Notes and Standards docs

Notes and Standardization guides

- Labels and CAD Identifications
  - Device, Cable, and Panel Labeling scheme.
  - Device, Cable, and Panel Labeling scheme_old
  - Badge Reader Install Notes

- Recommended Vendors List
- ARM and Friends Home Servers Project
- Audio|Video Conference Room Designs: 2-4 Person Table Setup

Labels and CAD Identifications

Device, Cable, and Panel Labeling scheme.

> V2 of the Device, Cable, and Panel Labeling scheme. It keeps the V1 content and makes the formats consistent. Items marked **PROPOSAL** are new rules that need your decision. Items marked **UNTESTED** have not been checked on a real printer or site. Items marked **FIELD** are how I actually label on jobs (first example: 919 Stanford, October 2026). Where FIELD and a proposal disagree, FIELD wins.

Scope

How to name and label sites, rooms, panels, patch panels, devices, and cables in my installations. Based loosely on ANSI/TIA-606 (see "Relation to TIA-606" below). Device naming (firewalls, switches, cameras, access control) is my own convention, not part of 606.

General rules

Rule	Detail
Characters	Uppercase letters, digits, `-` and `.`. No `&`, no `/`. Lowercase is used only for the suffix letter (see below). IDs have no spaces. FIELD: location lines on a label may use spaces (`GARAGE RACK01`).
Patch panel port	FIELD: `P` + panel number, dash, port. Example: `P1-16` = patch panel 1, port 16. This dash is part of the port ID, not a field separator.
`-` (dash)	Separates fields: site, then room or device, then patch panel or role. Example: `SASC-IDF.1.01-P6-12`
`.` (dot)	Separates numbers inside one field: floor, door or panel number, port. Example: `IDF.1.01` = IDF, floor 1, door 01. `SW01.49` = switch 01, port 49.
Suffix letter	Lowercase `a`, `b`, ... for a second item at the same spot, or the legs of a split cable. Example: `SASC-IDF.1.01b`, `P6-12a`.
Padding	PROPOSAL. Floor: 1 character. Door, panel, device number, port: 2 digits (`01`). Cable serial numbers: 3 digits (`001`).
Floors	PROPOSAL. `1` = ground or entry floor, `2`, `3` ... above. `B` = basement (`B`, then `C` for a second basement level).

Rule	Detail
Site prefix	Required on room, panel, and device labels. May be left off cable labels when both ends are in the same site (saves label space).
Same label both ends	Every cable gets the same label at both ends. A cable label must use the exact device and port names on this page.

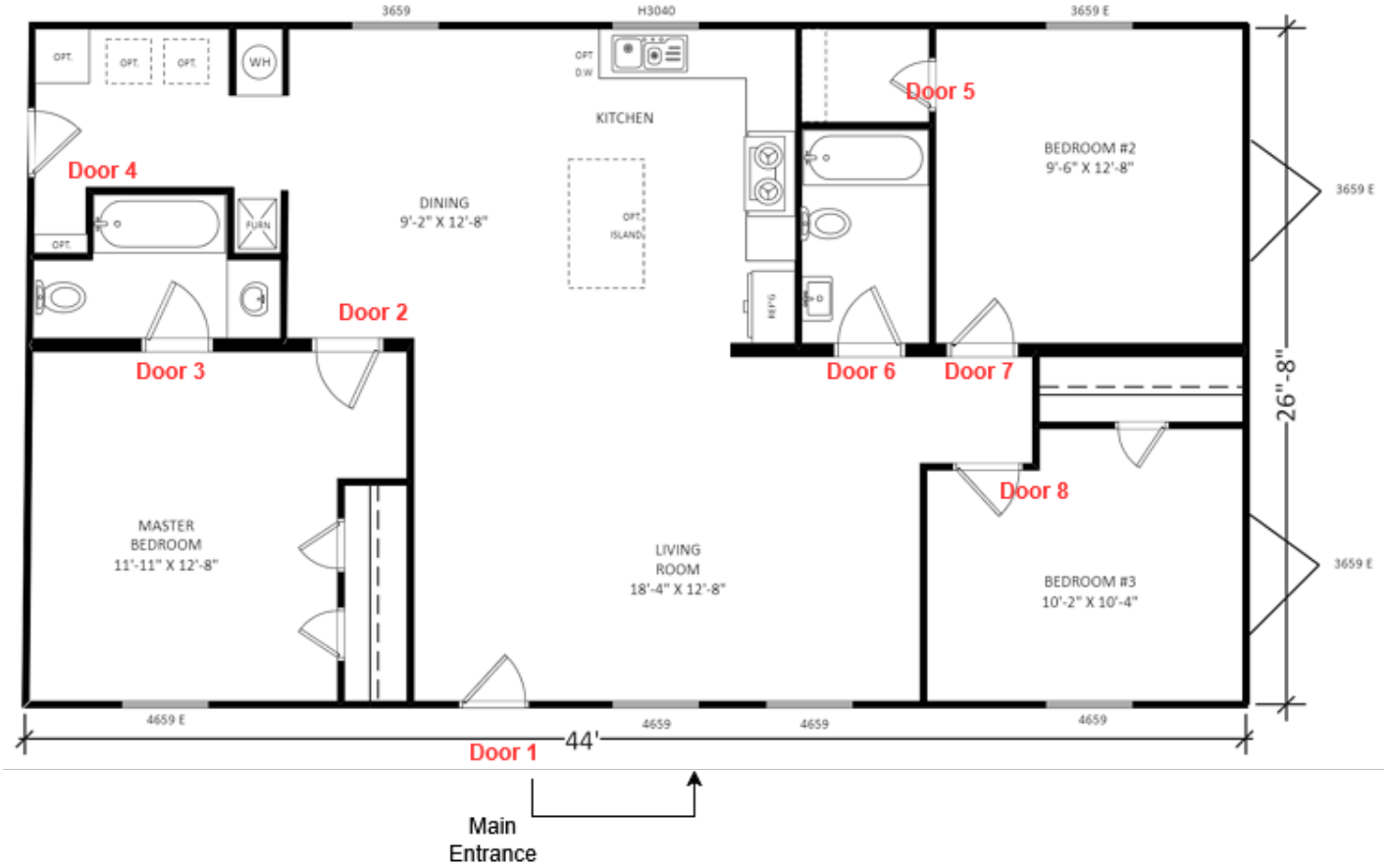
Site codes

Short code per site: letters, or the street number for a building (`919` = 919 Stanford). Fill in the table as sites are added.

Code	Site	Notes
`919`	919 Stanford	Multi-unit residential. See "Multi-unit residential" below.
`SASC`	(fill in)	
`MHF`	Wilson (fill in)	
`925`	(fill in)	Street number, like 919?

Rooms, panels, and doors

> Doors and panels are numbered clockwise, starting at the Main Entry. PROPOSAL: on other floors, start at the stair or elevator nearest the Main Entry.



