

BRIEFING NOTE

Meeting with Edoardo De Martin, GM of Microsoft Vancouver

Briefing Note

What: Discuss how Tech companies can adapt for the future coming out of the COVID 19 pandemic and what it might look like for them

Who: Edoardo De Martin, GM of Microsoft Vancouver

Executive Summary:

Key messages:

- Enabling people to return to meaningful work safely is a priority.
- It's expected that the tech sector will recover faster than other sectors.
- Recovery in Vancouver, as well as throughout the province is important.
- The Province recognizes that Microsoft is a contributor to B.C.'s economy and will be important in recovery efforts. As B.C. continues to develop and refine its recovery strategies, we will be engaging with sectors and key companies including Microsoft to develop a shared and collaborative approach.
- One of the important areas where we'll be seeking input is how the tech sector can effectively engage with other sectors of the economy and in regions across B.C. to promote innovation and in turn improve competitiveness and productivity, all of which will be critical to our longer-term efforts.

Background:

Microsoft in B.C.: Microsoft has more than 950 employees in B.C. and is active in the innovation community, including supporting the growth of B.C.'s talent pool. Microsoft recently confirmed plans in fall 2019 to expand its footprint in Vancouver to accommodate its growing staff complement.

Areas of Alignment:

Microsoft co-chairs **Canada's Digital Technology Supercluster** and has provided its Azure Cloud platform for 11 of the projects. More information on these projects are contained in Appendix B.

BRIEFING NOTE

Meeting with Edoardo De Martin, GM of Microsoft Vancouver

Microsoft Airband Initiative: Launched in 2017, the program invests in partnerships with telecommunications companies with the goal of bringing broadband connectivity to underserved communities. In 2018, Microsoft successfully partnered with ABC Communications to test the technology in the Verdun area near Francois Lake. No subsequent tests have occurred. This could be an area of potential alignment as the Province works to grow connectivity as part of its recovery efforts.

Quantum computing In March 2020, the Province stood up the Quantum Algorithms Institute, which includes IBM, D-Wave, 1Qbit and BC post secondary institutes. The institute is preparing to onboard Microsoft and the University of BC (UBC) as new members in June. Microsoft will have a seat on the Board and Edoardo is expected to fill that role. The institute's board is chaired by 1Qbit co-founder Landon Downs.

B.C. has the second largest **AR/VR** cluster globally. Microsoft supports the cluster by investing in education, collaboration space and working with smaller companies. AR/VR will be a growth area due to demand for new digital media content and the increasing growth of remote and virtual approaches to work.

The **Cascadia Innovation Corridor** is an opportunity to leverage each jurisdiction's strengths to help grow our regional and complementary economies. Areas of interest around life sciences, emergency management, clean tech and high-speed rail offer a chance to grow back better. Edoardo is the co-chair of its "Transformative Technologies" subcommittee. Microsoft has also supported two business case studies into ultra-high-speed transportation between Greater Vancouver, Seattle and Portland.

Immigration: B.C. has supported Microsoft's international recruitment efforts through the Provincial Nominee Program (BC PNP) and through Microsoft's designation as a Significant Investment Project. BC PNP has nominated 77

BRIEFING NOTE

Meeting with Edoardo De Martin, GM of Microsoft Vancouver

individuals supported by Microsoft. The BC PNP Tech Pilot, introduced in 2017, further enhanced Microsoft's ability to recruit top international talent.

Microsoft's designation as a Significant Investment Project enables them to forego the typical Labour Market Impact Assessment (LMIA) process when hiring temporary foreign workers. In May 2020, the Ministry of Jobs, Economic Development and Competitiveness (JEDC) completed an evaluation of the Project; Microsoft is aware that the evaluation was conducted, but has not been informed of the results.^{s.13}

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Recommendations:

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BRIEFING NOTE

Meeting with Edoardo De Martin, GM of Microsoft Vancouver

Appendix A: Biography Edoardo De Martin



Edoardo De Martin is the GM of Microsoft Vancouver, the company's sole Canadian development center and one of six worldwide. He plays a key role in global operations, overseeing site strategy, while also heading up a Dynamics 365 product team focused on Mixed Reality for the Modern Workplace.

Graduating from SFU with a double major in Economics & Geography, his skill in putting culture first to build profitable, productive teams has been at the heart of his more than two decades in technology. A British Columbian by birth, De Martin launched his career in telecommunications before transitioning to successive roles in video games that would see him deliver the franchise leading, number one selling game worldwide, *Need for Speed Underground*, and become a voice for operational excellence within the industry and earn back-to-back 'Best Company' honours for Next Level Games.

In 2010, De Martin joined Microsoft to lead HoloLens development. After six years working between Redmond and Vancouver, he was named site leader for the new global development centre in the fall of 2015. Today, De Martin leads Dynamics 365 mixed reality applications for HoloLens and lends his expertise to organizations shaping the local ecosystem. As an advocate for Vancouver's tech industry, he seeks opportunities to drive action around the city's position in the global marketplace.

De Martin serves on the board of the BC Tech Association, Cascadia Innovation Corridor and robotics start-up Synthiam. He is also Co-Chair of Canada's Digital Technology Supercluster Consortium and represents Microsoft as a founding member.

BRIEFING NOTE

Meeting with Edoardo De Martin, GM of Microsoft Vancouver

Appendix B: Digital Supercluster Projects Supported by Microsoft

Technology Leadership Program

(1) *Earth Data Store*, which aims to build a data commons for Earth Observation and other geospatial data, and use machine-learning and artificial intelligence to create ready geoanalytic applications. The Consortium will develop industry-specific applications that will allow end-users to see how a region evolves over time using visual interactive maps and running deep learning algorithms; and

(2) *Secure Health and Genomics Platform*, which aims to create a secure Pan-Canadian digital platform that leverages advanced innovative technologies and be the first critical step in realizing the ISED Health and Biosciences vision to position Canada as a global leader in health and biosciences, unleash the economic potential of the sector and enable improved health outcomes for Canadians. The Province is supporting both projects in an advisory capacity.

(3) *Fresh Water Data Commons*, which aims to harness data to improve water use, conservations and management. The goal of the project is to develop a platform for harnessing all the water monitoring data from an entire river basin of the Columbia Basin in southeastern B.C. to better understand the health of the surrounding ecosystem to provide a real-time view of ecosystem health.

(4) *The Learning Factory Digital Twin*, which aims to integrate advanced materials research with emerging manufacturing technologies to make products lighter, stronger, smarter, more durable and energy efficient, while minimizing production costs. The simulation of traditional factory processes in a virtual environment will create, in essence, a digital twin of a physical production facility and will B.C. as a global leader in digitally enhanced advanced manufacturing, leveraging the Province's growing technology sector and existing relationships within the Cascadia corridor.

