

SECTION 101400 - SIGNAGE

PART 1 - GENERAL

1.1 SUMMARY

- A. Related Documents: Provisions established in Conditions of the Contract, Division 01 - General Requirements, and the Drawings are collectively applicable to this Section.
- B. Section Includes
 - 1. Identifying devices where shown on the Drawings complete and as specified including the following:
 - a. Parking signs indicating accessible spaces.
 - b. Directional and traffic signs.
 - c. Pin mounted building identification signs.
 - d. Interior code required signs.
 - 2. Coordination for installation of signage provided by others.

1.2 SUBMITTALS

- A. Product Data: Include manufacturer's construction details relative to materials, dimensions of individual components, profiles, and finishes for each type of sign required.
- B. Shop Drawings: Provide shop drawings for fabrication and erection of signs. Include plans, elevations, and large-scale sections of typical members and other components. Show anchors, accessories, layout, and installation details.
- C. Samples for Verification:
 - 1. Physical: Submit samples of one completed sign for review and approval. Approved sample may be incorporated into Project.
 - 2. Color: Submit manufacturer's standard color selection chart. Do not proceed until colors have been selected.

1.3 QUALITY ASSURANCE

- A. Single-Source Responsibility: For each separate type of sign required, obtain signs from one source from a single manufacturer.
- B. Manufacturer shall have a minimum of five years' experience in the manufacturing of signs specified.
- C. Codes and Standards:
 - 1. Panel signs shall have 1/32-inch raised copy and grade 2 Braille, and shall comply with all existing federal, state, and local accessibility standards.
 - 2. Code and Standards: Comply with American with Disabilities Act of 1990, Title 3 Provisions, Public Accommodations and Commercial Facilities. Updated March 15, 2012.
 - 3. Comply with the State of Texas Accessibility Standards, 2012 edition, as administered by the Texas Department of Licensing and Regulation.

PART 2 - PRODUCTS

2.1 PRODUCTS, GENERAL

- A. VOC Limits: any adhesives, sealants, paints, or coatings shall meet the VOC limits indicated in Section 018113.

2.2 MANUFACTURERS

- A. Acceptable Manufacturers: Subject to compliance with requirements herein, provide products from one of the following:
 - 1. Best Manufacturing Company, Montrose, Colorado.
 - 2. Mohawk Sign Systems, Schenectady, New York.
 - 3. Nelson-Harkins, Chicago, Illinois.
 - 4. ASI Signs, Dallas, Texas.
- B. Substitutions: Under provisions of Section 012500.

2.3 HANDICAPPED PARKING

- A. Screen Printed Signs:
 - 1. 18 gauge bonderized steel with blue baked enamel finish and white screen printed copy.
 - 2. Copy and Size:
 - a. "Handicapped Parking Only" - 12 inches by 18 inches.

- b. "Van Accessible" - 12 inches by 6 inches.
 - 3. Acceptable Product: Best Traffic Signs No. SS04 with SS52 as required.
 - B. Post: Galvanized pipe column minimum 9 feet long.
- 2.4 DIRECTIONAL SIGNS
 - A. Screen Printed Signs:
 - 1. Extruded aluminum panels with anodic finish and white screen printed copy.
 - 2. Size and Configuration: As indicated on Drawings.
 - 3. Copy: As indicated on Drawings.
 - 4. Acceptable Product: Best Post and Plank as detailed on Drawings.
- 2.5 BUILDING IDENTIFICATION SIGNAGE
 - A. Acceptable Manufacturers:
 - 1. ASI Sign Systems, 3890 W. Northwest Highway, Suite 102, Dallas, TX 75220; (214) 352 9140 telephone; (214) 352 9741 facsimile; (800) ASI-SPEC (274-7446).
 - 2. Substitutions: Submit in accordance with Section 01600.
 - B. Acceptable Product: ASI Series LC Cast Metal Dimensional Letters.
 - C. Material:
 - 1. Cast Aluminum in Satin Anodized finish.
 - D. Fabricated Letters:
 - 1. Letter Style: Refer to Drawings.
 - 2. Letter Cap Height: Refer to Drawings.
 - 3. Letter Depth: 1 inch.
 - E. Mounting Method: Projected Mount.
- 2.6 ROOM SIGNAGE SYSTEMS
 - A. Acceptable Manufacturers:
 - 1. ASI Sign Systems, 3890 W. Northwest Highway, Suite 102, Dallas, TX 75220; (214) 352 9140 telephone; (214) 352 9741 facsimile; (800) ASI-SPEC (274-7446).
 - 2. Substitutions: Submit in accordance with Section 016000.
 - B. Acceptable Product: ASI Unframed SP Series Signs with requirements indicated for materials, thickness, finish colors, designs, shapes, sizes and details.
 - C. Sign Face: Clear acrylic, 0.080 inch thick, matte first surface.
 - 1. Adhesive: Pressure sensitive adhesive film, second surface.
 - D. Tactile Graphics and Text:
 - 1. Fabrication: Provide tactile copy and grade 2 Braille raised 1/32 inch minimum from plaque first surface by manufacturer's stratification process as follows:
 - a. ASI Intouch™, photo-mechanical method.
 - 2. Provide lettering and graphics precisely formed, uniformly opaque to comply with relevant ADA regulations and requirements indicated for size, style, spacing, content, position, and colors.
 - E. Non-Tactile Graphics and Text:
 - 1. Fabrication options:
 - a. Series SPE/SPJ: Non-tactile graphic plaque, no back plate.
 - 2. Text or graphic technique:
 - a. Screen process using subsurface method.
 - 3. Provide lettering and graphics precisely formed, uniformly opaque, and consistent in size, style, spacing, content, position, and colors.
 - F. Overall panel size: Refer to Drawings.
 - G. Panel colors: As selected by Architect.
 - H. Text or graphic colors: As selected by Architect.
 - I. Letter styles, colors, letter sizes and layout position: As selected by Architect.
 - J. Installation Method: System SA, silicone adhesive

