



Parks Canada  
7501 Steeles Ave.  
Scarborough ON

**RE:** Mechanical scope of work.

## 2.0 Background

The existing dwelling residence is located in Scarborough Ontario at 7501 Steeles Ave, which was once a century farm house for a single family. There have been from the looks of this building two extensive renovations over the years, which turned this into a larger residence with what looks to be an addition of a second suite. This extensive renovation as per Part 11 of the OBC is to bring the building's mechanical system into the new Canada Greener Homes initiative using air-handlers and new cold climate heat pumps with back-up.

## 3.0 Scope of Work

The following items will need to be included/addressed in all quotes:

- Demolition, removal and disposal of existing equipment and material related to this scope. Removal and on site storage of existing oil tanks (2) with proper disposal of any fuel oils on site as per environmental to not disturb soils and indoor/outdoor areas. 2-oil furnaces are to be removed and stored on site as per PC direction. All oil lines to and from tanks are to be disposed of and those if any encased in concrete must be capped off.
- Cap off existing services, domestic water supply for HVAC equipment, drains, and electrical service if not being reused and/or in good working condition.
- Carry out work as per design/build assessment of HVAC Systems to accommodate the increase in occupant load for heating/cooling as building is compartmented. Fresh air-ventilation requirements by use of a H/ERV (simplified connection) and ceiling exhaust fans in kitchens and all bathrooms.
- Install new H/ERV(s) with a min of 75% SRE at 64 cfm at 32°F as simplified connection or equivalent to run continuously for fresh air. Installation to conform with applicable codes and standards and as per manufacturer specifications.



# FIRE HOUSE

HVAC DESIGNS INC.



- Install exhaust range fan(s) in kitchen(s) at a min of 100cfm each as per OBC for area odour control with a min of 6" smooth venting to the outdoors. 1 bathroom fan (110cfm) or equivalent. 6" smooth pipe sealed and vented to outdoors, c/w louver back draft and bug screen weather hood for the laundry bath/change rooms and a min of 50cfm for each other bathrooms with 5" smooth pipe vented to the outdoors, c/w louver back draft and bug screen weather hood.
- Supply and install proper venting for the dryers as per manufactures specifications using proper vent piping practices, c/w louver back draft weather hood. Seal dryer venting as per good piping practices.
- Air Handler 1 (AH-1) to be a min of 3.5-ton, max of 4.0-ton 18 SEER, 7.1+ HSPF Cold Climate ASHP with a 15kW staged back-up heater. All thermostats are to be compatible with accepted equipment. Such as digital for the most accuracy.
- Air Handler 2 (AH-2) to be min of 2.5-ton 18 SEER, 7.1+ HSPF Cold Climate ASHP with an 8kW back-up heater. All thermostats are to be compatible with accepted equipment. Such as digital for the most accuracy.
- All new duct works are to be sealed to a Class C level as per SMACNA and all duct works are to be installed as per good engineered piping practices of the OBC and SMACNA.
- Repair/connect existing HVAC duct works if used and brought up to standards above.
- Clean-up dust, debris and return the renovation space to an operating state;
- All exterior penetration to be caulked and sealed.
- Any fire separations, if used, that are penetrated are to have fire damper/s and fire stopped as per note.
- Ensure dust/debris control measure are used to limit cleaning outside renovation area;





#### **4.0 Definitions**

The following definitions apply to the interpretation of the RFQ.

- “RFQ” means Request for Quote.
- “Proposal” means all the documentation submitted by the Proponent in response to this RFQ, which has been accepted by the Client, in whole or in part.
- “Proponent” means the legal entity submitting a response to the Request for Quote.
- “Services” means the goods and/or services to be provided by the Contractor to the Client.
- “Contractor” means the successful Proponent that has signed the Agreement.
- “Addenda” or “Addendum” means such further additions, deletions, modifications or other changes to any Quote Document.
- “Contract” means the agreement in writing, governing the performance of the Work, which has been executed by the Town and selected Contractor following acceptance by the Town for the selected Proponent’s submission.
- “Work” means the Work to be undertaken by the Consultant pursuant to the provisions of the Contract.
- “Working Day” means Monday through Friday inclusive by excluding Saturday and Sunday and any recognized statutory holiday
- “SEER” means Seasonal Energy Efficiency rating. An energy measurement based on cooling loads.
- “HSPF” Heating seasonal performance factor (HSPF) is a term used in the heating and cooling industry. HSPF is specifically used to measure the efficiency of air source heat pumps. HSPF is defined as the ratio of heat output (measured in BTUs) over the heating season to electricity used (measured in watt-hours).
- “SMACNA” Sheet Metal and Air Conditioning National Association.
- “OBC” Ontario Building Code.

