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For more information, contact Potter Roemer Fire Pro, Morris Group International, 17451 Hurley Street, City of Industry, CA 91744; Phone: (800) 366-3473 | (626) 855-4890; Fax: (888) 404-7960; Website: <https://www.potterroemer.com/home>; Email: info@potterroemer.com.

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SECTION 104413 - FIRE PROTECTION CABINETS

TIPS:

To view non-printing **Editor's Notes** that provide guidance for editing, click on MasterWorks/Single-File Formatting/Toggle/Editor's Notes.

To read **detailed research, technical information about products and materials, and coordination checklists**, click on MasterWorks/Supporting Information.

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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 extinguisher.
- b. Portable fire extinguisher and fire-hose valve.
- c. Portable fire extinguisher, fire hose, fire-hose rack, and fire-hose valve.
- d. Portable fire extinguisher and fire blanket.
- e. Fire hose, fire-hose rack, and fire-hose valve.
- f. Fire hose and fire-hose valve.
- g. Fire-hose valve.
- h. Security fire-protection cabinets.

B. Related Requirements:

1. Section 104416 "Fire Extinguishers" for portable, hand-carried fire extinguishers accommodated by fire-protection cabinets
2. Section 211200 "Fire-Suppression Standpipes" for fire-hose connections.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Show door hardware, cabinet type, trim style, and panel style. Include roughing-in dimensions and details showing mounting method and relationships of box and trim to surrounding construction.
2. Show location of knockouts for fire-hose valves.

B. Shop Drawings: For fire-protection cabinets.

1. Include plans, elevations, sections, details, and attachments to other work.

C. Samples: For each type of exposed finish required.

D. Samples for Initial Selection: For each type of exposed finish required.

E. Samples for Verification: For each type of exposed finish required, prepared on samples **6 by 6 inches (150 by 150 mm)** square.

F. Product Schedule: For fire-protection cabinets. Indicate mounting method. Coordinate final fire-protection cabinet schedule with fire-extinguisher schedule to ensure proper fit and function. [**Use same designations indicated on Drawings.**]

1.4 CLOSEOUT SUBMITTALS

A. Maintenance Data: For fire-protection cabinets to include in maintenance manuals.

1.5 COORDINATION

- A. Coordinate size of fire-protection cabinets to ensure that type and capacity of **[fire extinguishers]** **[fire hoses, fire-hose valves, and fire-hose racks]** indicated are accommodated.
- B. Coordinate sizes and locations of fire-protection cabinets with wall depths.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Source Limitations: Obtain fire-protection cabinets, accessories, and fire extinguishers from single source from single manufacturer.
- B. Basis-of-Design Product: Subject to compliance with requirements, provide Potter Roemer Fire Pro, Morris Group International; Series as specified below or comparable product by one of the following:
 - 1. Babcock-Davis.
 - 2. JL Industries, Inc.; a division of the Activar Construction Products Group.
 - 3. Larsens Manufacturing Company.
 - 4. Nystrom.
 - 5. **<Insert manufacturer's name>**.

2.2 PERFORMANCE REQUIREMENTS

- A. Fire-Rated Fire-Protection Cabinets: Listed and labeled to comply with requirements in ASTM E814 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.

2.3 FIRE-PROTECTION CABINETS

- A. Cabinet Type **[FEC-<#>]**: Suitable for portable fire extinguisher.
 - 1. Basis-of-Design Product: Subject to compliance with requirements, provide Potter Roemer Fire Pro, Morris Group International; **[Alta 7000]** **[Buena 7100]** **[Dana 7200]** **[Loma 7300]** **[1700]** Series or comparable product.
 - 2. Cabinet Construction: **[Nonrated]** **[One-hour fire rated]** **[Two-hour fire rated]**.
 - a. Fire-Rated Cabinets: Construct fire-rated cabinets with double walls fabricated from **0.043-inch- (1.09-mm-)** thick cold-rolled steel sheet lined with minimum **5/8-inch- (16-mm-)** thick fire-barrier material. Provide factory-drilled mounting holes.

3. Cabinet Material: [**Galvannealed steel**] [**Aluminum**] [**Stainless steel**] [**Copper-alloy brass**] sheet.
 - a. [**Cabinet Trim**] [**and**] [**Door**]: [**Same material and finish as cabinet**] [**Galvannealed steel sheet**] [**Aluminum sheet**] [**Extruded-aluminum shapes**] [**Stainless steel sheet**] [**Copper-alloy brass sheet**] [**Copper-alloy bronze sheet**].
 - b. Shelf: Same metal and finish as cabinet.
4. Recessed Cabinet:
 - a. Trimless with Concealed Flange: Surface of surrounding wall finishes flush with exterior finished surface of cabinet frame and door, without overlapping trim attached to cabinet. Provide recessed flange, of same material as box, attached to box, to act as plaster stop.
 - b. Exposed Flat Trim: One-piece combination trim and perimeter door frame overlapping surrounding wall surface, with exposed trim face and wall return at outer edge (backbend).
 - c. Trimless with Hidden Flange: Flange of same metal and finish as box overlaps surrounding wall finish and is concealed from view by an overlapping door.
5. 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).
 - a. Square-Edge Trim: **1-1/4- to 2-inch (32- to 51-mm)** backbend depth.
 - b. Rolled-Edge Trim: [**2-1/2-inch (64-mm)**] [**3-inch (76-mm)**] [**4-inch (102-mm)**] [**4-1/2-inch (114-mm)**] <Insert dimension> backbend depth.
6. Surface-Mounted Cabinet: Cabinet box fully exposed and mounted directly on wall with no trim.
7. Door Style: [**Fully glazed**] [**Horizontal duo**] [**Vertical duo**] [**Center glass**] [**Solid opaque**] panel with frame, with continuous hinge permitting door to open 180 degrees.
 - a. Door Glazing: Tempered [**float glass (clear)**] [**float glass (bronze tint)**] [**break glass**].
8. Door Style: Fully glazed, frameless acrylic glazing panel, with pivot hinge permitting door to open 180 degrees.
 - a. Acrylic Sheet Color: [**Clear**] [**Bronze**] [**White**] [**Smoke**] [**Red**] transparent acrylic sheet.
9. Door Style: [**Vertical duo**] [**Solid opaque**] panel, with concealed hinge permitting door to open 180 degrees.
 - a. Door Glazing: Tempered [**float glass (clear)**] [**float glass (bronze tint)**] [**break glass**].
10. Door Style: Full acrylic bubble with frame.
 - a. Acrylic Bubble Color: [**Clear**] [**Bronze**] [**Smoke**], transparent.
11. Door Hardware: Manufacturer's standard door-operating hardware of proper type for cabinet type, trim style, and door material and style indicated.

