

**1.0 GENERAL**

**1.1 DOCUMENTS**

.1 This section of the Specification forms part of the Contract Documents and is to be read, interpreted, and coordinated with all other parts.

**1.2 SUMMARY**

.1 Section Includes:

- 1.0 GENERAL
- 1.1 DOCUMENTS
- 1.2 SUMMARY
- 1.3 OVERVIEW
- 1.4 PRODUCTS
- 2.0 EXECUTION
- 2.1 COMMUNICATION ROOMS
- 2.2 UTP HORIZONTAL CABLE
- 2.3 BACKBONE CABLING
- 2.4 ENTRANCE CABLING

**1.3 OVERVIEW**

.1 Unless specified otherwise, designation labels on outlet plates shall be printed on designation strips located behind label windows on plastic plates, as detailed in these and related specifications. Alternate methods must be submitted to the Information Technology Representative for approval. Lamacoid labels will not be accepted.

.2 After terminating and identifying a Communications cable, each cable shall be identified with a unique cable number, as detailed in these and related specifications. A circuit (CCT) starting number and range will be provided to the contractor by the UBC Information Technology Representative. A sample database sheet for circuit (CCT) numbering is included in Appendix B. The Contractor shall follow the sample database format without any modification and provide one database file in same format for each building.

.3 The Contractor shall supply a CCT spreadsheet produced from the UBC IT supplied sample spreadsheet file, to the UBC Information Technology Representative. This is to be done following termination of the voice and data cables within a communication room, and regardless if termination of field ends are completed or not. The spreadsheet shall identify whether an outlet is new, existing being replaced, or is part of special services such as an emergency phone, elevator phone, BMS, fire alarm monitoring, security, clock etc. The spreadsheet will also identify all Access Point cables with the designation "APx" where x is an incremental number related to the amount of AP locations integral to the job. As the Access point cables are installed in pairs, the two associated cables will be identified as paired to each other by setting the x variable to that same number. All AP cables that are connected to the site installed APs (as typically one cable in each pair is not connected) must include the UBC IT provided AP Radio Name (as indicated on each AP) in the alternate comment field of the CCT spreadsheet. In addition, all other special service cables should be identified in the comments field with a description of the special service. Some, but not all, examples of special services are cameras, fire alarm, elevator, clock, emergency phone, etc.

- .4 The Contractor will be responsible to correct any labeling errors that may result by pre-labeling the cables before submitting the CCT data sheet to the UBC IT representative for approval.
- .5 All Communication rooms will be assigned a unique terminal ID number (which is not the room number). The number will be displayed in the form of a stick-on plastic labels or 3D printed numbers (or negative numbers) as approved by the UBC Information Technology Representative. The numbers should be approximately 50 mm tall, proportionally scaled and in the case stickers, shall have permanent Blue or Black digits on a Yellow or Orange background. The Contractor shall install these labels in all Communication rooms to the satisfaction of the UBC Information Technology Representative. Alternative labels to be approved by UBC IT before use.
- .6 Before commencing the labeling, the Contractor shall supply samples of methods of labeling and materials used for approval by the UBC Information Technology Representative.

#### 1.4 **PRODUCTS**

- .1 Labels for GigaBIX terminals.
- .2 Labels are supplied in sheets:

Green label	Entry connect	P0748012
Blue label	Horizontal 4-pr	P0748006
Purple label	Backbone 100-pr	P0748017
	Backbone 4-pr	P0748008
Brown label	Inter-building 100-pr	P0748018
	Inter-building 4-pr	P0748010
Grey label	2 <sup>nd</sup> level BB 100-pr	P0748019
	2 <sup>nd</sup> level BB 4-pr	P0748011

SUBSTITUTES ARE NOT ACCEPTED

#### 2.0 **EXECUTION**

1. Review labeling methods and procedure with the Information Technology Representative prior commencement of labeling.
2. Labeling shall conform to standard Drawing ITSTD-32, 34, 63, 64 & 65.
3. Panduit numbered label strips or equal shall be approved by the UBC Information Technology Representative. The Contractor shall label each outlet with 9 mm black on white mechanical label.
4. The Contractor shall label each cable with permanent self-adhesive label with minimum, 3 mm high characters, in the following locations:
  - i. Inside outlet box at the work area

- ii. Behind the Communications room data patch panel, or voice punch down block.
- 5. The Contractor shall install colour-coded labels for each GigaBIX termination field on a BELDEN/CDT GigaBIX designation strip. BELDEN/CDT colored labels shall conform to ESTD drawings.
- 6. NORDX/CDT – IBDN labeling system is produced by SILVER FOX LTD.

