

## Compilation of Information for Re-purposing the Hornby Island Fire Hall - Part 1



### Submitted to H.I.R.R.A, June 10, 2015

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#### Addenda

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| C.V.R.D.'s H.I.F.D. Fletcher Pettis options report; Oct. 2008 | 51 pages |
| Dunnet structural review; June, 2013                          | 6 pages  |

## **HIRRA/HICEEC MEETING TO DISCUSS THE OLD FIREHALL**

### **Selection from Minutes**

#### Initial information:

- Crown land grant is specifically for fire hall use.
  - o Regional District is only allowed 1 fire hall, so by Sept./16 the old fire hall land tenure will have to be changed
  - o Integrated Land Management Bureau handles Crown Land
- CVRD allocated \$100,000 for demolition of the Old Fire Hall in their Fire Dept. budget for the new fire hall
  - o CVRD claims they are forbidden switching money from one service area to another in their budgets
  - o Some of the money will be used to rehabilitate an oil spill on the land
- Physical state of the building
  - o No actual water supply, currently it is attained from a line from the Highways yard
  - o No actual septic field, currently the field at Joe King is used
  - o Operating costs are approx. \$10,000./year based on info. provided by Giff and Daniel
- Building code provisions are dependent on the use of the building

#### Discussion:

- o Possible community use could be community storage of public assets (i.e., all the non-profits on the island have files, etc. stored around the island in barns, etc.)
- o Could get the tenure now, listing the use in a very general manner (e.g. multi purpose building)
- o What does “public assembly” mean?
- o Bruce Joliffe, Area A Regional Director, might be able to authorize a “grant in aid” to fund money for a study into the future of the hall
- o 2008 Dunnet report was updated informally in 2012 (retired engineer). To renovate, a building under 6000 sq. ft., in order of costs of upgrading:
  - C – residential use
  - D – business and personal services
  - E - Mercantile
  - F - Low hazard industrial

Report states the square footage of the building is 4600 sq. ft.

All uses will require some money to renovate the existing structure.

CVRD won't turn the building over unless they're satisfied that the standards are met (question as to whether it must be to Building Code standards, as Hornby doesn't have inspection).

## **Building Envelope Specialist Review**

TOUWSLAGER ENGINEERING LTD.  
Henry Touwslager, BEP, FEC, P.Eng., RRO  
Building Envelope Specialist

June 8, 2015

My comments are provided as guidance for consideration, not recommendations. I may be able to make some recommendations in the future with more background knowledge and time to prepare, but detailed recommendations should always come from a code specialist.

### **CODE REQUIREMENTS**

There are many code requirements to consider when changing the use of a building and I do not know who has jurisdiction for the fire hall at Hornby Island. Consideration should be given to meeting the BC Building Code (BCBC) requirements, regardless of any external enforcement.

The relevant edition of the code comes into play. Original construction may only need to meet the 1970 code while new work should meet the 2012 code. (I have the 2012 code on-line and some old codes in print if anybody wants information.) Cities like Vancouver require upgrading depending on the cost of the renovation. I do not know the current formulas but they may require certain upgrades if your renovation cost is over 25% of the value of the building. Those upgrades may include partial seismic upgrade, sprinklers, and/or mechanical systems. If you were to spend over 50% of the value of the building, they may require the entire building meet the current code. If you need some detailed guidelines, I could follow up.

The committee will have to consider the intended lifespan and potential future changes when planning this first upgrade. The easiest reasonable forecast may be a 25 year plan with no further changes in use. 25 years is the length of time most building envelope materials should last if installed properly. That includes some roofing, siding, trim, etc. Sloped roofing and paint should last 15 years with maintenance so that could be used if a shorter period was considered. For comparison, the Condominium Act in B.C. requires stratas to plan 30 years ahead in their depreciation reports.

## **SEISMIC UPGRADES**

I only had time to read the letter by Gordon Dunnet, P.Eng., who used to work for Pomeroy Consulting Engineers. He gave a summary opinion report dated June 25, 2013. Mr. Dunnet's letter discusses the fire hall structure and its condition relative to the building code. It was a helpful report.

To start, he indicates the building does not meet the current National Building Code requirements and probably never did meet the relevant building codes for a post-disaster building. Hornby Island is getting a new fire hall so being a post-disaster building is no longer an issue.

