

December 12, 2016

P16-4352

Salt Spring Island Fire/Rescue
105 Lower Ganges Road
Ganges, Salt Spring Island
BC Canada
V8K 2T1

Via email: ageorge@saltspringfire.com
kakerman@saltspringfire.com

Attn: Fire Chief, Arjuna George

**Re: Salt Spring Island Fire Hall No.1
Proposal for Multiple Engineering Services**

Dear Arjuna,

Further to our meeting with Lt. Ken Akerman on Wednesday December 7, we are pleased to provide the following proposal broken out into the following services:

- Structural Engineering
- Building Enclosure Engineering
- Seismic Assessment Services

Project Description *(the "Project")*

It is our understanding that the Salt Spring Island Fire/Rescue is wishing to retain the services of an engineering company with experience in Fire Hall design to identify and make recommendations for several issues relating to the condition and use of the hall.

Scope of Services *(the "Services")*

Herold Engineering Limited will complete an on-site review and provide the following services:

STRUCTURAL ENGINEERING SERVICES

- **Settlement Issues**

SCOPE: During our visit to the hall several signs of potential structural settlement were identified both inside and outside of the building. It is also known that the hall is built partially on fill. We would therefore recommend hiring a geotechnical engineer to give an up to date opinion on the ground conditions on which the hall is built and the possible cause and solution to the settlement issues.

TASK: We can review and determine the structural solutions associated with their recommendations. We have allowed for working out some preliminary solutions in our fee from their report.

- **Hose Tower Ladder Installation**

SCOPE: We understand that WorkSafe BC has requested that the stair access be reconfigured to a ladder access.

TASK: We have allowed for providing structural details for reconfiguring the landing framing to accommodate this.

- **Hose Tower Hoist Beam Review and Sign Off**

SCOPE: WorkSafe BC has requested that the hoist beam at the top of the hose tower be given a load rating.

TASK: We have allowed for checking the hoist and if necessary working with a local fabricator such as Bellavance Welding to provide the details required to upgrade or replace the hoist.

- **Improving Connection of Upper Portion of Hose Tower**

SCOPE: The upper portion of the hose tower was an addition and presents a risk of failure during a seismic event.

TASK: We will review and make recommendations for improving the situation. Note however it is not intended to fully upgrade the hose tower seismically but to focus on the upper portions connectivity.

BUILDING ENCLOSURE ENGINEERING SERVICES

- **Water Damage around Skylight**

SCOPE: Above the administration area, there appears to be some damage around the skylight. This may be due to poor roof drainage as there is evidence that the scuppers are higher than the roof membrane.

TASK: We will review and make recommendations. Ideally cut tests should be performed to take a more detailed look at the structure around the skylight (see below).

POSSIBLE ENVELOPE ISSUES TO 1970 ADDITION

We understand that there may be envelope issues to the exterior wall of the 1970 addition and that there is a concern that the timber wall plates may be compromised. Again cut tests should be performed to take a more detailed look at the structure to allow us to review and make recommendations.

SEISMIC REVIEW

We will complete preliminary design calculations and prepare a report with our findings for structural adequacy to current code. We will also provide an Order of Probable Cost for any upgrading required to bring the capacity up to current Code requirements. We have recently completed a similar exercise for Cowichan Volunteer Fire Hall and Dave Ferguson Administrative Assistant to the Cowichan Bay Improvement District can be contacted as a reference.

ADDITIONAL TESTING

We have not allowed for any destructive testing such as cut testing however, it is recommended that due to the condition of the building envelope and underlying structure, cut tests (holes in drywall and exterior sheathing) be performed by a local construction company such as Hazelboom Construction who is familiar with the construction of the hall.

Likewise, when reviewing settlement issues we would recommend a camera survey be performed by a firm such as Pipe Eye to determine if the drainage is contributing to the settlement issues inside and outside the hall.

Company Experience

Herold Engineering is a Nanaimo based consulting civil and structural engineering company with a current staff level of over 65 employees including five civil engineers and 23 structural engineers. With offices in Nanaimo and Victoria we are in an excellent position to service our Vancouver Island clients.

