

PART 1 GENERAL

1.1 Related Sections

- .1 Section 01 74 21 -
Construction/Demolition Waste
Management and Disposal.
- .2 Section 26 05 31 - Splitters,
Junction, Pull Boxes and Cabinets.
- .3 Section 26 05 34 - Conduits, Conduit
Fastenings and Conduit Fittings.

1.2 System Description

- .1 Empty telecommunications raceways
system consists of outlet boxes, cover
plates, conduits, pull boxes, sleeves
and caps, fish wires.

1.3 Waste Management
and Disposal

- .1 Separate and recycle waste materials
in accordance with Section 01 74 21 -
Construction/Demolition Waste
Management and Disposal.
- .2 Remove from site and dispose of all
packaging materials at appropriate
recycling facilities.
- .3 Collect and separate plastic, paper
packaging and corrugated cardboard in
accordance with Waste Management Plan.
- .4 Divert unused metal materials from
landfill to metal recycling facility
as approved by Departmental
Representative.
- .5 Fold up metal banding, flatten and
place in designated area for
recycling.

PART 2 Products

2.1 Material

- .1 Conduits: EMT type, in accordance with Section 26 05 34 - Conduits, Conduit Fastenings and Conduit Fittings.
- .2 Underground cable ducts: in accordance with Section 33 65 76 - Direct Buried Underground Cable Ducts.
- .3 Junction boxes, cabinets type T: in accordance with Section 26 05 31 - Splitters, Junction, Pull Boxes and Cabinets.
- .4 Outlet boxes, conduit boxes, and fittings: in accordance with Section 26 05 31 - Splitters, Junction, Pull Boxes and Cabinets.
- .5 Fish wire: polypropylene.

PART 3 Execution

3.1 Installation

- .1 Install empty raceway system, distribution system, fish wire, terminal cabinets, outlet boxes, floor boxes, pull boxes, cover plates, conduit, sleeves and caps, miscellaneous and positioning material to constitute complete system.

END OF SECTION

PART 1 GENERAL

1.1 General Requirements

117188096 Division 1 and the General Conditions of the Contract between the departmental representative and the Contractor shall deem to apply and be part of this section.

1.2 System Description

83386256 Termination, patch cords, and cross-connection equipment installed inside building for voice and data for telecommunications systems employing unshielded-twisted-pair (UTP), shielded-twisted-pair (STP), coaxial (CXC), and optical fibre (OFC) cables.

1.3 Related Sections

117188096 Section 26 05 00 - Common Work Results - Electrical.

1.4 References

- .117187040 Canadian Standards Association (CSA International)
 - 83386256 CAN/CSA-C22.2 No. 182.4-M90(R2015), Plugs, Receptacles, and Connectors for Communication Systems
 - 83386257 CSA-C22.2 No. 214-17 Communications Cables (Bi-National standard with UL 444).
 - 83386258 CSA-C22.2 No. 232-09(R2014), Optical Fiber Cables.
- .117187041 Canadian Open Systems Application Criteria (COSAC) Profile for the Telecommunications Wiring System in Government Owned and Leased Buildings, Treasury Board Information Technology Standards TBITS-6.9.
- .117187042 Telecommunications Industry Association (TIA)/Electronic Industries Alliance (EIA)
 - .117185104 ANSI/TIA/EIA-570-C.0-2012, Residential Telecommunications Infrastructure Standard.
 - .117185105 ANSI/TIA/EIA-568-D-2017, Generic Telecommunications Cabling for Customer Premises.
 - .117185106 ANSI/TIA/EIA-568-D.1-2017, Commercial Building

- Telecommunications Cabling Standard.
- .117185107 ANSI/TIA/EIA-568-D.2-2017, Balanced Twisted Pair Cabling Components Standard.
 - .117185108 ANSI/TIA/EIA-568-D.3-2017, Optical Fibre Cabling Components Standard.
 - .117185109 ANSI/TIA/EIA-606-C-2017, Administration Standard for Telecommunications Infrastructure.
 - .117185110 ANSI/TIA/EIA-607-C-2015 Generic Telecommunications bonding and Grounding (Earthing) for Customer Premises
 - .117185111 TIA/EIA TSB-140-2004, Telecommunications Systems Bulletin- Additional Guidelines for Field-Testing Length, Loss and Polarity of Optical Fiber Cabling Systems.
 - .117185112 TIA/EIA-598-D-2014, Optical Fiber Cable Color Coding.
 - .117185113 ANSI/TIA/EIA-569-D Telecommunications Pathways and Spaces

1.5 Waste Management and Disposal

- .1 Collect and separate plastic, paper packaging and corrugated cardboard in accordance with Waste Management Plan.
- .2 Fold up metal banding, flatten and place in designated area for recycling.

PART 2 PRODUCTS

2.1 Terminations and Cross-Connection System For Unshielded-Twisted -Pair (Utp) Cable

- .1 Supply and install a system of conduits, racks, outlets, wire, terminal blocks, patch panels, all associated fittings, hardware, etc., as indicated on the drawings and as further specified.
- .2 Provide a Category 6a FT4 structured wiring system, end to end, to ANSI/TIA/EIA-568-D.2 Standard and as

indicated on the drawings. This shall include voice and data link outlets and horizontal wiring.

- .3 Each single communication outlet shall consist of one RJ45 jack, one 106 adapter and one single gang, stainless steel coverplate installed on a 102 mm square box with single gang plaster ring. Three blanks shall be provided to fill the unused ports.
- .4 Each double communication outlet shall consist of two RJ45 jacks, one 106 adapter and one single gang, stainless steel coverplate installed on a 102 mm square box with single gang plaster ring. Two blanks shall be provided to fill the unused ports.
- .5 Each triple communication outlet shall consist of three RJ45 jacks, one 106 adapter and one single gang, stainless steel coverplate installed on a 102 mm square box with single gang plaster ring. One blank shall be provided to fill the unused port.

PART 3 EXECUTION

3.1 Installation

- 1 Supply and install a system of wire basket, conduits, hooks, cables, outlet boxes, all associated fittings, hardware, etc., as indicated on the drawings, and as required for a complete communication system.
- 2 For block walls and poured concrete construction conduits shall enter outlet boxes to either side or centre, to prevent cable damage by coverplate retaining screws.
- 3 Conduits shall enter outlet boxes to either side or centre, to prevent cable damage by coverplate retaining screws. Extend conduit to ceiling space.
- 4 Connect jacks to wiring at outlets and tag cables.
- 5 Connect wiring to patch panels in Communications Room.
- 6 All work shall be in accordance with ANSI/TIA/EIA-568-D.2. Testing of outlets, jacks, wiring, and patch

- panels shall be performed for each run at 250 megahertz. Testing results shall be submitted for review.
- 7 Colour code and identify all work in accordance with ANSI/TIA/EIA-606-C-2017. Provide complete administrative records in accordance with the recommended practice for this Standard.

END OF SECTION
