inter-connected framework of strategies and plans to manage growth to support complete communities, including planning, transportation, infrastructure, and fiscal sustainability.

### **REVIEWED BY:**

- K. Komjati, Business Administrator, Recreation and Parks
- T. Moore, Chief Financial Officer
- T. Osborne, General Manager, Recreation and Parks
- D. Holmes, Chief Administrative Officer



**REGIONAL  
DISTRICT  
OF NANAIMO**

**Bylaws No. 1917, 1918, 1919, 1920 – Reserve Fund Establishment**

**RECOMMENDATIONS**

1. That “Administration Operating Reserve Fund Establishment Bylaw No. 1917, 2024” be introduced and read three times.
2. That “Administration Operating Reserve Fund Establishment Bylaw No. 1917, 2024” be adopted.
3. That “River’s Edge Water Supply Service Area Operating Reserve Fund Establishment Bylaw No. 1918, 2024” be introduced and read three times.
4. That “River’s Edge Water Supply Service Area Operating Reserve Fund Establishment Bylaw No. 1918, 2024” be adopted.
5. That “Nanoose Bay Peninsula Water Service Area Operating Reserve Fund Establishment Bylaw No. 1919, 2024” be introduced and read three times.
6. That “Nanoose Bay Peninsula Water Service Area Operating Reserve Fund Establishment Bylaw No. 1919, 2024” be adopted.
7. That “Regional District of Nanaimo District 69 Swimming Pool Local Service Area Operating Reserve Fund Establishment Bylaw No. 1920, 2024” be introduced and read three times.
8. That “Regional District of Nanaimo District 69 Swimming Pool Local Service Area Operating Reserve Fund Establishment Bylaw No. 1920, 2024” be adopted.

**BACKGROUND**

Operating reserves are established to cover emergencies and other unexpected operating expenses such as climatic events, pandemics or sudden equipment failures during the year, to promote budget stabilization from year to year. These funds are reviewed and updated each year after review of the actual annual spending to ensure balances are kept up to date based on changing circumstances.

2024 is the first year that the five-year financial plan (2024-2028) included an operating reserve for these four services.

Administration	\$41,200
River’s Edge Water Supply Service	\$15,892
Nanoose Bay Peninsula Water Supply Service	\$50,000
Regional District of Nanaimo District 69 Swimming Pool	\$67,007

Pursuant to S. 377(1) of the *Local Government Act*, the establishment of a reserve fund must be authorized by bylaw. Adoption of bylaws 1917, 1918, 1919 and 1920 will complete the statutory requirement and will ensure the proper approvals are in place for reserve fund transfers to support the future operations of these services.

### **FINANCIAL IMPLICATIONS**

The establishment of these bylaws is a housekeeping item as the Board already approved the transfers to operating reserves in the *2024-2028 Financial Plan*. The proposed bylaws will enable the transfer of funds to reserve for future operating expenditures and revenue stabilization as required. Funds transferred to these reserves will be approved by the Board as part of the annual financial planning process.

### **STRATEGIC PLAN ALIGNMENT**

The recommendation to establish Reserve Funds will support the following strategic plan implication:

Planning and Managing for Growth

### **REVIEWED BY:**

- M. Manhas, Manager, Capital Accounting and Financial Reporting
- T. Moore, Chief Financial Officer
- C. Crabtree, General Manager, Corporate Services
- D. Holmes, Chief Administrative Office

### **ATTACHMENTS**

1. Administration Operating Reserve Fund Establishment Bylaw No. 1917, 2024
2. River's Edge Water Supply Service Area Operating Reserve Fund Establishment Bylaw No. 1918, 2024
3. Nanoose Bay Peninsula Water Service Area Operating Reserve Fund Establishment Bylaw No. 1919, 2024
4. Regional District of Nanaimo District 69 Swimming Pool Local Service Area Operating Reserve Fund Establishment Bylaw No. 1920, 2024



**REGIONAL DISTRICT OF NANAIMO**

**BYLAW NO. 1917**

**A BYLAW TO ESTABLISH A RESERVE FUND FOR ADMINISTRATION**

WHEREAS Section 377(1)(e) of the *Local Government Act* authorizes a Board to establish by bylaw a reserve fund for a specified purpose;

NOW THEREFORE, the Board of the Regional District of Nanaimo, in open meeting assembled, enacts as follows:

1. There is hereby established a reserve fund to be known as the “Administration Operating Reserve Fund”.
2. Funds from the current revenue of the administration function, to the extent to which it is available, or as otherwise provided in the *Local Government Act*, may from time to time be paid into the reserve fund.
3. The funds set aside may be invested in the manner provided by the *Local Government Act* S.377(1)(c) until the funds are required.
4. Funds held in this reserve may be used for operating costs of Administration.
5. This bylaw may be cited as the “Administration Operating Reserve Fund Establishment Bylaw No. 1917, 2024”.