- a. Provide [**projecting lever handle with cam-action latch**] [**projecting door pull and friction latch**] [**recessed door pull and friction latch**] [**manufacturer's standard**].
- B. Cabinet Type [**FEC-~~#~~**]: Suitable for portable fire extinguisher and fire-hose valve.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Potter Roemer Fire Pro, Morris Group International; [**Alta 8000**] [**Buena 8100**] [**Dana 8200**] Series or comparable product.
 2. Cabinet Construction: [**Nonrated**] [**One-hour fire rated**] [**Two-hour fire rated**].
 - a. Fire-Rated Cabinets: Construct fire-rated cabinets with double walls fabricated from **0.043-inch- (1.09-mm-)** thick galvanized steel sheet lined with minimum **5/8-inch- (16-mm-)** thick fire-barrier material. Provide factory-drilled mounting holes.
 3. Cabinet Material: [**Galvanized steel**] [**Aluminum**] [**Stainless steel**] [**Copper-alloy brass**] sheet.
 - a. [**Cabinet Trim**] [**and**] [**Door**]: [**Same material and finish as cabinet**] [**Galvanized steel sheet**] [**Aluminum sheet**] [**Extruded-aluminum shapes**] [**Stainless steel sheet**] [**Copper-alloy brass sheet**] [**Copper-alloy bronze**].
 - b. Shelf: Same material and finish as cabinet.
 4. Recessed Cabinet:
 - a. Trimless with Concealed Flange: Surface of surrounding wall finishes flush with exterior finished surface of cabinet frame and door, without overlapping trim attached to cabinet. Provide recessed flange, of same material as box, attached to box, to act as plaster stop.
 - b. Exposed Flat Trim: One-piece combination trim and perimeter door frame overlapping surrounding wall surface, with exposed trim face and wall return at outer edge (backbend).
 - c. Trimless with Hidden Flange: Flange of same metal and finish as box overlaps surrounding wall finish and is concealed from view by an overlapping door.
 5. 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).
 - a. Square-Edge Trim: **1-1/4- to 2-inch (32- to 51-mm)** backbend depth.
 - b. Rolled-Edge Trim: [**2-1/2-inch (64-mm)**] [**3-inch (76-mm)**] [**4-inch (102-mm)**] [**4-1/2-inch (114-mm)**] <Insert dimension> backbend depth.
 6. Surface-Mounted Cabinet: Cabinet box fully exposed and mounted directly on wall with no trim.
 7. Door Style: [**Fully glazed**] [**Horizontal duo**] [**Vertical duo**] [**Center glass**] [**Solid opaque**] panel with frame, with continuous hinge, of same material and finish as trim permitting door to open 180 degrees.

- a. Door Glazing: Tempered [**float glass (clear)**] [**float glass (bronze tint)**] [**break glass**].
 8. Door Style: Fully glazed, frameless acrylic glazing panel, with pivot hinge permitting door to open 180 degrees.
 - a. Acrylic Sheet Color: [**Clear**] [**Bronze**] [**White**] [**Smoke**] [**Red**] transparent acrylic sheet.
 9. Door Style: [**Vertical duo**] [**Solid opaque**] panel, with concealed hinge permitting door to open 180 degrees.
 - a. Door Glazing: Tempered [**float glass (clear)**] [**float glass (bronze tint)**] [**break glass**].
 10. Door Hardware: Manufacturer's standard door-operating hardware of proper type for cabinet type, trim style, and door material and style indicated.
 - a. Provide [**projecting lever handle with cam-action latch**] [**projecting door pull and friction latch**] [**recessed door pull and friction latch**] [**manufacturer's standard**].
- C. Cabinet Type [**FEC-~~#~~**]: Suitable for portable fire extinguisher, fire hose, fire-hose rack, and fire-hose valve.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Potter Roemer Fire Pro, Morris Group International; [**1300**] [**1400**] [**1500**] [**1600**] Series or comparable product.
 2. Cabinet Construction: [**Nonrated**] [**One-hour fire rated**] [**Two-hour fire rated**].
 - a. Fire-Rated Cabinets: Construct fire-rated cabinets with double walls fabricated from **0.043-inch- (1.09-mm-)** thick galvanized steel sheet lined with minimum **5/8-inch- (16-mm-)** thick fire-barrier material. Provide factory-drilled mounting holes.
 3. Cabinet Material: [**Galvanized steel**] [**Aluminum**] [**Stainless steel**] sheet.
 - a. [**Cabinet Trim**] [**and**] [**Door**]: [**Same material and finish as cabinet**] [**Galvanized steel sheet**] [**Aluminum sheet**] [**Extruded-aluminum shapes**] [**Stainless steel sheet**] [**Copper-alloy brass sheet**] [**Copper-alloy bronze sheet**].
 - b. Shelf: Same material and finish as cabinet.
 4. Recessed Cabinet:
 - a. Trimless with Concealed Flange: Surface of surrounding wall finishes flush with exterior finished surface of cabinet frame and door, without overlapping trim attached to cabinet. Provide recessed flange, of same material as box, attached to box, to act as plaster stop.

