

SECTION 210500 - FIRE PROTECTION SYSTEM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

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

1.2 WORK INCLUDED:

- A. The work specified in this section shall be installed by none other than a recognized sprinkler contractor regularly engaged in this work. System shall be subject to the inspection and approval of city and county fire code officials. All work shall be coordinated with other subcontractors.

1.3 SCOPE:

- A. The work includes but is not limited to the installation of a complete new system to accommodate the floor plan of the building. This includes bringing a new fire line from outside the building and installing a new sprinkler riser. Provide a dry standpipe per code in the stairwell between grids H&J and east of grid 5, from the basement to the top floor, and to the boiler penthouse on the roof. This contractor shall do all cutting, core drilling, etc., as required to perform his work.

1.4 CODES AND STANDARDS:

- A. Wet sprinkler system - N.F.C. #13 and #14 - U.B.C.
- B. Sprinkler heads - N.F.C. #13

1.5 WORK BY FIRE PROTECTION CONTRACTOR:

- A. This contractor shall furnish and install all labor, material, and equipment to make a complete and working fire protection system fully tested and approved.

PART 2 - PRODUCTS

2.1 PIPING:

- A. All piping above ground shall be rated for fire sprinkling system service.

2.2 ALARM RISER:

- A. The riser "tree" shall consist of a UL and FM approved alarm check valve, for either grooved or flanged piping. Include a trim kit which shall include, but not be limited to, gauges, valves, check valves, nipples, fittings, retard chamber, and pressure switch.
- B. Approved manufacturers: Star Model F, or approved alternate by Reliable.

2.3 SPRINKLER HEADS:

- A. All sprinkler heads shall be U.L. and FM approved. All piping shall be concealed in public areas and whenever possible in other areas. Heads in finished areas shall be chrome-plated recessed type heads with white canopies similar and equal to that manufactured by Reliable. Sprinklers shall be of the proper temperature rating. Location of sprinkler, head whenever reasonably possible, shall be symmetrical and coordinated with the ceiling pattern and lights. Furnish wire guards where required for protection.
- B. Furnish twelve spare heads of each type and temperature rating used, properly boxed, with

sprinkler head wrench.

2.4 TRIM:

- A. Trim shall include, but not necessarily limited to, 10" chrome plated water gong, pressure gauge, testing bypass, and escutcheon plates.

2.5 FIRE DEPARTMENT CONNECTION:

- A. Polished brass standpipe mount type with turn-down Siamese connection and built-in check valve.

2.6 UNDERGROUND VALVE BOXES (IF REQUIRED):

- A. Concrete box with traffic weight cast iron lid marked for service.

2.7 FLOW SWITCH:

- A. Provide with built-in retard, retarding chamber, and dual set of contacts.

2.8 DRAINS:

- A. Use angle type drains.

2.9 VALVES:

- A. Valves used with below grade pipe shall be cast iron pressure type.
- B. Post indicator valves shall be AWWA and UL listed, with standard indicator post flange and post similar and equal to Kennedy #5412 series with post extensions as required.
- C. Shut-off valves may be butterfly or OS&Y.
- D. Check valves shall be alarm check type.
- E. Provide USC listed backflow preventer.

PART 3 - EXECUTION

3.1 PIPING:

- A. Install interior lines exposed.

3.2 TESTS:

- A. Upon completion of work of this Section and prior to acceptance, subject system to tests required by underwriter's checking agency and City and/or County, with representatives of Fire Department present. Furnish Engineer with copies of certificates required by testing agencies.
- B. Test systems including yard piping at 200 psi for two hours with no visible leakage in above ground piping. Make tests at low point in system or zone being tested.
- C. Test blanks shall have red painted lugs protruding beyond flange to clearly indicate their presence and be numbered to assure their removal when testing is complete.

END OF SECTION 210500