

# Security Equipment Upgrade Project Manatee County Central Jail Manatee CO, 14470 Harlee Road, Palmetto FL, 34221

## SECURITY EQUIPMENT UPGRADE PROJECT MANATEE CO CENTRAL JAIL 14470 HARLEE ROAD, PALMETTO, FL 34221

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### General Legend

- Detail Number  
 Sheet Number  
 Detail Reference (Detail# / Sheet Number)
- Elevation Detail Number  
 Sheet Number
- North Arrow  
 Keynotes
- ETR Existing to Remain  
 PBO Provided by Others  
 AFF Above Finished Floor  
 AC Above Counter  
 S Standard Switch Height  
 O Standard Outlet Height  
 EC Division 26 Electrical Contractor  
 PSC Premise Security Contractor  
 PAC Public Address Contractor  
 BCI Branch Circuit, Individual  
 ITG Isolated Technical Ground  
 UNO Unless Otherwise Noted  
 BFC Below Finished Ceiling  
 OFOI Owner Furnished and Owner Installed

### General Notes

1. All cables shall be concealed.
2. All conduit measurements refer to standard conduit trade sizes.
3. Not all keynotes may be utilized on every sheet.
4. It is the intent that each contractor include all required materials for a neatly dressed cabling pathway system as indicated on these drawings and specifications. All required materials shall be included proposal.
5. Contractor shall provide and install all necessary sleeves, whether or not specifically noted on project drawings. All sleeves shall be 1-1/4" unless noted otherwise on the drawings. Cable fill percentage shall comply with NEC.
6. Contractor shall make necessary adjustments in support paths to avoid conflicts with other trades.
7. Everything shown on the drawings shall be provided and installed by the appropriate contractor unless noted otherwise. All Conduit, Backboxes, Junction Boxes, Floor Boxes and In-Wall Boxes shall be provided by this Contractor unless noted otherwise.
8. Device locations are approximate. Contractor shall review conditions and coordinate with other trades as necessary for exact placement.

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Revision:	Date:
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Drawn By: JM	
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COVER SHEET

T0.0.00

**SECURITY EQUIPMENT UPGRADE PROJECT**  
**MANATEE CO CENTRAL JAIL**  
 14470 HARLEE ROAD, PALMETTO, FL 34221

**KEYNOTES - PLC RACKS:**

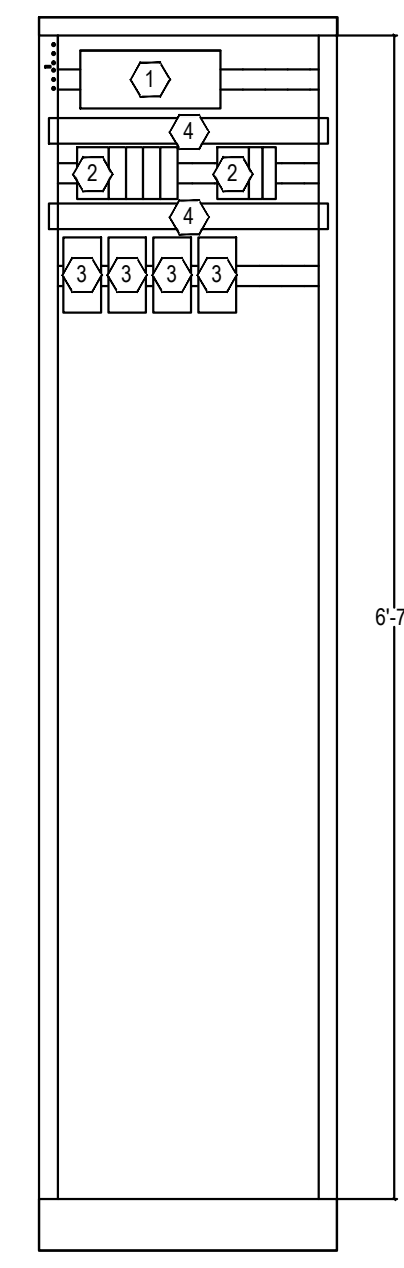
- ① 4 SLOT PLC BACKPANE
- ② IO CONTROLLER MODULE AND IO MODULES
- ③ POWER SUPPLY
- ④ 1RU WIRE MANAGER
- ⑤ 2RU WIRE MANAGER

**KEYNOTES - INTERCOM RACKS:**

- ① HARDING DCC
- ② HARDING DCE
- ③ HARDING QCB
- ④ HARDING SPA
- ⑤ RELAY BOARD
- ⑥ AMPLIFIER
- ⑦ 1RU WIRE MANAGER

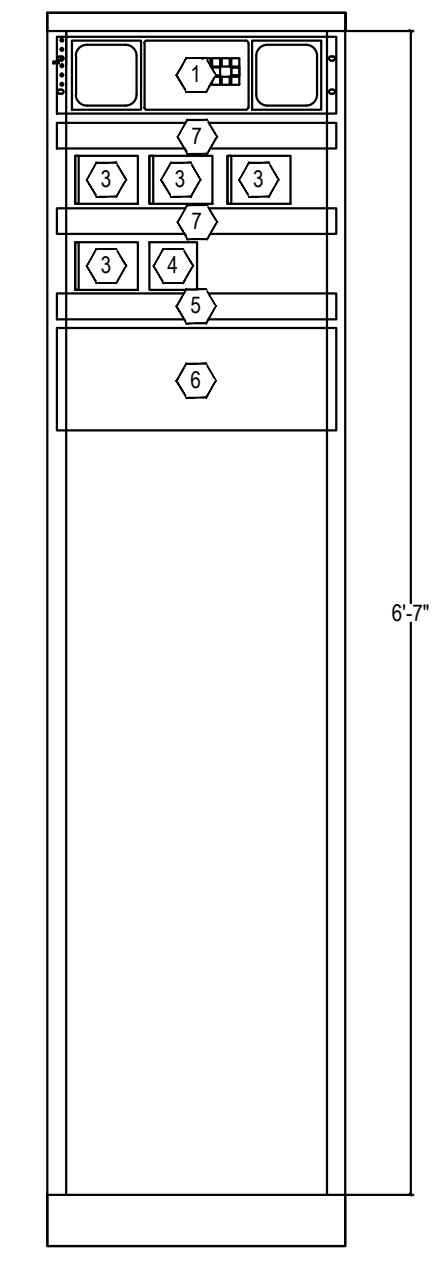
**GENERAL NOTES:**

1. IN ALL ROOMS DISCONNECT AND RECONNECT 120 VAC POWER AS NECESSARY BY A QUALIFIED ELECTRICIAN.
2. PROVIDE HARDWIRED OR RECEPTACLE CONNECTIONS AS NECESSARY.

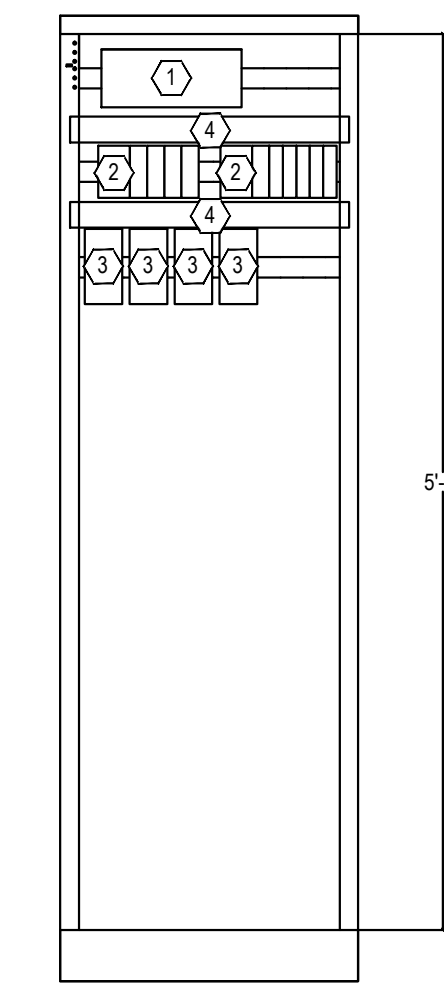


System 1 (Room A117, Area A)		Total
RELAY	26	
DPS	14	
RELAY (DOOR)	0	
SPEAKER	43	
CALL-IN	20	
INPUT	8	
TP	2	

1 SYSTEM 1 - A117 - PLC RACK SPACE



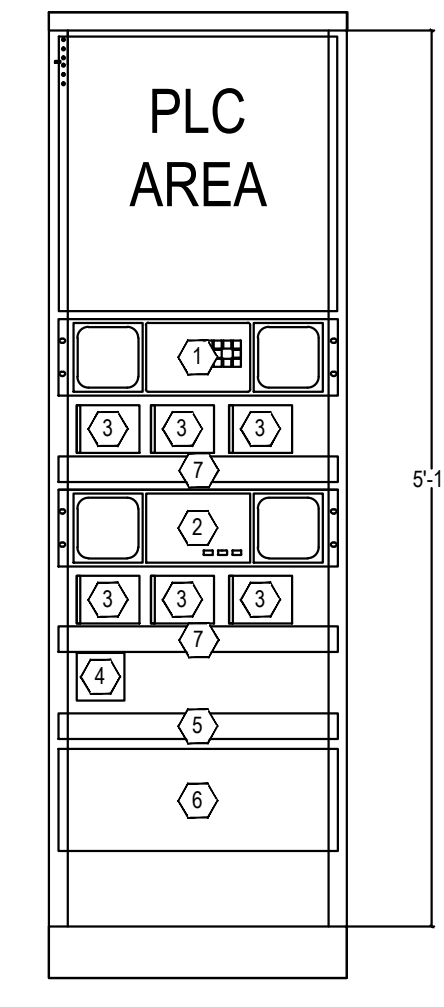
2 SYSTEM 1 - A117 - INTERCOM RACK SPACE



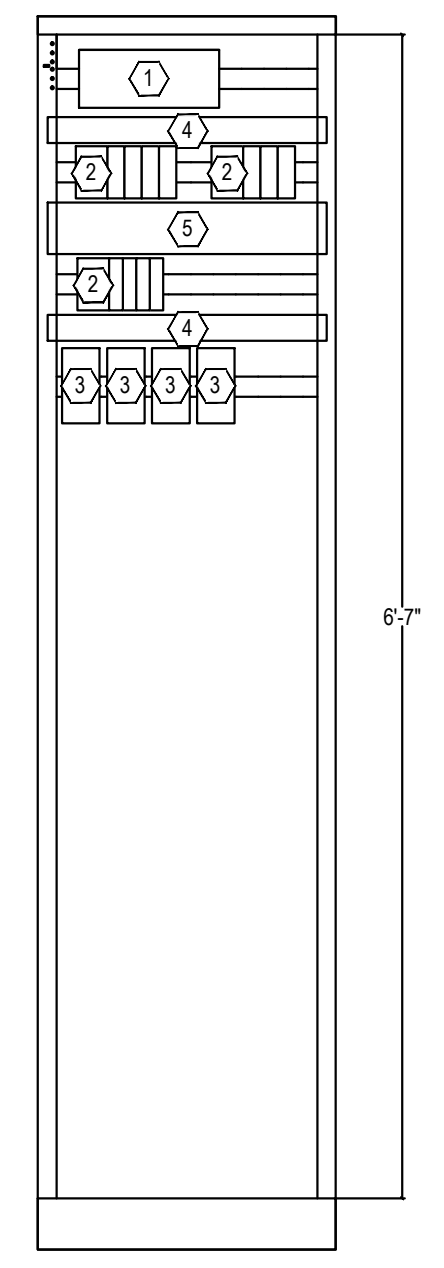
3 SYSTEM 2 - B163 - PLC RACK SPACE

System 2 (Room B163, Area B)		Total
RELAY	36	
DPS	27	
RELAY (DOOR)	23	
SPEAKER	51	
CALL-IN	44	
INPUT	3	
TP	3	

