

SECTION 27 05 53 IDENTIFICATION FOR COMMUNICATIONS SYSTEMS

PART 1 – GENERAL

1.1 SUMMARY

A. Section includes identification and labeling for communications systems including cables, pathways, terminations, patch panels, racks, enclosures, and related components.

1.2 SUBMITTALS

A. Submit proposed label legend/schedule and examples of format for each label type (cable labels, patch panel labels, faceplate labels, rack labels).

PART 2 – PRODUCTS

2.1 LABEL MATERIALS (MINIMUM REQUIREMENTS)

A. Labels shall be machine-printed using a thermal transfer method with a resin ribbon (or an equivalent durable method) suitable for telecommunications environments.

B. Label stock shall be permanent adhesive vinyl. Provide self-laminating/wrap labels where wrap protection is required for cable identification. Provide panel/faceplate labels sized to match device labeling fields.

C. Label text shall be black on white unless otherwise directed by the Contract Documents. Labels shall remain legible for the life of the labeled component.

D. Provide label materials and adhesives suitable for the installation environment (including plenum spaces where applicable).

PART 3 – EXECUTION

3.1 LABELING (GENERAL)

Note: Submit the proposed label legend/schedule and label materials in accordance with Division 01 submittal procedures where submittals are required by the Contract Documents.

A. All labeling shall comply with ANSI/TIA-606 administration standards and the requirements of this Section. Where the Owner provides a project-specific labeling legend/template in the Contract Documents, comply with that legend/template.

B. If the Contractor proposes to substitute a different labeling material, samples shall be submitted and prior written approval shall be obtained from KU IT before using the alternate material.

C. Labels shall be machine-printed, durable, and legible for the life of the labeled component, and identifiers shall be unique and consistent with project documentation and cable schedules.

3.2 HORIZONTAL CABLE, OUTLET, AND PATCH PANEL PORT LABEL CONTENT

A. Horizontal cable identifiers and cable-jacket labeling: Each horizontal cable shall be assigned a unique Contractor cable identifier, which shall appear in the cable schedule, test results, and closeout/as-built documentation and shall be consistent across all project records. The Contractor cable identifier shall be formatted as the serving patch panel and port identifier followed by the room identifier and drop sequence, separated by a single space: PPp-nn room-drop, where PPp-nn is the patch panel and port (formatted as in Paragraph B, for example PP3-26 = patch panel 3, port 26) and room-drop is the room identifier and drop sequence (formatted as in Paragraphs B and C, for example 215-1). Example — the cable serving the first data drop in Room 215, landed on patch panel 3, port 26: PP3-26 215-1. The patch panel number is unique within its serving IT closet. Room identifiers are unique within the building; therefore, when combined with the room drop sequence, the room-drop portion of the identifier is unique within the building, and the Contractor cable identifier PPp-nn room-drop is unique building-wide. (This building-wide uniqueness of room identifiers is a KU design premise; where a building reuses room numbers across floors or wings, the Professional shall confirm a room-identifier scheme with KU IT that preserves this uniqueness before bid.) The closet is not included in the cable-jacket identifier — it appears on the faceplate top field (Paragraph B) — and is carried as a separate column in the as-built cable schedule (Paragraph F). For outlets that are not home-run to an MDF/IDF, or where the standard patch panel/room format does not apply (for example common-area or AP outlets under Paragraphs C and E), assign the identifier as directed by KU IT. Each horizontal cable shall be physically labeled at the patch panel termination with a durable wrap-around or self-laminating label bearing the Contractor cable identifier (which already includes the room identifier and drop, per the format above). The label shall be located within 6 inches of the patch panel termination, positioned so the identifier is visible and legible from the normal working position at the rear of the patch panel without disconnecting or moving the cable, and oriented so the legend reads in the normal viewing direction. Where a wrap-around (flag) label is used, orient the flag so the printed legend faces the working position. The outlet end is identified by the faceplate label (Paragraph B); a cable-jacket label is not required at the outlet termination. The Contractor cable identifier is the permanent identifier of record and governs in the event of any discrepancy. The room identifier and drop sequence are required components of that identifier — they establish its building-wide uniqueness — and shall be repeated on the faceplate and patch panel port labels for field use; they are not a separate or independently changeable field.

B. Wall outlet labels: Each horizontal telecommunications outlet shall be labeled on the faceplate using the top and bottom label fields where the faceplate provides them. The top field shall contain the serving IT closet identifier followed by the patch panel and port identifier, separated by a single space with no other delimiter character (closet, space, patch panel-port).

The IT closet identifier is formatted ITx-y, where x is the IT closet number and y is the floor served (examples: IT1-1 = IT closet 1, first floor; IT1-G = IT closet 1, ground floor); the patch panel/port identifier is formatted PPp-nn (example: PP3-26 = patch panel 3, port 26). The bottom field shall contain the room identifier and drop sequence (room-drop), matching the serving patch panel port label in Paragraph C. Example — first data drop in Room 215, served from IT closet 1 on the ground floor at patch panel 3, port 26: top field IT1-G PP3-26; bottom field 215-1. Where a faceplate provides only a single label field, apply the closet and patch panel/port content and add the room-drop as space permits or as directed by KU IT. This closet/patch panel-port format applies to outlets home-run to a serving MDF/IDF; in-room AV (blue) outlets are not home-run to an MDF/IDF (see Section 27 15 00 §2.4) and shall instead be labeled per KU IT and the audio-video systems section convention.

