## Part 1 General

### 1.1 REFERENCES

.1 Aluminum Association (AA)

.1 DAF 45, Designation System for Aluminum Finishes.

.2 Canadian General Standards Board (CGSB)

.1 CAN/CGSB - 11.3, Hardboard.

.3 Canadian Standards Association (CSA)

.1 CAN/CSA-A247, Insulating Fibreboard.

.4 Underwriter’s Laboratories of Canada (ULC)

.1 CAN/ULC-S102, Surface Buring Characteristics of Building Materials and Assemblies.

### 1.2 SUBMITTALS

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

.2 Indicate location, type, size, panel arrangement, backing, hardware, anchor or mounting details, frame or trim and accessories.

.3 Submit duplicate 300 x 300 mm sample of each type of tackboard and 300 mm long sample of each type of trim.

.4 Submit manufacturer's printed product literature, specifications and data sheet.

.1 Submit two copies of WHMIS MSDS - Material Safety Data. Indicate VOC's:

.1 For caulking materials during application and curing.

.2 For adhesives.

.5 Submit manufacturer’s installation instructions.

### 1.3 REGULATORY REQUIREMENTS

.1 Surface burning characteristics of materials: listed and labeled by an organization accredited by Standards Council of Canada.

### 1.4 WASTE MANAGEMENT AND DISPOSAL

.1 Separate waste materials for reuse and recycling in accordance with Section 01 74 00 – Cleaning and Waste Management.

### 1.5 MAINTENANCE DATA

.1 Provide maintenance data in accordance with Section 01 78 00 - Closeout Submittals.

## Part 2 Products

### 2.1 MATERIALS

.1 Utility sheet aluminum: plain, 1.5 mm minimum thickness.

.2 Laminating adhesive: to manufacturer's standard.

.3 Mounting adhesive: to manufacturer's standard.

.4 Anchor clips, brackets and fasteners: concealed type recommended by manufacturer selected by Contract Administrator for fixed mounting.

.5 Facings:

.1 Natural cork tackboards: single layer natural cork fine grain sheet, 6.0 mm thick, natural colour.

.6 Core:

.1 Fibreboard: to CAN/CSA A247, Type II, natural color.

.7 Backing:

.1 Fibreboard to CAN/CSA A247, Type II.

### 2.2 COMPONENTS

.1 Extruded aluminum: Aluminum Association alloy AA6063-T5. Minimum 1.5 mm wall thickness.

.2 Tackboard trim and framing: perimeter trim or frame, map rail with cork insert, of manufacturer's standard sections appropriate for installation conditions.

### 2.3 FABRICATION

.1 Fabricate tackboard panels to sizes indicated.

.2 Install trim on panels in factory. Make mitres and joints to hair-line fit, free of rough edges with concealed brackets to reinforce and hold joints tight and flush. No exposed fasteners permitted.

.3 Overlap trim 6.0 mm onto panels. Provide closed ends for open-end extrusions.

.4 Factory fit assemblies too large for shipment to site in one piece, disassemble for delivery and site assembly.

### 2.4 FINISHES

.1 Aluminum trim finishes.

.1 Finish exposed surfaces of aluminum components in accordance with Aluminum Association Designation System for Aluminum Finishes.

.2 Clear anodic finish: designation AA-M32, C 12, C 22 A 31.

.3 Appearance and properties of anodized finishes designated by the Aluminum Association as Architectural Class 1, Architectural Class 2, and Protective and Decorative.

## Part 3 Execution

### 3.1 MANUFACTURER'S INSTRUCTIONS

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

### 3.2 INSTALLATION

.1 Install tackboards in accordance with manufacturer's instructions, parallel to floor with uniform vertical surface plumb and level, to provide rigid, secure surface.

.2 Mechanical attachment:

.1 To concrete or solid masonry use lag screw and expansion bolts or screws and fibre plugs as appropriate for stresses involved.

.2 To hollow masonry use toggle bolts or equivalent in accordance with B7.

.3 To wood or sheet metal use screws. Secure into framing members in stud walls.

### 3.3 TACKBOARD SCHEDULE

.1 Locations and quantity as indicated.

### 3.4 CLEANING

.1 Perform cleaning after installation to remove construction and accumulated environmental dirt.

.2 Clean surfaces after installation using manufacturer's recommended cleaning procedures.

.3 Clean aluminum with damp rag and approved non-abrasive cleaner.

.4 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.

**END OF SECTION**

## Part 1 GENERAL

### 1.1 REFERENCES

.1 American Society for Testing and Materials (ASTM)

.1 ASTM A653/A653M-[01a], Standard Specification for Steel Sheet, Zinc-Coated, (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.

