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| Version | Date | Description of Revisions |
| 1 | August 30, 2006 | Approved final document. |
| 2 | November 13, 2009 | Modified ‘Related Section’ |
| 3 | June 7, 2012 | Addition of References and Replacement Parts sections to this page. |
| 4 | July 6, 2012 | Change tab settings in page 1-7. |
| 5 | April 23, 2015 | General formatting |
| 6 | April 7, 2016 | Phase 1 update (AV) |
| 7 | November 29, 2016 | Update Based on Legal’s comments (eDOCs #6396346) |

NOTE:

This is a CONTROLLED Document. Any documents appearing in paper form are not controlled and should be checked against the on-line file version prior to use.

**Notice:** This Document hardcopy must be used for reference purpose only.

**The on-line copy is the current version of the document.**

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## Related Sections

### *[Under "Related Sections", identify other Sections that are related to, and/or dependent on, the work results or information specified elsewhere. The list should be limited to Sections with specific information that the reader might expect to find in this Section, but is specified elsewhere. For example, if hardware for aluminum entrances is specified in the aluminum entrance Section, a cross-reference would be appropriate in the finish hardware Section. The purpose of this cross-referencing is for information only, to aid in finding those other requirements—not to define the scope of the Section.*

### *Cross-referencing here may also be used to coordinate assemblies or systems whose components may span multiple Sections and which must meet certain performance requirements as an assembly or system.*

### *Contractor is responsible for coordination of the Work.*

### *This Section is to be completed/updated during the design development by the Consultant. If it is not applicable to the section for the specific project it may be deleted.]*

### *[List Sections specifying installation of products supplied but not installed under this Section and indicate specific items.]*

### Section [\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_]: Execution requirements for ...[item]... specified under this Section.

### *[List Sections specifying products installed but not supplied under this Section and indicate specific items.]*

### Section [\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_]: Product requirements for ...[item]... for installation under this Section.

### *[List Sections specifying related requirements.]*

### Section [\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_]: [Optional short phrase indicating relationship].

#### Section 01060 – Regulatory Requirements

#### Section 01300 - Submittals

#### Section 07900 - Joint Sealers

## References

### Comply with the latest edition of the following statutes codes and standards and all amendments thereto.

#### Aluminum Association

##### Aluminum Sheet Metal Work in Building Construction.

##### AA DAF45, Designation System for Aluminum Finishes.

#### American Society for Testing and Materials (ASTM International)

##### ASTM A606/A606M-15, Standard Specification for Steel, Sheet and Strip, High-Strength, Low-Alloy, Hot-Rolled and Cold-Rolled, with Improved Atmospheric Corrosion Resistance.

##### ASTM A653/A653M-15, Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.

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

##### ASTM A879/A879M-12, Standard Specification for Steel Sheet, Zinc Coated by the Electrolytic Process for Applications Requiring Designation of the Coating Mass on each Surface.

##### ASTM B32-08(2014), Standard Specification for Solder Metal.

##### ASTM B370-12, Standard Specification for Copper Sheet and Strip for Building Construction.

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

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

#### Canadian Roofing Contractors Association (CRCA).

##### Roofing Specifications Manual.

#### Canadian Standards Association (CSA)

##### CSA A123.3-05 (R2015), Asphalt Saturated Organic Roofing Felt.

##### CAN/CSA-A440, Windows/Special Publication.

##### CAN/CSA-A440.1-00 (R2005), User Selection Guide to CAN/CSA Standard A440-00, Windows.

##### CAN/CSA A440.2-04/A440.3-04, Energy Performance of Windows and Other Fenestration Systems/User Guide to CSA A440.3-04, Energy Performance of Windows and Other Fenestration Systems.

##### CAN/CSA B111-1974 (R2003), Wire Nails, Spikes and Staples.

#### Canadian General Standards Board (CGSB)

##### CAN/CGSB-51.32-M77, Sheathing, Membrane, Breather Type.

## Submittals

### Submit shop drawings in accordance with Section 01300 - Submittals.

## Measurement and Payment

*[Choose one of the following payment language provisions that best suits the individual project.*

*If this Section is not specifically referenced by an item in the Bid Form, please use the following language:*

### The work of this Section will not be measured separately for payment. All costs associated with the work of this Section shall be included in the Contract Price.