Type	Format	Example	Second one
Main Point of Entry (MPOE)	`SITE-MPOE.floor.door`	`SASC-MPOE.1.06`	N/A. One MPOE per site.
Intermediate Distribution Frame (IDF)	`SITE-IDF.floor.door`	`SASC-IDF.1.01`	`SASC-IDF.1.01b` (second IDF behind the same door)
Media cabinet / panel	`SITE-PNL.floor.number`	`SASC-PNL.2.01`	`SASC-PNL.2.02`
Facility door	`SITE-DR.floor.door`	`SASC-DR.1.01`	`SASC-DR.1.02`
Patch panel (inside a room or cabinet)	`P` + number, top to bottom	`P6`	`P7`
Patch panel port	`P#-port`	`P6-12`	`P6-12a`, `P6-12b` (split cable)
Port, full name	`SITE-ROOM-P#-port`	`SASC-IDF.1.01-P6-12`	

The patch panel face only needs the short form (`P6-12`), because the room is already known. Use the full name in records and on riser cables.

Notes

> MPOE: where the carrier's service enters the building (the demarc). In houses it is often under the stairs or in the basement. In large buildings, riser cables run from the MPOE (or the main equipment room) up to the IDFs on other floors.

>

> IDF: the room or rack on each floor that holds the switches for that floor. It connects back to the MPOE with riser cables.

Device labels

Network and server devices

Type	Format	Example	Second one
ISP handoff (modem / ONT)	`SITE-ISP##`	`MHF-ISP01`	`MHF-ISP02`. Put the carrier name (e.g. ATT) in the records, not the label.
Firewall / router	`SITE-FW##`	`SASC-FW01`	`SASC-FW02` (HA pair: 01 = primary)
Aggregation / distribution switch	`SITE-AGG##`	`SASC-AGG01`	`SASC-AGG02`
Access switch	`SITE-SW##`	`SASC-SW01`	`SASC-SW02`
Wireless access point	`SITE-AP##`	`SASC-AP01`	PROPOSAL (new in V2)
Server / host	`SITE-SRV##`	`SASC-SRV01`	PROPOSAL (new in V2)
NAS	`SITE-NAS##`	`SASC-NAS01`	PROPOSAL (new in V2)
UPS / PDU	`SITE-UPS##`, `SITE-PDU##`	`SASC-UPS01`	PROPOSAL (new in V2)

Cameras

Type	Format	Example	Second one
Internal camera	`SITE-INT-What`	`SASC-INT-CashReg`	`SASC-INT-CashReg02`
External camera	`SITE-EXT-What`	`SASC-EXT-DrivewayN`	`SASC-EXT-DrivewayS`

Cameras are named for what they look at. INT and EXT show access level at a glance: tenants and employees can usually see external cameras, but access to internal cameras is tightly controlled. The camera name is the exception to the uppercase rule, so it stays readable.

Access control (physical hardware in panels or on walls)

Type	Format	Example	Second one
Door access hub	`SITE-CTL.floor.door`	`SASC-CTL.1.05`	`SASC-CTL.1.05b`
Reader-Flex (no hub)	`SITE-CTL.floor.door`	`SASC-CTL.1.01`	`SASC-CTL.1.01b`
Badge reader	`(controller)-RDR`	`SASC-CTL.1.05-RDR`	`SASC-CTL.1.05-RDRb` (second reader, e.g. exit side)
Door intercom	`(controller)-INT`	`SASC-CTL.1.05-INT`	

The door number in a CTL label is the same as in the door's own label (`SASC-DR.1.05` uses `SASC-CTL.1.05`).

Cable labels

Every cable gets the same wrap label at both ends. Upstream (the end closer to the ISP / core) always comes before downstream.

Structured cable runs (in-wall: rack to unit, rack to outlet, riser)

FIELD. Three-line label:

Line	Content	Example
1 (large)	Cable ID = the patch panel port at the upstream end	`P1-16`
2	Upstream location (room or rack)	`GARAGE RACK01`
3	Downstream location (unit or room, and position)	`APT-G.02`

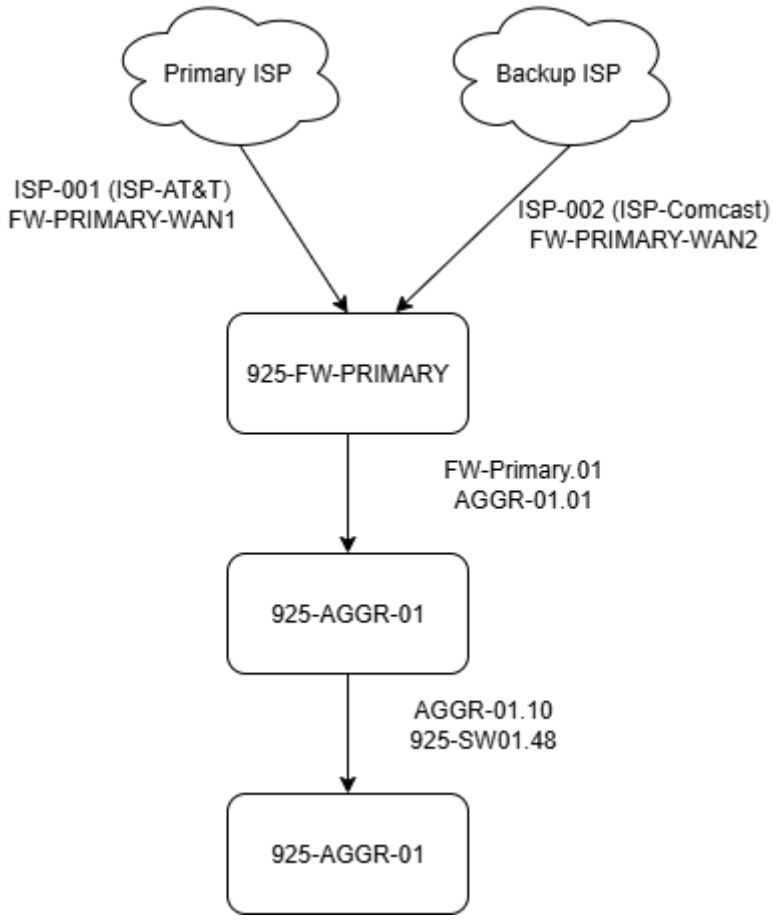


919 Stanford: the cable from garage rack 01, patch panel 1, port 16 to position 02 in the Apartment G media panel.

> The bottom line of this label is wrong: it says `UNIT J.02`, but the cable goes to Apartment G. Use the layout, not the text. It should read `APT-G.02`.

Patch cords between devices

Two-line label. Line 1 = upstream device and port, line 2 = downstream device and port, using the device names on this page plus `.port`.



> The diagram above is from V1 and may still show V1 formats.