4 SYSTEM 2 - B163 - INTERCOM RACK SPACE

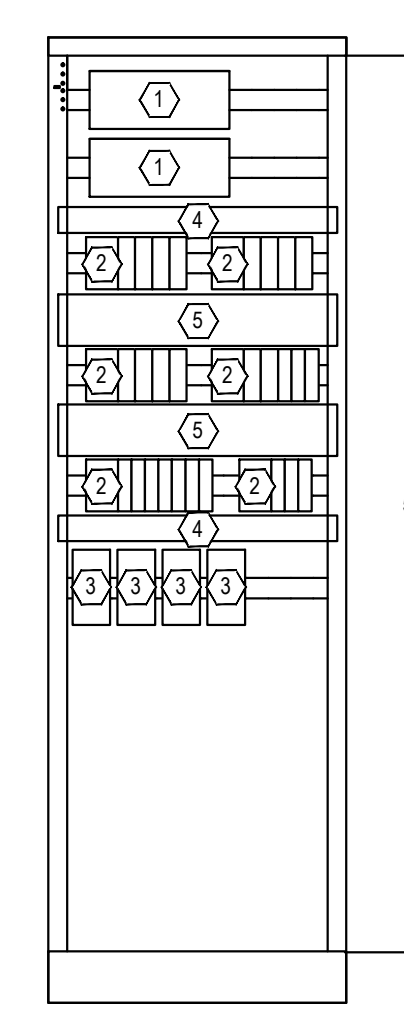
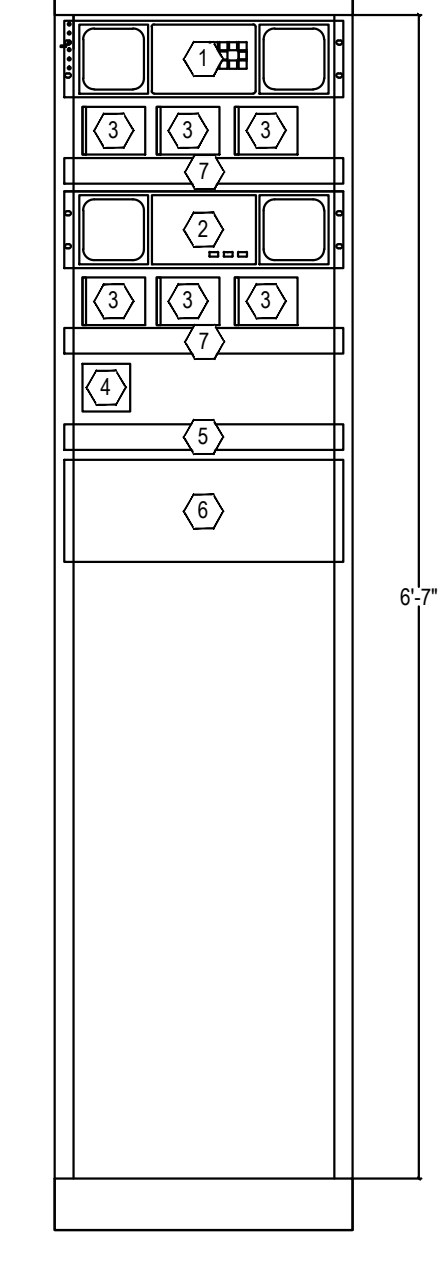


5 SYSTEM 3 - D104 - PLC RACK SPACE



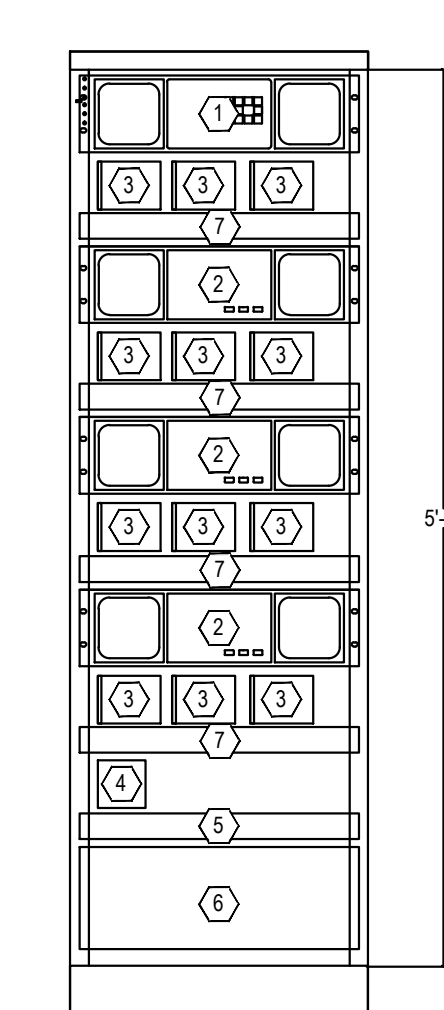
System 3 (Room D104, Area C,D,E)		Total
RELAY	20	
DPS	44	
RELAY (DOOR)	25	
SPEAKER	68	
CALL-IN	42	
INPUT	5	
TP	6	
HORN	6	

6 SYSTEM 3 - D104 - INTERCOM RACK SPACE

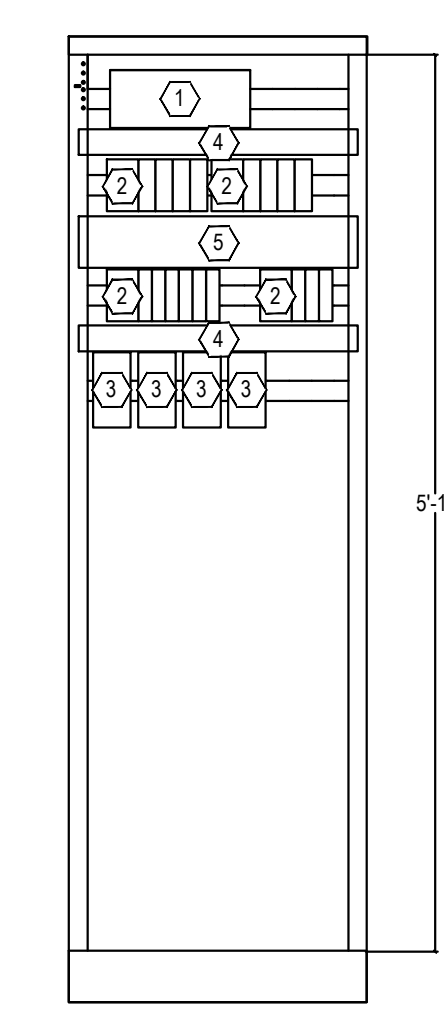


System 4 (Room F107, Area F,G)		Total
RELAY	92	
DPS	123	
RELAY (DOOR)	111	
SPEAKER	133	
CALL-IN	112	
INPUT	3	
TP	12	
HORN	3	

7 SYSTEM 4 - F107 - PLC RACK SPACE



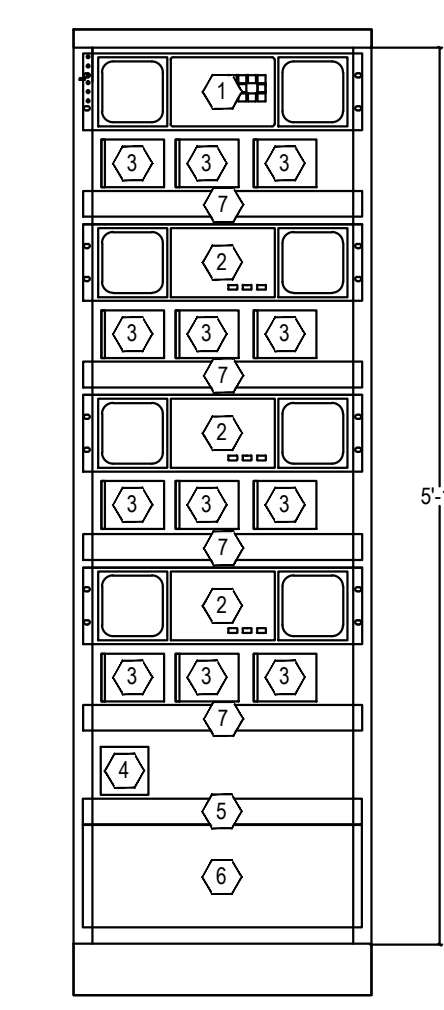
8 SYSTEM 4 - F107 - INTERCOM RACK SPACE



9 SYSTEM 5 - H202 - PLC RACK SPACE

System 5 (Room H202, Area H)		Total
RELAY	36	
DPS	92	
RELAY (DOOR)	87	
SPEAKER	10	
CALL-IN	81	
INPUT	9	
TP	5	
HORN	2	

10 SYSTEM 5 - H202 - INTERCOM RACK SPACE



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RACK ELEVATIONS

T3.0.00

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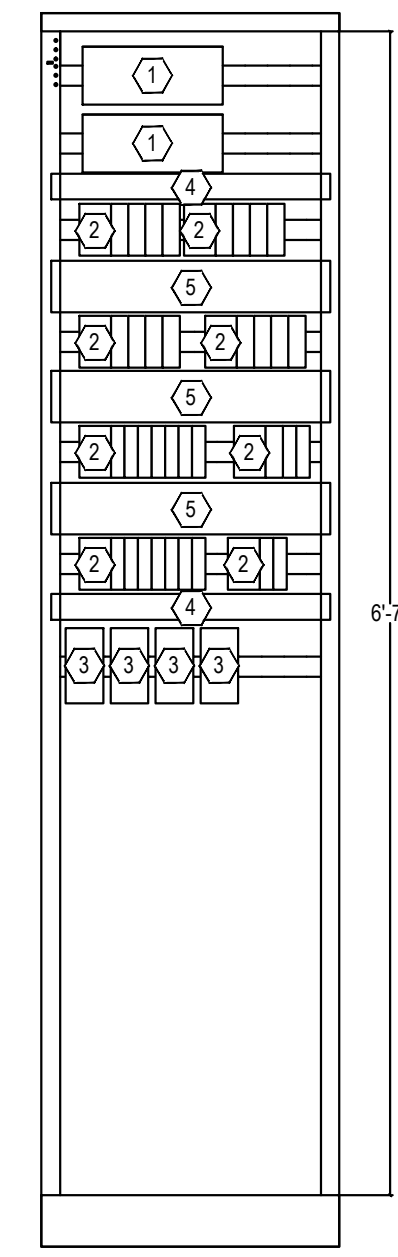
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**KEYNOTES - INTERCOM RACKS:**

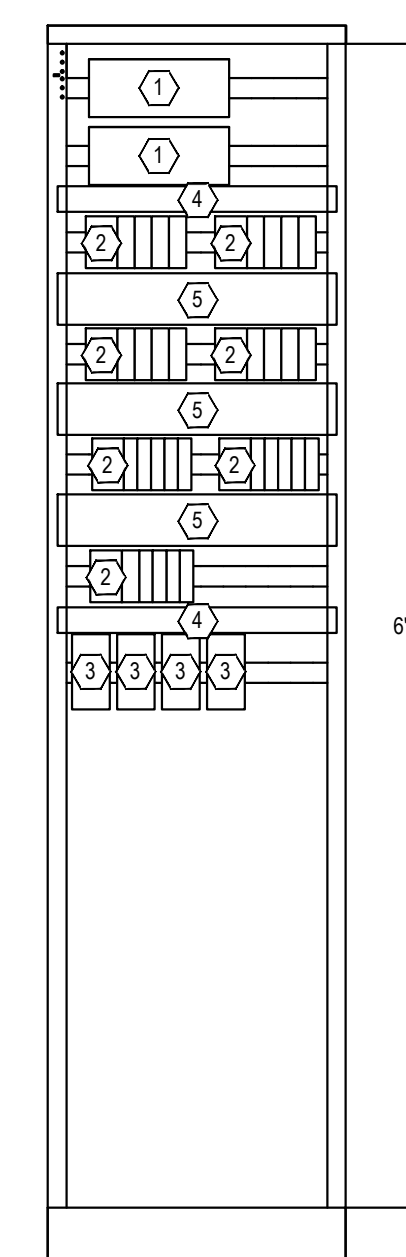
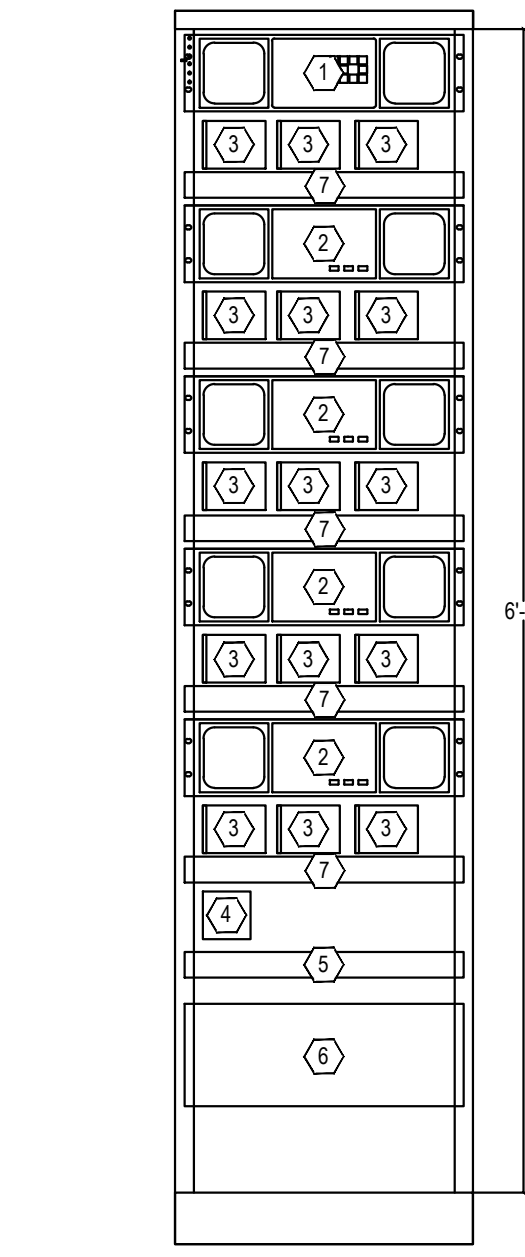
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**GENERAL NOTES:**