.2 ASTM B32-[00], Standard Specification for Solder Metal.

.3 ASTM B456-[95], Standard Specification for Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium.

.2 Aluminum Association, Inc. (AA)

.1 Designation System for Aluminum Finishes

.3 Canadian General Standards Board (CGSB)

.1 CAN/CGSB-1.81-[M90], Air Drying and Baking Alkyd Primer for Vehicles and Equipment.

.2 CAN/CGSB-1.88-[92], Gloss Alkyd Enamel, Air Drying and Baking.

.3 CGSB 31-GP-107Ma-[90], Non-Inhibited Phosphoric Acid Base Metal Conditioner and Rust Remover.

.4 CGSB 41-GP-6M-[1983], Sheets, Thermosetting Polyester Plastics, Glass Fibre Reinforced.

.4 Canadian Standards Association (CSA)

.1 CAN/CSA-G164-[M92(R1998)], Hot Dip Galvanizing of Irregularly Shaped Articles.

.2 CSAW47.2-[M1987(R1998)], Certification of Companies for Fusion Welding of Aluminum.

.3 CSA W59-[M1989(R2001)], Welded Steel Construction (Metal Arc Welding) (Imperial Version).

.4 CSA W59.2-[M1991(R1998)], Welded Aluminum Construction.

.5 Canadian Sheet Steel Building Institute (CSSBI)

.1 Sheet Steel Facts # 6, Metallic Coated Sheet Steel for Structural Building Products.

.6 The Master Painters Institute (MPI)

.1 Architectural Painting Specification Manual

### 1.2 SHOP DRAWINGS

.1 Submit representative sample of each type of sign, sign image and mounting method, including, but not limited to graphic, cast letters, sign box installation method, channel letters and wall plates fixed mounting installation method.

.2 Indicate materials, thicknesses, sizes, finishes, colours, construction details, removable and interchangeable components, mounting methods, schedule of signs.

.3 Submit drawn-to-scale details for individually fabricated or incised lettering indicating word and letter spacing.

.4 Submit representative sample of each type sign, sign image and mounting method.

.5 Submit manufacturer's printed product literature panel signage or components, specifications and datasheet and include product characteristics, performance criteria, physical size, finish and limitations.

.6 Submit manufacturer's installation instructions and special handling criteria, installation sequence and cleaning procedures.

**1.3 MAINTENANCE DATA**

.1 Provide maintenance data for illuminated signs for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

**1.4 QUALITY ASSURANCE**

.1 Welding Certification in accordance with CSA W47.2.

**1.5 WASTE MANAGEMENT AND DISPOSAL**

.1 Separate and recycle waste materials in accordance with Section 01 74 00 – Cleaning and Waste Management.

.2 Place materials defined as hazardous or toxic waste in designated containers.

.3 Ensure emptied containers are sealed and stored safely for disposal away for public.

.4 Use chemical hardeners that are non-toxic, biodegradable and have zero or low VOC's.

.5 Dispose of surplus chemical and finishing materials in accordance with Federal, Provincial and Municipal regulations.

**Part 2 Products**

**2.1 MATERIALS**

.1 Aluminum extrusions: to AA 6063-T5 or AA 6006-T5.

.2 Sheet aluminum: utility quality.

.3 Prefinished sheet aluminum: plain utility sheet with manufacturer applied baked enamel finish 0.25 mm thick on face and 0.0076 mm thick on back.

.4 Casting aluminum: CSA HA Series - HA.9-SG7ON-T6.

.5 Prefinished sheet steel: conforming to CSSBI - Sheet Steel Facts #6: for normal environments.

.6 Galvanized steel sheet to ASTM A653/A653M: Commercial Quality

.7 Acrylic sheet: polymethylmethacrylate (PMMA) cast sheet suitable for intended use in sign fabrication, colours as indicated.

.8 Engraving sheet: lamicoid 3.2 mm thick plastic sheet, white core.

.9 Self-stick foam tape: 1.6 mm thick, 352.4 kg/m3 density polyurethane open-cell foam tape for sign purposes, with synthetic self-stick adhesive on both sides. Width: to suit sign sizes.

.10 Adhesives, paints, sealants and solvents for acrylic sheet: type recommended by sheet manufacturer for applicable condition.

.11 Acrylic top-coat: clear, non-yellowing, exterior grade, satin finish, acrylic polyester resin protective coating, compatible with acrylic surface of type recommended by sheet manufacturer.

.12 Bituminous paint: to CAN/CGSB-1.108, type 2.

**2.2 SIGN GRAPHICS**

.1 Sign graphics to be well defined, arranged for balanced appearance, and properly word and letter spaced.

