

PART 1 GENERAL

1.1 Organization of Information

There are three sections and an appendix which address infrastructure and cable plant requirements for communications systems:

16750 Voice, Data, and Multimedia Communications -- Infrastructure and Cable Plant Design Criteria.

This section gives general directions to the A&E regarding design concepts for communications infrastructure and cable plant.

16751 Voice, Data, and Multimedia Communications -- Infrastructure Contract Guide Specifications

This section gives specific direction on products and execution to the Contractor regarding the infrastructure system for inclusion within the contract package.

16752 Voice, Data, and Multimedia Communications -- Cable Plant Contract Guide Specifications

This section gives specific direction on products and execution to the Contractor regarding the cable plant system for inclusion within the contract package.

Appendix Reference Drawings (indicated by **SD-CM** designation)

This section illustrates points within the text and provides typical and detail drawings for inclusion within the contract package. The A&E shall use these as guidelines to prepare ORIGINAL drawings.

1.1.1 The design standards herein address nearly all voice, data, and multimedia requirements to tie the project area into the University-wide network. In the event the occupant has requirements that cannot be satisfied by these standards, the Architectural and Engineering team (A&E) shall consult with the University's Project Manager and the Computing & Communications (C&C) point-of-contact to develop an acceptable alternative.

1.2 The Basic Model

1.2.1 The principal goal of the University communications standards is to describe a dedicated system of pathways from every communications outlet in the building to the nearest IDF Room and from every IDF Room to the MDF Room, with connections to the inter-building communications system. This system is based on nationally recognized ANSI/TIA/EIA and BICSI building standards described further below.

1.2.2 **These standards are premised on a basic infrastructure model (SD-CM-2) which includes the following:**

- 1.2.2.1 MDF Rooms function as the junction between the pathways connecting the building with the inter-building communications system and the pathways leading to the rest of the building. Communications equipment may be installed here.
- 1.2.2.2 IDF Rooms that are vertically aligned (at least one per floor) having conduit sleeves which pass through to the IDF Room above, thereby forming a vertical riser pathway. Communications equipment may be installed here.
- 1.2.2.3 Horizontal pathways of cable tray and conduit that radiate from these IDF Rooms on each floor to individual communications outlet locations.
- 1.2.2.4 Individual communications outlets with conduit either connecting to the cable tray system or directly to the IDF Room.

1.3 Relationship to Electrical Standards

The Communications System has fundamental differences from power and other low-voltage electrical systems which affect the design. The A&E should carefully read and understand the communications design guidelines so that the bid documents (drawings, specifications, and any addenda) clearly reflect these differences. Questions should be addressed to the C&C point-of-contact.

END OF PART 1

PART 2 SUBMITTAL REQUIREMENTS

2.1 Guide Specifications - General

The A&E shall edit the information in **Sections 16751** and **16752** by deleting those portions that do not apply to the project at hand and by adding other information as required to provide the Contractor with a complete specifications package.

Paragraphs known to require editing are enclosed in square brackets. If a labeled sub-section is deleted, the A&E shall not re-number the entire section. Instead, the labeled heading shall be retained followed by the words "Not in Contract" (NIC).

2.2 Cable Plant Submittals

On projects where the scope includes the cable plant design, the A&E shall address the following submittal requirements:

2.2.1 Video/Cable TV System As-built

The Contractor shall prepare a complete "as-built" diagram of the CATV/Video/Audio distribution systems indicating cable lengths, signal values, and component locations. This diagram shall be provided as a separate layer on the A&E-provided AutoCAD file of the campus building layout. The Contractor shall provide two (2) "D" size copies plus the AutoCAD file. In addition, the Contractor shall provide a logical schematic of the system (without regard to building locations) which identifies the system components, signal levels, and cable distances. This second submittal shall be provided in hard copy ("C" size with two copies) plus an AutoCAD file of the schematic.

2.3 Remodel Submittals -- Additional Requirements

2.3.1 Continuity of Service Plan

Address the following items in this submittal:

- 2.3.1.1 The extent of the service disruption expected;
- 2.3.1.2 The facilities provided to ensure uninterrupted service both to occupants not otherwise associated with the Project as well as those remaining within the Project area during construction and installation;
- 2.3.1.3 Steps taken to minimize the disruption;
- 2.3.1.4 A time-scaled construction sequence to coordinate phasing of steps.

2.4 Typical Drawing and Standard Details

2.4.1 The Appendix contains standard drawings (**SD-CM-1** through **SD-CM-52**) that depict some of the voice, data, and multimedia communications design information described within the University's Communications Standards. The A&E shall use these as guidelines to prepare ORIGINAL drawings. DO NOT include the standard drawings provided without revision.

2.4.2 The assembly details combine information relevant to both the infrastructure and cable plant installation. Identify those portions Not In Contract within a cloud having the abbreviation "NIC".

2.5 **Editing and Disk Availability**

Edit the guide specifications sections (**16751** and **16752**) as appropriate for inclusion in the bid documents. The most current information is version AUG 2002. Text has been formatted using Microsoft Word 2002. Reference Drawings are available as Acrobat PDF files or AutoCAD 2000 files. There are available either on the C&C website at: <http://www.washington.edu/admin/facilities/pfi> or from the UW Project manager on disk.

END OF PART 2

**Part 19 (16A10, 16750, 16751, 16752, SC-DM dwgs)
VOICE, DATA, AND MULTIMEDIA COMMUNICATIONS
DISK AVAILABILITY**

Please fill in the form below to request a set of disks:

Project Manager: _____

Project Name: _____

Project Number: _____

Primary Architectural
Consultant: _____

Primary Communications
Consultant: _____

Person Requesting
Disks: _____

Organization: _____

Address: _____

Telephone: _____
10 digit number

SEND TO: University Project Manager (for your project)
Capital Projects Office
Box 352205
University of Washington
Seattle, WA 98195-2205