> This is different from TIA-606, where the near end is printed first so the order flips at each end. Here the order is always upstream first, so the label reads the same everywhere.

Cable	Line 1 (upstream)	Line 2 (downstream)	Notes
ISP to firewall	`ISP01`	`FW01.WAN1`	Second WAN: `ISP02` / `FW01.WAN2`
Firewall to aggregation switch	`FW01.03`	`AGG01.01`	HA: `FW02.03` / `AGG02.01`
Aggregation to access switch	`AGG01.10`	`SW01.49`	Bond / LAG: label each member normally (e.g. `AGG02.12` / `SW01.49` and `AGG02.13` / `SW01.50`). Record the LAG in the docs.
Switch to patch panel (patch cord in rack)	`SW01.12`	`P6-12`	

Cable	Line 1 (upstream)	Line 2 (downstream)	Notes
Patch panel to wall outlet (horizontal)	Three-line label: `P6-12` / `IDF.1.01` / `FL1-WALL`. The outlet faceplate shows `P6-12`.		Split cable: `P6-12a`, `P6-12b`
Riser / backbone (between MPOE, IDFs, panels)	Three-line label: `P1-01` / `MPOE.1.06` / `IDF.2.01`		Add the site prefix if the cable leaves the site.
Building rack to unit media panel	FIELD. Three-line label: `P1-16` / `GARAGE RACK01` / `APT-G.02`		See "Multi-unit residential".
Camera	`IDF.1.01-P3-05` or `SW01.05`	`INT-CashReg`	The bottom line is the camera name.
Access hub to badge reader	`CTL.1.05`	`CTL.1.05-RDR`	Intercom: `CTL.1.05` / `CTL.1.05-INT`
Switch to access hub / Reader-Flex	`SW01.20`	`CTL.1.05`	

> FIELD: the 919 Stanford label fits one large line (`P1-16`) and two small lines of up to 13 characters (`GARAGE RACK01`) on the wrap label, with the clear tail left for laminating. Printed on the 1.5" x 1.0" M7-31-427 stock. Longer lines (more than 13 characters) are UNTESTED.

Service type (from V1)

V1 used a service prefix on patch cables: `NET-001`, `TEL-001`, `COM-001`. In V2 the panel port ID replaces the serial number. PROPOSAL: show the service with cable color (see Relation to TIA-606) or with a third line on the label. See Open questions.

Multi-unit residential

FIELD, from 919 Stanford. A building rack in the garage feeds a media panel (structured media enclosure) in each unit. The ISP's ONT sits in the unit media panel.

Names

Item	Format	Example
Building rack	`(ROOM) RACK##`	`GARAGE RACK01`
Patch panel port in the building rack	`P#-port`	`P1-16`
Apartment (unit)	`APT-` + unit letter	`APT-G`
Position in the unit media panel	`APT-(letter).##`, counted left to right across the top row, then the next row	`APT-G.02`
Room drop (unit panel to a room)	Letter = location, in order `A`, `B`, `C` .... Number = cable at that location: `A1` is the first cable, `A2` the second.	`D1`, `A2`
ISP feed (single-mode fiber from the building rack to the unit ONT)	`ISP-(apartment letter)`, location `GARAGE`	`ISP-G`

Item	Format	Example
Tag on a cable inside the media panel	`APT-(letter) (drop)`	`APT-G D1`
Drop location (small text under or over the ID)	`FL#-MOUNT`	`FL1-WALL`, `FL2-CEILING`, `FL1-DRBL`
Unused jack	`BLANK`	`BLANK`

Unit media panel label strip

Each jack gets an ID (large) and a location (small). Jacks fed from the building rack use the rack port as the ID and `GARAGE` as the location. Red keystones mark the jacks fed from the garage rack.

Row	1	2	3	4	5	6
Top	`P1-15` GARAGE	`P1-16` GARAGE	`A1` FL1-DRBL	`C1` FL2-WALL	`E1` FL3-WALL	BLANK
Bottom	GARAGE `ISP-G`	BLANK	`B1` FL1-WALL	`D1` FL2-CEILING	BLANK	BLANK



`DRBL` = doorbell. `ISP-G` = the ISP single-mode fiber for Apartment G, from the garage. Use `APT-` for units, not `UNIT`. Positions are counted across, so `P1-16` is position `.02` in the photo.

Stacking: put a second cable to the same location directly under the first (`A1` on top, `A2` below), so the cables for one location share a column. In the 919 Stanford photo each location has one cable, so `A1` / `B1` and `C1` / `D1` share columns.

