



PART 1: GENERAL

1.01 SCOPE OF WORK

- A. Work covered by this Section shall consist of furnishing labor, equipment, supplies, materials, and testing unless otherwise specified, and in performing the following operations recognized as necessary for the labeling of the telecommunications infrastructure as described on the Drawings and/or required by these specifications.
- B. It is the intent of the University to create a Class 3 system of administration as per current ANSI/TIA/EIA 606 Standards. As such, all elements must be labeled with unique identifiers as described in the following sections. UNM's labeling layout uses a "from/to" format in labeling. Labels shall be color coded as per TIA/EIA 568 Standards.
- C. This section includes minimum requirements for the following:
 - 1. Labeling Communications Cabling
 - 2. Labeling Closet Hardware
 - 3. Labeling Work Stations

1.02 RELATED SECTIONS

- A. Division 26 00 00 Electrical
- B. Division 27 00 00 Communications
- C. Division 28 00 00 Electronic Safety and Security

PART 2 - PRODUCTS

2.01 LABELS

- A. The size, color and contrast of all labels should be selected to ensure that the identifiers are easily read.
- B. All labels are to be mechanically printed, no hand printed labels allowed for any component.
- C. Labels should be visible during the installation of and normal maintenance of the infrastructure. Labels should be resistant to the environmental conditions at the point of installation (such as moisture, heat or ultraviolet light) and should have a design life equal to or greater than that of the labeled component.



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- D. Provide vinyl substrate with a white printing area and black print. If cable jacket is white, provide cable label with printing area that is any other color than white, preferably orange or yellow – so that the labels are easily distinguishable.
E. Labels shall be flexible vinyl or other substrates to apply easy and flex as cables are bent.
F. Labels shall use aggressive adhesives that stays attached even to the most difficult to adhere to jacketing.

PART 3: EXECUTION

3.01 LABELING INSTALLATION

- A. Horizontal Copper Cable Labeling:
1. All horizontal cables shall be labeled with self-laminating marking tape, Brady ID-Pro labeler, Panduit LS7 labeler, Rhino or equivalent labeling system. Identification shall be as follows:
2. At the TR end, the cables shall be labeled with the location of where the other end of the cable is terminated including room number, TO number, and jack position. Place label on a visible part of cable within 6 inches of termination point for ease of identification after termination.
a. Example: Two cables going to room 114, first TO, first jack position would be labeled as: 114-1A1. The second cable in the second TO, third jack position would be 114-2A3.

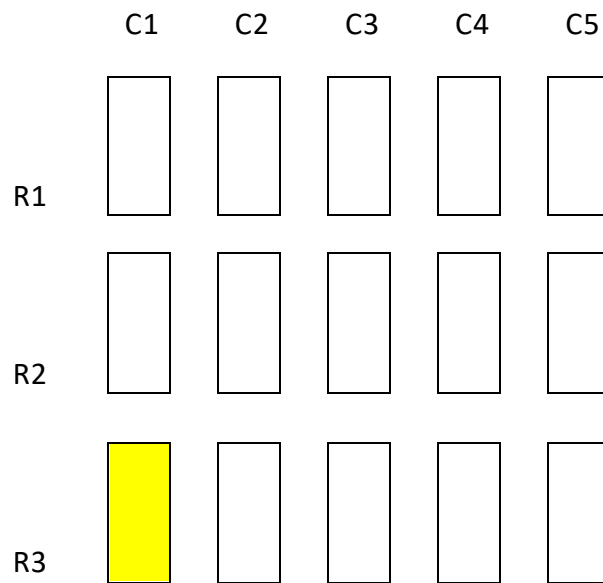
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Table with 2 rows and 3 columns: Cable 1, 114-1A1; Cable 2, 114-2A3

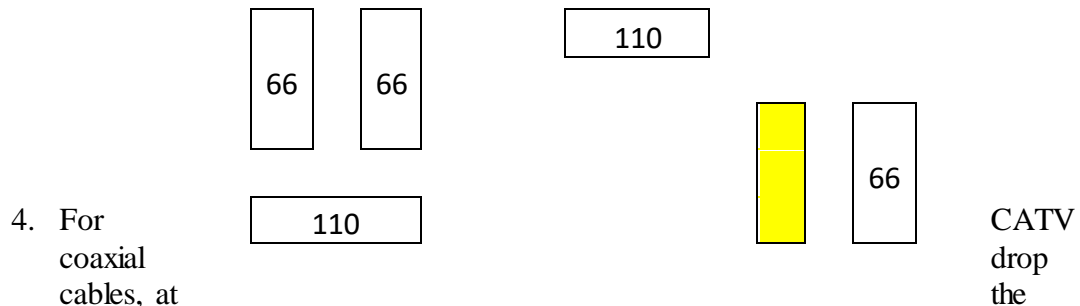
- 3. At the TO end, the cables shall be labeled 4 inches from termination with the following: Data .TR. Rack. Patch Panel. Port. This shall be visible by removing outlet cover plate.

