1.5 Use of premises by the contractor

.1 Use of the premises is limited to areas required for access and storage in order to facilitate:

a) occupancy of the premises by Natural Resources Canada;

b) execution of the work by other contractors.

.2 The space used by the contractor for the storage of materials and machinery at the jobsite must be coordinated with the ministerial site representatives before the work begins. A1

.3 Find and pay the costs of additional work or storage areas needed to carry out the work under the terms of this contract.

.4 Remove or make changes to the existing structure in order to avoid damaging parts thereof that must remain in place.

.5 Repair or replace portions of the existing structure that have been altered during construction operations in order to match existing or adjoining structures, as directed by Departmental Representative.

.6 Upon completion of the work, the existing structure must be equivalent or superior to its former condition prior to the commencement of work.

1.6 Owner occupancy

.1 Natural Resources Canada will occupy the premises during the entire construction period and continue its regular operations.

.2 Co-operate with the Departmental Representative in scheduling work so as to minimize conflict and facilitate the use of the premises by NRCan.

.4 All mechanical equipment must be inspected before it is delivered to the worksite. Before using any mechanical equipment, the contractor must provide the Departmental Representative with a certificate of compliance, signed by a qualified mechanic.

.5 If the Departmental Representative suspects that there is some defect or risk of an accident, he or she may, at any time, order the immediate deactivation of the equipment and require a second inspection by a specialist of his or her choice.

1.5 Meetings

.1 A representative who can make decisions on behalf of the contractor must attend all meetings concerning issues involving health and safety on the worksite.

.2 The contractor must set up a worksite committee and hold meetings as required by the *Safety Code for the Construction Industry*.

1.6 Requirements by regulatory authorities

.1 Comply with all statutes, regulations and standards that are applicable to carrying out the work.

.2 Follow the prescribed standards and regulations in order to ensure the normal progress of the work on any land that is contaminated by dangerous or toxic materials.

.3 Notwithstanding the date of publication of the standards referred to in the *Safety Code for the Construction Industry*, the version in effect at the time that it is being applied must always be used.

1. 7 Specific conditions for the worksite

.1 On the worksite, the contractor must take the following specific details into account and address them when developing its prevention program:

a) For the roofing work, the contractor must make use of a guardrail, as specified in the *Safety Code for the Construction Industry* (S-2.1, r. 6, section 2.9.2);

b) Any waste disposal chute must be authorized by the PWGSC Departmental Representative for the project before being installed. The contractor must make sure that the following are done:

I. Submit plans and the certificate of compliance prior to its use (*Safety Code for the Construction Industry*).
II. Make the waste disposal chute watertight.
III. Every time the waste container is removed or when it is full, each access to the chute must be locked. The contractor's superintendent will be responsible for the key to the locks.

IV. At the end of the worksite and after the chute has been removed, clean the wall and windows that have been soiled by the removal of waste.

V. At the end of the work, return the site to its original condition.

c) The contractor must ensure the safety of the work as it relates to nearby and overhead electrical wiring. The cables passing over the secondary building are data cables (fiber optic, coaxial, camera signal). The cables entering by the mast at the rear of the secondary building are telephone cables. The contractor must nevertheless secure the work with regard to these cables and ensure their protection against any breakage.

1.8 Managing health and safety

.1 The contractor must accept and assume all the tasks and obligations for which the Project Engineer is held responsible under the *Act Respecting Occupational Health and Safety* (R.S.Q., chapter S-2.1) and the *Safety Code for the Construction Industry* (S-2.1, r.6).

.2 The contractor must develop a prevention program following the template that is part of NRCan's prevention program, with the objective of eliminating any danger to the health, safety and physical integrity of workers on the construction project, from the outset. This document must be based upon the identification of risks and applied from the beginning of the project to the last stage of demobilization. This program must also take into account the information included in clause 1.7 of this document, the Contracting Authority's prevention program and the *Act Respecting Occupational Health and Safety* (R.S.Q., chapter S-2.1) and the rules adopted under that statute. This program must take into account all of the stages of the work and all work done by subcontractors. It must be provided to the Departmental Representative.

.3 Furthermore, the contractor promises to comply, and to ensure compliance by its employees and agents, with the provisions of the Contracting Authority's prevention program, including the section in its own prevention program. The contractor must provide the Departmental Representative with a document that certifies that it is aware of the prevention program and accepts the requirements set out therein, by ten days at the latest after the contract has been awarded.

.4 In addition to the prevention program, the contractor must produce a precise working plan of its future activities every two weeks covering that period, using the model provided in the Project Engineer's framework prevention program, and provide it to the Departmental Representative at each worksite meeting.

