Part 1 - General

1.1 RELATED REQUIREMENTS

.1 Section 08 11 00 - Metal Doors and Frames.

.2 Section 08 14 16 - Flush Wood Doors.

.3 Section 02 41 19 - Selective Demolition, Cutting and Patching

1.2 REFERENCE STANDARDS

.1 American National Standards Institute (ANSI) / Builders Hardware Manufacturers Association (BHMA).
- .1 ANSI/BHMA A156.1-2016, Butts & Hinges.
- .2 ANSI/BHMA A156.2-2011, Bored and Preassembled Locks and Latches.
- .3 ANSI/BHMA A156.4-2013, Door Controls - Closers.
- .4 ANSI/BHMA A156.5-2014, Cylinder and Input Devices for Locks.
- .5 ANSI/BHMA A156.16-2013, Auxiliary Hardware.
- .6 ANSI/BHMA A156.16-2002, Auxiliary Hardware.

.2 Canadian Steel Door and Frame Manufacturers' Association (CSDMA).
- .1 Recommended Dimensional Standards for Commercial Steel Doors and Frames, 2000.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

.1 Submit in accordance with Section 01 33 00 - Submittal Procedures.

.2 Product Data:
- .1 Submit manufacturer's instructions, printed product literature and data sheets for door hardware and include product characteristics, performance criteria, physical size, finish and limitations.

.3 Samples:
- .1 Submit for review and acceptance of each unit.
- .2 Samples will be returned for inclusion into work.
- .3 Identify each sample by label indicating applicable specification paragraph number, brand name and number, finish and hardware package number.
- .4 After approval samples will be returned for incorporation in Work.

.4 Hardware List:
- .1 Submit contract hardware list.
- .2 Indicate specified hardware, including make, model, material, function, size, finish and other pertinent information.

.5 Manufacturer's Instructions: submit manufacturer's installation instructions.

1.4 CLOSEOUT SUBMITTALS

.1 Submit in accordance with Section 01 78 00 - Closeout Submittals.

.2 Operation and Maintenance Data: submit operation and maintenance data for incorporation into manual.

1.5 MAINTENANCE MATERIALS SUBMITTALS

.1 Extra Stock Materials:
- .1 Supply maintenance materials in accordance with Section 01 78 00 - Closeout Submittals.
- .2 Tools:
  - .1 Supply 2 sets of wrenches for locksets, fire exit hardware and door closers.

1.6 QUALITY ASSURANCE

.1 Regulatory Requirements:
  .1 Hardware for doors in fire separations and exit doors certified by a Canadian Certification Organization accredited by Standards Council of Canada.

.2 Certificates: product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.

1.7 DELIVERY, STORAGE AND HANDLING

.1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements.

.2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.

.3 Package items of hardware including fastenings, separately or in like groups of hardware, label each package as to item definition and location.

.4 Storage and Handling Requirements:
  .1 Store materials in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
  .2 Store and protect door hardware from nicks, scratches, and blemishes.
  .3 Protect prefinished surfaces with wrapping.
  .4 Replace defective or damaged materials with new.

Part 2 - Products

2.1 HARDWARE ITEMS

.1 Use one (1) manufacturer's products only for similar items.

2.2 DOOR HARDWARE

.1 Levers, Pull and Locks:
  .1 Lever sets: brass construction, full lip strike plate to suit; privacy and passage function as scheduled.
    .1 Lever: modern design, 117 mm long x 54 mm projection, 41 mm clearance.
    .2 Rosette: 63 mm diameter x 9.5 mm thick.
    .3 Acceptable Materials: Emtek Aston Lever with disk rosette.
    .4 Finish: as selected by Departmental Representative from manufacturer's complete finish range.
  .2 Door Pulls:
    .1 Interior Partition Doors: brass construction; thru-bolted with decorative washer and caps.
      .1 Size: 27 mm wide x 219 mm long, 54 mm projection. 25 mm x 1.5 mm base.
      .2 Acceptable Materials: Emtek Baden Pull.
      .3 Finish: as selected by Departmental Representative from manufacturer's complete finish range.
    .2 Exterior Double Doors: brass/ bronze construction, concealed surface mount installation. General size and appearance to match existing brass/ bronze door pull.
  .3 Pocket Door Lock:
    .1 Lock: mortise lock body, keyed cylinder on exterior side; spring mounted recessed edge pull.
    .2 Size:
      .1 Lock body: 158 mm high x 88 mm deep.
      .2 Overall face dimensions: 73 mm wide x 185 mm high.
    .3 Acceptable Materials: Emtek Modern Rectangular Pocket Door Mortise.

