

MONORAIL AND HOISTS

1. GENERAL

1.1 Work Included

- .1 Supply and installation of monorail and hoist systems
- .2 Testing and start-up reports

1.2 Design Criteria

- .1 Monorail system shall be designed in conformance to the NBC.
- .2 Steel components shall conform to Section 05120 – Structural Steel.
- .3 Monorail system shall be designed for safe service live loading of 8.9 kN (900 kg) plus impact.
- .4 Design supports systems and monorail beams including all hangers, bracing, plates, bolts, nuts, washers, shims, etc.

1.3 Shop Drawings

- .1 Submit Shop Drawings in accordance with Section 01300 – Submittals.
- .2 Indicate size and description of all components, materials, attachment devices, finish and construction details, maximum lift height, and safe loading.
- .3 Shop Drawings and design briefs shall be signed and sealed by a Professional Engineer registered in the Province of Manitoba.

1.4 Maintenance Data

- .1 Provide maintenance data for hardware complete with pertinent details, spare parts lists, and warnings against harmful maintenance materials and practices for incorporation into maintenance manual.

1.5 Extended Warranty

- .1 Contractor hereby warrants that the monorail and hoist system will remain operative in accordance with General Conditions, but for five (5) years.

2. PRODUCTS

2.1 Monorail Systems

- .1 All material shall be suited for a high humidity environment

MONORAIL AND HOISTS

- .2 Monorail and bracing: steel conforming to Section 05120 - Structural Steel with finishes to Section 09900 – Finish Painting.
- .3 Trolley and hoists: manual operation, factory applied high quality finishes for indoor use; factory colours.
- .4 Chains: stainless steel type 316.
- .5 Fasteners: stainless steel type 316.
- .6 Maximum lift height: from Clearwell floor elevation to 4 m above Inlet Building finished floor elevation (approximately total 12.1 m lift).
- .7 Provide and install a decal for each side of monorail reading, “MAXIMUM LOAD 900 kg”, in black letters minimum 100 mm in height.

3. EXECUTION

3.1 Transportation and Storage

- .1 Transport and store hoist and trolley equipment as required by the Manufacturer.

3.2 Installation

- .1 Install monorail, trolley, and hoist in accordance with Drawings and Manufacturer’s instructions.
- .2 Touch up any damaged finishes.
- .3 Ensure operation is smooth and lifting capacity and lift height are as specified.
- .4 Test system to 150% of design load. Submit testing and start-up report.

3.3 Damaged Members

- .1 Repair or replace members damaged during transit or erection, before securing in position.
- .2 Upon completion, touch up and restore damaged or defaced factory finished surfaces to new condition.
- .3 Touch up shop primer bolts, welds, and burned or scratched surfaces at completion of installation.
- .4 Remove protective coverings and clean exposed surfaces after completion. Leave equipment and appurtenances in a first class condition.

END OF SECTION