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**DIVISION**

**SPECIALTIES**

## SECTION 101400 - SIGNAGE

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This Section includes the following:
  - 1. Panel signs
- B. Related Sections include the following:
  - 1. Division 22 Section "Identification of Plumbing Piping and Equipment" for labels, tags, and nameplates for plumbing systems and equipment.
  - 2. Division 23 Section "Identification of HVAC Piping and Equipment" for labels, tags, and nameplates for HVAC systems and equipment.
  - 3. Division 26 Sections for electrical service and connections for illuminated signs.
  - 4. Division 26 Section "Identification for Electrical Systems" for labels, tags, and nameplates for electrical equipment.
  - 5. Division 26 Section "Interior Lighting" for illuminated Exit signs.

#### 1.3 DEFINITIONS

- A. ADA-ABA Accessibility Guidelines: U.S. Architectural & Transportation Barriers Compliance Board's "Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines."

#### 1.4 SUBMITTALS

- A. Shop Drawings: Show fabrication and installation details for signs.
  - 1. Show sign mounting heights, locations of supplementary supports to be provided by others, and accessories.
  - 2. Provide message list, typestyles, graphic elements, including tactile characters and Braille, and layout for each sign.
- B. Samples for Initial Selection: Manufacturer's color charts consisting of actual units or sections of units showing the full range of colors available.
- C. Samples for Verification: For each of the following products and for the full range of color, texture, and sign material indicated, of sizes indicated:
  - 1. Panel Signs: Full size sample. If shipped with return envelope, sign will be returned for use.
- D. Quality Assurance/Control Submittals:
  - 1. Product Data: For each type of product indicated.
- E. Closeout Submittals:
  - 1. Warranty: Special warranty specified in this Section.

#### 1.5 QUALITY ASSURANCE

- A. Regulatory Requirements: Signage shall be provided to conform to the Americans with Disabilities Act Accessibility Guidelines (ADAAG), ICC/ANSI A117.1, and State and Local Regulations. These requirements supersede Technical Specifications in this Section.

## 1.6 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of signs that fail in materials or workmanship within specified warranty period.
  - 1. Failures include, but are not limited to, the following:
    - a. Deterioration of finishes beyond normal weathering.
    - b. Deterioration of embedded graphic image, colors, and sign lamination.
  - 2. Warranty Period: Five years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURER

- A. Manufacturers: Subject to compliance with requirements, provide signage by one of the manufacturers specified.
  - 1. Exterior Panel Signs
    - a. A.R.K. Ramos
    - b. Matthews International Corp.
    - c. Metal Arts; Div. of L & H Mfg.
    - d. Mills Manufacturing, Inc.
    - e. Southwell Co.
    - f. ACE Sign Systems
    - g. Diskey Architectural Signage
    - h. Forty-Nine Degrees
    - i. Jarob
    - j. Gemini Incorp
    - k. Dixie Graphics
    - l. Interior Graphic Systems
- B. Products of other manufacturers will be considered for acceptance provided they equal or exceed the material requirements and functional qualities of the specified product. The "Substitution Request Form" Sample sign, and complete technical data for evaluation must accompany requests for A/E's approval. All materials for evaluation must be received by the Project Manager and Specification Department at least 10 days prior to bid due date. Additional approved manufacturers will be issued by Addendum.

### 2.2 EXTERIOR PANEL SIGNS

- A. Signage, General:
  - 1. Graphic Process: Comply with ADA Accessibility Guidelines and ICC/ANSI A117.1. All letters, numbers, and/or symbols shall contrast with background either light characters on a dark background or dark characters on a light background. Characters and background shall have matte finish.
    - a. Graphic Content and Style: Provide sign copy that complies with requirements indicated for size, style, spacing, content, mounting height and location, material, finishes, and color of signage.
  - 2. Characters: Letters and numbers shall have width to height ratio between 3:5 and 1:1 and a stroke width to height ratio between 1:5 and 1:10. Letters and numbers shall be raised 1/32-inch, uppercase, sans serif or simple sans serif type and shall be accompanied with Grade 2 Braille. Raised characters shall be 5/8-inch high minimum and 2 inches high maximum. Equivalent written description must be placed directly below pictogram. Pictogram can be any size within a minimum field of 6 inches in height. Produce precisely formed characters with square cut edges free from burrs and cut marks.
- B. Material:
  - 1. Etched (Metal) Zinc: Chemically deep-etched zinc with raised lettering and Grade II Braille; matte sheet, solid metal 1/8 (0.125) inch thick. Magnesium signs are not permitted.