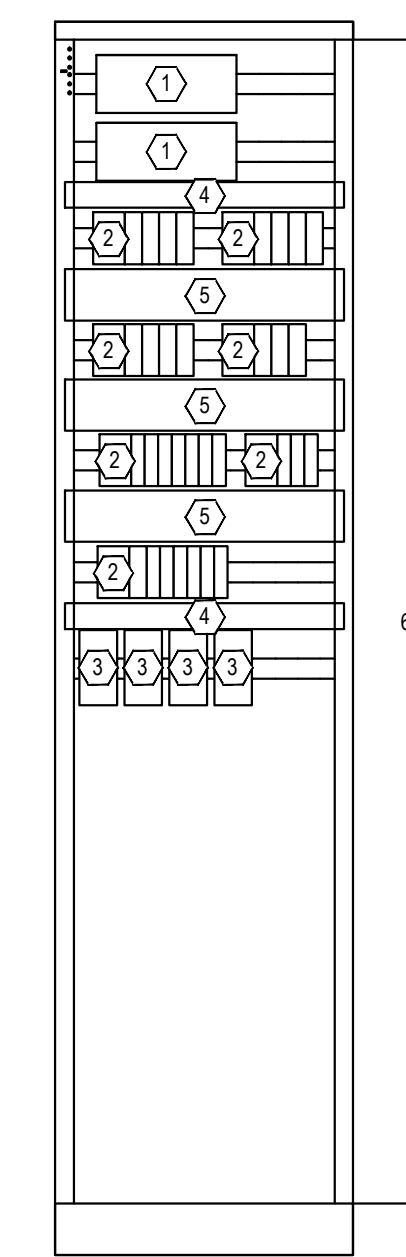
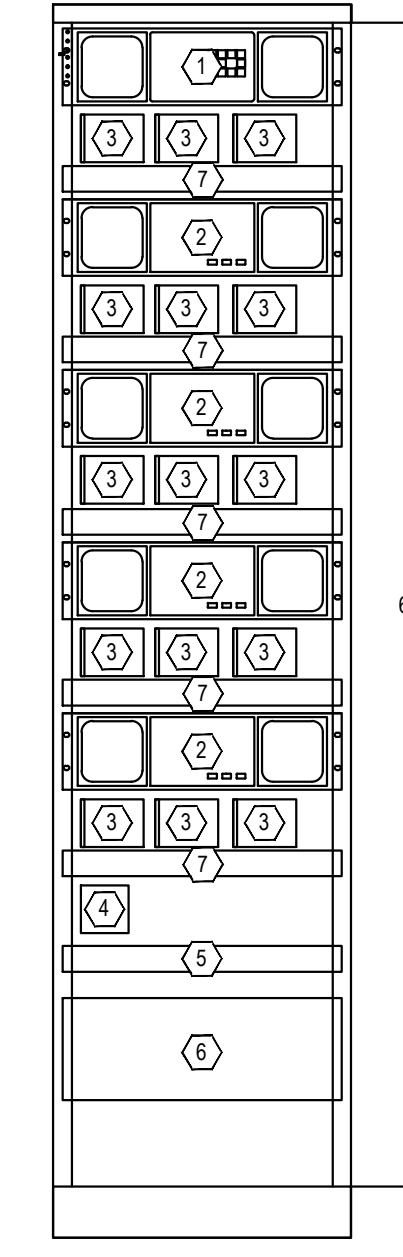
1. IN ALL ROOMS DISCONNECT AND RECONNECT 120 VAC POWER AS NECESSARY BY A QUALIFIED ELECTRICIAN
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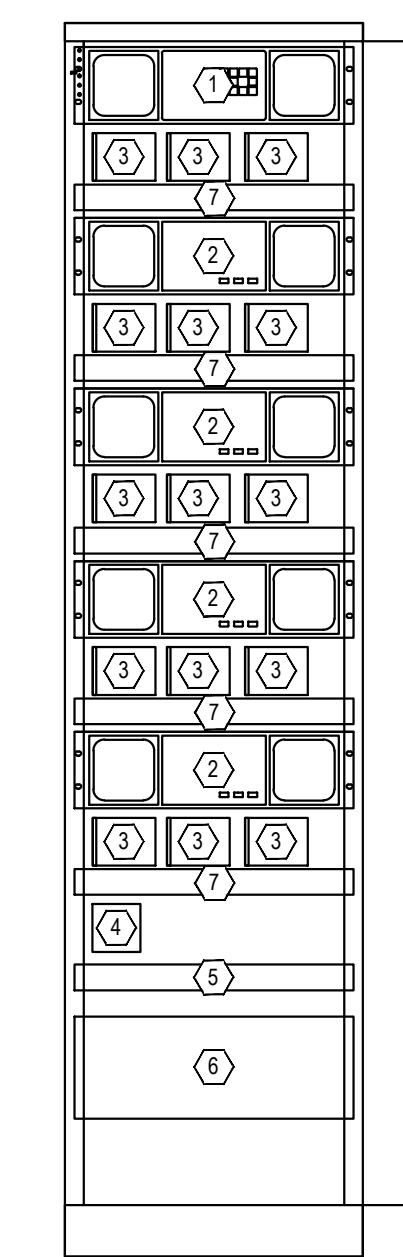
System 6 (Room J202, Area I,J)		Total
RELAY	114	
DPS	139	
RELAY (DOOR)	131	
SPEAKER	169	
CALL-IN	131	
INPUT	3	
TP	8	



System 7 (Room K202, Area K,L)		Total
RELAY	60	
DPS	137	
RELAY (DOOR)	122	
SPEAKER	162	
CALL-IN	147	
INPUT	0	
TP	9	
HORN	12	



System 9 (Room N202, Area N,P)		Total
RELAY	92	
DPS	146	
RELAY (DOOR)	179	
SPEAKER	168	
CALL-IN	132	
INPUT	3	
TP	22	
LOCK	2	



1 SYSTEM 6 - J202 - PLC RACK SPACE  
NS

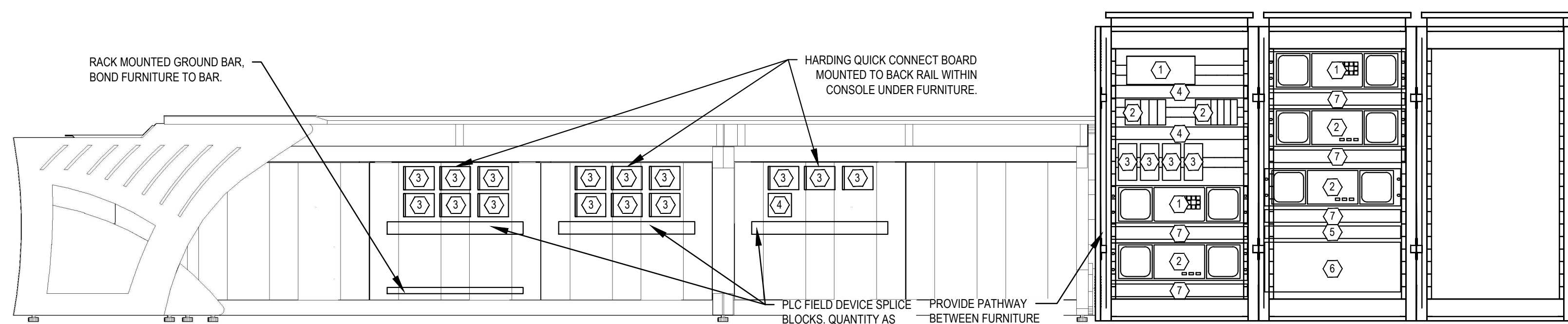
2 SYSTEM 6 - J202 - INTERCOM RACK SPACE  
NS

3 SYSTEM 7 - K202 - PLC RACK SPACE  
NS

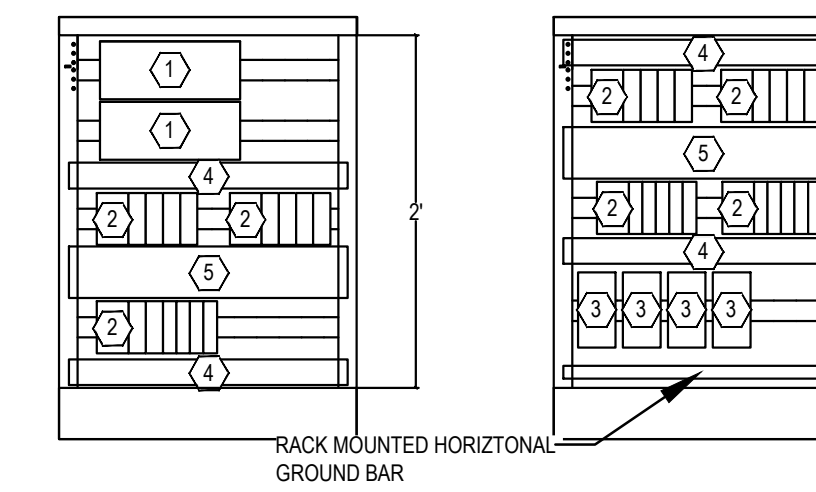
4 SYSTEM 7 - K202 - INTERCOM RACK SPACE  
NS

5 SYSTEM 9 - N202 - PLC RACK SPACE  
NS

6 SYSTEM 9 - N202 - INTERCOM RACK SPACE  
NS



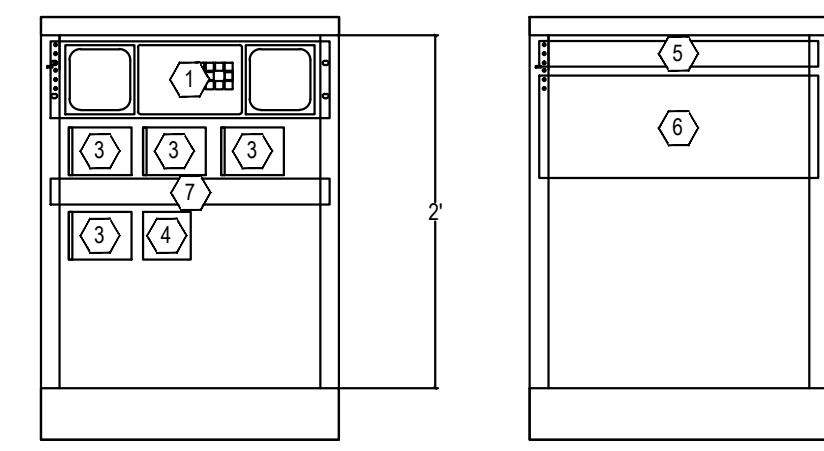
Stockade (CONTROL)		Total
RELAY	29	
DPS	17	
RELAY (DOOR)	17	
SPEAKER	33	
CALL-IN	17	
INPUT	4	
TP	2	



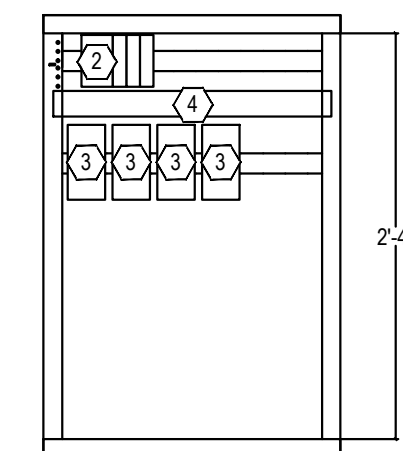
Stockade (CLUSTER B)		Total
RELAY	42	
DPS	144	
RELAY (DOOR)	144	
SPEAKER	195	
CALL-IN	144	
INPUT	0	
TP	2	