PART 3 - EXECUTION

- 3.1 DELIVERY AND STORAGE
 - A. Deliver and store identifying devices in protective wrappings until ready for installation. Install letters in protective wrappings and remove wrappings just prior to substantial completion.
- 3.2 INSTALLATION
 - A. Install signs plumb, level and square and in proper planes with other work, at heights required by accessibility codes and standards.

- B. Anchor each plastic laminate sign with adhesive.
 - C. Install signs with sufficient amount of foam tape for proper installation.
 - D. Attach as recommended by sign manufacturer.
 - E. Anchor each sign with adhesive.
 - F. Coordinate arrival and installation of graphic signs with hardware installation. Graphic signs function as and are coordinated with the hardware as shown on the Drawings.
 - G. Room name signs shall be placed on the public side of the door except where noted otherwise.
 - H. Single Door Sign: Provide one sign as specified above, mounted to wall adjacent to door on knob side.
 - I. Pair of Doors: Provide one sign as specified above, mounted to adjacent wall closest to active leaf of door. Do not install sign where it will be obstructed by door when door is in the 'open' position.
 - J. Attachment: Mounting to surfaces shall be done by pressure sensitive frame double-faced tape. Signs shall be delivered to the project site with the tape in place and trimmed on each sign, but with the protective paper layer not removed. Paper layer shall be removed just prior to installation of signs.
- 3.3 EXTERIOR INSTALLATION - PARKING AND DIRECTIONAL SIGNS
- A. Mount posts in 12 inch round by 2'-6" deep concrete footing.
 - B. Handicapped Signs: Mount signs at height to comply with accessibility codes.
- 3.4 COORDINATION
- A. Coordinate the installation of the identifying devices with the hardware manufacturer for lockset and knob leave outs as detailed and scheduled.
- 3.5 DAMAGE
- A. Any identifying device which is scratched or defaced will be rejected.
- 3.6 CLEANING
- A. Remove protective materials and clean all signs. Clean surfaces with plain water or water with soap or household detergent.

END OF SECTION 101400

SECTION 102800 - TOILET, BATH, AND LAUNDRY ACCESSORIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 1. Public-use washroom accessories.
 2. Private-use bathroom accessories.
 3. Underlavatory guards.
 4. Custodial accessories.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include the following:
 1. Construction details and dimensions.
 2. Anchoring and mounting requirements, including requirements for cutouts in other work and substrate preparation.
 3. Material and finish descriptions.
 4. Features that will be included for Project.
 5. Manufacturer's warranty.
- B. Sustainable Documentation Submittals:
 1. Recycled Content:
 - a. Product data and certification letter indicating percentages by weight of post-consumer and pre-consumer recycled content for products having recycled content.
 - b. Include statement indicating costs for each product having recycled content.
 2. Regional Material:
 - a. Product data for regional materials (within 500 miles of construction site) indicating location and distance from Project of material manufacturer and point of extraction, harvest, or recovery for each raw material.
 - b. Include statement indicating cost for each regional material and the fraction by weight that is considered regional.
 - c. For metal products, provide statement from manufacturer indicating location for scrap collection and other recycled materials include in the product and its distance from the project site.
- C. Product Schedule: Indicating types, quantities, sizes, and installation locations by room of each accessory required.
 1. Identify locations using room designations indicated.
 2. Identify products using designations indicated.

1.4 INFORMATIONAL SUBMITTALS

- A. Warranty: Sample of special warranty.

1.5 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For toilet and bath accessories to include in maintenance manuals.

1.6 QUALITY ASSURANCE

- A. Source Limitations: For products listed together in the same Part 2 articles, obtain products from single source from single manufacturer.

1.7 COORDINATION

- A. Coordinate accessory locations with other work to prevent interference with clearances required for access by people with disabilities, and for proper installation, adjustment, operation, cleaning, and servicing of accessories.
- B. Deliver inserts and anchoring devices set into concrete or masonry as required to prevent delaying the Work.