BRIEFING NOTE

Meeting with Edoardo De Martin, GM of Microsoft Vancouver

Capacity Building Program

(5) *Diversifying Talent* in Quantum Computing, which aims to work with Indigenous education leaders to ensure that young people are aware of the career opportunities presented by this revolutionary technology.

(6) *Future Capital*, which aims to provide investment education that enables women to lead and shape the future of the economy. By providing women leaders with the skills to invest in early-stage ventures, this program will enable women to participate in the next generation of high-growth businesses as investors, advisors and board members and close the gender gap.

(7) *HyperTalent*, which aims to focus on educators and connecting with Indigenous youth to tackle the tech talent shortage. The program will connect more than 100 teachers from rural and urban school districts with educational seminars, tours of leading technology companies, and hands-on experiences. This will build awareness of the kinds of tech careers open to students, and connect school curriculums with real-world examples of the opportunities ahead.

COVID-19 Program

(8) *Beacon - Realtime Global Data Sharing Network*, which aims to securely share data and knowledge about the genetics of the COVID-19 virus in real time over a cloud-based global network is critical to the rapid development of treatments and therapies. This project allows scientists and researchers to do just that - improving our knowledge at a speed and scale that isn't otherwise possible.

(9) *Feeding our Front Lines*, which aims to provide an e-Grocery management system that manages food quality and freshness and optimizes packing and deliveries to provide fresh food delivery to our frontline workers and patients, while simultaneously ensuring food security for Canadians throughout the COVID crisis.

BRIEFING NOTE

Meeting with Edoardo De Martin, GM of Microsoft Vancouver

(10) *Lifesaver - Predicting emerging pandemics*, which aims to develop a new tool to better forecast emerging pandemics. This platform will enable decision-makers to better predict emergencies and regional needs, thus allowing for effective planning and deployment of resources.

(11) *Digital Telework for Remote Physical Work*, which aims to expand beyond the existing use of video and audio technologies for the virtual work environment and test the use of robots in long-term care and clinic settings using 4G/5G networks and digital medical tools such as digital stethoscopes and biometric monitoring to improve patient care, patient outcomes, and the work environment for healthcare teams.

INFORMATION NOTE

Cliff #: 149444

Date: June 5, 2020

PREPARED FOR: Honourable Michelle Mungall, Minister of Jobs, Economic Development and Competitiveness

ISSUE: Self-isolation requirements for the film industry

BACKGROUND:

Under federal and provincial health orders, persons entering British Columbia from abroad must self-isolate for 14 days upon arrival. Film industry stakeholders have indicated that the 14-day self-isolation requirement is a barrier to restarting productions, which often rely to some extent on actors and technical staff from outside Canada.

DISCUSSION:

The self-isolation requirements help ensure that individuals arriving from abroad do not spread COVID-19. Narrow exemptions exist for workers who perform an essential service, but staff for film and television productions are not included in the definition of essential. Health officials and the Premier have indicated that exceptions will not be made for the film industry.

The live-action film industry has largely shut down in response to COVID-19. However, work that can be done from home (e.g. animation, visual effects and scriptwriting) is continuing. In particular, animation has seen a boost in demand as studios look for alternate ways to produce content. Visual effects has done well since the pandemic began, but largely relies on live-action footage for work and is now seeing the stock of workable footage decline.

The Federal Government created a \$500 million COVID-19 Emergency Support Fund for Cultural, Heritage and Sport Organizations in May, with \$115.8 million going toward the Canadian audiovisual sector.

BC's *Restart Plan* includes the film industry as part of "Phase 3", for businesses that will reopen in June to September if transmission rates remain low or in decline. The plan indicates that the restart will commence with domestic productions in June or July. The industry is planning to adapt by using smaller crews, rewriting scenes to accommodate social distancing measures, and using visual effects to make actors appear closer together than they actually are.

The majority of BC's film industry consists of service work for American productions, so the self-isolation requirements are a significant constraint on the industry's business model. However, the restrictions may create opportunities for local film crews. Several factors should help make BC an attractive destination for filming once entry restrictions are relaxed, including BC's success at controlling COVID-19, the weakening Canadian dollar relative to the start of 2020, an experienced local work force, proximity to California and generous film tax credits.

SUMMARY:

Film workers arriving from abroad are required to self-isolate for 14 days upon arrival to BC. Animation, visual effects and screenwriting work has continued despite COVID-19, and live-action productions are planning to restart this summer.

ADM Contact: Christine Little, 778-698-1708

Prepared by: David Karp, A/Director, Immigration Policy

Reviewed by			
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Page 10 of 37 to/à Page 14 of 37

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INFORMATION NOTE

CLIFF #: 149661

Date: June 19, 2020

PREPARED FOR: Honourable Michelle Mungall, Minister of Jobs, Economic Development and Competitiveness

ISSUE: Summary of five tech roundtables held further to Minister's April 6 roundtable in preparation for the June 23, 2020 tech roundtable with Premier John Horgan.

BACKGROUND: Five 90-minute tech roundtables were held over May and June. Topics were 1) tech diffusion and adoption, 2) access to customers/markets, 3) access to capital, 4) access to talent, and 5) access to infrastructure (connectivity).

The roundtables were led by Parliamentary Secretary (PS) Glumac and co-chaired by Innovate BC CEO Raghwa Gopal. Approximately ten to fifteen tech representatives attended each session. All participants at the April 6 roundtable were invited to at least one session, along with others from the tech community. PS Glumac introduced each session by noting that the input provided would be passed on to Minister Mungall and would also serve as input to the BC Government's economic recovery plan.

DISCUSSION: The roundtables were well received by the tech community. Participants appreciated the opportunity to connect with PS Glumac and to provide their ideas to government. They also welcomed the opportunity to connect with each other.

The tech community appreciates government's tech commitments in the areas of talent (e.g., additional STEM seats), capital (e.g., BC Tech Fund and Small Business Venture Tax Credit) and connectivity (e.g., Connecting BC and Connected Communities) but would like to see additional support for patient and later-stage capital, for sales and marketing, for ways to group tech or innovation organizations in "clusters" or "precincts" for the development of senior leadership talent.

There were also calls for increased support for local procurement, noting that B.C. tech firms face a "home-ice disadvantage" and can sometimes find it easier to sell elsewhere in Canada¹ and internationally than to the B.C. government. B.C.'s Procurement Concierge Program (which matches vendors with innovative ideas and potential public sector buyers) was welcomed as a good step to addressing this challenge.

