

PART 1 GENERAL

1.1 REFERENCE

- .1 Comply with the General Conditions of the Contract, Supplementary General Conditions and the requirements of Division 1.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- .1 Masonry Section 04200
- .2 Structural Steel Section 05500

1.3 SCOPE OF WORK INCLUDED

- .1 Supply and install all labour, material, equipment necessary to fabricate and erect VICWEST Architectural Design Metal Roof System Type Tradition 150 T-4 Standing Seam with Panels widths of 400mm. All in accordance with the details provided on the tender drawings and specified herein.

1.4 WORK NOT INCLUDED

- .1 Structural framing membrane, purlins, angles at eaves, valleys or all other steel supports required to accommodate the metal roof system installation.
- .2 All flashing or other sheet metal work not used in conjunction with the metal roof system.

1.5 SUBMISSION OF BIDS

- .1 All bidders must submit their tender price on the manufacturer VICWEST Architectural design metal roof system type Tradition 150T-4 as the base bid.
- .2 Manufacturers requesting an alternate roof system must adhere to the specifications on all materials, finishes, erection details. Any proposed changes to that which is specified or detailed must be approved by the architect seven (7) days prior to tender closing or the product will not be evaluated by the Architect as an equal. The manufacturer requesting an alternate or equal product must identify if there are any differences in the proposed alternate roof system to the base bid roof system.

.3 Metal roof systems not specified or covered by Addendum will not be accepted.

.4 All equivalent products must be identified by the Architect by Addendum.

1.6 QUALITY ASSURANCE

.1 Manufacturer and/ or approved applicator shall have a minimum of five (5) years experience in fabrication and installation of architectural design type metal roofing.

.2 Manufacturer and / or approved applicator must have the single source capabilities to provide

- A complete system deigned Architectural Metal Roof
- Technical Literature on the metal roof system
- Engineering and drafting capabilities / facilities
- Bonding Insurance
- Technical representation
- Field installation by approved certified erectors
- A warranty / guarantee as specified (5 years)
- All fabrication / and installation drawings shall; bear the stamp of a professional engineer registered in the Province of Manitoba.

1.7 SHOP DRAWING SUBMISSION

.1 Submit six (6) copies of installation shop drawings for approval to the General Contractor for submission to the Architect / Engineer for review and approval.

.2 No fabrication and /or installation shall commence until all shop drawings have been approved.

PART 2 PRODUCTS

2.1 MATERIALS

.1 Roof system type Tradition 150T-4 as manufacturer by VICWEST shall be fabricated from :

- A) Z275 galvanized sheet steel conforming to ASTM A653M Grade 230 having a nominal core thickness of 024".
- B) AZ150 galvalume sheet steel conforming to ASTM A792M Grade 230 nominal core thickness of 024"

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- .2 Coating
Colourite HMP Colour QC6156 HMP Pacific Turquoise.
 - .3 Thermal Barrier Exterior Grade gypsum sheathing CSA
A82.27 minimum thickness $\frac{1}{2}$ " (Densglass).
 - .4 Air Vapour Barrier Permabarrier 400
 - .5 Insulation : Extruded polystyrene Insulation conforming
to CAN/ULC S701-05 Type 2 having a thermal resistance of
R5 per inch and a compressive strength of 16 psi such as
DECKMATE by Dow Chemical Canada ULC or equal. Minimum of
4" (102mm) thickness - minimum R20 - Supplied and
installed under Section 07410.
 - .6 Subgirts minimum metal gauge 1.22 mm zinc coated
galvanized steel.
 - .7 Fasteners : as specified by the manufacturer to resist
uplift and sliding snow.
 - .8 Metal closures in accordance with the system design
 - .9 Sealant : to match those specified under Section 07900
 - .10 Flashing : formed from the same material (thickness and
finish) as the metal roof sheet custom fabricated to
suit architectural details.
 - .11 Gutter, rain water leader, downspout extensions shall be
manufactured from a minimum of 024" preprinted steel
colour and series finish to match metal roof panels
unless specified otherwise.

Note formed curb gutter at base of two (2) end gables
that discharge from a scupper onto the main roof (four
in total).

DESIGN

- .1 The metal roof details provided on the tender drawings or
as specified are based on architectural design roof
system VICWEST Tradition 150T-4.
- .2 Metal gauges shall be Imperial 024"
- .3 Metal roof panels at eaves shall not have a raw metal
edge or exposed fastener. All panels ends shall be folded
and installed in accordance with the details provided.

- .4 Metal roof panels terminating at hips or ridges shall have concealed metal closures installed. Closures shall accommodate ridge flashings.
- .5 All flashings used in conjunction with the Metal Roof System shall be manufactured from a minimum gauge of 024" prefinished material complete with (S) lock for concealed fastening unless otherwise specified or approved on the shop drawings. Colour to match metal roof panels.
- .6 Custom manufactured hung gutters shall be fabricated from 024" prefinished material to profile indicated on the tender drawings. Downspouts shall be designed to accommodate a large amount for roof water (4 total). Note stand off downspout that distributed roof water to roof drain.
- .7 Snow Fence to be manufactured in accordance with the architectural drawings. The design of the snow fence shall bear the seal of a professional engineer in the Province of Manitoba. Note the snow fence detail indicates bearing loads through the roof assembly.

Assume snow fence is attached to the roof at 400 or 800mm o.c. spanning the length of the roof dependent on the engineering design of the fence.

The design of the snow fence shall be designed and included as part of the structural steel framework to resist sliding snow forces determined by the degree of slope, the length of slope and the geographical location of the project. The precast pavers on the lower roof scape are an added protection to the EPDM membrane roofing .

PART 3 EXECUTION

3.1 EXAMINATION

- .1 Take field dimensions of Work upon which Work of this Section depends before fabrication and prior to tender close. Field adaptation of Work fabricated in error or without field check will not be allowed without Consultant's approval.

- .2 Prior to proceeding with the metal roof installation, arrange with the General Contractor to have the Architect/ Engineer and other trades as required attend an on site meeting to review details, inspect the work of other trades that may affect the metal roof installation.
- .3 In the event that some remedial work is required the metal roof installation shall not proceed until corrective measures have been taken to the satisfaction of the metal roofing contractor. Failure to comply constitutes acceptance of the work of the other trades that may affect the metal roof installation

3.2 ERECTION

- .1 Metal roof installation shall be carried out by the manufacturer an/or approved applicators erection crew having a minimum of five (5) years of experience.
- .2 Supply and install gypsum board exterior grade perpendicular to the flutes of the steel deck, Fasten gypsum board to the steel deck with fasteners recommended by the manufacturer. Spacing of fasteners to suit wind levelling conditions and as included on the approved shop drawings.
- .3 Install air/vapour barrier in accordance with manufacturer's recommendations. Note that a continuous vapour barrier is required over the roof assembly terminated on the vertical inside face of the gables by a hem bar - a seamed vapour barrier up and over the gable parapet lapped over the sloped roof vapour barrier - lapped over the vertical exterior wall vapour barrier and sealed to insure no moisture can break the air /vapour barrier.
- .4 To the air vapour barrier install 18 gauge 1.22 mm galvanized sub-girts spacing to resist wind and uplift forces and as indicated on the approved shop drawings. Install insulation in the largest sheets possible between subgirts. Metal roof panels and all associated flashing shall be in accordance with the approved shop drawings

3.3 GUARANTEE

- .1 Upon completion of the metal roof installation an industry standard guarantee / warranty shall be provided to the General Contractor for a period of five (5) years in accordance with CRCA recommendation covering material, roof leaks, installation workmanship.
- .2 Note that roof inspection consultant may be retained by the Corporation of the City of London when the work of the is section commences

3.3 PROTECTION AND CLEANING

- .1 Protect from dirt, construction debris and other damage.
- .2 Upon completion of all work, remove all debris and surplus material from the site.
- .3 Final cleaning in accordance with Division 1.

END OF SECTION