The National Building Code (NBC) and BC Building Code are very similar with the BC Building Code having changes from the NBC that reflect our part of Canada. (In turn, Vancouver is the only other place in the province that has its own building code but it is still very similar.)

Fire halls must be designed with loads that are 50% higher than a standard building. The intent is that they still function after an earthquake so the fire fighters can still do their job. The same applies to a hospital. Schools are designed with 30% higher loads. Normal buildings like residences, realtor's offices, stores, and offices are designed for the basic seismic loads. The intent in a basic building is that the occupants can get out safely but the design is not intended to be enough to save the building itself. It will suffer significant damage and likely need to be demolished if a "design earthquake" occurred.

## **FUTURE OCCUPANCY**

Mr. Dunnet provided several Occupancy categories on Page 1 of his report. He said he didn't have the definitions from the 1970 code. We can find those if desired but I think they are mostly self-explanatory and the future use of the building will likely fit into those categories. They are, in general: stores, residences, low hazard industries, and service industries.

Occupancies in the code are often classified based on their fire hazards. "Mixed Use" of perhaps residential and business type operations using flammables, chemicals, and/or welding may require a special separation and that will be more expensive to achieve. Restaurants may have similar issues although likely less stringent. That should not be a road block, just a reminder that proper detailing is required in separation materials. This can be as simple as different wall materials, thicker and special gypsum board, or concrete topping on a floor (which then requires a stronger structure due to the added weight). Detailing at the ends of walls and floors is critical too.

## **BUDGETS**

From my limited experience, Mr. Dunnet's structural recommendations seemed reasonable and practical. They should apply to all your likely uses.

I know you want some budgets and I can try to think about who may be able to help. Your renovation cost will be significant but from what I know so far, making the upgrades recommended by Mr. Dunnet and then finishing the interiors will be less than starting over.

Somebody said you can build a house for perhaps \$200 per square foot on Hornby so why not consider something like \$100 per square foot as a starting point for discussion. At 4600 square feet, that makes \$460,000. An older estimate by Fletcher Pettis Consultants to renovate the fire hall to current fire hall standards was \$2.0 million. If you use half of the following: seismic upgrade estimate, escalation, and design fees, you get \$612,000 plus you still need to do interior work. Assuming a relatively basic interior upgrade, that would make the estimate in the neighborhood of perhaps \$800,000. Averaging the two, a starting point for discussion might be \$650,000.

I hope my email provided some assistance. Feel free to distribute or not. If you need more help later, just let me know.

## **TOUWSLAGER ENGINEERING LTD.**

**Henry Touwslager, BEP, FEC, P.Eng., RRO**  
Building Envelope Specialist

Suite 204 – 3882 Napier Street  
Burnaby, B.C. V5C 3E8

**Cell: (604) 618-4367**

Phone: (604) 299-1906

Website: [www.touwslagerengineering.com](http://www.touwslagerengineering.com)

## **HICEEC BOARD INSPECTION REPORT**

June 9, 2015

Helen Grond (HICEEC Board member)

Report on physical inspections with John Heinegg (HICEEC Chair) and Rick Graham (Rick is a former maintenance contractor for the building).

Went through the building twice, once with John and once with Rick. Things look quite sturdy all around. The south wall of the last bay has had backfill placed against it and it has some evidence of mild seepage (precipitates on inside wall). The fact that these walls are probably not reinforced and the large amount of open bay areas are issues for earthquake stability.

The electrical has been upgraded and Rick says it likely meets current code. The level of finishing (drywall) in the bay's makes for a very attractive and comfortable work space. There are four large bays with two having large openings at both ends. There could be several groups working in the space at once (say one group per bay).

The bays have a Skookum heating system and good lighting etc. There is a laundry area (plumbed) as well.

The ceilings are roughly 12 feet high and could accommodate large structures. There are three separations making for a two Bay Area and two single large bay areas.

The roofs of the two large bays are roof top decks. The surface of the central bay is beginning to crack and may need another layer of torch on in the not too distant future.

Outside there is an approximately 400 sq foot storage shed with a sloped high ceiling. The floor is dirt. It could be used for community storage or public storage (10 to 12 small storage units). It would likely need a plywood floor to be animal proofed, etc.

The upstairs is large and finished. The kitchen area is well equipped. There are large washroom/shower spaces. (A total of about 150 sq feet). They are not beautiful but could be very functional. The upstairs could accommodate a commercial kitchen and probably one other associated business. The space is significantly larger than the lush commercial kitchen in Courtenay which we recently toured. There is also the fire chief's office (250 sq feet) which is separate and has its own door. It could also function as office space or possibly house an on site caretaker.

