

PART E
SPECIFICATIONS

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS, STANDARD DETAILS AND DRAWINGS

E1.1 The following Drawings are applicable to the Work:

<u>Drawing No.</u>	<u>Drawing</u>
A-1	Floor Plans – Renovation & Schedules
A-2	X-Sections
M-1	Demolition Mechanical
M-2	Renovation Mechanical
E-1	Ground Floor Plan Electrical Renovation

E2. GENERAL PROVISIONS SECTION 01000

E2.1 SCOPE

E2.1.1 ARCHITECT OR ENGINEER

- a) Wherever the word Architect or Engineer or Consultant is used in the construction specifications, it shall be replaced with Contract Administrator as defined in GC.1.01(8) of the General Conditions, or his agent.

E2.2 COORDINATION AND COOPERATION:

E2.2.1 OTHER TRADES

- a) Further to GC:6.1, Specifications shall be read by all trades to acquaint them with the nature of the Work required. Failure to do so will not relieve them of any responsibilities for cooperation in coordinating the Work and preventing delay and for the supply and installation of materials required for this Work.

E2.2.2 CUTTING AND PATCHING

- a) Each trade shall do all necessary cutting and patching required for their Work. Existing adjacent surfaces shall be accurately matched. Cutting through any structural member shall only be done with the prior approval of the Contract Administrator.
- b) Perform all cutting and patching required to make the several parts of the Work come together properly.

E2.3 MATERIALS

E2.3.1 C.S.A.

- a) All materials, where applicable, shall be CSA approved.

E2.4 SUBMITTALS

E2.4.1 SHOP DRAWINGS

- a) Further to GC:6.9, the Contractor shall submit for approval, at least five (5) sets of detailed shop drawings for all Work as requested by the Contract Administrator at the initial site meeting and as required thereafter.

E2.4.2 EXISTING SERVICES AND UTILITIES

- a) Further to GC.3.1 (b) of the General Conditions, it shall be the responsibility of the Contractor to verify the location of all existing utilities, pipes and other objects and, if encountered, to adequately protect them during the construction period, and if disturbed or damaged by the Contractor, to have them replaced or reset in their original position after construction has been completed at the Contractor's cost.

E2.5 PROJECT INFORMATION SIGNS

E2.5.1 SIGNS

- a) No project information signs shall be allowed without the written approval of the Contract Administrator. Any project information signs approved during construction are to be removed by the Contractor upon completion of the project.

E2.6 REQUIREMENTS FOR SUBSTANTIAL PERFORMANCE:

E2.6.1 INSTRUCTION MANUALS

- a) The Contractor shall provide the Contract Administrator with four copies of all manuals showing:
 - i. Service Instruction - including a list of spare parts and replacement parts and the names and addresses of all suppliers.
 - ii. Maintenance Instructions.
 - iii. Installation Instructions.
 - iv. Operating Instructions.
 - v. Electric Schematics.
- b) Detailed electrical and electronic circuit diagrams (wiring and schematic) showing all wiring connections; all electrical component values; all component parts manufacturers; and servicing procedure for all electrical and electronic equipment utilized to approval of the City. Substantial Performance of the equipment is contingent on the provision of the above information.

E2.6.2 INSTRUCTION

- a) The Contractor shall instruct the facility operating staff in the use of all the facility systems to the satisfaction, and in the presence, of the Contract Administrator.

E2.7 REQUIREMENTS FOR TOTAL PERFORMANCE

E2.7.1 AS-BUILT DRAWINGS

- a) At Total Performance, the Contractor shall provide the Contract Administrator with two sets of record drawings as "As-Built" Drawings and specifications bearing notations of all changes and variations from the originals.
- b) The accuracy of these drawings shall be the responsibility of the Contractor, who shall bear all expenses of corrections thereto. Final payment shall not be made until this requirement has been fulfilled.

E3. PROJECT COORDINATION SECTION 01040

E3.1 General

E3.1.1 REQUIREMENTS INCLUDED

- a) Coordination of Work with Contract Administrator and all Sub-trades.

E3.1.2 DESCRIPTION

- a) Coordination of submittals, use of site, temporary utilities, construction facilities and use of elevators.

