
PART 1 GENERAL**1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Portable fire extinguishers.
 - 2. Fire-protection cabinets for the following:
 - a. Portable fire extinguishers.
 - 3. Mounting brackets for fire extinguishers.
- B. Related Sections include the following:
 - 1. Division 7 Section "Through-Penetration Firestop Systems" for firestopping sealants at fire-rated cabinets.

1.3 QUALITY ASSURANCE

- A. The work of this section shall be performed by a company which specializes in the type of fire protection specialty work required for this Project, with a minimum of 5 years of documented successful experience and shall be performed by skilled workmen thoroughly experienced in the necessary crafts.
 - 1. Work shall be performed in compliance with Owner's insurance underwriters' requirements and UL approvals and testing for materials, assemblies and procedures.
- B. Manufacturer shall specialize in manufacturing the type of fire protection specialties specified in this section, with a minimum of 5 years of documented successful experience, and have the facilities capable of meeting all requirements of Contract Documents as a single-source responsibility and warranty.
- C. Source Limitations: Obtain fire extinguishers and fire-protection cabinets through one source from a single manufacturer.
- D. NFPA Compliance: Fabricate and label fire extinguishers to comply with NFPA 10, "Portable Fire Extinguishers."
- E. 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 FMG.
- F. Fire-Rated Fire-Protection Cabinets: Listed and labeled to comply with requirements of ASTM E814 for fire-resistance rating of walls where they are installed.
- G. Manufacturer's identification tags or marks are not acceptable on surfaces which will remain exposed to view after installation.
 - 1. Evidence of "patching" after removal of tags or marks is not acceptable.

1.4 SUBMITTALS

- A. Submit the following according to Conditions of the Construction Contract and Division 1 Specification Sections.
- B. Product Data: Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for fire-protection cabinets.
 - 1. Fire Extinguishers: Include rating and classification.
 - 2. Fire-Protection Cabinets: Include roughing-in dimensions, details showing mounting methods, relationships of box and trim to surrounding construction, door hardware, cabinet type, trim style, and panel style.
- C. Samples for Verification: For each type of exposed factory-applied color finish required for fire-protection cabinets, prepared on Samples of size indicated below.
 - 1. Size: 6" x 6" (150 by 150 mm) square.
- D. Maintenance Data: For fire extinguishers and fire-protection cabinets to include in maintenance manuals.

- E. Hazardous Materials Notification: In the event no product or material is available that does not contain asbestos, PCB or other hazardous materials as determined by the Owner, a "Material Safety Data Sheet" (MSDS) equivalent to OSHA Form 20 shall be submitted for that proposed product or material prior to installation.
- F. Asbestos and PCB Certification: After completion of installation, but prior to Substantial Completion, Contractor shall certify in writing that products and materials installed, and processes used, do not contain asbestos or polychlorinated biphenyls (PCB), using format in Article 3 of General Conditions.

1.5 DELIVERY, HANDLING, STORAGE

- A. Comply with General Conditions and Division 1 Section "Product Requirements."

1.6 COORDINATION

- A. Coordinate size of fire-protection cabinets to ensure that type and capacity of fire extinguishers indicated are accommodated.

1.7 WARRANTY

- A. Comply with General Conditions and Division 1 Section "Product Requirements".
- B. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of portable 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 UNAUTHORIZED MATERIALS

- A. Materials and products required for work of this section shall not contain asbestos, polychlorinated biphenyls (PCB) or other hazardous materials identified by the Owner.

2.2 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:
 - 1. Basis-of-Design Product: The design for each product is based on the product named.
 - a. Subject to compliance with requirements, provide either the named product or a comparable product by one of the following manufacturers:
 - 1) J.L. Industries, Inc.
 - 2) Larson's Manufacturing Company.
 - 3) Potter Roemer, Division of Smith Industries.
- B. Substitutions: Comply with General Conditions using form in Division 1 Section "Substitution Request Form."

2.3 MATERIALS

- A. Cold-Rolled Steel Sheet: ASTM A1008/A1008M, Commercial Steel (CS), Type B.
- B. Aluminum: Alloy and temper recommended by aluminum producer and manufacturer for type of use and finish indicated, and as follows:
 - 1. Sheet: ASTM B209 (ASTM B209M).
 - 2. Extruded Shapes: ASTM B221 (ASTM B221M).

2.4 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. Construct fire-rated cabinets with double walls fabricated from 0.0428" (1.1-mm-) thick, cold-rolled steel sheet lined with minimum 5/8" (16-mm-) thick, fire-barrier material.
 - a. Provide factory-drilled mounting holes.

- B. Cabinet Doors: Fabricate doors according to manufacturer's standards, from materials indicated and coordinated with cabinet types and trim styles selected.
 - 1. Fabricate door frames with tubular stiles and rails and hollow-metal design, minimum 1/2" (13 mm) thick.
 - 2. Miter and weld perimeter door frames.
- C. Cabinet Trim: Fabricate cabinet trim in one piece with corners mitered, welded, and ground smooth.

2.5 FINISHES, GENERAL

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" 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. Finish fire-protection cabinets after assembly.
- D. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples.
 - 1. Noticeable variations in the same piece are not acceptable.
 - 2. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

2.6 ALUMINUM FINISHES

- A. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.
- B. Baked-Enamel Finish: AA-C12C42R1x (Chemical Finish: cleaned with inhibited chemicals; Chemical Finish: acid-chromate-fluoride-phosphate conversion coating; Organic Coating: as specified below).
 - 1. Apply baked enamel complying with paint manufacturer's written instructions for cleaning, conversion coating, and painting.
 - 2. Organic Coating: Thermosetting, modified-acrylic enamel primer/topcoat system complying with AAMA 2603 except with a minimum dry film thickness of 1.5 mils (0.04 mm), medium gloss.

