

PART 1 GENERAL

1.01 SUMMARY OF WORK

- A. The extent and location of “Identification and Labeling” Work is shown in the Contract Documents. Section includes: Products and requirements for cable and equipment Identification and labeling for the Port of Seattle's Communications Infrastructure.
- B. General: Label all spaces, pathways, cables, termination hardware, terminations, ground buses, and ground conductors using the Port of Seattle (Port) Section 27 05 53.13 - Communications Standard for Labeling and Nomenclature. See Part 3 – Execution of this section for application of label products. Coordinate specific label content and products with the Construction Manager prior to labeling. Coordinate labels with data entered in the Cable Management System.

1.02 SUBMITTALS

- A. Submit materials data in accordance with of Section 01 33 00 - Submittals. Furnish manufacturers’ technical literature, standard details, product specifications, and installation instructions for all products.
- B. Submittals shall include the following:
 - 1. Product data
 - 2. Label Schedule

PART 2 PRODUCTS

2.01 GENERAL

- A. Label product names used herein are coordinated with applicable product names used in the Section 27 05 53.13 - Communications Standard for Labeling and Nomenclature. Product names are generally categorized herein but are not intended to limit the use of those products to that category only.

2.02 SPACE LABELS

- A. Phenolic Space Label:
 - 1. White core laminated phenolic plastic. White lettering on black background, same style throughout.
 - 2. Single line of 5/8” high lettering, all capitals. Background to be 1.0” high, width as required. Leave minimum of 1” margin on left and right of text, text to be centered horizontally and vertically on background. Text style shall be equivalent to Windows™ TrueType™ Arial font, black. The letter “O” shall be distinct from the numeral “0” and the letter “l” shall be distinct from the numeral “1”.
- B. Phenolic Rack Label:
 - 1. White core laminated phenolic plastic. White lettering on black background, same style throughout.
 - 2. Single line of 3/8” high lettering, all capitals. Background to be 3/4” high, width as required. Leave minimum of 1” margin on left and right of text, text to be centered horizontally and vertically on background. Text style shall be

equivalent to Windows™ TrueType™ Arial font, black. The letter “O” shall be distinct from the numeral “0” and the letter “l” shall be distinct from the numeral “1”.

- C. Phenolic Cabinet Label:
 - 1. White core laminated phenolic plastic. White lettering on black background, same style throughout.
 - 2. Single line of 1/2” high lettering, all capitals. Background to be 1.0” high, width as required. Leave minimum of 1” margin on left and right of text, text to be centered horizontally and vertically on background. Text style shall be equivalent to Windows™ TrueType™ Arial font, black. The letter “O” shall be distinct from the numeral “0” and the letter “l” shall be distinct from the numeral “1”.

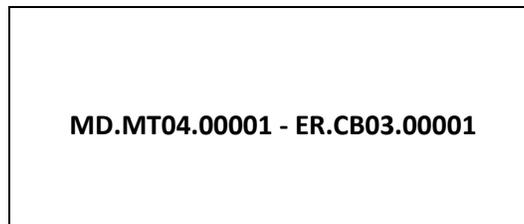
2.03 PATHWAY LABELS

- A. Pathway labels require a source/destination label only.
 - 1. Source refers to MDR, ER, EQ, in that order.
 - 2. Destinations are a description of device (WAP, camera), EQ name, room number, or grid line.
- B. Refer to ICT infrastructure group for precise source/destination labeling.
- C. Labeling nomenclature may be altered with an approval from START.
- D. Pathway labels shall be placed at all ends or breaks in conduit run such as communication rooms, cabinets pull boxes, maintenance holes, fire penetrations, etc. Label conduit every 25 feet on continuous runs.
- E. Pull box (PB)labels shall not receive a unique name, but rather a grid line designation. Confirm that project drawings incorporate current, recognized gridlines, per F&I. Coordinate and confirm gridline labeling wit ICT infrastructure group
- F. Conduit Label:
 - 1. Label material: Water and chemical resistant material, “bright yellow” in color, ultraviolet (UV) resistant, suitable for indoor and outdoor use, permanent self-adhesive, suitable for use with indelible ink printing.
 - 2. Ink: Indelible ink, black in color, resistant to UV radiation, abrasion, and chemicals.
 - 3. Lettering: One line of text, containing “source””destination”, lettering per table below, all capitals, and text to be centered horizontally and vertically on background. Text style shall be equivalent to Windows™ TrueType™ Arial font, bold face, black. The letter “O” shall be distinct from the numeral “0” and the letter “l” shall be distinct from the numeral “1”. Size of font shall be as indicated under “Label size” below.
 - 4. Label size: Label size and font size shall be determined by the application per the table below:

| CONDUIT TRADE SIZE | TYP. LABEL SIZE | MIN. FONT | ROWS OF TEXT | NOTES |
|-----------------------|-----------------|--------------|-----------------|-------|
| | | | | |

| | (W X H) | SIZE IN POINTS | | |
|------------------------|---------------|----------------|---|--|
| ½" & ¾" | 3.00" x 0.50" | 12 | 1 | Source/Destination: Center all text on label (refer to figure 1 below) |
| 1", 1-1/4" & 1-1/2" | 4.00" x 0.75" | 14 | 2 | Same as above |
| 2" and up | 7.50" x 1.00" | 20 | 2 | Same as above |

FIGURE-1 (example text)



G. Cable Tray Label:

1. Label material: Water and chemical resistant material, "bright yellow" in color, UV resistant, suitable for indoor and outdoor use, permanent self-adhesive, suitable for use with indelible ink printing.
2. Ink: Indelible ink, black in color, resistant to UV radiation, abrasion, and chemicals.
3. Lettering: Single line of lettering, all capitals, and text to be centered horizontally and vertically on background. Text style shall be equivalent to Windows™ TrueType™ Arial font, 48 point, bold face, black. The letter "O" shall be distinct from the numeral "0" and the letter "I" shall be distinct from the numeral "1".
4. Label size: Labels shall be 7.50" wide x 1.00" high.

FIGURE-2 (example text)

CTT.MT.01234

- H. Pathway Warning Label (refer to Figure 3):
1. Typical placement is on closed cable trays, Backbone conduit entry/exit points within communication rooms and any other area(s) requested by the Port of Seattle
 2. Label material: Water and chemical resistant material, “day-glow orange” in color, UV resistant, suitable for indoor and outdoor use, permanent self-adhesive.
 3. Ink: Indelible ink, black in color, resistant to UV radiation, abrasion, and chemicals.
 4. Label size: Labels shall be 5.0” wide x 4.0” high.
 5. Lettering: Text style shall be equivalent to Windows™ TrueType™ Arial font. The word “WARNING” shall appear centered at the top of the label in 48-point bold, all capitals, centered horizontally. The body of the text shall be in 20-point normal and bold lettering, all capitals, left and right justified, and laid out with line breaks.

FIGURE-3 (actual text)

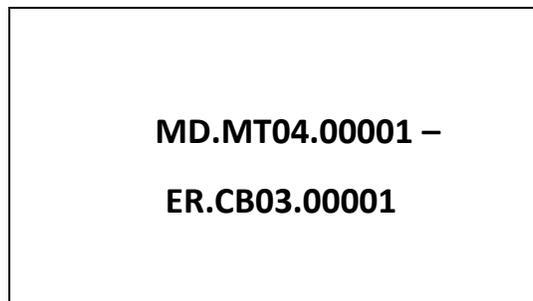
WARNING

**THIS CABLE PATH IS A MANAGED RESOURCE OF THE
PORT OF SEATTLE. UNAUTHORIZED CABLES MAY BE
CUT AND REMOVED WITHOUT NOTICE. CALL PORT**

AV/NETWORK CONTROL AT 206-787-7638 (787-PNET) FOR INFORMATION OR TO REPORT PROBLEMS.

- I. Innerduct Label:
 1. Label material: Data plate labels of polyester/polycarbonate composite material, semi-rigid non-adhesive film with excellent strength properties and flame resistance, water and chemical resistant, white in color, UV resistant, suitable for indoor and outdoor use, suitable for use with indelible ink printing, with two slot holes at each end for attachment using two plastic cable ties for each label.
 2. Ink: Indelible ink, black in color, resistant to UV radiation, abrasion, and chemicals.
 3. Lettering: Two lines of text, first line is “source –” field, final row is the “destination” field. Center all text on label (refer to figure 4 below). Text style shall be equivalent to Windows™ TrueType™ Arial font, 12 or 14 point, bold face, black. The letter “O” shall be distinct from the numeral “0” and the letter “l” shall be distinct from the numeral “1”.
 4. Label size: Labels shall be 2.50” wide x 1.00” high.

FIGURE-4 (example text)



2.04 CABLE AND WIRING LABELS

- A. Cable Tag:
 1. Label material: Data plate labels of polyester/polycarbonate composite material, semi-rigid non-adhesive film with excellent strength properties

and flame resistance, water and chemical resistant, white in color, UV resistant, suitable for indoor and outdoor use, suitable for use with indelible ink printing, with two slot holes at each end for attachment using two plastic cable ties for each label.

2. Ink: Indelible ink, black in color, resistant to UV radiation, abrasion, and chemicals.
3. Lettering: Two lines of lettering with line of text split at “from-to” hyphen with hyphen at end of 1st line, all capitals, and text to be centered horizontally and vertically on background. Text style shall be equivalent to Windows™ TrueType™ Arial font, 14 point, bold face, black. The letter “O” shall be distinct from the numeral “0” and the letter “I” shall be distinct from the numeral “1”.
4. Label size: Labels shall be 2.00” wide x 0.75” high. Utilize two labels in series in order to achieve 4” overall width.

B. Cable Label:

1. Label material: Self-extinguishing and meets or exceeds 94V-0 flammability requirements, water and chemical resistant, white in color, UV resistant, suitable for indoor and outdoor use, suitable for use with indelible ink printing, self-adhesive with self-laminating overlap.
2. Ink: Indelible ink, black in color, resistant to UV radiation, abrasion, and chemicals.
3. Lettering: One, two or three lines of lettering per table below, all capitals, and text to be centered horizontally and vertically on background. Text style shall be equivalent to Windows™ TrueType™ Arial font, bold face, black. The letter “O” shall be distinct from the numeral “0” and the letter “I” shall be distinct from the numeral “1”. Size of font shall be as indicated under “Label size” below.

| CABLE TYPE (AS DEFINED IN “COMMUNICATIONS STANDARDS FOR LABELING AND NOMENCLATURE”) | FONT SIZE IN POINTS | ROWS OF TEXT | NOTES |
|---|----------------------------------|---------------------|--|
| CB, CF, CO, CS, FB, FO and FT (Backbone) Refer to Figure 5 | 9 to 14; size per CBL O.D. | 2 or 3 as needed | Split line(s) of text after (each) cable. Last row to be “to-from” field |
| CH and FH (Horizontal) Refer to Figure 6 | 9 | 1 | Wrap around label: Three lines of text, split first line at end of Conduit name, follow with “from –” field, final row is the “to” field. Center all text on label |

- 4. Label size: Label size shall be 1.00” wide by 1.38” high with print-on area to be 2.00” wide by 0.50” high. Utilize two labels in series in order to achieve 2” overall width.

FIGURE-5 (example text)

CB.U5.MT.01234
MD.MT04.00001 - ER.CB03.00001

Or

FB.XM.MT.01234.SM
FB.XM.MT.01234.M6
MD.MT04.00001 - ER.CB03.00001

FIGURE-6 (example text)

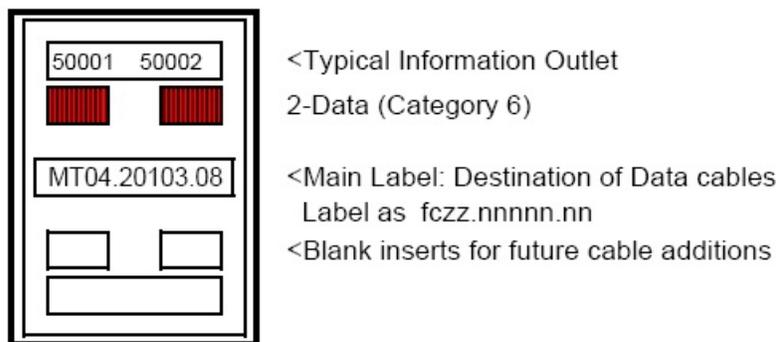
CH.U6.MT04.01234
ER.CB03.00001 –
WA.CB05.GAT01

- C. Wire Tag:
 - 1. Label material: Data plate labels of polyester/polycarbonate composite material, semi-rigid non-adhesive film with excellent strength properties and flame resistance, water and chemical resistant, white in color, UV resistant, suitable for indoor and outdoor use, suitable for use with indelible ink printing, with one pinfeed hole at each end that also is used to attach the label using one plastic cable ties for each label.
 - 2. Ink: Indelible ink, black in color, resistant to UV radiation, abrasion, and chemicals.
 - 3. Lettering: One line of lettering, all capitals, text to be centered horizontally on background, and text to be vertically aligned to miss pinfeed holes. Text style shall be equivalent to Windows™ TrueType™ Arial font, 10 point, bold face, black. The letter “O” shall be distinct from the numeral “0” and the letter “l” shall be distinct from the numeral “1”.
 - 4. Label size: Labels shall be 3.00” wide x 1.0” high including pinfeed holes.

2.05 TERMINATION HARDWARE LABELS

- A. Jack Label:
 - 1. Label material: Use labels supplied with jack or compatible label. Submit proposed products for approval.
 - 2. Ink: Black in color.
 - 3. Lettering: One line of lettering, all capitals, and text to be centered horizontally and vertically on background. Text style shall be equivalent to Windows™ TrueType™ Arial font, 10 point, bold face, black. The letter “O” shall be distinct from the numeral “0” and the letter “l” shall be distinct from the numeral “1”.
 - 4. Label size: As required to fit label holder.

FIGURE-7 (example text)



<Typical Information Outlet
2-Data (Category 6)
<Main Label: Destination of Data cables
Label as fczz.nnnnn.nn
<Blank inserts for future cable additions

- B. Termination Label:
 - 1. Label material: Use labels supplied with termination hardware or compatible label. Labels shall be color coded per TIA-606 color-coding standards. Submit proposed products for approval.

2. Ink: Black in color.
3. Lettering: One line of lettering, all capitals, and text to be centered horizontally and vertically on background. Text style shall be equivalent to Windows™ TrueType™ Arial font, 10 point, bold face, black. The letter “O” shall be distinct from the numeral “0” and the letter “l” shall be distinct from the numeral “1”.
4. Label size: As required to fit label holder.

FIGURE-8 (example text for all below figures)

Copper Terminations-

110 BLOCK: HORIZONTAL Cables

| | | | | | |
|-------|-------|-------|-------|-------|-------|
| 30001 | 30002 | 30003 | 30004 | 30005 | 30006 |
| 30007 | 30008 | 30009 | 30010 | 30011 | 30012 |

110 BLOCK: BACKBONE Cables

| | |
|-------------------------------|-------------------------------|
| (1-25) CB.U5.MT.15001 | (26-50) CB.U5.MT.15002 |
| MD.MT04.00001 - ER.CB03.00001 | MD.MT04.00001 - ER.CB03.00001 |

| | |
|-------------------------------|-------------------------------|
| (51-75) CB.U5.MT.15003 | (76-100) CB.U5.MT.15004 |
| MD.MT04.00001 - ER.CB03.00001 | MD.MT04.00001 - ER.CB03.00001 |

110 Block Notes:

1. Continued on to end of block count, typically 100pr. or 300pr.
2. The (# - #) is pair count on block that the 25pr. cable is terminated to

Copper Patch Panels (6-port modules)

| | | | | | |
|-------|-------|-------|-------|-------|-------|
| 50001 | 50002 | 50003 | 50004 | 50005 | 50006 |
| 1 | 2 | 3 | 4 | 5 | 6 |

TO: EQ.B-1234-R (Tenant XYZ)

<Req. Horizontal nnnnn or Backbone nnnnn assigned seq. #
 <Port count on panel label system (1-6, 7-12, 13-18 and so on)
 <Individual CPP data ports
 <Use space below data ports to call out destination space and owner of BACKBONE demarcation cables; Space not used for HORIZONTAL cable

C. Fiber Terminations

1. No figures currently available; seek Sea-Tac/Seaport Telecommunications Architectural Review Team (START) direction. Typical backbone layout is

to attach a label as seen in Figure-5 which details cable name followed by To-From field. Attached to FPP lid on specific ports terminated to.

2.06 GROUNDING SYSTEM LABELS

- A. Ground Warning: Ground warning tag, UV resistant legend printed on both sides, semi-rigid polyethylene material, 2.75” wide by 1.38” long, one attachment slot of 0.13” x 0.63”, bright yellow background color, black lettering, text to read “WARNING, GROUND WIRE, DO NOT REMOVE”.

PART 3 EXECUTION

3.01 GENERAL

- A. Contractor shall ensure that spaces, pathways, cables, termination hardware, terminations, splices, grounding buses, and grounding conductors have been correctly installed prior to labeling and testing.
- B. Contractor shall supply labels, labeling equipment, and labor as required to create and apply labels as specified and per the Port of Seattle Section 27 05 53.13 - Communications Standard for Labeling and Nomenclature.

3.02 LABEL APPLICATIONS

- A. Apply labels in accordance with the “Application” section of the Port of Seattle Section 27 05 53.13 - Communications Standard for Labeling and Nomenclature.

PART 4 MEASUREMENT AND PAYMENT

4.01 GENERAL

- A. No separate measurement or payment will be made for the Work required by this section. The cost for this portion of the Work will be considered incidental to, and included in the payments made for the applicable bid items in the [Schedule of Unit Prices] [Lump Sum price bid for the Project].

End of Section

Revision History:

05/01/2014 Conversion to 2004 CSI Numbering System

10/15/2014 Added Sole Source and Salient Characteristics Note to Part 2 and revisions

01/29/2015 Revised Repeated Text

1/23/17 Incorporated ICT specifications

01/01/2022 Pathway Label requirement update