Hardware and labels

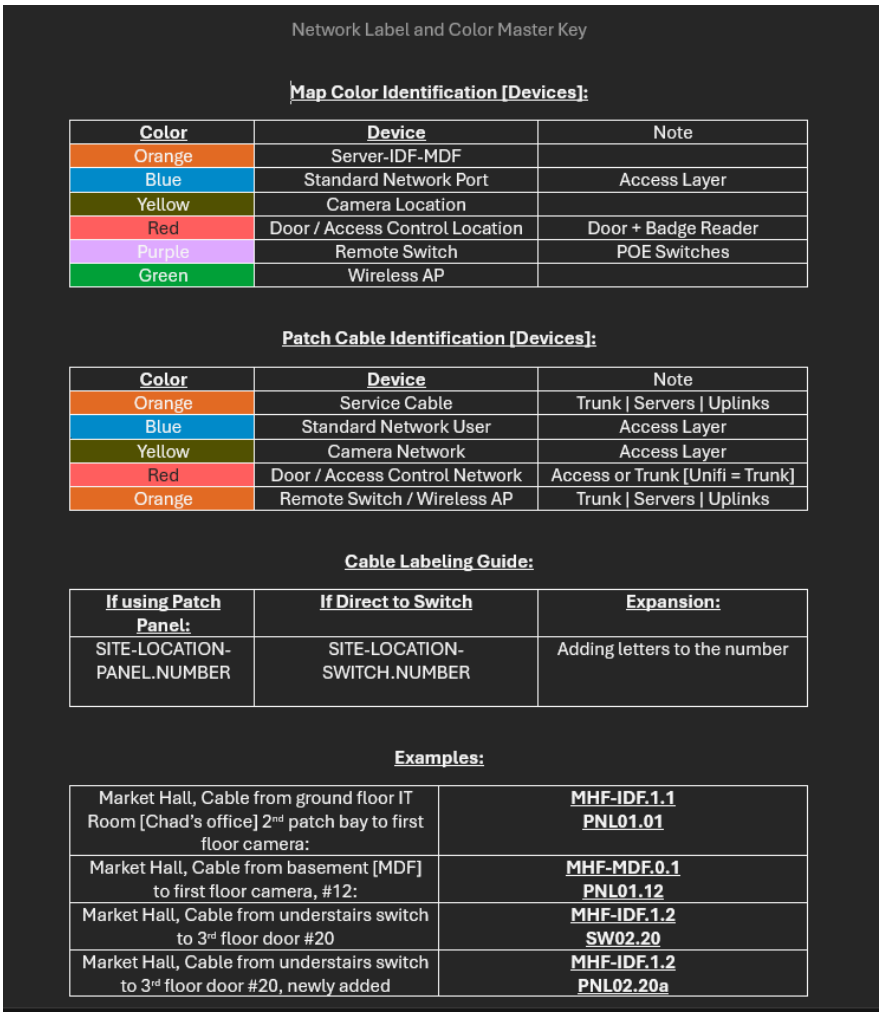
Printer: Brady M710

Label type	Size	Brady part number	Per roll	Price (V1, date unknown)	Ribbon
Basic sticker	1.0" x 1.0"	M7-19-423	250	$43.50	(fill in)
Metallic label	1.0" x 2.0"	M7-20-435	100	$40.00	(fill in)
Cable wrap (self-laminating)	1.5" x 1.0"	M7-31-427	250	$68.00	R4300 ($73.00)



Templates

Site template (editable): NetworkIdentification.docx



Network Label and Color Master Key

Map Color Identification [Devices]:

Color	Device	Note
Orange	Server-IDF-MDF	
Blue	Standard Network Port	Access Layer
Yellow	Camera Location	
Red	Door / Access Control Location	Door + Badge Reader
Purple	Remote Switch	POE Switches
Green	Wireless AP	

Patch Cable Identification [Devices]:

Color	Device	Note
Orange	Service Cable	Trunk | Servers | Uplinks
Blue	Standard Network User	Access Layer
Yellow	Camera Network	Access Layer
Red	Door / Access Control Network	Access or Trunk [Unifi = Trunk]
Orange	Remote Switch / Wireless AP	Trunk | Servers | Uplinks

Cable Labeling Guide:

If using Patch Panel:	If Direct to Switch	Expansion:
SITE-LOCATION-PANEL.NUMBER	SITE-LOCATION-SWITCH.NUMBER	Adding letters to the number

Examples:

Market Hall, Cable from ground floor IT Room [Chad's office] 2nd patch bay to first floor camera:	MHF-IDF.1.1 PNL01.01
Market Hall, Cable from basement [MDF] to first floor camera, #12:	MHF-MDF.0.1 PNL01.12
Market Hall, Cable from understairs switch to 3rd floor door #20	MHF-IDF.1.2 SW02.20
Market Hall, Cable from understairs switch to 3rd floor door #20, newly added	MHF-IDF.1.2 PNL02.20a

Patch bay label templates:

PatchBaySize_12portLevitonKeystone.docx

PatchBaySize_12portSurfacemount.docx

PatchBaySize_24portKeystone.docx

PatchBaySize_24port.docx

PatchBaySize_48port.docx

> These templates were made for V1 formats and may need updating.

Relation to TIA-606

ANSI/TIA-606 is the US cabling administration standard. ISO/IEC 14763-2 is the international equivalent. This scheme borrows its ideas (unique IDs, both ends labeled, records kept) but uses its own formats.

This scheme	TIA-606 term
MPOE	Entrance facility (demarc). Often in the same room as the equipment room / main cross-connect (MDF).
IDF	Telecommunications room (TR)

This scheme	TIA-606 term
Riser cable	Backbone cable
Patch panel to outlet	Horizontal link
Multi-site with site codes	Class 3 (campus) / Class 4 (multi-site)

606 color codes (from memory, not checked against the current revision)

Color	Use
Orange	Demarc / carrier
Green	Network connections (customer side of demarc)
Purple	Common equipment (servers, PBX)
White	First-level backbone
Gray	Second-level backbone
Blue	Horizontal (to the outlet)
Brown	Between buildings
Yellow	Miscellaneous (security, alarms)
Red	Key telephone systems

606-B cable example (kept from V1)

Near end `AG09-35:01/AJ06-35:01`, far end `AJ06-35:01/AG09-35:01`. `AG09` = rack at grid AG09, `-35` = patch panel 35 rack units from the bottom, `:01` = port 1, `/` = separates near end from far end. Newer revisions (606-C, 606-D) exist. I have not checked what changed.

Changes from V1

Item	V1	V2
MPOE	`SASC-MPO.1.6`	`SASC-MPOE.1.06`
IDF second unit	`IDF-1-1a`	`SASC-IDF.1.01b`
Doors	`SASC-01-DR01`	`SASC-DR.1.01`
Firewall on cables	`FW-Primary-WAN1`	`FW01.WAN1` (same name as the device label)
Aggregation switch	`AGG-##` and `AGGR-##`	`AGG##`, with its own device row
Site 925 devices	`925-FW01`	Same format, but see Open questions about the code
Wilson-MHF patch port	`MHF-IDF2.1-P1.1`	`MHF-IDF.2.01-P1-01` (same rule as every site)

Item	V1	V2
Access hub suffix	`1.1A` / `1.05a` mixed	Always lowercase: `1.05b`
Intercom / reader	`-IntCom`, `-Reader`	`-INT`, `-RDR`
Cameras	`INTERNAL-CashReg`	`SASC-INT-CashReg`
Camera cable	`SASC-CAM-1.05`	Port ID / camera name
Wire label order	Two conflicting wordings	Upstream before downstream. In-wall runs: 3 lines (ID / upstream / downstream), from field practice.
Patch panel port	`P6.12`	`P6-12` (field practice)
Bond cables	`-BONDa` / `-BONDb`	Label each member normally. LAG in the records.
New		General rules, site code table, AP / SRV / NAS / UPS / PDU, patch panel naming, 606 mapping

Open questions

- Fill in the site code table. Is `925` a street number, like `919`?
- Agree with the separator, padding, and floor proposals?
- Service type: drop `NET`/`TEL`/`COM`, use cable color, or add a third label line? What did `COM` mean?
- Are MPOE and MDF always the same room in your sites, or do you need an `MDF` room type?
- Do you want rack positions (rack units, as in 606) in the labels, or is `P#` top to bottom enough?
- Riser and outlet labels with lines longer than 13 characters still need a test print.
- Ribbon part numbers for the basic and metallic labels.

Related pages

- V1 of this page, saved as a copy ending in "_old" (link to be added)

Device, Cable, and Panel Labeling scheme_old

> This is constantly changing as I try to document and standardize what I do in my installations.

