DIVISION 27–COMMUNICATIONS

27 06 00 - Schedules for Communications

1.01 CRITICAL DELIVERABLES EXPECTED FROM TELE-COMMUNICATIONS CONTRACTOR

A. It is essential for Texas State University Telecom to receive all test results and as-built drawings prior to job acceptance. The test results must adhere to the following specifications, formats and delivery conditions :

1. Specifications

a. Complete end-to-end test results for all copper UTP and fiber optic lines installed is required.

b. All fiber optic cable must be visually inspected and optically tested on the reel upon delivery to the installation site. Using an Optical Time Domain Reflectometer (OTDR), an access jumper with like fiber, a pigtail, and a mechanical splice, all fibers shall be tested for continuity and attenuation. Testing for continuity and attenuation on the reel must confirm factory specifications to ensure that the fiber optic cable was not damaged during shipment. The test results must match the results of the factory-attached tag on the reel, or the fiber shall not be used. Reel data sheet must be provided showing test results.

c. End to end test measurements shall be provided for singlemode and multimode fibers (2 wave lengths per test is required). Test results must be submitted for review as part of the installation inspection requirements. Test results shall be in paper form and electronic form, and must contain the names and signatures of the technicians performing the tests.

d. Testing shall be performed on 100% of the fibers in the completed end-to-end system. ANSI/TIA/EIA-568-A, Annex H, provides the technical criteria and formulae to be used in fiber optic testing. Note however, that all Texas State University fiber must be tested, rated and guaranteed for Ethernet GigaSPEED 1000B-X performance. Additionally, all fiber optic cable links must pass all installation and performance tests both recommended and mandated by the cable manufacturer.

e. 100% of all pairs in backbone copper cables shall be tested for continuity and wire-map.

f. The transmission performance of a cabling system depends upon the characteristics of the horizontal cable, connecting hardware, patch cords, equipment cords, work area cords, cross-connect wiring, the total number of connections, and the care with which they are installed and maintained. The development of high-speed applications requires that cabling systems be characterized by transmission parameters such as insertion loss, PSNEXT loss, return loss, and PSELFEXT. System designers use these performance criteria to develop applications that utilize all four pairs in a cabling system for simultaneous bi-directional transmission. This Standard provides minimum cabling

component performance criteria as well as procedures for component and cabling performance validation.

2. Format

    a. Test Results must be submitted in 2 formats. First, must be original file(s) down loaded from tester. Second, the file must be cohesively placed in excel format with the following fields: ER/TC RM # / RM # of drop / Port # / all relevant test information in as many fields as necessary.

    b. Care, with reference to above format criteria, should be taken when recording the information in the tester, proper consistency with port identification is required.

    c. As Built drawings must be submitted with .design or drawing file extensions.

3. Delivery

    a. Test results must be electronically submitted to Network Operations. Contact information will be provided after contract is awarded and before project completion.

END OF SECTION 27 06 00