Herold Engineering specializes in Fire Hall and seismic engineering on building projects and are currently involved in numerous seismic upgrading projects including the Tantalus Fire Hall in Squamish.

Some Similar Project Experience is as follows:

Fire Halls	Seismic Assessments & Upgrades
<ul style="list-style-type: none">• East Courtenay Firehall• City of Vancouver No. 5 Firehall• Logan Lake Firehall• City of Duncan Firehall Seismic & Envelope Upgrade• Seismic Assessment Saanich Firehalls• Galiano Firehall• Ladysmith No.1 Seismic Evaluation• East Saanich Firehall• Qualicum Beach Firehall (Design Awards)• Fort St. John Firehall• Williams Lake Firehall• Chilliwack Firehall and Regional District Office• City of Nanaimo No. 4 Firehall• Nanaimo No. 1 Firehall Seismic Stage II• Nanaimo No. 2 Firehall Seismic Upgrade• Nanaimo No. 3 Firehall Seismic Evaluation• Nanaimo No. 3 Firehall Seismic Upgrade• Nanaimo Firehall Renovations• Nanaimo Fire Training Facility Report• Nanoose Firehall• East Wellington Firehall	<ul style="list-style-type: none">• Wellington Secondary, Nanaimo \$25M• Vanier Secondary, Courtenay \$25M• George Jay Elementary, Victoria• Dunsmuir Middle School, Victoria• Cordova Bay Elementary, Saanich• Cilaire Elementary Rapid Assessment, Nanaimo• Lake Trail Middle School - SPIR, Courtenay• Courtenay Elementary - SPIR• Pleasant Valley Elementary – SPIR, Nanaimo• Cowichan Secondary School - Rapid Assessment, Duncan• Handsworth and Argyle non-structural seismic review, North Vancouver• Cloverdale Elementary, Victoria• Seismic Assessments for Saanich Firehalls• BC Ambulance, Victoria• City of Victoria, Firehall #1 Assessment• Beban Park Seismic Assessment, Nanaimo• City of Nanaimo #1, #2, #3 upgrades

- North Cedar Firehall
- Gabriola Firehall Seismic Report
- Gabriola Firehall
- Coquitlam Firehall Addition
- CVRD Firehall
- Ganges Firehall Seismic Assessment
- Saltspring Island Firehall Seismic Schematic Design
- Bamfield Firehall
- Nanoose Firehall Seismic Review
- Dashwood Firehall #2
- Courtenay Firehall
- Comox Firehall Training Tower
- Crofton Firehall Addition
- Campbell River Firehalls – Seismic Assessment
- Black Creek/Oyster Bay Firehall
- North Oyster Firehall - Seismic Assessment
- Mill Bay Firehall
- Langford Firehall
- Eagle Heights Fire Water Supply Tank Base
- Hamilton Firehall - Richmond
- Sea Island Firehall - Richmond
- Langley Firehall No. 4 – Willoughby
- Victoria Firehall No.1 Needs Assessment
- Fort Langley Firehall
- Chilliwack Regional District Fire Hall
- Williams Lake Firehall & Ambulance Station
- City of Nanaimo Firefighter Training Facility
- Fort St. James Firefighter Training Facility
- CFB Esquimalt Firefighter Training Facility
- CFB Halifax Firefighter Training Facility

- Saanich Police Building
- Customs House, Victoria
- Victoria High School
- Brentwood College
- Garibaldi Secondary, Maple Ridge
- Saanich Firehall #3
- Colwood Firehall
- Gordon Head Middle School, Victoria
- Monterrey Middle School, Victoria
- Pauline Haarer Elementary, Nanaimo
- Maquinna Elementary, Port Alberni
- Parksville Elementary



Qualicum Beach Firehall



Central Saanich Firehall



Nanaimo Firehall No. 4

Services Not Provided (*"Services Not Provided"*)

- Contract administration
- Geotechnical engineering
- Material testing
- Seismic restraint of non-structural elements (i.e., mechanical, electrical or t-bar)
- Specialty structural elements (i.e., glazing, steel stud, railings or guards)
- Non-structural elements (i.e., cladding or storage tanks)
- Landscape elements (i.e., retaining walls, planters or pole/light bases)
- Preparation or review of cost estimates
- Design of elements for temporary loading (i.e., formwork, falsework or shoring)
- Preparation of fabrication, erection or record drawings
- Tenant improvement work

Fees

We propose to complete our services including the site inspection, reviews of any drawings, preliminary design calculations and report preparation on an hourly rate basis to a maximum upset fee. The following fee range does not include disbursements which will be charged back at cost or standard GST charges which will be added to monthly invoices.