1.8 WARRANTY

- A. Special Mirror Warranty: Manufacturer's standard form in which manufacturer agrees to replace mirrors that develop visible silver spoilage defects and that fail in materials or workmanship within specified warranty period.
 - 1. Warranty Period: 15 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Stainless Steel: ASTM A 666, Type 304, 0.031-inch minimum nominal thickness unless otherwise indicated.
- B. Galvanized-Steel Sheet: ASTM A 653/A 653M, with G60 hot-dip zinc coating.
- C. Galvanized-Steel Mounting Devices: ASTM A 153/A 153M, hot-dip galvanized after fabrication.
- D. Fasteners: Screws, bolts, and other devices of same material as accessory unit and tamper-and-theft resistant where exposed, and of galvanized steel where concealed.
- E. Mirrors: ASTM C 1503, Mirror Glazing Quality, clear-glass mirrors, nominal 6.0 mm thick.
- F. ABS Plastic: Acrylonitrile-butadiene-styrene resin formulation.

2.2 PUBLIC-USE WASHROOM ACCESSORIES

- A. As scheduled.

2.3 PRIVATE-USE BATHROOM ACCESSORIES

- A. As scheduled.

2.4 UNDERLAVATORY GUARDS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Plumberex Specialty Products, Inc.
 - 2. Truebro by IPS Corporation.
- B. Underlavatory Guard:
 - 1. Description: Insulating pipe covering for supply and drain piping assemblies that prevent direct contact with and burns from piping; allow service access without removing coverings.

2.5 CUSTODIAL ACCESSORIES

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. American Specialties, Inc.
 - 2. Bobrick Washroom Equipment, Inc.
 - 3. Bradley Corporation.
- B. Utility Shelf:
 - 1. Description: With exposed edges turned down not less than 1/2 inch and supported by two triangular brackets welded to shelf underside.
 - 2. Size: 16 inches long by 6 inches deep.
 - 3. Material and Finish: Not less than nominal 0.05-inch- thick stainless steel, No. 4 finish (satin).
- C. Mop and Broom Holder:
 - 1. Description: Unit with shelf, hooks, holders, and rod suspended beneath shelf.
 - 2. Length: 36 inches.
 - 3. Hooks: Three.
 - 4. Mop/Broom Holders: Four, spring-loaded, rubber hat, cam type.
 - 5. Material and Finish: Stainless steel, No. 4 finish (satin).
 - a. Shelf: Not less than nominal 0.05-inch- thick stainless steel.
 - b. Rod: Approximately 1/4-inch- diameter stainless steel.

2.6 FABRICATION

- A. General: Fabricate units with tight seams and joints, and exposed edges rolled. Hang doors and access panels with full-length, continuous hinges. Equip units for concealed anchorage and with corrosion-resistant backing plates.
- B. Keys: Provide universal keys for internal access to accessories for servicing and resupplying. Provide minimum of six keys to Owner's representative.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install accessories according to manufacturers' written instructions, using fasteners appropriate to substrate indicated and recommended by unit manufacturer. Install units level, plumb, and firmly anchored in locations and at heights indicated.
- B. Grab Bars: Install to withstand a downward load of at least 250 lbf, when tested according to ASTM F 446.

3.2 ADJUSTING AND CLEANING

- A. Adjust accessories for unencumbered, smooth operation. Replace damaged or defective items.
- B. Remove temporary labels and protective coatings.
- C. Clean and polish exposed surfaces according to manufacturer's written recommendations.

END OF SECTION 102800

SECTION 104413 - FIRE PROTECTION CABINETS

PART 1 - GENERAL

- 1.1 RELATED DOCUMENTS
 - A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- 1.2 SUMMARY
 - A. Section Includes:
 - 1. Fire-protection cabinets for the following:
 - a. Portable fire extinguishers.
- 1.3 ACTION SUBMITTALS
 - A. Product Data: For each type of product. Show door hardware, cabinet type, trim style, and panel style. Include roughing-in dimensions and details showing recessed-, semirecessed-, or surface-mounting method and relationships of box and trim to surrounding construction.
 - B. Shop Drawings: For fire-protection cabinets. Include plans, elevations, sections, details, and attachments to other work.
 - C. Samples for Verification: For each type of exposed finish required, prepared on Samples 6 by 6 inches square.
- 1.4 COORDINATION
 - A. Coordinate size of fire-protection cabinets to ensure that type and capacity of fire extinguishers indicated are accommodated.
 - B. Coordinate sizes and locations of fire-protection cabinets with wall depths.