- a. Lettering/Raised Surfaces:
    - 1) Color: As selected by A/E from one of manufacturer's standard colors or special match color.
  - b. Background Color:
    - 1) Color: As selected by A/E from manufacturer's standard paint colors or special match color.
  - c. Background Paint Texture: Leatherette.
  - d. Corners: Rounded, unless otherwise noted.
  - e. Edges/Borders: Straight (eased), unless otherwise noted.
  - f. Frameless design.
- C. Unframed Panel Signs: Fabricate signs with edges mechanically and smoothly finished to comply with the following requirements:
- 1. Edge Condition: Eased, unless otherwise noted.
  - 2. Corner Condition: Rounded to a 3/8 inch radius, unless otherwise noted.

### 2.3 ACCESSORIES

- A. Anchors and Inserts: Provide nonferrous-metal or hot-dip galvanized anchors and inserts for exterior installations and elsewhere as required for corrosion resistance. Use toothed steel or lead expansion-bolt devices for drilled-in-place anchors. Furnish inserts, as required, to be set into concrete or masonry work.

### 2.4 FABRICATION

- A. General: Provide manufacturer's standard signs of configurations indicated.
  - 1. Welded Connections: Comply with AWS standards for recommended practices in shop welding. Provide welds behind finished surfaces without distortion or discoloration of exposed side. Clean exposed welded surfaces of welding flux and dress exposed and contact surfaces.
  - 2. Mill joints to tight, hairline fit. Form joints exposed to weather to exclude water penetration.
  - 3. Preassemble signs in the shop to greatest extent possible. Disassemble signs only as necessary for shipping and handling limitations. Clearly mark units for reassembly and installation, in location not exposed to view after final assembly.
  - 4. Conceal fasteners if possible; otherwise, locate fasteners where they will be inconspicuous.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work.
- B. Verify that items, including anchor inserts are sized and located to accommodate signs.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION

- A. Locate signs and accessories where indicated, using mounting methods of types described and complying with manufacturer's written instructions.
  - 1. Install signs level, plumb, and at heights indicated, with sign surfaces free of distortion and other defects in appearance.
  - 2. Interior Wall Signs: Install signs on walls adjacent to latch side of door where applicable. Where not indicated or possible, such as double doors, install signs on nearest adjacent walls. Locate to allow approach within 3 inches of sign without encountering protruding objects or standing within swing of door.

- B. Wall-Mounted Panel Signs: Comply with sign manufacturer's written instructions except where more stringent requirements apply.
    - 1. Mechanical Fasteners: Use nonremovable mechanical fasteners placed through predrilled holes. Attach signs with fasteners and anchors suitable for secure attachment to substrate as recommended in writing by sign manufacturer.
- 3.3 CLEANING AND PROTECTION
- A. After installation, clean soiled sign surfaces according to manufacturer's written instructions. Protect signs from damage until acceptance by Owner.

END OF SECTION 101400

## SECTION 101453 - TRAFFIC SIGNAGE

### 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 post-mounted exterior signage for traffic control and parking designation.
  - 1. Accessible parking signs.

#### 1.3 REFERENCES

- A. Department of Transportation (DOT) Construction and Materials Specifications.
- B. US Manual on Uniform Traffic Control Devices for signs within public rights-of-way.

#### 1.4 SYSTEM DESCRIPTION

- A. Design Requirements
  - 1. Comply with requirements of local authorities having jurisdiction in executing signage work.
  - 2. Accessibility Requirements: Provide site improvements to conform to the Americans with Disabilities Act Accessibility Guidelines (ADAAG) and State and Local Regulations. These requirements supersede Technical Specifications in this Section.
- B. Performance Requirements: Obtain all required permits related to the Work of this Section.

#### 1.5 SUBMITTALS

- A. Shop Drawings: For items included in this Section. Include types of materials, construction details, sizes and layout, and complete information on accessories.
  - 1. Exterior traffic control signage drawings shall be to scale.