.4 Finish: as selected by Departmental Representative from manufacturer's complete finish range.

.4 Deadbolt: to ANSI/BHMA A156.5, mortise type, Grade 1, stainless steel bolt with 25 mm throw.
.1 Function:
.1 Privacy: Cylinder outside, lock/unlock thumb turn inside, complete with occupancy indicator when locked.
.2 Classroom: cylinder outside, unlock only thumbturn inside.
.2 Finish: to match lever set.

.5 Privacy Latch: Finish to be selected by Departmental Representative from manufacturer's complete finish range. Finish to coordinate with other door hardware components.

.2 Hinges:
.1 Butt hinges: to ANSI/BHMA A156.1, quantity and size to to suit door size and weight. Finish to be selected by Departmental Representative to match door locks, latches, pulls and levers.

.3 Door Closers:
.1 Door closers: to ANSI/BHMA A156.4, parallel arm mounting; size to suit door size and weight; full plastic cover, painted finish. Provide colour matched rust inhibitive finish on arm.
.1 Finish colour to be selected by Departmental Representative from manufacturer's complete colour range.

.4 Smoke seals: Silicone bulb with self-adhesive backing; length equal to jambs and head. Colour as selected by Departmental Representative.

.5 Exterior Door Levers:

.1 Lever Sets: 124mm long x 60 mm projection, 26 mm clearance.

.2 Rosette: Existing heritage rosette to be cleaned and re-instated.

.3 Acceptable materials: Emtek Montrose Sandcast Bronze Lever. Finish to be

Selected from manufacturer’s complete finish range.

.6 Latch-Style Door Hold-Open:

.1 Standard of Acceptance: Ives FS446 Floor Stop & Manual Door Holder

.2 Finish to be selected from manufacturer’s complete finish range

2.3 MISCELLANEOUS HARDWARE

.1 Sliding Barn Door Hardware:
.1 Flat bar track, 50 mm high x 6 mm thick x length to suit.
.2 Carrier: face mounted, to suit door size and weight.
.3 Accessories: provide track mounted stops, mounting bracket, guide roller and channel, anti-lift pin, and other accessories for complete installation.
.4 Finish to be selected from manufacturer's complete colour range.

.2 Door stops: to ANSI/BHMA A156.16, Classification L02101, wall mounted, cast construction; convex face.
.1 Colour/ finish to be selected by Departmental Representative from Manufacturers complete colour range.

.3 Coat Hooks:
.1 Flat bar, 128 mm long x 25 mm wide x 3 mm thick, bent to provide 47 mm overall projection, 10 kg. load capacity.
.2 Acceptable Materials: Richelieu Contemporary Metal Hook - 1223.
.3 Finish: as selected by Departmental Representative from manufacturer's complete finish range.

.4 Door Threshold:
- .1 KC Crowder MFG Inc. CT-23, CT-103, CT-100 or approved equivalent.
- .2 To be temporarily installed at Door 001 C/D. Coordinate installation with Departmental Representative.

.5 Barrier Free Door Operators:
- .1 Power assisted door closer, complete with actuators and control boxes.
- .2 Mount operators on either push or pull sides of doors as required to place them inside the building.
- .3 Actuation of operators by manual push button.
- .6 Actuator: Hardwired low voltage actuator with stainless steel 114 mm round plate, engraved blue filled with handicap symbol.
- .7 Supply switched line voltage to control box. Locate switch adjacent to box.
- .8 Supply low voltage wiring to each actuator.
- .9 Mount control box in location as directed by Departmental Representative.
- .10 Actuators to be flush mounted at interior, surface wall mounted at exterior. Locations to be confirmed by Departmental Representative.
- .11 Doors D001A & D001B shall be fitted with door operators.

2.4 FASTENINGS

.1 Use only fasteners provided by manufacturer. Failure to comply may void warranties and applicable licensed labels.

.2 Supply screws, bolts, expansion shields and other fastening devices required for satisfactory installation and operation of hardware.

.3 Exposed fastening devices to match finish of hardware.

.4 Where pull is scheduled on one side of door supply fastening devices, and install so pull can be secured through door from reverse side.

.5 Use fasteners compatible with material through which they pass.

2.5 KEYING

.1 Doors to be keyed in coordination with Departmental Representative.

