

WEBSTER ENGINEERING LTD.

TEL: (604) 983-0458
FAX: (604) 983-0459

3745 DELBROOK AVENUE
NORTH VANCOUVER, BC V7N 3Z4

PROFESSIONAL ENGINEERS
LAND DEVELOPMENT CONSULTANTS

June 3, 2009

Our File: 3266

Your File: SUB-2004-15-Cape Roger Curtis

Bowen Island Municipality
981 Artisan Lane
Bowen Island, BC
V0N 1G0

Attention: Michael Rosen
Deputy Approving Officer

Re: Application for Subdivision D.L. 1548, NWD

Dear Sir:

Further to your letter dated July 7 2006, Preliminary Layout Review for the above noted property, we have enclosed six copies of our revised subdivision plan together with the supporting documentation listed in Appendix 'A' for final approval of the subdivision plan. Our comments follow below in the sequence noted in the P.L.R. (letter noted above) where they pertain to the revised plan.

1) Subdivision Layout:

The proposed subdivision would create a total of 59 minimum four hectare size parcels. Road access would be provided by the extension of Whitesails Drive and emergency access by the extension of Deecee Road to Whitesails Drive. Seven waterfront access points would be provided on the south and west sides of the property (see Items 1a and 1b of Appendix A*). Water would be supplied from wells and sewage would be disposed of by way of private individual septic systems.

*Please note that when Item numbers are referred to below, they are items included in Appendix A.

2) Bowen Island Bylaws:

- "a) *Official Community Plan 139, 1995*
One of the Residential Objectives in the OCP (Section 3.1(2), is "to encourage residential cluster development rather than large lot subdivision, with areas of green space between clusters set aside by suitable legal instruments in perpetuity for both common and private neighbourhood use."

The neighbourhood plan fulfilled these objectives but first reading of the plan was rescinded and our clients were forced to revert to a large lot subdivision that conformed to the existing zoning. The houses have, however, been clustered to conform to the Official Community Plan.

"Sections 3.9.7 and 3.9.10 address the creation of trails and the accompanying Schedule "C" clearly identifies numerous trails through the subject property that should be preserved at the time of subdivision."

Schedule 'C' identifies a N/S and E/W trail network and this has been incorporated into the development plan. See Item 1b.

"In order for a development permit to be issued the proposed subdivision must satisfy all the guidelines that are articulated on pages 63-65 of the OCP."

We have enclosed letters (see Items 2a and 3a) from Pottinger Gaherty and Golder & Associates outlining methods to accommodate both the Marine Resource Objectives and Natural Hazard Objectives and Policies noted on pages 63-65 of the OCP.

A biophysical report prepared by Pottinger Gaherty, is included in Item 2a. We have outlined below how the development plan satisfies each of the D.P. guidelines.

Guideline 7.1 Cape Roger Curtis Development Permit Area:

7.1 i) *Construction shall be avoided on slopes over 25 degrees (approximately 46%) where possible.*

Where possible construction has been avoided on slopes over 25 degrees (46%). Please note that only 8% of the roads and byways are through cross slopes over 46%. See Item 1d, Plan Showing Slopes $\geq 25^\circ$ (46%). We also note that Golder and Pottinger have reviewed the road locations in the field where cross slopes exceed 46%. Golder found no geotechnical hazard that could not be mitigated and Pottinger no adverse environmental impact except for one area fronting Lot 13 that was identified in the initial environmental assessment and for which mitigation measures will be determined and undertaken during construction. See Items 2a and 3a.

7.1 ii) *On slopes over 30 per cent septic fields are not permitted, and on slopes over 12 per cent the applicant shall be required to furnish at their expense, a report, certified by a Professional Engineer with experience in geo-technical engineering, to determine if any hazards arise from the installation of a septic field or whether there will be degradation of water and whether conditions addressing such installation should be incorporated into the development permit.*

Test pits have been excavated on each lot reviewed by VCH and approved by same. See letter dated May 11, 2009 to Michael Rosen included as Item 7e.

7.1 iii) *All natural water courses shall be dedicated at the time of registration of a subdivision plan.*

Bennett Surveys, together with the Surveyor General, have determined that Burke Creek is not Crown Land. Huszar Creek, however, remains as Crown Land. Covenants will be registered with setbacks from the high water mark of both creeks. See Item 5e for Sample Riparian Setback Covenant and Item 4c for Creek Location Plan.

7.1 iv) *Disturbance to wetlands and watercourses and their riparian zone should be avoided or mitigated wherever possible. Where wetland or watercourses are disturbed, subject to approval of other agencies having jurisdiction, compensation equal to 100% of the disturbed area shall be provided.*

See Pottinger Gaherty Reports Item 2a. Please note compensation will be provided for bridge abutment and road crossing areas and determined on completion of construction.