### PART 2 - PRODUCTS

#### 2.1 POST-MOUNTED PARKING SIGNS

- A. Parking Signs.
  - 1. Exterior "Accessible Parking" Signs.
    - a. 12 by 18 inch, 18-gauge steel or .063-inch aluminum with 1 inch radius corners. Bolt through top and bottom of sign face into 2 by 2 inch square steel post by 11 foot long (3.65 pounds/feet), with vandal-resistant fasteners. Color for post is to be selected by Architect.
  - 2. Signage Finishes: Baked enamel finish. Comply with requirements of legal authorities.

#### 2.2 POST-MOUNTED TRAFFIC CONTROL SIGNS

- A. General: Sign material shall consist of 18-gauge bonderized steel or .080-inch aluminum for stop, yield; and Do Not Enter signs.
- B. Traffic Control Signs: Comply with legal authorities and standards.
- C. Traffic Control Posts: U-Channel posts in galvanized steel, 10 foot in length, using standard mounting hardware of galvanized steel carriage bolts.

2.3 SETTING MATERIAL

- A. Concrete: Minimum 28 day compressive strength of 3,000 psi (20 MPa).

PART 3 - EXECUTION

3.1 INSTALLATION

- A. As indicated on the drawings. Set all signs vertical and plumb.

END OF SECTION 101453

## SECTION 102113 – SOLID POLYMER TOILET COMPARTMENTS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This Section includes solid-polymer units as follows:
  - 1. Toilet Enclosures: Floor and ceiling anchored.
  - 2. Urinal Screens: Wall hung.
- B. Related Sections include the following:
  - 1. Division 10 Section "Toilet, Bath, and Laundry Accessories" for toilet tissue dispensers, grab bars, purse shelves, and similar accessories.

#### 1.3 SUBMITTALS

- A. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.
  - 1. Show locations of cutouts for compartment-mounted toilet accessories.
- B. Samples for Initial Selection: For each type of unit indicated.
- C. Quality Assurance/Control Submittals:
  - 1. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
- D. Closeout Submittals:
  - 1. Warranty: Special warranties specified in this Section.
  - 2. Maintenance Data: For toilet compartments to include in maintenance manuals.

#### 1.4 QUALITY ASSURANCE

- A. Toilet compartments shall be provided to conform to the Americans with Disabilities Act Accessibility Guidelines (ADAAG) and State and Local Regulations. These requirements supersede Technical Specifications in this Section.
  - 1. Where dressing and fitting rooms are provided for use by the general public or employees, 5 percent, but never less than one, of the dressing for each type of use in each cluster of dressing rooms shall be accessible.
- B. Surface-Burning Characteristics: As determined by testing identical products according to ASTM E84, or another standard acceptable to authorities having jurisdiction, by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
  - 1. Flame-Spread Index: 75 or less.
  - 2. Smoke-Developed Index: 450 or less.

#### 1.5 PROJECT CONDITIONS

- A. Field Measurements: Verify actual locations of walls, columns, ceilings, and other construction contiguous with toilet compartments by field measurements before fabrication and indicate measurements on Shop Drawings.
  - 1. Established Dimensions: Where field measurements cannot be made without delaying the Work, establish dimensions and proceed with fabricating toilet compartments without field measurements. Coordinate wall, floor, ceilings, and other contiguous construction to ensure that actual dimensions correspond to established dimensions.

## 1.6 WARRANTY

- A. Toilet compartment manufacturer shall warrant plastic panels for 5 years against warping and defect.
  - 1. Warranty Period: 5 years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 SOLID-POLYMER UNITS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the manufacturers specified.
  - 1. Solid High Density Polyethylene (HDPE)
    - a. Accurate Partitions Corp.
    - b. General Partitions Mfg. Corp.
    - c. Global Steel Products Corp.
    - d. Metpar Corp.
    - e. Weis-Robart Partitions, Inc.
    - f. Bradley Corporation; Mills Partitions
    - g. Scranton Products (Santana/Comtec/Capitol).
    - h. Ampco Products, Inc.
    - i. Rockville Partitions Incorporated
    - j. Partition Systems, Inc.
    - k. Columbia Partitions, a division of Partition Systems Inc. of South Carolina
  - 2. Polypropylene (PP)
    - a. Hadrian Inc.
- B. Products of other manufacturers will be considered for acceptance provided they equal or exceed the material requirements and functional qualities of the specified product. The "Substitution Request Form" and complete technical data for evaluation must accompany requests for A/E's approval. All materials for evaluation must be received by the Project Manager and Specification Department at least 10 days prior to bid due date. Additional approved manufacturers will be issued by Addendum.
- C. Door, Panel, and Pilaster Construction: Solid, high-density polyethylene (HDPE) or polypropylene (PP), panel material, not less than 1 inch thick, seamless, with eased edges, and with homogenous color and pattern throughout thickness of material.
  - 1. Color and Pattern: One color and pattern in each room as selected by A/E from manufacturer's full range of colors and patterns.
- D. Pilaster Shoes and Sleeves (Caps): Manufacturer's standard design; polymer or stainless steel.
  - 1. Polymer Color and Pattern: Matching pilaster.
- E. Brackets (Fittings):
  - 1. Full-Height (Continuous) Type: Manufacturer's standard design; polymer or extruded aluminum or stainless steel.
    - a. Polymer Color and Pattern: Matching pilaster.
- F. Heat-Sink Strip: Manufacturer's standard continuous, extruded-aluminum strip fastened to exposed bottom edges of solid-polymer components to prevent burning.