PART 2 - PRODUCTS

- 2.1 PERFORMANCE REQUIREMENTS
 - A. Fire-Rated Fire-Protection Cabinets: Listed and labeled to comply with requirements in ASTM E 814 for fire-resistance rating of walls where they are installed.
 - B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- 2.2 FIRE-PROTECTION CABINET
 - A. Cabinet Type: Suitable for fire extinguisher.
 - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. JL Industries, Inc.; a division of the Activar Construction Products Group.
 - b. Kidde Residential and Commercial Division, Subsidiary of Kidde plc.
 - c. Larsens Manufacturing Company.
 - d. Potter Roemer LLC.
 - B. Cabinet Construction: Non-rated in non-rated walls; 1 or 2 hour fire rated in rated walls to match rating of wall.
 - 1. Fire-Rated Cabinets: Construct fire-rated cabinets with double walls fabricated from 0.043-inch-thick cold-rolled steel sheet lined with minimum 5/8-inch-thick fire-barrier material. Provide factory-drilled mounting holes.
 - C. Cabinet Material: Cold-rolled steel sheet.
 - 1. Shelf: Same metal and finish as cabinet.
 - D. Semirecessed Cabinet: One-piece combination trim and perimeter door frame overlapping surrounding wall surface with exposed trim face and wall return at outer edge (backbend).
 - 1. Rolled-Edge Trim: 2-1/2-inch backbend depth.
 - E. Cabinet Trim Material: Same material and finish as door.
 - F. Door Material: Steel sheet.
 - G. Door Style: Vertical duo panel with frame.
 - H. Door Glazing: Tempered float glass (clear).
 - I. Door Hardware: Manufacturer's standard door-operating hardware of proper type for cabinet type, trim style, and door material and style indicated.
 - 1. Provide continuous hinge, of same material and finish as trim, permitting door to open 180 degrees.

- J. Accessories:
 - 1. Mounting Bracket: Manufacturer's standard steel, designed to secure fire extinguisher to fire-protection cabinet, of sizes required for types and capacities of fire extinguishers indicated, with plated or baked-enamel finish.
 - 2. Identification: Lettering complying with authorities having jurisdiction for letter style, size, spacing, and location. Locate as directed by Architect.
 - a. Identify fire extinguisher in fire-protection cabinet with the words "FIRE EXTINGUISHER."
 - 1) Location: Applied to cabinet door.
 - 2) Application Process: Silk-screened.
 - 3) Lettering Color: Black.
 - 4) Orientation: Vertical.
 - b. In addition to providing cabinet identification, provide triangular signage above each extinguisher identifying the device from both sides.
- K. Materials:
 - 1. Cold-Rolled Steel: ASTM A 1008/A 1008M, Commercial Steel (CS), Type B.
 - a. Finish: Baked enamel or powder coat.
 - b. Color: As selected by Architect from full range of industry colors and color densities.
 - 2. Tempered Float Glass: ASTM C 1048, Kind FT, Condition A, Type I, Quality q3, 3 mm thick, Class 1 (clear).

2.3 FABRICATION

- A. Fire-Protection Cabinets: Provide manufacturer's standard box (tub) with trim, frame, door, and hardware to suit cabinet type, trim style, and door style indicated.
 - 1. Weld joints and grind smooth.
 - 2. Provide factory-drilled mounting holes.
 - 3. Prepare doors and frames to receive locks.
 - 4. Install door locks at factory.
- B. Cabinet Doors: Fabricate doors according to manufacturer's standards, from materials indicated and coordinated with cabinet types and trim styles.
 - 1. Fabricate door frames with tubular stiles and rails and hollow-metal design, minimum 1/2 inch thick.
 - 2. Miter and weld perimeter door frames.
- C. Cabinet Trim: Fabricate cabinet trim in one piece with corners mitered, welded, and ground smooth.

2.4 GENERAL FINISH REQUIREMENTS

- A. Comply with NAAMM's AMP 500, "Metal Finishes Manual for Architectural and Metal Products," for recommendations for applying and designating finishes.
- B. Protect mechanical finishes on exposed surfaces of fire-protection cabinets from damage by applying a strippable, temporary protective covering before shipping.
- C. Finish fire-protection cabinets after assembly.
- D. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine roughing-in for cabinets to verify actual locations of piping connections before cabinet installation.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Prepare recesses for semirecessed fire-protection cabinets as required by type and size of cabinet and trim style.

3.3 INSTALLATION

- A. General: Install fire-protection cabinets in locations and at mounting heights indicated or, if not indicated, at heights acceptable to authorities having jurisdiction.
- B. Fire-Protection Cabinets: Fasten cabinets to structure, square and plumb.
 - 1. Unless otherwise indicated, provide recessed fire-protection cabinets. If wall thickness is inadequate for recessed cabinets, provide semirecessed fire-protection cabinets.
 - 2. Provide inside latch and lock for break-glass panels.
 - 3. Fasten mounting brackets to inside surface of fire-protection cabinets, square and plumb.
 - 4. Fire-Rated Cabinets:

- a. Install cabinet with not more than 1/16-inch tolerance between pipe OD and knockout. Center pipe within knockout.
- b. Seal through penetrations with firestopping sealant as specified in Section 078413 "Penetration Firestopping."