7.1 v) *Areas within an average of 30 metres above the natural boundary of a watercourse and no less than 15 metres in any location from the top of a bank of any watercourse shall remain free of development except in accordance with conditions of the development permit which are determined from the following guidelines:*

PGL notes that R.A.R. requires less than 15m setback above the high water mark. We have provided 15m (see Item 2a).

- a) *Development permit applications in this category should include a report prepared by an Environmental Consultant including the following information:*
- mapping to a more detailed scale identifying the environmentally sensitive areas within the site;*
 - criteria used to define the boundaries of environmentally sensitive areas;*
 - inventory of fisheries species and related habitat classification within the site and a statement of significance;*
 - impact statement describing effects of proposed development on natural conditions;*
 - guidelines for mitigating habitat degradation, including limits of proposed leave strips;*
 - habitat compensation alternatives, where compensation is approved based on no net loss of fish habitat.*

See Environmental Report Item 2a.

- b) *The application shall include design details of the proposed mitigating measures in an environmental management plan.*

See Environmental Report 2a.

- c) *Guidelines as provided in Schedule "D" Land Development Guidelines for the Protection of Aquatic Habitat shall apply.*

See Protection of Aquatic Habitat in Environmental Report 2a.

- d) *Clearing, unless requested by the Minister of Water, Land and Air Protection, and grubbing or altering of grades in the proposed leave area is not permitted. Grades shall be feathered and rounded immediately outside the leave area to meet existing adjacent grade. Slopes adjacent to the leave area shall not exceed 3:1 for a distance of 5 metres from the leave area boundary.*

See Leave Areas in Environmental Report 2a and Drawings 1e, CR-1 to CR-4.

- e) *Access shall be restricted or fencing provided to environmentally sensitive areas in accordance with the report of the Environmental Consultant.*

See Environmental Report Item 2a and for location of environmentally sensitive areas Development Plan 1b. Access will be restricted by covenant to all the environmentally sensitive areas. In addition, fencing would be provided around the southern environmental area on Lot 21.

- f) *An erosion and sedimentation plan designed in accordance with Schedule "D" Land Development Guidelines shall be provided as part of the application. Erosion control measures might include retention of existing vegetation, revegetation, diversion swales, silt fence, settlement ponds and careful scheduling of construction.*

See Clearing, Grubbing Erosion & Sediment Control Plan Drawings in Item 1e.

- g) *Storm-water detention for the site shall meet the minimum requirements of Schedule "D" Land Development Guidelines.*

See Storm Water and Detention on Design Drawings 1e-DCP-1 and DCP-2.

- h) *Storm-water outflows to the stream or leave area shall have water quality and erosion control features included in accordance with Schedule "D" Land Development Guidelines.*

See Storm Water Outflows in Design Drawings 1e-DCP-1 and DCP-2.

- i) If storm drain inlets are located within this Development Permit Area they shall be marked in accordance with the DFO storm drain marking program.*

Not Applicable.

- j) Instream work and stream crossings shall meet the requirements of Schedule "D" Land Development Guidelines and the B.C. Water Act.*

See Instream Work and Crossing in Environmental Report Item 2a and Item 1e-Drawings CR-1 to CR-4.

- k) Timing of works in and about a stream and construction practices should be in accordance with Schedule "D" Land Development Guidelines, the B.C. Water Act, and requires specific written approval granted by Planning and Assessment of Ministry of Water, Land and Air Protection in addition to any development permit issued before work begins.*

See Timing of Stream Work in Environmental Report 2a.

- l) Applications should include a vegetation management plan indicating the extent of proposed leave strip, and any proposed management of the vegetation in the leave areas. Clearing, grubbing or removal of trees or undergrowth from the leave area of the site requires approval of the Department of Fisheries and Oceans and the Minister of Water, Land and Air Protection when requested.*

See Vegetation Management Plan in Environmental Report Item 2a.

- m) Revegetation within and adjacent to leave areas should be with native species appropriate to the site.*

See Revegetation on Leave Areas in Environmental Report Item 2a.

- n) Bonding or other acceptable security may be required for up to 100 percent of the value of the erosion control and environmental management work.*

See Commitment to Letter of Credit, Item 7h and Cost Estimate, Item 1f.

- o) *A report may be required from a qualified Environmental Monitor that the required measures have been implemented substantially as designed.*

See Environmental Monitoring in Monitoring Reports Item 2a.

