PART 1 GENERAL

1.01 Scope of Standard

A.
systems at the University so as to provide the highest level of fire safety possible.

C. Fire pump assemblies shall include a separate and dedicated jockey pump, apart from jockey pump required to be installed on system or building-side of PRV assembly, if utilized.

1.02 Scope of Work

A. Provide a complete fire pump system as defined by the latest edition of NFPA 20

B. The work addressed in this section consists of a fire pump system which will be coordinated with all of the following:

1. Fire Alarm Systems
2. Emergency power systems
3. Central control and monitoring system.
4.

and requirements for the design of all fire suppression systems. The project shall conform to the following:

1 Conform to a minimum of the latest edition of NFPA1.04 Submittals

A. SHSU Project Manager shall review and distribute all submittals for approv insurer, the SHSU AHJ, the Owner's representative, and others as appropriate

B. Refer to provisions established in the Project Specifications and in related sect General Requirements. All product data shall be submitted under provisions o

C. Manufacturer's data sheets shall be provided for all materials and equipment for approval before

4 The controller shall include a motor rated combination disconnect switch/circuit breaker, mechanically interlocked and operated with a single externally mounted handle. When moving the handle from "OFF" to "ON", the interlocking mechanism shall sequence the isolating disconnect switch "ON" first and then the circuit breaker. When the handle is moved from "ON" to "OFF" the interlocking mechanism shall sequence the circuit breaker open first, and then the isolating disconnect switch.

5 The controller shall have externally mounted, individual, visible indicators for "Power Available", "Phase Reversal", “Pump Running", and "Run Time On."

6 The controller shall be wired so that the fire pump can be shut down automatically utilizing pump run-timer.

7 Individual "Power Failure", "Phase Reversal" and "Pump Running" alarm contacts shall be wired for connection to the Main Fire Alarm Control Panel, and the FCMS.

a. The manufacturer shall test the entire controller assembly prior to shipment. This test shall include each function the controller may be required to perform. The manufacturer shall test the circuit breaker at 300% full load, 600% load, and short circuit current settings. The manufacturer shall perform a high potential test on the controller power circuits at not less than two times the rated voltage plus 1000 Volts. Documentation of the above listed tests shall be submitted before the fire pump acceptance test.

J. Field Acceptance

1. Upon completion of the pump and sprinkler piping installation, a field acceptance test shall be conducted at minimum, rated, and peak loads of the fire pump by controlling the quantity of water discharged through approved test devices. All acceptance testing outlined in NFPA 20 shall be conducted by installing contractor in the presence of a representative of SHSU FSSS. Documentation of all factory and field tests shall be submitted at the conclusion of the field acceptance test. A&E will not approve any equipment prior to receipt and review of these test results.

2. All tests shall be performed utilizing the fire pump test header.

3. Erosion Control Requirements - Fire pump discharges must be filtered to slow flow velocity and prevent erosion. Utilize a diffuser and follow one of the filtering methods pertinent to the site:

2.02 Jockey Pump and Motor Controller

A. The contractor shall furnish and install a jockey pump coupled to a motor rated for the required pump, not to exceed 5 HP (Maximum), 480 volts, 60 HZ, 3 phase. Jockey pump to be a Grundfos Model CR5-11 or equal.

B. The jockey pump shall be installed in accordance with NFPA 20. All jockey pump valves and sensing lines to be located as required per SHSU Detail 5.21.40

C. Not Used

D. Jockey Pump Controller:

1. The jockey pump controller shall be factory assembled, wired and tested, and specifically designed for this type of service.

2. The jockey pump controller shall be UL listed and/or FM approved.

3. The pressure switch shall have a range of 0-300 psi and have independent high and low pressure settings. The pressure switch shall be mounted inside the controller. The piping connection for the pressure switch shall be installed per SHSU Detail 5.21.40. The pressure switch set points shall be determined by Professional Services Provider and in accordance with NFPA 20 Appendix A.

required in the form of three hard copies and two copies on CD in the specified AutoCAD format. The signature of the RME or engineer constitutes an affidavit that the statements, representations, and information presented in the submittal constitute a complete operational system conforming to applicable state laws and recognized good engineering practices. All field installation work shall be continuously supervised by a NICET Level II or III sprinkler system technician.

3.03 System Acceptance Testing and Commissioning

A. Perform acceptance tests according to NFPA 20 & 25. Provide copies of test reports to the SHSU AHJ, SHSU FSSS, A&E Services, and other interested parties as tests are completed. Prior to acceptance, accurate red-lines must be submitted and required training for SHSU personnel completed. Provide a complete set including all test results to the Owner at the completion of the project and a copy in each O&M Manual. All Fire Sprinkler Systems to be tagged per State Fire Marshall's requirements.

3.04 Warranty

A. Warranty shall be good for one year.
B. Contractor to respond to all warranty calls within 24 hours. If equipment cannot be repaired at this time, FSSS shall be updated daily with the progress and/or status.
C. See Fire Alarm Warranty

END OF STANDARD