### 2.2 ACCESSORIES

- A. Hardware and Accessories: Manufacturer's standard design, heavy-duty operating hardware and accessories.
  - 1. Material: Stainless steel.

- B. Anchorages and Fasteners: Manufacturer's standard exposed fasteners of stainless steel or chrome-plated steel or brass, finished to match hardware, with theft-resistant-type heads. Provide sex-type bolts for through-bolt applications. For concealed anchors, use hot-dip galvanized or other rust-resistant, protective-coated steel.

## 2.3 FABRICATION

- A. Floor-and-Ceiling-Anchored Compartments: Provide manufacturer's standard, corrosion-resistant anchoring assemblies at pilasters and walls with leveling adjustment at tops and bottoms of pilasters. Provide shoes and sleeves (caps) at pilasters to conceal anchorage.
- B. Doors: Unless otherwise indicated, provide 24-inch wide in-swinging doors for standard toilet compartments and 36-inch wide out-swinging doors with a minimum 32-inch wide clear opening for compartments indicated to be accessible to people with disabilities.
  - 1. Hinges: Manufacturer's standard integral hinge.
  - 2. Latch and Keeper: Manufacturer's standard surface-mounted latch unit designed for emergency access and with combination rubber-faced door strike and keeper. Provide units that comply with accessibility requirements of authorities having jurisdiction at compartments indicated to be accessible to people with disabilities.
  - 3. Coat Hook: Manufacturer's standard combination hook and rubber-tipped bumper, sized to prevent door from hitting compartment-mounted accessories.
  - 4. Door Bumper: Manufacturer's standard rubber-tipped bumper at out-swinging doors.
  - 5. Door Pull: Manufacturer's standard unit at out-swinging doors that complies with accessibility requirements of authorities having jurisdiction. Provide units on both sides of doors at compartments indicated to be accessible to people with disabilities.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. General: Comply with manufacturer's written installation instructions. Install units rigid, straight, level, and plumb. Secure units in position with manufacturer's recommended anchoring devices.
  - 1. Maximum Clearances:
    - a. Pilasters and Panels: 1/2 inch.
    - b. Panels and Walls: 1 inch.
- B. Floor-and-Ceiling-Anchored Compartments: Secure pilasters to supporting construction, and level, plumb, and tighten. Hang doors and adjust so doors are level and aligned with panels when doors are in closed position.
- C. Wall-Hung Urinal Screens: Attach with anchoring devices to suit supporting structure. Set units level and plumb and to resist lateral impact.

### 3.2 ADJUSTING

- A. Hardware Adjustment: Adjust and lubricate hardware according to manufacturer's written instructions for proper operation. Set hinges on in-swinging doors to hold doors open approximately 30 degrees from closed position when unlatched. Set hinges on out-swinging doors to return doors to fully closed position.

END OF SECTION 102113

## SECTION 102800 - TOILET, BATH, AND LAUNDRY ACCESSORIES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This Section includes the following:
  - 1. Public-use washroom accessories.
  - 2. Childcare/special needs accessories.
  - 3. Custodial accessories.
- B. Owner-Furnished Material installed by the Contractor:
  - 1. Soap dispensers
  - 2. Waste receptacles
  - 3. Toilet paper dispenser
  - 4. Paper towel dispenser

