

## **PART 1 - GENERAL**

### **1.1 Codes and Standards**

- .1 Execute work in accordance with the Manitoba Building Code (MBC) and supplements; the editions current at time of bid closing.
- .2 Wherever codes, standards, regulations are referenced herein they shall mean the latest editions including amendments, supplements and revisions as of the date of bid closing.
- .3 In no instance shall the standard of quality of materials, products and workmanship established by these specifications and drawings be reduced by any of the codes, standards, or regulations.

### **1.2 Temporary Power**

- .1 The Contractor is responsible for supplying power required during the Work for temporary lighting and operating of power tools.

### **1.3 Sanitary Facilities**

- .1 Provide sanitary facilities for work force in accordance with governing regulations and ordinances. Keep area and premises in a sanitary condition.

### **1.4 Water Supply**

- .1 Provide own water supply.

### **1.5 Hoarding and Site Fencing**

- .1 Provide and erect hoarding to protect the public, workers and public and private property from injury or damage, in accordance with local governing authorities or By-Laws.
- .2 Provide and erect temporary site fencing to enclose construction area around building. Maintain fence in good condition until completion of project.
- .3 Site fencing shall be 2.1 m (7'-0") high chain link or wire mesh fencing with posts at no more than 2.4 m (8'-0") on centre.

### **1.6 Weather Enclosures**

- .1 Provide temporary weather-tight enclosures and protection to existing equipment and building interior until permanently enclosed.
- .2 Erect enclosures to allow access for installation of materials and working inside enclosure.
- .3 Design enclosures to withstand wind pressure and snow loading as required.

### **1.7 Protection of Building Finishes and Equipment**

- .1 Provide adequate protection for finished and partially finished building finishes and equipment during the performance of Work. Provide necessary screens, covers, hoardings as may be required. Be responsible for all damages incurred due to improper or lack of protection.

**1.8 Fire Protection**

- .1 Provide and maintain adequate temporary fire protection on equipment during performance of Work, as required by insurance companies having jurisdiction and governing Codes, regulations and By-Laws.
- .2 Handle gasoline and like combustible materials with good safe practice.
- .3 Remove combustible debris from site daily.

~End~

## **PART 1 - GENERAL**

### **1.1 Related Sections**

- .1 The City of Winnipeg Standard Construction Specifications Section CW1110 – General Instructions.

### **1.2 Submittals**

- .1 Submittals: in accordance with The City of Winnipeg Standard Construction Specifications Section CW1110 – General Instructions.
- .2 Copy will be returned after final inspection, with Contract Administrator's comments.
- .3 Revise content of documents as required prior to final submittal.
- .4 Two weeks prior to Substantial Performance of the Work, submit to the Contract Administrator, six final copies of operating and maintenance manuals in English.
- .5 Ensure spare parts, maintenance materials and special tools provided are new, undamaged, and of same quality and manufacture as products provided in Work.
- .6 Furnish evidence, if requested, for type, source and quality of products provided.
- .7 Defective products will be rejected, regardless of previous inspections.
- .8 Pay costs of transportation.

### **1.3 Format**

- .1 Organize data as instructional manual.
- .2 Binders: vinyl, hard covered, 3 'D' ring, loose leaf 219 x 279 mm with spine and face pockets.
- .3 When multiple binders are used correlate data into related consistent groupings. Identify contents of each binder on spine.
- .4 Cover: identify each binder with type or printed title 'Project Record Documents'; list title of project and identify subject matter of contents.
- .5 Arrange content by systems, under Section numbers and sequence of Table of Contents.
- .6 Provide tabbed fly leaf for each separate product and system, with typed description of product and major component parts of equipment.
- .7 Text: manufacturer's printed data, or typewritten data.
- .8 Drawings: provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- .9 Provide 1:1 scaled CAD files in dwg format on CD or DVD.
- .10 Provide all shop drawings, data sheets, test reports, certificates, manufacturer's instructions, manufacturer's field reports and operation and maintenance data in

electronic pdf and/or dwg format on CD or DVD. Other electronic formats may be included if approved by the Contract Administrator.