## 2.1 COMMUNICATION ROOMS

### .1 MCR / LCR TERMINAL ID ASSIGNMENTS

All Communication rooms shall have unique terminal numbers assigned:

B21 will be second basement level – representing 1<sup>st</sup> Communications Room.

B11 will be first basement level – representing 1<sup>st</sup> Communications Room.

001 will be ground level – representing 1<sup>st</sup> Communications Room.

011 will be 1<sup>st</sup> floor level – representing 1<sup>st</sup> Communications Room.

021 will be 2<sup>nd</sup> floor level – representing 1<sup>st</sup> Communications Room.

022 would then be 2<sup>nd</sup> floor level – representing 2<sup>nd</sup> Communications Room on that level.

## 2.2 UTP/STP HORIZONTAL CABLE

### .1 Data

.1 Data horizontal cable shall be identified at each termination with a unique number at the cable jacket end.  
i.e. CCT001258-011-P1-4

CCT001258 Range supplied by UBC Information Technology Representative

011 Represents assigned MCR/LCR Terminal ID  
P1-4 Represents patch panel and jack position.

### .2 Voice

.1 Voice horizontal cables shall be identified at each termination with a unique number at the cable jacket end.  
i.e. CCT001258-011-052

CCT001258 Range supplied by UBC Information Technology Representative

011 Represents assigned MCR/LCR Terminal ID.  
052 Represents GigaBIX connector cable position.

.2 GigaBIX connector positions will increase sequentially without repeating starting with position number 1 and continuing through 72 then starting on the next frame with position 73, through position 144 then 145 to 216 and so on.

.3 GigaBIX terminated cables with specific functions must include this function label on the GigaBIX label strip. i.e. – a GigaBIX terminated cable that services the

elevator phone must have the word 'Elevator' and the field end room number "Rmxxx" on the GigaBIX label in addition to the GigaBIX position. This would apply to all special services including, among others – elevator, fire alarm, BMS, security, clock, bell.

## 2.3 BACKBONE CABLING

### .1 Data Copper

.1 Typically UBC IT does not require Copper backbone cables for data purposes. When the Contractor has been instructed to install CAT 6A UTP/STP cables in the Backbone these cables shall be grouped in counts of six and identified on each cable and patch panel termination with a label and purple icons.

**NOTE:**

Backbone cables are grouped onto the same patch panel and not mixed with horizontal cable terminations patch panels. (Refer to Standard Drawing ITSTD-32)

i.e. 011 Rm xxx to 012 Rm xxx Port1-6  
011 Rm xxx - represents MCR Terminal ID and room number  
012 Rm xxx - represents LCR Terminal ID and room number  
Port1-6 - represents which ports of the patch panel are included.

### .2 Voice Copper

.1 When the Contractor has been instructed to install multiples of 25 pair CAT 3 UTP cable in the Backbone from MCR to each of the LCR's, these Backbone cables shall be identified at both ends and on the GigabIX designation strips. (Refer to Standard Drawing ITSTD-32)

.2 On the GigabIX designation strip in the Communications room, the Backbone cable pair count will be indicated starting with 01 and sequentially increasing until the end of that cable (typically 25). The pair count restarts for each cable.  
i.e. 011 Rm xxx to 012 Rm xxx 25PR  
011 Rm xxx - represents MCR Terminal ID  
012 Rm xxx - represents LCR Terminal ID.  
25PR - represents the total pair count going to that room.

### .3 Fibre

.1 When the Contractor has been instructed to install fibre (24SM typical) cable from the MCR to each LCR, each end of the cable and termination panel will be labeled with a "From - To" Label. (Refer to Standard Drawing – ITSTD-32)

Fiber Cable Label and Fibre Panel Card Label

i.e. 011 Rm xxx to 012 Rm xxx 24MM  
011 Rm xxx represents MCR Terminal ID  
012 Rm xxx represents LCR Terminal ID  
24MM represents 24 multi-mode strand cable

## 2.4 ENTRANCE CABLE

(Refer to Section 27 05 06 – by Others)

END OF SECTION 27 05 53