- b. Exposed Flat Trim: One-piece combination trim and perimeter door frame overlapping surrounding wall surface, with exposed trim face and wall return at outer edge (backbend).
 - c. Trimless with Hidden Flange: Flange of same metal and finish as box overlaps surrounding wall finish and is concealed from view by an overlapping door.
 5. 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).
 - a. Square-Edge Trim: 1-1/4- to 2-inch (32- to 51-mm) backbend depth.
 - b. Rolled-Edge Trim: [2-1/2-inch (64-mm)] [3-inch (76-mm)] [4-inch (102-mm)] [4-1/2-inch (114-mm)] <Insert dimension> backbend depth.
 6. Surface-Mounted Cabinet: Cabinet box fully exposed and mounted directly on wall with no trim.
 7. Door Style: [Fully glazed] [Horizontal duo] [Vertical duo] [Center glass] [Solid opaque] panel with frame, with continuous hinge, of same material and finish as trim permitting door to open 180 degrees.
 - a. Door Glazing: Tempered [float glass (clear)] [float glass (bronze tint)] [break glass].
 8. Door Style: Fully glazed, frameless acrylic glazing panel, with pivot hinge permitting door to open 180 degrees.
 - a. Acrylic Sheet Color: [Clear] [Bronze] [White] [Smoke] [Red] transparent acrylic sheet.
 9. Door Style: [Vertical duo] [Solid opaque] panel, with concealed hinge permitting door to open 180 degrees.
 - a. Door Glazing: Tempered [float glass (clear)] [float glass (bronze tint)] [break glass].
 10. Door Style: Full acrylic bubble with frame.
 - a. Acrylic Bubble Color: [Clear] [Bronze] [Smoke], transparent.
 11. Door Hardware: Manufacturer's standard door-operating hardware of proper type for cabinet type, trim style, and door material and style indicated.
 - a. Provide [projecting lever handle with cam-action latch] [projecting door pull and friction latch] [recessed door pull and friction latch] [manufacturer's standard].
- D. Cabinet Type [FEC-<#>]: Suitable for portable extinguisher and fire blanket.
 1. Basis-of-Design Product: Subject to compliance with requirements, provide Potter Roemer Fire Pro, Morris Group International; 6600 Series or comparable product.

2. Cabinet Construction: [**Nonrated**] [**One-hour fire rated**] [**Two-hour fire rated**].
 - a. Fire-Rated Cabinets: Construct fire-rated cabinets with double walls fabricated from **0.043-inch- (1.09-mm-)** thick galvanized steel sheet lined with minimum **5/8-inch- (16-mm-)** thick fire-barrier material. Provide factory-drilled mounting holes.
3. Cabinet Material: [**Galvanized steel**] [**Aluminum**] [**Stainless steel**] [**Copper-alloy brass**] sheet.
 - a. [**Cabinet Trim**] [**and**] [**Door**]: [**Same material and finish as cabinet**] [**Galvanized steel sheet**] [**Aluminum sheet**] [**Extruded-aluminum shapes**] [**Stainless steel sheet**] [**Copper-alloy brass sheet**] [**Copper-alloy bronze sheet**].
 - b. Shelf: Same material and finish as cabinet.
4. Recessed Cabinet:
 - a. Trimless with Concealed Flange: Surface of surrounding wall finishes flush with exterior finished surface of cabinet frame and door, without overlapping trim attached to cabinet. Provide recessed flange, of same material as box, attached to box, to act as plaster stop.
 - b. Exposed Flat Trim: One-piece combination trim and perimeter door frame overlapping surrounding wall surface, with exposed trim face and wall return at outer edge (backbend).
 - c. Trimless with Hidden Flange: Flange of same metal and finish as box overlaps surrounding wall finish and is concealed from view by an overlapping door.
5. 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).
 - a. Square-Edge Trim: **1-1/4- to 2-inch (32- to 51-mm)** backbend depth.
 - b. Rolled-Edge Trim: [**2-1/2-inch (64-mm)**] [**3-inch (76-mm)**] [**4-inch (102-mm)**] [**4-1/2-inch (114-mm)**] <Insert dimension> backbend depth.
6. Surface-Mounted Cabinet: Cabinet box fully exposed and mounted directly on wall with no trim.
7. Door Style: [**Fully glazed**] [**Horizontal duo**] [**Vertical duo**] [**Center glass**] [**Solid opaque**] panel with frame, with continuous hinge, of same material and finish as trim permitting door to open 180 degrees.
 - a. Door Glazing: Tempered [**float glass (clear)**] [**float glass (bronze tint)**] [**break glass**].
8. Door Style: Fully glazed, frameless acrylic glazing panel, with pivot hinge permitting door to open 180 degrees.
 - a. Acrylic Sheet Color: [**Clear**] [**Bronze**] [**White**] [**Smoke**] [**Red**] transparent acrylic sheet.

9. Door Style: [**Vertical duo**] [**Solid opaque**] panel, with concealed hinge permitting door to open 180 degrees.
 - a. Door Glazing: Tempered [**float glass (clear)**] [**float glass (bronze tint)**] [**break glass**].
 10. Door Hardware: Manufacturer's standard door-operating hardware of proper type for cabinet type, trim style, and door material and style indicated.
 - a. Provide [**projecting lever handle with cam-action latch**] [**projecting door pull and friction latch**] [**recessed door pull and friction latch**] [**manufacturer's standard**].
- E. Cabinet Type [**FEC-<#>**]: Suitable for fire hose, fire-hose rack, and fire-hose valve.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Potter Roemer Fire Pro, Morris Group International; 1200 Series or comparable product.
 2. Cabinet Construction: [**Nonrated**] [**One-hour fire rated**] [**Two-hour fire rated**].
 - a. Fire-Rated Cabinets: Construct fire-rated cabinets with double walls fabricated from **0.043-inch- (1.09-mm-)** thick galvanized steel sheet lined with minimum **5/8-inch- (16-mm-)** thick fire-barrier material. Provide factory-drilled mounting holes.
 3. Cabinet Material: [**Galvanized steel**] [**Aluminum**] [**Stainless steel**] sheet.
 - a. [**Cabinet Trim**] [**and**] [**Door**]: [**Same material and finish as cabinet**] [**Galvanized steel sheet**] [**Aluminum sheet**] [**Extruded-aluminum shapes**] [**Stainless steel sheet**] [**Copper-alloy brass sheet**] [**Copper-alloy bronze sheet**].
 - b. Shelf: Same material and finish as cabinet.
 4. Recessed Cabinet:
 - a. Trimless with Concealed Flange: Surface of surrounding wall finishes flush with exterior finished surface of cabinet frame and door, without overlapping trim attached to cabinet. Provide recessed flange, of same material as box, attached to box, to act as plaster stop.
 - b. Exposed Flat Trim: One-piece combination trim and perimeter door frame overlapping surrounding wall surface, with exposed trim face and wall return at outer edge (backbend).
 - c. Trimless with Hidden Flange: Flange of same metal and finish as box overlaps surrounding wall finish and is concealed from view by an overlapping door.
 5. 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).
 - a. Square-Edge Trim: **1-1/4- to 2-inch (32- to 51-mm)** backbend depth.
 - b. Rolled-Edge Trim: [**2-1/2-inch (64-mm)**] [**3-inch (76-mm)**] [**4-inch (102-mm)**] [**4-1/2-inch (114-mm)**] <Insert dimension> backbend depth.