The hose drying tower could be ideal storage.

Rick believes the building to be a very good building and should have a long functional life.

There could be a number of commercial operations happening simultaneously and upgrades to accommodate appropriate businesses would probably be minimal.

I could easily see the following business:

- One large or several independent small/modular home construction businesses or other manufacturing/industrial enterprises.
- A commercial kitchen
- A food related business in the living room area next to the commercial kitchen.
- A commercial office space.
- Community or public mini storage.

## LAND TENURE REPORT

**Rob McCreary (HIRRA) and Bonita Wallace (Ministry of Forests, Lands and Natural Resource Operations)**

=====

From: "Bonita FLNR Wallace:EX" <[Bonita.Wallace@gov.bc.ca](mailto:Bonita.Wallace@gov.bc.ca)>  
To: "Rob McCreary" <[microbhi@telus.net](mailto:microbhi@telus.net)>  
Sent: Wednesday, June 3, 2015 2:44:46 PM  
Subject: RE: Application For Lease

Hello Rob:

Ordinarily there would be an Assignment process that could be initiated. The Current fire hall is not held on a Crown Land Lease. The land was Crown Granted to the CVRD and it is theirs until such time as they are no longer using it for the purpose granted. When the new Fire hall is constructed, the CVRD land will no longer be required for the purpose granted and they will be returning the land to this Ministry (Forests Lands and Natural Resource Operations), subject to conditions of clean-up (removal of all improvements from the site etc.). At that time, you can apply for the land. If the building is part of your plan, special arrangements will need to be made to leave the building on the land pending application (the CVRD will need to sell/legally transfer the building to you. If your application is not approved you will be responsible for removing it).

You have stated that you have a multiplicity of community services that could make benefit of the building. Without knowing exactly how you propose to use the land I can only recommend that you review our Community Institutional Policy and the Eligibility requirements to determine where your proposed uses fit.  
[http://www2.gov.bc.ca/gov/DownloadAsset?assetId=04CE2524AF3E4B52A2254D8F438BDF69&filename=community\\_inst.pdf](http://www2.gov.bc.ca/gov/DownloadAsset?assetId=04CE2524AF3E4B52A2254D8F438BDF69&filename=community_inst.pdf) and <http://www2.gov.bc.ca/gov/topic.page?id=23585F02AF004D2CA8C2054E59E3C832>

If your proposed use is commercial in nature you may apply under the Commercial Policy.  
[http://www2.gov.bc.ca/gov/DownloadAsset?assetId=4429C82CFD5A46C1AD25ED672033AC80&filename=commercial\\_general.pdf](http://www2.gov.bc.ca/gov/DownloadAsset?assetId=4429C82CFD5A46C1AD25ED672033AC80&filename=commercial_general.pdf) .

I would be happy to speak with you and provide some general information but due to work load issues I cannot review applications before they are submitted, nor can I guarantee that any particular proposed use will be approved.

Please note that all Crown Land applications are now only accepted through the FrontCounter BC online application site. <http://www.frontcounterbc.gov.bc.ca/browse.html>

Bonita Wallace  
Land Technical Officer  
Ministry of Forests Lands and  
Natural Resource Operations  
West Coast Region  
142 2080 Labieux Rd Phone: 250 751-7248  
Nanaimo BC V9T 6J9 Fax: 250 751-7224

## **Comment by Rob McCreary**

[Ms. Wallace's] reply is significant for a couple of reasons and changes some of the elements in the way we move forward on the "old fire hall initiative". Of particular note are the last three sentences of her first paragraph.

First, the CVRD holds the current fire hall land as a crown grant instead of a crown lease, as previously thought. The difference is important as it seems to change the way it can be re-assigned. Ian Smith of the CVRD previously advised us/me that we should apply for the land as soon as possible. However, Bonita states in her e-mail that we can only apply for it once the CVRD has returned it to the Min. of Forests ... (roughly 16 months away). She also notes that if we wish to have the building remain on the land, we'll have to make special arrangements to have it stay there pending our application (the CVRD would have to sell or legally transfer the building to us). The only kicker is that if our application is then not approved, we'd be responsible for demolition and any associated costs.