Hardware and Labels used:

Printer: Brady M710 Label Maker:



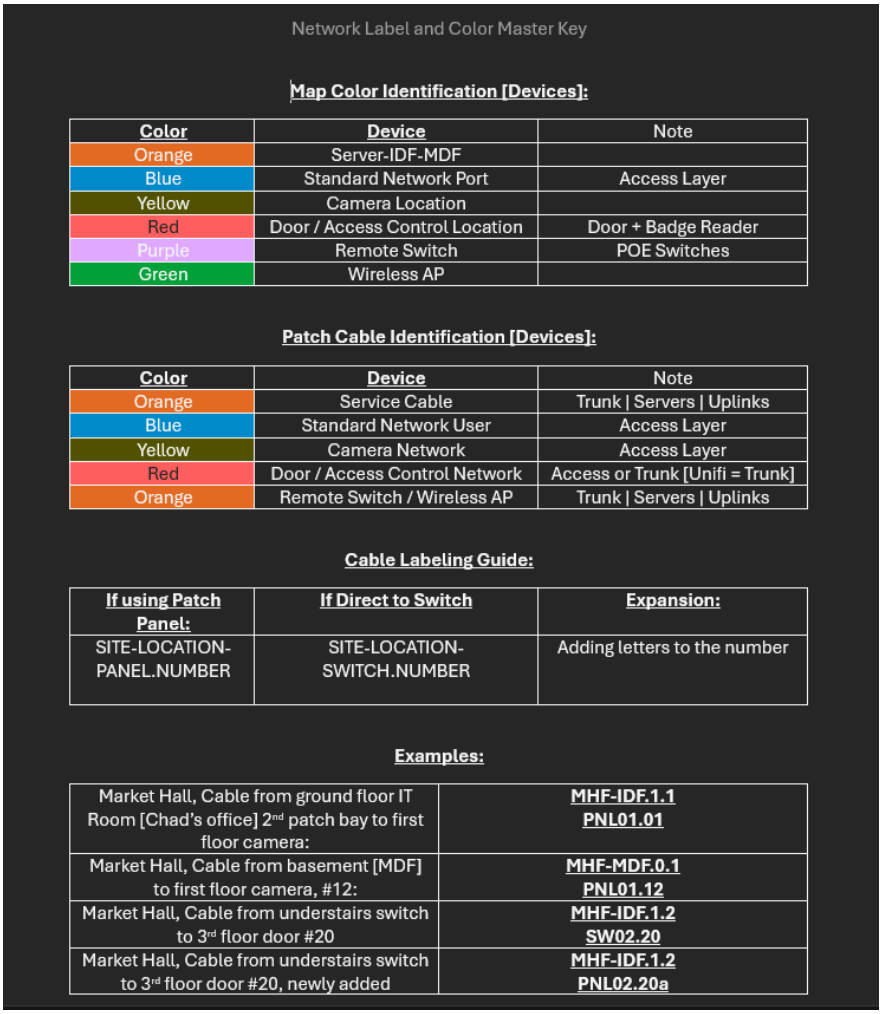
Labels:

Label Type	Label Size	Brady Part Numer [URL]	Count Per Roll	Estimate Price	Required Ribbon

Basic Sticker	1.0" x 1.0"	M7-19-423	250	$43.50	
Metallic Label	1.0" x 2.0"	M7-20-435	100	$40.00	
Cable Wrap Sticker	1.5" x 1.0"	M7-31-427	250	$68.00	R4300 - $73.00

Printable Site Template Guide:

Editable Document: NetworkIdentification.docx



Network Label and Color Master Key

Map Color Identification [Devices]:

Color	Device	Note
Orange	Server-IDF-MDF	
Blue	Standard Network Port	Access Layer
Yellow	Camera Location	
Red	Door / Access Control Location	Door + Badge Reader
Purple	Remote Switch	POE Switches
Green	Wireless AP	

Patch Cable Identification [Devices]:

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Orange	Remote Switch / Wireless AP	Trunk | Servers | Uplinks

Cable Labeling Guide:

If using Patch Panel:	If Direct to Switch	Expansion:
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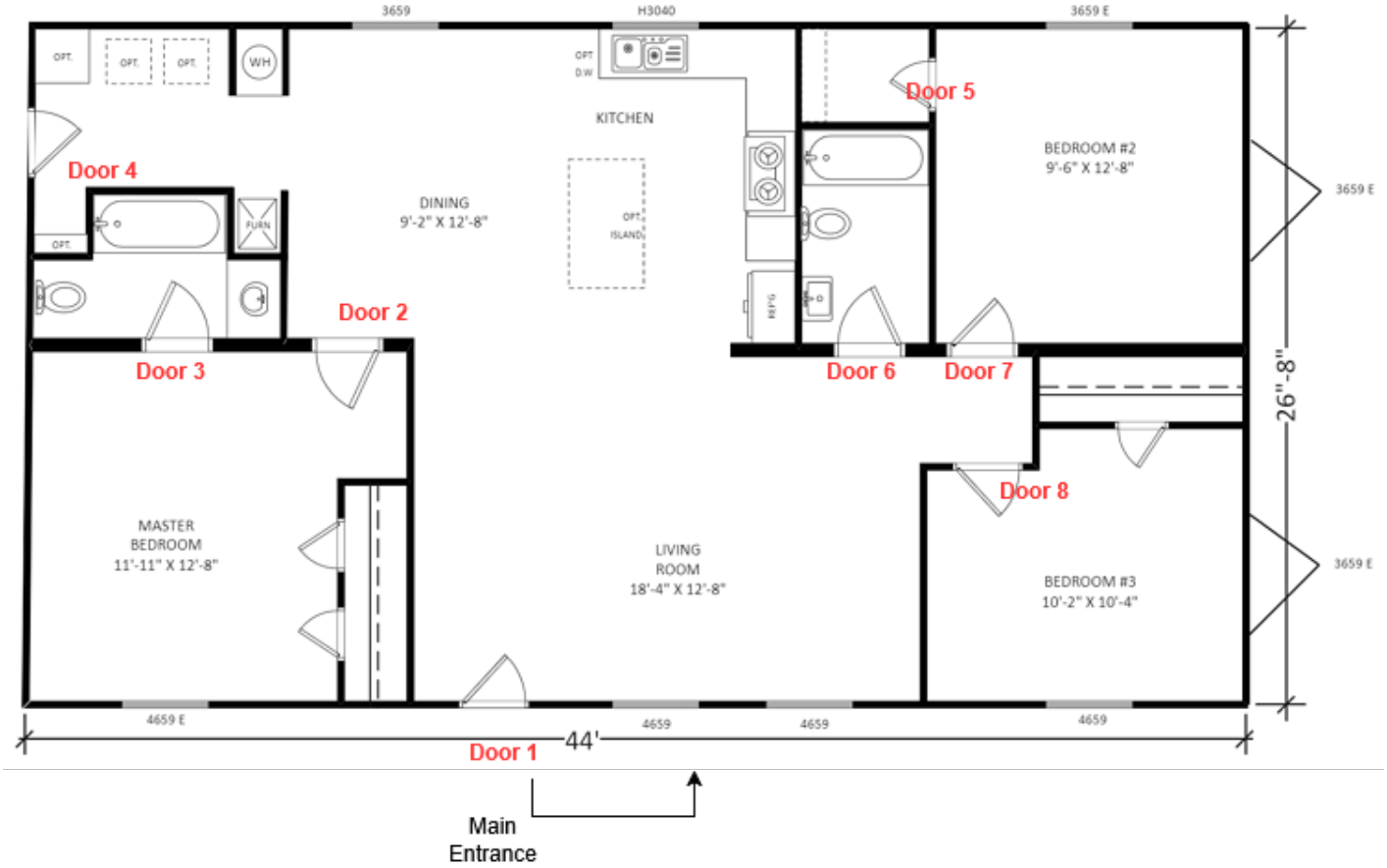
Examples:

Market Hall, Cable from ground floor IT Room [Chad's office] 2nd patch bay to first floor camera:	MHF-IDF.1.1 PNL01.01
Market Hall, Cable from basement [MDF] to first floor camera, #12:	MHF-MDF.0.1 PNL01.12
Market Hall, Cable from understairs switch to 3rd floor door #20	MHF-IDF.1.2 SW02.20
Market Hall, Cable from understairs switch to 3rd floor door #20, newly added	MHF-IDF.1.2 PNL02.20a

Panels / Doors Labels:

> All panels are counted clockwise from either MPOE or Main Entry.

Start at the Main Doorway and count clockwise around the Facility.



Location/Type	First	Example	Expansion
Main Point of Entry	(Site)-MPOE.(Floor).(door)	SASC-MPO.1.6	N/A - Only 1 MPOE per side
Intermediate Distribution Frame	(Site)-IDF.(Floor).(Door)	SASC-IDF.1.1	IDF-1-1a, IDF-1-1b
Media Cabinets/Panels	(Site)-PNL.(Floor).(Panel Number)	SASC-PNL.1.1, SASC-PNL.2.1	
Facility Doors:	(Site)-FL-DR##	SASC-01-DR01	

Notes:

> MPOE - This is where the internet comes into the building. In residential buildings, it is commonly seen as a utility hidden under stairs or in basements. In large commercial buildings, it's widely known that risers [cables that link IDFs in other floors or wings] are used.

> IDF - This is where your switching or server equipment is located to support each floor. This commonly hosts switches that connect back to the MPOE

Cable Labels:

606-B Notes:

Near end = AG09-35:01/AJ06-35:01

Far end = AJ06-35:01/AG09-35:01

If standing at rack location AG09, reading this near-end cable identifier will describe both the near-end and far-end locations.

AG09 = Rack or cabinet at grid location AG09 within the data center

-35 = Patch panel located 35 rack units from the bottom in rack AG09

:01 = Port 01 in patch panel located 35 rack units from the bottom of rack AG09

/ = Separator for near-end/far-end location description

AJ06 = Rack or cabinet at grid location AJ06 within the data center

-35 = Patch panel located 35 rack units from the bottom in rack AJ06

:01 = Port 01 in patch panel located 35 rack units from the bottom of the rack in AJ06

Examples	First	Example	Expansion
SASC Patch Bay to Environment	(Panel Number).(Port Number on Panel)	P6.12	P6.12a | P6.12b [only applies to split cables]
SASC to Device	(Panel Number).(Port Number on Panel)	P6.12	P6.12a | P6.12b [only applies to split cables]
Wilson-MHF	(site)-(IDF#)-(Panel Number).Port Number	MHF-IDF2.1-P1.1	N/A

Device Labels:

Controllers: Physical hardware in Panels, Walls or mounted to walls

Location/Type	First	Example	Expansion
Door Access Hub	(site)-CTL.(floor)-(door number)	SASC-CTL.1.05	SASC-CTL.1.05a

Door Intercom	(Acesss Hub)-IntCom	SASC-CTL.1.05-IntCom	IntCom
Door Badge Reader	(Acesss Hub)-Reader	SASC-CTL.1.05-Reader	

Network Devices:

Location/Type	First	Example	Expansion
Firewall/Router	(site)-FW##	925-FW01	925-FW02
Switches	(site)-SW##	925-SW01	925-SW02
Cameras	(location)-(object-in-camera)	INTERNAL-CashReg	INTERNAL-CashReg02

Notes:

Cameras have special naming schemes. We define them as internal or external to quickly identify access. Tenants and Employees typically can access external cameras, but internal camera access is heavily policed. A camera overlooking a driveway would be called "EXTERNAL-Driveway-North"

Patch Bay printed label templates:

PatchBaySize_12portLevitonKeystone.docx

PatchBaySize_12portSurfacemount.docx

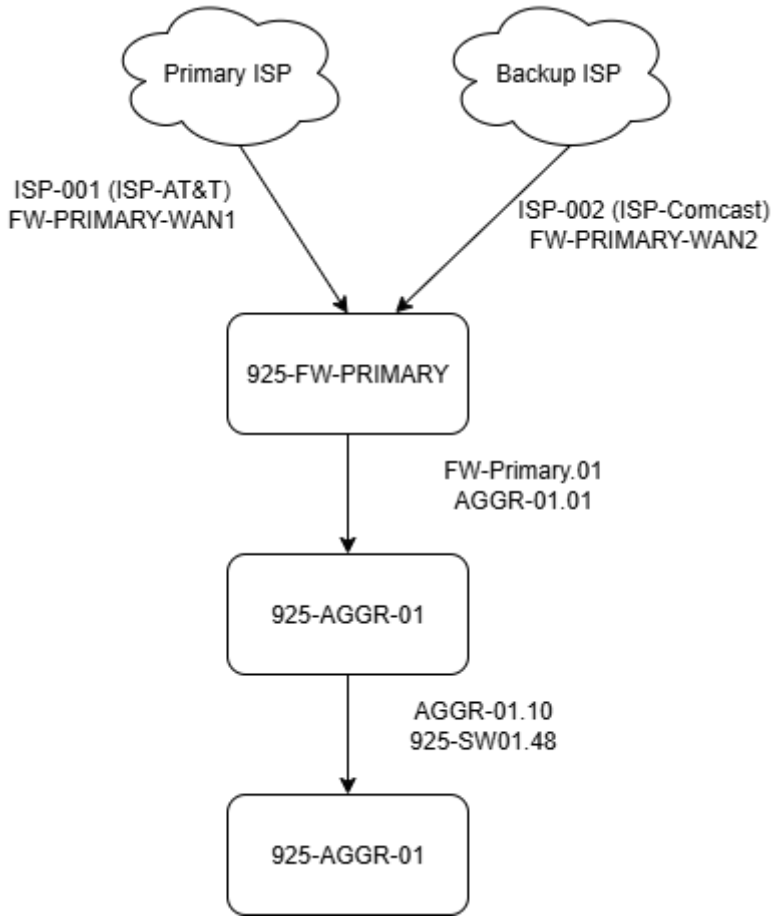
PatchBaySize_24portKeystone.docx

PatchBaySize_48port.docx

PatchBaySize_24port.docx

Wire In between Devices:

2x Layer labels. Order of spanning tree. Top of label = First location. The bottom of the Label = end of the cable.



