PART 1 - GENERAL

1.1 INSPECTION

.1 Vapour barrier application shall not be covered until an inspection has been carried out by the Contract Administrator.

PART 2 - MATERIALS

.1 Vapour barriers shall be clear polyethylene film to CGSB 70-GP-1A, minimum 6 mil thickness.

.2 Acoustical sealant shall be Tremcoapproved equal in accordance with B6.

PART 3 - APPLICATION

.1 Except as otherwise noted, vapour barrier shall be placed on warm side of all insulation.

.2 The vapour barrier shall be continuous and integral throughout all external surfaces of the building. All air leakage points shall be sealed with acoustical sealant or other approved method satisfactory to the Contract Administrator.

.3 All lapped joints (minimum 305 mm lap) shall occur only over continuous solid backing and shall be sealed together with a continuous bead of acoustical sealant and stapled securely in place.

.4 Openings for electrical boxes shall be wrapped in 6 mil. poly brought to the surface vapour barrier and spread out, unless a more stringent requirement is otherwise noted. "Vapour barrier boxes" are considered to be equal. If used, the wall air vapour barrier shall be sealed to the edge of the box with acoustical sealant.

.5 Where the vapour barrier is punctured by a wire or cable the hole around same shall be plugged with "J. M. Dux-Seal", acoustical sealant, or approved equal in accordance with B6, or the wire shall be taped to the vapour barrier so as not to allow any air leakage.

.6 Where the vapour barrier is punctured by a pipe, the vapour barrier and pipe shall be connected by a polyethylene "skirt" taped to the pipe and sealed to the existing vapour barrier with acoustical sealant.

3.7 MOISTURE BARRIER IN CRAWL SPACES (Where Applicable)

.1 Provide 135 mm (minimum) polyethylene over excavated areas and shaped to profile soil. Lap all joints not less than 900 mm.

.2 Over polyethylene, place 100 mm (minimum) layer of clean sand/fine pea gravel mixture, uniformly spread over entire area.

.3 Attach air vapour barrier to crawl space wall with a continuous bead of acoustical sealant, and continuous nailer strip fastened to floor system..

3.8 MOISTURE BARRIER BELOW CONCRETE SLABS (Where applicable)

.1 Supply and install a 6 mil polyethylene moisture barrier, with joints lapped 900 mm, under concrete floor slabs.

END OF SECTION

1.1 GENERAL INSTRUCTIONS

.1 Insulation materials shall not be installed until all mechanical and electrical services are installed and inspected.

2.1 MATERIALS

.1 Any insulation in contact with the ground shall be inert to the action of soil and water. The insulating properties shall not be significantly reduced by moisture.

.2 Rigid insulation shall be expanded polystyrene insulation EPS Type 2. Extruded polystyrene insulation Type 3 is permitted where an equal thermal resistance is provided. Contractor shall adjust detailing as required by different insulation thickness.

.3 Batt type insulation shall be Fibreglass (pink) or approved equal in accordance with B6.

.4 Loose fill insulation shall be Fibreglass (pink) or approved equal in accordance with B6. Loose fill insulation shall be used in only horizontal attic spaces, and all products must meet current CMHC requirements and be installed following manufactures instructions.

3.1 APPLICATION

.1 Install insulation to maintain continuity of thermal protection to the entire external surface of the building. Any unheated areas, including vestibules, porches, etc., shall be assumed as outside as outside the building surface.

.2 All areas shall be insulated in such a way as to include all breaks, corner pockets, voids, off sets and architectural features.

.3 Insulation shall be placed around all plumbing and heating pipes and ducts and around any other obstructions or voids.

.4 Install all materials in accordance with manufacturer's instructions.

3.2 APPLICATION FOR BATT TYPE INSULATION

.1 No batt insulation shall be installed until the building has been made water and weather tight, and until mechanical trades have installed , tested and received approval for their cover-in Work.

.2 Install insulation between studs and furring strips setting each batt tightly to sill plate of wall running batt full length of vertical walls wherever possible.

.3 Cut and trim insulation neatly to fit spaces fully.

.4 Use bats free of ripped backs or edges.

.5 Any packing or filling shall be done without unduly compressing the insulation.

3.3 APPLICATION FOR RIGID TYPE INSULATION

.1 Rigid insulation shall be mechanically fastened at 400 mm o/c., both ways, maximum.

.2 Butt joints tightly, offset all joints.

.3 Use only insulation boards that are free from chipped or broken edges.

END OF SECTION

Part 1 -- General

1.1 RELATED WORK

.1 Rough Carpentry: Section 06100

1.2 STANDARDS AND DESIGN CRITERIA

.1 Design roof system in accordance with:
- .1 Canadian Sheet Steel Building Institute Standards.
- .2 National Building Code of Canada

.2 Design roof system to accommodate thermal movement of the roof sheet caused by ambient temperature range of + 30 C to -30C, without causing deterioration of the roof system.