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- a. Example: Data, TR Room 114, rack 1, patch panel 1, port 03 would be: D.114. 1.1.03
- b. For voice cabling in older building with separate voice closets and no patch panels, include the TR and as much information as practical such as column, row, block number, and port number or pairs.
 - i. Example: TR room 105, on a 66 block in the first column, third row down, port 4 would be: V.105.1.3.04



- ii.
- iii.
- iv. Example: TR room 105, no discernable pattern of columns or rows or ports, and/or mixed environment of 110 and 66 blocks, the label could be: V.105.E wall.24/25.



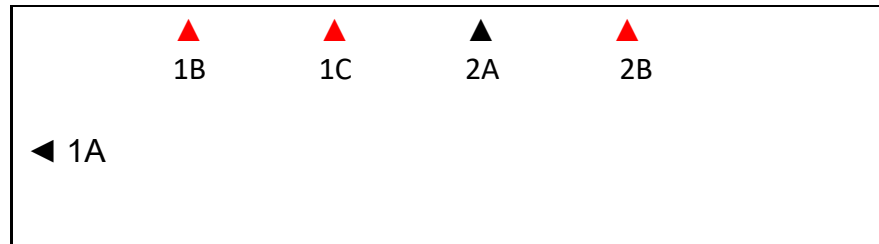
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splitter or tap, the cables shall be labeled with the location where the other end of the cable is terminated including room number, TO number, and jack position. If not collocated with a TO, indicate room number at a minimum. Place label on a visible part of cable within 12 inches of termination point for ease of identification after termination

- a. Example: A cable going to room 114, first TO, sixth jack position would be labeled as: C.114.1A6.
 - b. Generally speaking, coaxial cables will be in the sixth position when collocated with a standard TO.
5. For coaxial cables at the TO, they shall be labeled 4 inches from termination with the words "From Room" and the room number where the splitter or tap is. This shall be visible by removing outlet cover plate.
- a. Example: Room 115 would simply be: From Rm. 115.

**B. Telecommunications Outlet (TO) Labeling Scheme:**

1. TO's are labeled alphanumerically in a clockwise rotation around the room. Typically, the first TO located to the left of the main entrance of the room is labeled 1A, followed by 2A, 3A, etc. Where two entrances are present, designate one as the main entrance and label accordingly.
 - a. The intent is to have unique identification for each TO. The starting point and nomenclature of the TO's are irrelevant to the location inside the room.
2. Floor box TO's are to be prefaced with "FB" to read FB1A, FB2A, etc. Wireless Access Point TO's in ceilings are to be prefaced with "WAP" to read WAP1, WAP2, etc. Elevators to be prefaced with "Elev" to read Elev1. Audio Visual Projectors are to be prefaced with "AV" to read AV1.
3. On subsequent TO installations, the TO will be labeled alphanumerically depending on the new TO is. If the new TO is between 1A and 2A, the new TO would be labeled as 1B. If another one is later added between 1B and 2A, it would be labeled 1C. If it is after the last TO in the room, 3A, it would be labeled

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4. Seek clarification from UNM ITS for any labeling issues that arise.
- C. Faceplate Labels:
1. Faceplates will be labeled using the plastic insert to cover a printed identification tag. Each of the 2 labels in a faceplate is meant to have 2 lines for a total of 4 individual lines per faceplate.
 2. The TO label will vary slightly depending on whether a unified cabling platform is used where all cables go to one TR, or separate voice and data closets are used.
 3. See addendum 1 for an example of the UNM ITS labeling on a faceplate.
 4. See addendum 2 for an example of the UNM ITS labeling on a faceplate with unified cabling.
 5. See addendum 3 (1) for an example spreadsheet in MS Excel with dimensions for the labels.
 - a. Line 1 contains the preface “D” for Data, the specific TR, rack, patch panel, and the range of ports used for termination. In case of separate voice and data closets, only the data information is conveyed here.
 - i. Example: For cables going to TR Room 114, rack 1, patch panel 1, ports 3-5, line 1 would read: D.114.1.1.03/05
 - b. Line 2 also contains information regarding where cables are terminated in the closet, but is used for subsequent cable installations to that specific TO.
 - i. Example: Another 3 cables were added to the same TO at a later date. For cables that go to TR Room 114, rack 3, patch panel 3, ports 22, 23 and 24, line 2 would read: D.114.3.3.22/24
 - c. Line 3 is only used if separate voice and data closets are being used. Line 3 contains the preface “V” for Voice, the TR, and the TO number and jack position.
 - d. Line 4 is the unique identifier for the TO. It contains the UNM Building number, the room that the TO is located in, and the alphanumeric designation of the TO as per section 4.01.B.