Device	Fire	Example	Expansion/Options
Device	Top: Where it terminates Bottom: What it terminates		
ISP to Firewall/Router	(site)-ISP.## [Number or name] FW-Primary-PORT	MHF-ISP.001 FW-Primary-WAN1	ISP-AT&T FW-Secondary-WAN2
Router to Distribution Switch	FW/ROUT.Port AGGR-##.PORT	FW-Primary.03 AGGR-01.01	FW-Secondary.03 AGGR-02.01
Router/Agg to L3/2 Switch IN MPOE	AGG-##.Port SW##.Port	AGGR-01.10 SW01.49	AGGR-02.12-BONDa AGGR-02.13-BONDb
Patch Cables between IDF/MPOE and the environment	(thing)-(floor)-(number) Service*-### *NET | *TEL | *COM |	MHF-IDF.1.2 NET-001 *TEL-001	IDF-1-2 NET-001a
Riser Cables [between MPOE, IDF, Panels]	(site)-(thing).(floor).(number) (site)-(thing).(floor).(number)	MHF-IDF.1.001 SASC-PNL.2.001	IDF-1-1.001a, IDF-1-1.001b PNL-1-2.002a
Badge Readers	(site)-CTL.(floor).(number)-Reader	SASC-CTL.1.05-Reader	

Camera Cable	(thing)-(floor)-(number) CAM-###	SASC-CAM-1.05	
Access-Hub (not in panel)	(site)-CTL.(floor)-(door number)	SASC-CTL.1.1A	SASC-CTL.1.1B
Reader-Flex (no Hub)	(site)-CTL.(floor)-(door number)	SASC-CTL.1.1A	SASC-CTL.1.1B

Badge Reader Install Notes

Badge Reader Heights:

> Note: Assume all measurements are to the "Center point" of object

Location - Customer	Interior Heights	Exterior Heights	Distance in from the doorjam	Special Notes	Paint/Color used
SASC	46" from Ground to Badge reader	47" from ground to center of badge reader.	Exterior: 7.5" from door jam, handle side	+ or - 2", varies based on if a light switch is in proximity of badge reader: Adjust to match switch center line	External Boxes: BEHR Chiffon Cream MATTE
Wilson's				ADA Compliance is a must with Wilson Properties.	

ADA Compliance

Legal Expectations: No lower than 36" and no higher than 48"

DOJ CFR Part 36 Official Notes:

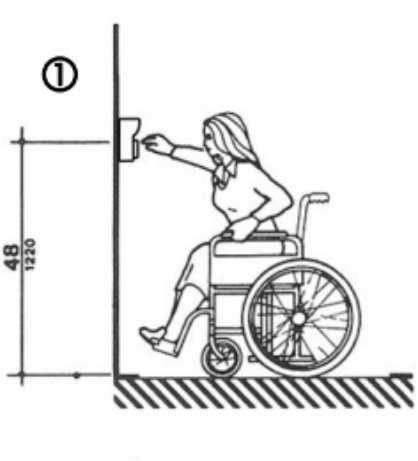
Height and Reach Requirements
ADA has certain height and reach requirements to allow access for customers in wheelchairs. As these height and
reach limitations may cause the weather overhang on keypads to obstruct the vision of taller customers, PTI sells a
housing for keypads that does not have a weather overhang. APEX keypads may also be flush-mounted in a wall to
prevent this issue. Either of these items may be purchased from PTI.

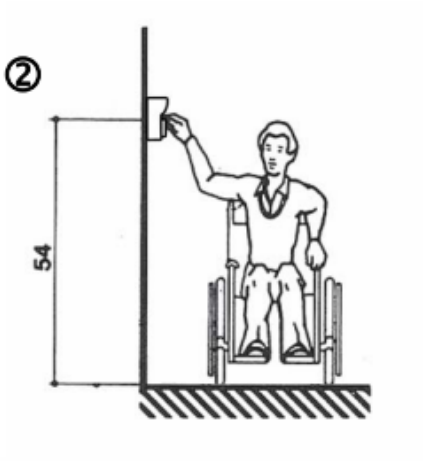
1. Keypads should be mounted so that the top of the number touchpad is no more than 48” above the finished
floor with no obstructions in locations where wheelchair access is available only from the front. See Figure 1.

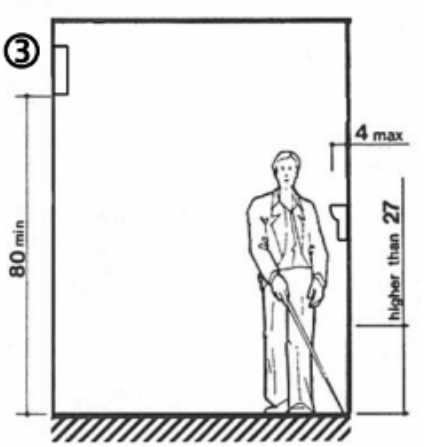
2. Keypads should be mounted so that the top of the number touchpad is no more than 54” above the finished
   floor with no obstructions in locations where the wheelchair has sideways access. See Figure 2.
3. Keypads should not be mounted so as to protrude more than 4” from the wall. If mounted in a bollard or
   pylon, it may protrude up to 12”. Multiplexers and other items mounted higher on the wall or ceiling must be
   80” or higher above the finished floor. See Figure 3.
4. Falcon Base Units and computers should be placed on desks that meet ADA requirements between 28” –
   34” tall with no more than 20” in reach depth for obstructed front access or 24” in reach depth for obstructed
   side reach access. See Figures 4 & 5. In Figure 4, if X < 20” then Y = 48”. When X = 20” to 25”, then Y =
   44”. X should always be ≤ 25”.

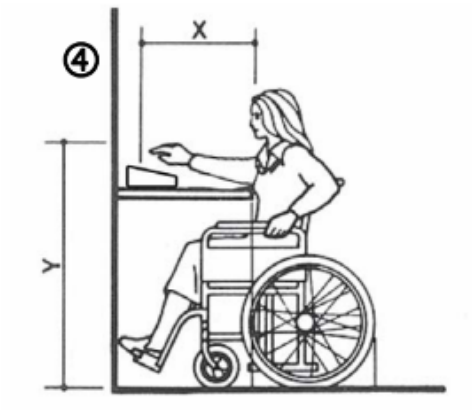
5.