#### 1.3 SUBMITTALS

- A. Sample for Initial Selection: Color chart for manufacturers standard color of shower curtains.
- B. Quality Assurance/Control Submittals:
  - 1. Product Data: For each type of product indicated. Include the following:
    - a. Construction details and dimensions.
    - b. Anchoring and mounting requirements, including requirements for cutouts in other work and substrate preparation.
    - c. Material and finish descriptions.
    - d. Features that will be included for Project.
    - e. Manufacturer's warranty.
  - 2. Product Schedule: Indicating types, quantities, sizes, and installation locations by room of each accessory required.
    - a. Identify locations using room designations indicated on Drawings.
    - b. Identify products using designations indicated on Drawings.
- C. Closeout Submittals:
  - 1. Maintenance Data: For toilet and bath accessories to include in maintenance manuals.
  - 2. Warranty: Special warranties specified in this Section.

#### 1.4 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.

#### 1.5 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: 10 years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the manufacturers specified.
  - 2. Products: Subject to compliance with requirements, provide one of the specified products.
- B. Products of other manufacturers will be considered for acceptance provided they equal or exceed the material requirements and functional qualities of the specified product. Requests for A/E's approval and complete technical data for evaluation must be received at least 10 days prior to bid due date. Additional approved manufacturers will be issued by Addendum.

### 2.2 MATERIALS

- A. Stainless Steel: ASTM A 666, Type 304, 0.0312-inch minimum nominal thickness, unless otherwise indicated.
- B. Brass: ASTM B 19 flat products; ASTM B 16, rods, shapes, forgings, and flat products with finished edges; or ASTM B 30, castings.
- C. Steel Sheet: ASTM A 1008, Designation CS (cold rolled, commercial steel), 0.0359-inch minimum nominal thickness.
- D. Galvanized Steel Sheet: ASTM A 653, with G60 hot-dip zinc coating.
- E. Galvanized Steel Mounting Devices: ASTM A 153, hot-dip galvanized after fabrication.
- F. 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.
- G. Chrome Plating: ASTM B 456, Service Condition Number SC 2 (moderate service).
- H. Mirrors: ASTM C 1503, Mirror Glazing Quality, clear-glass mirrors, nominal 6.0 mm thick.

### 2.3 PUBLIC-USE WASHROOM ACCESSORIES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the manufacturers specified.
  - 1. A & J Washroom Accessories, Inc.
  - 2. American Specialties, Inc.
  - 3. Bobrick Washroom Equipment, Inc.
  - 4. Bradley Corporation.
  - 5. GAMCO Commercial Restroom Accessories Division, Bobrick Washroom Equipment, Inc.
- B. Grab Bar:
  - 1. Stainless Steel Type: Provide grab bars with wall thickness not less than 0.05 inch and as follows:
    - a. Mounting: Concealed, manufacturer's standard flanges and anchorages.
    - b. Clearance: 1-1/2 inch clearance between wall surface and inside face of bar.
    - c. Gripping Surfaces
      - 1) Smooth, satin finish, unless noted otherwise.
      - 2) Manufacturer's standard nonslip texture in wet areas.
    - d. Heavy Duty Size: Outside diameter of 1-1/4 inches minimum.

2. Grab bar shall be constructed of Type 304 stainless steel with satin finish. Concealed mounting flanges shall be 1/8-inch thick stainless steel plate, 3-1/8 inch diameter, and each shall have 2 screw holes for attachment to wall. Flange covers shall be 22-gauge, 3-1/4 inch diameter by 1/2 inch deep, and shall snap over mounting flange to conceal mounting screws. Ends of grab bars shall pass through concealed mounting flanges and be heliarc welded to form one structural unit. Grab bars shall comply with ADA Accessibility Guidelines for structural strength. Provide concealed anchor device or backing as specified or required in accordance with local building codes before wall is finished.

a. Products:

- 1) Bobrick: B-5806 Series
  - a) Horizontal (GB5): B-5806 by 36
  - b) Horizontal (GB6): B-5806 by 42
- 2) Bradley: 832-001 Series
  - a) (GB5): 832 by 36
  - b) (GB6): 832 by 42
- 3) A & J Washroom Accessories: UG2 Series
  - a) (GB5): UG2-A by 36
  - b) (GB6): UG2-A by 42
- 4) American Specialties: 3700 Series
  - a) (GB5): 3700 by 36
  - b) (GB6): 3700 by 42
- 5) Gamco: 125S-Series
  - a) Horizontal (GB5): 125S by 36
  - b) Horizontal (GB6): 125S by 42