.2 Cut and spray process: mask surfaces, accurately cut-out image, then spray apply uniform coating to obtain opaque finish.

.3 Silk screen process: apply multi-colour photographic produced silk screen printed images to back side of transparent sign faces; face side of opaque sign faces.

.4 Engraving: apply sign images using pantograph mechanical engraving machine to obtain incised letters as detailed or specified.

.5 Self-stick vinyl film: individual letters and numerals and symbols die cut from 0.1 mm thick matte finish, exterior grade PVC film, with self-stick adhesive backing. Colours to be determined by Contract Administrator from manufactures full range of colours.

.6 Decals: silk screened or printed images on 0.038 mm, clear matte finish, mylar film, with self-stick adhesive backing. Protect image with laminated film overlay of same material as decal base.

**2.3 WALL, DOOR AND NUMBER PLATES**

.1 Refer to Section 10 14 67 – Barrier Free Signage.

**Part 3 Execution**

**3.1 INSTALLATION, GENERAL**

.1 Erect and secure signs plumb and level at elevations indicated.

.2 Leave signs and substrates clean.

.3 Touch up any damaged finishes.

**3.3 SCHEDULE**

.4 Exterior Signage

.1 Mounted to glass:

.1 152 mm (6”) high vinyl letters reading: “60 FERMOR”

.2 Refer to Section 10 14 67 – Barrier Free Signage for wall, and number plates.

.3 Refer to Section 10 14 67 – Barrier Free Signage for accessibility decals for windows and doors.

.5 Refer to drawings for locations and further info.

**END OF SECTION**

## Part 1 General

### 1.1 REFERENCES

.1 City of Winnipeg 2015 Accessibility Design Standards.

.1 American Society for Testing and Materials (ASTM)

.1 ASTM A653/A653M-[01a], Standard Specification for Steel Sheet, Zinc-Coated, (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.

.2 ASTM B32-[00], Standard Specification for Solder Metal.

.3 ASTM B456-[95], Standard Specification for Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium.

.2 Aluminum Association, Inc. (AA)

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.1 CAN/CGSB-1.81-[M90], Air Drying and Baking Alkyd Primer for Vehicles and Equipment.

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.3 CGSB 31-GP-107Ma-[90], Non-Inhibited Phosphoric Acid Base Metal Conditioner and Rust Remover.

.4 CGSB 41-GP-6M-[1983], Sheets, Thermosetting Polyester Plastics, Glass Fibre Reinforced.

.4 Canadian Standards Association (CSA)

.1 CAN/CSA-G164-[M92(R1998)], Hot Dip Galvanizing of Irregularly Shaped Articles.

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.3 CSA W59-[M1989(R2001)], Welded Steel Construction (Metal Arc Welding) (Imperial Version).

.4 CSA W59.2-[M1991(R1998)], Welded Aluminum Construction.

.5 Canadian Sheet Steel Building Institute (CSSBI)

.1 Sheet Steel Facts # 6, Metallic Coated Sheet Steel for Structural Building Products.

.6 The Master Painters Institute (MPI)

.1 Architectural Painting Specification Manual

### 1.2 SHOP DRAWINGS

.1 Submit representative sample of each type of sign, sign image and mounting method, including, but not limited to graphic, cast letters, sign box installation method, channel letters and wall plates fixed mounting installation method.

.2 Indicate materials, thicknesses, sizes, finishes, colours, construction details, removable and interchangeable components, mounting methods, schedule of signs.

.3 Submit drawn-to-scale details for individually fabricated or incised lettering indicating word and letter spacing.

.4 Submit representative sample of each type sign, sign image and mounting method.

.5 Submit manufacturer's printed product literature panel signage or components, specifications and datasheet and include product characteristics, performance criteria, physical size, finish and limitations.

.6 Submit manufacturer's installation instructions and special handling criteria, installation sequence and cleaning procedures.

**1.3 WASTE MANAGEMENT AND DISPOSAL**

.1 Separate and recycle waste materials in accordance with Section 01 74 00 – Cleaning and Waste Management.

.2 Place materials defined as hazardous or toxic waste in designated containers.

.3 Ensure emptied containers are sealed and stored safely for disposal away for public.

.4 Use chemical hardeners that are non-toxic, biodegradable and have zero or low VOC's.

.5 Dispose of surplus chemical and finishing materials in accordance with Federal, Provincial and Municipal regulations.

**Part 2 Products**

**2.1 MATERIALS**

.1 Tactile signs shall include the following:

.1 Letters and numbers on signs shall

.1 Be sans serif fonts;

.2 Have Arabic numbers;

.3 Have a width-to-height ratio between 3:5 and 1:1

.4 Have a stroke-width-to-height ratio between 1:5 and 1:10.