C. Patch panel port labels: Each patch panel port serving a standard room or office outlet shall be labeled with the room identifier and drop sequence. Label format shall be: room identifier-drop sequence. Examples: 215-1, 215-2, 215-3.

D. Single and multiple outlet locations: Single-drop and multiple-drop locations shall follow the same labeling pattern. Where multiple outlets serve the same room, increment the drop sequence to distinguish each outlet; the same room-drop value shall appear on both the patch panel port label (Paragraph C) and the faceplate bottom field (Paragraph B). Example — two wall outlets on different walls of Room 215: 215-1 and 215-2, each value appearing on both the outlet faceplate bottom field and its serving patch panel port.

E. Common-area and ceiling/AP outlets: For outlets located in lobbies, hallways, vestibules, lounges, ceilings, or similar common/non-assigned spaces — including wireless access point (AP) outlets (Section 27 21 33) — where a distinct room number is not available to form the room-drop portion of the identifier, KU IT will establish a short project labeling convention for these locations at or before the pre-installation meeting (Section 27 05 00 §1.5) — for example, an area/space code plus floor and sequence such as AP-2-07 (access point, second floor, number 7) or COR-1-03 (corridor, first floor, number 3) — used in place of the room-drop portion so the identifier retains a consistent, building-unique form. The Contractor shall record the adopted convention in the labeling submittal (or the project-specific procedure) and confirm the patch panel port labeling identifier with KU IT prior to final labeling. The cable-jacket identifier for these outlets follows the same PPp-nn plus location-code format and the same record-consistency and audit requirements as Paragraphs A and F.

F. Record consistency: Wall outlet labels, patch panel port labels, cable identifiers, test results, and as-built cable schedules shall be consistent with one another. Do not create alternate identifiers that are not reflected in the closeout documentation. The as-built cable schedule shall reconcile, for each horizontal link, the Contractor cable identifier (on the patch panel-end cable jacket, formatted PPp-nn room-drop per Paragraph A) with the serving IT closet, the faceplate content (top field closet and patch panel/port, bottom field room-drop), the patch panel port label (room-drop), and the physical patch panel/port position. Because the room

identifier and drop sequence are unique within the building (Paragraph A), the Contractor cable identifier PPP-nn room-drop is unique building-wide; and because it is composed of the patch panel/port and the room-drop, it shall match those fields on its face. The schedule shall additionally carry the serving IT closet as a separate column, which together with the patch panel/port locates each link to its physical position. Any link whose jacket identifier, faceplate, patch panel port label, physical position, or test-result cable identifier do not agree is a labeling/record nonconformance and shall be corrected before acceptance.

3.3 BACKBONE CABLE LABEL CONTENT (INTRA-BUILDING AND INTER-BUILDING)

A. Labels on intra-building and inter-building backbone cabling shall contain the following information (format provided by KU):

1. Cable number provided by KU. KU IT will provide the starting number of the first cable before labeling (identifier scheme per §27 05 00 §1.11.B).

2. Fiber media designation and strand count: Express each fiber type in the cable as a media designation followed by its strand count (media-strand count). Where a single cable contains more than one fiber type (a hybrid cable), join each media-strand count expression with a slash; the slash denotes multiple fiber types within one cable and is used only when a hybrid cable is installed. Where separate cables are pulled instead of a hybrid, each cable carries its own single-type label. Examples:

a. OS2-24 = 24 strands OS2 single-mode fiber.

b. OM1-12 = 12 strands OM1 multimode fiber.

c. OS2-24/OM1-12 = a single hybrid cable containing 24 strands OS2 single-mode and 12 strands OM1 multimode fiber.

3. Location identifiers (Nearside–Farside) as provided/approved by KU IT. An intra-building run carries the same building code at both ends; an inter-building run carries the two different endpoint building codes (Nearside–Farside):

a. Between Buildings (Interbuilding):

i. Two-character building codes designating the run provided by KU (Nearside–Farside), followed by the media designation and strand count from Paragraph 2 (building code-building code, space, media-strand count). Example: AD-KY OS2-24, or AD-KY OS2-24/OM1-12 for a hybrid cable.

ii. AD-KY indicates the run starting in Admin to Keystone.

iii. KY-AD indicates the run starting in Keystone to Admin.

b. Intrabuilding (Backbone within a building):

- i. Building code followed by Telecommunications Space Identifier (TSID) for the near-end and far-end closets (Nearside–Farside).
 - ii. For new construction and renovations, the KU standard TSID format is ITx-y, where x is the IT closet number and y is the floor served (examples: IT1-1 = IT closet 1, first floor; IT1-G = IT closet 1, ground floor). With the building-code prefix from (i), a complete intrabuilding backbone label reads, for example, JH-IT1-1 to JH-IT1-3 (building JH, IT closet 1, first floor, to building JH, IT closet 1, third floor).
 - iii. Legacy TSIDs may exist (examples: M31, M3-1, 104). Use TSIDs exactly as provided by KU IT; do not normalize or modify TSIDs.
4. Date of the cable run (YYYY-MM-DD).
- B. Label placement: Provide labels at both ends of each backbone cable and at intermediate access points where required by KU standards.