- 7.1 vi) *Bridges should be provided across all watercourses and where they are not feasible, culvert installation or other alternatives shall only be permitted where approved by Ministry of Water, Land and Air Protection.*

One-lane bridges with a sidewalk on one side are proposed for all creek crossings. The one-lane bridges are proposed to reduce the environmental footprint and act as traffic calming devices.

- 7.1 vii) *Roadbanks shall be regarded to a maximum of 10 metres in vertical height.*

No roadbank exceeds 10 metres in height.

- 7.1 viii) *Cut and fill for road construction shall be within 10% of "balanced".*

The roads have been designed to create a balanced cut and fill. Blasted and excavated rock will be used for fill, for rock stack wall building, and for road gravels. A portable crusher on site will crush excavated rock to the correct size for use as road gravel. This will minimize requirements for offsite truck traffic.

- 7.1 ix) *Development shall be phased in accordance with the terms of a development permit to alleviate impacts upon the special conditions of this site including but not limited to:*
-limitation of works that may impact established seasonal habitat of wildlife;
-minimizing land disturbance in areas subject to possible erosion during seasonal periods of high rainfall;

Development planning, construction activity will take into account seasonal habitat of wildlife and minimize land disturbance in all areas including those subject to possible erosion during seasonal periods of high rainfall. See Item 2a.

- 7.1 x) *All telephone, power, community sewer and water services, except storage tanks if required, will be provided underground.*

We propose to provide an underground telephone and power distribution system to meet the requirements of the PLR. We note however, that an underground system is entirely inappropriate for a rural area of minimum 4 hectare size lots. An underground power and hydro system involves a much greater energy output both during and after construction and as such is environmentally incompatible with such a low density development and sustainability principles.

- 2b) *Land Use Bylaw-Minimum Lot Size*
The subject property is zoned RR1 (Rural Residential 1), a zone in which the permitted minimum lot size is 4 ha. According to the Preliminary Plan dated 7 September 2004, all 60 residential lots would meet these requirements. Should the lot layout be revised, please ensure that the

*lot size for all lots complies with the minimum lot size requirements of the Land Use Bylaw in the final Plan of Subdivision.
All uses and buildings on the subject property shall be required to comply with the applicable provisions of the Land Use Bylaw.*

Each of the reconfigured 59 lots has a minimum area of 4 hectares. See Items 1a and 4a.

3a) *Public Roads*

According to the proposed layout, a series of new public roads would be dedicated and constructed to serve the subdivision. As a condition of subdivision approval, CRCJV will be required to:

- i) *submit for review and approval by the Public Works Superintendent a set of design drawings for all public roads, including the on-site public roads and the upgrading of Thompson Road from the Crown land to Sunset Drive, prior to constructing any works. The road works shall be designed in accordance with the requirements of the Land Use Bylaw and the draft Municipal Infrastructure Design Bylaw; and*

A set of design drawings for all public roads has been included (see Item 1e). The road works have been designed in accordance with the requirements of the Land Use Bylaw and draft Municipal Infrastructure Design Bylaw.

- ii) *undertake the road works or arrange for a letter of credit for said works to the satisfaction of the Public Works Superintendent. A Subdivision Servicing Agreement will be required to be entered into with the Municipality.
Prior to undertaking any construction activity on the site or the existing road allowances, the Municipality expects that CRCJV will consult with the affected neighbourhood and provide information on the timing and scheduling of the activity and will explore measures to minimize the impact of the construction on the residents.
Please note that it is imperative that the Municipality's roads be maintained in their original state, affects of construction minimized and the roadways kept clean during the construction period. Should any portion of the existing public road system be damaged during the construction period, CRCJV will be required to repair same.
The Municipality will monitor construction debris on the roadway and whether additional measures may need to be taken.
A meeting between the Municipality, the developer, and the contractor must be scheduled before any on-site construction begins to further address construction impact on the current residents. The Municipality reserves the right at its own discretion to engage a full time construction inspector to monitor compliance with the above noted items, costs of which will be paid for by the developer.
Please note that all road works shall comply with all Provincial and Federal regulations and guidelines, including the Wildlife Act and the Fisheries Act.*

Our clients will forward a letter of credit and enter into a subdivision servicing agreement with the Municipality prior to registration of the subdivision. Prior to construction we will advise the neighbourhood of the timing and scheduling of our construction activity and will explore measures to minimize the impact of the construction on the residents. We note the roads

have been designed to minimize offsite truck traffic as noted in development permit item 7.1(viii).

In reviewing the proposed road network, Municipal Staff have identified the following issues that are brought to CRCJV's attention:

- i) While it is noted that a Driveway Access Permit has been issued for private driveway works within the Whitesails Drive road allowance, this work shall not suffice for the extension of the existing Whitesails Drive as a public road.*

Not applicable.

