



**HIGHLANDS COUNTY
BOARD OF COUNTY COMMISSIONERS
(HCBCC)
PURCHASING DIVISION**

DATE: May 10, 2019

BID NO. ITB 19-033 ADDENDUM No. 3

Project: HCSO Detention Reconstruction Fire Protection Upgrades

This addendum is being issued to provide additional information.

1. The specifications are revised to include Section 21-13-13 Wet Pipe Sprinkler System which is attached to this Addendum and a part of this projects specifications.
2. The Architects Cover Sheet for the Technical Section of the Specifications was previously not included. A copy of this page is attached. This page is a part of this project specifications and is attached. Please note that all contacts during the bid process should be directed at the Highlands County Purchasing staff.

SECTION 21 13 13

WET-PIPE SPRINKLER SYSTEMS

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. Pipes, fittings, and specialties
 - 2. Fire-protection valves
 - 3. Alarm devices
 - 4. Pressure gages

1.3 DEFINITIONS

- A. Standard-Pressure Sprinkler Piping: Wet-pipe sprinkler system piping designed to operate at working pressure of 175 psig maximum.

1.4 SYSTEM DESCRIPTIONS

- A. Wet-Pipe Sprinkler System: Automatic sprinklers are attached to piping containing water and that is connected to water supply through alarm valve. Water discharges immediately from sprinklers when they are opened. Sprinklers open when heat melts fusible link or destroys frangible device.

1.5 PERFORMANCE REQUIREMENTS

- A. Standard-Pressure Piping System Component: Listed for 175-psig minimum working pressure.
- B. Sprinkler system design shall be approved by authorities having jurisdiction.
 - 1. Sprinkler Occupancy Hazard Classifications:
 - a. Electrical Equipment Rooms: Ordinary Hazard, Group 1.

1. Installer's responsibilities include, fabricating, and installing sprinkler systems.
- 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.
- C. NFPA Standards: Sprinkler system equipment, specialties, accessories, installation, and testing shall comply with the following:
 1. NFPA 13R, "Installation of Sprinkler Systems in residential occupancies up to including four stories in height."
 2. NFPA 24, "Installation of Private Fire Service Mains and Their Appurtenances."

PART 2 - PRODUCTS

2.1 STEEL PIPE AND FITTINGS

- A. Standard Weight, Black-Steel Pipe: ASTM A 53/A 53M, Type E, Grade B. Pipe ends may be factory or field formed to match joining method.
- B. Uncoated, Gray-Iron Threaded Fittings: ASME B16.4, Class 125, standard pattern.

2.2 CPVC PIPE AND FITTINGS

- A. CPVC Pipe: ASTM F 442/F 442M and UL 1821, 175-psig rated pressure at 150 deg F with plain ends. Include "LISTED" and "CPVC SPRINKLER PIPE" markings.
- B. CPVC Fittings: UL listed and FM approved, for 175-psig rated pressure at 150 deg F, socket type. Include "LISTED" and "CPVC SPRINKLER FITTING" markings.
 1. NPS 3/4 to NPS 1-1/2: ASTM F 438 and UL 1821, Schedule 40, socket type.
 2. NPS 2 to NPS 3: ASTM F 439 and UL 1821, Schedule 80, socket type.
 3. CPVC-to-Metal Transition Fittings: CPVC, one piece, with dimensions equivalent to pipe; one end with threaded brass insert, and one socket end.
 4. CPVC-to-Metal Transition Unions: CPVC, with dimensions equivalent to pipe; one end with threaded brass insert, and one socket end.

2.3 PIPING JOINING MATERIALS

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Potter Electric Signal Company.
 - b. Tyco Fire & Building Products LP.
 - c. Viking Corporation.
2. Standard: UL 346.
3. Type: Electrically supervised water-flow switch with retard feature.
4. Components: Single-pole, double-throw switch with normally closed contacts.
5. Design Operation: Rising pressure signals water flow.

D. Valve Supervisory Switches:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Potter Electric Signal Company.
 - b. System Sensor; a Honeywell company.
2. Standard: UL 346.
3. Type: Electrically supervised.
4. Components: Single-pole, double-throw switch with normally closed contacts.
5. Design: Signals that controlled valve is in other than fully open position.

2.7 PRESSURE GAGES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 1. AMETEK; U.S. Gauge Division.
 2. Ashcroft, Inc.
 3. Brecco Corporation.
 4. WIKA Instrument Corporation.
- B. Standard: UL 393.
- C. Dial Size: 3-1/2- to 4-1/2-inch diameter.
- D. Pressure Gage Range: 0 to 250 psig minimum.
- E. Water System Piping Gage: Include "WATER"

PART 3 - EXECUTION

3.1 SERVICE-ENTRANCE PIPING

- A. Connect sprinkler piping to water-service piping for service entrance to building.
- B. Install shutoff valve, check valve, pressure gage, and drain at connection to water service.

3.2 PIPING INSTALLATION

- A. Locations and Arrangements: Drawing plans, schematics, and diagrams indicate general location and arrangement of piping. Install piping as indicated, as far as practical.
- B. Piping Standard: Comply with requirements for installation of sprinkler piping in NFPA 13R.
- C. Use listed fittings to make changes in direction, branch takeoffs from mains, and reductions in pipe sizes.
- D. Install "Inspector's Test Connections" in sprinkler system piping, complete with shutoff valve, and sized and located according to NFPA 13R.
- E. Install sprinkler piping with drains for complete system drainage.
- F. Install alarm devices in piping systems.
- G. Install hangers and supports for sprinkler system piping according to NFPA 13R. Comply with requirements for hanger materials in NFPA 13R.
- H. Fill sprinkler system piping with water.

3.3 JOINT CONSTRUCTION

- A. Remove scale, slag, dirt, and debris from inside and outside of pipes, tubes, and fittings before assembly.
- B. Plastic-Piping, Solvent-Cement Joints: Clean and dry joining surfaces. Join pipe and fittings according to the following:
 - 1. Comply with ASTM F 402 for safe-handling practice of cleaners, primers, and solvent cements. Apply primer.
 - 2. CPVC Piping: Join according to ASTM D 2846/D 2846M Appendix.

3.4 CLEANING

- A. Clean dirt and debris from sprinklers.
- B. Remove and replace sprinklers with paint other than factory finish.

3.5 PAINTING

- A. Prime and paint piping that is exposed above the dropped ceiling in the Lobby, Corridor, and Break Room. The color shall be selected by the Architect.

END OF SECTION 21 13 13



**HIGHLANDS COUNTY SHERIFFS
OFFICE DETENTION CENTER -
EXISTING BUILDING -
FIRE PROTECTION UPGRADES**

SEBRING, FL

PROJECT MANUAL:

Bid and Permit Set

February 5, 2019

ARCHITECT:

ARCHITECTS DESIGN GROUP

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