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- i. Example: A TO in room building 255, room 114, designated as 2A would be: 255-114-2A.
- D. Horizontal 110 and 66 Block Labeling for voice:
 1. For 110 blocks, if the cables are for room terminations label the appropriate corresponding space for the port with the room number, TO, and jack position.
 - a. Example: A cable going to room 114, first TO, first jack position would be labeled as: 114-1A1. A cable in the second TO, third jack position would be 114-2A3.
 2. For 66 type blocks, if the cables are for room terminations tag the cable with the room number, TO, and jack position with a loose paper tag with string that is easily accessible and readable.
 - a. Example: A cable in room 114, first TO, first jack position would be labeled as: 114-1A1. A cable in the second TO, third jack position would be 114-2A3.
 3. If the 110 block is for the tie cable between the voice patch panel in the rack and the wallboard, label the space corresponding to the port with the rack, patch panel and port information as per section 4.01.E.2. For tie cables between the rack and wallboard a 110 block shall be used.
 - a. Example: Rack 1, patch panel 1, would be: Rack1 Voice PP1.
 - b. See addendum 3 (2) for an example label.
- E. Patch Panel Labeling:
 1. For station cabling going to a TO, label each port on the patch panel with the room number, TO, and jack position.
 - a. Example: A cable in room 114, first TO, first jack position would be labeled as: 114-1A1. A cable in the second TO, third jack position would be 114-2A3.
 2. Example: A cable going to a floor box TO labeled FB1A in room 114 in the second jack position would be labeled as: 114-FB1A2 For voice patch panels connected to a 110 block within the TR, label each port on the voice patch panel with the corresponding 110 block source information as per section 4.01.D.3.
 - a. Example: A 110 block in the first column, third row down, port 4 would be:
1.3.04
 3. Due to amount of space allocated for TO designation on patch panels, place room number on top and TO on bottom.
 - a. See addendum 3 (3) for an example label.



F. Equipment Room:

1. Equipment Racks shall be labeled with a one inch self-laminating marking tape, Brady ID-Pro labeler, Brother P-touch labeler, Rhino or equivalent labeling system at the base of the rack. Starting in front of the equipment rack, left to right, identification shall be as follows: Rack 1, Rack 2, and Rack 3.
2. All patch panels shall be labeled with a 3/8 inch self-laminating marking tape, Brady ID-Pro labeler, Brother P-touch labeler, or equivalent labeling system. Starting from top to bottom in sequence. Place label on the left side of the patch panel vertically, identification shall be as follows: PP 1, PP 2, PP3, and so on.

G. Vertical/Riser/Intrabuilding Copper Cable Labeling:

1. All riser cables shall be labeled with self-laminating marking tape, Brady ID-Pro labeler, Panduit LS7 labeler, Rhino or equivalent labeling system.
2. At the TR, the copper riser cables shall be labeled with from/to, cable count, and pair information on both ends. Place label on a visible part of cable close to wiring block for ease of identification after termination.
 - a. Example: From ER B065 to TR 114, first of 2, 100 pair cables would be: ER B065 to TR114 1-100. The second 100 pair cable between the rooms would be ER B065 to TR114 101-200.
3. Label cabling on each side of wall penetrations.