.3 Design roof system to withstand dead loads, snow loads, snow build-up and rain load. Design fastener systems to withstand wind uplift on the roof, and sliding forces induced by environmental loads.

1.3 QUALITY ASSURANCE

.1 Manufacturer of roof system, and installer shall demonstrate at least five years experience in projects similar in scope.

1.4 SUBMITTALS

.1 Submit shop drawings.
- .1 Indicate arrangement of pre-finished Roof Sheet, including joints, types and locations of supports, fasteners, flashing, gutters, mitres, and all metal components related to the roof installation.
- .2 Each shop drawing shall be stamped by a Professional Engineer.

.2 Submit samples of coloured metal roof sheet for review by the Contract Administrator, prior to fabrication.

1.5 HANDLING AND PROTECTION

.1 Store roofing products in accordance with manufacturer's recommendations, and protected from elements.

.2 Protect pre-finished steel during fabrication, transportation, Site storage and erection, in accordance with CSSBI Standards.

Part 2 -- Products

2.1 PRE-FINISHED METAL ROOFING

.1 Pre-finished Roof Sheet, exposed to exterior:
- .1 Profile: Snap together joint, ribbed profile with ribs at 305 mm o.c.
- .2 Panel: Galvanized (zinc coated), sheet steel conforming to ASTM A653 SS grade 80 with designation Z180 or Z275, Nominal core thickness : 29 guage
- .3 Coating: Pre-painted with Colorite Series, one side. Colour to be –Tile Red VW 6066
- .4 Accepted Product: BORDEAUX RIB by VICWEST.

2.3 FASTENING SYSTEMS

.1 Roof Fasteners: As specified by manufacturer, to resist wind uplift and sliding snow forces.

2.4 ACCESSORIES

.1 Flashing: Formed from same materials as the roof sheet. Custom fabricated to suit architectural details, as required.

.2 Closures: Foam and metal closures to suit profile, to manufacturer's recommendations.

.3 Sealants: In accordance with manufacturer's recommendation.

.4 Water Barrier: Barrier shall be Lastobond Shield by Soprema Inc. or an approved equivalent in accordance with B6.

2.5 FABRICATION

.1 Fabricate roof components to comply with dimensions, profiles, gauges and details as shown on the shop drawings, including fascia and soffit panels and all companion flashing.

.2 Fabricate all components of the system in the factory, ready for field installation.

.3 Provide roof sheet and all accessories in longest practicable length to minimize field lapping of joints.

Part 3 -- Execution

3.1 EXAMINATION

.1 Examine Work of other trades over which roof system will be applied, for conformity to drawings. Report all discrepancies to Contract Administrator before beginning Work on the roof system.

3.2 INSTALLATION

.1 Roof Panel Installation
- .1 Install water barrier on solid substrate.
- .2 Install exterior pre-finished roof panels on solid substrate, using manufacturer's proper construction procedure. Ensure batten is positively locked for full length of roof.
- .3 Provide notched and formed closures, sealed against weather penetration, at changes in pitch, and at ridges and eaves, where required.
- .4 Install all companion flashing, gutters, ridge vents c/w insect barriers and fascia covers and vented soffits as shown on the shop drawings. Use concealed fasteners when possible. Exposed fasteners to match colour of roof sheet.
- .5 Fasten and seal all end joints to provide a weather resistant seal.

3.3 TOUCH-UP AND CLEANING

.1 Touch up minor paint abrasions with touch-up paint.

.2 Clean roof by dry wiping.

END OF SECTION

Part 1 -- General

1.1 DESCRIPTION

.1 General Requirements: Division 1, General Requirements, is part of this specification and shall apply as if repeated here.

.2 Work Furnished and included:

.1 Cladding profile.
.2 Closures.
.3 Associated flashings
.4 Supporting sub-girts.
.5 Associated sealants, concealed and exposed.

.3 Related Work not included:

.1 Structural framing members including girts, purlins, base angles and other elements required to support the cladding system.
.2 Caulking of elements in 1.
.3 Doors, louvers, sashes, ventilators as well as their supporting framing.
.4 Cant or parapet flashings and flashings associated with other trades.

1.2 STANDARDS AND DESIGN CRITERIA

.1 Design cladding system in accordance with:

.1 CAN/C.S.A.- S136 for the Design of Cold Formed Steel Structural Members.
.2 Canadian Sheet Steel Building Institute Standard 20M Sheet Steel Cladding for Architectural and Industrial Applications@.
.3 National Building Code of Canada

.2 Deflection of the cladding system is not to exceed {1/180th} of the span for the specified wind forces acting on it.

