

SECTION 10523

FIRE EXTINGUISHERS AND CABINETS

PART 1 - GENERAL

1.1 SUMMARY:

- A. Section includes fire extinguishers; fire extinguisher cabinets; and brackets for wall mounting.
- B. This standard is provided to obtain and maintain adequate, approved fire protection for Stanford University. Any questions regarding this standard shall be directed to the Stanford University Fire Marshal's Office.
- C. In general, all fire protection design issues are subject to internal review and approval by the Stanford University Fire Marshal's Office (SUFMO).

1.2 REFERENCES:

- A. Fire Extinguishers Study Guide, as published by the Office of State Fire Marshal.
- B. UL (Underwriters Laboratories, Inc.) – Fire Protection Equipment Directory.
- C. CCR Title 19, CCR Title 24
- D. California Fire Code

1.3 CODES AND STANDARDS:

- A. Architectural Drawings; Indicate cabinet physical dimensions, rough-in measurements for recessed cabinets, wall bracket mounted measurements, location, fire ratings, and manufacturer's data sheets for extinguisher cabinets and other accessories. The location and type of all fire extinguishers shall be identified in a schedule format of the architectural drawings.
- B. The Project Manager will submit the drawings to the University Fire Marshal's Office for internal review. After receiving comments, the contractor shall make appropriate changes to the drawings. For any requirements not implemented, design consultant/contractor shall provide an explanation in writing.
- C. Drawings shall be compatible with SU-FO/Maps and Records department standards, and shall include:

1. Floor plans showing location and type of all fire extinguishers, cabinets and signs.
 2. Elevations showing mounting heights for extinguishers, cabinets, and signs
 3. Details of sign graphics and language.
- D. Manufacturer's data sheets for all types of fire extinguisher cabinets, signs and other accessories shall be submitted. Exact model shall be indicated on the data sheet when more than one model is shown.
1. Include physical dimensions, operational features, color and finish, anchorage details, rough-in measurements, location and details.
- E. Record Drawings and Maintenance Data: At completion of the work and prior to final inspection, the Contractor shall turn over to the Project Manager two sets of a record drawing showing the location of each extinguisher and other installed hardware. Record drawing shall be a maximum size of 11 x 17.
- 1.4 QUALITY ASSURANCE:
- A. Conform to and comply with 1.2 Reference A, requirements for extinguisher installation and identification.
 - B. Competency Quotation: The work shall be performed by a Contractor who shall have had at least 5 years successfully installing cabinets, brackets signs and other accessories of similar make and similar model. The Project Manager may reject any proposed installer who cannot show evidence of such qualifications.
- 1.5 ENVIRONMENTAL REQUIREMENTS
- A. Interior cabinets shall only be located in interior locations. Exterior locations shall utilize weather-proof cabinets.

PART 2 - PRODUCTS

- 2.1 FIRE EXTINGUISHERS – The Project Manager is responsible to submit a Service Request Form for all fire extinguisher units required to the SUFMO. Fire protection cabinets are to be furnished and installed by the Contractor. The fire extinguishers are furnished, tagged and installed by SUFMO.
- A. Minimum Type and Location:
1. 3A-40BC extinguishers in all common areas, elevator control rooms, generators and at electric vehicle charging stations.
 2. 5lb CO2 extinguishers in all wet chemical labs. 10-BC extinguishers in all mechanical and electrical rooms.

3. Class K to be located in kitchens equipped with deep fat fryers.
4. 40-BC extinguishers to be located in kitchens without deep fat fryers
5. Computer Rooms – type as required by SUFMO
6. Magnet Rooms – CleanGuard extinguisher is required to protect MRI equipment. All other fire extinguishers in proximity to an MRI or magnetic devices shall be a non-magnetic type of extinguisher.

B. Halon : Not permitted for new installations

C. Water Type: Not permitted.

D. Special Hazard Conditions: Refer to SUFMO to determine the appropriate type of extinguisher.

E. The minimum number of extinguishers and spacing shall be as required by Part 1.2 Reference A. The preferred location for extinguishers is adjacent to exits.

2.2 FIRE EXTINGUISHER CABINETS:

A. Configuration: Recessed

Exception: Exterior weather-proof cabinets may be surface mounted.

B. Door: Latch access only, key lock access is not acceptable. Cabinet doors shall be equipped with a vision panel.

C. Door Glazing: Clear Acrylic or break glass type cabinets are acceptable.

D. Cabinet interior to have a minimum clear space of 18 inches high by 8 inches wide and capable of containing the specified fire extinguisher.

E. Cabinet Finish: Trim and door material to be Stainless Steel unless site conditions warrant otherwise then the Project Architect shall specify finish type.

F. Lettering: Lettering is on metal section of the door – not on the glazing.

PART 3 – EXECUTION

3.1 EXTINGUISHER INSTALLATION:

A. Extinguishers: Installed by SUFMO

3.2 CABINET INSTALLATION

A. Prepare structural members of backing as required for mounting screws.

- B. Installation of cabinets using nails is not acceptable.
- C. Ensure cabinets are secured rigidly in place in accordance with manufacturer's instructions. Minimum of two screws each at both the top and bottom of the rear of the cabinet anchored to building structural members or backing attached to structural members. Verify that the cabinet mounting holes line up with structural members or backing.
- D. Install fire extinguishers in cabinets at the completion of construction. Cabinets shall be located so that the hinge door has a clear opening dimension of 180 degrees.
- E. Fire extinguisher cabinets shall be installed so that the bottom of the cabinet is not more than 2 feet above the floor.

3.3 BRACKET INSTALLATION

- A. Brackets for hanging fire extinguishers will normally be installed by SUFMO. Contact 725-2129 to coordinate installation.
- B. Alternate installation methods shall be reviewed and approved by SUFMO.

3.4 WARRANTY

- A. Contractor shall warranty cabinets, accessories, and workmanship for a period of one (1) year from the date of final acceptance.

END OF SECTION