*OR If this Section is specifically referenced in the Bid Form, use the following language and identify the relevant item in the Bid Form:*

### All costs associated with the work of this Section shall be included in the price(s) for Item No(s). \_\_\_ in the Bid Form.

*If the work of this Section is to be measured and paid for by several different methods, please amend the standard wording given above to reflect the different methods of measurement and payment.*]

# PRODUCTS

## Sheet Metal Materials

*[Various materials for use under this section are listed. Contractor to edit to suit project requirements.]*

### Zinc coated steel sheet: [0.91 mm] [      ] thickness, commercial quality to ASTM A653/A653M-15, with Z275 designation zinc coating.

*[Note to Consultant: Coating designations and mass, listed in ASTM A792/A792M-10(2015) are not applicable for material manufactured in Canada.]*

### Aluminum-zinc alloy coated steel sheet: to ASTM A792/A792M-10(2015), commercial quality, grade [33] [37] with [AZ150] [AZ180] coating, [regular] [spangle] [extra smooth] surface, [chemically treated for unpainted finish] not chemically treated for paint finish, [91] mm minimum base metal thickness.

### Electrolytic zinc coated, chromate treated, steel sheet: to [ASTM A879/A879M-12] commercial quality, Grade[ \_\_\_\_\_\_ ], Type [\_\_\_\_\_\_]

### Aluminum sheet: plain 0.91 mm minimum thickness.

## Prefinished Steel Sheet

### Prefinished steel with factory applied polyvinylidene fluoride.

#### Class [F1S] [F2S].

#### [\_\_\_\_\_\_] colour selected by Consultant from manufacturer's standard range.

[If metallic colour series is used then specular gloss should be 15 +/- 5 units.]

#### Specular gloss: [30] units +/- in accordance with ASTM D523-14.

#### Coating thickness: not less than [200] micrometres.

#### Resistance to accelerated weathering for chalk rating of 8, colour fade 5 units or less and erosion rate less than 20 % to ASTM D822/D822M-13 as follows:

##### Outdoor exposure period 2,500 hours.

##### Humidity resistance exposure period 5,000 hours.

*[Note: For Barrier Series use the following paragraph.]*

### Prefinished steel with factory applied polyvinyl chloride.

#### Class [F1S] [F2S].

#### Colour selected by Consultant from manufacturer's standard range.

#### Specular gloss: [30] units +/- 5 in accordance with ASTM D523-14.

#### Coating thickness: not less than [20], [25] micrometres.

#### Resistance to accelerated weathering for chalk rating of 8, colour fade 5 units or less and erosion rate less than 20 % to ASTM D822/D822M-13 as follows:

##### Outdoor exposure period [500] [1,000] hours.

##### Humidity resistance exposure period [500] [1,000] hours.

## Prefinished Aluminum Sheet

*[Consultant to provide alternate standard to replace withdrawn CAN/CGSB 93.1] provides for light commercial or residential coating; if higher performance is required, amend text to provide degree of durability required, in consultation with manufacturer of prefinished sheet.]*

### Finish: factory applied coating to *[Consultant to provide alternate standard to replace withdrawn CAN/CGSB 93.1]* supplemented and amended as follows:

#### Type [1] [2].

#### Class [F1S] [F2S].

#### [\_\_\_\_\_\_] colour selected by the Consultant from manufacturer's standard range.

#### Specular gloss: [\_\_\_\_\_\_] units.

#### Coating thickness: not less than [\_\_\_\_\_\_] micrometres.

#### Outdoor exposure period: [\_\_\_\_\_\_] years.

#### Exposure period for humidity resistance: [\_\_\_\_\_] hours.

#### Exposure period for salt spray resistance: [\_\_\_\_\_\_] hours.

### Thickness specified for prefinished aluminium sheet applies to base metal.

## Accessories

### Isolation coating: alkali resistant bituminous paint.

### Plastic cement: to *[Consultant to provide alternate standard to replace withdrawn CAN/CGSB 37.5]*

### Underlay for metal flashing: No. 15 perforated asphalt felt to CSA A123.3-05 (R2015).

### Sealants:[ \_\_\_\_\_\_] [as specified in Section 07900 – Joint Sealers.]

### Cleats: of same material, and temper as sheet metal, minimum 50 mm wide. Thickness [0.91] mm minimum.

### Fasteners: of same material as sheet metal, to CSA B111-1974 (R2003), ring thread flat head roofing nails of length and thickness suitable for metal flashing application.