- ii) The Approving Officer will require that this subdivision be served with two access points as proposed in the Preliminary Plan. Since the proposed access via Thompson Road passes through Crown Land, CRCJV will be required to secure such access from the Integrated Land Management Bureau (ILMB). The Municipality is aware of CRCJV's previous application to ILMB, and prior to review of detailed design drawings, the Public Works Superintendent will require evidence that ILMB is prepared to approve the dedication of a road allowance through Crown Land. Should CRCJV not be able to secure the land for this secondary access or provide for an alternative access link to Thompson Road or Sunset Drive to the satisfaction of the Municipality, then the Approving Officer will not be prepared to approve the subdivision plan. The proposed access road via Thompson Road passes through Crown Land in the vicinity of an environmentally sensitive area, referred to as the Fairy Fen. Given that this environmental feature is currently the subject of an initiative of the Islands Trust Fund for its protection, CRCJV will be required to submit a report from an environmental consultant that demonstrates that the proposed road alignment will not impact the fen.*

Our clients were unable to secure the Crown Land for the alternate access link to Thompson Road. They have been successful however in acquiring a right of way over the existing Deecee Road easement ex. Plan 16099 and propose to use this as a gated emergency access (see Item 7f).

- iii) The Preliminary Plan indicates that a common driveway will be utilized as physical access for Lots 22-29. Utilizing a shared driveway for that many lots is not considered acceptable. An alternative approach would be to convert the driveway to either a public road (Byway standard) or a strata road.*

As recommended, we have converted the driveway to a public road (Byway standard) for the lots in the same location as Lots 22-29 on the previous plan. We have also used a byway to access Lots 1-7 on the new plan. This eliminates the need for long individual driveways through steep land as well as numerous crossings of Burke Creek.

- iv) It would appear that CRCJV is proposing to construct a portion of the road allowance for each of the three beach access point. Should this be the case, the road design should accommodate turn-arounds or hammer-heads to enable vehicles to turn around.*

Hammerheads have been included to enable vehicles to turn around.

- v) *The Whitesails neighbourhood has raised concerns regarding the traffic impacts associated with the subdivision. Accordingly, as a condition of subdivision approval, CRCJV will be required to incorporate traffic calming measures into the Tunstall Bay neighbourhood. Please provide the Public Works Superintendent with some ideas as to how this may be achieved. May we suggest that CRCJV consult with the local neighbourhood regarding this matter.*

A traffic calming review on Whitesails Drive prepared by Synectics is included in Item 6a. The input of your Superintendent of Public Works is required to determine which method of traffic calming is chosen.

- 3b) *Driveway Access*
Please note that obtaining a Driveway Access Permit from the Municipality will ultimately be required prior to constructing any new houses on the lots. The location of the specific driveway locations should be determined based upon further investigations on site with municipal staff. Given terrain considerations, may we suggest that CRCJV consider utilizing shared driveways where possible.

As noted above, byways have been utilized to act as shared driveways for Lots 1-7 and Lots 24-27. Shared driveways were also included for Lots 44, 45 and 59, Lot 13 over Lot 12, Lots 18 and 19 over Lot 17, Lots 31 and 32, Lots 36 and 37, Lots 51 and 52 and Lots 58 and 56. These shared driveways were used to accommodate terrain considerations. Covenants will be provided for the shared driveways. See Item 5h for Sample Driveway Easement Covenant.

- 3c) *Frontage Requirements*
Other than Lots 19, 20, 30, 31, 32, 34, 36, 37, 40, 41, 42, 44, 47, 51, 54, 55, 56, 57, 58, 59 and 60, the remainder do not appear to satisfy the minimum 10% perimeter frontage requirement. While the Approving Officer may be willing to grant relief for some lots (with a probable maximum of 6-9 lots), she will not grant relief to that many lots. Please revise the layout accordingly.

All lots now satisfy the minimum 10% perimeter frontage requirements. See Item 1a.

- 4) *Access to Lands Beyond*
Given the existing and proposed development adjacent to the subject property and their respective road patterns and accesses, providing access to lands beyond will not be required for this subdivision, other than for the Lunn property (Lot 1, District Lot 1549, RPBCP 926, 928, 929) immediately to the east of the lower cul de sac road. The road allowance shall be dedicated but not constructed.

The plan includes a road allowance immediately east of the lower cul de sac road to provide access to lands beyond.

- 5) *Public Access to the Unnamed Creeks and the Sea*
The Preliminary Plan identifies two unnamed creeks that traverse the property. As no details have been provided on the creeks, it is not possible to assess whether providing public access to them pursuant to

Section 75(1)(c) of the Land Title Act would apply to this subdivision. Please provide the necessary details on the width and depth of the creeks from CRCJV's surveyor.