E3.1.3 EXISTING CONDITIONS

- a) The operation of this facility is to remain uninterrupted during the duration of this project. The contractor is to minimize interference to the staff of this building.
- b) All procedures involving existing building, or staff must be coordinated with the Contract Administrator.
- c) Construction hours of operation shall be approved by the Contract Administrator to reduce disturbance of the staff.
- d) Power actuated fastening devices or other noise generating equipment shall not be used without approval of the Contract Administrator.
- e) Only elevators designated by the Contract Administrator shall be used for the transporting of equipment and materials to and from the worksite. The contractor shall take precautions to protect the elevators used in the progress of the Work. Damages to the elevators due to construction use shall be corrected at no expense to the City.
- f) Only one elevator may be taken off service at any one time for both loading or unloading equipment and materials or for performing elevator work as required in the contract documents. Contract Administrator shall be notified 24 hours in advance of any elevator to be taken off service. Removal of more than one elevator from service shall require written permission from the Contract Administrator.

E4. CUTTING AND PATCHING SECTION 01045

E4.1 General

E4.1.1 REQUIREMENTS INCLUDED

- a) Requirements and limitations for cutting and patching the Work.

E4.1.2 RELATED REQUIREMENTS

- a) Individual Sections: cutting and patching incidental to Work of the section.

E4.1.3 SUBMITTALS

- a) Submit written request in advance of cutting or alteration which affects:
- i. Structural integrity of any element of Projects.
 - ii. Integrity of weather-exposed or moisture resistant elements.
 - iii. Efficiency, maintenance, or safety of any operational element.
 - iv. Visual qualities of sight-exposed elements.
- b) Include in request:
- i. Identification of project.
 - ii. Location and description of affected Work.
 - iii. Statement on necessity for cutting or alteration.
 - iv. Description of proposed Work and products to be used.
 - v. Alternatives to cutting and patching.
 - vi. Effect of Work on owner.
 - vii. Date and time Work will be executed.

E4.2 Products

E4.2.1 MATERIALS

- a) Required for original installation.

E4.3 Execution

E4.3.1 GENERAL

- a) Execute cutting, fitting and patching to complete the Work.
- b) Fit the several parts together, to integrate with other Work.
- c) Uncover Work to install ill-timed Work.
- d) Remove and replace defective and non-conforming Work.
- e) Provide openings for penetrations of mechanical and electrical Work.

E4.3.2 INSPECTION

- (a) Inspect existing conditions, including elements subject to damage or movement during cutting and patching.
- (b) After uncovering, inspect conditions affecting performance of Work.
- (c) Beginning of cutting or patching means acceptance of existing conditions.

E4.3.3 PREPARATION

- (a) Provide supports to assure structural integrity of surroundings; devices and methods to protect other portions of project from damage.
- (b) Provide protection from elements for areas which may be exposed by uncovering Work.
- (c) Conduct Work to minimize interference with operation of existing facility.

E4.3.4 PERFORMANCE

- (a) Execute Work by methods to avoid damage to other Work and which will provide proper surfaces to receive patching and finishing.
- (b) Employ original installer to perform cutting and patching for weather-exposed and moisture-resistant elements and sight-exposed surfaces.
- (c) Cut rigid materials using masonry saw or core drill. Pneumatic or impact tools not allowed without prior written approval from the Contract Administrator.
- (d) Restore Work with new products in accordance with requirements of Contract Documents.
- (e) Fit Work airtight to pipes, sleeves, ducts, conduit and other penetrations through surfaces.
- (f) At penetration of fire-rated wall, ceiling or floor construction, completely seal voids with fire-rated material, full thickness of the construction element.
- (g) Refinish surfaces to match adjacent finishes: for continuous surfaces refinish to nearest intersection or as indicated on schedule and drawings; for equipment refinish entire unit.
- (h) Provide and install steel lintels for new openings in existing masonry construction.
- (i) Restore surfaces and finishes in areas of electrical and mechanical Work to match surrounding substrate as per above note

E5. FIELD MEASUREMENT SECTION 01055

E5.1 General

E5.1.1 REQUIREMENTS INCLUDED

- a) Verification of building dimensions.
- b) Site measurement for new construction.

E5.1.2 RELATED REQUIREMENTS

- a) Section 01000 – General Provisions
- b) Individual Sections – site measurements prior to fabrication.

E5.1.3 PROJECT CONDITIONS

- a) The drawings in these bid documents are based on drawings of existing facility, actual site dimensions may vary.

E5.2 Products

E5.2.1 Not Used

E5.3 Execution

E5.3.1 SITE MEASUREMENT

- a) Verify all fixed dimensions prior to commencing with Work.
- b) Site check all dimensions prior to fabrication.
- c) Notify Contract Administrator of any discrepancies between site checked dimensions and drawing dimensions.