- Fee For Structural Services..... \$3,000.00
- Fee For Building Enclosure Services \$2,500.00
- Fee For Seismic Review and Recommendations \$5,000.00

Revisions / Changes in Scope

Herold Engineering Limited reserves the right to renegotiate the above fees should the scope of work vary significantly from the original work described.

Schedule

Upon acceptance of this proposal, we will proceed with the assignment.

Payment

Invoices will be submitted on a monthly basis for that portion of the work actually performed to the date of the invoice. Terms are net 30 days as per Schedule 1a attached.

Liability

In the event of a claim, Herold Engineering Limited's liability will be as per Schedule 1a attached.

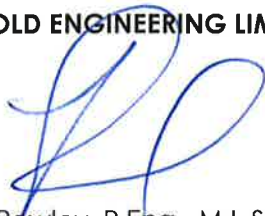
Agreement

If you are in agreement with the proposal and attached Schedule 1a, please sign the acceptance as noted below and return one copy. If only parts of the proposal are required please amend and initial the changes as required.

We appreciate the opportunity to provide a proposal on this project and ask that you contact the undersigned if you have any questions regarding this submission.

Yours truly,

HEROLD ENGINEERING LIMITED



Lee Rowley, P.Eng., M.I. Struct.E., M.I.C.E., LEED AP
Principal

Enclosure

I/We do hereby accept the within proposal and acknowledge that upon providing a signed copy of this letter to Herold Engineering Limited, I/We have entered into an agreement with Herold Engineering Limited comprised of this proposal and the terms and conditions attached as Schedule 1a (the "Agreement").

Salt Spring Island Fire/Rescue

Date

Payment

The Client will pay Herold Engineering the fees as described in the proposal plus all applicable taxes and duties including without limitation the Goods and Services Tax (GST). In addition to the Services, the Client will also pay for any and all additional services requested of Herold Engineering even if those services are not listed as Services ("Additional Services").

Herold Engineering will submit invoices to the Client requesting payment for that portion of the Services and Additional Services completed to the date of the invoice. The Client agrees to pay the invoice within 30 days of the date of the invoice (the "Due Date"). Invoices unpaid by the Due Date will be charged interest at a rate of 18% per annum from the date of the invoice until paid.

Herold Engineering may, at its sole discretion, suspend the provision of any and all Services or Additional Services in respect to the Project if one or more invoices remain unpaid for more than 60 days from the Date of Invoice.

General Provisions

The Client shall not assign the whole or any part of this Agreement without the express written consent of Herold Engineering. Herold Engineering may assign to subcontractors and agents such part of the Services or Additional Services as Herold Engineering in its sole discretion shall determine. This proposal, if accepted, shall be governed by and construed in accordance with the laws of the Province of British Columbia.

Obligations of Client

The Client will assist Herold Engineering by providing all available and necessary information that Herold Engineering reasonably requires to provide the Services (or Additional Services). The Client will examine all requests, reports or other documents presented by Herold Engineering relating to the Services and Additional Services and will promptly provide in writing decisions or general instructions pertaining thereto so as not to delay the provision of the Services or Additional Services.

Termination

Herold Engineering may, without prejudice to any other right or remedy it may have, terminate this agreement if:

- (a) the Client is in breach of any of its obligation under this Agreement; or
- (b) the Client is insolvent or makes a general assignment for the benefit of creditors or if a receiver is appointed; or
- (c) Herold Engineering is prevented from performing the Services (or Additional Services) for a period of thirty days or more as the result of an event which is unavoidable and beyond the control of Herold Engineering that includes without limitation an order of a Court or other public authority, a labour dispute, a communication line failure, power failure or any other natural disaster or Act of God.