Regarding access to the sea, Section 75(1)(c) of the Land Title Act requires that a 20 metre wide public access strip be provided to the sea every 400 metres for a subdivision of this type. The Preliminary Plan identifies three such public access strips to three important destinations on the west side of the property-Arbutus Point viewpoint, Pebble Beach, and the Lighthouse. While the Approving Officer appreciates these access points and CRCJV's proposal to provide additional land in the vicinity of the water, the Preliminary Plan does not meet the requirements of Section 75(1)(c) of the Land Title Act, and as such the Approving Officer will require that the Preliminary Plan be revised so that it in fact does satisfy the Land Title Act requirements. In revising the Plan, the Approving Officer is hopeful that CRCJV will retain the widened access strips for the three access points as initially proposed.

The details of the width and depth of the creeks are included in Item 2a. We note access to the creeks is provided at road crossings and that neither the writer nor Mike Seitz, BCLS have ever in their collective experience had to provide additional public access to such small watercourses. Access to the sea has been provided every 400 metres by means of Byways 2-8. See Item 1b.

6) *Water Supply*

According to the application, CRCJV is considering a variety of options with regards to supplying water. Should CRCJV proceed with individual well option, then as a condition of final subdivision approval, CRCJV will be required to provide evidence that all lots have been served with a supply of potable water confirmed by a qualified professional to the satisfaction of the Municipality and in accordance with the requirements of Section 6 of the Land Use Bylaw. Driller well logs will be required to be registered with Integrated Land Management Bureau (ILMB) and submitted to the Municipality's Public Works Department.

Golder has reviewed the Provincial Wells database and confirmed all ten CRC test wells have been registered with the Integrated Land Management Bureau (ILMB).

All work must be completed in conformance with the Provincial Groundwater Protection Regulation.

Please note that the Public Works Superintendent has provided the following comments:

- i) Based on the lack of success of deep well drilling in similar geological areas on the south side of Bowen Island, there may be difficulty in providing potable water in sufficient quantity from individual wells. Given the considerable expense that would be required for a communal water supply and distribution system for the proposed layout, alternate means of providing (de-centralized) water supply, such as rainwater harvesting, should be explored.*
- ii) With regards to the proposed other options for water supply for the subdivision, without any firm plans, comments cannot be provided at this time due to lack of detailed information, and final selection of the water source.*

- iii) *In the interests of long term water system infrastructure planning, any community water system should be designed for hydraulic compatibility with the adjacent municipal water system. This issue will be addressed at the time of more formal planning for the water system infrastructure.*

- iv) *Recent development projects elsewhere on Bowen Island attempting to receive provincial Ministry of Health approval to construct and establish a new Water Utility to serve the development were not successful. The Ministry of Health may require assurances from the Municipality that it will take ownership and responsibility of any future water systems constructed by a developer, and prior to considering the provision of such assurances, the Municipality will require evidence of the benefit of such for existing tax payers and residents.
Any proposed water system must conform to the requirements of the draft Municipal Infrastructure Design Bylaw, Land Use Bylaw and Official Community Plan for provision of potable water in quantity. The requirements of the Water Act, Drinking Water Protection Act, and other legislative documents will also apply depending on the final proposed source and supply system. A permit to construct, and also to operate a water system, issued by the Ministry of Health, will also be required.*

Water will be supplied by individual wells on each lot. Certificates from Golder & Associates and Novatec are included as Items 3b and 3c. The Golder certification concludes that groundwater will be available at each of the proposed 59 lots in quantities sufficient to satisfy Bylaw No. 57 minimum daily dwelling "supply standard" of 1,100 litres (281 US gallons). The Novatec certification indicates that commercial household treatment units are available that are capable of adequately treating water from the existing and proposed wells.

- 7) *Sewage Disposal*
*It is CRCJV's proposal that each of the lots would be serviced with individual private in-ground septic systems. The Vancouver Coastal Health Region has not yet submitted its comments on the proposed subdivision. Prior to final approval, the Approving Officer will require written evidence from the Health Region recommending approval of the subdivision.
In accordance with Reg. 326/204, being the new Sewerage System Regulation under the Health Act that came into force on 1 June 2005, there is a new administrative procedure with respect to the installation of septic fields. It will be CRCJV's responsibility to be aware of and adhere to the new requirements of the Regulation.*

A letter from the Vancouver Coastal Health Region recommending approval of the subdivision is enclosed (see Item 7e).