C. Sanitary-Napkin Disposal Unit:

1. Recessed Sanitary Napkin/Tampon Vendor (NV-1): Recessed napkin/tampon vendor shall combine two dispensing mechanisms in one cabinet to provide napkins or tampons at user's option (free) (single coin) (double coin). Dispensing mechanisms shall be convertible to allow the change of coin denomination without purchasing new mechanisms or removing unit from wall. Unit shall be Type 304 stainless steel with all welded construction. Cabinet shall be 22-gauge. Door shall be 18-gauge; exposed surfaces shall have satin finish. Door shall have 7/8 inch, 90 degree return edges; be secured to cabinet with a concealed, full length, stainless steel piano hinge; and equipped with a stainless steel cable door swing limiter and two tumbler locks keyed. Pull knobs shall be operable with one hand and with less than 5 pounds of force to comply with barrier free accessibility guidelines. Each coin box shall be equipped with a tumbler lock that is keyed differently than door locks. Unit shall carry no brand name advertising.

- a. Rough Wall Opening: 15-1/4 inches wide by 25-1/2 inches high by 4 inches minimum recessed depth.

b. Products:

- 1) Bobrick: B-3500
- 2) Bradley: 4017
- 3) A & J Washroom Accessories: U510
- 4) American Specialties: 04684
- 5) Gamco: NV-2-4

2. Surface Mounted Partition Mounted Sanitary Napkin Disposal (ND-1): Surface mounted sanitary napkin disposal shall be Type 304 stainless steel with all welded construction; exposed surfaces shall have satin finish. Self-closing door shall be secured to cabinet with a spring loaded, full length, stainless steel piano hinge and equipped with international graphic symbol identified sanitary napkin disposal. Unit shall be furnished with a removable stainless steel receptacle that is equipped with a tumbler lock. Receptacle shall have a capacity of 1.2 gallons.

a. Products:

- 1) Bobrick: B-254
- 2) Bradley: 4722-150000
- 3) A & J Washroom Accessories: U582/IGS
- 4) American Specialties: 0473-1A
- 5) Gamco: ND-5

3. Double Sided Partition Mounted Sanitary Napkin Disposal (ND-2): Partition mounted dual napkin disposal shall be constructed of Type 304 stainless steel. Exposed surfaces shall have satin finish. Flanges shall be drawn and beveled, one-piece seamless construction. Unit shall mount in partition and serve two toilet compartments. Self closing, napkin disposal push doors shall be attached to cabinet with welded full length stainless steel piano hinges and shall be equipped with international graphic symbols identifying napkin disposal. Napkin disposal shall be furnished with a removable stainless steel receptacle. Receptacle shall have 1.3-gallon capacity and be equipped with tumbler lock. Disposal shall be serviced from one side only. Other side of cabinet shall be built with a permanent panel.
    - a. Rough Wall Opening: 11 inches wide by 15-1/2 inches high, 1/2 to 1-1/4 inch partition thickness.
    - b. Products:
      - 1) Bobrick: B-354
      - 2) Bradley: 4721-150000
      - 3) A & J Washroom Accessories: U580/IGS
      - 4) American Specialties: 0472-1
      - 5) Gamco: ND-6
- D. Mirror Unit:
1. Vandal-resistant stainless steel frameless mirror (secured from front shall be constructed of 18 gauge, type 430 stainless steel with bright polished finish. Mirror shall have 1/4 inch return. Mirror shall be furnished with tamper-resistant mounting screws.
    - a. Basis-of-Design: Bobrick, Model B-942 or a comparable product by one of the other manufacturers specified:
      - 1) Bradley
      - 2) A & J Washroom Accessories
      - 3) American Specialties
      - 4) Gamco

#### 2.4 CHILDCARE/SPECIAL NEEDS ACCESSORIES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. American Infant Care Products Inc.
  2. American Specialties, Inc.
  3. Foundations Worldwide Inc.
  4. Koala Corporation.
  5. Safe-Strap Company, Inc.
- B. Diaper-Changing Station (DCS):
1. Horizontal, Surface-Mounted Unit: Diaper changing station with surface mounted, mildew resistant, molded polyethylene body that folds horizontally against wall when not in use; projects not more than 4 inches from wall when closed; and is engineered to support a minimum of 250 pound static weight when opened. Provide unit with pneumatic shock absorbing operating mechanism and built-in dispenser for sanitary liners.

