1. GENERAL

1.1 Shop Drawings, Product Data and Other Submittals

- Arrange for the preparation of clearly identified Shop Drawings, Product data and other submittals as specified or as the Contract Administrator may reasonably request. Submittals are to clearly indicate materials, methods of construction and attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for completion of the Work. Where articles or equipment attach or connect to other articles or equipment, clearly indicate that all such attachments and connections have been properly coordinated, regardless of the trade under which the adjacent articles or equipment will be supplied and installed. Submittals are to indicate their relationship to design drawings and specifications. Notify the Contract Administrator in writing of any deviations in submittals from the requirements of the Contract.
- .2 Examine all submittals prior to submission to the Contract Administrator to ensure that all necessary requirements have been determined and verified and that each Shop Drawing has been checked and coordinated with the requirements of the Work and the Contract. Examination of each Shop Drawing shall be indicated by stamp, date and signature of a responsible person of the Subcontractor for supplied items and of the Contractor for fabricated items. Submittals not stamped, signed and dated will be returned without being reviewed.
- .3 Submit submittals with reasonable promptness and in an orderly sequence so as to cause no delay in the Work. Failure to submit submittals in ample time is not to be considered sufficient reason for a change to the work schedule and no claim for extension of time by reason of such default will be allowed. Jointly prepare a schedule fixing the dates for submission and return of submittals.
- .4 Submit three (3) copies of white prints and three (3) copies of all fixture cut sheets and brochures.
- .5 The Contract Administrator will review and return submittals in accordance with the schedule agreed upon or otherwise with reasonable promptness so as to cause no delay in the Work.
- Review by the Contract Administrator is solely for general conformity with the Contract. The Contract Administrator does not warrant or represent that information is accurate or complete. Review by the Contract Administrator shall not relieve the Contractor of responsibility for errors or omissions in designs that are the Contractor's responsibility, and for conforming and correlating with all quantities and dimensions, performing the Work, selecting performance means and methods, coordinating with other parts of the Work and between trades, and performing the Work safely. Notwithstanding the review, the Contractor remains solely responsible for compliance with the Contract.
- .7 Responsibility for verification and correlation of field dimensions, fabrication processes, techniques of construction, installation and coordination of all parts of the Work rests with the Contractor.
- .8 Submittals will be returned to the Contractor with one of the following notations:
 - .1 When stamped "Reviewed No Comment" or "Review by Consultant Not Required", distribute additional copies as required for execution of the Work.

- .2 When stamped "Reviewed As Noted", ensure that all copies for use are modified and distributed.
- .3 When stamped "Reviewed Revise and Resubmit", make the necessary revisions, as indicated, consistent with the Contract and submit again for review.
- .9 Only submittals bearing "Reviewed No Comment", "Review by Consultant Not Required", or "Reviewed As Noted" shall be used on the Work unless otherwise authorized by the Contract Administrator.
- .10 After submittals are stamped "Reviewed No Comment" or "Reviewed As Noted", no further revisions are permitted unless re-submitted to the Contract Administrator for further review.
- .11 Any adjustments made on submittals by the Contract Administrator are not intended to change the Contract Price. If it is deemed that such adjustments affect the Contract Price, clearly state as such in writing prior to proceeding with fabrication and installation of Work.
- .12 Make changes in submittals which the Contract Administrator may require consistent with the Contract. When re-submitting, notify the Contract Administrator in writing of any revisions other than those requested by the Contract Administrator.
- .13 Submittals indicating design requirements not included in the Contract require the seal of a qualified Professional Engineer, registered in the province of the place of the Project. Engineering calculations shall be submitted for review, if requested, and sealed by a qualified Professional Engineer.

1.2 Samples

- .1 Submit samples for the Contract Administrator's review as specified or as the Contract Administrator may reasonably request. Clearly label samples as to origin and intended use in the Work. Reference samples to Drawings and Specifications.
- 2 Submit samples with reasonable promptness and in orderly sequence so as to cause no delay in the Work. Failure to submit samples in ample time is not to be considered sufficient reason for a change to the work schedule and no claim for extension of time by reason of such default will be allowed. Jointly prepare a schedule fixing the dates for submission and return of samples.
- 3 Notify the Contract Administrator in writing, at the time of submission, of any deviations in samples from requirements of the Contract.
- 4 The Contract Administrator's review will be for conformity of design concept and general arrangement only. Such review is not to be considered relief of responsibility for errors or omissions in samples or of responsibility for meeting all requirements of the Contract.
- Any adjustments made on samples by the Contract Administrator are not intended to change the Contract Price. If it is deemed that such adjustments affect the Contract Price, clearly state as such in writing prior to proceeding with fabrication and installation of the Work.
- 6 Make changes in samples which the Contract Administrator may require consistent with the Contract.