.5 Character height dimensions for viewing distance shall comply with Table 1.2.4.1 of the City of Winnipeg 2015 Accessibility Design Standards.

.6 Characters, symbols and backgrounds of signs shall have an eggshell, matte or other glare-free finish.

.7 Characters and symbols shall colour contrast with their background.

.8 Where signs are required to be tactile, letters and numerals shall:

.1 Be raised at least 0.8 mm (1/32"), not sharply edged;

.2 Be between 16 mm (5/8"and 50 mm (2") high

.3 Be a sans serif front, accompanied by Grade 1 uncontracted Braille.

.4 Pictograms shall be accompanied by an equivalent visual and tactile verbal description, placed directly below the pictogram. The border dimension of the pictogram shall be 150 mm (6") minimum in height.

.5 Signs shall be installed on the wall adjacent to the latch side of the door 150 mm (6 inches) from the door jamb, located with their centre line at a height 1350 mm (53 inches).

.6 Where signage is installed on glazing provide backer material to match sign background material on reverse side of glazing.

.7 Signage colours to be determined by Contract Admoinistrator.

.2 Wall, door and number plates:

.1 Metal wall plates:

.1 Fabricate sign plates from brushed aluminum engraving stock, sizes as indicated.

.2 Sign graphics: apply by engraving.

.2 Interchangeable mounting: supply wall plates with approved type, semi-concealed, retaining holders that permit quick but vandal-resistant interchange of sign face. No exposed fasteners permitted. Exposed portions to match sign face.

.3 Fixed mounting: prepare wall plates for fixing by surface fasteners with rosette covers. Include back-up plates for fixing to uneven surfaces where required.

.4 Bracket mounting: fabricate brackets for wall projecting or ceiling suspended sign plates as detailed: of clear acrylic 4.8 mm thick.

.3 Fully glazed sidelights and screens shall include the following:

.1 Minimum 50 mm (2”) high row of decals or continuous stripe of highly contrasting colour, mounted with its centreline between 1472 mm (58”) and 1525 mm (60”) from the floor or ground.

## Part 3 Execution

### 3.1 ERECTION

.1 Where permanent identification is provided for rooms and spaces, signs shall be installed on the wall adjacent to the latch side of the door, located with their centre line at a height between 1475 mm (58”) and 1525 mm (60”). Confirm mounting locations with Contract Administrator prior to installation.

.2 Where there is no wall space to the latch side of the door, including at double-leaf doors, signs shall be placed on the nearest adjacent wall, in a location that is easy to reach and touch.

.3 The minimum level of illumination on signs shall be 200 lux.

### 3.2 CLEANING

.1 Perform cleaning after installation to remove construction and accumulated environmental dirt.

.2 Clean surfaces after installation using manufacturer's recommended cleaning procedures.

.3 Clean aluminum with damp rag and approved non-abrasive cleaner.

.4 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.

**3.3 SCHEDULE:**

.1 Exterior Main Entrance:

.1 12" high sign c/w wheelchair pictogram reading "ACCESSIBLE ENTRANCE".

.2 Room B-01 Exhibit Space:

.1 Door D-B01A:

.1 4" high sign c/w braille reading "EXHIBIT SPACE" at pull side of door.

.3 Room B-11 Tutorial Room:

.1 Door D-B11:

.1 4" high sign c/w braille reading "TUTORIAL ROOM" at pull side of door.

.4 Room B-05 Unisex UTR:

.1 Door D-B05:

.1 12" high sign c/w braille, male, female and wheelchair pictograms reading "ACCESSIBLE MEN'S/WOMEN'S WASHROOM".

.5 Room B-06 Men's W/C:

.1 Door D-B06:

.1 4" high sign c/w braille reading "WASHROOM" at pull side of door.

.6 Room B-07 Women's W/C:

.1 Door D-B07:

.1 4" high sign c/w braille reading "WASHROOM" at pull side of door.

.7 Room B-20 Unisex Accessible Washroom:

.1 Door D-B20:

.1 12" high sign c/w braille, male, female and wheelchair pictograms reading "ACCESSIBLE MEN'S/WOMEN'S WASHROOM".

.8 Room B-21 Unisex Accessible Washroom:

.1 Door D-B21:

.1 12" high sign c/w braille, male, female and wheelchair pictograms reading "ACCESSIBLE MEN'S/WOMEN'S WASHROOM".

.9 Room B-06 Men's W/C:

.1 Door D-B06:

.1 4" high sign c/w braille reading "WASHROOM" at pull side of door.

