

DIVISION 27–COMMUNICATIONS

27 01 00 – Operation and Maintenance of Communications Systems

1.01 POLICY AND PROCEDURES

- A. Management of Texas State University’s Campus Network is the responsibility of the IT staff. This includes network design, operations, performance monitoring, optimization, troubleshooting, and disaster recovery. The IT staff at Texas State University is also responsible for the planning and development of operational and design standards for local area networks (LANs) and voice communication systems at all Texas State University facilities, including the telecommunications infrastructure and substructure.
- B. Texas State University IT staff will be responsible for installation and support of LAN hardware, software, data communications and voice system backplane hardware.

2.01 DESIGN PHILOSOPHY

- A. Texas State University requires that the telecommunications infrastructure and substructure be designed and installed in accordance with applicable codes and industry standards. Due to the unique physical characteristics of many Texas State University facilities, some technical design solutions are better suited than others. These guidelines identify which design solutions are appropriate and approved for the various types of buildings and areas in Texas State University facilities.

3.01 PRELIMINARY ARCHITECTURAL DESIGN PHASE

- A. Texas State University requires that the telecommunications design be incorporated during the preliminary architectural design phase. This will insure that the building(s) will be successfully designed, constructed, and provisioned for telecommunications.

4.01 IT ROLE IN CAMPUS BUILDING PROJECTS

- A. Texas State University requires the architect and designers to work closely with the Texas State University IT designated staff as a team throughout the entire project life cycle, starting at the preliminary architectural design phase.
- B. The Director of Telecommunications Services responsibility is to improve communication on capital projects, ensure successful design and implementation of telecommunications infrastructure throughout the lifecycle of each project and to ensure integration of project design into existing campus infrastructure.
- C. The Director of Instructional Technology’s responsibility is to ensure compliance of latest classroom design concerning telecommunications infrastructure and technology used by classroom instructors.

5.01 NEW CONSTRUCTION

- A. All new construction projects shall contain a telecommunications infrastructure designed and installed in accordance with the requirements of these guidelines.

6.01 RENOVATION TO EXISTING STRUCTURES

- A. All Texas State University facilities undergoing renovation or remodeling shall incorporate a telecommunications infrastructure designed and installed in accordance with the requirements of these guidelines.

7.01 UPGRADING TELECOM INFRASTRUCTURE TO NEW STANDARDS

- A. Every effort should be made to upgrade existing telecommunications infrastructure at any Texas State University facility, during renovation, to meet the standards and specifications of these guidelines.

8.01 DESIGN PROCEDURES

- A. In order to have a building successfully designed, constructed, and provisioned for telecommunications, it is imperative that the telecommunications design be incorporated during the preliminary architectural design phase. To accomplish this, the architect must work closely with Facilities Planning Design and Construction and the designated Texas State University IT staff.

9.01 APPROVAL FOR ALTERNATIVE DESIGN SOLUTIONS

- A. This guideline identifies specific design solutions that are intended to meet the technical requirements of Texas State University telecommunications and information technology systems. Requests to deviate from industry standards or Texas State University design solutions will be considered on a case-by-case basis. Any request to deviate from the requirements of the International Building Code will not be accepted. For all requirements, please see Texas State University Construction Standards 1.03, Codes, Rules, Laws, and Requirements.
- B. Requests to apply alternative design solutions shall be submitted to the Texas State University Director of Telecommunications Services for consideration. Approval will only be granted in writing.
- C. The request must include: A complete description of the proposed alternative design solution identifying: The type of facility; the conditions at the facility; the approved design solution contained in these guidelines and the relevant standards identified in section 27 01 00; the proposed alternative design; identify all standards referenced in these guidelines which the alternative design will not be in compliance with, and the effect of non-compliance, both short and long term; and the reason for wishing to use the alternative design.

10.01 PROCUREMENT AND INSTALLATION POLICY

- A. In larger construction projects, the telecommunications infrastructure installation will be part of the general construction contract. A competitive acquisition should still be pursued with the contractors listed by Texas State University Telecommunications as approved contractors. The procurement and installation of the telecommunications infrastructure in large construction

projects will be a combined effort between the Texas State University IT and Texas State University Facilities staff.

11.01 STRUCTURED CABLING SYSTEM WARRANTY AND CERTIFICATION

- A. Texas State University requires a warranty on the installation of the Structured Cabling System. An Ortronics Representative must certify the installation of the copper infrastructure and a Corning representative must certify the fiber optic cable installation to ensure proper warranties are granted. In addition, Texas State University requires that 100% of the cables and termination equipment installed be tested and certified at the designed and intended performance level.

12.01 INSTALLER QUALIFICATIONS

- A. The installation contractor must be engaged in the normal business of installing fiber optic cable, for both inside plant and outside plant, and be licensed to operate in the State of Texas. All installation technicians must meet the following criteria:
- Be familiar with all codes, standards and procedures.
 - Must be Corning trained and CERTIFIED.
 - Must be Superior-Essex trained and CERTIFIED.
 - Must have worked for the installation contractor for at least six consecutive months prior to the start of the cabling installation work for this Texas State University Project.

All certification must be verified BEFORE the start of ANY Texas State University Project.

Send the required certification to Facilities Planning, Design and Construction, and Net Work Operations for review.

END OF SECTION 27 01 00