3.4 ADJUSTING AND CLEANING

- A. Remove temporary protective coverings and strippable films, if any, as fire-protection cabinets are installed unless otherwise indicated in manufacturer's written installation instructions.
- B. Adjust fire-protection cabinet doors to operate easily without binding. Verify that integral locking devices operate properly.
- C. On completion of fire-protection cabinet installation, clean interior and exterior surfaces as recommended by manufacturer.
- D. Touch up marred finishes, or replace fire-protection cabinets that cannot be restored to factory-finished appearance. Use only materials and procedures recommended or furnished by fire-protection cabinet and mounting bracket manufacturers.
- E. Replace fire-protection cabinets that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 104413

SECTION 104416 - FIRE EXTINGUISHERS

PART 1 - GENERAL

- 1.1 RELATED DOCUMENTS
 - A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- 1.2 SUMMARY
 - A. Section includes portable, hand-carried fire extinguishers and mounting brackets for fire extinguishers.
- 1.3 PREINSTALLATION MEETINGS
 - A. Preinstallation Conference: Conduct conference at Project site.
 - 1. Review methods and procedures related to fire extinguishers including, but not limited to, the following:
 - a. Schedules and coordination requirements.
- 1.4 ACTION SUBMITTALS
 - A. Product Data: For each type of product. Include rating and classification, material descriptions, dimensions of individual components and profiles, and finishes for fire extinguisher and mounting brackets.
 - B. Product Schedule: For fire extinguishers. Coordinate final fire-extinguisher schedule with fire-protection cabinet schedule to ensure proper fit and function. Use same designations indicated on Drawings.
- 1.5 INFORMATIONAL SUBMITTALS
 - A. Warranty: Sample of special warranty.
- 1.6 CLOSEOUT SUBMITTALS
 - A. Operation and Maintenance Data: For fire extinguishers to include in maintenance manuals.
- 1.7 COORDINATION
 - A. Coordinate type and capacity of fire extinguishers with fire-protection cabinets to ensure fit and function.
- 1.8 WARRANTY
 - A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace fire extinguishers that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Failure of hydrostatic test according to NFPA 10.
 - b. Faulty operation of valves or release levers.
 - 2. Warranty Period: Six years from date of Substantial Completion.

PART 2 - PRODUCTS

- 2.1 PERFORMANCE REQUIREMENTS
 - A. NFPA Compliance: Fabricate and label fire extinguishers to comply with NFPA 10, "Portable Fire Extinguishers."
 - B. Fire Extinguishers: Listed and labeled for type, rating, and classification by an independent testing agency acceptable to authorities having jurisdiction.
 - 1. Provide fire extinguishers approved, listed, and labeled by FM Global.
- 2.2 PORTABLE, HAND-CARRIED FIRE EXTINGUISHERS
 - A. Fire Extinguishers: Type, size, and capacity for each fire-protection cabinet and mounting bracket indicated.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Amerex Corporation.
 - 2. Valves: Manufacturer's standard.
 - 3. Handles and Levers: Manufacturer's standard.
 - 4. Instruction Labels: Include pictorial marking system complying with NFPA 10, Appendix B, and bar coding for documenting fire-extinguisher location, inspections, maintenance, and recharging.

- B. Multipurpose Dry-Chemical Type: UL-rated, 10 lb capacity, with monoammonium phosphate-based dry chemical in manufacturer's standard enameled container.

2.3 MOUNTING BRACKETS

- A. Mounting Brackets: Manufacturer's standard galvanized steel, designed to secure fire extinguisher to wall or structure, of sizes required for types and capacities of fire extinguishers indicated, with plated or red baked-enamel finish.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Amerex Corporation.
- B. Identification: Lettering complying with authorities having jurisdiction for letter style, size, spacing, and location. Locate as indicated by Architect.
 - 1. Identify bracket-mounted fire extinguishers with the words "FIRE EXTINGUISHER" in red letter decals applied to mounting surface.
 - a. Orientation: Vertical.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine fire extinguishers for proper charging and tagging.
 - 1. Remove and replace damaged, defective, or undercharged fire extinguishers.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. General: Install fire extinguishers and mounting brackets in locations indicated and in compliance with requirements of authorities having jurisdiction.
 - 1. Mounting Brackets: 54 inches above finished floor to top of fire extinguisher.
- B. Mounting Brackets: Fasten mounting brackets to surfaces, square and plumb, at locations indicated.

END OF SECTION 104416

SECTION 105500.13 - USPS-DELIVERY POSTAL SPECIALTIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Mail receptacles.
 - 2. Parcel lockers.
 - 3. Collection boxes.
 - 4. Accessories.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of postal specialty.
- B. Shop Drawings: For postal specialties.
 - 1. Include plans, elevations, sections, and attachment details.
 - 2. Include identification sequence for compartments.
 - 3. Include layout of identification text.
 - 4. Include setting drawings, templates, and installation instructions for anchor bolts and other anchorages installed as part of the Work of other Sections.
- C. Samples for Verification: For each type of exposed finish, prepared on 6-by-6-inch square Samples.

1.4 INFORMATIONAL SUBMITTALS

- A. Product Certificates: For each type of postal specialty required to comply with USPS regulations, signed by product manufacturer. Include written approval by Postmaster General.