7 ANNEX - ANNEX A CONTROL - RACK SPACE ELEVATION DETAIL  
NS

8 ANNEX - ANNEX B CONTROL - PLC RACK SPACE  
NS

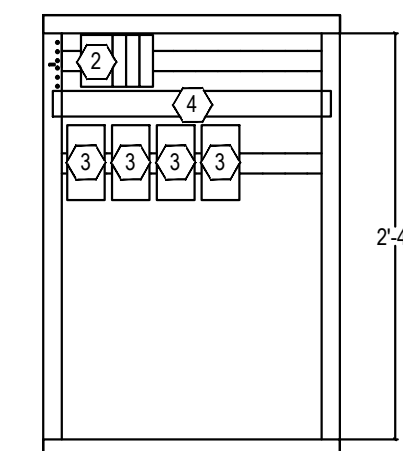


9 ANNEX - ANNEX B CONTROL - INTERCOM RACK SPACE  
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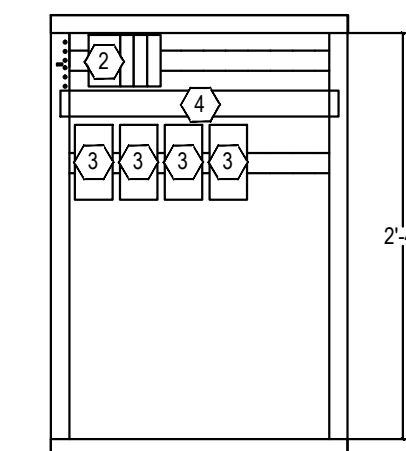
Dayroom (#5) Panel		Total
RELAY (DOOR)	32	
RELAY (LIGHT)	3	

10 ANNEX - ANNEX B POD #5 - PLC RACK SPACE  
NS



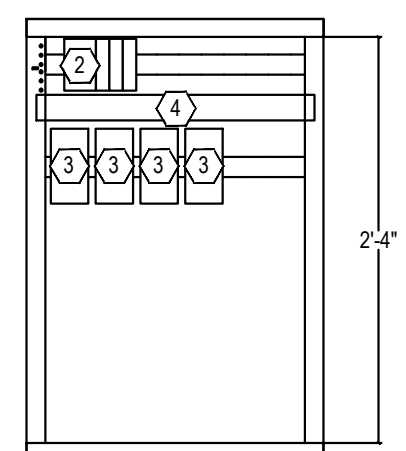
Dayroom (#6) Panel		Total
RELAY (DOOR)	32	
RELAY (LIGHT)	3	

11 ANNEX - ANNEX B POD #6 - PLC RACK SPACE  
NS



Dayroom (#7) Panel		Total
RELAY (DOOR)	32	
RELAY (LIGHT)	3	

12 ANNEX - ANNEX B POD #7 - PLC RACK SPACE  
NS



Dayroom (#8) Panel		Total
RELAY (DOOR)	32	
RELAY (LIGHT)	3	

13 ANNEX - ANNEX B POD #8 - PLC RACK SPACE  
NS

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RACK ELEVATIONS

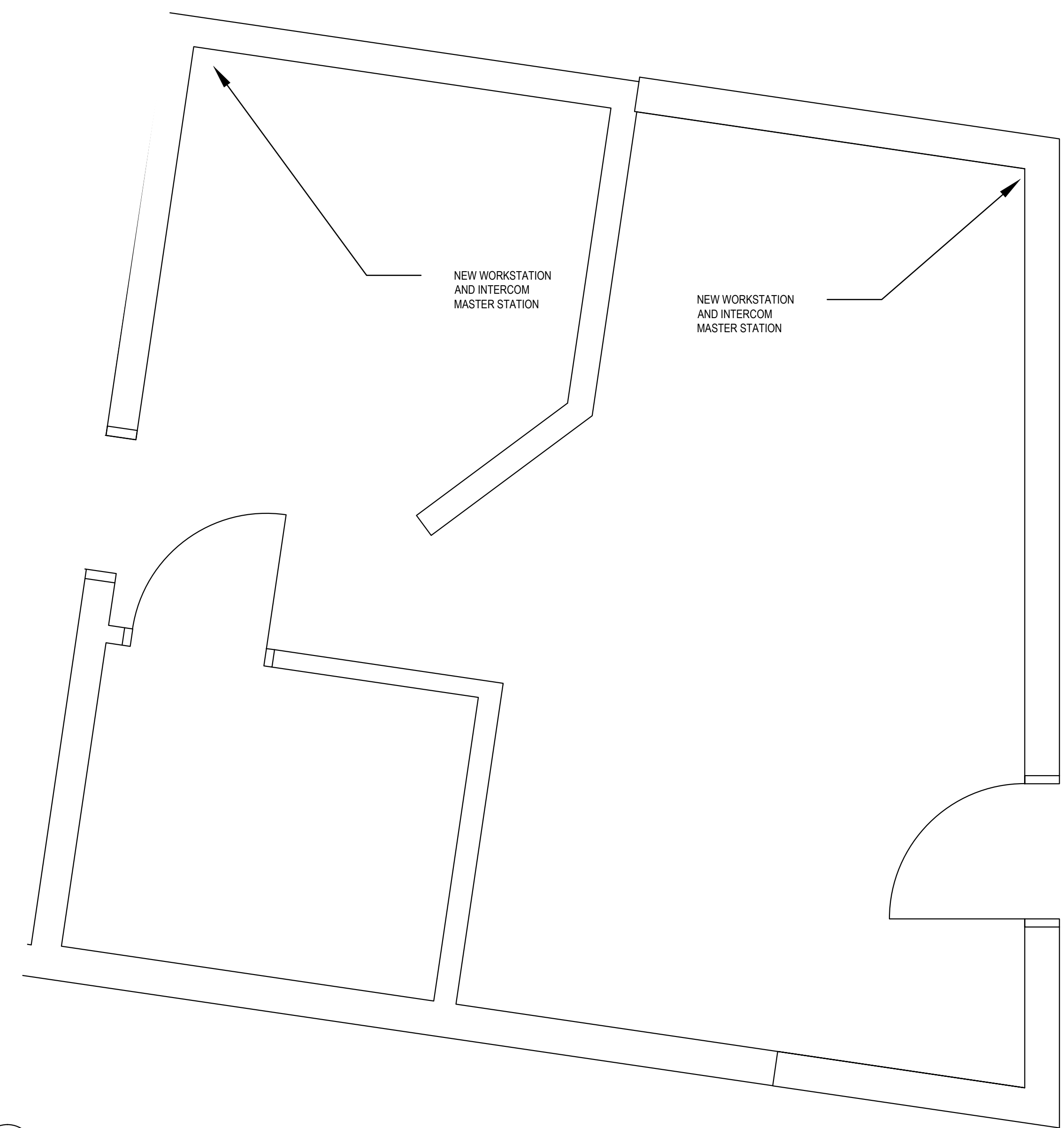
T3.0.01

KEYNOTES:

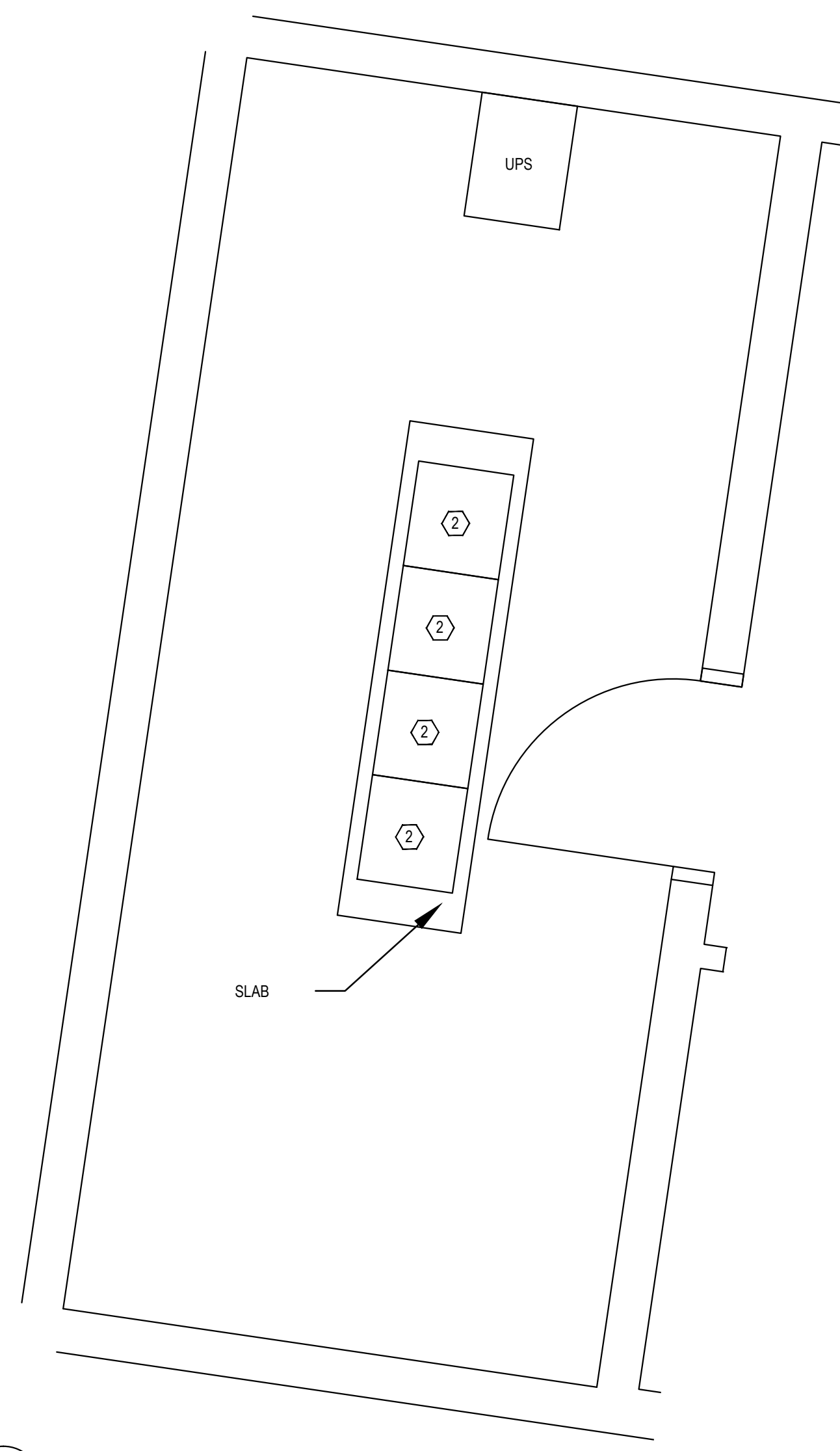
- ① VIDEO WALL CABINET
- ② PLC RACK
- ③ INTERROOM AND DOOR LOCK CABINET
- ④ PLC WALL CABINET
- ⑤ POWER SUPPLY CABINET

GENERAL NOTES:

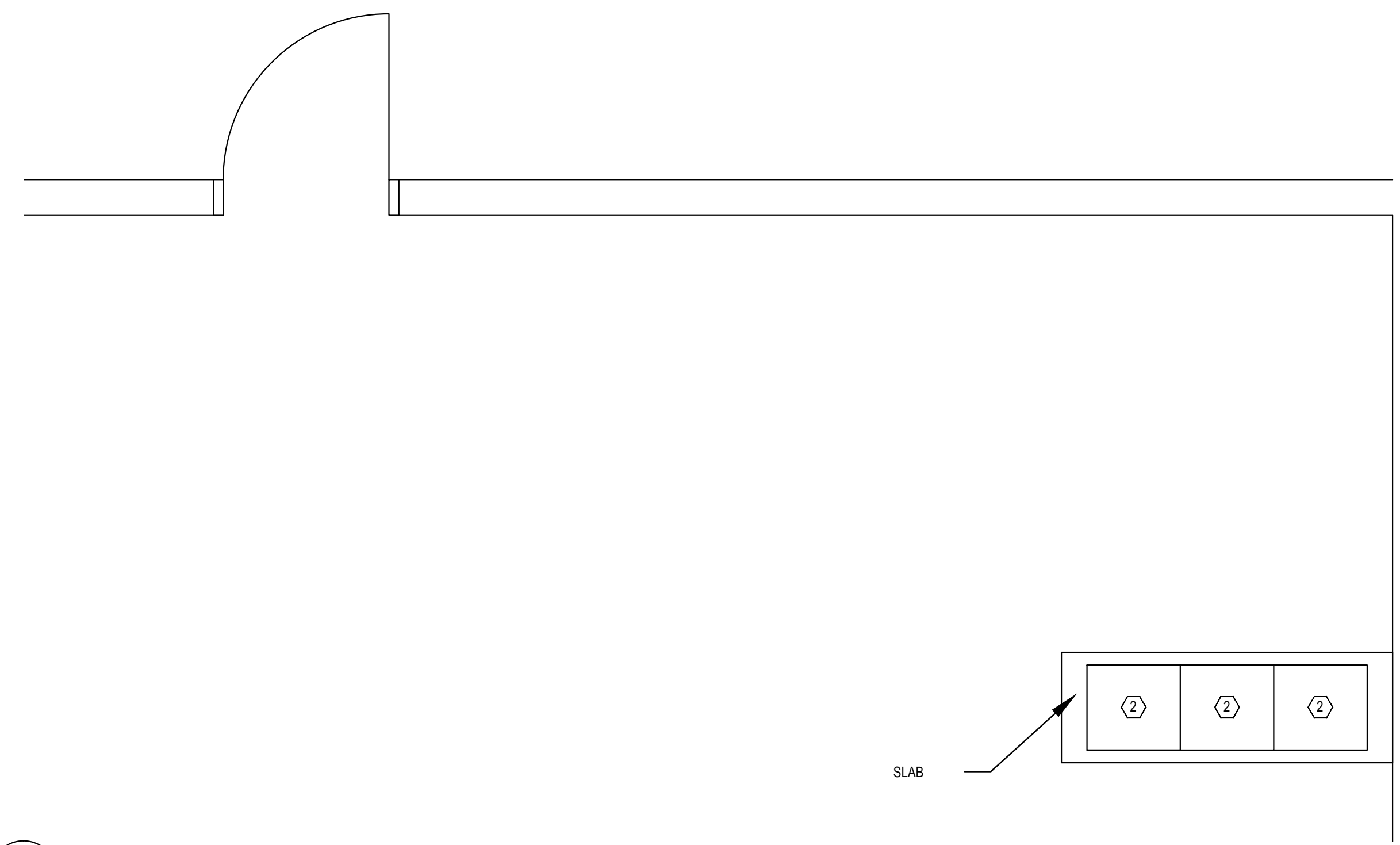
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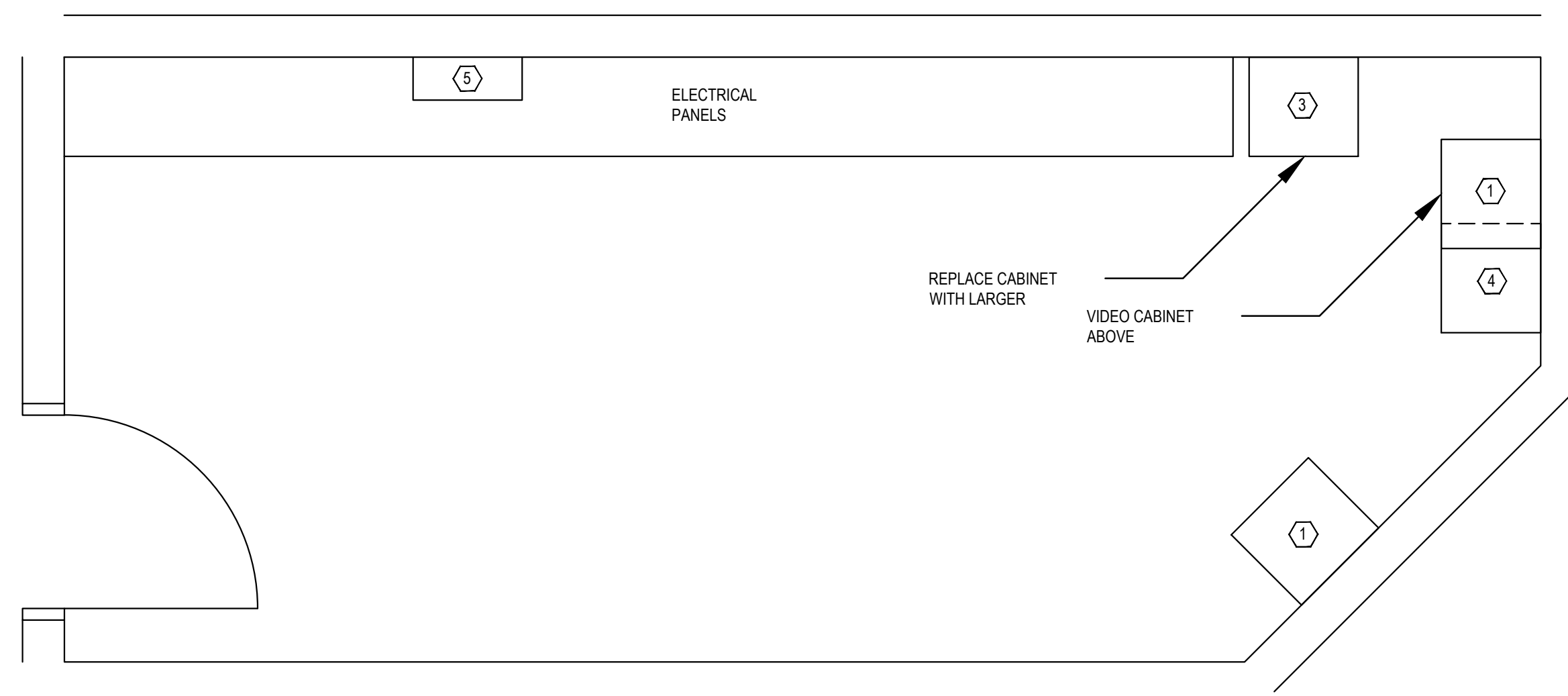
1 CENTRAL CONTROL  
 SCALE: 1/2" = 1'-0"



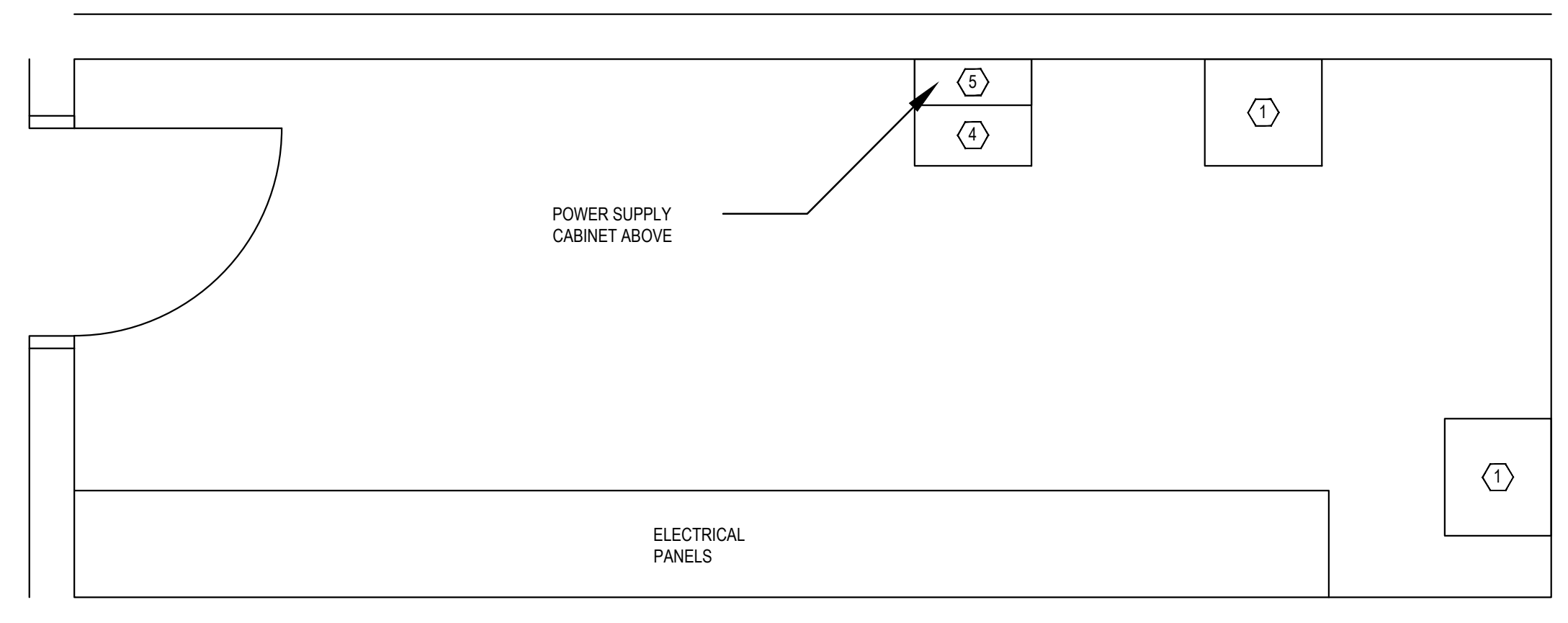
2 SYSTEM 1 - SEC. ELECT. A117  
 SCALE: 1/2" = 1'-0"



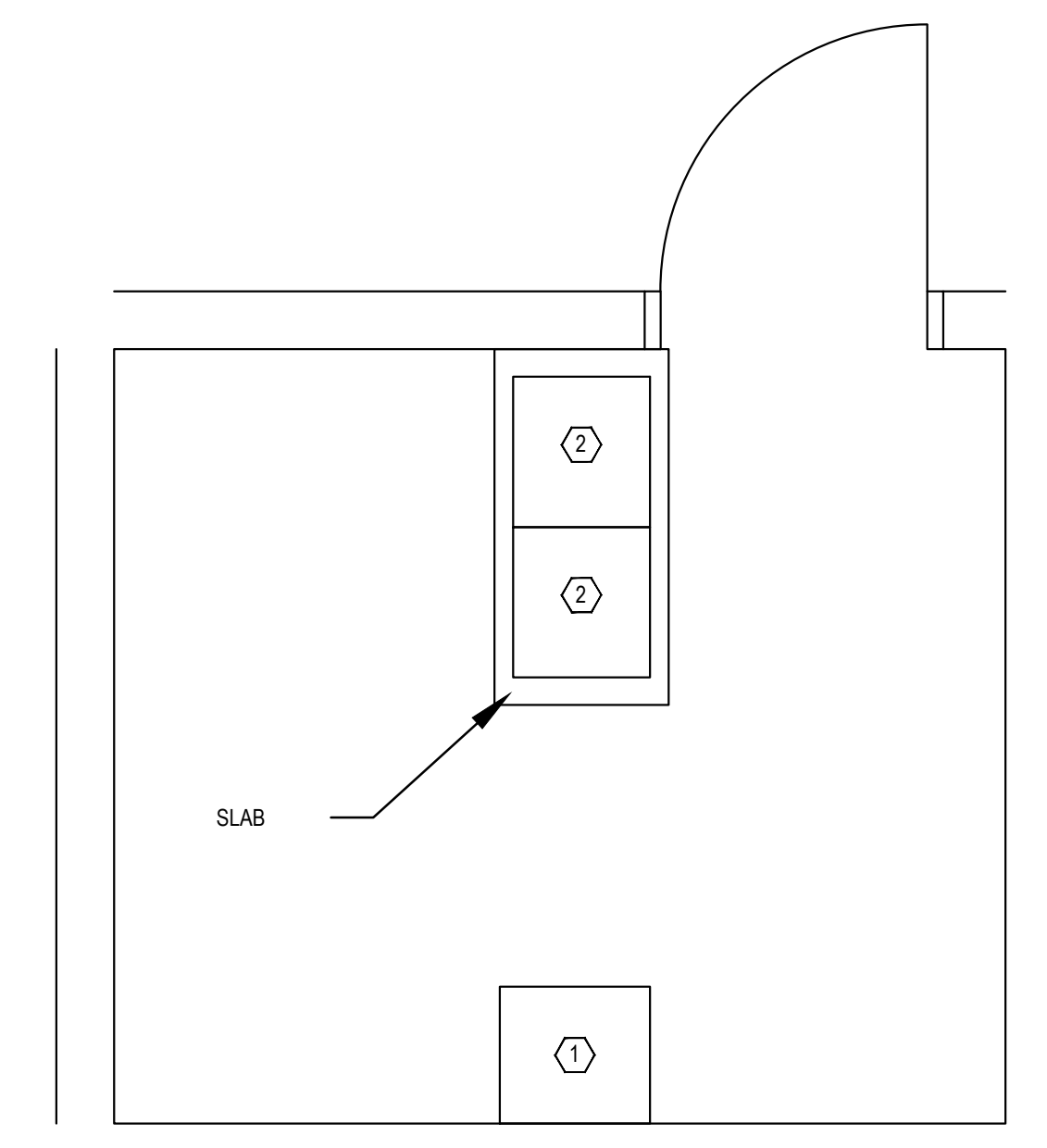
3 SYSTEM 3 - ELECTRICAL D104  
 SCALE: 1/2" = 1'-0"