6. Surface-Mounted Cabinet: Cabinet box fully exposed and mounted directly on wall with no trim.
 7. Door Style: [**Fully glazed**] [**Horizontal duo**] [**Vertical duo**] [**Center glass**] [**Solid opaque**] panel with frame, with continuous hinge, of same material and finish as trim permitting door to open 180 degrees.
 - a. Door Glazing: Tempered [**float glass (clear)**] [**float glass (bronze tint)**] [**break glass**].
 8. Door Style: Fully glazed, frameless acrylic glazing panel, with pivot hinge permitting door to open 180 degrees.
 - a. Acrylic Sheet Color: [**Clear**] [**Bronze**] [**White**] [**Smoke**] [**Red**] transparent acrylic sheet.
 9. Door Style: [**Vertical duo**] [**Solid opaque**] panel, with concealed hinge permitting door to open 180 degrees.
 - a. Door Glazing: Tempered [**float glass (clear)**] [**float glass (bronze tint)**] [**break glass**].
 10. Door Hardware: Manufacturer's standard door-operating hardware of proper type for cabinet type, trim style, and door material and style indicated.
 - a. Provide [**projecting lever handle with cam-action latch**] [**projecting door pull and friction latch**] [**recessed door pull and friction latch**] [**manufacturer's standard**].
- F. Cabinet Type [**FEC-~~#~~**]: Suitable for fire hose and fire-hose rack.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Potter Roemer Fire Pro, Morris Group International; [**1000**] [**1100**] Series or comparable product.
 2. Cabinet Construction: [**Nonrated**] [**One-hour fire rated**] [**Two-hour fire rated**].
 - a. Fire-Rated Cabinets: Construct fire-rated cabinets with double walls fabricated from **0.043-inch- (1.09-mm-)** thick galvanized steel sheet lined with minimum **5/8-inch- (16-mm-)** thick fire-barrier material. Provide factory-drilled mounting holes.
 3. Cabinet Material: [**Galvanized steel**] [**Aluminum**] [**Stainless steel**] sheet.
 - a. [**Cabinet Trim**] [**and**] [**Door**]: [**Same material and finish as cabinet**] [**Galvanized steel sheet**] [**Aluminum sheet**] [**Extruded-aluminum shapes**] [**Stainless steel sheet**] [**Copper-alloy brass sheet**] [**Copper-alloy bronze sheet**].
 - b. Shelf: Same material and finish as cabinet.
 4. Recessed Cabinet:

- a. Trimless with Concealed Flange: Surface of surrounding wall finishes flush with exterior finished surface of cabinet frame and door, without overlapping trim attached to cabinet. Provide recessed flange, of same material as box, attached to box, to act as plaster stop.
 - b. Exposed Flat Trim: One-piece combination trim and perimeter door frame overlapping surrounding wall surface, with exposed trim face and wall return at outer edge (backbend).
 - c. Trimless with Hidden Flange: Flange of same metal and finish as box overlaps surrounding wall finish and is concealed from view by an overlapping door.
5. 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).
- a. Square-Edge Trim: 1-1/4- to 2-inch (32- to 51-mm) backbend depth.
 - b. Rolled-Edge Trim: [2-1/2-inch (64-mm)] [3-inch (76-mm)] [4-inch (102-mm)] [4-1/2-inch (114-mm)] <Insert dimension> backbend depth.
6. Surface-Mounted Cabinet: Cabinet box fully exposed and mounted directly on wall with no trim.
7. Door Style: [Fully glazed] [Horizontal duo] [Vertical duo] [Center glass] [Solid opaque] panel with frame, with continuous hinge, of same material and finish as trim permitting door to open 180 degrees.
- a. Door Glazing: Tempered [float glass (clear)] [float glass (bronze tint)] [break glass].
8. Door Style: Fully glazed, frameless acrylic glazing panel, with pivot hinge permitting door to open 180 degrees.
- a. Acrylic Sheet Color: [Clear] [Bronze] [White] [Smoke] [Red] transparent acrylic sheet.
9. Door Style: [Vertical duo] [Solid opaque] panel, with concealed hinge permitting door to open 180 degrees.
- a. Door Glazing: Tempered [float glass (clear)] [float glass (bronze tint)] [break glass].
10. Door Hardware: Manufacturer's standard door-operating hardware of proper type for cabinet type, trim style, and door material and style indicated.
- a. Provide [projecting lever handle with cam-action latch] [projecting door pull and friction latch] [recessed door pull and friction latch] [manufacturer's standard].
- G. Cabinet Type [FEC-#>]: Suitable for fire-hose valve.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Potter Roemer Fire Pro, Morris Group International; [**Alta 8000**] [**Buena 8100**] [**Dana 8200**] Series or comparable product.
2. Cabinet Construction: [**Nonrated**] [**One-hour fire rated**] [**Two-hour fire rated**].
 - a. Fire-Rated Cabinets: Construct fire-rated cabinets with double walls fabricated from **0.043-inch- (1.09-mm-)** thick galvanized steel sheet lined with minimum **5/8-inch- (16-mm-)** thick fire-barrier material. Provide factory-drilled mounting holes.
3. Cabinet Material: [**Galvanized steel**] [**Aluminum**] [**Stainless steel**] sheet.
 - a. [**Cabinet Trim**] [**and**] [**Door**]: [**Same material and finish as cabinet**] [**Galvanized steel sheet**] [**Aluminum sheet**] [**Extruded-aluminum shapes**] [**Stainless steel sheet**] [**Copper-alloy brass sheet**] [**Copper-alloy bronze sheet**].
 - b. Shelf: Same material and finish as cabinet.
4. Recessed Cabinet:
 - a. Trimless with Concealed Flange: Surface of surrounding wall finishes flush with exterior finished surface of cabinet frame and door, without overlapping trim attached to cabinet. Provide recessed flange, of same material as box, attached to box, to act as plaster stop.
 - b. Exposed Flat Trim: One-piece combination trim and perimeter door frame overlapping surrounding wall surface, with exposed trim face and wall return at outer edge (backbend).
 - c. Trimless with Hidden Flange: Flange of same metal and finish as box overlaps surrounding wall finish and is concealed from view by an overlapping door.
5. 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).
 - a. Square-Edge Trim: **1-1/4- to 2-inch (32- to 51-mm)** backbend depth.
 - b. Rolled-Edge Trim: [**2-1/2-inch (64-mm)**] [**3-inch (76-mm)**] [**4-inch (102-mm)**] [**4-1/2-inch (114-mm)**] <Insert dimension> backbend depth.
6. Surface-Mounted Cabinet: Cabinet box fully exposed and mounted directly on wall with no trim.
7. Door Style: [**Fully glazed**] [**Horizontal duo**] [**Vertical duo**] [**Center glass**] [**Solid opaque**] panel with frame, with continuous hinge, of same material and finish as trim permitting door to open 180 degrees.
 - a. Door Glazing: Tempered [**float glass (clear)**] [**float glass (bronze tint)**] [**break glass**].
8. Door Style: Fully glazed, frameless acrylic glazing panel, with pivot hinge permitting door to open 180 degrees.