.10 Room 100 Staff Lunch Room:

.1 Door D110:

.1 4" high sign c/w braille reading "STAFF ROOM" at pull side of door.

.1 Sign mounted on glazing, include glass mask on reverse side to match signage background.

.11 Room 111 W/C:

.1 Door D111:

.1 4" high sign c/w braille reading "STAFF WASHROOM" at pull side of door.

.1 Sign mounted on glazing, include glass mask on reverse side to match signage background.

.12 Room 112 Librarian's Office:

.1 Door D112:

.1 4" high sign c/w braille reading "BRANCH HEAD OFFICE" at pull side of door.

.1 Sign mounted on glazing, include glass mask on reverse side to match signage background.

.13 Fully glazed sidelights, doors, and screens (where indicated on drawings):

.1 51 mm (2") row of decals, mounted as indicated on drawings. Colour to be determined by Contract Administrator.

**END OF SECTION**

## Part 1 General

### 1.1 REFERENCES

.1 American Society for Testing and Materials (ASTM)

.1 ASTM A167-99, Standard Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.

.2 ASTM A653/A653M-99, Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.

.3 ASTM F 2285 - Standard Consumer Safety Performance Specification for Diaper Changing Tables for Commercial Use.

.4 ASTM G 21 - Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi.

.2 American National Standards Institute (ANSI)

.5 ANSI A117.1 - Accessible and Usable Building and Facilities.

.6 ANSI Z535.4 - Product Safety Signs and Labels.

.3 Canadian General Standards Board (CGSB)

.7 CAN/CGSB-12.5, Mirrors, Silvered.

### 1.2 SHOP DRAWINGS

.1 Submit shop drawings in accordance with Section 01 33 00 – Submittal Procedures.

.2 Indicate size and description of components, base material, surface finish inside and out, hardware and locks, attachment devices, description of rough-in-frame, building-in details of anchors for grab bars.

### 1.3 SAMPLES

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

.2 Samples to be returned for inclusion into work.

### 1.4 CLOSEOUT SUBMITTALS

.1 Provide maintenance data for toilet and bath accessories for incorporation into manual.

### 1.5 EXTRA MATERIALS

.1 Provide special tools required for accessing, assembly/disassembly or removal for toilet and bath accessories in accordance with requirements specified in Section 01 33 00 – Submittal Procedures.

.2 Deliver special tools to Contract Administrator.

## Part 2 Products

### 1.6 MATERIALS

.1 Sheet steel: to ASTM A653/A653M with ZF001 designation zinc coating.

.2 Stainless steel sheet metal: to ASTM A167.

.3 Stainless steel tubing: Type 304, commercial grade, seamless welded, 1.2 mm wall thickness.

.4 Fasteners: concealed screws and bolts hot dip galvanized, exposed fasteners to match face of unit. Expansion shields fibre, lead or rubber as recommended by accessory manufacturer for component and its intended use.

.5 Manufacturers: ASI, Bobrick, or equivalent. Alternative products to meet quality of specified products.

### 1.7 SUBSTITUTIONS:

.1 In accordance with B7.

### 1.8 COMPONENTS

.1 Toilet Tissue Dispenser:

.1 Supplied by Owner; installed by Contractor.

.1 Quantity: As indicated.

.3 Baby Change Table:

.2 Koala Kare Horizontal Wall Mounted Baby Changing Station, Model KB200 or Horizontal Wall Mounted Baby Changing Station, Model ASI 9012.

.1 Quantity: As indicated.

.4 Shelf:

.1 Bobrick surface-mounted stainless steel shelf, Model B-295 x 16 or ASI surface-mounted stainless steel shelf, Model ASI 0692-16.

.2 Quantity: As indicated.

.5 Sanitary Napkin Disposal:

.1 Bobrick ConturaSeries® Model B-270 or ASI Roval Collection® Model ASI 20852.

.1 Quantity: As indicated.

.6 Mirrors:

.1 Bobrick stainless steel channel frame mirror, Model B-165 – 2436 or ASI stainless steel channel frame mirror, Model ASI 0620.

.1 Quantity: As indicated.

.7 Grab bars:

.1 Bobrick 1-1/4" Diameter Straight Grab Bar, Model B-5806 x 24 or ASI 1-1/4" Diameter Straight Grab Bar, Model ASI 3701-24P.

.1 Quantity: As indicated.

.2 Bobrick 1-1/4" Diameter Straight Grab Bar, Model B-5806 x 36 or ASI 1-1/4" Diameter Straight Grab Bar, Model ASI 3701-36P.

.1 Quantity: As indicated.

.8 Waste receptacle:

.1 Bobrick surface mounted waste receptacle, Model B-279 or ASI surface mounted waste receptacle, Model ASI 0828.