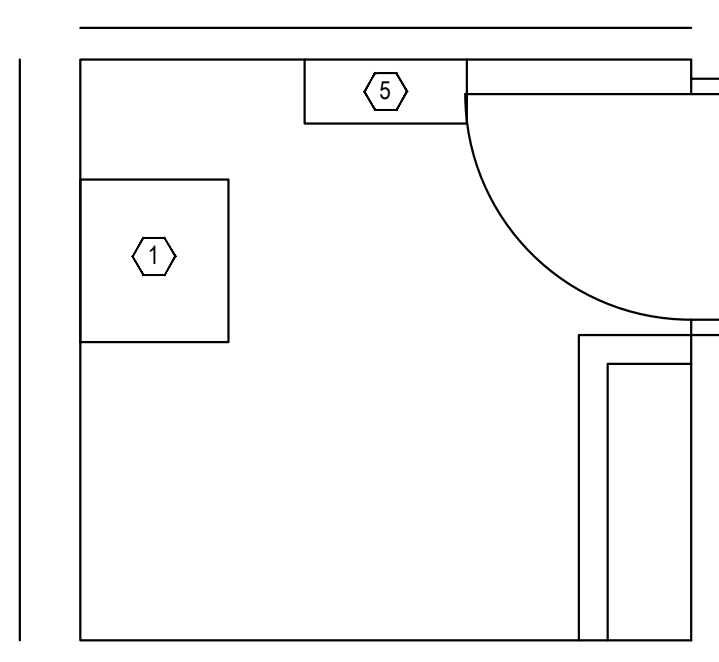
4 SYSTEM 4 - ELECTRICAL F107  
 SCALE: 1/2" = 1'-0"



5 SYSTEM 5 - MECHANICAL - H202  
 SCALE: 1/2" = 1'-0"



6 SYSTEM 6 - ELECT. J202  
 SCALE: 1/2" = 1'-0"



7 SYSTEM 2 - ELEC. B163  
 SCALE: 1/2" = 1'-0"

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ENLARGEMENTS

T4.0.00

- KEYNOTES:**
- ① VIDEO WALL CABINET
  - ② PLC RACK
  - ③ INTERCOM AND DOOR LOCK CABINET
  - ④ PLC WALL CABINET
  - ⑤ POWER SUPPLY CABINET

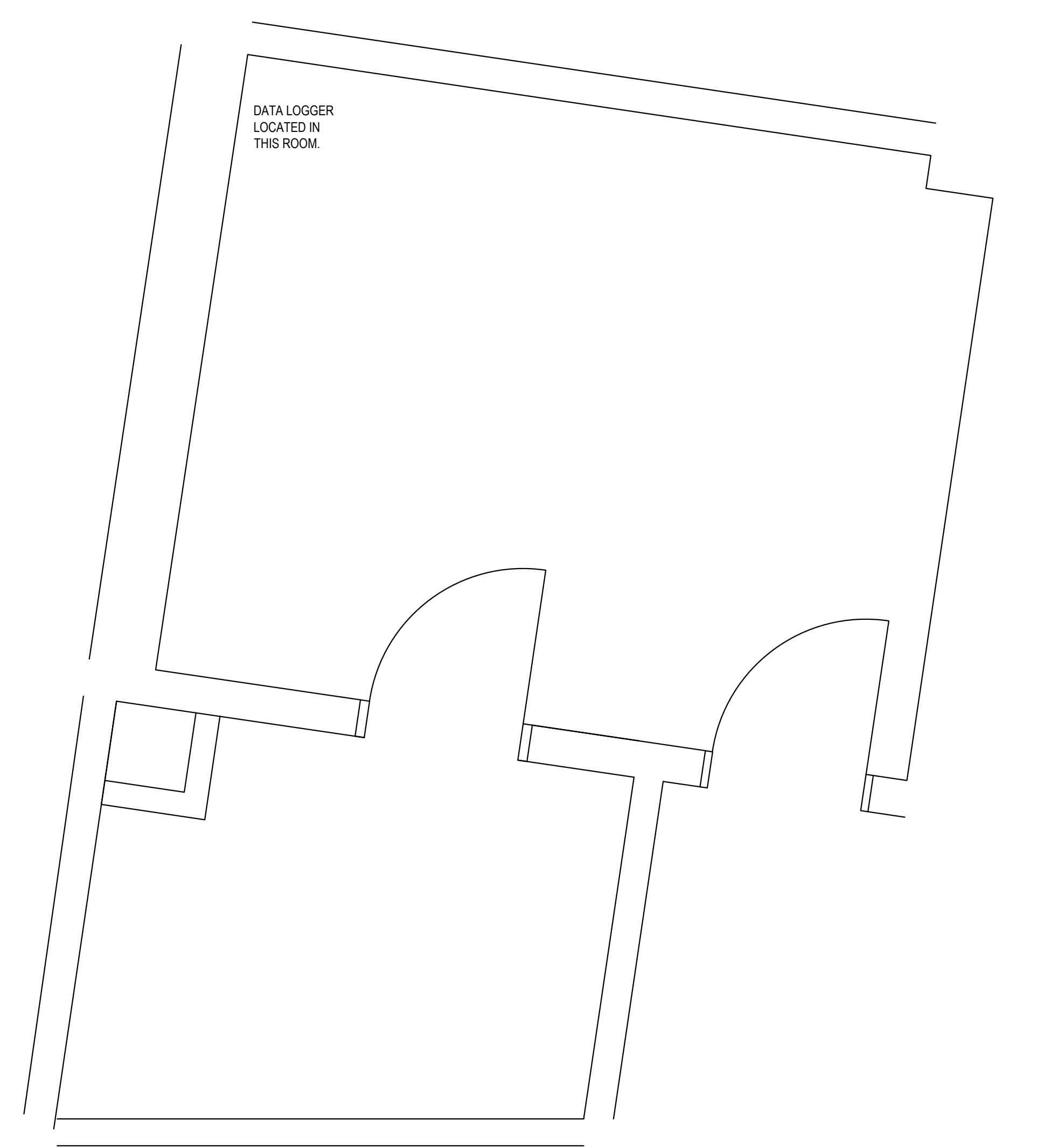
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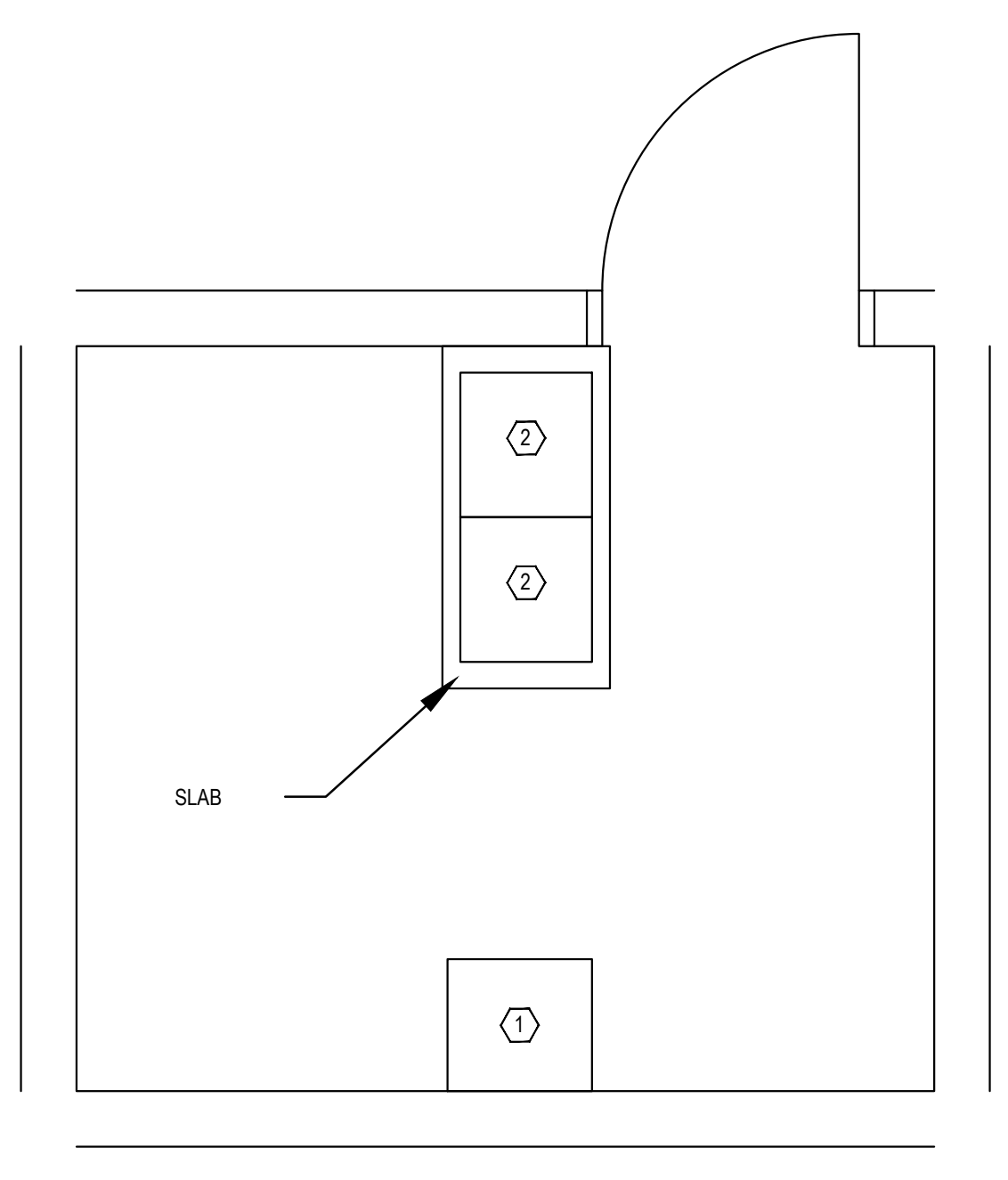
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ENLARGEMENTS

