Part 1 General

1.1 RELATED REQUIREMENTS

.1 Section 04 05 00 - Common work results for masonry

.2 Section 04 21 13 - Brick Masonry

.3 Section 06 10 00 - Rough Carpentry

.4 Section 07 26 00 – Vapour Retarders and Air Barriers

.5 Section 07 92 00 – Joint Sealing

.6 Section 08 44 13 - Glazed Aluminum Curtain Walls

1.2 REFERENCES

.1 The Aluminum Association Inc. (AAI)

.1 AAI-Aluminum Sheet Metal Work in Building Construction-2002.

.2 AAI DAF45-03, Designation System for Aluminum Finishes.

.2 American Society for Testing and Materials International (ASTM)

.1 ASTM A240/A240M-15b, Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications.

.2 ASTM A792/A792M-10(2015), Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.

.3 ASTM D523-14, Standard Test Method for Specular Gloss.

.4 ASTM D822/D822M-13, Standard Practice for Filtered Open-Flame Carbon-Arc Exposures of Paint and Related Coatings.

.3 Canadian Roofing Contractors Association (CRCA)

.1 Roofing Specifications Manual (2011).

.4 Association des Maîtres Couvreurs du Québec (AMCQ).

.1 Manuel de devis de l'AMCQ.

.5 Canadian Standards Association (CSA)/CSA International

.1 AAMA/WDMA/CSA 101/I.S.2/A440-11, Standard/Specification for Windows, Doors, and Unit Skylights.

.2 CSA B111-1974(R2003), Wire Nails, Spikes and Staples.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

.1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.

.2 Product Data:

.1 Submit manufacturer's printed product literature for sheet metal flashing systems materials, specifications and datasheet and include product characteristics, performance criteria, physical size, finish and limitations.

.3 Samples:

.1 Submit 2 - 50 x 50 mm samples of each type of sheet metal material, finishes and colours.

.4 Quality assurance submittals: submit following in accordance with Section 01 45 00 - Quality Control.

.1 Manufacturer's Instructions: submit manufacturer's installation instructions and special handling criteria, installation sequence, cleaning procedures.

1.4 DELIVERY, STORAGE AND HANDLING

.1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements.

1.5 WASTE MANAGEMENT AND DISPOSAL

.1 Sort waste for reuse, recycling and recovery in accordance with Section 01 74 21 – Construction/Demolition Waste Management and Disposal.

Part 2 Products

2.1 SHEET METAL MATERIALS

.1 Aluminum-zinc alloy coated steel sheet: to ASTM A792/A792M, commercial quality, grade AZ180 coating, not chemically treated, for paint finish, 0,65 mm base metal thickness.

.2 Stainless steel sheet: to ASTM A240/A240M, grade 304.

.3 Aluminum sheet: commercial quality, 1,6 mm base metal thickness

2.2 PREFINISHED STEEL SHEET

.1 Flashing and metal trim for brick cladding: prefinished steel sheet, factory-coated with silicon-modified polyester layer, minimal thickness 0.65mm unless specified otherwise.

.1 Category: F1S

.2 Colour: chosen by the Representative of the Ministry, among the standard colors offered by the manufacturer. Consider a color per coating type.

.3 Specular gloss: 30 units, with a maximum deviation of 5 units more or less, according to ASTM D523.

.4 Coating thickness: at least 25 micrometers.

.5 Resistance to accelerated weathering with a chalk rating of 8, a bleach plus 5 units and an erosion of less than 20%: in accordance with ASTM D822 under the conditions of the following test.

.1 Exposure time weathering: 1000 hours.

.2 Duration of exposure to moisture: 1000 hours.

2.3 PREFINISHED ALUMINUM SHEET

.1 Finishing coating: visible surfaces of constituent aluminum elements must be finished in accordance with "Designation System for Aluminum Finishes" published by Aluminum Association.

.2 Natural anodized finish, Class 1, designation AA-M12C22A41.

.3 Thickness specified for prefinished aluminum sheet applies to base metal.

2.4 ACCESSORIES

.1 Isolation coating: alkali resistant bituminous paint.

.2 Sealants: refer to 07 92 00 – Joint Sealing.

.3 Underlay for metal flashing: self-adhesive membrane; refer to Section 07 26 00 – Vapour Retarders.

.4 Cleats: of same material, and temper as sheet metal, minimum 100 mm wide. Thickness same as sheet metal being secured.

.5 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.

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

.7 Touch-up paint: as recommended by prefinished sheet metal manufacturer.

2.5 FABRICATION

.1 Fabricate metal flashings and other sheet metal work in accordance with applicable CRCA 'FL' series details and as indicated.

.2 Fabricate aluminum flashings and other sheet aluminum work in accordance with AAI-Aluminum Sheet Metal Work in Building Construction.

.3 Form pieces in 2400 mm maximum lengths.

.1 Make allowance for expansion at joints.

.4 Hem exposed edges on underside 12 mm.

.1 Mitre and seal corners with sealant.

.5 Form sections square, true and accurate to size, free from distortion and other defects detrimental to appearance or performance.

.6 Apply isolation coating to metal surfaces to be embedded in concrete or mortar.

2.6 METAL FLASHINGS

.1 Form flashings, copings and fascias to profiles indicated, of galvanized prefinished steel, and include staples.

2.7 REGLETS AND CAP FLASHINGS

.1 Shape metal cap flashing and reglet strips of 0.65 mm thick sheet metal to be built-in work for base flashings as detailed.

.1 Provide slotted fixing holes and steel/plastic washer fasteners.

2.8 ALUMINUM FINISHES

.1 Finish exposed surfaces of aluminum components in accordance with AA DAF45.

.1 Integral colour anodic finish: designation AA-M12C22A41 colour to match Departmental Representative's sample.

.2 Appearance and properties of anodized finishes designated by Aluminum Association as Architectural Class 1, Architectural Class 2, and Protective and Decorative: to AAMA/WDMA/CSA-101/I.S.2/A440, for coating Classes 1, 2 and 3 respectively.

Part 3 Execution

3.1 MANUFACTURER'S INSTRUCTIONS

.1 Compliance: comply with manufacturer's written recommendations, including product technical bulletins, handling, storage and installation instructions, and datasheets.

3.2 INSTALLATION

.1 Install sheet metal work as detailed.

.2 Use concealed fastenings except where approved before installation.

.3 Provide underlay under sheet metal.

.1 Secure in place and lap joints 100 mm.

.4 Counterflash bituminous flashings at intersections of roof with vertical surfaces and curbs.

.1 Flash joints using S-lock seams forming tight fit over hook strips, as detailed.

.5 Lock end joints and caulk with sealant.

.6 Install surface mounted reglets true and level, and caulk top of reglet with sealant.

.7 Insert metal flashing into reglets under cap flashing to form weather tight junction.

.8 Turn top edge of flashing into recessed reglet or mortar joint minimum of 25 mm. Lead wedge flashing securely into joint.

.9 Caulk flashing at reglet cap flashing with sealant.

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

3.3 CLEANING

.1 Proceed in accordance with Section 01 74 11 - Cleaning.

.2 On completion and verification of performance of installation, remove surplus materials, excess materials, rubbish, tools and equipment.

.3 Leave work areas clean, free from grease, finger marks and stains.

END OF SECTION