Part 1 General

1.1 REFERENCES

.1 Canadian Sheet Steel Building Institute (CSSBI)

.1 CSSBI 30M-95, Standard for Steel Building Systems.

.2 Manitoba Building Code (MBC)

.3 National Building Code of Canada (NBC)

.4 Electrical devices to be ULC approved and installed in accordance with Canadian Electrical Code and codes of authorities having local jurisdiction.

.5 National Fire Code of Canada (NFC) and codes of authorities having local jurisdiction.

1.2 SYSTEM DESCRIPTION

.1 Provide building structures and enclosures to physical dimensions shown on drawings, completely pre-fabricated and assembled for installation on a concrete base.

.2 The pre-fabricated structure is to be complete with all systems including interior finishes, counters, doors and hardware, heating and cooling, electrical panel board, and lighting.

1.3 DESIGN REQUIREMENTS

.1 Design building to allow for thermal movement of component materials caused by ambient temperature fluctuations without causing buckling, failure of joint seals, undue stress on fasteners or other detrimental effects.

.2 Ensure sufficiently insulated assemblies and thermal breaks are incorporated in the pre-fabricated structure to provide a total absence of condensation on interior surfaces under the following minimum condition: Interior: 20°C 30% RH, still air. Exterior: -35°C 30 km/h wind.

.3 Building shall be watertight.

.4 Provide for positive drainage of condensation occurring within wall construction and water entering at joints, to exterior face of wall in accordance with NRC "Rain Screen Principles".

.5 Provide continuous interior vapour barrier.

.6 Design members to withstand, within acceptable deflection limitations:

.1 Snow load of Ss = 0.7kPa Sr=0.4kPa, 1.0 kPa (minimum) plus loads for drifting.

.2 Lateral load of q30 = 0.43 kPa, q10 = 0.36 kPa.

.7 Design building enclosure elements to accommodate, by expansion joints, movement in wall and structural movements without permanent distortion, damage to in fills, racking of joints, breakage of seals, water penetration or glass breakage.

.8 Building will be supported on concrete slab on grade. Provide corrosion resistant anchor bolts and layout for incorporation in concrete work.

.9 All fasteners to be concealed or vandal proof.

.10 Exposed fasteners to be corrosion resistant, galvanized or stainless steel.

.11 Allow for ceiling, piping, conduit and other interior dead loads imposed on this structure.

.12 Building interior environment shall be heated and cooled to maintain interior temperature of 20°C minimum to 25°C maximum with relative humidity of 25% to 50%. Ambient design conditions to comply with National Building Code of Canada for Winnipeg, Manitoba winter dry bulb and summer wet bulb temperatures.

.13 Provide roof-mounted air conditioner with remote digital electronic control.

.14 Provide a force flow heater in corner near door with remote thermostat to maintain uniform temperature.

.15 Building lighting shall maintain measured lighting level of 500 lx at 1500 mm above finished floor, after building finishes and painting complete using recessed fluorescent fixtures, T5 tubes, electronic ballasts with K-12 acrylic lens in hinged frame.

.16 Fixed windows to consist of sealed, double glazed, tinted units in anodized clear aluminum frames, incorporating thermal breaks.

.17 Sliding windows to incorporate weather seals, nylon guides for easy operation, locking and hardware.

.18 Glazing to provide solar control of heat gain using tinted double glazed, low e coated sealed units with non-conductive spacer and argon filled cavity.

1. Visible light transmittance min. 37%
2. Solar heat gain coefficient max. 0.40
3. Shading coefficient max 0.47
4. U Value max 0.35
5. Tint colour grey or bronze (provide actual samples prior to ordering)

.19 Outer glazing panels to be tempered.

.20 Provide swing door assemblies complete with vandal proof continuous stainless steel piano hinge, lever handle in brushed chrome finish, meeting accessibility requirements, with keyed lock, fully weatherstripped with flexible, replaceable seals.

.21 Building to be constructed of frameless structural tubing. Interior and exterior wall panels to be galvanized and pre-finished 16 gauge steel, with white gloss finish.

.22 Provide metal roof sloped to scupper drain with perimeter fascia panels in contrasting pre-finished metal, grey colour.

.23 Integrate square, 16 ga. rain water leader from roof scupper to splash pad at grade.