1.5 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For postal specialties and finishes to include in maintenance manuals.

1.6 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Key Blanks: 50 for every <Insert number> locks or fraction thereof, for each type of compartment-door lock installed.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Furnish lock keys according to USPS requirements; with temporary identification for their respective locks, bagged, and securely taped inside the collection compartment for shipping.

1.8 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of postal specialties that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Structural failures.
 - b. Faulty operation of hardware.
 - c. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
 - 2. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MAIL RECEPTACLES

- A. Front-Loading Mail Receptacles: Consisting of multiple compartments with fixed, solid compartment backs, enclosed within a recessed wall box. Provide access to compartments for distributing incoming mail from front of unit by unlocking master lock and swinging side-hinged master door to provide accessibility to entire group of compartments. Provide access to each compartment for removing mail by swinging compartment door. Comply with USPS-STD-4C.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Bommer Industries, Inc.
 - b. Florence Corporation; a Gibraltar Industries company.
 - c. Jensen Mailboxes; SCC Architectural Building Products.
 - d. Salisbury Industries.
 2. Front-Loading Master Door: Fabricated from extruded aluminum and braced and framed to hold compartment doors; prepared to receive master-door lock.
 - a. Master-Door Lock: Door prepared to receive lock provided by local postmaster.
 3. Compartments: As indicated on Drawings.
 4. Compartment Doors: Fabricated from extruded aluminum. Equip each with lock and tenant identification as required by USPS-STD-4C. Provide mail slot in the compartment with master-door lock.
 - a. Compartment-Door Locks: Comply with USPS-L-1172C for locks and keys, or equivalent as approved by the USPS; with three keys for each compartment door. Key each compartment differently.
 5. Frames: Fabricated from extruded aluminum or aluminum sheet; ganged and nested units, with cardholder and blank cards for tenant's identification within each compartment.
 6. Concealed Components and Mounting Frames: Aluminum or steel sheet with manufacturer's standard finish.
 7. Exposed Aluminum Finish: Finish surfaces exposed to view as follows:
 - a. Baked-Enamel or Powder-Coated Finish: Silver.

2.2 PARCEL LOCKERS

- A. Front-Loading Parcel Lockers, Recessed: Consisting of single or multiple compartments enclosed within a larger enclosure of type indicated below. Provide access to compartments for distributing incoming parcels from front of unit. Provide access to each compartment for removing parcels by swinging compartment door. Comply with USPS-STD-4C.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Bommer Industries, Inc.
 - b. Florence Corporation; a Gibraltar Industries company.
 - c. Jayco Industries.
 - d. Jensen Mailboxes; SCC Architectural Building Products.
 - e. Salisbury Industries.
 2. Enclosure Type: Recessed.
 3. Compartments: As indicated on Drawings.
 - a. Type X, Parcel Only: A group of parcel receptacles in single-column configuration without a master door; compartment(s) 18 inches high by 12 inches wide by 15 inches deep ()one compartment 15 inches high by 12 inches wide by 15 inches deep.
 4. Compartment Doors and Frames: Fabricated from same material and finish as adjacent mail receptacles. Equip each compartment door with lock; identification; and concealed, full-length, spring-loaded, flush hinge on right side.
 - a. Compartment Identification: Black, sequential numbers engraved into recess in face of compartment door.
 - b. Compartment-Door Locks: Dual-lock security system in which master lock provides access to customer lock (USPS-L-1172C) and parcel-locker key opens compartment and is retained once opened.
 5. Aluminum Finish: Finish surfaces exposed to view as follows:
 - a. Baked-Enamel or Powder-Coated Finish: Silver.

2.3 COLLECTION BOXES

- A. Front-Loading Collection Boxes: Consisting of single compartment with fire-resistant cushion bottom, enclosed within wall box, with to receive mail. Provide door for collecting mail from front of unit.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Bommer Industries, Inc.
 - b. Florence Corporation; a Gibraltar Industries company.
 - c. Jayco Industries.
 - d. Jensen Mailboxes; SCC Architectural Building Products.
 - e. Salisbury Industries.
 2. Mounting: Recessed.
 3. Compartment Doors and Frames: Fabricated from 1/4-inch- thick aluminum, with opening not less than 12 by 20 inches and not more than 18 by 30 inches. Equip door with lock and concealed, full-length, flush hinge on one side.
 - a. Door Lock: Door prepared to receive lock provided by local postmaster.
 - b. Identification: Engrave face of compartment door with 1-inch- high letters as follows: "U.S. MAIL LETTER BOX" on two lines at top or bottom of unit.
 - c. Door Style: Set door within face frame.
 4. Exposed Materials: Fabricated from extruded or sheet aluminum.
 - a. Anodic Finish: Clear.
 5. Concealed Components and Mounting Frames: Aluminum or steel sheet with manufacturer's standard finish.
 6. Schedule-Card Holder: Recessed or surface-mounted holder for pickup schedule card in center of bottom front portion of unit. Fabricate of same material and finish as front of unit.
 7. Mailbag Hooks: Two aluminum or stainless-steel hooks at exterior front edge of bottom of surface-mounted units, spaced 15 to 17-1/2 inches apart, for supporting mailbags.