- 8) *Drainage*
Given the size and inaccessibility of the subject lands, the Public Works Superintendent has noted that this matter cannot be fully reviewed at this time. To address this matter, CRCJV will be required to provide the Public Works Superintendent with a conceptual storm water management plan prepared by a Professional Engineer with relevant experience in accordance with draft Infrastructure Design Bylaw and Best Management Practices. The Plan shall identify the design criteria for storm water runoff and the capacity of all proposed and existing

conveyance systems, including identifying overland overflow path. It shall also demonstrate how on-site drainage from the subdivision will be handles, including an assessment of the impacts on the downstream system and properties. Of particular importance is minimizing impacts on the adjacent properties and natural watercourses. The Plan will be used to determine whether specific drainage works, covenants, easements, and right of way will be required.

As a condition of subdivision approval, CRCJV will be required to:

- i) submit for review and approval by the Public Works Superintendent a set of design drawings for all drainage works prior to constructing them. The works shall be designed in accordance with the requirements of the Land Use Bylaw and the draft Municipal Infrastructure Design Bylaw; and*
- ii) undertake the drainage works or arrange for a letter of credit for said works to the satisfaction of the Public Works Superintendent. A Subdivision Servicing Agreement will be required to be entered into with the Municipality. The Public Works Superintendent has also noted that consideration should be given to installing stream flow monitoring stations for the two major creek systems.*

A set of design drawings for drainage works is included in the drawing set included as Item 1e. There is no impact on adjacent properties and the impact on natural watercourses is insignificant with the use of combined cleansing/detention ponds.

Our clients were prepared to install stream flow monitoring stations but as we are not extracting any water from the creeks could see no reason for doing so. We need to review this requirement with the Public Works Superintendent. Statutory Rights of Way will be provided around the drainage works where they occur on lots. See 1b PL-1. In addition, traditional flow paths will be covenanted with sketch and document. See Item 5a Sample Dry Pond Covenant and Item 4b.

- 9) Unnamed Creeks and the Sea
There are two unnamed creeks that traverse the property as shown on the Preliminary Plan. As a condition of subdivision approval, CRCJV will be required to:*

- i) enter into a non-disturbance covenant with the Municipality for the protection of the riparian area of both creeks and the sea on the basis of the biophysical reports. It is understood that such reports have been prepared and should be submitted to the Approving Officer. The Municipality will require that the author of the reports confirm that the recommendations outlined in the report have been respected in the final plan of subdivision, and in the letter confirm that the boundaries of the covenanted area satisfy either the Streamside Protection Regulation or the Riparian Area Regulation; and*

The biophysical report prepared by Pottinger Gaherty is included in the Environmental Summary Report (see Item 2a). Please note the author of the report confirms that the recommendations outlined in the report have been respected in the final plan of subdivision. The author also confirms that the boundaries of the covenanted areas exceed the Riparian Area Regulation.

- ii) *enter into a flood protection covenant with the Municipality if deemed necessary on the basis of a flood hazard assessment of both creeks and the sea prepared by a qualified engineer. The engineer will also be required to confirm that the recommendations outlined in the report have been respected in the covenant document.*

Prior to executing either of these covenants, please provide the Municipality with draft copies to review.

Please note that it is CRCJV's responsibility to maintain compliance with all Provincial and Federal regulations and guidelines, including the Wildlife Act, and the Fisheries Act.

Prior to undertaking any work within or around the creek CRCJV will be required to obtain the necessary approvals. No work should be commenced without securing the necessary approvals.

The flood hazard assessment of both creeks and the sea is included in Item 1c. The Cape on Bowen Community Development Ltd. (CBCDL) will comply with all Provincial and Federal regulations and guidelines, including the Wildlife Act, Water Act, and the Fisheries Act.

- 10) *Coastal Bluff Habitat*
A biophysical report will need to be prepared to identify the presence of coastal bluff habitat. Based upon the findings of the report, a restrictive covenant will be required to protect this habitat. Please provide the Municipality a copy of a draft copy of the covenant to review.

The biophysical report is included in the environmental summary report Item 2a. A 30 metre marine setback together with other coastal bluff and environmentally sensitive areas shown on Item 1b will be protected with a no build covenant. See Items 5d and 5f for sample copies of the covenants and Item 4b for ESA Reference Plans.

- 11) *Park Land Dedication*
Given that the smallest parcel is greater than 2 ha, no dedication of park land is required. This item will be further addressed in a subsequent section of this letter.

No park land is required to be dedicated in the revised plan.

- 12) *Development Cost Charges – Parks*
Development Cost Charges in the amount of \$1100.00 will be payable to the Municipality for the 59 new lots being created in accordance with the Development Cost Charge Bylaw. This fee will be payable to the Municipality as a condition of final subdivision approval.

