

1.0 GENERAL REQUIREMENTS

1. The Specification covering the General Conditions of the Contract, Supplemental Conditions, General and Safety Requirements, Bid Opportunity, and all sections form an integral part of this Specification and shall be read in conjunction herewith.
2. Division 27 shall comply with the general requirements listed within Division 26.

1.1 COMMUNICATION RACEWAY AND CABLING SYSTEM

1. Provide a separate and independent Voice/Data Conduit System consisting of:
 1. Main Voice/Data equipment backboard (TTB).
 2. Conduit system from each outlet back to the specific closets via ceiling pullboxes.
 3. Outlet boxes.
 4. Cable trays as indicated.
2. All conduit ends, including vertical stubs in wall cavities, shall be fitted with insulated grommets. The inside radius of a bend in a conduit shall be no less than ten times (10x) the internal diameter of the conduit with a maximum of two (2) 90° bends between pull points, unless otherwise specified. All conduits shall be run to existing building rack or terminal board.
3. Provide a 2-gang recessed outlet box complete with single gang reducer mud ring and a minimum ¾" stubbed into ceiling space complete with pullwire and plastic bushings at both ends for all voice data outlets.
4. Where the use of concealed or surface conduit shall be used a minimum box size for data/voice termination shall be 4x4x 2¼", complete with either a single gang or double gang mud-ring as required by number of drops specified.
5. Provide j-hook system between conduit stubs and cable tray(s).
6. Use approved cable clips or hangers at 4'-0" centres to effectively support all multi-cable harnessing.
7. Small numbers of cables splitting off the harness to individual room drops shall be supported by either Velcro straps or combined Panduit wirewraps/nylon ties.
8. Where installation is arranged in a hollow wall construction, MP1 or MP2 plates are acceptable.
9. Cables dropped in wall cavity shall have insulated bushings fitted to the top wall plate.
10. Cabling installed in ceiling plenum spaces shall be installed in cable tray (centre hung type) and wherever possible shall be run in accessible ceiling space in the corridor. All metal cable trays shall be bonded to ground.
11. All data and network cabling shall be 4-pair, Cat 6, UTP, and FT4 rated (FT6 rated for air plenums).
12. Each run shall go to the nearest level to be terminated on the patch panel in a position to be indicated by the Systems Manager. All runs shall be in compliance with Cat 6 standards and be tested for 100 Mbps capacity.
13. The LAN cable and components shall have Mbps capacity.
14. Upon completion of all Category 6 cable installation, the vendor shall complete all EIA/TIA 568 and ISO 11801 recommended Category 6 tests in order to ensure link performance standards.
15. Cat 6 patch cable to be provided for each run for both ends of the run.

1.2 DATA CABLING SYSTEM EXTENSION

1. Provide Cat 6 twisted pair cable UTP, FT4 rated (FT6 rated for air plenums) for new data outlets shown. Connect back to existing data rack. Exact location shall be confirmed on Site.
2. Provide Communication Room termination on Client's existing patch panel and provide additional patch panel(s) as required to match existing.
3. Provide outlets at each location to match existing.
4. Provide cross connect patch cords (3m) for each drop.
5. Test all cables to Cat 6 250 MHz standards in accordance to ANSI/EIA/TIA 568-B Standards.

1.3 CABLE TV SYSTEM

1. Cable T.V. riser system shall be completely independent from other conduit systems.
2. A 100mm x 100mm x 57mm outlet will be provided at main Cable T.V. location, complete with a single gang extension ring and coverplate with a Cable T.V. jack.
3. A one-time installation charge necessary for local Cable T.V. company Work will be paid by The City directly to cable T.V. Company.
4. Pre-wire of the extension Cable. T.V. outlets from main Cable T.V. outlet to be responsibility of Electrical Subcontractor.

END OF SECTION