2.4 ACCESSORIES

- A. Key Keeper: Consisting of single compartment with door; interior compartment size not less than 4-3/4 inches wide by 2-1/4 inches high by 1-1/2 inches deep, USPS approved.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Bommer Industries, Inc.
 - b. Jayco Industries.
 - c. Jensen Mailboxes; SCC Architectural Building Products.
 - d. Salisbury Industries.
 2. Mounting: Recessed.
 3. Style: Compartment door set within face frame.
 4. Door Lock: Door prepared to receive lock furnished by local postmaster.

2.5 FABRICATION

- A. Form postal specialties to required shapes and sizes, with true lines and angles, square, rigid, and without warp, and with metal faces flat and free of dents or distortion. Make exposed metal edges and corners free of sharp edges and burrs and safe to touch. Fabricate doors of postal specialties to preclude binding, warping, or misalignment.
- B. Preassemble postal specialties in shop to greatest extent possible to minimize field assembly.
- C. Mill joints to a tight, hairline fit. Cope or miter corner joints. Form joints exposed to weather to exclude water penetration.
- D. Drill or punch holes required for fasteners and remove burrs. Use security fasteners where fasteners are exposed. If used, seal external rivets before finishing.
- E. Weld in concealed locations to greatest extent possible without distorting or discoloring exposed surfaces. Remove weld spatter and welding oxides from exposed surfaces.
- F. Fabricate tubular and channel frame assemblies with manufacturer's standard welded or mechanical joints. Provide subframes and reinforcement as required for a complete system to support loads.
- G. Where dissimilar metals contact each other, protect against galvanic action by painting contact surfaces with bituminous coating or by applying other permanent separation as recommended by manufacturers of dissimilar metals.

2.6 GENERAL FINISH REQUIREMENTS

- A. Comply with NAAMM/NOMMA's "Metal Finishes Manual for Architectural and Metal Products (AMP 500-06)" for recommendations for applying and designating finishes.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions for compliance with requirements for roughing-in openings, clearances, and other conditions affecting performance of the Work.
- B. Examine walls and other adjacent construction for suitable conditions before installation.
- C. Prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install postal specialties level and plumb, according to manufacturer's written instructions.
 - 1. Where dissimilar metals contact each other, protect against galvanic action by painting contact surfaces with bituminous coating or by applying other permanent separation as recommended by manufacturer.
 - 2. Where aluminum contacts grout, concrete, masonry, or wood, protect against corrosion by painting contact surfaces with bituminous coating.
 - 3. Final acceptance of postal specialties served by the USPS depends on compliance with USPS requirements.
- B. Mail Receptacles: Install mail receptacles with center of tenant-door lock cylinders and bottom of compartments at the maximum and minimum heights above finished floor established by the USPS and manufacturer's written instructions.
 - 1. Install removable-core and keyed-in door lock cylinders as required for each type of cylinder lock.
- C. Pedestal-Mounted Postal Specialties: Anchor units with 1/2-inch- diameter, stainless-steel anchor bolts with hooked ends.
- D. Collection Boxes: Install collection boxes with not more than 48 inches above finished floor.

3.3 FIELD QUALITY CONTROL

- A. Arrange for USPS personnel to examine and test postal specialties served by the USPS after they have been installed according to USPS regulations.

3.4 ADJUSTING AND CLEANING

- A. Remove temporary protective coverings and strippable films, if any, as postal specialties are installed unless otherwise indicated in manufacturer's written installation instructions.
- B. Adjust doors, hardware, and moving parts to function smoothly, and lubricate as recommended by manufacturer. Verify that integral locking devices operate properly.
- C. Touch up marred finishes or replace postal specialties that cannot be restored to factory-finished appearance. Use only materials and procedures recommended or furnished by postal-specialty manufacturer.
- D. Replace postal specialties that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.
- E. On completion of postal-specialty installation, clean interior and exterior surfaces as recommended by manufacturer.