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

### Solder: to ASTM B32-08(2014).

### Flux: rosin, cut hydrochloric acid, or commercial preparation suitable for materials to be soldered.

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

## Fabrication

### Fabricate metal flashings and other sheet metal work [in accordance with applicable CRCA 'FL' series details] [and as indicated in Contract Documents].

### Fabricate aluminium flashings and other sheet aluminium work in accordance with Aluminum Association Aluminium Sheet Metal Work in Building Construction.

### Form pieces in 2,400 mm maximum lengths. Make allowance for expansion at joints.

### Hem exposed edges on underside 12 mm. Mitre and seal corners with sealant.

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

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

## Metal Flashings

### Form flashings, copings and fascias to profiles indicated of [0.91 mm] thick [prefinished steel] [prefinished aluminium].

## Pans

*[Consultant note: Solder galvanized steel, stainless steel and copper. Rivet aluminum and prefinished galvanized steel.]*

### Form pans to receive roofing plastic from [      ] mm thick [prefinished steel] [aluminium] sheet metal with minimum 75 mm upstand above finished roof and 100 mm continuous flanges with no open corners. [Solder] [Rivet] joints. Make pans minimum 50 mm wider than member passing through roof membrane.

## Reglets and Cap Flashings

### Form [recessed reglets] [metal cap flashing] of [0.91] mm thick [\_\_\_\_\_\_] sheet metal to be built-in [concrete] [masonry work] for base flashings as detailed. Provide slotted fixing holes and steel/plastic washer fasteners. Cover face and ends with plastic tape.

## Eaves Troughs and Downpipes

### Form eaves troughs and downpipes from [0.91] mm thick [prefinished steel] [aluminium] sheet metal.

### Sizes and profiles as indicated in Contract Documents.

### Provide [goosenecks,] [outlets,] [strainer baskets] and necessary fastenings.

### Form 600 mm x 600 mm splash pans from [0.91] mm thick galvanized steel sheet metal.

## Scuppers

### Form scuppers from [0.91] mm thick [prefinished steel] [aluminium] sheet metal.

### Sizes and profiles as indicated in Contract Documents.

### Provide necessary fastenings.

### Form 600 mm x 600 mm splash pans from [0.91] mm thick galvanized steel sheet metal.

# EXECUTION

## Installation

[Check CRCA to ensure adequate coverage of project details.]

### Install sheet metal work in accordance with [CRCA FL series details,] [FL \_\_\_\_\_\_] [Aluminum Sheet Metal Work in Building Construction] [\_\_\_\_\_] and as detailed in the Contract Documents.

### Use concealed fastenings except where approved before installation.

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

### Counter-flash bituminous flashings at intersections of roof with vertical surfaces and curbs. Flash joints using [S-lock] [standing seams] forming tight fit over hook strips, [as detailed in the Contract Documents].

### Lock end joints and caulk with sealant.

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

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

### Insert metal flashing [into reglets] [under cap flashing] to form weather tight junction.

### Caulk flashing at reglet with sealant.

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

## Eaves Troughs and Downpipes

### Install eaves troughs and secure to building at [750] mm o.c. with eaves trough spikes through spacer ferrules. Slope eaves troughs to downpipes as indicated. [Solder] [Seal] joints watertight.

### Install downpipes and provide goosenecks back to wall. Secure downpipes to wall with straps at 1,800 mm o.c.; minimum two straps per downpipe. Connect downpipes to drainage system and seal joint with plastic cement .

### Install splash pans as indicated in the Contract Documents.

## Scuppers

### Install scuppers as indicated in the Contract Documents.

**END OF SECTION**