2.7 STEEL FINISHES

- A. Surface Preparation: Clean surfaces of dirt, oil, grease, mill scale, rust, and other contaminants that could impair paint bond using manufacturer's standard methods.
- B. Baked-Enamel Finish: Immediately after cleaning and pretreating, apply manufacturer's standard two-coat, baked-enamel finish consisting of prime coat and thermosetting topcoat.
 - 1. Comply with paint manufacturer's written instructions for applying and baking to achieve a minimum dry film thickness of 2 mils (0.05 mm).

2.8 FIRE EXTINGUISHERS AND CABINETS

- A. General: All products shall be of type complying with requirements of NFPA 10 and the city in which this Project is located.
- B. Recessed Cabinets (FEC):
 - 1. Type: J.L. Industries "EMBASSY" No. 5614S21FX recessed trimless fire extinguisher cabinet with flanged tub constructed of cold-rolled steel.
 - 2. Door: "Oversized" solid steel without vision panel, with concealed hinge and concealed handle.
 - 3. Finish: Factory-applied epoxy, corrosion and impact resistant.
 - 4. Color: Custom color as selected by Architect.
 - 5. Letters: By Graphics Subcontractor Company.
 - 6. Locations: As indicated on drawings.
- C. Surface-Mounted Cabinets (FEC -2):
 - 1. Type: J.L. Industries "AMBASSADOR" No. 1014S21 surface-mounted fire extinguisher cabinet, tub construction of cold-rolled steel.
 - 2. Door: Solid steel without vision panel, with continuous hinge, zinc-plated pull handle and roller catch.

3. Finish: Factory-applied epoxy, corrosion and impact resistant.
 4. Color: Paint Color to match adjacent wall finish.
 5. Letters: By graphics subcontractor.
 6. Location: As indicated on drawings.
- D. Surface-Mounted Cabinets (FEC):
1. Type: J.L. Industries "ACADEMY" No. 1023S21 surface-mounted fire extinguisher cabinet, tub construction of mill finish aluminum tub.
 2. Door: Aluminum without vision panel, with continuous hinge, zinc-plated pull handle and roller catch.
 3. Finish: Factory-applied epoxy, corrosion and impact resistant.
 4. Color: As selected from manufacturer's colors.
 5. Letters: By Graphics Subcontractor.
 6. Locations:
 - a. At each Parking Level, spaced not more than 150 feet on center, as indicated on drawings.
 - b. At each Stair Vestibule at each Parking Level.
- E. Fire Extinguishers:
1. Type: J.L. Industries "COSMIC 10E" multipurpose dry chemical type consisting of heavy-duty steel cylinder, rugged metal valve and siphon tube, replaceable molded valve stem seal, pull pin and upright squeeze-grip operation.
 2. Rating: UL 4A-60BC, 10 lbs. capacity, approved to -65°F, nontoxic.
 3. Color/Finish: Factory-applied red epoxy, corrosion and impact resistant.
- F. Accessories:
1. Brackets: J.L. Industries Mark Bracket MB846C of steel construction capable of supporting fire extinguishers under severe vibration conditions, with factory-applied red enamel finish.
 2. Fasteners: Types and sizes recommended by fire extinguisher manufacturer to suit intended installations.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine walls and partitions for suitable framing depth and blocking where [recessed] [semirecessed] [recessed and semirecessed] cabinets will be installed.
- B. Examine fire extinguishers for proper charging and tagging.
1. Remove and replace damaged, defective, or undercharged units.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

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

3.3 INSTALLATION

- A. General: Install fire-protection specialties in locations and at mounting heights indicated or, if not indicated, at heights indicated below:
1. Fire-Protection Cabinets: 54" (1372 mm) above finished floor to top of cabinet.
 2. Mounting Brackets: 54" (1372 mm) above finished floor to top of fire extinguisher.
- B. Fire-Protection Cabinets: Fasten fire-protection cabinets to structure, square and plumb.
1. Unless otherwise indicated, provide recessed fire-protection cabinets in the Office Tower.
 2. Provide inside latch and lock for break-glass panels.
 3. Fasten mounting brackets to inside surface of fire-protection cabinets, square and plumb.
- C. Mounting Brackets: Fasten mounting brackets to surfaces, square and plumb, at locations indicated.

3.4 ADJUSTING AND CLEANING

- A. Remove temporary protective coverings and strippable films, if any, as fire-protection specialties are installed, unless otherwise indicated in manufacturer's written installation instructions.

- B. Adjust fire-protection cabinet doors to operate easily without binding.
 - 1. 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.
 - 1. Use only materials and procedures recommended or furnished by fire-protection cabinet manufacturer.
- E. Replace fire-protection cabinets that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

3.5 SCHEDULE OF LOCATIONS

- A. Locate a fire extinguisher adjacent to each stair.
- B. Locate surface mounted cabinets and fire extinguishers at each parking level in locations indicated on the drawings.
- C. In addition to the fire extinguishers located at stairs noted above, provide five (5) additional extinguishers and cabinets for each office level. Deliver to the site and store in a secure location as directed by the Project Manager.
- D. Provide one (1) surface mounted cabinet and fire extinguisher at each Elevator Machine Room and each mechanical room.
- E. Locate other cabinets and fire extinguishers as indicated on the drawings.

END OF SECTION