END OF SECTION 105500.13

SECTION 105723 - WIRE CLOSET AND UTILITY SHELVING

PART 1 - GENERAL

- 1.1 RELATED DOCUMENTS
- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- 1.2 SUMMARY
- A. This Section includes the following:
1. Closet hanging storage system.
- 1.3 ACTION SUBMITTALS
- A. General: Submit in compliance with Division 01 section "Shop Drawings, Product Data and Samples".
- B. Product Data:
1. Submit for action. Describe the properties of items to be used in the Work. Include the following.
- C. Shop Drawings: Submit for action. Show fabrication and installation of the Work.
- D. Samples:
1. Initial Selection: Submit for action. Furnish manufacturer's complete color selection showing full range of colors and finish characteristics.
 2. Verification: Submit for action. Furnish materials to be used with labels indicating colors, finish characteristics and locations of the Work. Samples will be reviewed for color and appearance only. Furnish the following.
 - a. Sample of each part.
- 1.4 CLOSEOUT SUBMITTALS
- A. Closeout Submittals: Submit the following to the Owner.
1. Record documents.
- 1.5 QUALITY ASSURANCE
- A. Qualifications:
1. Contractor: Contractor is responsible for quality control of the Work.
 2. Manufacturer: A firm experienced in successfully producing work similar to that indicated for this Project, with a record of successful in-service performance, and with sufficient production capacity to produce required units without causing delay in the Work.
 3. Installer: An installer trained in the use of the materials and equipment to be employed in the Work.
- B. Regulatory Requirements: Comply with all applicable requirements of the laws, codes, ordinances and regulations of Federal, State and Municipal authorities having jurisdiction. Obtain necessary approvals from all such authorities.
- C. Single Source Responsibility: Obtain materials from a single manufacturer for the complete system.
- D. Pre-Installation Meetings: Contractor to conduct meetings at site with installer prior to start of Work. Familiarize installer with conditions at site and related Work.
- 1.6 DELIVERY, STORAGE, AND HANDLING
- A. General: Deliver materials in manufacturer's original packaging with label indicating pertinent information identifying the item. Store materials in accordance with manufacturer's instructions in a protected dry location off ground. Do not open packaging nor remove labels until time of installation.

PART 2 - PRODUCTS

- 2.1 FABRICATION
- A. VOC Limits: any adhesives, sealants, paints, or coatings shall meet the VOC limits indicated in Section 018113.
- B. Hanging Storage System:
1. Support: Hanging rail in length of closet or perimeter of walk in closets.
 2. Hanging Standards: Provide full height of wall at a maximum of 30" on center. Provide standards a maximum of 4" from walls.
 3. Brackets: Provide four 12" brackets for each standard.

4. Shelving: Ventilated units with hanger rod integral with shelving. Provide four 12" shelves in the length of closet or perimeter of walk in closets.
5. Miscellaneous: Provide end capes, expansion bolt and other items to make a complete system.
6. Finish: Manufacturer's standard baked enamel or epoxy finish in white.
7. Manufacturers: Subject to compliance with requirements, provide one of the following.
 - a. Elfa International, as distributed by BuiltRite Solutions.
 - b. ClosetMaid, by Emerson Storage Solutions.
 - c. Lee Rowan "Fast Track Adjustable Shelving System"
 - d. Schulte Corporation "Hang Rail System with Ventilated Shelf with Hanging Rod"

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Site Verification of Conditions: Examine and correct conditions of area to receive the Work prior to installation. Comply with the following requirements.
- B. Verify wood blocking has been installed in proper location and is securely attached to wall construction.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. General: Install system in accordance with manufacturer's printed installation instructions, submittals, applicable industry standards, and governing regulatory requirements for the Work.
- B. Use fasteners which are appropriate to substrate and recommended by manufacturer of system.
- C. Install units plumb and level, firmly anchored in locations and at heights indicated.

3.3 CLEANING

- A. Clean and polish all exposed surfaces after removing protective coatings and labels.
- B. At the end of each work day, remove unused materials, debris and containers from the site.

3.4 PROTECTION

- A. Protect the Work so it will not deteriorate or be damaged. Remove protection at time of Substantial Completion.

END OF SECTION 105723

SECTION 109900 - MISCELLANEOUS SPECIALTIES

PART 1 - GENERAL

- 1.1 RELATED DOCUMENTS
 - A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- 1.2 SUMMARY
 - A. Section Includes:
 - 1. Miscellaneous specialty items as listed herein.
- 1.3 ACTION SUBMITTALS
 - A. Product Data: Including all pertinent performance characteristics and criteria.
 - B. Shop Drawings: Indicate materials, construction, sizes, quantities, finishes, and installation details.
- 1.4 INFORMATIONAL SUBMITTALS
 - A. Manufacturer's Instructions: For installation, maintenance, and repair.

PART 2 - PRODUCTS

- 2.1 PRODUCTS
 - A. Fire Control Key Box: Provide fire department key control box complete with alarm tamper switch at location near main entrance to be determined.
 - 1. Acceptable Product: Model 3200 by Knox Box.

PART 3 - EXECUTION

- 3.1 EXAMINATION
 - A. Verify that surfaces and conditions are ready to receive work of this Section.
 - B. Notify Architect of any existing conditions which will adversely affect execution.
 - C. Beginning of execution will constitute acceptance of existing conditions.
- 3.2 PREPARATION
 - A. Prepare substrate surfaces as recommended by manufacturer.
- 3.3 INSTALLATION
 - A. Install using skilled workers in accordance with manufacturer's published instructions and recommendations.
- 3.4 ADJUSTING
 - A. Adjust and fit items to be flush with adjacent construction.
 - B. Fasten or adhere for tight connections and joints.

END OF SECTION 109900