2.4 Thermal and filler insulation

.1 Thermal insulation must be made of closed-cell, polyisocyanurate foam laminated on both sides with organic/inorganic fibre-reinforced felt facings in compliance with the CAN/CGSB 51.26-M standard, and submitted beforehand to post-bake aging for 28 days at 100 °C to obtain stable heat resistance of 1.39 RSI per 25 mm of thickness.

Thickness: 125 mm in total, including the filling row to an appropriate depth for the existing type of roof covering.

Reference products: Johns Manville ENRGY 3 or approved equivalent.

.2 The pre-cut insulation specified to fill the channels in the existing roofing panels can be made of polystyrene instead of polyisocyanurate. It must be of an appropriate shape and thickness to completely fill the channels, leaving minimum voids. A1

2.5 Asphalt panels

.1 Semi-rigid panels composed of two asphalt-saturated glass mat reinforcement layers covering a mineral-fortified asphaltic core.

Thickness: 6.5 mm

Dimensions: 1,220 mm X 1,525 mm

Reference product: Soprema SOPRABOARD or approved equivalent

2.6 Joint sealant

.1 The joint sealant must be Soprema Sopramastic 200 rubber-based plasticized synthetic bitumen or an approved equivalent product.

2.7 Fasteners

.1 Nails must comply with the CSA B111 standard, be made of galvanized steel and be sufficiently long to penetrate to a depth of at least 20 mm into the wood blocking.

.2 Self-tapping hexagonal head screws for metal flashing and enamelled aluminum trim that are fitted with nylon or neoprene washers and come in a colour matching the enamelled aluminum.

.3 Pre-assembled attachment screws and plates, such as the TruFast PA system. Screws must be able to penetrate through the existing metal sheathing without penetrating through the 50-mm thickness of urethane interior insulation.

.3 Protective membrane

The protective membrane will be made of the same product as the cap sheet, but in a contrasting colour to provide pathways for persons carrying out maintenance on equipment on the roof.
Reference product: Soprema Sopralene Flam 250 GR

Colour: black

Propane gas soldering torches will be used to install the membrane, in accordance with the CGSB 37-GP-56m, Type 1, Category A, Class 2 standard.

.4 Self-adhering membrane

The self-adhering membrane will be SBS modified bitumous type and strengthened with fibreglass. The underside will be self-adhering and protected with detachable silicone-coated paper, while the topside will be coated with thermofusible plastic film applied solely by means of propane gas soldering torches.

2.10 Caulking product

.1 Plastic cement: NCS type or approved equivalent, with a bituminous base or containing mineral fibres, for cold installation in compliance with the CGSB 37-GP-5c or CGSB 37-GP-23m standard.

.2 Joint filler for expansion joints, and 2.5-mm fibreglass boards (Rodofill or equivalent).

2.11 Spray-applied insulation

.1 Spray-applied insulation with two components: (1) insulation consisting of thermosetting polyurethane foam and (2) plastic foam with a rating density of 40 kg/m^3 for an RSI insulation factor of 1.4 per 25 mm of thickness, in compliance with the CAN/ULC S705.1 standard.

2.12 Products

.1 Include the supply and installation of QuickBlock model polypropylene conduit supports from Pipe-Ease Inc. (or approved equivalent) under the gas conduit network on the secondary building roof. A1

PART 3 – EXECUTION

3.1 Execution conditions

.1 Prior to the start of the waterproofing work, inspect the existing roof. A written notice of non-compliance must be submitted to the contractor for the corrective measures to be taken. Commencement of the work implies acceptance of the conditions permitting this work to be carried out.

.2 Begin the roof covering installation work as soon as the existing support is ready and inspected. Do not work in rain, fog, freezing rain, snow or ice conditions.

PART 1 – GENERAL

1.1 Notice to the contractor

.1 It is extremely important that the sheet metal extension work around ventilation devices, which requires that the equipment concerned be turned off, be perfectly coordinated with the owner's requirements.

1.2 Shop drawings

.1 Submit for the architect's approval shop drawings for all types of existing or required upgraded fans.

PART 2 – PRODUCTS

2.1 Sheet metal

.1 Galvanized steel (Thickness : 0.6mm and calibre 24), to ASTM A653M standard, Silicone Modified Polyester paint (Factory applied) A1

.2 Isolation coating: to CGSB 1-GP-108c standard.

.3 Plastic cement: to CGSB 37-GP-5m standard.

.4 Fasteners: of same material and calibre as the sheet metal used.

.5 Cleats: of same material as the sheet metal used and generally 1.3 mm thick.

.6 Washers: of same material as the sheet metal used, 1.6 mm thick with rubber packing.

.7 Solder metal: to ASTM B32 standard (50% tin, 50% lead).

.8 Welding flux: colophane, hydrochloric acid or other commercial preparation compatible with the materials to be welded.

.9 For some commercial manufactured products, the use of aluminum instead of galvanized steel is accepted.

.10 Touch-up paint: As per the recommendations of the flashing and metal trim manufacturer.