.1 Quantity: As indicated.

.9 Hat & Coat Hook:

.1 Bobrick hat and coat hook, Model B-6827 or ASI hat and coat hook, Model ASI 7782.

.1 Quantity: As indicated.

.10 Collapsible Coat Hook:

.1 Frost Safety Coat Hook, Model 1150.

.1 Quantity: As indicated.

.11 Mop rack:

.1 Bobrick bop and broom holder, Model B-223 x 36 or ASI mop and broom holder, Model ASI 8215-4.

.1 Quantity: As indicated.

.9 Paper Towel Dispenser:

.1 Supplied by Owner; installed by Contractor.

.1 Quantity: As indicated.

.10 Soap Dispenser

.1 Supplied by Owner; installed by Contractor.

.1 Quantity: As indicated.

## 1.9 FABRICATION

.1 Weld and grind joints of fabricated components flush and smooth. Use mechanical fasteners only where approved.

.2 Wherever possible form exposed surfaces from one sheet of stock, free of joints.

.3 Brake form sheet metal Work with 1.5 mm radius bends.

.4 Form surfaces flat without distortion. Maintain flat surfaces without scratches or dents.

.5 Back paint components where contact is made with building finishes to prevent electrolysis.

.6 Hot dip galvanize concealed ferrous metal anchors and fastening devices to CSA G164.

.7 Shop assemble components and package complete with anchors and fittings.

.8 Deliver inserts and rough-in frames to job Site at appropriate time for building-in. Provide templates, details and instructions for building in anchors and inserts.

.9 Provide steel anchor plates and components for installation on studding and building framing.

**1.10 FINISHES**

.1 Stainless steel as indicated.

.2 Chrome and nickel plating: to ASTM B456, satin or polished finish.

## Part 3 Execution

**1.11 INSTALLATION – WASHROOM ACCESSORIES**

.1 Install in accordance with manufacturer's written instructions.

.2 Install products in strict compliance with manufacturer's written instructions and recommendations, including the following:

.1 Verify blocking has been installed properly.
.2 Verify location does not interfere with door swings or use of fixtures.
.3 Comply with manufacturer's recommendations for backing and proper support.
.4 Use fasteners and anchors suitable for substrate and project conditions
.5 Install units rigid, straight, plumb, and level, in accordance with manufacturer's installation instructions and approved shop drawings.
.6 Conceal evidence of drilling, cutting, and fitting to room finish.
.7 Test for proper operation.

.3 Install and secure accessories rigidly in place as follows:

.1 Stud walls: install steel back-plate to stud prior to plaster or drywall finish. Provide plate with threaded studs or plugs.
.2 Hollow masonry units or existing plaster/drywall: use toggle bolts drilled into cell/wall cavity.
.3 Solid masonry or concrete: use bolt with lead expansion sleeve set into drilled hole.
.4 Toilet/shower compartments: use male/female through bolts.

.4 Install grab bars on built-in anchors provided by bar manufacturer.

.5 Use tamper proof screws/bolts for fasteners.

.6 Install mirrors in accordance with Section 08 80 00 - Glazing.

**1.12 INSTALLATION – BABY CHANGE TABLES**

.1 Install products in strict compliance with manufacturer's written instructions and recommendations, including the following:

.1 Verify blocking has been installed properly.
.2 Verify location does not interfere with door swings or use of fixtures.
.3 Use fasteners and anchors suitable for substrate and project conditions.
.4 Install units at location and height indicated on the Drawings.
.5 Install units level, plumb and in proper relationship with adjacent construction.

.6 Adjust for proper operation.

**1.13 INSTALLATION – HAND DRYERS**

.1 Coordinate requirements for blocking to ensure adequate means for support and installation of hand dryers.

.2 Coordinate requirements for power supply, conduit, disconnect switches, and wiring.

.3 Comply with manufacturer's installation instructions and approved shop drawings.

.4 Mount dryers at heights indicated on Drawings.

.5 Install dryers securely to supporting substrate so that fixtures are level and aligned with each other. Use type and length of fastener as recommended by manufacturer for type of substrate.

.6 Install electrical wiring in accordance with manufacturer’s instructions.

**1.14 TESTING AND CLEANING**

.1 Proof test grab bars to manufacturers specifications.

.1 Provide certificate of test results.

.2 Perform cleaning after installation to remove construction and accumulated environmental dirt.

.3 Clean surfaces after installation using manufacturer's recommended cleaning procedures.

.4 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.

.5 Hand dryers:

.1 Inspect installation to verify secure and proper mounting. Test each dryer to verify operation, control functions, and performance. Correct deficiencies.

