

PWGSC Ontario	PREFORMED STEEL SIDING,	Section 07 46 19
Region Project	INSULATED WALL PANELS, AND	Page 1
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PART 1 - GENERAL

1.1 GENERAL .1 This section refers to the Preformed Steel Siding assembly and insulated metal wall panels including all accessories and steel doors and frames including all accessories and hardware.

1.2 REFERENCES .1 American Society for Testing and Materials International (ASTM)
.1 ASTM A 167-99(2004), Standard Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.
.2 ASTM A 240/A 240M-05a, Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications.
.3 ASTM A 480/A 480M-05, Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip.
.4 ASTM D 523-89(R1999), Standard Test Method for Specular Gloss.
.5 ASTM D 822-01, Standard Practice for Filtered Open-Flame Carbon-Arc Exposures of Paint and Related Coatings.
.2 Canadian Standards Association(CSA International)
.1 CSA-S136-01 (R2007) North American Specification for the Design of Cold Formed Steel Structural Members.
.3 National Building Code of Canada 2010.

1.3 MEASUREMENT PROCEDURES .1 Payment for Siding and Composite Wall shall include complete installation for respective wall system including Expansion Anchors or Adhesive Anchors as required.
.1 Measure siding per square metre of siding installed.
.2 Measure Composite Wall per square metre of Composite Wall installed.
.2 Work for steel doors and frames including all accessories and hardware will not be measured separately for payment.

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| 1.4 QUALITY ASSURANCE | .1 | Supplier shall design, supply and fabricate work of this Section. |
| | .2 | Supplier/installer shall have a minimum of 10 years proven experience and must have completed at least 5 major wall panel projects. |
| 1.5 DESIGN REQUIREMENTS | .1 | Design, fabricate and erect wall system to meet the following requirements: <ul style="list-style-type: none"> .1 Rain penetration: prevent rain penetration through wall system. .2 Design system based on Rainscreen System based on guidelines published by the National Research Council. Incorporate means of draining moisture to the exterior. Testing on reasonably comparable systems will be considered acceptable. .3 Design system based on "Rain Screen Principle" by the National Research Council. Incorporate means of draining moisture to the exterior. .4 Wind Load: Design wall system to resist wind loads, positive and negative expected in this geographical region, without causing rattling, vibration or excessive deflection of panels, overstressing of fastener clips or other detrimental effects on wall systems. .5 Structural and thermal movement: Accommodate movement of supporting structural framing and movement caused by thermal expansion and contraction of system component parts without causing bowing buckling, delamination, oil canning failure of joint seals, excessive stress on fasteners, or any other detrimental effects. |
| 1.6 PRODUCT DATA | .1 | Submit product data in accordance with Section 01 33 00 - Submittal Procedures. |
| | .2 | Submit product data sheets for cladding, metal wall panels, and steel doors system materials. Include product characteristics, performance criteria, limitations and colours. |
| | .3 | Provide maintenance data for cleaning and maintenance of panel finishes. This information is to be in format for O+M Manuals. |
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- 1.7 SHOP DRAWINGS
- .1 Submit shop drawings in accordance with Section 01 33 00 - Submittal Procedures.
 - .2 Indicate dimensions and thickness of panels, siding assembly, and steel doors, fastening and anchoring methods, detail and location of joints and gaskets, thermal movement provision, wall openings, head, jamb and sill details, materials and finish, compliance with design criteria and requirements of related work.
 - .3 Indicate elevations, profiles, dimensions and thickness of panels.
 - .4 Indicate location and detail of joints including joints necessary to accommodate thermal movement.
 - .5 Indicate attachment clips, joint extrusion system and installation details.
 - .6 Show fastening and anchoring details.
 - .7 Drawings shall be signed and sealed by a Professional Engineer, attesting to the ability of the metal panels assembly to withstand the specified loads.
 - .8 Panels shall be identified on the shop drawings as to building location to facilitate panel removal and replacement.
- 1.8 SAMPLES
- .1 Submit samples in accordance with Section 01 33 00 - Submittal Procedures.
 - .2 Submit duplicate 600 x 600mm samples of wall system, representative of materials.
 - .3 Submit duplicate 76 x 127mm samples to illustrate colour and finish.
 - .4 Submit 1 litre sealed can of touch-up paint, properly identified for panel colour provided. Submit instructions for touch-up, repair and removal of panels.
- 1.9 EXISTING CONDITIONS
- .1 Visit site to verify existing materials steel siding assembly, insulated metal wall panels, and steel doors and frames are all to be matched to existing conditions.
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PART 2 - PRODUCTS

- 2.1 MATERIALS
- .1 Steel siding: 22GA (0.71mm) A653/A653M-07, Z275 zinc coating designation or ASTM A792/A792M -08, Commercial Steel CS Type A, Forming Steel FS type, Grade 230, AZ180 aluminum-zinc coating designation, prefinished to CSSBI Technical Bulletin No. 7, October 1979, 10000 Series paint system, Green colour selected by Departmental Representative to match existing and profile 38mm deep x 935mm (or to match existing) wide panel coverage x 3658mm high. New profile shall not exceed depth of existing profile. Steel minimum 30% recycled content.
.1 Profile to match: 'CL7040' manufactured by Vicwest 905-825-2252 www.vicwest.com.
 - .2 Steel liner: 1.2mm thick to match existing galvanized steel with ZF075 zinc coating designation, prefinished, colour to match existing and as selected by Departmental Representative.
 - .3 Steel eave panels: 1.22mm thick steel to ASTM A653/A653M-07, Z275 zinc coating designation or ASTM A792/A792M-08, Commercial Steel CS type A, Forming Steel FS Type, Grade 230, AZ180 aluminum-zinc coating designation, prefinished to CSSBI Technical Bulletin No. 7, October 1979, 10000 Series paint system, White colour selected by Departmental Representative to match existing profile and dimensions. Steel minimum 30% recycled content.
 - .4 Z-bars or sub-girts, drip closures and notched steel closures: 1.26mm thick galvanized steel to ASTM A653/A653M-07, Z275 zinc coating designation.
 - .5 Thermal clip: triangular, galvanized steel.
 - .6 Soffit, flashing and accessories: exposed trim, metal closures, cap pieces, etc. of same material and colour as siding.
 - .7 Fasteners: self tapping and self drilling screws, zinc coated steel, prepainted head colour to match siding, neoprene washers.
 - .8 Composite metal wall panels including accessories to match existing insulated wallpanels.

2.1 MATERIALS .8 (Cont'd)

9. Steel doors, frames, and hardware to match existing daybar insulated doors. Verify on site.

PART 3 - EXECUTION

- 3.1 INSTALLATION .1 Attach sub-girts to structural supports as indicated.
- .2 Install starter strips, inside corners, continuous outside corners, edgings, soffits and drip, cap and sill flashings.
- .3 Install siding and attachments sequentially from starter strips up, to manufacturer's instructions.
- .4 Install eaves panel facing on soffit where indicated.
- .5 Install exterior corners, fillers and closure strips with individually formed and profiled work using concealed fasteners.
- .6 Maintain joints in exterior sheets, true to line, tight fitting.
- .7 Apply sealant where detailed, at junction with other materials, around door and window perimeters, at metal flashings and perimeter of mechanical and electrical work.
- .8 Wash down surfaces with mild detergent.

- 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.
- .2 Follow manufacturer's instructions for steel siding assembly, insulated composite wall assembly, and insulated steel doors and frames including all accessories and hardware.

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3.3 CLEANING .1 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.