

COLOR ME MINE TENANT FIT-UP

SECTION 211313 - AUTOMATIC FIRE PROTECTION

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

- A. The work covered by this Section of the specifications includes the furnishing of labor, materials, equipment, transportation, permits, inspections and incidentals and the performing of operations required to design, install and test modifications to the existing pressurized, fully supervised, fire protection system for full building protection in accordance with NFPA, IBC, and the Owner's insurance underwriter. All wiring and devices shall be provided, installed, wired and tested by the Sprinkler Contractor for a complete and operational system. All wiring shall be in accordance with Specification section 26 00 00, the NEC, NFPA and all applicable codes.
- B. The sprinkler systems design shall be based on NFPA13 requirements.
- C. The system shall be designed per the requirements of the Portland Fire Department as well as NFPA.

1.2 RELATED DOCUMENTS

- A. The drawings and the specifications including SECTION 23 05 00 "Common Work Results for HVAC" are hereby made a part of the work of this section.

1.3 QUALIFICATIONS

- A. The Fire Protection Work shall be performed by a qualified Contractor primarily engaged in the design and installation of Fire Protection Systems. The fire protection system design shall be performed under the direction of, and sealed by, a professional engineer registered in the State of Maine or NICET III certification.
- B. Welding qualifications of individuals installing welded piping shall be certified by the National Certified Welding Bureau for the type(s) of weld(s) proposed for use in piping assembly.

1.4 SUBMITTALS

- A. Items for which the submittal requirements of section 23 05 00 Common Work Results for HVAC, apply are as Follows:
  - 1. System components and devices.
  - 2. Hydraulic calculations.
  - 3. Piping layout, details and control diagram.
  - 4. Certificate of installation.
  - 5. Copy of Fire Protection Contractors License.
  - 6. Welding certificates of individual welding technicians.
  - 7. Sprinkler heads.
  - 8. Fire department connection(s).
  - 9. Firestopping materials and methods.

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Submit equipment descriptive data, hydraulic calculations and system layout for review by the Owner's Insurance Underwriter. Submit the system layout to the Architect for review. The Architect's review will be limited to checking for conformance with the design concept of the project and general compliance with the contract documents and will in no way assume liability for review for compliance with codes, standards and laws.

### 1.5 SPRINKLER COVERAGE

- A. Sprinkler head coverage shall conform with NFPA requirements for the use of the building. Coverage shall be increased accordingly where required by the Authority having jurisdiction.
- B. If the requirements of the inspection agency or the Owner's insuring agent are more rigorous than those stated herein, then the more rigorous requirements shall govern.

## PART 2 - PRODUCTS

### 2.1 SYSTEM COMPONENTS AND HARDWARE

- A. Pipe, Fittings, Joints, Hangers, Valves, Fire Department Connections, Alarms: Conform to NFPA-13, Installation of Sprinkler Systems.
- B. Sprinkler Heads:
  - 1. Interior Heated Spaces: Conform to NFPA-13, commercial quick response type. Provide semi-recessed type with white finish for acoustical tile ceilings. Sprinkler heads in GWB ceilings shall be "concealed" type.
  - 2. Temperature ratings for sprinkler heads shall be suitable for the space. Heads in kiln rooms and similar locations with concentrated heat sources shall have heads with the appropriate temperature rating.
- C. Provide a spare head cabinet with wrenches, the amount of spare heads for each orifice size, finish, temperature classification, pattern and length furnished in the project shall be in accordance with the following schedule:

| <u>Sprinkler Heads on Project</u> | <u>Number of Spare heads of each type.</u> |
|-----------------------------------|--|
| Less than 300                     | 6  |
| 300-999                           | 12   |
| 1000 or more                      | 24   |

- D. Provide head protection guards where required.
- E. Sprinkler system components shall be Viking, Central or equal.

### 2.2 WATER SUPPLIES

- A. Existing.

### 2.3 DEVICES

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- A. Detection and monitoring devices and associated wiring both within the fire protection system and to the building Fire Alarm System shall be the responsibility of the Sprinkler Contractor.

### 2.4 BACKFLOW PREVENTER

- A. Existing.

### 2.5 PIPING SYSTEM IDENTIFICATION

- A. Piping system and valve identification and color coding shall be in accordance with ANSI.

### 2.6 SPRINKLER SYSTEM ZONING

- A. Existing

## PART 3 - EXECUTION

### 3.1 PIPING LAYOUT AND DESIGN

- A. System requirements, installation requirements, design, plans, and calculations: Conform to NFPA 13 and NFPA-13, Installation of Sprinkler Systems.
- B. Sprinkler piping shall be run concealed where possible. **Coordinate pipe routing with the Architect, any exposed piping shall be approved by the Architect prior to installation.**
- C. Pipe penetrations through walls and floors shall be in accordance with Section 23 05 00 – Common Work Results for HVAC. Traverse points of piping shall be escutcheoned with split chrome floor and ceiling plates and spring anchors, where visible to occupancy. Penetrations through walls shall be sleeved in accordance with Section 23 05 00. Sleeves shall be provided by the Fire Protection Contractor.
- D. Coordinate design and layout with building structure and building systems. The work shown in the contract documents has precedence for space requirements. Work of other trades may be modified or moved only with permission of the trade involved. Costs associated with modifications or relocations shall be the same as for "Substitutions" Section 23 05 00.
- E. The Architect shall review proposed system layout and reserve the right to relocate heads, substitute head system and in general review final layout for components visible in occupied spaces.

### 3.2 SYSTEM ACCEPTANCE

- A. Approval, flushing, hydrostatic testing, instructions, and certificates of installation: Conform to NFPA-13, Installation of Sprinkler Systems.
- B. Closing in Work:
  - 1. General: Cover up or enclose work after it has been properly and completely reviewed.

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2. No additional cost to the Owner will be allowed for uncovering and recovering, work that is covered or enclosed prior to required review and acceptance.

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### C. Cleanup and Corrosion Prevention:

1. Upon completion of the work thoroughly clean and flush piping systems to the sewer with water.
2. Piping and equipment shall be thoroughly cleaned. Dirt, dust, and debris shall be removed and the premises left in a clean and neat condition.
3. Before uncovered piping is permitted to be concealed, corrosion and rust shall be wire brushed and cleaned and in the case of iron products, a coat of approved protective paint applied to these surfaces. When corrosion is from the effects of hot solder paste, the areas shall be cleaned and polished and a wash of bicarbonate of soda and water used to neutralize the acid condition.

D. Instructions: On completion of the project, provide a technician familiar with the system to thoroughly instruct the Owner's representative in the care and operation of the system. The total period of instruction shall not exceed four (4) hours. The time of instruction shall be arranged with the Owner.

E. Warranty: For a period of one (1) year after completion of the installation repair or replace any defective materials or workmanship. Upon completion of the installation, the system shall be turned over to the Owner fully inspected and tested, and in operational condition.

### 3.3 FIRESTOPPING

A. Firestopping shall be performed in accordance with Specification Section 07 84 00 "Firestopping". All penetrations of fire-rated assemblies including walls and floors by mechanical system components (piping, ductwork, conduits, etc.) shall be firestopped as specified.

\* END OF SECTION \*