New York State

Office of Information Technology Services

Network Operations – Physical Plant Design

Local Area Network Cabling Specifications

- LAN cabling will be distributed to an estimated three (3) Tel Data Closets.

- Under no circumstances may the cable length exceed 300' and must be installed to support Gigabit Ethernet.

- The bend radius of each cable may not be smaller than 4X the cable diameter. The cables may not be kinked anywhere in the run.

- All data closets must have a consistent air exchange to minimize heat build-up in the closets.

- ITS utilized Commscope Uniprise Ultramedia CAT 6 PVC cable – **part number 75N4** – and Commscope Uniprise Ultramedia CAT 6 Plenum cable – **part number 7504**. We utilize is green cable.

- ITS utilized M100 – RJ 48 data jacks – **part number UNJ600-GN.**

- Commscope Uniprise 48 port patch panel, **part number UNP610-48P** and Commscope Uniprise 24 port patch panel, **part number UNP610-24P.**

- Faceplates utilized will depend upon which furniture is selected. The landlord will need to work with their installer to determine which Commscope faceplate will fit into the modular furniture. The color TBD by OGS.

- The landlord should provide and install Chatsworth 12" Telco-Style Cable Runway within all Tel/Data closets. **Part number 11252-113** and all associated hardware to attach to the wall. Runway is required to properly route the cable entering the closets over to the network racks. The cable runway will be installed over the network racks and be positioned in a manner as to provide 36 – 48 inches of space behind the network rack. http://www.chatsworth.com/products/ is the link to the Chatsworth web site where the other component parts can be found.

- The Landlord shall ground all network rack assemblies with a #6 ground to building steel.

- The landlord shall provide and install Chatsworth, 7' x 19" 2-post data racks **(PN 46353-503)** and 6" Chatsworth MCS vertical wire management within the rack array **(PN 30092-703)**. Four (4) racks will be required for the main network closet and two (2) for each Satellite closet. Five (5) vertical wire managers will be required for the main closet and three (3) vertical wire managers will be required for each satellite closet. Racks must be secured to the floor and the ladder rack.

- The landlord will be responsible for terminating the CAT 6 data cables within the patch panel in accordance with the established EIA/TIA installation practices and terminating the cables within

the work stations. The T568B termination standard shall be utilized on both the jack panel and the data jacks. Careful attention should be placed to maintaining the cable pair twists right up to the termination point on the patch panel.

- All LAN cables needs to be installed avoiding all sources of Electromagnetic interference (EMF). Avoid florescent lighting and HVAC motor equipment.

- Network cables will need to be supported by J-hooks or cable saddles spaced at 48" intervals above the dropped ceiling. Cable support apparatus may be connected to building steel or connected to wall structures.

- Cabling shall be routed to run along established walk ways, where feasible to do so. This is to avoid working over the desks of individuals for the latter installation of additional cables.

- The landlord shall install two (2), **50 micron, armored fiber optic cables** to unite the satellite closets with the main network closet. The cables are Corning MIC 250 Interlocking armored distribution cables (OM3) Corning **part number 012TD8-T1380-A3.** The cable is to be terminated on LC Unicam fiber tips and terminated in Corning housings in each network closet. The landlord shall provide and install two (2) Corning **CCH01U** fiber termination housings, one (1) in each satellite closet. Each housing shall contain one (1) **CCH-CP12-E4** fiber termination panel. The landlord shall provide one (1) **CCH01U** fiber termination panel in the main network closet. This housing shall have two (2) **CCH-CP12-E4** fiber termination panels. http://www.corning.com/worldwide/en/products/communication-networks/products.html

- All LAN cables will be tested to the established EIA/TIA standards for Category 6E cable. Paper and electronic test reports shall be provided to ITS for review and acceptance. At a minimum the report must provide the following:
    - Cable ID number
    - Near end and far end cross talk attenuation
    - Wire mapping
    - Cable length

- All cables will be labeled at both ends of the cable with a corresponding cable identification number.

- Patch panels and data jacks shall be machine labeled with the cable ID number, Cable ID numbers will begin with 6001.

- The landlord must provide an "as-built" drawing detailing the location of each network cable with its corresponding Cable ID number.

- The 50 micron fiber optic cables must be tested and certified according to the EIA/TIA standards for this cable. Copies of the end to end test results shall be provided to ITS upon completion of the cable installation.

- Two (2) - 20 amp – double duplex power circuits (quad box) will be provided for each satellite network closet rack assembly. The receptacles are to be provided at the base of the rack line up.

- Eight (8) - 20 amp- double duplex power circuits (quad box) shall be provided for the rack array in the main network closet. The receptacles are to be provided at the base of the rack line up.