.24 Floor structure to be insulated and finished with steel plate.

.25 Interior floor to be finished with 2 mm thick seamless rubber composite flooring adhered to sub-base. Provide rubber base at perimeter.

.26 Provide for a single 600 VAC, 15 amp, single phase service. Kiosk shall contain dry type transformer, 120/240 VAC panel board sized for building loads plus four spare 15 amp breakers and two empty spaces. Dry type transformer can be mounted on building exterior provided the transfer is encapsulated.

.27 Provide transient voltage surge suppressor (TVSS) integral to the breaker panel board. Rate at 120kA with L-N and N-G.

.28 Provide two 15 amp duplex receptacles above counter, two below counter, one on interior back wall and one weather proof GFCI on the exterior.

.29 All electrical and data conduits and devices to be flush/concealed mounted. No surface mounted conduit or devices. Provide conduit raceway for building security components to be installed on site.

.30 Provide a LED exterior fixture over doorway. Fixture to be full cut-off type (night friendly) complete with photocell control.

.31 Provide rough-in requirements for 6 strand fibre optic cable. Provide space under counter to mount fiber termination cabinet and Ethernet switch supplied by others.

.32 Provide four Cat 6 RJ45 connectors above counter space and conduit to under counter Cat 6 patch panel. Patch panel to be installed on site by Contractor.

.33 Provide 100mm junction box on east side of building for future exterior camera. Provide conduit from box to Cat 6 patch panel.

.34 Provide concealed conduits with fish wires for communication and data wiring.

.35 Provide counter of two layers 19 mm medium density fibreboard covered on all exposed surfaces with plastic laminate.

1.4 PERFORMANCE REQUIREMENTS

.1 Maximum deflection for roof under full specified live load: 1/360 of clear span.

.2 Maximum deflection for exterior cladding under full specified exterior wind induced loads: 1/180 of clear span.

.3 Maintain following tolerances for building structure and enclosure elements.

.1 Maximum variation from plane or location shown on shop drawings: 1 mm/1 m of length and up to 1 mm/5 m maximum.

.2 Maximum offset from true alignment between two adjacent members abutting end to end, in line: 0.75 mm.

1.5 SHOP DRAWINGS AND SAMPLES

.1 Submit shop drawings in accordance with E3 – Shop Drawings.

.2 Indicate plans and grid lines, structural members and connection details, bearing and anchorage details roof cladding, wall cladding, framed openings, accessories, schedule of materials and finishes, camber and loadings, fasteners and welds.

.3 Indicate detailed description of mechanical, electrical and other systems in work.

.4 Describe requirements of other systems of components related to this work but provided by others. Obtain necessary information required to detail this work including methods of integration and securing.

.5 Submit erection drawings for approval, before construction.

.6 Indicate erection dimensions and methods.

.7 Submit samples of glazing, providing options for colours.

.8 Submit sample of prefinished exterior fascia, wall finish, and interior finishes, including flooring.

Part 2 Products

2.1 MATERIALS

.1 Building materials: non-combustible construction.

.2 Fire resistive building elements: in accordance with the Manitoba Building Code for intended use and occupancy.

2.2 FABRICATION

.1 Maintain air and vapour and thermal barrier throughout building enclosure elements.

.2 Locate vapour barrier on warm side of thermal insulation.

.3 Enclosure assemblies shall be complete including exterior skin, glass units, access units' doors, etc., inner air/vapour seal membrane, thermal insulation; interior finishes.

.4 Accurately fit and rigidly frame together joints, corners and mitres. Match components carefully to produce continuity of line and design. Make joints and connections toward exterior weathertight. Materials in contact shall have hairline joints. Coordinate location of visible joints.

.5 Lifting hooks and other means of shipping are to be removed from installed product.

Part 3 Execution

3.1 ERECTION

.1 Erect building structure and enclosure elements.

.2 Seal base at perimeter of building for weatherproof enclosure.

3.2 CLEANING

.1 Remove excess sealant by moderate use of mineral spirits or other solvent acceptable by sealant manufacturer.

.2 Clean surfaces.

3.3 PROTECTION

.1 Provide protection to finished surfaces with stripable coatings, stripable wrappers, plywood or sheet materials as required before acceptance of work.

END OF SECTION