- 802.10 – LAN Security Working Group,
- 802.11 – Wireless Networks
- 802.12 – Fast Ethernet.

- The latest issue of both ITU-T (International Telecommunications Union) recommendations and US standards. When standards are not compatible in both Europe and US (e.g. telecom interfaces SDH STMx vs. SONET OCx) detailed compatibility and interface availability shall be provided.
- European Telecommunications Standards Institute (ETSI).
- National Electrical Code (NEC).
- Building Industry Consulting Service International (BICSI).
- Underwriters Laboratories (UL).
- Comply with the latest issue of several material and test standards, which have been developed and published by Network Equipment Building System (NEBS).
- IETF: Internet Engineering Task Force.
- NFPA: National Fire Protection Association Standards.
- VESA: Video Electronics Standards Association.

11.2.2 All electrical equipment, accessories and fittings employed in the telecommunications and ELV installations shall be designed, specified, and de-rated for a continuous trouble free operation in the ambient conditions where the equipments are located, and which are summarized as follows:

- Max ambient temperature : 60 deg. C (Un-shaded)
- 50 deg. C (Shaded)
- Max relative humidity : 100 %
- Min relative humidity : 30 %
- Max Ground Temperature : 35 deg. C at 1m depth.
- Atmospheric conditions : Hot and humid atmosphere.

11.2.3 Nominal characteristics of power supply and distribution shall be as coordinated with the Local Service Authorities.

11.3 STRUCTURED CABLING NETWORK FOR VOICE, DATA AND VIDEO

11.3.1 All structured cabling network Installations for telecommunications and Information Technology (IT) systems shall follow the Service Provider Standards, namely Etisalat, unless otherwise required by the Client.

11.3.2 The Contractor must apply, prior to commencing any construction works for the No Objection Certificate (N.O.C) from the Service Provider.

11.3.3 A complete data network shall be implemented throughout the MRO Hangars to provide high-speed data transmission suitable for local area networks (LANs) which support Data, Video and IP-Telephony (triple play). The system shall comprise of RJ45 data outlets and Category 6 copper cables for the horizontal distribution system and fiber optic cables for the backbone and direct villas/apartments connectivity (FTTH), including all related data passive equipment such as communication cabinets, which will house patch panels, horizontal cross connect and the like. The data cables network will be connected to patch panels which in turn will be connected to the fiber optic backbone cable network.

11.3.4 The connection to the outside service corridor should be through UPVC underground ducts of minimum of 2 No. 100 mm diameter and shall be defined on the drawings to the Service Provider requirements. Additional entry would be needed as per the Service Provider's requirements. Final number of ducts will depend on the facility requirements and to the Service Provider's approval.

11.3.5 An adequate room shall be allocated for the telecommunications and IT systems termination equipment, with 24 hours access to the Service Provider's personnel, as per the Service Provider's requirements.

11.3.6 The detailed design of the structured cabling network installations shall be submitted to the Service Provider for approval. All designs and materials to be used must be approved by the Service Provider.

11.4 SECURITY AND ACCESS CONTROL SYSTEMS

11.4.1 CCTV and Access Control Systems will mainly be part of a security policy which shall be proposed and discussed with the Client.

11.4.2 The CCTV system shall give the security personnel the ability to view buildings' approaches, main entry doors, streets and public areas where applicable and/or required by the Client. Fixed and pan/tilt/zoom cameras are suggested for use in MRO Hangars, where applicable and/or required. Also, to include CCTV's to be mounted on some of the hangars by the Airport Authorities to control the taxi lanes and Aprons. Digital recording of all