

SECTION 07612 - Metal Roofing Systems

PART 1 GENERAL

1.01 SUMMARY

A. SECTION INCLUDES

- 1. Factory formed copper metal roofing panels for straight, curved, tapered or compound curved (dome) roofing with standing seam closed by metal cap.**
- 2. Accessories including regular and thermal seam clips, flashings, closures and sealants.**

B. RELATED SECTIONS

Section 07200 - Insulation
Section 07190 - Vapour Barrier
Section 07900 - Joint Sealant
Section 05120 - Structural steel
Section 05210 - Steel Joists
Section 05310 - Steel Deck
Section 06100 - Plywood Sheeting

C. REFERENCES

- 1. CAN/C.S.A Standard S136 latest edition for the Design of Cold Formed Steel Structural Members.**
- 2. Canadian Sheet Building Institute Standards 10M and 20M.**
- 3. National Building Code of Canada (Latest edition)**

D. SYSTEM DESCRIPTION

- 1. Roofing Panels manufactured, fabricated and installed to withstand structural and thermal movement, wind load and weather exposure to maintain manufacturer's performance criteria without defects, damage and infiltration of water.**
- 2. Design system to -40 C to 80 C.**

E. SUBMITTALS

- 1. Submit duplicate 200 x 200 mm samples of roof system, colors and finishes, in accordance with Section 01300.**
- 2. Submit shop drawings indicating type of preformed metal panels, thickness of metal components, size, spacing and location of supports, connections, type and locations of fasteners, sealing, finish and colour in accordance with Section 01300**

F. PROTECTION

1. Protect prefinished steel during fabrication, transportation, site storage and erection in accordance with CSSBI Standards.

G. QUALITY ASSURANCE

1. Installer's Qualifications: Firm with 5 years experience in installation of systems similar in size and complexity to those required or this project.

H. WARRANTY

1. Submit a two year warranty for the work of this Section against defects in materials and workmanship.

PART 2 PRODUCT

A. MATERIALS

1. Air / Vapour Barrier selected in accordance with Section 07190.
2. Insulation: selected in accordance with Section 07200.
3. Sealant: in accordance with Section 07910 and manufacturer's recommendation.
4. Flashing and trims: same prefinished metal material and finish as roof panels.
5. Closures: as recommended by manufacturer.
6. Roof membrane: WR Grace Ultra or equivalent.
7. Breathable roof membrane underlayment SRP Roofshield or equivalent.
6. Copper CRC Roof panels .
 - Minimum[0.5 mm] thick , [copper], alloy C122, Roofing quality.
 - Finish: [] series .
 - Profile: interlocking standing seam at [50mm - 378 mm] o/c.
 - Roof panel support system: concealed fastener, purpose-made thermally responsive clip system, and allow full thermal expansion and contraction of roof sheet.
 - Provide CRC stainless steel clips.
 - Acceptable Product: Copper "CRC " by Classic Roofing Systems for straight, curved, tapered or compound curved roofing.
7. Seam clips and other fasteners: as specified by panel manufacturer, to resist wind uplift and sliding snow.
8. Ridge caps and closers.
 - Made from same copper material as Roof panels with matching finish.
 - Vented closers has to be used, if ventilation is needed through Ridge cap,
 - CR-Vented closer system gives Air-flow values 170 cm² / 1meter (8 sqinch / 1ft)
 - Solid closer can be used, if ventilation is not needed trough Ridge cap.

9. Snow Fence [One] [two] pipe system:
- Stainless steel pipe minimum 32 mm diameter and 1.0 mm wall thickness.
 - Stainless steel base compination fastened through cap and roof seam to subtrade under roof panels.
 - Sealant is needed between cap and bracket.
 - All bolts, nuts and washers stainless steel.
 - Acceptable Product: Stainless steel "CR - SFS" by Classic Roofing Systems.

PART 3. EXECUTION

A. Verification of Conditions.

1. Examine areas and conditions under which work is to be performed and identify conditions detrimental to proper or timely completion. Do not proceed until unsatisfactory conditions have been corrected.
2. Comply with manufacturer's product data, recommendations and installation instructions for substrate verification, preparation requirements and installation.

B. PREPARATION

1. Coordinate metal roofing with other work (drainage, flashing, trim, deck substrates, parapets, coping, walls) and other adjoining work to provide a non-corrosive and leak-proof installation.
2. Prevent galvanic action of dissimilar metals.

C. INSTALLATION

1. Install high temperature membrane on exterior grade plywood. Ensure all joints are properly lapped and sealed.
2. Install breathable roofing membrane underlayment (SRP Roofshield or equivalent) or slip sheet according to the manufacturer's installation procedure. Ensure all joints are properly lapped
3. Install starters and other parts needed for proper roof installation.
6. Install exterior copper roof panels using hidden seam fasteners, with folded bottom edge hooked to the starter trim, according to the manufacturer's installation procedure.
7. Install outer roof panels with folded sides and hook them to starter trim or use gable-end flashing, according to manufacturer's installation procedure
8. While installing roof panels, install Copper Snow Fence Brackets if needed to substrate in every second seam in proper distance from roof edge accordance with manufacturer recommendations or use adhesive mounted Snow Blox Deuce snow guards to every roof panel as per drawings. No holes allowed through the roof panels.
8. Remove manufacturer's protective film, if any, from surfaces of roofing panels.
10. Install caps and ridge cap and metal closures in accordance with manufacturer's specifications.

11. Install Snow Fence Pipes, if needed, in accordance to the manufacturer,s recommendations.

13. No exposed fasteners allowed, unless approved by the architect.