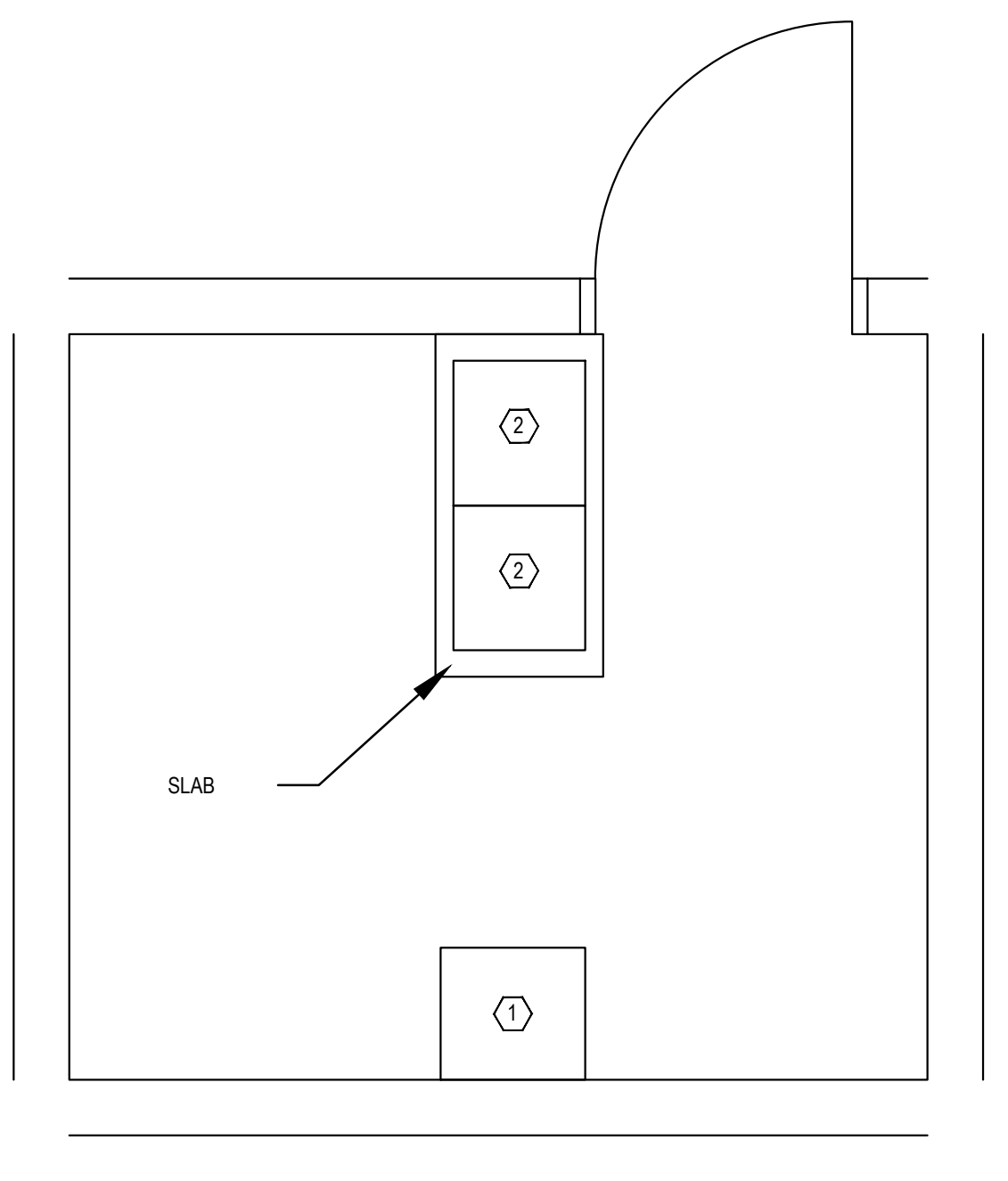
T4.0.01



1 TMB-A - PHONE A111 AND A109 - DATA LOGGER  
 SCALE: 1/2"= 1'-0"

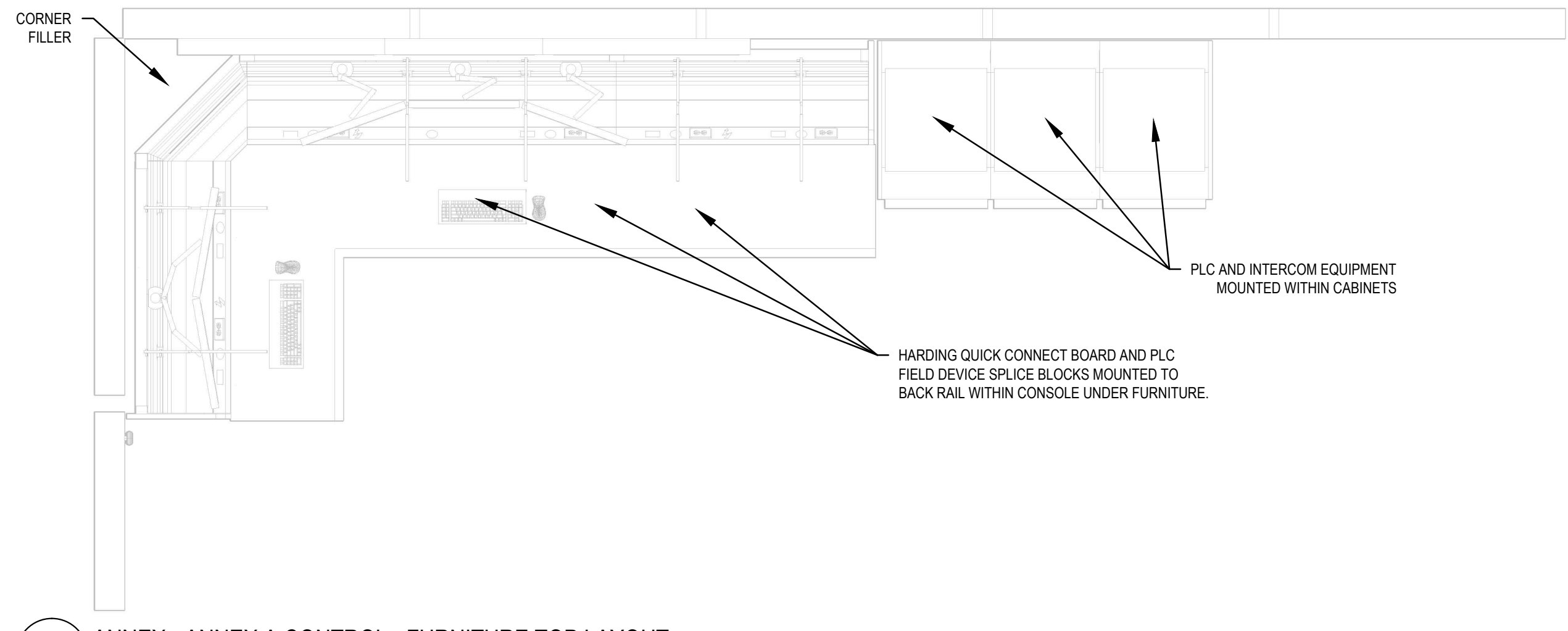


2 SYSTEM 7 - ELECT. K202  
 SCALE: 1/2"= 1'-0"

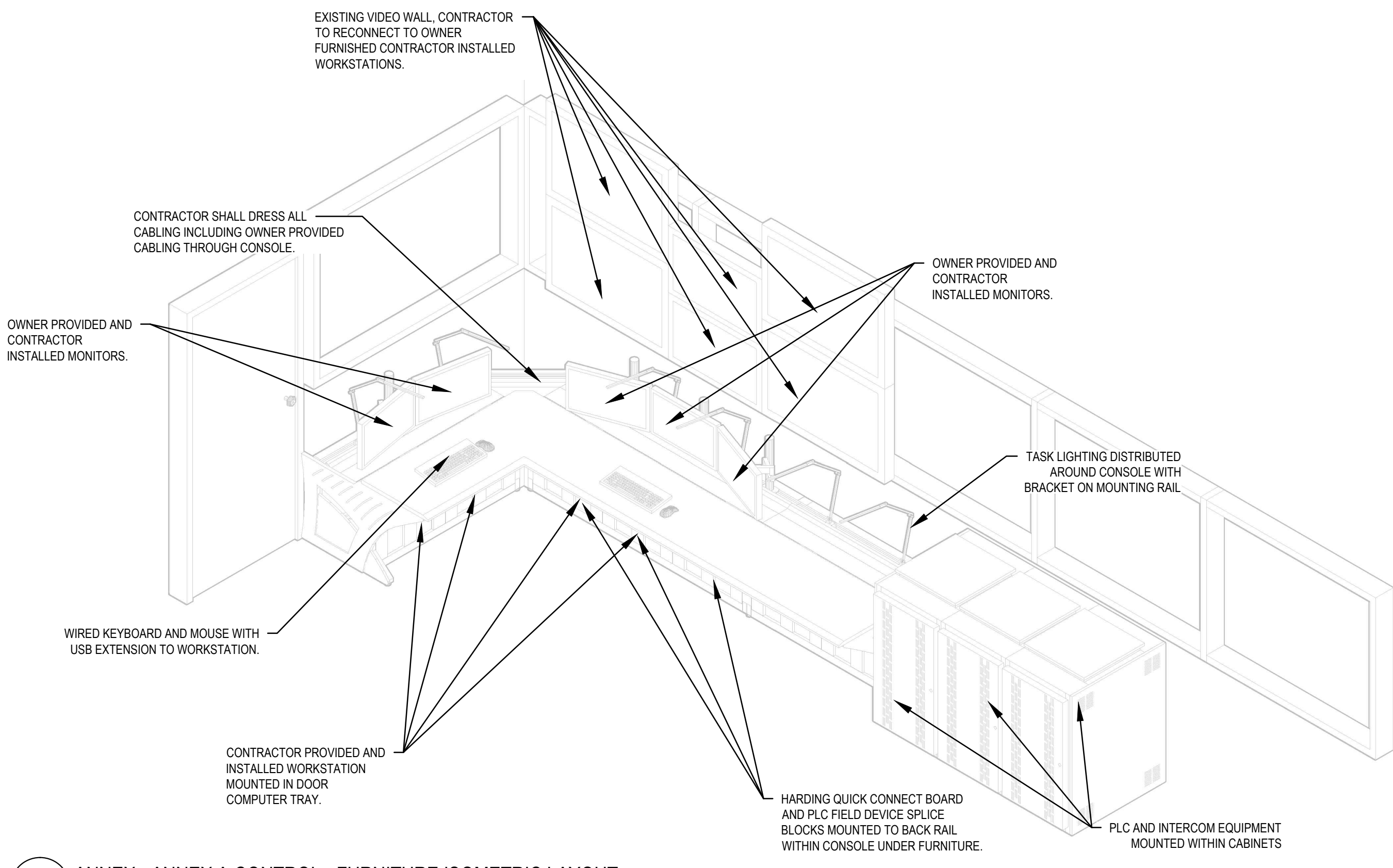


3 SYSTEM 9 - ELECT. N202  
 SCALE: 1/2"= 1'-0"

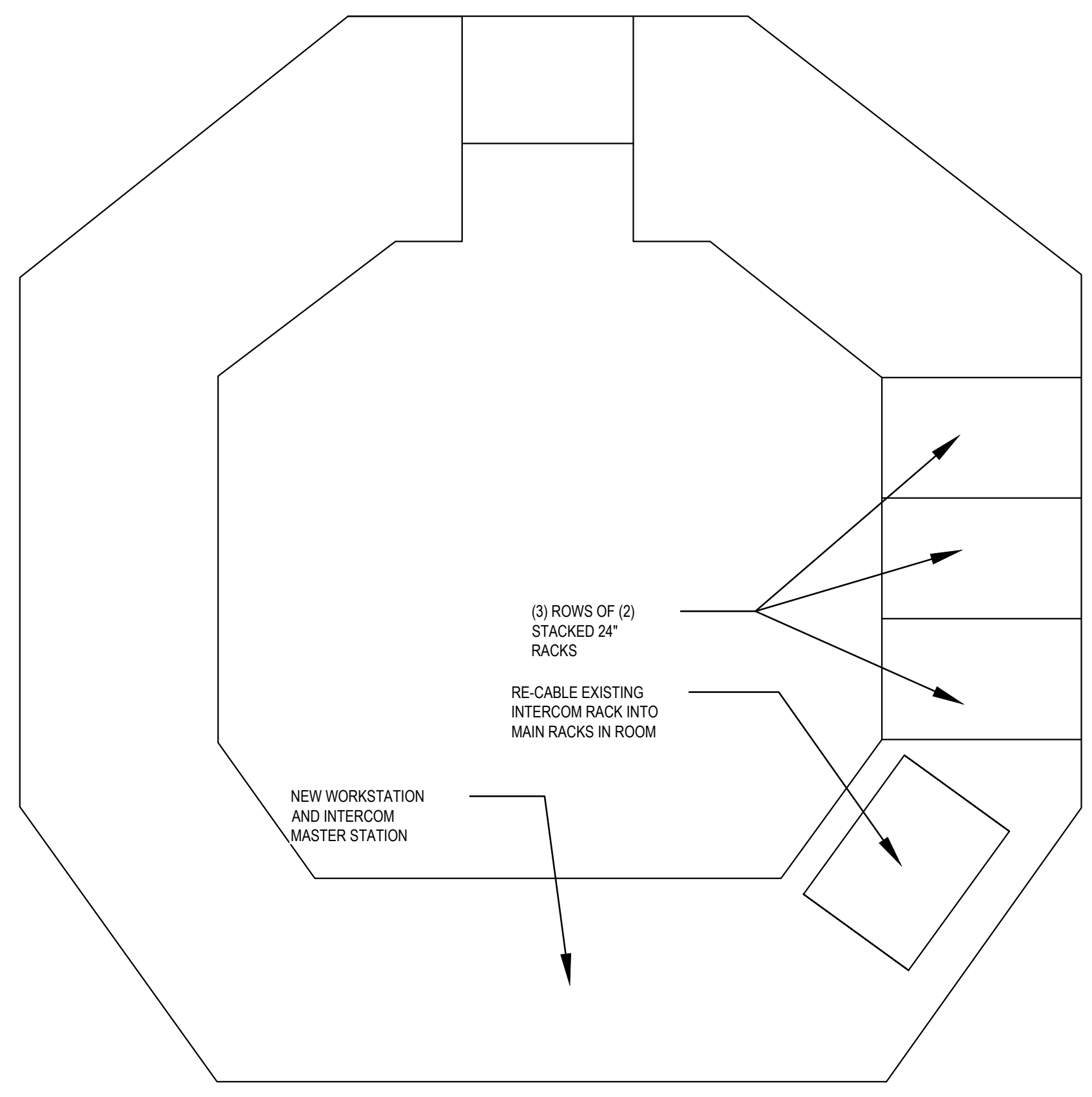
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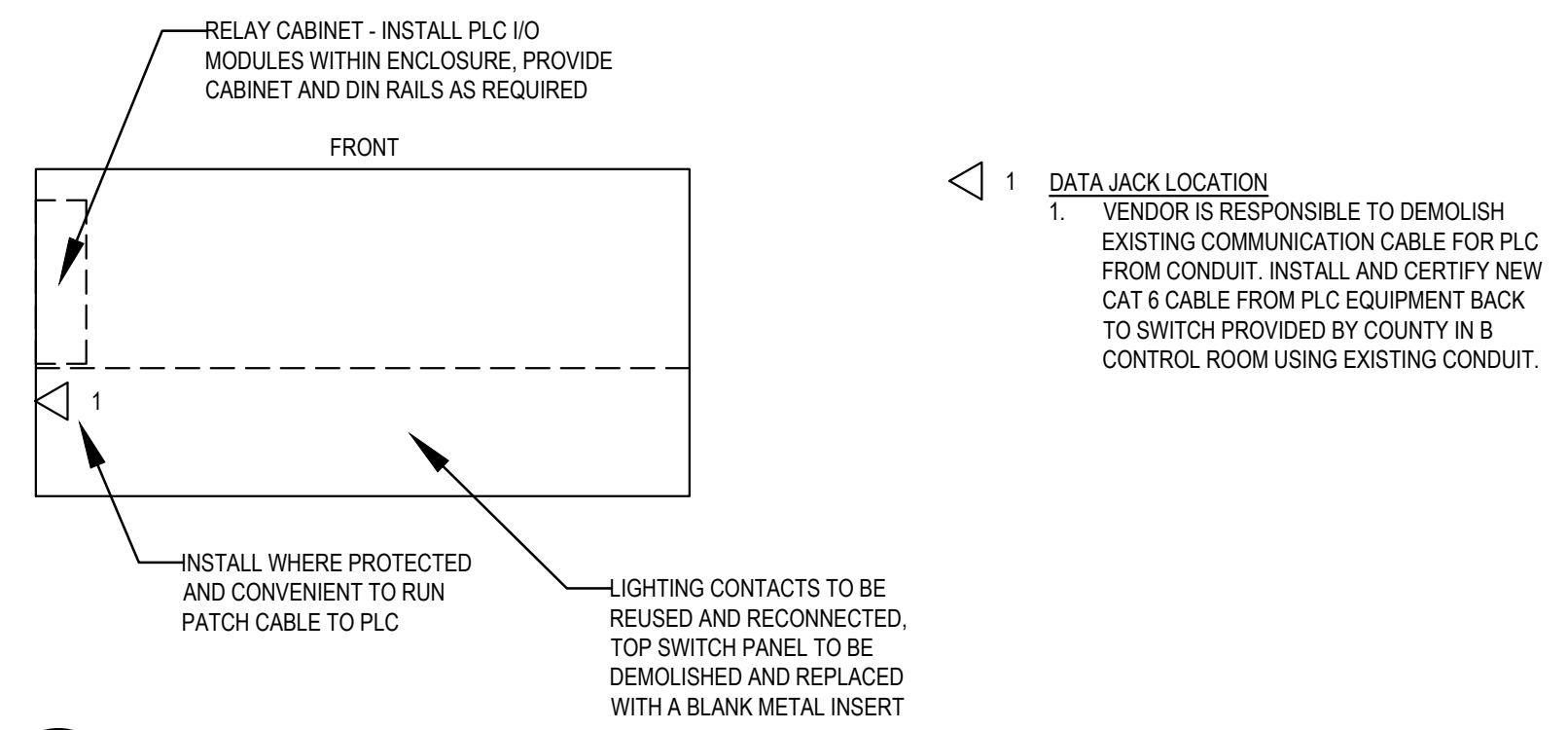
**1 ANNEX - ANNEX A CONTROL - FURNITURE TOP LAYOUT**  
 SCALE: 1/2"=1'-0"



**2 ANNEX - ANNEX A CONTROL - FURNITURE ISOMETRIC LAYOUT**  
 SCALE: NS