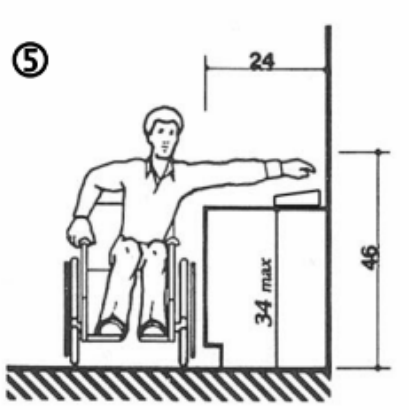
Visual CAD:


①
48
1220


②
54


③
80 min
4 max
higher than 27


④
X
Y


⑤
24
34 max
46

Recommended Vendors List

Facility Vendors

Service	Vendor Name [link to website]	Location	Notes/Feedback
Locksmith	Parker Security & Locksmith Contact:	Fremont, CA. Serving the greater East Bay	They're great! Constantly doing their best to make sure we're getting the best price for our needs. They have a walk-in store in Fremont and will do rekeyings on the spot. As someone who "likes to do it themselves," they have been great with supplies and parts for projects, or helping me to install select components on doors while I do low-voltage/wiring.

IT and System Administration Vendors

Service	Vendor Name [link to website]	Location	Notes/Feedback

Printers	Cortron Systems Inc. Contact: office@cortronsystems.com Contact: Devon@cortronsystems.com	San Jose, CA serves the greater Bay Area	We lease 15 Printers, including a very high-end Plotter for a 50+ inch prints. They offer a service that runs on Windows or Linux, though they recommend Windows, which monitors and reports the status of your printers back to them. I have 15 years of career in the IT space, and a Printer can be a real pain in the ass, especially at scale. Cortron is the best I've ever had the opportunity to work with. They're professional, knowledgeable about their technology, and excel in service and support. I've worked with them without issues on various complicated projects. We've upgraded printers in the office, and they have cloned configurations from the old to the new printer without issues, so our end users don't see any change in their process or have to "re-add" devices."

ARM and Friends Home Servers Project

Reason:

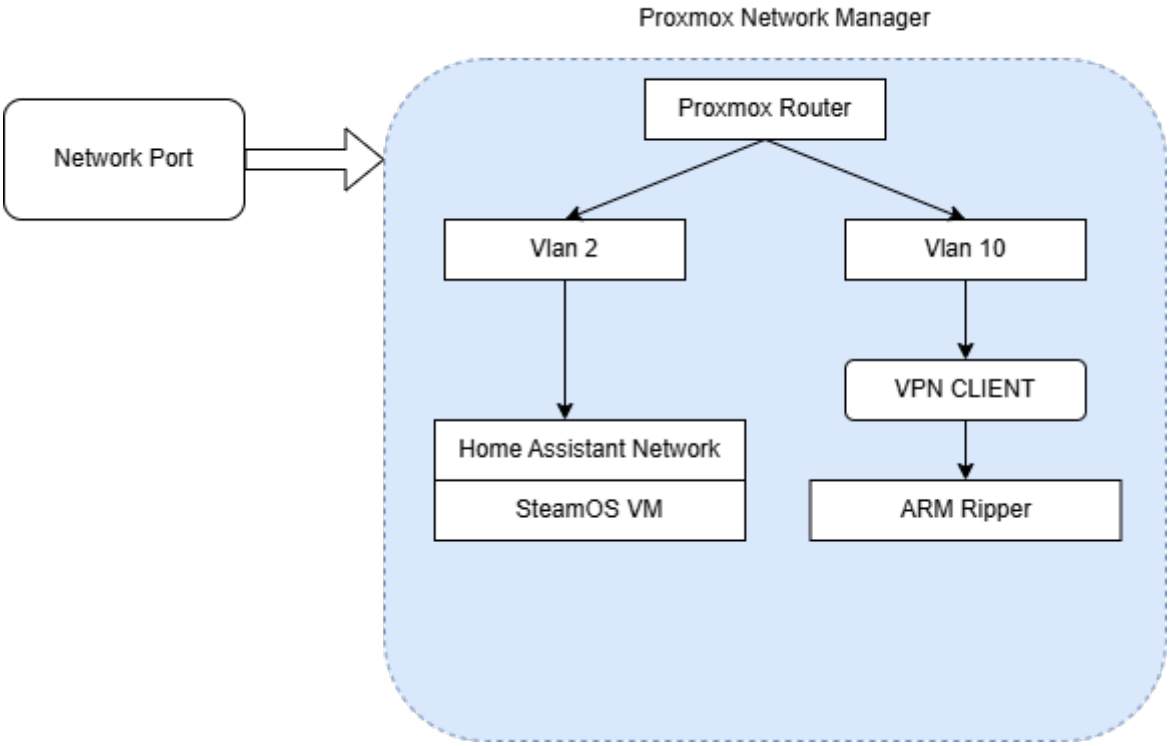
I wanted to build a DVD-ingest tool for Plex to let me and others rip DVDs to our Plex server. I have a stack of 8 small Dell mini desktops that are headed to e-waste. Instead of sending them off, I've taken them and am upgrading them here and there to be remote nodes at friends' houses for adding content to Plex, for hosting Home Assistant, and for running SteamOS as a home media center.

> Warning

Expected Outcome:

Each unit will get:

Proxmox 9.2 installed
Custom network configurations for VPNing back to Plex Server
1x LXC Container running ARM [Vlan 10, Disk tray routed to LXC]
1x LXC Container running Home Assistant [Vlan 1, 1x USB port routed]
1x VM running SteamOS [Vlan 1, Graphic card routed, 2x USB port routed]



Research:

Knowledge/Learnings/Links/Notes

Use me to hide long guides

Steps Taken | Work done:

1. Step
2. by
3. step
4. process

Audio|Video Conference Room Designs: 2-4 Person Table Setup

Tools Needed:

Tool Type	Link	Notes
Drill - Makita / Milwaukee / Dewalt	Home Depot	
1" Hole Saw Bit	Home Depot	
Low Voltage Scissors	Home Depot	Platt is another option
25ft Tape Measure	Home Depot	
(optional) Label Maker	Brady | Platt	

Shopping List:

Accessory Type	Link	Notes
1x C8 to 2x C7 Wye Cable	Amazon.com	Comes in two colors, white or black
1x NEMA 120v to C7 Adapter, 1ft	Amazon.com	Comes in two colors, white or black
1x Flat Plug white extension cord	Amazon.com	Rotating head is a must. Subject to change based on distance from Wall
2x 96 Watt USB C Apple Charger	Apple.com	100w is fine for most meetings, if you do a lot of image processing, Video editing, CAD designs you might want something closer to 200w

2x 2m 240w USB C Charger Cable	Apple.com	1m might be all you need
1x 3m 1" Velcro - White	Amazon.com	For mounting the Chargers under the table
1x 1" White Cable Grommit	Amazon.com	
White Cable Velcro	Amazon.com	
Floor Velcro Cable Covery (For Carpet)	Amazon.com	Not the biggest fan of these but sometimes its the only solution for controlling cables that you can't put in the floor

Drawing:

