

PART 1 - GENERAL

1.1 REFERENCE STANDARDS

- .1 American Society of Mechanical Engineers (ASME)
 - .1 ASME B18.6.3-2013, Machine Screws, Tapping Screws, and Metallic Drive Screws (Inch Series).

- .2 ASTM International
 - .1 ASTM A653/A653M-20, Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
 - .2 ASTM D2369-10(2015)e1, Test Method for Volatile Content of Coatings.
 - .3 ASTM D2832-92(2016), Standard Guide for Determining Volatile and Nonvolatile Content of Paint and Related Coatings.

- .3 Canadian General Standards Board (CGSB)
 - ~~.1 CAN/CGSB-51.32-M77, Sheathing, Membrane, Breather Type.~~
 - .1 CAN/CGSB-93.4-92, Galvanized and Aluminum-Zinc Alloy Coated Steel Siding Soffits and Fascia, Prefinished, Residential.
 - .2 CAN/CGSB-93.5-92, Installation of Metal Residential Siding, Soffits and Fascia.

- .4 CSA International
 - .1 CSA B111-1974(R2003), Wire Nails, Spikes and Staples.

1.2 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00.

- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for metal siding and include product characteristics, performance criteria, physical size, finish and limitations.
 - .2 Submit 2 copies of WHMIS SDS in accordance with Section 01 35 29.
 - .1 Indicate VOC's for caulking materials during application and curing.

- .3 Shop Drawings:
 - .1 Submit drawings stamped and signed by professional engineer registered or licensed in Province of Ontario, Canada.
 - .2 Indicate dimensions, profiles, attachment methods, schedule of wall elevations, trim and closure pieces, soffits, fascia, wood furring, and related work.

- .4 Samples:
 - .1 Submit duplicate 600 x 600 mm samples of siding material, of colour and profile specified.

1.3 QUALITY ASSURANCE

- .1 Test Reports: submit certified test reports showing compliance with specified performance characteristics and physical properties.
- .2 Certificates: submit product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.

1.4 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 and with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store materials in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Store and protect metal siding from nicks, scratches, and blemishes.
 - .3 Replace defective or damaged materials with new.
- .4 Packaging Waste Management: remove for reuse and return by manufacturer of pallets, crates, padding and packaging materials as specified in Construction Waste Management Plan in accordance with Section 01 74 20.

PART 2 - PRODUCTS

2.1 STEEL CLADDING AND COMPONENTS

- .1 Steel siding: Fabricated from commercial grade to ASTM A653/A653M with Z275 zinc coating:
 - .1 Profile: vertical, ~~39~~ **22** mm deep, preformed ~~interlocking~~ **overlapping** joints, ~~exposed~~ fastener ~~type~~ **holes prepunched**.
 - .2 Pattern: corrugated pattern surface.
 - .3 Finish coating: factory precoated with modified silicone paint finish, 2 coat system dry paint film thickness of 0.025 mm.
 - .4 Colour: colour selected by Departmental Representative.
 - .5 Back coating: ASTM A653/A653M, grade A, Z275 coating designation.
 - .6 Gloss: medium.
 - .7 Thickness: 0.34 mm base metal thickness.
- .2 Soffit: Fabricated from commercial grade to ASTM A653 with Z275 zinc coating:
 - .1 Profile: flat sheet 'V' crimped for stiffness, vented 0.1 m² of opening for every 30 m² of building area, insect screen cover at vents.
 - .3 Finish coating: factory precoated with modified silicone paint finish, 2 coat system dry paint film thickness of 0.025 mm.
 - .4 Colour: colour selected by Departmental Representative.
 - .5 Back coating: ASTM A653/A653M, grade A, Z275 coating designation.

- .3 Fascia facings and exposed trim: Fabricated from commercial grade to ASTM A653/A653M with Z275 zinc coating:
 - .1 Finish coating: factory precoated with modified silicone paint finish, 2 coat system dry paint film thickness of 0.025 mm.
 - .2 Colour: colour selected by Departmental Representative.
 - .3 Gloss: medium.
 - .4 Thickness: 0.34 mm base metal thickness.
 - .5 Profile: manufacturer's standard as indicated.

2.2 FASTENERS

- .1 Nails: CSA B111.
- .2 Screws: ASME B18.6.3. Purpose made stainless steel **screws, exposed with coloured heads to match metal roofing, and integrated neoprene washer.**

2.3 CAULKING

- .1 Sealants: in accordance with Section 07 92 00.
 - .1 Test for acceptable VOC emissions in accordance with ASTM D2369 and ASTM D2832.

2.4 ~~SHEATHING PAPER~~ SHEET AIR BARRIER

- ~~.1 Exterior wall sheathing paper: to CAN/CGSB 51.32, spunbonded olefin type as indicated.~~
- .1 **In accordance with Section 07 27 00.**

2.5 WOOD STRAPPING

- .1 **In accordance with Section 06 10 00.**

2.6 ACCESSORIES

- .1 Exposed trim: inside corners, outside corners, cap strip, drip cap, under sill trim, starter strip and window/door trim of same material, colour and gloss as cladding, with fastener holes pre-punched.

2.7 FABRICATION

- .1 **Form individual pieces in 2400 mm maximum lengths. Make allowances for expansion at joints.**
- .2 **Fabricate panels roll formed, 878 mm wide, with corrugations 22 mm high, 68 mm on centre.**
- .3 **Hem exposed edges on underside 12 mm, mitre and seal.**

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

PART 3 - EXECUTION

3.1 EXAMINATION

- .1 Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable in accordance with manufacturer's written instructions.
- .1 Visually inspect substrate in presence of Departmental Representative.
 - .2 Inform Departmental Representative of unacceptable conditions immediately upon discovery.
 - .3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Departmental Representative.

3.2 MANUFACTURER'S INSTRUCTIONS

- .1 Compliance: comply with manufacturer's written data, including product technical bulletins, product catalogue installation instructions, product carton installation instructions, and data sheets.

3.3 INSTALLATION

- .1 Install cladding in accordance with CAN/CGSB-93.5, and manufacturer's written instructions.
- .2 Install overlap joints shingled to shed water, true to line, tight fitting, hairline, and lapped away from prevailing winds. Align transverse overlap joints in adjacent panels.**
- .3 Install continuous starter strips, inside and outside corners, edgings, soffit, drip, cap, sill and window/door opening flashings as indicated.
- .4 Install outside corners, fillers and closure strips with carefully formed and profiled work.
- .5 Install soffit and fascia cladding as indicated.
- .6 Maintain joints in exterior cladding, true to line, tight fitting, hairline joints.
- .7 Attach components in manner not restricting thermal movement.
- .8 Caulk junctions with adjoining work with sealant. Do work in accordance with Section 07 92 00.

3.4 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 00.
- .1 Leave Work area clean at end of each day.

- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 00.
- .3 Waste Management: separate waste materials for reuse and recycling in accordance with Section 01 74 20.
 - .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.

3.5 PROTECTION

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by preformed metal siding installation.