.2 Supply keys in duplicate for every lock in this Contract.

.3 Supply three (3) master keys for each master key or grand master key group.

.4 Hand over permanent cores and keys to Departmental Representative.

Part 3 - Execution

3.1 INSTALLATION

.1 Manufacturer's Instructions: comply with manufacturer's written recommendations, including product technical bulletins, product catalogue installation instructions, product carton installation instructions, and data sheets.

.2 Supply metal door and frame manufacturers with complete instructions and templates for preparation of their work to receive hardware.

.3 Supply manufacturers' instructions for proper installation of each hardware component.

.4 Install hardware to standard hardware location dimensions in accordance with CSDFMA Canadian Metric Guide for Steel Doors and Frames (Modular Construction).

.5 Where door stop contacts door pulls, mount stop to strike bottom of pull.

.6 Install key control cabinet.

.7 Use only manufacturer's supplied fasteners.
.1 Use of "quick" type fasteners, unless specifically supplied by manufacturer, is unacceptable.

.8 Remove construction locks when instructed by Departmental Representative.
.1 Install permanent cores and ensure locks operate correctly.

.9 Where thumb pulls are to be replaced with levers at exterior doors, existing deadbolt and rosette trims to remain. Repairs and cleaning per architectural drawings.

.10 Existing thumb pull and redundant rosette to be returned to Departmental Representative.

.11 Existing rosette to be reinstated with new lever.

.12 Patch and repair all redundant hardware openings in door leaf per the requirements of Section 08 03 52 Conservation Treatment for Period Windows and Doors.

3.2 ADJUSTING

.1 Adjust door hardware, operators, closures and controls for optimum, smooth operating condition, safety and for weather tight closure.

.2 Lubricate hardware, operating equipment and other moving parts.

.3 Adjust door hardware to ensure tight fit at contact points with frames.

3.3 CLEANING

.1 Progress Cleaning: clean in accordance with Section 01 74 00 - Cleaning.
.1 Leave Work area clean at end of each day.
.2 Clean hardware with damp rag and approved non-abrasive cleaner, and polish hardware in accordance with manufacturer's instructions.
.3 Remove protective material from hardware items where present.
.4 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 00 - Cleaning.

.2 Waste Management: separate waste materials in accordance with Section 01 74 19 - Waste Management and Disposal.
.1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.

3.4 DEMONSTRATION

.1 Maintenance Staff Briefing:
- .1 Brief maintenance staff regarding:
  - .1 Proper care, cleaning, and general maintenance of projects complete hardware.
  - .2 Description, use, handling, and storage of keys.
  - .3 Use, application and storage of wrenches for door closers, locksets, hardware, etc.

.2 Demonstrate operation, operating components, adjustment features, and lubrication requirements.

3.5 PROTECTION

.1 Protect installed products and components from damage during construction.

.2 Repair damage to adjacent materials caused by door hardware installation.

3.6 SCHEDULE

.1 Per Architectural Drawings.

3.7 HARDWARE GROUPS

.1 Group 01 (Family Washrooms)
- .1 Door Lever (Passage)
- .2 Deadbolt (Privacy, with Occupancy Indicator)
- .3 Coat Hook
- .4 Door Stop
- .5 Hinges to suit
- .6 Door Closer

.2 Group 02 (Changing Rooms and WC's)
- .1 Door Pull
- .2 Privacy Latch
- .3 Coat Hook
- .4 Door Stop
- .5 Hinges to suit

.3 Group 03 (Janitor)
- .1 Door Lever (Passage)
- .2 Deadbolt (Classroom)
- .3 Door Closer
- .4 Smoke seals
- .5 Door Stop
- .6 Hinges to suit

.4 Group 04 (Staff Washroom)
- .1 Door Lever (Privacy)
- .2 Coat Hook
- .3 Door Stop
- .4 Hinges to suit

.5 Group 06 (Sliding Pocket Door)
- .1 Pocket Door Lock
- .2 Pocket Sliding Door Track to suit

.6 Group 07 (Sliding Barn Door)
- .1 Sliding Barn Door Track

.7 Group 08 (Double Exterior Doors)
- .1 Bronze door pull to match general appearance of existing to be replaced
- .2 Door sweep
- .3 Latch-style hold-open

.8 Group 09 (Front Entrance Doors)
- .1 Barrier-free door operators
- .2 Door lever (passage)

END OF SECTION