- a. Acrylic Sheet Color: **[Clear] [Bronze] [White] [Smoke] [Red]** transparent acrylic sheet.
9. Door Style: **[Vertical duo] [Solid opaque]** panel, with concealed hinge permitting door to open 180 degrees.
 - a. Door Glazing: Tempered **[float glass (clear)] [float glass (bronze tint)] [break glass]**.
 10. Door Hardware: Manufacturer's standard door-operating hardware of proper type for cabinet type, trim style, and door material and style indicated.
 - a. Provide **[projecting lever handle with cam-action latch] [projecting door pull and friction latch] [recessed door pull and friction latch] [manufacturer's standard]**.
- H. 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. Break-Glass Door Handle: Manufacturer's standard, integral to glass with the words "PULL TO BREAK GLASS" applied to handle.
 3. Lettered Door Handle: One-piece, cast-iron door handle with the word "FIRE" embossed into face.
 4. Door Lock: **[Cam lock that allows door to be opened during emergency by pulling sharply on door handle] [Cylinder lock, keyed alike to other cabinets]**.
 5. Identification: Lettering complying with authorities having jurisdiction for letter style, size, spacing, and location. Locate **[as indicated] [as directed by Architect] <Insert location>**.
 - a. Identify fire extinguisher in fire-protection cabinet with the words "**[FIRE EXTINGUISHER] <Insert identification>**."
 - 1) Location: Applied to **[cabinet door] [cabinet glazing] [location indicated on Drawings]**.
 - 2) Application Process: **[Silk-screened] [Engraved] [Etched] [Decals] [Pressure-sensitive vinyl letters]**.
 - 3) Lettering Color: **[Red] [Black] [White]**.
 - 4) Orientation: **[Vertical] [Horizontal] [As indicated on Drawings]**.
 6. Alarm: Manufacturer's standard alarm that actuates when fire-protection cabinet door is opened and that is powered by **[batteries] [low voltage, complete with transformer]**.
- I. Materials:
1. Galvannealed Steel: ASTM A653/A653M, either commercial steel or forming steel.

- a. Finish: **[Factory primed for field painting] [Baked enamel, TGIC polyester powder coat, HAA polyester powder coat, epoxy powder coat, or polyester/epoxy hybrid powder coat, complying with AAMA 2603].**
 - b. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
 - c. Color: **[Match Architect's sample] [As selected by Architect from manufacturer's full range] <Insert color>.**
2. Aluminum: **ASTM B221 (ASTM B221M)** for extruded shapes and aluminum sheet, with strength and durability characteristics of not less than Alloy 6063-T5 for aluminum sheet.
 - a. Finish: **[Clear anodic] [Color anodic] [Baked enamel or powder coat].**
 - b. Color: **[Light bronze] [Medium bronze] [Dark bronze] [Match Architect's sample] [As selected by Architect from full range of industry colors and color densities] <Insert color>.**
 3. Stainless Steel: ASTM A240/A240M or ASTM A666, Type 304.
 - a. Finish: **[ASTM A480/A480M No. 4 directional satin finish,] [ASTM A480/A480M No. 8 mirrorlike reflective, nondirectional polish] <Insert finish>.**
 4. Copper Alloy, Brass: ASTM B36/B36M alloy **[as standard with manufacturer] <Insert requirements>.**
 - a. Finish: **[Polished] [Satin] [As selected by Architect from full range of industry finishes] <Insert finish>.**
 5. Copper Alloy, Bronze: ASTM B36/B36M alloy **[as standard with manufacturer] <Insert requirements>.**
 - a. Finish: **[Mirror polish] [Satin polish] [Satin oxidized oil rub] [Clear baked enamel] [Match Architect's sample] [As selected by Architect from full range of industry finishes] <Insert finish>.**
 6. Clear Float Glass: ASTM C1036, Type I, Class 1, Quality q3, **[3] [6]** mm thick.
 7. Tempered Float Glass: ASTM C1048, Kind FT, Condition A, Type I, Quality q3, 3 mm thick, **[Class 1 (clear)] [Class 2 (tinted, heat absorbing, and light reducing), bronze tint].**
 8. Break Glass: Clear annealed float glass, ASTM C1036, Type I, Class 1, Quality q3, 1.5 mm thick, single strength.
 9. Tempered Break Glass: ASTM C1048, Kind FT, Condition A, Type I, Quality q3, 1.5 mm thick.
 10. Transparent Acrylic Sheet: ASTM D4802, Category A-1 (cell-cast sheet), **[1.5] [3] [6]** mm thick, with **[Finish 1 (smooth or polished)] [Finish 2 (patterned, textured)].**