.2 Clean surfaces and wash with mild soap.

.3 Protect dryers from damage from subsequent construction operations. If damage occurs remove and replace damaged units.

**1.15 SCHEDULE**

.1 Locate accessories where indicated.

**END OF SECTION**

## Part 1 General

### 1.1 REFERENCES

.1 American National Standards Institute (ANSI)

.1 ANSI/NFPA 10-[1998], Portable Fire Extinguishers.

.2 Underwriters' Laboratories of Canada (ULC)

.1 CAN/ULC-S508-[M90(R1995)], Rating and Fire Testing of Fire Extinguishers and Class "D" Extinguishing Media.

### 1.2 SHOP DRAWINGS AND PRODUCT DATA

.1 Submit shop drawings and product data in accordance with Section 01 33 00 - Submittal Procedures.

### 1.3 CLOSEOUT SUBMITTALS

.1 Provide maintenance data for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

### 1.4 WASTE MANAGEMENT AND DISPOSAL

.1 Separate and recycle waste materials in accordance with Section 01 74 00 – Cleaning and Waste Management.

.2 Place materials defined as hazardous or toxic waste in designated containers.

.3 Ensure emptied containers are sealed and stored safely for disposal away for public.

.4 Use chemical hardeners that are non-toxic, biodegradable and have zero or low VOC’s.

.5 Dispose of surplus chemical and finishing materials in accordance with Federal, Provincial and Municipal regulations.

## Part 2 Products

### 2.1 MULTI-PURPOSE DRY CHEMICAL EXTINGUISHERS:

.1 Stored pressure rechargeable type with hose and shut-off nozzle, ULC labelled for A, B and C class protection. Locate as indicated on drawings.

.1 Size: 4.5 kg.

### 2.2 WET CHEMICAL EXTINGUISHERS:

.1 Stored pressure rechargeable type with hose and shut-off nozzle, ULC labelled for K class protection. Locate as indicated on drawings.

.1 Size: 6 L/6.4 kg.

**2.3 EXTINGUISHER BRACKETS**

.1 Type recommended by extinguisher manufacturer.

**2.4 CABINETS**

.1 Fully recessed, semi-recessed, and surface mounted types as indicated, constructed of 1.6 mm thick steel, 180° opening door of 2.5 mm thick steel with latching device. Locate cabinets as indicated in drawings.

.2 Cabinet to maintain fire resistive rating of construction in which they occur.

.3 Cabinet door: with 5 mm full glass panel.

.4 Finish: Tub: prime coated.

.1 Door and frame: No.4 satin finish stainless steel.

**2.5 IDENTIFICATION**

.1 Identify extinguishers in accordance with recommendations of [ANSI/NFPA 10] [CAN/ULC-S508].

.2 Attach bilingual tag or label to extinguishers, indicating month and year of installation. Provide space for service dates.

**Part 3 Execution**

**3.1 INSTALLATION**

.1 Install or mount extinguishers in cabinets or on brackets as indicated.

**END OF SECTION**

## Part 1 General

### 1.1 SUBMITTALS

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

.2 Product Data: Manufacturer's data sheets on each product to be used, including:

- .1 Preparation instructions and recommendations.
- .2 Storage and handling requirements and recommendations.
- .3 Installation methods.

.3 Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

.4 Verification Samples: For each finish product specified, two samples, representing actual product and finish.

### 1.2 QUALITY ASSURANCE

.1 Manufacturer Qualifications: Minimum 5 year experience manufacturing similar products.

.2 Installer Qualifications: Minimum 2 year experience installing similar products.

### 1.3 WASTE MANAGEMENT AND DISPOSAL

.1 Separate waste materials for reuse and recycling in accordance with Section 01 74 00 – Cleaning and Waste Management.

.2 Remove from site and dispose of packaging materials at appropriate recycling facilities.

.3 Fold up metal banding, flatten and place in designated area for recycling.

### 1.4 MAINTENANCE DATA

.1 Provide maintenance data in accordance with Section 01 78 00 – Closeout Submittals.

## Part 2 Products

### 2.1 THROUGH WALL BOOK DROP

.1 Kingsley Metal Works USA., kwikDrop™ Exterior #15-8951

- .1 Constructuin Materials: All stainless steel exterior faceplate, weatehr shroud, depositiry door, and entry chute. Stainless steel finish.
- .2 Construction Methods: Fully welded weather tight exterior. All edges deburred and sanded smooth.
- .3 Weather Resistance: Design to prevent entry of weather. Spring-loaded depository door. Fully weatherstripped door.
- .4 Locking: Locking using interior control.
- .5 Labelling: Self-adhesive label. Workding to be approved by Contract Administrator.
- .6 Accessories: Braille label. Content to be approved by Contract Administrator.
- .7 Quantity: As noted.

