

SECTION 16748

COMMUNICATIONS CABLE MANAGEMENT DOCUMENTATION

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Section includes: General requirements of procedures and documentation for Tenant space communications systems infrastructure at Ted Stevens International Airport, hereafter referred to as "ANC".
- B. Tenant communication systems infrastructure shall be labeled and documented by the Tenant in compliance with this Section and related Sections. Documentation shall be submitted to ANC for registration and inventory in ANC's cable management system (CMS).
- C. ANC or its agent will use the CMS to inventory communication cable plant and associated infrastructure throughout Tenant and the airport facilities. ANC's CMS database will inventory all communication systems infrastructure including backbone cable plant and cross-connects to horizontal wiring feeding tenant space.
- D. ANC is requiring Tenants to submit detailed information on communication infrastructure residing in tenant space, primarily for the following reasons:
 - 1. The computerized tracking of cable plant offered by CMS will be used to increase the quality of service for tenants through increased efficiency of tracking circuits and troubleshooting faults.
 - 2. The 2002 edition of the National Electric Code (NEC) mandates that the type of cable plant referenced in this Section must be terminated, labeled, and considered operational and being used by the tenant. Any unused or abandon cables must be removed or the local Fire Marshal may impose fines for violation of fire codes.

1.2 SCOPE OF WORK

- A. Provide complete communication system identification, submitted in a labeling format compatible with ANC's Cable Management System (CMS). Refer to ANC Telecom Standard Details for labeling scheme.
- B. Provide complete communication system drawings, submitted in AutoCAD format compatible with ANC's Cable Management System (CMS).

1.3 QUALITY ASSURANCE

- A. All Tenant owned communication system infrastructure shall be labeled and identified in submittals to ANC. Cabling and associated infrastructure installed but not submitted to ANC shall be removed.
- B. All Tenant owned communication system infrastructure shall be illustrated in drawing submittals. Drawings shall be accurate to +/- 0.5 feet of actual installed location. Communication cabling and associated infrastructure installed but not indicated on drawings submitted to ANC shall be removed at the Tenant's expense.

1.4 REFERENCES:

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.
- B. National Electric Code (NEC) 2002 Edition, specifically defined in the following articles:
 - 1. Article 640 – Audio Speaker Wires
 - 2. Article 645 – Information Technology
 - 3. Article 745 – Power-Limited Circuits
 - 4. Article 760 – Fire Alarm Systems
 - 5. Article 770 – Optical Fiber Cables
 - 6. Article 800 – Communication Circuits
 - 7. Article 810 – Radio, Television or Satellite
 - 8. Article 820 – Coaxial cable
 - 9. Article 830 – Network-Powered Broadband
- C. Telecommunications Industries Association/ Electronics Industries Association (EIA/TIA)
 - 1. TIA/EIA 606A: The Administration Standard for the Identification and Labeling of Telecommunications Infrastructure in Commercial Buildings.
 - 2. TIA/EIA 607A: - Administration Standard for the Telecommunication Infrastructure of Commercial Buildings.
 - 3. TIA/EIA 568B - Commercial Building Telecommunication Standard.
 - 4. TIA/EIA 569 -Commercial Building Standard for Telecommunication Pathways and Spaces.
- D. Related Terminal Construction Standards Sections:
 - 1. 16111 – Conduit and Fittings
 - 2. 16115 – Cable Tray
 - 3. 16131 – Outlet Boxes
 - 4. 16450 – Grounding
 - 5. 16745 –Telecommunications Copper Cable Distribution
 - 6. 16747 –Telecommunications Fiber Optic Distribution

1.5 SUBMITTALS TO BE FURNISHED TO ANC BY THE TENANT

- A. Provide communication systems infrastructure manufacturers product description cut-sheets.
 - 1. Submit 3 copies of Product Manual: Loose leaf, three ring binder.
 - 2. Manuals shall include a cover identifying tenant space occupant, installing Contractor and date of submittal.
 - 3. Manuals shall include labeled section tabs identifying categories of products
- B. Provide communication systems infrastructure identities and labeling schedules in a format compliant with the CMS database.