H. Vertical/Riser/Intrabuilding Fiber Cable Labeling:

1. All riser cables shall be labeled with self-laminating marking tape, Brady ID-Pro labeler, Panduit LS7 labeler, or equivalent labeling system. Identification shall be as follows:
2. At the TR, the fiber riser cables shall be labeled with from/to, fiber type, and fiber count on both ends. Place label on a visible part of cable and innerduct close to fiber distribution unit (FDU) for ease of identification after termination.
 - a. Example: From ER B065 to TR 114, first cable would be: ER B065 to TR114 24SM/24MM.
 - b. If a second fiber bundle between the rooms is installed with the same fiber count, place a (F2) and the end of the label.
 - i. Example: From ER B065 to TR 114, second cable, would be: ER B065 to TR114 24SM/24MM. (F2)

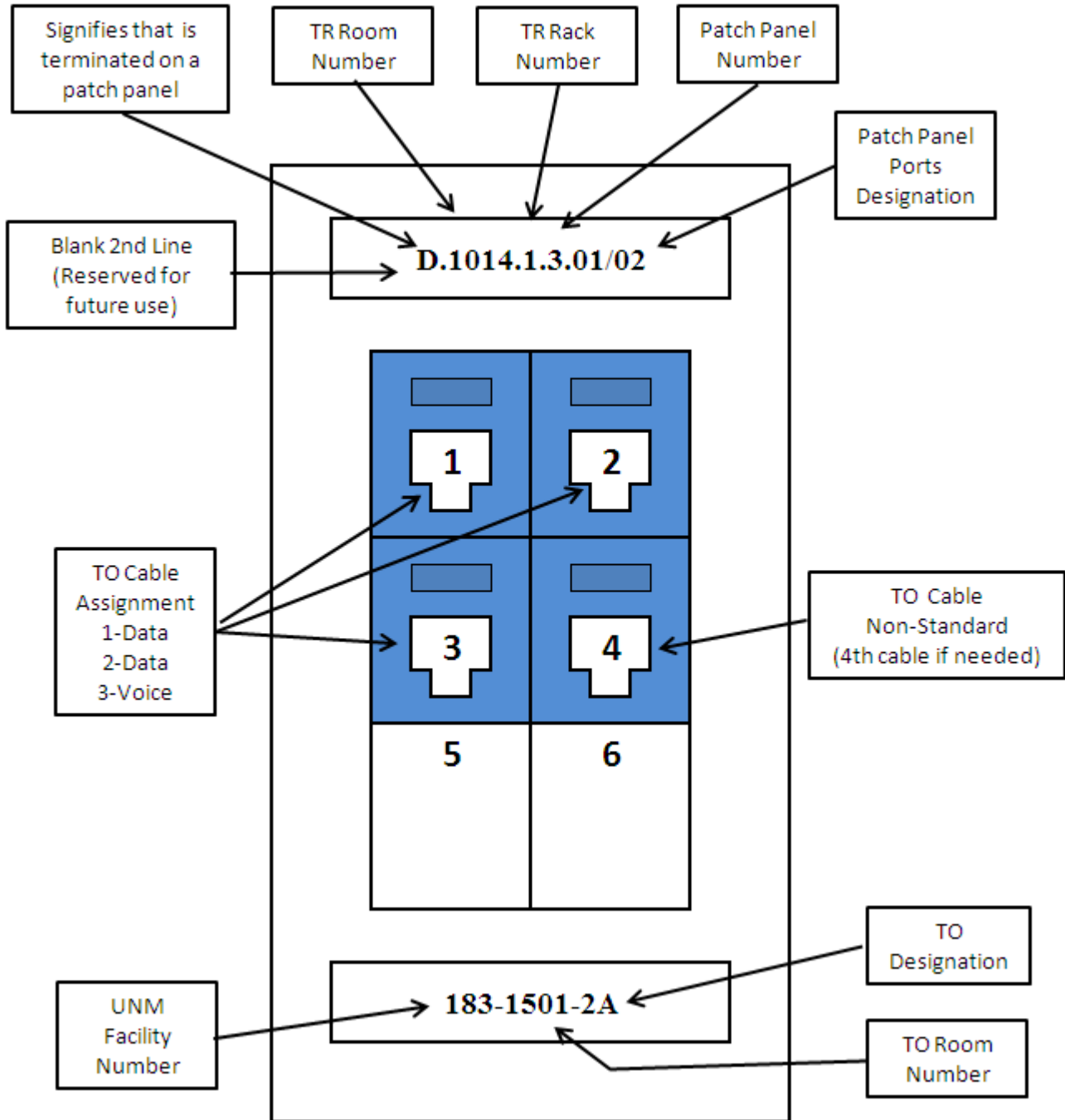


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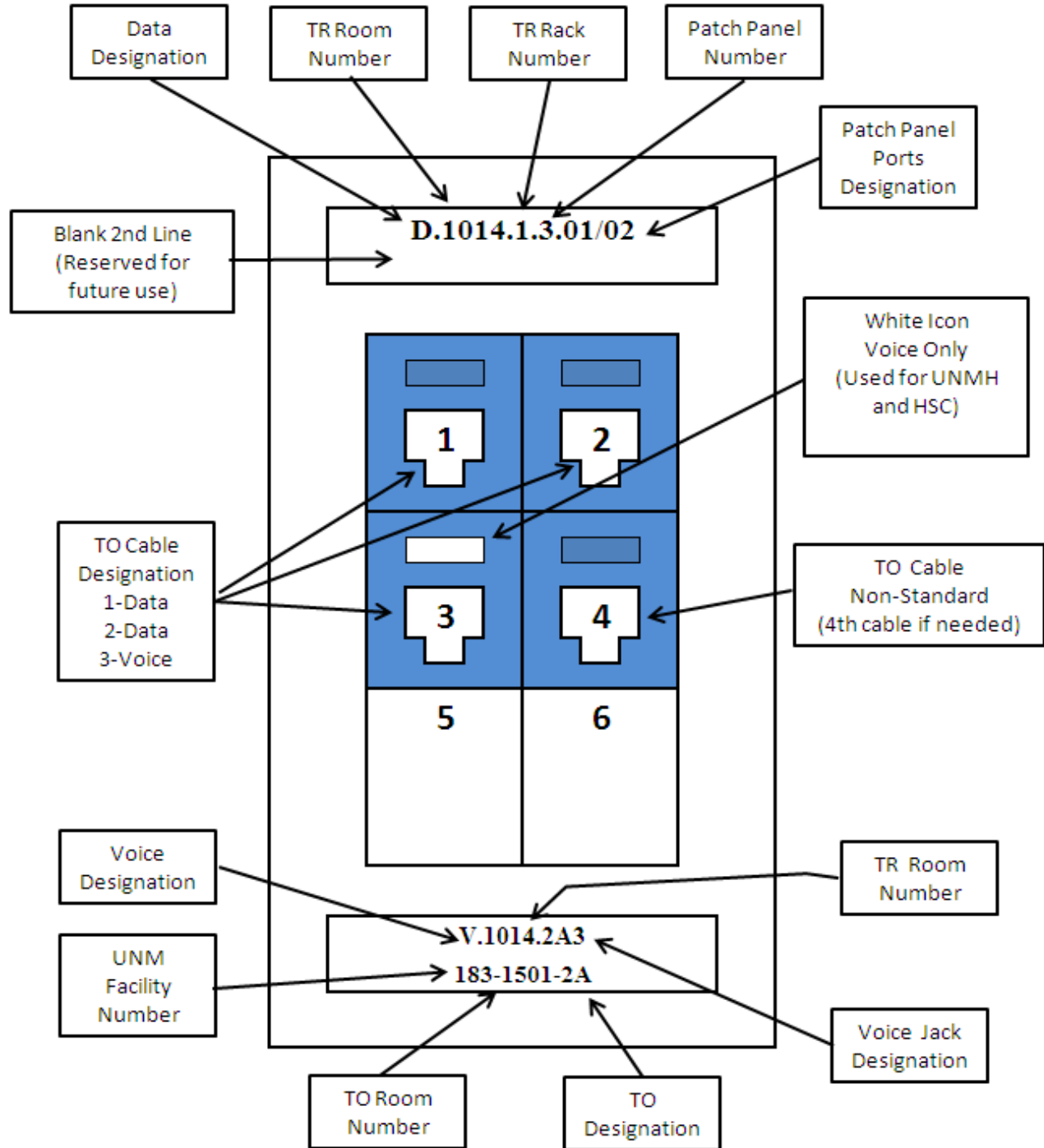
3. Label cabling on each side of wall penetrations.
 - I. Vertical/Riser/Intrabuilding 110-Block Labeling
 1. At the ER and TR, voice riser cables are terminated on their respective 110 blocks. Label each pair on each row of 110 blocks with the matching pair count information.
 2. Place the entire cable label of “from/to” in the center of the 110 block label as per section 4.01.G.
 3. See addendum 3 (4) for an example label.
 - J. Coax trunk Labeling (CATV)
 1. CATV coaxial trunk cables shall be labeled at each termination point with the information indicating the location of the next termination point of the cable, such as an amplifier, DCT, splitter, or tap.
 - K. Vertical/Riser/Intrabuilding and Campus Fiber FDU labels.
 1. Labels shall indicate type of fiber (single mode or multi-mode 50 μ m or 62.5 μ m), “from/to” information, pair count, loss for each strand, and length of cable.
 2. See addendum 3 (5) for an example label.
 - L. Interbuilding/Campus/Backbone Copper and Fiber Cable Labeling:
 1. All interbuilding cables shall be labeled permanently with “from/to” information, cable type and size, installation date, and installing contractor at each end.
 - a. Example: From Bldg. 256 to Bldg. 203, a 200 pair copper cable, installed by Lobo Enterprises on September 22, 2008 would be:
From Bldg. 256 to Bldg. 203 (200 Pair)
Lobo Enterprises 9/08.
 - b. An as-built is to be provided to UNM ITS/CNS of which manhole, and pull-boxes the cable passes through. Provide butterfly drawings after installation is complete.