Initially, I felt a little discouraged when I read this revised information, but I still think there are ways to move ahead. More needs to be explored though - I'll re-contact Ian Smith and ask what's involved in having the CVRD sell (for \$1) or legally transfer the building to us. Then, I'll ask if the sale/transfer could contain a clause that the CVRD will cover the cost of demolition if our application doesn't work out for any reason. I also need to get back to Bonita to clarify a few points she touched on in her e-mail.

One beneficial aspect of all this is that we don't have to, in fact can't, rush ahead with the application at this point. While the new process adds some complications, it also buys us some more time.

On a different but related note, I had a chat and follow-up e-mail exchange with Ian Smith at the CVRD, and he is consulting and will get back to me on a couple of interesting points - first, on whether or not the CVRD might be able to lend us some time of their building inspector to help with evaluating the old fire hall, and second, whether it might be possible for the CVRD to cover ongoing operating & maintenance costs of the old fire hall if we acquire it (Ian seemed to think it is a real possibility, and that would be very valuable to us). Also, Ian didn't have any idea who might be concerned with the building meeting any kind of code requirements, so it's beginning to look like it may be more of an insurance issue than anything else - still significant, but maybe a little more flexible than otherwise.

## **HICEEC STAFF REPORT ON OPERATING COSTS**

Daniel Arbour, HICEEC Administrator

Information provided by Fire Chief Giff LaRose:

- Annual BC Hydro: \$3,636 (monthly PAD \$303)
- Heating fuel approximately \$1,827 to \$2,011 per year
- New furnace installed in 2013
- Insurance is through the CVRD
- No water costs
- No septic costs (tank last pumped about 5 years ago)
- Metal roof was installed about 16 years ago

Basically, annual operating costs are \$5,600; then we'd have to add insurance as it won't be covered by CVRD, so say \$3000 for insurance, round it all off to \$10,000/year in basic maintenance fee.

I would highly recommend considering demolition cost / liability in case the proposed venture fails. This is estimated at 100k currently by CVRD but done the Hornby way it could probably be done for \$50,000.

Say you build a contingency demolition fund with a building life expectancy of 15 years that would add another \$3500 on top of the \$10,000 annually.

Not included is any debt taken on for renovation, which would range widely based on proposed use.

In essence any venture that goes in there should at least make \$1000/month to cover basic costs before other capital investments, business operations, and staff expenditures.

## HICEEC STAFF REPORT ON FUNDING

May 23, 2015

Daniel Arbour, HICEEC Administrator

1) There are very few grant monies available for capital projects around (especially ill-defined ones), except perhaps for WED which emphasizes ec dev - but they prefer new builds. Most capital funding will require 50% matching funds, minimum. ICET is another opportunity but Hornby will likely be tapped out on this.

2) Canada 150 grants place serious restrictions on capital expenditures. Here is the link: <http://canada150.gc.ca/eng/1424795454758> . This funding targets arts and events in particular, which is why I forwarded it to HIAC as I think they have the greatest likelihood of funding based on their proposed building. A look at the criteria perhaps will make you think that the best use for the fire hall is as an arts project.

3) I think that "identifying grant opportunities to inform use" is not a good approach. I strongly recommend identifying a project that will stand on its two feet economically without grant funding over a period of time. Then if there is a chance of grant funding to supplement the case based on the project's profile we can look at it and consider this as "bonus".

4) Part of the reason for the above comment is also contextual: there are a number of organizations on the island struggling with capital/maintenance/operations fees, including HIES, Elder Housing, ISLA, Arts Council, Joe King, and I think adding another non-profit community infrastructure project outside the tax base that requires ongoing capital and ongoing support is not prudent, and would put further strain and competition for funding in the non-profit sector at a time where many property/building owners are uncertain about their future. Some may disagree with this, but I think all would agree that the best case scenario is one where the old fire hall's new use economics are fully self-sustaining, including debt financing for the renos.

5) I would also say that the highest funding opportunity for renovations/upgrades is the monies allocated to demolition, despite the line we are currently being fed by CVRD. Not taking no for an answer and fully exploring the topic would be worthwhile, and probably benefit future projects as well and awareness on the island of how the tax system works.

5) So in a nutshell, my professional advice is to start with a clear project, backed by a clear champion, which has a non-grant, self-sustaining funding and operating model (which we can help outline). Then HICEEC can help look at complementary grant / financing opportunities most appropriate to that particular project.