#### **1.4 Contents - Each Volume**

- .1 Table of Contents: provide title of project; Date of submission; names.
  - .1 Schedule of products and systems, indexed to content of volume.
- .2 For each product or system:
  - .1 List names, addresses and telephone numbers of subcontractors and suppliers, including local source of supplies and replacement parts.
- .3 Product Data: mark each sheet to identify specific products and component parts, and data applicable to installation; delete inapplicable information.
- .4 Drawings: supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams.
- .5 Typewritten Text: as required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

#### **1.5 As-Built And Samples**

- .1 Label record documents and file in accordance with Section number listings in List of Contents of this Project Manual. Label each document "PROJECT RECORD" in neat, large, printed letters.
- .2 Maintain record documents in clean, dry and legible condition. Do not use record documents for construction purposes.
- .3 Keep record documents available for inspection by Contract Administrator.

#### **1.6 Recording Actual Site Conditions**

- .1 Record information on set of black line opaque drawings, provided by Contract Administrator.
- .2 Provide felt tip marking pens, maintaining separate colours for each major system, for recording information.
- .3 Record information concurrently with construction progress. Do not conceal Work until required information is recorded.
- .4 Contract Drawings and shop drawings: mark each item to record actual construction, including:
  - .1 Field changes of dimension and detail.
  - .2 Changes made by change orders.
  - .3 Details not on original Contract Drawings.
- .5 Other Documents: maintain manufacturer's certifications, inspection certifications, and field test records, required by individual specifications sections.

## **1.7 Equipment And Systems**

- .1 Each Item of Equipment and Each System: include description of unit or system, and component parts. Give function, normal operation characteristics, and limiting conditions. Include performance curves, with engineering data and tests, and complete nomenclature and commercial number of replaceable parts.
- .2 Panel board circuit directories: provide electrical service characteristics, controls, and communications.
- .3 Include installed colour coded wiring diagrams.
- .4 Operating Procedures: include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.
- .5 Maintenance Requirements: include routine procedures and guide for trouble-shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- .6 Provide servicing and lubrication schedule, and list of lubricants required.
- .7 Include manufacturer's printed operation and maintenance instructions.
- .8 Include sequence of operation by controls manufacturer.
- .9 Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- .10 Provide installed control diagrams by controls manufacturer.
- .11 Provide Contractor's co-ordination drawings, with installed colour coded piping diagrams.
- .12 Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- .13 Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- .14 Include test and balancing reports.
- .15 Additional requirements: as specified in individual specification sections.

## **1.8 Maintenance Materials**

- .1 Provide maintenance and extra materials, in quantities specified in individual specification sections.
- .2 Provide items of same manufacture and quality as items in Work.
- .3 Deliver to location as directed; place and store.
- .4 Receive and catalogue items. Submit inventory listing to Contract Administrator. Include approved listings in Maintenance Manual.
- .5 Obtain receipt for delivered products and submit prior to final payment.

**1.9 Special Tools**

- .1 Provide special tools, in quantities specified in individual specification section.
- .2 Provide items with tags identifying their associated function and equipment.
- .3 Deliver to location as directed; place and store. Receive and catalogue items. Submit inventory listing to Contract Administrator. Include approved listings in Maintenance Manual.

**1.10 Storage, Handling And Protection**

- .1 Store spare parts, maintenance materials, and special tools in manner to prevent damage or deterioration.
- .2 Store in original and undamaged condition with manufacturer's seal and labels intact.
- .3 Store components subject to damage from weather in weatherproof enclosures.
- .4 Remove and replace damaged products at own expense and to satisfaction of Contract Administrator.

**PART 2 - PRODUCTS**

**2.1 Not Used**

- .1 Not Used.

**PART 3 - EXECUTION**

**3.1 Not Used**

- .1 Not Used.

~End~