If Herold Engineering terminates this Agreement under (a), (b) or (c) above, Herold Engineering shall be entitled to be paid for all Services or Additional Services performed to the date of termination. Further, if Herold Engineering terminates this Agreement under (a) or (b) then Herold Engineering is also entitled to receive from the Client an amount that Herold Engineering, acting reasonably, determines is equivalent to the profit that Herold Engineering has lost as a result of not completing all of its Services or Additional Services, as the case may be, under this Agreement.

If Herold Engineering terminates this Agreement under (a), (b) or (c), above the Client releases and discharges Herold Engineering of and from any and all of its obligations under this Agreement.

Confidentiality

Except as may be required to advance or protect the legal interests of the Client or Herold Engineering or as may be required by law, the parties will keep strictly confidential and will not, without the written consent of the other party, disclose to anyone, either before, during or after termination of this Agreement, the information which comes to the knowledge of a party as a result of this Agreement.

Ownership of Documents and Designs

All right, title and interest in and to any products, technology or other intellectual property developed by Herold Engineering in performing the Services or Additional Services pursuant to the terms of this Agreement including without limitation all drawings, designs, reports, working papers, computations, manuals, documentation and documents of every kind (the "Work Product") shall remain the property of Herold Engineering. Provided the Client has completed all of its obligations under the Agreement, the Client shall be entitled to receive copies of the Work Product at the Client's expense. No part of the Work Product may be reproduced or re-used without the express written consent of Herold Engineering.

Liability

Herold Engineering is only liable for loss and damage that is directly attributable to its negligent acts or omissions (the "Recoverable Loss and Damage") and in the event of a claim for Recoverable Loss and Damage, the parties agree that the maximum liability of Herold Engineering, whether in contract or tort, is limited to the amount of fees paid by the Client to Herold Engineering on account of Services (or Additional Services) in relation to the Project as of the date the claim is made.

In no event will Herold Engineering be liable for any indirect, incidental, special, consequential or punitive damages as a consequence of any breach by Herold Engineering or the failure of Herold Engineering to satisfy and/or perform, any term or provision of this Agreement and without limiting the generality of the foregoing, Herold Engineering shall not, under any circumstances, be liable for loss or damage resulting from delays in the completion of the Project, or loss of earnings or loss of profits, howsoever caused.

Dispute Resolution

The purpose of this clause is to establish a process whereby any dispute or difference of opinion under or in connection with this Agreement can be resolved in a fair, efficient and cost-effective manner. Both parties shall use their best efforts to resolve any dispute or difference of opinion under or in connection with this Agreement by good faith amicable negotiations on a "without prejudice" basis, and shall provide frank, candid and timely disclosure of all relevant facts, information and documents to facilitate negotiations.

If a dispute or difference of opinion is not resolved to the reasonable mutual satisfaction of the parties within 10 Business Days of the commencement of negotiations, or within such longer period as may be agreed to by the parties, the dispute or difference of opinion shall be submitted to mediation. Both parties agree not to make a request for arbitration or to commence litigation without first seeking agreement through the mediation process.

Mediation shall consist of structured, non-binding negotiations with the assistance of a mediator on a "without prejudice" basis. The mediator shall be appointed by agreement of the parties and shall be impartial and free from any actual or apparent conflict of interest. The costs of mediation shall be shared equally by both parties. If the dispute or difference of opinion is not resolved to the reasonable mutual satisfaction of both parties within 30 calendar days of the appointment of the mediator, or within such longer time as may be mutually agreed to by the parties, the dispute or difference of opinion may, upon the mutual written agreement of the parties, be submitted to binding arbitration in accordance with the laws of the Province of British Columbia.

If the parties are unable to agree on the Arbitrator within 7 days, the Arbitrator shall be appointed under the Commercial Arbitration Act, R.S.B.C. 1996, c.55, as amended and the arbitration shall take place in Nanaimo. The decision of the Arbitrator shall be final and binding on the parties. If the parties do not agree to arbitration, each party shall be free to commence litigation without further notice.