.3 Design cladding to accommodate thermal movement caused by ambient temperature range of +30 C to -30 C, without causing deterioration of the cladding.

.4 Design expansion joints to accommodate movement in cladding and between cladding and structure, to prevent permanent distortion or damage to the cladding.

.5 Design wall system to maintain the following installation tolerances:

.1 Maximum variation from plane or location shown on shop drawings: 20 mm/10 m (3/4 inch/30 feet).
.2 Maximum offset from true alignment between two adjacent members abutting end to end in line: 1 mm (0.04 inches).

1.3 QUALITY ASSURANCE

.1 Manufacturer of cladding, and installer shall demonstrate at least five years experience in projects similar in scope.

1.4 SUBMITTALS

.1 Submit shop drawings in accordance with Section 01300.

.1 Indicate arrangement of cladding, including dimensions, location of joints, profiles, types and locations of supports, fasteners, flashing, closures and all metal components related to the cladding installation.
.2 Each shop drawing shall be stamped by a Professional Engineer.

.2 Submit samples of pre-finished metal cladding for review by the Contract Administrator, prior to fabrication.

1.5 HANDLING AND PROTECTION

.1 Store cladding products in accordance with manufacturer's recommendations, and protected from elements.

.2 Protect pre-finished steel during fabrication, transportation, Site storage and erection, in accordance with CSSBI Standards.

Part 2 -- Products

2.1 STEEL CLADDING

.1 Fabricated from ASTM A653 structural quality Grade 230 galvanized steel, with Z275 zinc coating, as designated by ASTM A653M. Thickness as shown on drawings. Vertical application.

.2 Pre-painted with Colorite Series, one side Colour to be Gold VW-607

.3 Acceptable product: VICWEST profile CL7040

2.2 SUPPORTING SUB-GIRTS

.1 Minimum 1.2 mm (0.048 inches) thick formed galvanized steel, ASTM A653M Grade 230 with Z275 zinc coating.

2.3 FASTENING SYSTEMS

.1 Fasteners: with exposed fasteners colour matched to cladding.

2.4 ACCESSORIES

.1 Flashing, Trim and Closures: Fabricate to profiles indicated on shop drawings, or as required to meet performance requirements. Use preformed corner pieces only. Double back exposed edges. Material to match cladding in exposed locations, galvanized material in concealed locations.

.2 Sealants:

.1 Concealed: Tape or compound, non-skinning, non-drying, butyl rubber.
.2 Exposed: One part silicone to CGSB CAN2-19.13

.3 Sliding Door Panels: Construct bi-parting sliding doors to Fuel Storage and Herbicide Storage Buildings from Vicwest easy lock door system framing, following manufacturers instructions.

.4 Sliding Door Track and Hardware: Vicwest face mounted square track c/w appropriate mounting brackets, trolleys, door stops, door guides, door pull and locking type sliding door latch.

2.5 FABRICATION

.1 Fabricate wall components to comply with dimensions, profiles, thicknesses and details as shown on the shop drawings, including fascia and soffit panels and all companion flashing.

.2 Fabricate all components of the system in the factory, ready for field installation.

.3 Provide cladding and all accessories in longest practicable length to minimize field lapping of joints.

Part 3 -- Execution

3.1 EXAMINATION

.1 Examine Work of other trades over which cladding will be applied, for conformity to drawings. Report all discrepancies to Contract Administrator before beginning Work on the roof system.

3.2 INSTALLATION

.1 Install sub-girt framing system.

.2 Install starter flashing, drip and other flashing, and corners, edgings, window and door flashing as shown on the drawings.

.3 Install cladding and soffit in accordance with manufacturer's standard erection procedures.

.4 Install finishing flashing and cap flashing.

.5 Provide sealant at junctions with adjoining Work, and where shown on the drawings, in accordance with Section 07900.

.6 Assemble sliding door framing and metal wall cladding according to manufacturer’s instructions c/w track, trolley’s guides and latching/ locking mechanism. Adjust sliding doors to ensure smooth operation.

3.3 TOUCH-UP AND CLEANING

.1 Touch up minor paint abrasions with touch-up paint.

.2 Clean cladding by dry wiping.

END OF SECTION

PART 1 - PRODUCTS

1.1 Building paper shall be No. 15 roofing paper or felt.

1.2 Closed valley flashing shall consist of sheet metal, or 25kg. roll roofing not less than 600 mm wide.

1.3 FLASHING AT WINDOW AND DOOR HEADS shall be one of the following:

.1 Galv. iron metal flashing shall be 26 ga. commercial grade, conforming to requirements of A.S.T.M. spec.