Addendum 1

UNM Telecommunications Outlet Unified Labeling Scheme



UNM Telecommunications Outlet Labeling Scheme



Addendum 2- This is non-unified wiring



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Addendum 3 (1): MS Excel with dimensions for the labels.

Dimensions: Row = 16, Column = 21, Font Arial 10

Alignment: Rows 1 and 3 vertical bottom, horizontal center

Alignment: Rows 2 and 4 vertical top, horizontal center

1	D.101.1.1.12/13	D.101.1.1.14/15	D.101.1.1.16/17	D.101.1.1.18/19
2	D.101.1.2.03		D.101.1.2.04	
3	V.101.1A3	V.101.2A3	V.101.3A3	V.101.4A3
4	255-114-1A	255-114-2A	255-114-3A	255-114-4A
Row				

Addendum 3 (2): 110 block labeling for voice patch panels.

1-1	1-2	2-1	2-2	3-1	3-2	4-1	4-2	5-1	5-2	6-1	6-2	7-1	7-2	8-1	8-2	9-1	9-2	10-1	10-2	11-1	11-2	12-1	12-2		
Rack 1 Voice P/P 1																									
13-1	13-2	14-1	14-2	15-1	15-2	16-1	16-2	17-1	17-2	18-1	18-2	19-1	19-2	20-1	20-2	21-1	21-2	22-1	22-2	23-1	23-2	24-1	24-2		

Addendum 3 (3): Patch panel labeling.

B110 3A3	B110 3A4	B110 4A1	B110 4A2	B110 4A3	B110 4A4	B120 1A1	B130 1A1	B140 1A1	B140 1A2	B150 3A1	B150 4A1
B100 Elev 1A1	B100 Elev 2A1	B100 Elev 3A1	B100 Elev 4A1	B100 Elev 5A1	B100 Elev 6A1	Timeclock 1A1	Timeclock 1A2	Timeclock 2A1	Timeclock 2A2	B110 WAP1A1	B110 WAP1A2

Addendum 3 (4): Copper riser labeling

001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025		
ER B110 to TR B220 - C01, 001-100																										
026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050		
051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075		
ER B110 to TR B220 - C01, 001-100																										
076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100		



Information Technology

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Addendum 3 (5): High pair count labeling

001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025
001-1800								UNMH-Pavilion (286) to CRTC (227) - C01, 001-300																
026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050

051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075
001-1800								UNMH-Pavilion (286) to CRTC (227) - C01, 001-300																
076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100

This is a sample on how this sheet is filled out. If you have questions please contact UNM ITS/CNS Facilities Manager.

UNM
Intra-Building Numbering Sheet (IBN)
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(Note: one IBN sheet per wiring closet)

Building Name: Castetter Hall

Building #: 64 Wiring Closet Room #: 2/1/09

Date: 4/20/2009 Key Code: 38685

Workorder: 48288-1

Company: XYZ

Technician: Do all

Room #	Plate	1	Port	2	Port	3	Port	4	Port	5	Port	6	Port
1012	1A	D.1.4.08		D.1.4.09		D.1.4.10							
1013	1A	D.1.4.11		D.1.4.12		D.1.4.13							
1014	1A	D.1.4.14		D.1.4.15		D.1.4.16							
1014	2A	D.1.4.17		D.1.4.18		D.1.4.19							
1014	2B	D.1.4.20		D.1.4.21		D.1.4.22							
1014	3A	D.1.4.23		D.1.4.24		D.1.4.25							

End of Section