Introduced and read three times this \_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

Adopted this \_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

\_\_\_\_\_  
CHAIR

\_\_\_\_\_  
CORPORATE OFFICER

**REGIONAL DISTRICT OF NANAIMO**

**BYLAW NO. 1918**

**A BYLAW TO ESTABLISH A RESERVE FUND  
FOR RIVERS'S EDGE WATER SUPPLY SERVICE AREA**

WHEREAS Section 377(1)(e) of the *Local Government Act* authorizes a Board to establish by bylaw a reserve fund for a specified purpose;

AND WHEREAS it is considered desirable to set aside funds to provide for future costs related to meeting the objectives of River's Edge Water Supply Service Area established pursuant to Bylaw No. 1354, cited as "River's Edge Water Supply Service Area Establishment Bylaw No. 1354, 2003".

NOW THEREFORE, the Board of the Regional District of Nanaimo, in open meeting assembled, enacts as follows:

1. There is hereby established a reserve fund to be known as the "River's Edge Water Supply Service Area Operating Reserve Fund".
2. Funds from the current revenue of River's Edge Water Supply Local Service Area, to the extent to which it is available, or as otherwise provided in the *Local Government Act*, may from time to time be paid into the reserve fund.
3. The funds set aside may be invested in the manner provided by the *Local Government Act* S.377(1)(c) until the funds are required.
4. Funds held in this reserve may be used for operating costs of the River's Edge Water Supply Service Area.
5. This bylaw may be cited as the "River's Edge Water Supply Service Area Operating Reserve Fund Establishment Bylaw No. 1918, 2024".

Introduced and read three times this \_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

Adopted this \_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

\_\_\_\_\_  
CHAIR

\_\_\_\_\_  
CORPORATE OFFICER

**REGIONAL DISTRICT OF NANAIMO**

**BYLAW NO. 1919**

**A BYLAW TO ESTABLISH A RESERVE FUND FOR  
NANOOSE BAY PENINSULA WATER SERVICE AREA**

WHEREAS Section 377(1)(e) of the *Local Government Act* authorizes a Board to establish by bylaw a reserve fund for a specified purpose;

AND WHEREAS it is considered desirable to set aside funds to provide for future costs related to meeting the objectives of Nanoose Bay Peninsula Water Service Area established pursuant to Bylaw No. 867, cited as “Nanoose Bay Peninsula Water Service Area Bylaw No. 867, 2005”.

NOW THEREFORE, the Board of the Regional District of Nanaimo, in open meeting assembled, enacts as follows:

1. There is hereby established a reserve fund to be known as the “Nanoose Bay Peninsula Water Service Area Operating Reserve Fund”.
2. Funds from the current revenue of Nanoose Bay Peninsula Water Service Area to the extent to which it is available, or as otherwise provided in the *Local Government Act*, may from time to time be paid into the reserve fund.
3. The funds set aside may be invested in the manner provided by the *Local Government Act* S.377(1)(c) until the funds are required.
4. Funds held in this reserve may be used for operating costs of the Nanoose Bay Peninsula Water Service Area.
5. This bylaw may be cited as the “Nanoose Bay Peninsula Water Service Area Operating Reserve Fund Establishment Bylaw No. 1919, 2024”.

Introduced and read three times this \_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

Adopted this \_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

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CHAIR

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CORPORATE OFFICER



**REGIONAL DISTRICT OF NANAIMO**

**BYLAW NO. 1920**

**A BYLAW TO ESTABLISH A RESERVE FUND  
FOR REGIONAL DISTRICT OF NANAIMO DISTRICT 69 SWIMMING POOL LOCAL SERVICE AREA**

WHEREAS Section 377(1)(e) of the *Local Government Act* authorizes a Board to establish by bylaw a reserve fund for a specified purpose;

AND WHEREAS it is considered desirable to set aside funds to provide for future costs related to meeting the objectives of Regional District of Nanaimo District 69 Swimming Pool Local Service Area established pursuant to Bylaw No. 899, cited as “Regional District of Nanaimo District 69 Swimming Pool Local Service Area Establishment Bylaw No. 899, 1993”.