The impact of the COVID-19 pandemic on the tech sector has been mixed. Technology companies that were suppliers to non-essential businesses or to projects that were

¹ The size of provincial budgets affect amounts spent on technology procurement: Ontario's provincial budget is \$174.3 billion, Quebec's provincial budget is \$118.6 billion and \$60.06 billion in B.C.

Related to tech adoption, participants were supportive of placing more emphasis on skilling and re-skilling workers through micro-credential or rapid skilling programs so that workers are able to fully participate in the digital economy.

A number of recommendations were made by participants during the roundtables that fall into the following themes:

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Parliamentary Secretary Glumac Tech Roundtable notes

ADM Contact: Susan Stanford, 778-698-2349

Prepared by: Ken Armour, Executive Director, Technology, Connectivity and
Distributed Growth Division

Reviewed by			
Dir: n/a	ED: KA	A/ADM: NN	DM: CK

APPENDIX I

NOTABLE PARTICIPANT QUOTES

Tech Diffusion and Adoption

The business model is changing. Traditional industry firms are interested in outcomes, not products. The technology they need is generally available, but it needs to be assembled and aggregated; this is a lot of work. The concept of innovation precincts (also needed for natural resource sectors) is good because it will bring together tech firms with traditional firms to create an ecosystem where talent and information is shared and where market literacy is increased.

BC is lagging behind a lot of other jurisdictions in terms of tech adoption. We need a made in BC program to help traditional companies bridge the risk of adopting new tech.

Government funding is key for tech adoption. Access to capital is long standing issue and increasingly difficult challenge. Need to increase local government procurement and local investing, and need to bring in some type of investment fund such as a Sovereign Wealth Fund or a Strategic Investment Fund.

Because of COVID-19, we are going to lose millions of jobs that are not coming back. Rapid reskilling in tech is a must to fill new jobs when the big companies adopt tech.

Access to Markets/Customers

Can government provide more support for sales and marketing? Government is very comfortable at providing for research support. Important skills gaps on sales and marketing side. Government programs like SR&ED and IRAP focus on the research and technical side but little to support sales and marketing. Alacrity is offering a digital training support program with support from JEDC that is a good model.

BC international trade division is exploring how to better support investment attraction and export development under COVID-19. Now staging virtual buyer days – lining up buyers for BC products fitting with BC's strengths. There is currently some collaboration, but this is an opportunity to increase it.

Need innovation program that allows tech companies to test new idea or new technology, using government as first customer.

Access to Capital

Need an innovation program (e.g. tax incentives) that supports tech companies to test new technologies and ideas through pilot project stage.

Customer money is best – can government expand procurement programs? BC doesn't buy its own innovations even though we invest in early stages of innovation.

Lack big investors in innovation in Canada. Pension funds don't do this. They should because it keeps the capital in our country.

Huge eco-system of capital – it's a difficult system to navigate. Need government program to help scale up companies navigate and obtain funding from this system. A lot of companies don't know how to go about raising funds.

SBVTC should be increased beyond the 30 percent tax credit on investments and expanded to include non-BC investors.

Many of the changes suggested are big structural changes that won't occur tomorrow. So what we can we do quickly? Support for companies looking to navigate the capital eco-system? More EIRs in the support associations to advise how to raise capital? Many SMEs need EIR support but can't afford to pay for them.

Access to Talent

Education and skills training should be considered infrastructure spending too – so when politicians talk about rebuilding the economy through infrastructure, this needs to include education and training – include support for mid-career changes.

Need to raise awareness of remote work possibilities and look for talent in smaller centres around BC and across Canada.

Innovate BC needs to expand their RevUp program – it's a step in the right direction.

Access to Infrastructure (Connectivity)

The more remote communities are more difficult to connect – the economics get more and more difficult due to geography and more sparse population (reduces ROI). In those cases, need support from govt to make economics work.

Demand for tech adoption is increasing rapidly during COVID-19 and connectivity is key for this. But people also need the skills to take advantage of increased connectivity.

Should look at partnering with regional districts and municipalities in advancing connectivity. Connectivity provides opportunity for business development and municipalities are best positioned to help businesses take advantage of this.

Connectivity is an ecosystem, so players need to work together in a collaborative fashion. There is no silver bullet. Need to build tech expertise/capacity in local communities to take advantage of connectivity opportunities and address challenges.

INFORMATION NOTE

CLIFF #: 149530

Date: June 25, 2020

PREPARED FOR: Honourable Michelle Mungall, Minister of Jobs Economic Development and Competitiveness

ISSUE: Connected Coast Network Project

BACKGROUND:

Project Scope

The Connected Coast Network project involves the installation of sub-sea fibre-optic cable, stretching from north of Prince Rupert, to Haida Gwaii (Masset), south to Vancouver and around Vancouver Island.

The Connected Coast Network does not include last-mile builds, but once the landing sites are complete, the new fibre backbone will enable increased last-mile internet speeds and reliability.

The project leads are CityWest Cable & Telephone Corporation (CityWest) and the Strathcona Regional District (Strathcona). They have partnered on the project to jointly build the network.

During the federal due diligence process, some landing sites were removed from scope and land segments were added to reach communities not adjacent to the coast. Project leads will be validating the proposed landing sites through the engineering and environmental assessments and First Nations consultations. The new number of sites and communities anticipated to benefit from the project: 147 landing sites (revised from the original 154 landing sites). Forty-eight Indigenous communities are anticipated to benefit. See ATT-1.

Total project investment is \$45.4 million, co-shared between the federal and provincial governments. The federal government is lead funder.

- \$22.2 million will come from the Connect to Innovate program, administered through Innovation, Science and Economic Development (Innovation Canada).
- \$12.0 million will come from Indigenous Services Canada.
- \$11.2 million will come from the Connecting British Columbia program administered by the Northern Development Initiative Trust (Northern Development).
- The total aggregate amounts as committed by the major funders for the CityWest and Strathcona projects is unchanged, apart from the added scope for connecting Tlowitsis First Nation. All Nations Trust Company's Pathways to

Technology project and Innovation Canada will each contribute an estimated \$187,600 in new funding.

DISCUSSION:

Several factors have contributed to the project moving slower than expected in the original proposals.

Federal government program received unprecedented applications

The federal government's Connect to Innovate program received and assessed 892 project applications from across Canada, with 610 denied funds.

The Connected Coast Network project was announced by the federal government on January 17, 2018. The federal government then entered into negotiations with the project leads, which successfully ended in federal contribution agreements being issued for proponents' signature in June 2019. Agreements were signed by CityWest on October 11, 2019 and Strathcona signed on October 29, 2019. During this time, Strathcona formed the Strathcona Connected Coast Network Corporation, which was incorporated on September 7, 2018, as a wholly owned subsidiary of the regional district. CityWest also established the City West Connected Coast Network Corp.