2.4 SECURITY FIRE-PROTECTION CABINETS

- A. Security Cabinet Type **[SFEC-<#>]**: Suitable for portable fire extinguisher.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Potter Roemer Fire Pro, Morris Group International; Detention DC-1700-F Series or comparable product.
2. Cabinet Construction: [**Nonrated**] [**One-hour fire rated**] [**Two-hour fire rated**].
 - a. Fire-Rated Cabinets: Construct fire-rated cabinets with double walls lined with minimum **5/8-inch- (16-mm-)** thick fire-barrier material.
3. Cabinet Material: [**0.134-inch- (3.42-mm-)**] [**0.104-inch- (2.65-mm-)**] [**0.074-inch- (1.89-mm-)**] [**0.059-inch- (1.51-mm-)**] thick galvanized steel sheet.
4. Cabinet Material: [**0.074-inch- (1.89-mm-)**] [**0.059-inch- (1.51-mm-)**] thick stainless steel sheet.
 - a. Shelf: Same metal and finish as cabinet.
5. Recessed Cabinet:
 - a. Exposed Flat Trim: One-piece combination trim and perimeter door frame overlapping surrounding wall surface, with exposed trim face and wall return at outer edge (backbend).
6. 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).
 - a. Square-Edge Trim: **1-1/4- to 2-inch (32- to 51-mm)** backbend depth.
 - b. Rolled-Edge Trim: [**2-1/2-inch (64-mm)**] [**3-inch (76-mm)**] [**4-inch (102-mm)**] [**4-1/2-inch (114-mm)**] <Insert dimension> backbend depth.
7. Surface-Mounted Cabinet: Cabinet box fully exposed and mounted directly on wall with no trim.
8. Cabinet Trim Material: [**Galvanized steel sheet**] [**Stainless steel sheet**] [**Same material and finish as door**].
9. Door Material: [**0.134-inch- (3.42-mm-)**] [**0.104-inch- (2.65-mm-)**] [**0.074-inch- (1.89-mm-)**] [**0.059-inch- (1.51-mm-)**] thick galvanized steel sheet.
10. Door Material: [**0.074-inch- (1.89-mm-)**] [**0.059-inch- (1.51-mm-)**] thick stainless steel sheet.
11. Door Style: Solid opaque panel with frame.
12. Door Hardware: Manufacturer's standard door-operating hardware of proper type for cabinet type, trim style, and door material and style indicated, and as follows:
 - a. Recessed door pull.
 - b. Continuous Hinge: Same material and finish as trim, permitting door to open 180 degrees.
 - c. Mechanical Deadlock: Lockbolt retracted and extended by five-tumbler [**paracentric**] [**mogul**] cylinder; keyed one side.
 - 1) Lockbolt: **1-1/2 inches high by 3/4 inch (38 mm high by 19 mm)** thick; **5/8-inch (16-mm)** throw.

- d. Mechanical Deadlock: As specified in Section 087163 "Detention Door Hardware."
 - e. Mechanical Snaplatch: Automatic snaplatch when closed; latchbolt retracted by five-tumbler [**paracentric**] [**mogul**] cylinder; keyed one side.
 - 1) Lockbolt: **1 inch high by 7/16 inch (25 mm high by 11 mm) thick; 5/16-inch (8-mm) throw.**
 - f. Mechanical Snaplatch: As specified in Section 087163 "Detention Door Hardware."
- B. Security Cabinet Type [**SFEC-<#>**]: Suitable for portable fire extinguisher and fire-hose valve.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Potter Roemer Fire Pro, Morris Group International; Detention Model [**DC-1870-F**] [**DC-1875-F**] or comparable product.
 2. Cabinet Construction: [**Nonrated**] [**One-hour fire rated**] [**Two-hour fire rated**].
 - a. Fire-Rated Cabinets: Construct fire-rated cabinets with double walls lined with minimum **5/8-inch- (16-mm-)** thick fire-barrier material.
 3. Cabinet Material: [**0.134-inch- (3.42-mm-)**] [**0.104-inch- (2.65-mm-)**] [**0.074-inch- (1.89-mm-)**] [**0.059-inch- (1.51-mm-)**] thick galvanized steel sheet.
 4. Cabinet Material: [**0.074-inch- (1.89-mm-)**] [**0.059-inch- (1.51-mm-)**] thick stainless steel sheet.
 - a. Shelf: Same metal and finish as cabinet.
 5. Recessed Cabinet:
 - a. Exposed Flat Trim: One-piece combination trim and perimeter door frame overlapping surrounding wall surface, with exposed trim face and wall return at outer edge (backbend).
 6. 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).
 - a. Square-Edge Trim: **1-1/4- to 1-1/2-inch (32- to 38-mm)** backbend depth.
 - b. Rolled-Edge Trim: [**2-1/2-inch (64-mm)**] [**4-inch (102-mm)**] [**4-1/2-inch (114-mm)**] **<Insert dimension>** backbend depth.
 7. Surface-Mounted Cabinet: Cabinet box fully exposed and mounted directly on wall with no trim.
 8. Cabinet Trim Material: [**Galvanized steel sheet**] [**Stainless steel sheet**] [**Same material and finish as door**].
 9. Door Material: [**0.134-inch- (3.42-mm-)**] [**0.104-inch- (2.65-mm-)**] [**0.074-inch- (1.89-mm-)**] [**0.059-inch- (1.51-mm-)**] thick galvanized steel sheet.
 10. Door Material: [**0.074-inch- (1.89-mm-)**] [**0.059-inch- (1.51-mm-)**] thick stainless steel sheet.