NOW THEREFORE, the Board of the Regional District of Nanaimo, in open meeting assembled, enacts as follows:

1. There is hereby established a reserve fund to be known as the “Regional District of Nanaimo District 69 Swimming Pool Local Service Area Operating Reserve Fund”.
2. Funds from the current revenue of District 69 Swimming Pool Local Service Area, to the extent to which it is available, or as otherwise provided in the *Local Government Act*, may from time to time be paid into the reserve fund.
3. The funds set aside may be invested in the manner provided by the *Local Government Act* S.377(1)(c) until the funds are required.
4. Funds held in this reserve may be used for operating costs of the Regional District of Nanaimo District 69 Swimming Pool Local Service Area.
5. This bylaw may be cited as the “Regional District of Nanaimo District 69 Swimming Pool Local Service Area Operating Reserve Fund Establishment Bylaw No. 1920, 2024”.

Introduced and read three times this \_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

Adopted this \_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

\_\_\_\_\_  
CHAIR

\_\_\_\_\_  
CORPORATE OFFICER

**REGIONAL DISTRICT OF NANAIMO**

**BYLAW NO. 1385.12**

**A BYLAW TO AMEND THE BOUNDARIES OF  
THE BOW HORN BAY FIRE PROTECTION SERVICE**

WHEREAS the Regional District of Nanaimo established the Bow Horn Bay Fire Protection Service pursuant to Bylaw No. 1385 cited as "Bow Horn Bay Fire Protection Service Establishment Bylaw No. 1385, 2004";

AND WHEREAS the Board of the Regional District of Nanaimo has been petitioned by the property owners to extend the boundaries of the service area to include the lands shown outlined in black on Schedule 'A' of this bylaw;

AND WHEREAS at least 2/3 of the service participants have consented to the adoption of this bylaw in accordance with section 349 of the *Local Government Act*;

THEREFORE BE IT RESOLVED that the Board of the Regional District of Nanaimo, in open meeting assembled enacts as follows:

**1. Citation**

This bylaw may be cited as "Bow Horn Bay Fire Protection Service Amendment Bylaw No. 1385.12, 2024".

**2. Amendment**

"Bow Horn Bay Fire Protection Service Establishment Bylaw No. 1385, 2004" is amended as follows:

- 1) By amending the boundaries of the Bow Horn Bay Fire Protection Service area to include the following properties:
  - a. LOT A, DISTRICT LOT 90, NEWCASTLE DISTRICT, PLAN EPP16794
  - b. LOT 3, DISTRICT LOT 90, NEWCASTLE DISTRICT, PLAN EPP85126
  - c. LOT 9, DISTRICT LOT 90, NEWCASTLE DISTRICT, PLAN EPP85126
  - d. LOT 7, DISTRICT LOT 90, NEWCASTLE DISTRICT, PLAN EPP85126
  - e. LOT 6, BLOCK 1372 & DISTRICT LOT 90, NEWCASTLE DISTRICT, PLAN EPP85126
  - f. LOT 2, DISTRICT LOT 90, NEWCASTLE DISTRICT, PLAN EPP85126
  - g. LOT 8, DISTRICT LOT 90, NEWCASTLE DISTRICT, PLAN EPP85126
  - h. LOT 5, BLOCK 1372 & DISTRICT LOT 90, NEWCASTLE DISTRICT, PLAN EPP85126
  - i. LOT 4, BLOCK 1372 & DISTRICT LOT 90, NEWCASTLE DISTRICT, PLAN EPP85126
  - j. LOT 1, BLOCK 1372 & DISTRICT LOT 90, NEWCASTLE DISTRICT, PLAN EPP85126

And as outlined in black on Schedule 'A' attached to and forming part of this bylaw.

Introduced and read three times this 24<sup>th</sup> day of September, 2024.

Adopted this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
CHAIR

\_\_\_\_\_  
CORPORATE OFFICER



Schedule 'A' to accompany "Bow Horn Bay Fire  
Protection Service Amendment Bylaw No.  
1385.12, 2024".

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Chair

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Corporate Officer