A cheque in the amount of \$63,800.00 is enclosed for the 58 new lots being created (see Item 7g).

- 13) *Geotechnical Considerations*
Based upon a site visit and a review of the Preliminary Plan, there are portions of the site that have extremely steep slopes. Notwithstanding that some portions of the property may be the subject of a non-disturbance covenant, to ensure that houses are sited on these lots in a safe manner, as a condition of subdivision approval CRCJV will be required to provide the Municipality with an overview type report

prepared by a geotechnical engineer certifying that all lots are safe for development, and if necessary identifying any measures that may need to be undertaken to address any hazard areas i.e. no build areas, building setbacks, etc.

The geotechnical report in Item 3a confirms that all the house sites are safe for development and identifies any measures that need to be undertaken to address any hazard areas.

14) *Fire Protection Considerations*

Please note that the Fire Chief has indicated that all houses will need to be sprinklered due to the absence of a water system, and as such a covenant will need to be registered on title of all lots requiring same as a condition of subdivision approval. He has also indicated that due to the exposure, topography, vegetation and lack of water in this part of the Island, construction and landscaping should adopt FireSmart principles that include such measures as roof materials and clearance from highly combustible vegetation. FireSmart manuals are available from the Fire Department.

Covenants will be registered on title of all of the lots to ensure that all houses are sprinklered and purchasers will be recommended to adopt FireSmart principles that include such measures as roof materials and clearance from highly combustible vegetation. See Item 5g for Sample Sprinkler Covenant.

16) *Compliance with Council's Public Interest Statement*

As CRCJV is aware, the Municipal Council has adopted a statement of public interest in February 2006 with regards to the use and development of the Cape Roger Curtis land. The Approving Officer is not bound by that resolution and does not consider herself limited by it. Nevertheless, as part of the process of hearing from those who might be affected by the subdivision, it is certainly a statement that she will take into consideration and weigh in the balance. The Approving Officer will ultimately have to make a determination as to whether a final plan of the proposed subdivision is contrary to the public interest. That will be a decision for her to make but certainly the failure to comply with Council's public interest statement will be a factor or consideration in making that decision. The current proposal as depicted on the Preliminary Plan has been assessed on the basis of the public interest statement, and the following comments are provided for CRCJV' consideration:

i) *Conserving the majority of the coastline for eco-system protection*

Other than the three public access point, the land along the coastline is proposed to be retained in private ownership. Evidence should be provided outlining the manner in which the ecosystem of the coastline will be protected. The use of non-disturbance covenants is suggested.

Non-disturbance (no build) covenants will be registered on title of those lots that are included in the ESA areas shown on Item 1b.

ii) *Where there are no adverse ecological impacts, develop public waterfront, walking trails along the majority of the coastline, connecting to the cross-island greenway*

The Preliminary Plan does not identify any public trails. The Approving Officer would like to work with CRCJV in an attempt to devise an off-road trail system that provides pedestrian opportunities for both residents of the Cape Roger Curtis lands and the overall community while at the same time respecting the lifestyle of the future Cape Roger Curtis residents. The OCP does provide direction for a desired trail network for the Cape Roger Curtis lands.

The proposed trail network is shown on Item 1b. The north/south component shown on the OCP map is accommodated by a trail adjacent to Whitesails Road, a 6m wide statutory R.O.W. across Lots 44, 59, 45, 46, 47 and 51 and by Byway #6. The east/west component which provides access to the cross island greenway is accommodated by a 6m statutory R.O.W. across Lots 35, 57, 58, 59, 45 and 46 and by Byway #3. Further to your recent request, a statutory Right of Way has been included for a waterfront trail between Byways #2 and #4. Sample covenants are included in Items 5b and 5c.

- iii) *Environmental protection of the land including environmentally sensitive areas and rare species*
Although not outlined on Preliminary Plan nor in the supporting documentation, it is our understanding that a significant environmental study has been conducted. Implementation of the findings of that study may work towards meeting this component of the public interest statement.

The entire site has been reviewed and environmentally sensitive areas identified (see Item 1b). These areas will be protected with no build covenants registered on the title of affected lots.

- iv) *Clustering of homes and any other structures in any new development to reduce land disturbance, maximize green space and the opportunity for trails, and facilitate transportation alternatives*
By subdividing the land parcels as depicted in the Preliminary Plan, it will not be possible to satisfy this component of the public interest statement. Should CRCJV continue to want to subdivide the land at this density (4 ha), an alternative layout will need to be considered to better address this component.