#### 2.5 CUSTODIAL ACCESSORIES

- A. Manufacturers:
1. A & J Washroom Accessories, Inc.
  2. American Specialties, Inc.
  3. Bobrick Washroom Equipment, Inc.
  4. Bradley Corporation.
  5. General Accessory Manufacturing Co. (GAMCO).
- B. Mop and Broom Holder:
1. Mop and Broom Holders (MH): Surface mounted mop and broom holder shall be Type 304 stainless steel with satin finish. Unit shall be 36 inches long with 4 spring loaded, rubber cam holders.

- a. Products:
  - 1) Bobrick: B-223-36
  - 2) Bradley: 9954
  - 3) A & J Washroom Accessories: UJ13B
  - 4) American Specialties: 8215-4
  - 5) Gamco: MS-4

## 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 PREPARATION

- A. Coordinate requirements for blocking and construction of wall openings for recessed units.
- B. Provide templates and rough-in measurements as required.

### 3.2 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. Secure mirrors to walls in concealed, tamperproof manner with special hangers, toggle bolts, or screws. Set units plumb, level, and square at locations indicated, according to manufacturer's instructions for type of substrate involved.
- C. Grab Bars: Install to withstand a downward load of at least 250 lbf, when tested according to method in ASTM F 446.
- D. Changing Stations: Install in accordance with manufactured instructions.
  - 1. Changing stations and other accessories shall be installed to comply with requirements for accessible mounted heights, protrusions into accessible routes, and other requirements of ICC/ANSI A117.1.
  - 2. Install units so they are level, plumb, and secure.
  - 3. After installation open and close units a minimum of 3 times. Verify units operate smoothly and properly latch. Adjust as required for proper safe use.
  - 4. Wash exposed surfaces using a solution of mild detergent in warm water, applied with soft, clean cloths. Do not use abrasives.

### 3.3 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 104416 - FIRE EXTINGUISHERS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General 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 SUBMITTALS

- A. Quality Assurance/Control Submittals:
  - 1. Product Data: For each type of product indicated. Include rating and classification, material descriptions, dimensions of individual components and profiles, and finishes for fire extinguisher and mounting brackets.
- B. Closeout Submittals:
  - 1. Warranty: Sample of special warranty.

#### 1.4 QUALITY ASSURANCE

- 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.

#### 1.5 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: Five years from date of Substantial Completion.

### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the manufacturers specified.
  - 1. Portable Fire Extinguishers
    - a. Amerex Corp.
    - b. Ansul Inc.
    - c. Buckeye Fire Equipment Company
    - d. Kidde, Residential and Commercial Div., UTC Fire and Security Co., United Technologies Corp.
    - e. J.L. Industries
    - f. Larsen's Manufacturing Company
    - g. Potter-Roemer
    - h. Pem All Fire Extinguisher Company, A Division of PEM System
    - i. Pyro-Chem, Tyco Safety Products

- B. Products of other manufacturers will be considered for acceptance provided they equal or exceed the material requirements and functional qualities of the specified product. The "Substitution Request Form" and complete technical data for evaluation must accompany requests for A/E's approval. All materials for evaluation must be received by the Project Manager and Specification Department at least 10 days prior to bid due date. Additional approved manufacturers will be issued by Addendum.

## 2.2 PORTABLE, HAND-CARRIED FIRE EXTINGUISHERS

- A. Fire Extinguishers: Type, size, and capacity for each fire protection cabinet and mounting bracket indicated.
  - 1. Valves: Manufacturer's standard, unless otherwise noted.
  - 2. Handles and Levers: Manufacturer's standard, unless otherwise noted.
    - a. Gauge face cover and horn cone parts shall be metal. No plastic or nylon valves, trigger/handle, casing, or gauge will be acceptable.
  - 3. 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 in Steel or Aluminum Container: UL-rated 4-A:60-B:C, 10-lb nominal capacity, with monoammonium phosphate-based dry chemical in enameled container.
  - 1. Provide this type throughout facility, unless otherwise noted.

## 2.3 MOUNTING BRACKETS

- A. Mounting Brackets: Manufacturer's standard 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.
- 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 or horizontal.

## 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: 48 inches above finished floor to top of fire extinguisher, unless required by authorities with jurisdiction.
- B. Mounting Brackets: Fasten mounting brackets to surfaces, square and plumb, at locations indicated.

END OF SECTION 104416