11. Door Style: Solid opaque panel with frame.
 12. Door Hardware: Manufacturer's standard door-operating hardware of proper type for cabinet type, trim style, and door material and style indicated; and as follows:
 - a. Recessed door pull.
 - b. Continuous Hinge: Same material and finish as trim, permitting door to open 180 degrees.
 - c. Mechanical Deadlock: Lockbolt retracted and extended by five-tumbler [paracentric] [mogul] cylinder; keyed one side.
 - 1) Lockbolt: 1-1/2 inches high by 3/4 inch (38 mm high by 19 mm) thick; 5/8-inch (16-mm) throw.
 - d. Mechanical Deadlock: As specified in Section 087163 "Detention Door Hardware."
 - e. Mechanical Snaplatch: Automatic snaplatch when closed; latchbolt retracted by five-tumbler [paracentric] [mogul] cylinder; keyed one side.
 - 1) Lockbolt: 1 inch high by 7/16 inch (25 mm high by 11 mm) thick; 5/16-inch (8-mm) throw.
 - f. Mechanical Snaplatch: As specified in Section 087163 "Detention Door Hardware."
- C. Security Cabinet Type [SFEC-~~#~~]: Suitable for portable fire extinguisher, fire hose, fire-hose rack, and fire-hose valve.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Potter Roemer Fire Pro, Morris Group International; Detention Model [DC-1302-F] [DC-1352-F] or comparable product.
 2. Cabinet Construction: [Nonrated] [One-hour fire rated] [Two-hour fire rated].
 - a. Fire-Rated Cabinets: Construct fire-rated cabinets with double walls lined with minimum 5/8-inch- (16-mm-) thick fire-barrier material.
 3. Cabinet Material: [0.134-inch- (3.42-mm-)] [0.104-inch- (2.65-mm-)] [0.074-inch- (1.89-mm-)] [0.059-inch- (1.51-mm-)] thick galvanized steel sheet.
 4. Cabinet Material: [0.074-inch- (1.89-mm-)] [0.059-inch- (1.51-mm-)] thick stainless steel sheet.
 - a. Shelf: Same metal and finish as cabinet.
 5. Recessed Cabinet:
 - a. Exposed Flat Trim: One-piece combination trim and perimeter door frame overlapping surrounding wall surface, with exposed trim face and wall return at outer edge (backbend).

6. 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).
 - a. Square-Edge Trim: 1-1/4- to 1-1/2-inch (32- to 38-mm) backbend depth.
 - b. Rolled-Edge Trim: [2-1/2-inch (64-mm)] [4-inch (102-mm)] [4-1/2-inch (114-mm)] <Insert dimension> backbend depth.
 7. Surface-Mounted Cabinet: Cabinet box fully exposed and mounted directly on wall with no trim.
 8. Cabinet Trim Material: [Galvannealed steel sheet] [Stainless steel sheet] [Same material and finish as door].
 9. Door Material: [0.134-inch- (3.42-mm-)] [0.104-inch- (2.65-mm-)] [0.074-inch- (1.89-mm-)] [0.059-inch- (1.51-mm-)] thick galvannealed steel sheet.
 10. Door Material: [0.074-inch- (1.89-mm-)] [0.059-inch- (1.51-mm-)] thick stainless steel sheet.
 11. Door Style: Solid opaque panel with frame.
 12. Door Hardware: Manufacturer's standard door-operating hardware of proper type for cabinet type, trim style, and door material and style indicated; and as follows:
 - a. Recessed door pull.
 - b. Continuous Hinge: Same material and finish as trim, permitting door to open 180 degrees.
 - c. Mechanical Deadlock: Lockbolt retracted and extended by five-tumbler [paracentric] [mogul] cylinder; keyed one side.
 - 1) Lockbolt: 1-1/2 inches high by 3/4 inch (38 mm high by 19 mm) thick; 5/8-inch (16-mm) throw.
 - d. Mechanical Deadlock: As specified in Section 087163 "Detention Door Hardware."
 - e. Mechanical Snaplatch: Automatic snaplatch when closed; latchbolt retracted by five-tumbler [paracentric] [mogul] cylinder; keyed one side.
 - 1) Lockbolt: 1 inch high by 7/16 inch (25 mm high by 11 mm) thick; 5/16-inch (8-mm) throw.
 - f. Mechanical Snaplatch: As specified in Section 087163 "Detention Door Hardware."
- D. Security Cabinet Type [SFEC-<#>]: Suitable for fire hose.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Potter Roemer Fire Pro, Morris Group International; Detention Model [DC-1002-F] [DC-1052-F] or comparable product.
 2. Cabinet Construction: [Nonrated] [One-hour fire rated] [Two-hour fire rated].
 - a. Fire-Rated Cabinets: Construct fire-rated cabinets with double walls lined with minimum 5/8-inch- (16-mm-) thick fire-barrier material.

3. Cabinet Material: [**0.134-inch- (3.42-mm-)**] [**0.104-inch- (2.65-mm-)**] [**0.074-inch- (1.89-mm-)**] [**0.059-inch- (1.51-mm-)**] thick galvanized steel sheet.
4. Cabinet Material: [**0.074-inch- (1.89-mm-)**] [**0.059-inch- (1.51-mm-)**] thick stainless steel sheet.
 - a. Shelf: Same metal and finish as cabinet.
5. Recessed Cabinet:
 - a. Exposed Flat Trim: One-piece combination trim and perimeter door frame overlapping surrounding wall surface, with exposed trim face and wall return at outer edge (backbend).
6. 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).
 - a. Square-Edge Trim: **1-1/4- to 1-1/2-inch (32- to 38-mm)** backbend depth.
 - b. Rolled-Edge Trim: [**2-1/2-inch (64-mm)**] [**4-inch (102-mm)**] [**4-1/2-inch (114-mm)**] <Insert dimension> backbend depth.
7. Surface-Mounted Cabinet: Cabinet box fully exposed and mounted directly on wall with no trim.
8. Cabinet Trim Material: [**Galvanized steel sheet**] [**Stainless steel sheet**] [**Same material and finish as door**].
9. Door Material: [**0.134-inch- (3.42-mm-)**] [**0.104-inch- (2.65-mm-)**] [**0.074-inch- (1.89-mm-)**] [**0.059-inch- (1.51-mm-)**] thick galvanized steel sheet.
10. Door Material: [**0.074-inch- (1.89-mm-)**] [**0.059-inch- (1.51-mm-)**] thick stainless steel sheet.
11. Door Style: Solid opaque panel with frame.
12. Door Hardware: Manufacturer's standard door-operating hardware of proper type for cabinet type, trim style, and door material and style indicated; and as follows:
 - a. Recessed door pull.
 - b. Continuous Hinge: Same material and finish as trim, permitting door to open 180 degrees.
 - c. Mechanical Deadlock: Lockbolt retracted and extended by five-tumbler [**paracentric**] [**mogul**] cylinder; keyed one side.
 - 1) Lockbolt: **1-1/2 inches high by 3/4 inch (38 mm high by 19 mm)** thick; **5/8-inch (16-mm)** throw.
 - d. Mechanical Deadlock: As specified in Section 087163 "Detention Door Hardware."
 - e. Mechanical Snaplatch: Automatic snaplatch when closed; latchbolt retracted by five-tumbler [**paracentric**] [**mogul**] cylinder; keyed one side.
 - 1) Lockbolt: **1 inch high by 7/16 inch (25 mm high by 11 mm)** thick; **5/16-inch (8-mm)** throw.