1.3 Operating and Maintenance Manuals

- 1 Not less than two (2) weeks prior to Substantial Performance, submit to the Contract Administrator five (5) copies of operating and maintenance manuals which shall contain information required by the Specifications as well as operational information on equipment, cleaning and lubrication schedules, filters, overhaul and adjustment schedules. All instructions in these manuals shall be in simple language to guide the City in the proper operation and maintenance of this installation.
- .2 Bind contents in a three-ring, hard covered, plastic jacketed binder.
- .3 Index binder according to the following system:

Tab-1.0 Mechanical Systems:

Title page with clear plastic protection cover.

Tab-1.1 List of Mechanical Drawings:

Tab-1.2 System Descriptions:

Provide complete description of the operating sequence for all systems. Include detailed system description, with individual components described, explanation of how components interface with others and to the complete system, location of thermostats, controllers or operating variances, and controller operating setpoints.

Tab-1.3 Operating Division:

Provide complete and detailed operation of major components and systems. Provide information on location of components, how to energise switches and controls, how components interface with other components, operation of controls including operational sequence, operational changes for summer of winter operation, how to accomplish the changeover, complete trouble shooting sequence, emergency operating sequences in event of major component failure, and safeguards to indicate if equipment goes off-line.

Tab-1.4 Maintenance and Lubrication Division:

Provide general maintenance and lubrication schedule for major components to include daily, weekly, monthly, semi-annual and yearly checks and tasks. Explain how to execute maintenance tasks required for typical equipment such as bearings, drives, motors, and filters. Compile this information for equipment and separate from Shop Drawings.

Tab-1.5 List of Equipment Suppliers and Contractors:

Provide list of equipment suppliers and contractors, including address and telephone number. Outline procedures for purchasing parts and equipment.

Tab-Certification (2.0, 2.1, ...):

Include copy of test data on degreasing and flushing of heating system, analysis of system water taken at time system was put into operation, hydrostatic or air tests performed on piping systems, equipment alignment certificates, copy of balancing data for air and water systems, copy of valve tag identification and pipe colour

code, inspection approval certificates for plumbing system, heating and ventilation systems.

Tab-Shop Drawings and Maintenance Bulletins (3.0, 3.1, ...):

Provide materials received in compliance with clause 1.1

.4 The divider tabs shall be laminated Mylar plastic and coloured according to Section. The colouring is as follows: Mechanical Systems - 1.0 - 1.5 Orange; Certification - 2.0 - 2.4 Green; Shop Drawings & Maintenance - 3.0 - 3.17 Yellow. Plastic tabs with typewritten card insertions will not be accepted.

1.4 Record Drawings

- .1 After award of Contract, the Contract Administrator will provide a complete set of Drawings for the purpose of maintaining Project Record Drawings.
- .2 Accurately record significant deviations from the Contract caused by Site conditions and changes ordered by the Contract Administrator. Update daily.
- .3 Record locations of concealed elements of mechanical and electrical services.
- .4 Identify Drawings as "Project Record Copy". Maintain in good condition and make available for inspection on-site by the Contract Administrator at all times.
- .5 On completion of the Work and prior to final inspection, submit Record Drawings to the Contract Administrator for review.
- .6 Within one (1) month after return of Record Drawings by the Contract Administrator, obtain and pay for a complete set of original reproducible sepias. Transfer all changes from Record Drawings to the sepias and certify accuracy by signing each. Deliver sepias to the Contract Administrator.

1.5 Photographs and Publicity

- .1 No photographs of the Site or of any portion of the Work will be permitted without prior approval of the Contract Administrator.
- 2 No press or publicity releases will be permitted without prior approval of the Contract Administrator.

2. PRODUCTS (NOT USED)

3. EXECUTION (NOT USED)

END OF SECTION