1. Submit 3 copies of schedule spreadsheets (Hardcopy): Loose leaf, three ring binder.
 2. Hardcopy schedules shall include a cover identifying tenant space occupant, installing Contractor and date of submittal.
 3. Submit 2 electronic file copies (softcopy) of schedule spreadsheets saved in a .CSV (Comma Separated Value) format on CD media. Coordinate with ANC and CMS manufacture (iTRACS) for exact format requirements, which include header rows assignments and related spreadsheet setup requirements.
 4. Softcopies of schedules shall include jewel cases with cover identifying tenant space occupant, installing Contractor and date of submittal
- C. Provide communication systems infrastructure drawings in a format compliant with ANC's CMS AutoCAD revisions and CAD Standards.
1. Submit 3 copies of full size drawings (Hardcopy):
 2. Hardcopy drawings shall include a cover sheet identifying tenant space occupant, key plan of portion(s) of ANC illustrated in drawing set, installing Contractor and date of submittal
 3. Submit 2 electronic file copies (softcopy) of drawings saved in AutoCAD format compatible with current AutoCAD version in use at ANC.
 4. Softcopies of drawings shall be master files used to produce hardcopy drawings. Include jewel cases with cover identifying tenant space occupant, installing Contractor and date of submittal

PART 2 - PRODUCTS

2.1 ACCEPTABLE PRODUCTS

- A. General: ANC's CMS is standardized on the following software package. Softcopy submittals shall be fully compliant with data import format requirements of the CMS:
1. iTRACS: 1501 W. Fountainhead Parkway, Suite 190, Tempe, AZ, 85282. Phone: 480-557-8000, Email URL for technical support: support@itracs.com

2.2 SAMPLE SPREADSHEET FILE FORMAT

- A. The following table is a sample of the type of format the tenant shall use for documentation of communication infrastructure. The exact format and identities shall be coordinated with ANC.

| | A | B | C | D | E | F | G | H |
|----------|----------------|--------------|----------|----------|----------|-------------|-------------|----------|
| 1 | Column Group | 1 | 1 | 1 | 2 | 2 | 3 | 3 |
| 2 | Action | u | u | u | u | a | u | u |
| 3 | Connections | | | | | | | |
| 4 | Class/Category | Active Equip | Blade | Port | Store | Patch Cable | Patch Panel | Position |
| 5 | | Switch 1 | B1 | Port 01 | Links | Patch1 | PP 1 | 12 |
| 6 | | Switch 1 | B1 | Port 02 | Links | Patch2 | PP 1 | 13 |
| 7 | | Switch 1 | B1 | Port 03 | Links | Patch3 | PP 1 | 14 |

2.3 MANDATORY INVENTORY ITEMS

- A. The following list includes tenant installed communication infrastructure items/identities considered mandatory for inclusion in the documentation submittals to ANC.
 - 1. Building Name
 - 2. Building Floor
 - 3. Communication Room
 - 4. Racks
 - 5. Patch Panels
 - 6. Patch Panel Ports
 - 7. Data/Telephone Outlets
 - 8. Copper and fiber cables: backbone, horizontal, riser, and inter-building cables.
 - 9. Cable topologies and capacities.
 - 10. Pathways between termination points.
 - 11. Telecommunications bonding and grounding.

2.4 TENANT'S OPTIONAL INVENTORY ITEMS

- A. General.
 - 1. Each tenant may (at the tenants option) include submittal of additional communication infrastructure information for the purpose of tracking and documenting detailed information. Additional information may offer the tenant troubleshooting tools to increase operational efficiency.
- B. Optional Tenant CMS Inventory Items
 - 1. Circuit assignments
 - 2. IP addresses
 - 3. Telephone subscriber line numbers
 - 4. Workstations and other devices.
 - 5. Switches, routes, hubs and other transmission equipment port assignments

PART 3 - EXECUTION

3.1 GENERAL

- A. Prior to installation of communication infrastructure cabling, pathways and associated products, the tenant shall submit sample copies of softcopy documentation formats for review by ANC.
- B. Documentation shall comply with this and related Sections.

3.2 CABLE AND OUTLET LABELING

- A.** Cable and outlet labeling shall comply with Appendix C – ANC Telecommunications Cable/Outlet Labeling Standards.

END OF SECTION