1 General

1.1 RELATED REQUIREMENTS

.1 Section 07 27 00 - Air Barriers.
.2 Section 07 92 00 - Joint Sealants.
.3 Section 08 50 00 - Windows.

1.2 REFERENCES

.1 The Aluminum Association Inc. (AA)
  .1 Aluminum Sheet Metal Work in Building Construction-2000.
  .2 AA DAF45-97, Designation System for Aluminum Finishes.
.2 American Society for Testing and Materials (ASTM International)
  .1 ASTM A167-99, Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.
  .2 ASTM A240/A240M-02, Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications.
  .3 ASTM A591/A591M-98, Standard Specification for Steel Sheet, Electrolytic Zinc-Coated, for Light Coating Mass Applications.
  .4 ASTM A606-01, Standard Specification for Steel, Sheet and Strip, High-Strength, Low-Alloy, Hot-Rolled and Cold-Rolled, with Improved Atmospheric Corrosion Resistance.
  .5 ASTM A653/A653M-01a, Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
  .6 ASTM A792/A792M-02, Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.
  .7 ASTM B32-00, Standard Specification for Solder Metal.
  .8 ASTM B370-98, Standard Specification for Copper Sheet and Strip for Building Construction.
  .9 ASTM D523-89(1999), Standard Test Method for Specular Gloss.
  .10 ASTM D822-01, Standard Practice for Filtered Open-Flame Carbon-Arc Exposures of Paint and Related Coatings.
.3 Canadian Roofing Contractors Association (CRCA)
  .1 Roofing Specifications Manual 1997.
.4 Canadian General Standards Board (CGSB)
  .1 CAN/CGSB-37.5-M89, Cutback Asphalt Plastic Cement.
  .2 CAN/CGSB-51.32-M77, Sheathing, Membrane, Breather Type.
  .3 CAN/CGSB-93.1-M85, Sheet Aluminum Alloy, Prefinished, Residential.
.5 Canadian Standards Association (CSA International)
  .1 CSA A123.3-98, Asphalt Saturated Organic Roofing Felt.
  .2 CSA-A440-00/A440.1-00 - A440-00, Windows / Special Publication A440.1-00, User Selection Guide to CSA Standard A440-00, Windows.
  .3 CSA B111-1974(R1998), Wire Nails, Spikes and Staples.

1.3 WASTE MANAGEMENT AND DISPOSAL

.1 Collect and separate for disposal waste material generated by this Section.
.2 Place in appropriate on-site bins in accordance with Waste Management Plan.
.3 A clean worksite is mandatory at all times. Failure to maintain the site in a clean, safe condition shall result in the Departmental Representative initiating a clean-up and related costs being deducted from progress claims.

2 Products

2.1 SHEET METAL MATERIALS

.1 Prepainted Zinc coated steel sheet: 20ga and 24 ga. thickness, commercial quality to ASTM A653/A653M, with Z275 designation zinc coating.

2.2 PREFINISHED STEEL SHEET

.1 Prefinished steel with factory applied polyvinylidene fluoride.
- .1 Class F1S.
- .2 Two (2) colors selected by Departmental Representative from manufacturer's standard range.
- .3 Specular gloss: 30 units +/- in accordance with ASTM D523.
- .4 Coating thickness: not less than 22 micrometers.
- .5 Resistance to accelerated weathering for chalk rating of 8, color fade 5 units or less and erosion rate less than 20 % to ASTM D822 as follows:
  - .1 Outdoor exposure period 2500 hours.
  - .2 Humidity resistance exposure period 5000 hours.

2.3 ACCESSORIES

.1 Sealants:
to CAN/;CGSB 19.13, one component.

.2 Cleats:
of same material, and temper as sheet metal, minimum 50 mm wide. Thickness same as sheet metal being secured.

.3 Fasteners:
of same material as sheet metal, to CSA B111, ring thread flat head roofing nails of length and thickness suitable for metal flashing application.

.4 Washers:
of same material as sheet metal, 1 mm thick with rubber or neoprene packings.

.5 Prefabricated flashing at pipes penetrating roofs:
purpose-made, neoprene or spun aluminum to CRCA Specification FL/532, minimum 300mm above top of roof membrane.

.6 Touch-up paint:
as recommended by prefinished material manufacturer.

2.4 FABRICATION

.1 Fabricate metal flashings and other sheet metal work in accordance with applicable CRCA 'FL' series details.
- .1 Brake form to profiles indicated and required to suit parapet configurations.
- .2 Form pieces in 2400 mm maximum lengths. Make allowance for expansion at joints.
- .3 Hem exposed edges on underside 12 mm. Miter and seal corners with sealant.
- .4 Form sections square, true and accurate to size, free from distortion and other defects detrimental to appearance or performance.

2.5 METAL FLASHINGS

.1 Form flashings, copings and fascias to profiles indicated of 24 ga thick galvanized steel.

2.6 SEAMLESS ALUMINUM EAVES TROUGHS AND DOWNPIPES

.1 Form eaves troughs and downpipes from 20 ga prefinished aluminum.

.2 Sizes and profiles as indicated, minimum 125 mm x 75mm.

.3 Provide goosenecks, outlets, strainer baskets and all necessary fastenings.

3 Execution

3.1 INSTALLATION

.1 Install sheet metal work as detailed.

.2 Use concealed fastenings except where approved before installation.

.3 Provide underlay under sheet metal. Secure in place and lap joints 100 mm.

.4 Lock end joints and caulk with sealant.

.5 Install pans, where shown and around items projecting through roof membrane.

3.2 EAVES TROUGHS AND DOWNPIPES

.1 Install eaves troughs and secure to building at 750 mm on center with eaves trough spikes through spacer ferrules. Slope eaves troughs to downpipes as indicated.

.2 Install downpipes and provide goosenecks back to wall. Secure downpipes to wall with straps at 1800 mm on center; minimum two straps per downpipe.

.3 Install splash pans as indicated.

END OF SECTION