The revised plan shows houses clustered in groups along the waterfront on the waterfront lots. In order to reduce disturbance, maximize green space and opportunity for trails, Byways 1 to 8 and common driveways were utilized for access to the house sites. The byways and common driveways reduce the length of driveways required as well as providing the required vehicular and pedestrian access to the waterfront. Byways 1 and 2 also provide access to Lots 1-7, eliminating the need for long individual driveways through steep rocky terrain as well as numerous crossings of Burke Creek. Common driveways and clustering of houses was also utilized where appropriate for the interior lots.

- v) *Minimizing and mitigating any negative impacts from any Cape Roger Curtis development on the adjacent neighbourhoods and on the Bowen Island community as a whole*
At this point, no significant analysis of neighbourhood impacts has been conducted by either CRCJV or the Municipality. Having said that, some obvious ones can be identified such as increased traffic flow and impact upon existing water supply of nearby residents. The Approving Officer

would like to work with CRCJV in devising measures to minimize impacts.

CBCDL have commissioned a study of alternate traffic calming measures to reduce the effect of the minor increase in traffic flow occasioned by an additional 58 lots. The proposed individual well supply for each lot will have no impact on the existing water supply of nearby residents.

17) Approving Officer to Seek Public Input

Given the size, location, and physical attributes of the property, the Approving Officer has decided that she will engage in consultation with the public to further advance Council's public interest statement and to become better acquainted with issues important to the public. Prior to initiating this process, the Approving Officer will meet with representatives of CRCJV to discuss the best way to approach this matter.

The Approving Officer is committed to working with CRCJV to find solutions that benefit not only the public interest, but also the interests of CRCJV.

A public meeting was held in January 2007.

18) Freedom of Information and Protection of Privacy

As part of the public process, it is anticipated that a proposed release of your application and this response would be referred to you under the FOI legislation and in all likelihood the documents would be releasable based on the FOI Commissioners' earlier rulings.

We believe that it would be preferable, in building the relationships we have discussed, if CRCJV were to simply consent to release of the application and this PLR now and we would ask that you respond to this request as soon as possible.

If we do not hear from CRCJV within 7 days, it is understood that the Municipality will institute a formal third party notice process under the legislation and give CRCJV the opportunity to seek the FOI Commissioner's review of any proposed release.

For further information on this matter, please contact our Municipal Solicitor, Mr. Chris Murdy at 604-689-5263.

We have enclosed a letter (Item 7a) agreeing to release information under the Freedom of Information Act.

19) Taxes

Evidence shall be provided that there are no outstanding taxes.

We have enclosed a copy of tax payment (Item 7b) showing evidence of no outstanding taxes.

20) Site Contamination
CRCJV has completed the Site Contamination Declaration Form acknowledging that the site has not been used for commercial or industrial purposes in the past as best as can be determined.

21) State of Title Certificate
Please provide a current (within 30 days) State of Title Certificate when submitting the Plan of Subdivision for final approval.

A current State of Title Certificate is included in Item 7c.

22) Final Subdivision Plan
When submitting the Plan of Subdivision for final approval, please provide enough copies so that the municipality can retain 1 paper print. Once approved by the Approving Officer, it will be CRCJV's responsibility to register the Plan and any other documents with the Land Title Office. We would expect that upon registration of the subdivision, that CRCJV's solicitor will provide the municipality with copies of all registered documents, including 1 reproducible copy and 2 paper prints of the Plan of Subdivision. Please provide a cheque payable to the Bowen Island Municipality in the amount of \$6100.00 (\$100.00 per lot) for a final examination fee.

Plans of Subdivision have been included under separate cover (see Item 4a for copy). Once approved by the Approving Officer CBCDL will register the Plan and any other documents with the Land Title Office. Upon registration of the subdivision, CBCDL's solicitor will provide the municipality with copies of all registered documents, including 1 reproducible copy and 2 paper prints of the Plan of Subdivision.

A cheque payable to Bowen Island Municipality in the amount of \$6,000.00 (\$100.00 per lot + \$100.00) is also included for the final examination fee (see Item 7d for copy).

23) Concluding Comments
The Approving Officer's review of CRCJV's subdivision application and the associated Preliminary Plan has identified a number of issues. Taken as a package, the proposed plan will need to be revised. As CRCJV works through the issues and identifies a new layout, municipal staff will provide guidance and direction as needed.

These comments are valid for a period of 180 days. Extensions may be applied for. Any changes to legislation, bylaws, or policies may affect the final approval of the Plan of Subdivision.

As noted above the Plan has been changed to meet the requirements of the letter of preliminary layout review and we look forward to your early approval in the near future.

Yours truly,

Paul Webster, P.Eng.
Webster Engineering Ltd.