Resolution over shared fibre section of project

During contract negotiations with Canada a shared ownership section of fibre between Port Hardy and Campbell River was moved to CityWest ownership. The total funding for the project remained the same, but inconsistencies arose in the funding amounts originally requested from Northern development and the amounts to be reflected in their contribution agreements. The issue between the parties over access to the shared section of fibre arose on May 2019 and was not resolved until November 2019, when Northern Development was able to produce agreements for provincial funding with terms that were mutually agreeable.

Northern Development's agreements were signed and executed on January 20, 2020 with CityWest and February 21, 2020 with Strathcona.

Project procurement

CityWest and Strathcona are currently working on a procurement for the installation of the subsea fibre. On June 21, 2020, the project leads posted a Request for Information (RFI) on BC Bid, with a closing date of July 28, 2020. COVID-19 pandemic had caused some delays in issuing the RFI. The RFI (RFI-CW2020-001) seeks information from interested parties for the supply and construction of the subsea cable solution. The RFI is intended to gather information that could assist in the development of a future procurement process. See ATT-2.

Recipients under Canada's funding program (and co-funded under the Connecting British Columbia program) will be required to *"use a fair and competitive or otherwise*

justifiable and generally accepted sound business process that results in competent and qualified contractors and/or personnel working on the project”.

Operational steering committee meetings and associated work related to taxation, permitting and consultations have been suspended since January 2020, pending the results of a procurement.

Project leads request a project extension

CityWest and Strathcona have discussed a request for a project completion date extension from March 31, 2021 to March 31, 2023. A revised project timeline would require contract amendments from Canada and Northern Development. Canada has indicated to the recipients that federal funding must be disbursed by March 31, 2023.

In reviewing the request for a project extension, Northern Development is undertaking due diligence and prior to issuing contract amendments have asked for the results of the procurement and start date for deploying the subsea cable. The previous project schedule indicated that two years was required to complete the build, including two full summer build periods.

Project lead staff turnover

Both CityWest and Strathcona have had project lead staff turnover that have not yet been resolved. Dave Leitch, Chief Administrative Officer, is acting as the lead for Strathcona and Bob Long, Chair of CityWest Board of Directors, has taken over as the lead for the CityWest portion.

CONCLUSION:

The Connected Coast Network when complete will achieve two priorities:

- Bring unprecedented digital capacity to rural and remote communities and position B.C. to better optimize its coastal advantage.
- Create a diverse and reliable path for connectivity to the north to mitigate loss of connectivity should service on the existing routes be interrupted by, for example, extreme weather, wildfire, flooding, slides).

It is important to note that community digital planning is needed to help communities plan for last-mile infrastructure solutions and the Ministry is assisting communities with this work through its relationship with the Coastal First Nations alliance. Last-mile solutions will be unique to each community depending on their aspirations, resources and existing connectivity landscape.

The Connected Coast Network project has had setbacks from the lengthy contracting process and through the development of a relationship between the proponents to jointly own and manage the network.

ATTACHMENTS:

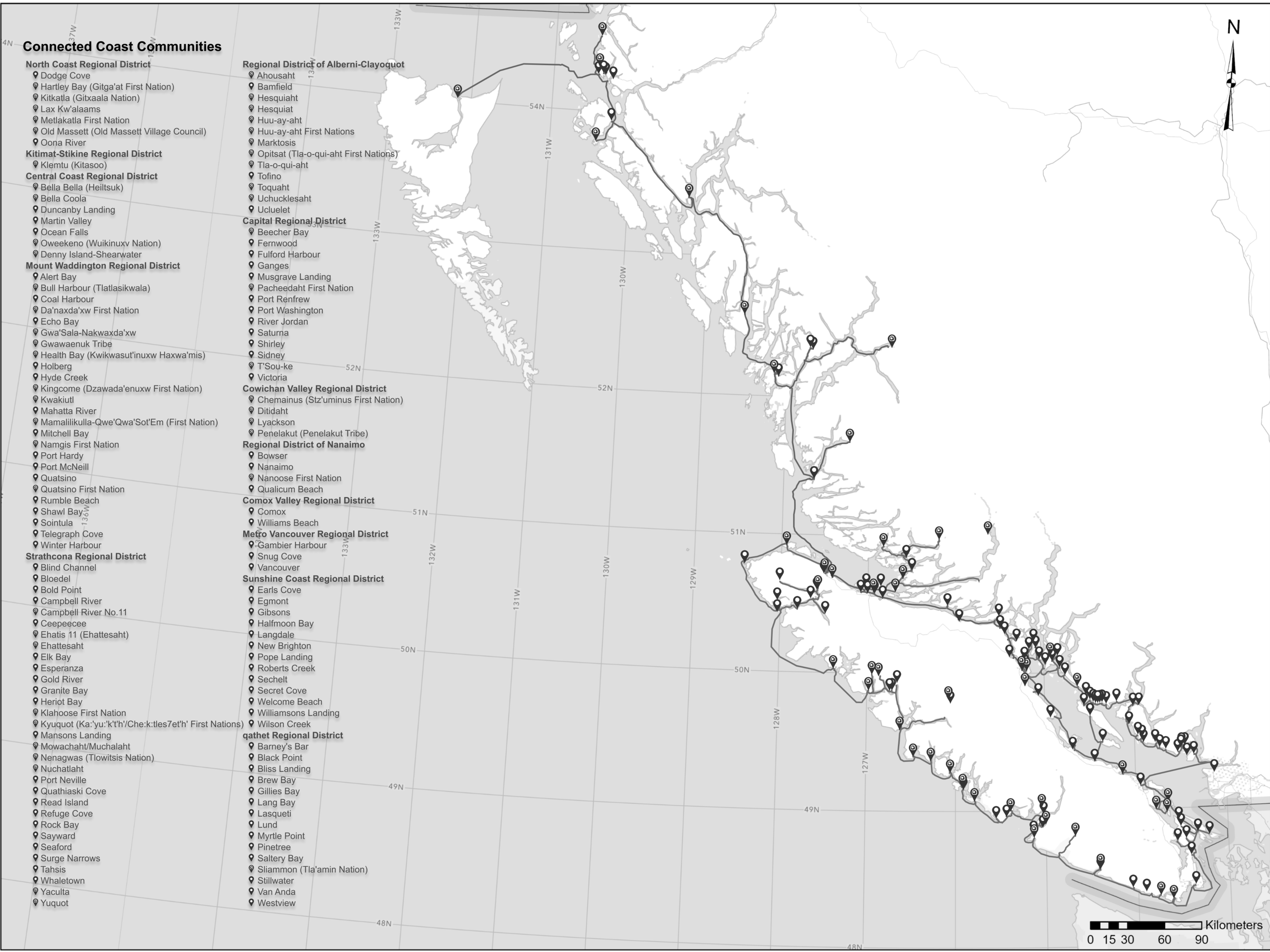
Attachment 1: Connected Coast Network Route and Landing Sites Map

Attachment 2: Connected Coast Request for Information

Contact: Susan Stanford, ADM, Technology, Connectivity and Distributed Growth,
778 698-2349

Prepared by: Howard Randell, Executive Director, Network BC

Reviewed by			
Dir: MF	ED: HR	ADM: SS	DM: CK



Connected Coast Communities

North Coast Regional District

- ☉ Dodge Cove
- ☉ Hartley Bay (Gitga'at First Nation)
- ☉ Kitkatla (Gitxaala Nation)
- ☉ Lax Kw'alaams
- ☉ Metlakatla First Nation
- ☉ Old Massett (Old Massett Village Council)
- ☉ Oona River

Kitimat-Stikine Regional District

- ☉ Klemtu (Kitasoo)

Central Coast Regional District

- ☉ Bella Bella (Heiltsuk)
- ☉ Bella Coola
- ☉ Duncanby Landing
- ☉ Martin Valley
- ☉ Ocean Falls
- ☉ Oweekeno (Wuikinuxv Nation)
- ☉ Denny Island-Shearwater

Mount Waddington Regional District

- ☉ Alert Bay
- ☉ Bull Harbour (Tlatlasikwala)
- ☉ Coal Harbour
- ☉ Da'naxda'xw First Nation
- ☉ Echo Bay
- ☉ Gwa'Sala-Nakwaxda'xw
- ☉ Gwawaenuk Tribe
- ☉ Health Bay (Kwikkwasut'inuxw Haxwa'mis)
- ☉ Holberg
- ☉ Hyde Creek
- ☉ Kingcome (Dzawada'enuxw First Nation)
- ☉ Kwakiutl
- ☉ Mahatta River
- ☉ Mamalilikulla-Qwe'Qwa'Sot'Em (First Nation)
- ☉ Mitchell Bay
- ☉ Namgis First Nation
- ☉ Port Hardy
- ☉ Port McNeill
- ☉ Quatsino
- ☉ Quatsino First Nation
- ☉ Rumble Beach
- ☉ Shawl Bay
- ☉ Sointula
- ☉ Telegraph Cove
- ☉ Winter Harbour

Strathcona Regional District

- ☉ Blind Channel
- ☉ Bloedel
- ☉ Bold Point
- ☉ Campbell River
- ☉ Campbell River No. 11
- ☉ Ceepeecee
- ☉ Ehatis 11 (Ehattesah)
- ☉ Ehattesah
- ☉ Elk Bay
- ☉ Esperanza
- ☉ Gold River
- ☉ Granite Bay
- ☉ Heriot Bay
- ☉ Klahoose First Nation
- ☉ Kyuquot (Ka:'yu:'k't'h'/Che:k:tles7et'h' First Nations)
- ☉ Mansons Landing
- ☉ Mowachah/Muchalaht
- ☉ Nenagwas (Tlowitsis Nation)
- ☉ Nuchatlaht
- ☉ Port Neville
- ☉ Quathiaski Cove
- ☉ Read Island
- ☉ Refuge Cove
- ☉ Rock Bay
- ☉ Sayward
- ☉ Seaford
- ☉ Surge Narrows
- ☉ Tahsis
- ☉ Whaletown
- ☉ Yaculta
- ☉ Yuquot

Regional District of Alberni-Clayoquot

- ☉ Ahousah
- ☉ Bamfield
- ☉ Hesquiaht
- ☉ Hesquiat
- ☉ Huu-ay-aht
- ☉ Huu-ay-aht First Nations
- ☉ Marktosis
- ☉ Opitsat (Tla-o-qui-aht First Nations)
- ☉ Tla-o-qui-aht
- ☉ Tofino
- ☉ Toquaht
- ☉ Uchucklesaht
- ☉ Ucluelet

Capital Regional District

- ☉ Beecher Bay
- ☉ Fernwood
- ☉ Fulford Harbour
- ☉ Ganges
- ☉ Musgrave Landing
- ☉ Pacheedaht First Nation
- ☉ Port Renfrew
- ☉ Port Washington
- ☉ River Jordan
- ☉ Saturna
- ☉ Shirley
- ☉ Sidney
- ☉ T'Sou-ke
- ☉ Victoria

Cowichan Valley Regional District

- ☉ Chemainus (Stz'uminus First Nation)
- ☉ Ditidaht
- ☉ Lyackson
- ☉ Penelakut (Penelakut Tribe)

Regional District of Nanaimo

- ☉ Bowser
- ☉ Nanaimo
- ☉ Nanoose First Nation
- ☉ Qualicum Beach

Comox Valley Regional District

- ☉ Comox
- ☉ Williams Beach

Metro Vancouver Regional District

- ☉ Gambier Harbour
- ☉ Snug Cove
- ☉ Vancouver

Sunshine Coast Regional District

- ☉ Earls Cove
- ☉ Egmont
- ☉ Gibsons
- ☉ Halfmoon Bay
- ☉ Langdale
- ☉ New Brighton
- ☉ Pope Landing
- ☉ Roberts Creek
- ☉ Sechelt
- ☉ Secret Cove
- ☉ Welcome Beach
- ☉ Williamsons Landing
- ☉ Wilson Creek

qathet Regional District

- ☉ Barney's Bar
- ☉ Black Point
- ☉ Bliss Landing
- ☉ Brew Bay
- ☉ Gillies Bay
- ☉ Lang Bay
- ☉ Lasqueti
- ☉ Lund
- ☉ Myrtle Point
- ☉ Pinetree
- ☉ Saltery Bay
- ☉ Sliammon (Tla'amin Nation)
- ☉ Stillwater
- ☉ Van Anda
- ☉ Westview

CONNECTED
COAST
PROJECT



Legend

- ☉ Landing Site
- ☉ Indigenous Landing Site
- CityWest
Proposed Sub-Sea Cable
- Strathcona Regional District
Proposed Sub-Sea Cable



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Request for Information (RFI)

Number: RFI-CW2020-001

City West Cable and Telephone Corp. (“**CityWest**”), a corporation owned by the City of Prince Rupert, and the Strathcona Regional District (“**SRD**”) are intending to sponsor the construction of a communication network that will service 159 rural and remote coastal communities along the Central and North Coast and Haida Gwaii (the “**Connected Coast Project**” or “**Project**”). The Connected Coast Project will deliver a 3,400 km backbone solution but will not include the last-mile solution at each community location.

Currently, the Connected Coast Project is envisioned as a joint venture of CityWest and SRD.

The Province of British Columbia and the Government of Canada have both indicated receptivity to offering financial support for the Connected Coast Project, subject to final approvals. Based on a preference from the funding agencies, each of CityWest and SRD will hold primary responsibility for a portion of the Project.

Over the past two years SRD and CityWest have worked with consultants to explore solutions based on underwater fiber-optic communications cables. Appendix A provides additional information on the preliminary designs developed by SRD and CityWest for their components of the Project.

The preliminary design for the Project as a whole could be considered as the consolidation of the SRD and the CityWest preliminary designs. Appendix A provides in addition, the current listing of coastal communities, indigenous communities and anchor institutions which will be served.

Most of the planning work to date has assumed that a fibre-optic technology will be applied. Based on that assumption, a possible route for the network was proposed by the consultants to demonstrate the ability to service all the intended clients. Appendix B provides a discussion draft of the route proposed for an underwater fiber-optic cable implementation of the Project. The kmz file named “CityWest and SRD Route and Landing Locations” will allow you to view the proposed route using Google Earth. If assistance in viewing this file is required, please contact the Project Coordinator at the address shown below.

SRD and CityWest recognize that other cable or transmitted solutions and other possible routes may exist which could offer a practical and cost-effective way of achieving Project goals. SRD and CityWest are issuing this Request for Information (the “RFI”) to elicit information from interested parties for the supply and construction of the Project solution.....

While this RFI is intended to gather information that could assist in the development of a future procurement process, CityWest and SRD are not obligated to initiate such a competitive bidding opportunity.

The Project must achieve the following objectives (the “Project Objectives”):

- a) The Project must connect approximately 160 rural and remote coastal and First Nations communities along the BC coast from north Prince Rupert to Haida Gwaii, south to Vancouver and around Vancouver Island.

- b) The Project will install high capacity points of presence along the way and will also connect approximately 100 anchor institutions (BC Ferries, schools, hospitals, community facilities, etc.).
- c) The dedicated broadband service available must deliver the capacity to service the projected client load and offer sufficient additional bandwidth to ensure scalability and to accommodate any reasonable request for service from other service providers or clients.
- d) The Project will use open standard protocols.

The purpose of issuing this RFI is to:

- a) Identify and obtain information respecting the technologies capable of achieving the Project Objectives, including:
 - the construction approaches that may be appropriate to each such technology;
 - environmental factors that determine whether the technology is appropriate for the Project;
 - capacity limitations that may result in a technology not being appropriate for the Project;
 - predicted mean economic life for the technology.
- b) Determine the level of market interest from suppliers of Project appropriate technologies;
- c) Obtain Project design recommendations that would enhance the success of a future procurement opportunity for this Project;
- d) Obtain project duration and high-level cost estimates for planning and budget purposes; and,
- e) Provide industry with an opportunity to comment generally on the potential procurement opportunity.

Interested parties are invited to respond to this RFI by submitting a response to the Project Coordinator. Responses should include ideas, information and recommendations that could result in a clarification of the requirements, cost-saving opportunities, and the identification of potential problem areas with this initiative.

Respondents are requested to provide a concise and focused response to this RFI in the form similar to that indicated in Appendix C. Your Response should speak to the preliminary design of the whole Project, as described in Appendix A.

Respondents are specifically requested not to submit detailed price proposals (other than high-level preliminary cost estimates for budget purposes) or information about the qualifications or experience of their firm or individuals in their firm. This RFI will not be used to evaluate, rank or select vendors, nor will it be used to pre-qualify or screen vendors for a subsequent competitive bidding process, if any.

The Project Coordinator is under no obligation to advise any vendor responding to this RFI of subsequent competitive bidding opportunities that may be issued. Vendors are advised to monitor the BC Bid website (www.bcbid.ca) for any such opportunities, which will be open to all vendors regardless of whether or not a response to this RFI has been submitted.

All responses to this RFI become the property of SRD and CityWest and will be held in confidence, subject to the provisions of the *Freedom of Information and Protection of Privacy Act (B.C.)*. Respondents to this RFI consent to SRD and CityWest incorporating any submitted ideas, concepts, approaches, or strategies

into any planning, design, permitting, procurement, or contractual activities related to any aspect of the project without any obligation, liability, or consideration on the part of SRD or CityWest. SRD and CityWest will not be responsible for any costs incurred by any vendor in responding to this RFI.

Responses should be delivered by hand, regular mail, facsimile or electronically by email to the following location before 2:00 p.m. Pacific Time on July 28, 2020, and should quote RFI Number: **RFI-CW2020-001**:

CCP Procurement Coordinator
City West Cable and Telephone Company
248 3rd Avenue West
Prince Rupert, BC V8J 1L1

Fax: 1-866-387-7964
Email: Procurement.Coordinator@cwct.ca

Appendix A to RFI-CW2020-001

Project Description

Project Summary

The Connected Coast Project has two sponsors, CityWest and SRD. Each sponsor will be responsible for a segment of the overall Project. Taken together, the two segments comprise the Connected Coast Project.

The Connected Coast Project is currently intended to connect coastal and indigenous communities as well as anchor institutions, which could include, but may not be limited to:

Points of Presence

1. Alert Bay
2. Bella Bella - Keiltsuk
3. Bloedel – Race Point Road
4. Campbell River
5. Cousins Inlet
6. Denny Island - Shearwater
7. Dodge Cove
8. Duncandy Landing
9. Edith Point
10. Elk Bay – Eagle Cove
11. Hyde Creek
12. Kaiete Point
13. Martin Valley
14. McMullen Point
15. Ocean Falls
16. Oona River
17. Port McNeill
18. Port Neville
19. Prince Rupert South
20. Race Point
21. Rock Bay
22. Sayward
23. Telegraph Cove
24. Watson Island
1. Bamfield
2. Barney's Bar
3. Beecher Bay
4. Black Point
5. Blind Channel
6. Bliss Landing
7. Bold Point
8. Bowser
9. Brew Bay
10. Bull Harbour
11. Campbell River Civic
12. Campbell River IR
13. Cape Scott

14. Ceepeecee
15. Coal Harbour
16. Comox
17. Deep Cove
18. Ditidaht
19. Earls Cove
20. Echo Bay
21. Edith Point
22. Egmont
23. Ehattlesaht – Queens Cover
24. Elk Bay – Eagles Cove
25. Esperanze
26. Fernwood
27. Fulford Harbour
28. Gambier Harbour
29. Gibsons
30. Gillies Bay
31. Gold River
32. Gold River Landing
33. Granite Bay
34. Hagger Lake
35. Halfmoon Bay
36. Heriot Bay
37. Hesquiat
38. Holberg
39. Jordan River
40. Kains Island
41. Kalhoose
42. Kyuquot
43. Lang Bay
44. Langdale
45. Lasqueti
46. Lund
47. Mahatta River
48. Mansons Landing – Smelt Bay
49. Marktosis
50. Mitchel Bay
51. Musgrave Landing
52. Myrtle Point
53. Nanaimo
54. New Brighton
55. Nitinat Bar
56. Pinetree
57. Poett Nook
58. Pope Landing
59. Port Hardy
60. Port Renfrew
61. Port Washington
62. Qualicum Beach
63. Quatsino
64. Read Island

65. Refuge Cove
66. Roberts Creek
67. Rumble Beach
68. Salmon Beach
69. Saturna
70. Seaford
71. Sechelt
72. Secret Cover
73. Shawl Bay
74. Sidney
75. Snug Cove
76. Sointula
77. Stilwater
78. Stories Beach
79. Surge Narrows
80. Tahsis
81. Tia-o-qui-aht
82. Tofino
83. Toquaht
84. Van Anda
85. Vancouver IX
86. Vancouver Landing – Nanaimo
87. Vancouver Landing – Sunshine Cove
88. Victoria
89. Welcome Beach
90. Westview
91. Whaletown
92. Whaletown Ferry
93. Williams Beach
94. Williamsons Landing
95. Wilson Creek
96. Winter Harbour
97. Yaculta
98. Yuquot

First Nations

1. Hartley Bay – Gitga’at FN
2. Kitkatla Klemtu - Kitasoo
3. Kwakiutl
4. Lax Kw’alaams
5. Metlakatla
6. Old Massett
7. Oweekeno – Wuikinuxv FN
1. Getxaala FNAhousat
2. Chemainus – Stz’uminus FN
3. Da’naxda’xw RN – Glendale Cove
4. Ehattesahat – Zebelos
5. Gwawaenuk Tribe
6. Health Bay – Kwikwasut’inuxw Haxwa’mis
7. Huuy-ay-aht
8. Hyuy-ay-ach FN

9. Kingcome – Dzawada’enuxw FN
10. Mamalilikulla-Qwe’Qwa’Sot’Em
11. Mowachaht/Muchalaht
12. Nanoose FN
13. Nuchatlaht
14. Opitsat – Tla-o-qui-aht FN
15. Pacheedaht FN
16. Penelakut – Penelakut Tribe
17. Quatsino IR
18. Sliammon – Tla’amin Nation
19. T’Sou-ke
20. Tlowitsis Nation – Henry Road
21. Tlowitsis Nation – York Road
22. Uchucklesaht

Anchor Institutions

1. Alert Bay Airport
2. Bella Bella – Heiltsuk Community School
3. Bella Bella – Heiltsuk Hospital
4. Bella Bella – Heiltsuk School Board
5. Bella Bella – Heiltsuk Band Office
6. Bella Coxa General Hospital
7. Bella Coxa BC Ferries
8. Bella Coxa Band Office
9. Campbell River Airport
10. CityWest
11. Cologix VAN
12. Denny Island – Shearwater BC Ferries
13. Digby Island Airport
14. Hartley Bay – Gitga’at FN Band Office
15. Hartley Bay – Gitga’at FN Health Center
16. Hartley Bay – Gitga’at FN Secondary School
17. Kelmto – Kitasso BC Ferries
18. Kitkatia – Gitxaala Nation Nursing Station
19. Kitkatla – Gitxaala Nation Band Office
20. Kitkatla – Gitxaala Nation Nursing Station
21. Kitkatla – Gitxaala Nation RCMP
22. Kelmto - Kitasso Health Clinic
23. Kelmto – Kitasoo Community School
24. Kwakiutl Fort Rupert Elementary School
25. Lax Kw’alaams Health Center
26. Lax Kw’alaams School
27. Lax Kw’alaams Band Office
28. Ocean Falls BC Ferries
29. Old Massett – OMVC-IR
30. Oona River Community Centre
31. Oweekeno – Wuikinuxv Nation Administration Office
32. Port Hardy Airport
33. Prince Rupert Airport
34. R.S. Large Memorial Hospital
35. Ahousaht Community Hall

36. AJ Elliott Elementary School
37. Beecher Bay Band Council Office
38. Cape Mudge Band Office
39. Chi Chuy Pre-School
40. Ditidaht Community School
41. Ehattesaht Band Office
42. False Bay Elementary
43. Gillies Bay Library
44. Gillies Bay Post Office
45. Gillies Bay RCMP
46. Gold River Federal Fisheries and Oceans
47. Gold River Fire and Rescue
48. Gold River Municipal Office
49. Gold River RCMP
50. Health Bay Band Office
51. Hot Springs Cove Band School
52. K'ak'ot'lats'l School
53. Kalhoose Administrative Offices
54. Kalhoose Health Centre
55. Kingcome Band Office
56. Kingcome Health Centre
57. Kingcome Lilawagila School
58. Klahoose Recreation Centre
59. Kyuquot Band Office
60. Kyuquot Health Centre
61. Kyuquot Houpsitas Band Nursery
62. Lasquetie Island Ferries
63. Maaqtusiis Elementary/Secondary Band School
64. Meares Island Preschool
65. Nuyumbalees Cultural Centre
66. Pacheedaht School
67. Penelakut Ferry Terminal
68. Penelkut Tribal Office
69. Port Alice Arena
70. Port Alice Canada Post
71. Port Alice Canadian Red Cross
72. Port Alice Community Centre
73. Port Alice Health Centre
74. Saturna BC Ferries Terminal
75. Saturna Elementary
76. Saturna Recreation Centre
77. Saturna Volunteer Fire
78. Sea View Elementary Junior
79. Shaw Interconnect – Shirley
80. Sliammon Band Council Office
81. Sointula BC Ferry Terminal
82. Sointula Post Office
83. Spirit Bay Visitor Centre
84. Surge Narrows Elementary School
85. Surge Narrows Post Office
86. Tahsis Health Centre

87. Tahsis Library
88. Tahsis Municipal Office
89. Tahsis Post Office
90. Tsaxana Rec Centre – Conuma Cable partner
91. Ucluelet CC
92. Village of Port Alice
93. Zeballos – Ehattesaht Ambulance
94. Zeballos Community Centre
95. Zeballos Elementary School
96. Zeballos Fire Station
97. Zeballos Library
98. Zeballos Police Station
99. Zeballos Village Office

SRD and CityWest are in the process of seeking input from communities, First Nations and institutions along the proposed route of the network. The input may result in new points of presence being added to the final network design.

The overall Project will establish a backbone network to improve broadband capacity to BC's coastal areas around Vancouver Island and the Sunshine Coast. Most of the planning work to date has assumed that fibre optic technology will be applied. As the sponsors move to formalize the procurement, contracts, and contribution agreements with the Province of British Columbia and Canada, they intend to ensure all technologies suitable to the Project are considered and evaluated. This RFI seeks input on any and all such suitable technologies.

The CityWest segment will deliver approximately 1,970 km of network. Along the route, for 13 km the fibre will be aerial, for 3 km it will be buried, and for 1,034 km, it will be under water. This portion of the Project will connect northern rural and remote communities along BC's coast, including a link to Haida Gwaii and connections to the Vancouver Internet Exchange and to the segment of the Project that will be undertaken by SRD.

The SRD segment will deliver approximately 2,230 km of network. Along the proposed route, for 42 km the fibre will be buried and for 2,187 km it will be under water. This portion of the Project will connect communities and anchor institutions to the South and will include connectivity around Vancouver Island.

The two component networks will complete a West Coast-wide strategy.

At each community along the route of the network at least one point of presence will be established where dedicated broadband service can be offered.

Whatever technology and infrastructure are ultimately chosen for the project, it must be physically secure and protected, with backup power and service alarms.

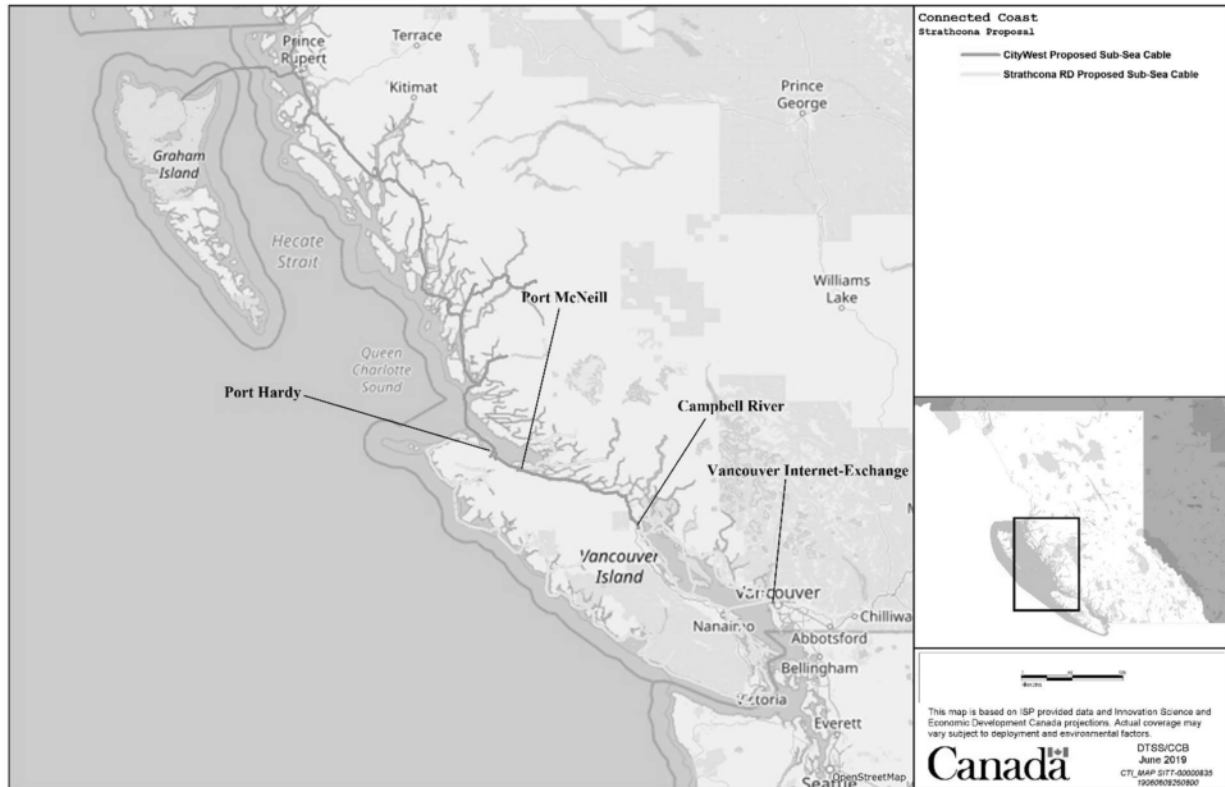
Open Access

The Project needs to deliver dedicated broadband services to Project sites and access to other service providers in a fair and open manner.

The service:

- will be available and will ensure sufficient bandwidth is available to accommodate reasonable requests for service from other service providers and clients,
- will offer dedicated capacity on private networks,

- will use open standard protocols, and
- will offer co-location services including access, use of power, and environmental conditioning.



Appendix B to RFI-CW2020-001
Preliminary Route Design for the Connected Coast Project

A kmz file (Keyhole Markup language Zipped) has been created that highlights the various communities, First Nations, and anchor institutions identified in Appendix A. If you would like to view this file please contact the CCP Procurement Coordinator via the email address found in the body of the RFI..

To open the kmz file, once received, the following steps are required:

- 1 Download Google Earth
- 2 Go the “File” menu option and click “Open”
- 3 Choose the kmz file named “CityWest and SRD Route and Landing Locations”
- 4 Drag the image to show Vancouver Island – proposed route shown.

**Appendix C to RFI-CW2020-001
Response Form**

Respondent's Name:

Respondent's Contact:

Respondent's Corporate Profile:

- 1) Comments on the technical attributes that make various technologies appropriate or not appropriate for the Project:

[construction approach, capacity/performance limitations, predicted economic life, environmental factors impacting or created by the technology, etc.]

- 2) Description of technology the Respondent would consider optimal for the Project, and why:

- 3) High Level Cost Estimate for optimal technology, for budgeting purposes:

- 4) Proforma Project start date and timeline for optimal technology, for planning purposes:

- 5) Design Considerations:

- 6) Permitting Considerations:

- 7) Comments on Project capacity and service expansion for planning purposes:

- 8) Description of the Information that should be made available to proponents to any future procurement:

- 9) Last-Mile considerations the Respondent may wish to draw to SRD's and CityWest's attention:
- 10) Typical contract clauses the Respondent would consider appropriate in a supply and construction agreement:
- 11) Any other information the Respondent would wish to draw to SRD's and CityWest's attention respecting the Connected Coast Project.