.2 25 gage (min) pre-finished metal (See Section 09900 paragraph 3.7.4).

PART 2 - APPLICATION

2.1 The intersection of shingle roofs and walls shall be protected with sheet metal flashing.

2.2 Flashing shall be required in all roof valleys.

2.3 Nails shall not penetrate the flashing within 75 m of the top of the valley or of the bottom of the valley, measured from the center line of the valley (closed valley).

2.4 Provide one layer of building paper beneath all flashing except over windows and doors where building paper shall overlap flashing.

END OF SECTION

PART 1 - GENERAL

.1 Provide all labour, materials and scaffolding to apply pre-finished metal soffit system to underside of all roof overhangs.

PART 2 - MATERIALS

.1 Pre-finished soffit material shall be equal to "Gentek vented 26 gauge aluminum. Colour shall be White..

.2 Fasteners shall be pre-painted to match soffit finish c/w neoprene sealing washer.

.3 Accessories: exposed trim to canopy edges, trim to perimeter of light fixtures and columns shall be formed from the same material and colour as soffit finish.

.4 Sealants: seal all joints with silicone, colour to match soffit finish.

.5 Cladding materials shall be 24 gauge pre-finished metal, colour to match existing green trim colour.

PART 3 - EXECUTION

.1 Install a necessary pre-finished trim and edge profiles, starter strips flashings, and closure strips.

.2 Install pre-finished metal soffit material, trim to line and tight fitting as per manufacturer's instructions.

.3 Seal all edges of soffit system to ensure weather tight installation.

END OF SECTION

PART 1 - MATERIALS

1.1 Gutters shall be pre-finished metal 125 mm wide heavy gauge c/w heavy duty support brackets.

PART 2 - APPLICATION

2.1 Gutters shall be installed over the main entrance doorway and have open ends. Heavy duty support brackets shall be located at maximum 24" o.c. and secured to fascia with a minimum of 2 - #10 screws to fascia.

END OF SECTION

PART 1 - GENERAL

1.1 GUARANTEE

.1 Provide the The City with a written guarantee to cover material and workmanship of this section against failure within a 5 year period.

.2 Guarantee period shall begin on the date of substantial performance.

.3 Any evidence in the completed job that the proper preparatory Work for any portion has not been done will render the Contractor responsible for the complete removal of all caulking and redoing the entire job.

PART 2 - MATERIALS

2.1 Joint backing shall be round section closed cell compressible foam rod, compatible with sealant to be used, of a diameter 6 mm greater than the opening receiving it.

2.2 Caulking compound shall be in accordance with the following:

.1 For use in cases where joint movement will not occur, C.G.S.B. Specification 19-GP-5b.

.2 For use in all other cases, C.G.S.B. Specifications 19-GP-3a and 19-GP-9b.

.3 Only Silicone or Acrylic (Elastomeric) sealants will be allowed.

2.3 See Section 07190, for acoustical sealant.

2.4 To seal exterior wood joints use BALKEM #116 (polyurethane) or approved equal in accordance with B6. Caulking used on any one building shall be same colour.

PART 3 - APPLICATION

3.1 PREPARATION

.1 The Contractor shall clean all surfaces receiving caulking compound of all wood shavings, sawdust, dirt, dust, grease, mortar, oil or other materials.

.2 Joints and spaces to receive caulking shall in no case be less than 5 mm wide and 6 mm deep unless specifically recommended otherwise by sealant manufacturer. Joints deeper than 12 mm shall be packed out to within 6 mm of surface with compressible foam rod.

.3 DO NOT apply caulking or sealant at temperatures below 5oC. or when surfaces are wet or frost covered.

3.2 PROCEDURE

.1 In all cases, the joint backing shall be tightly hand packed into the joints, allowing sufficient space for application of the caulking compound.

.2 Caulking compound shall be applied with a hand gun, having a nozzle of the proper size to fit the joint and shall be driven with sufficient pressure to fill and seal the joint completely.

.3 Apply sealant as a full bead, smooth, free from ridges, wrinkles, sags, air pockets and imbedded impurities.

.4 All interior and exterior openings that may allow transfer of heat, cold and moisture that are not sealed by other trades shall be caulked.

.5 Joints in flush surfaces shall be made flush with adjoining materials. Joints in internal angles shall be cove finished. Tool all joints to a smooth even finish.

.6 Caulking is required at floor line following installation of vinyl baseboards in all rooms of Office-Staff Building.

.7 Caulking is required at base of bathtubs and toilets in all bathrooms after installation of finish flooring material.

.8 Caulking is required at wall joint/connection of all washroom and kitchenette countertops.

3.3 FINISH

.1 All excess caulking material shall be removed immediately from adjoining Work.

END OF SECTION