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
2.1 CATEGORY 6A DATA INTRA BACKBONE CABLES
2.2 DATA FIBRE INTRA BACKBONE CABLES
2.3 FIBRE OPTIC CABLES
3.0 OUTSIDE PLANT BACKBONE INFRASTRUCTURE

1.3 OVERVIEW

.1 The backbone configuration shall be a two level hierarchical star structure with separate dedicated cables from the Main Communication Room to each Local Communication Room and between each Communications room.

.2 In a Main Communication Room (MCR), Intra Backbone cables shall be bundled separately from Entrance and Horizontal cables.

.3 In a Local Communication Room (LCR), Horizontal cables shall be bundled separately from Intra Backbone cables.

.4 Where it is specifically noted that a Backbone cable is not terminated in a Communication Room, a minimum of 5 meters slack shall be left. The starting point of measurement shall be defined at time of installation by the Information Technology Representative.

2.0 CATEGORY 6A DATA INTRA BACKBONE CABLES FOR BMS SYSTEMS

.1 4 pair FTP Category 6A twisted-pair cable shall be installed by the Contractor from the MCR or each LCR if the distance between is less than 90 meters to BMS demarcation point.

2.1 DATA FIBRE INTRA BACKBONE CABLES

.1 Refer to section 27.05.08 1.4.5

2.2 FIBRE OPTIC CABLES

.1 All fibre optic cable system work completed by the Contractor must be approved by the UBCO Information Technology Representative.

.2 The following basic requirements must be met to gain system acceptance:

.1 Receive, check, unload, handle, store and adequately protect equipment and materials to be installed as part of the Contract. Store in areas as directed by the Information Technology Representative or General Contractor. Installation

includes setting in place, fastening to walls, floors, ceilings, or other structures where required, interconnecting wiring of system components where specified, equipment alignment and adjustment and other related work whether or not expressly defined herein.

.2 Install materials and equipment in accordance with applicable standards, codes, requirements and recommendations of national, provincial and local authorities having jurisdiction and with manufacturers' printed instructions.

.3 Adhere to manufacturers' published specifications for dressing spliced fibre pigtails in fibre panel, pulling tension, minimum bend radii and sidewall pressure when installing cables.

.4 No manual fusion splicing shall be performed.

.5 Fibre cable preparation, pigtail routing, and forming within the splice or distribution panel shall be as per manufacturer printed instructions.

3.0 OUTSIDE PLANT BACKBONE COMMUNICATION INFRASTRUCTURE

.1 Academic building situated on existing south end of UBC Okanagan campus require two (2) outdoor 24 strand, single mode fiber optic cables, one from Library building data center and one from Administration building data center to the new building MCR. Fiber optic cables are defined in section 27 05 08 1.4.5 and must match intra backbone fiber optic cables defined in section 2.2 of this document

.2 Academic building situated on north end and/or alongside of the Innovation drive of the UBC Okanagan campus grounds require two (2) outdoor 24 strand single mode fiber optic cable, both from Innovation Precinct 1 (IP1) MCR fiber distribution rack, marked as LIB and ADM.

.3 Student Housing building situated on UBC campus grounds requires one (1) outdoor 24 strand single mode fiber optic cable from Library data center to the building MCR. Fiber optic cables are defined in section 27 05 08 1.4.5 and must match intra backbone fiber optic cables defined in section 2.2 of this document.

.4 Student Housing building situated on north end and/or alongside of the Innovation drive of the UBC campus grounds require one (1) outdoor 24 strand single mode fiber optic cable from Innovation Precinct 1 (IP1) MCR distribution rack, marked as LIB.

.5 Underground infrastructure for communication requires one 100 millimeter or two 50 millimeter's conduits from the nearest pull pit to the Academic or Student Housing building MCR. Maximum conduit length on campus grounds is 100 meters . Conduit may have maximum two bends of 90°/ 135° angle on the entire length, 90° bend should be avoided, if required, bend radius must follow manufacturer requirements.

.6 UBCO Information Technology representative must be contacted to provide orientation and security access requirements

END OF SECTION 27 05 09