- f. Mechanical Snaplatch: As specified in Section 087163 "Detention Door Hardware."
- E. Security Cabinet Type [SFEC-<#>]: Suitable for fire-hose valve.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Potter Roemer Fire Pro, Morris Group International; Detention Model [DC-1810-F] [Model DC-1815-F] or comparable product.
 2. Cabinet Construction: [Nonrated] [One-hour fire rated] [Two-hour fire rated].
 - a. Fire-Rated Cabinets: Construct fire-rated cabinets with double walls lined with minimum 5/8-inch- (16-mm-) thick fire-barrier material.
 3. Cabinet Material: [0.134-inch- (3.42-mm-)] [0.104-inch- (2.65-mm-)] [0.074-inch- (1.89-mm-)] [0.059-inch- (1.51-mm-)] thick galvanized steel sheet.
 4. Cabinet Material: [0.074-inch- (1.89-mm-)] [0.059-inch- (1.51-mm-)] thick stainless steel sheet.
 - a. Shelf: Same metal and finish as cabinet.
 5. Recessed Cabinet:
 - a. Exposed Flat Trim: One-piece combination trim and perimeter door frame overlapping surrounding wall surface, with exposed trim face and wall return at outer edge (backbend).
 6. 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).
 - a. Square-Edge Trim: 1-1/4- to 1-1/2-inch (32- to 38-mm) backbend depth.
 - b. Rolled-Edge Trim: [2-1/2-inch (64-mm)] [4-inch (102-mm)] [4-1/2-inch (114-mm)] <Insert dimension> backbend depth.
 7. Surface-Mounted Cabinet: Cabinet box fully exposed and mounted directly on wall with no trim.
 8. Cabinet Trim Material: [Galvanized steel sheet] [Stainless steel sheet] [Same material and finish as door].
 9. Door Material: [0.134-inch- (3.42-mm-)] [0.104-inch- (2.65-mm-)] [0.074-inch- (1.89-mm-)] [0.059-inch- (1.51-mm-)] thick galvanized steel sheet.
 10. Door Material: [0.074-inch- (1.89-mm-)] [0.059-inch- (1.51-mm-)] thick stainless steel sheet.
 11. Door Style: Solid opaque panel with frame.
 12. Door Hardware: Manufacturer's standard door-operating hardware of proper type for cabinet type, trim style, and door material and style indicated; and as follows:
 - a. Recessed door pull.
 - b. Continuous Hinge: Same material and finish as trim, permitting door to open 180 degrees.

- c. Mechanical Deadlock: Lockbolt retracted and extended by five-tumbler [paracentric] [mogul] cylinder; keyed one side.
 - 1) Lockbolt: 1-1/2 inches high by 3/4 inch (38 mm high by 19 mm) thick; 5/8-inch (16-mm) throw.
- d. Mechanical Deadlock: As specified in Section 087163 "Detention Door Hardware."
- e. Mechanical Snaplatch: Automatic snaplatch when closed; latchbolt retracted by five-tumbler [paracentric] [mogul] cylinder; keyed one side.
 - 1) Lockbolt: 1 inch high by 7/16 inch (25 mm high by 11 mm) thick; 5/16-inch (8-mm) throw.
- f. Mechanical Snaplatch: As specified in Section 087163 "Detention Door Hardware."

F. Accessories:

- 1. Mounting Bracket: Manufacturer's standard steel, designed to secure fire extinguisher to security 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 indicated] [as directed by Architect] <Insert location>.
 - a. Identify fire extinguisher in security fire-protection cabinet with the words "[FIRE EXTINGUISHER] <Insert identification>."
 - 1) Location: Applied to [cabinet door] [location indicated on Drawings].
 - 2) Application Process: [Silk-screened] [Engraved] [Etched] [Decals] [Pressure-sensitive vinyl letters].
 - 3) Lettering Color: [Red] [Black] [White].
 - 4) Orientation: [Vertical] [Horizontal] [As indicated on Drawings].
- 3. Keys: Three per door lock.

G. Materials:

- 1. Galvannealed Steel: ASTM A653/A653M, either commercial steel or forming steel.
 - a. Finish: [Factory primed for field painting] [Baked enamel or powder coat].
 - b. Color: [Match Architect's sample] [As selected by Architect from full range of industry colors] <Insert color>.
- 2. Stainless Steel: ASTM A240/A240M or ASTM A666, Type 304.
 - a. Finish: [ASTM A480/A480M No. 4 directional satin finish] [ASTM A480/A480M No. 8 mirrorlike reflective, nondirectional polish] <Insert finish>.

2.5 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. Miter corners and grind smooth.
 - 3. Provide factory-drilled mounting holes.
 - 4. Prepare doors and frames to receive locks.
- B. Cabinet Doors: Fabricate doors in accordance with 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 (13 mm)** thick.
 - 2. Fabricate door frames of one-piece construction with edges flanged.
 - 3. Miter and weld perimeter door frames and grind smooth.
- C. Cabinet Trim: Fabricate cabinet trim in one piece with corners mitered, welded, and ground smooth.

2.6 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 unacceptable. 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 fire-hose [**valves**] [**racks**] and cabinets to verify actual locations of piping connections before cabinet installation.
- B. Examine walls and partitions for suitable framing depth and blocking where [**recessed**] [**and**] [**semirecessed**] cabinets will be installed.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Prepare recesses for [**recessed**] [**and**] [**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 height indicated below:**][**or, if not indicated, at heights acceptable to authorities having jurisdiction.**]

1. Fire-Protection Cabinets: [**42 inches (1067 mm)**] <Insert dimension> above finished floor to top of fire extinguisher.

- 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 [**Fire-Hose and Valve**] [**Fire-Hose Valve**] Cabinets:
 - a. Install cabinet with not more than **1/16-inch (1.6-mm)** tolerance between pipe OD and knockout OD. Center pipe within knockout.
 - b. Seal through penetrations with firestopping sealant as specified in Section 078413 "Penetration Firestopping."

- C. Identification:

1. Apply [**decals**] [**vinyl lettering**] at locations indicated.
2. Apply [**decals**] [**vinyl lettering**] on field-painted fire-protection cabinets after painting is complete.

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