**2.2 SUBSTITUTIONS:**

.1 In accordance with B7.

**Part 3 Execution**

**3.1 EXAMINATION**

.1 Verification of Conditions: verify conditions of substrates and surfaces to receive library equipment are acceptable for product installation in accordance with manufacturer's instructions prior to library equipment installation.

.2 Inform Contract Administrator of unacceptable conditions immediately upon discovery.

.3 Proceed with installation only after unacceptable conditions have been remedied.

**3.2 INSTALLATION**

.1 Assemble and install library equipment in accordance with manufacturer's written instructions.

**3.3 ADJUSTING**

.1 Adjust library equipment for correct function and operation in accordance with manufacturer's written instructions.

.2 Lubricate moving parts to operate smoothly and fit accurately.

**3.4 CLEANING**

.1 Progress Cleaning: clean in accordance with Section 01 74 00 – Cleaning and Waste Management.

.1 Leave Work area clean at end of each day.

.2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 00 – Cleaning and Waste Management.

**3.5 PROTECTION**

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

.2 Repair damage to adjacent materials caused by library equipment installation.

**END OF SECTION**

## Part 1 General

### 1.1 REFERENCES

.1 Canadian General Standards Board (CGSB)

.1 CAN/CGSB-44.40, Steel Clothing Locker.

### 1.2 SUBMITTALS

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

.2 Product Data:

.1 Provide manufacturer's printed product literature and data sheets for metal lockers and include product characteristics, performance criteria, physical size, finish and limitations.

.3 Shop Drawings:

.1 Indicate on drawings: type and class of locker, thicknesses of metal, fabricating and assembly methods, assembled banks of lockers, tops, hooks, shelves, bases, trim, end/back panels, doors, handles, locking method, ventilation method.

### 1.3 WASTE MANAGEMENT AND DISPOSAL

.1 Separate waste materials for reuse and recycling in accordance with Section 01 74 00 – Cleaning and Waste Management.

.2 Remove from site and dispose of packaging materials at appropriate recycling facilities.

.3 Fold up metal banding, flatten and place in designated area for recycling.

### 1.4 MAINTENANCE DATA

.1 Provide maintenance data in accordance with Section 01 78 00 – Closeout Submittals.

## Part 2 Products

### 2.1 MANUFACTURED UNITS

.1 Lockers: to CAN/CGSB-44.40, Type 1-Single full-height locker freestanding.

.1 Assembly: welded construction.
.2 Top: flat.
.3 Doors: single-wall construction, steel thickness No .20 MSG.

### 2.2 ACCESSORIES

.1 Locking system: padlocks supplied by Owner.

.2 Options: to CAN/CGSB-44.40, coat hooks, metal.

**2.3 ACCEPTABLE PRODUCTS**

.1 Lockers

.1 Manufacturer: ASI Storage Solutions
.2 Product: Tradionial Collection, Double Tier
.3 Size:12” W x 12” D x 78” H (including 6” base/legs)
.4 Accessories: Sloped metal top to match lockers, metal closure around legs to create closed base to floor and wall.
.5 Colour: Gray #25
.6 Quantity: As noted.

**2.4 SUBSTITUTIONS:**

.1 In accordance with B7.

**Part 3 Execution**

**3.1 EXAMINATION**

.1 Verification of Conditions: verify conditions of substrates and surfaces to receive metal lockers are acceptable for product installation in accordance with manufacturer's instructions prior to metal locker installation.
.2 Inform Consultant of unacceptable conditions immediately upon discovery.
.3 Proceed with installation only after unacceptable conditions have been remedied.

**3.2 INSTALLATION**

.1 Assemble and install lockers in accordance with manufacturer's written instructions.
.2 Securely fasten lockers to grounds and nailing strips.
.3 Install filler panels (false fronts) where indicated and where obstructions occur.
.4 Install finished end panels to exposed ends of locker banks.
.5 Install locker numbers.

**3.3 ADJUSTING**

.1 Adjust metal lockers for correct function and operation in accordance with manufacturer's written instructions.
.2 Lubricate moving parts to operate smoothly and fit accurately.

**3.4 CLEANING**

.1 Progress Cleaning: clean in accordance with Section 01 74 00 – Cleaning and Waste Management.
.1 Leave Work area clean at end of each day.
.2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 00 – Cleaning and Waste Management.

**3.5 PROTECTION**

.1 Protect installed products and components from damage during construction.
.2 Repair damage to adjacent materials caused by metal locker installation.

**END OF SECTION**