**3 ANNEX - ANNEX B CONTROL**  
 SCALE: 1/2"=1'-0"



**4 ANNEX - TYPICAL POD RELAY CABINETS**  
 SCALE: NS

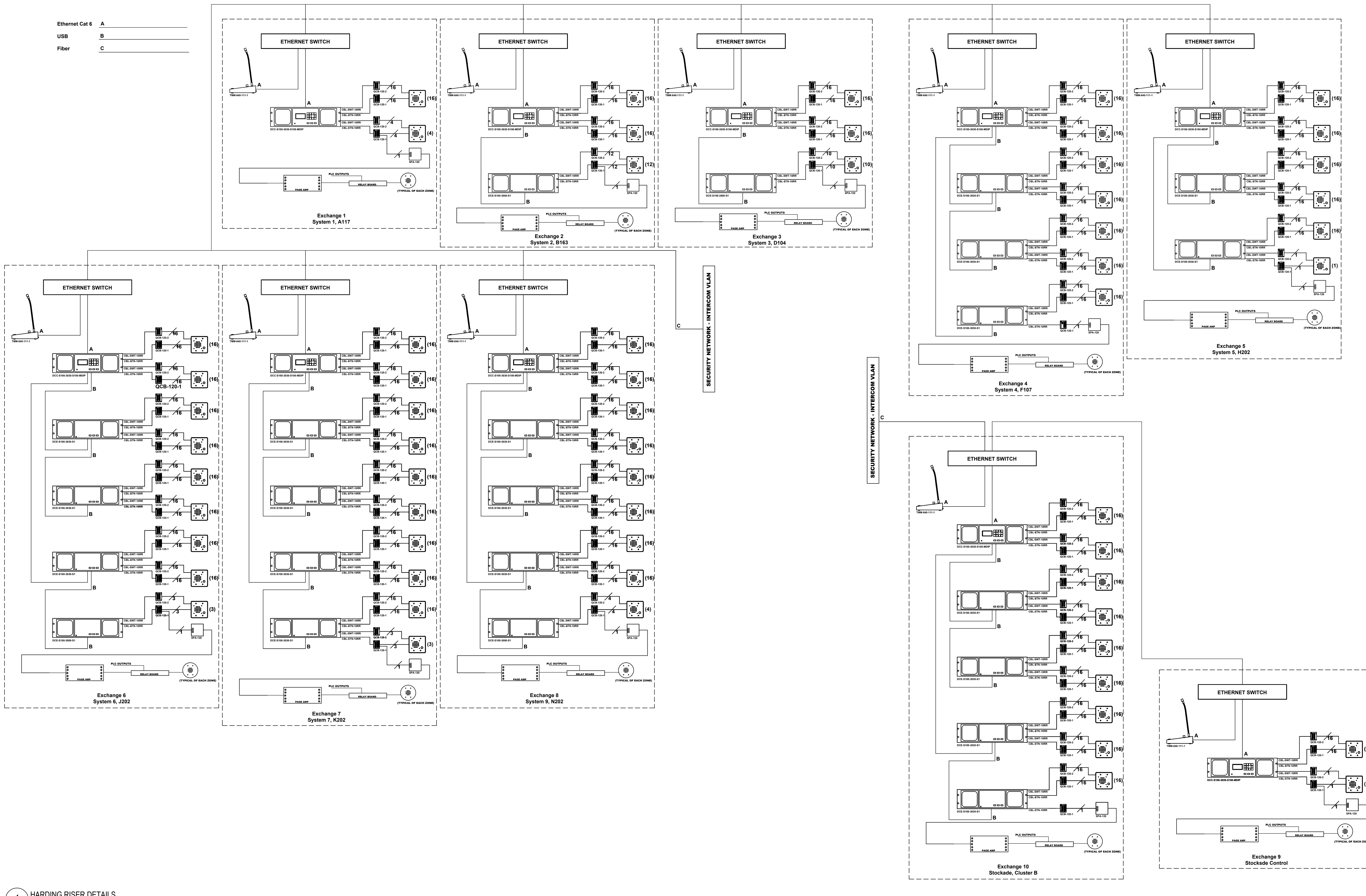
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ENLARGEMENTS - FURNITURE

T4.0.02

**SECURITY EQUIPMENT UPGRADE PROJECT**  
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Ethernet Cat 6    A  
 USB                B  
 Fiber              C



**1 HARDING RISER DETAILS**  
 NS

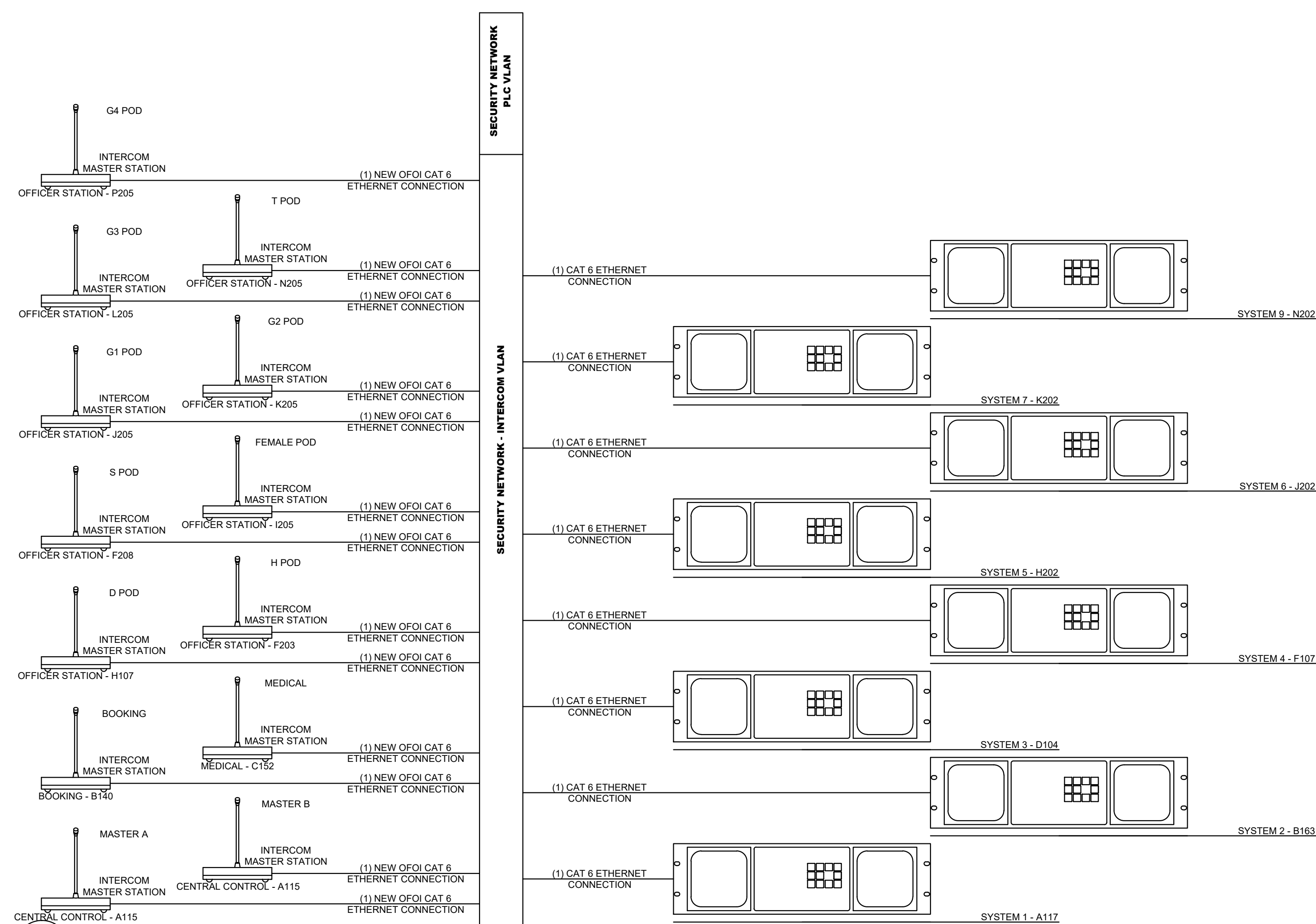
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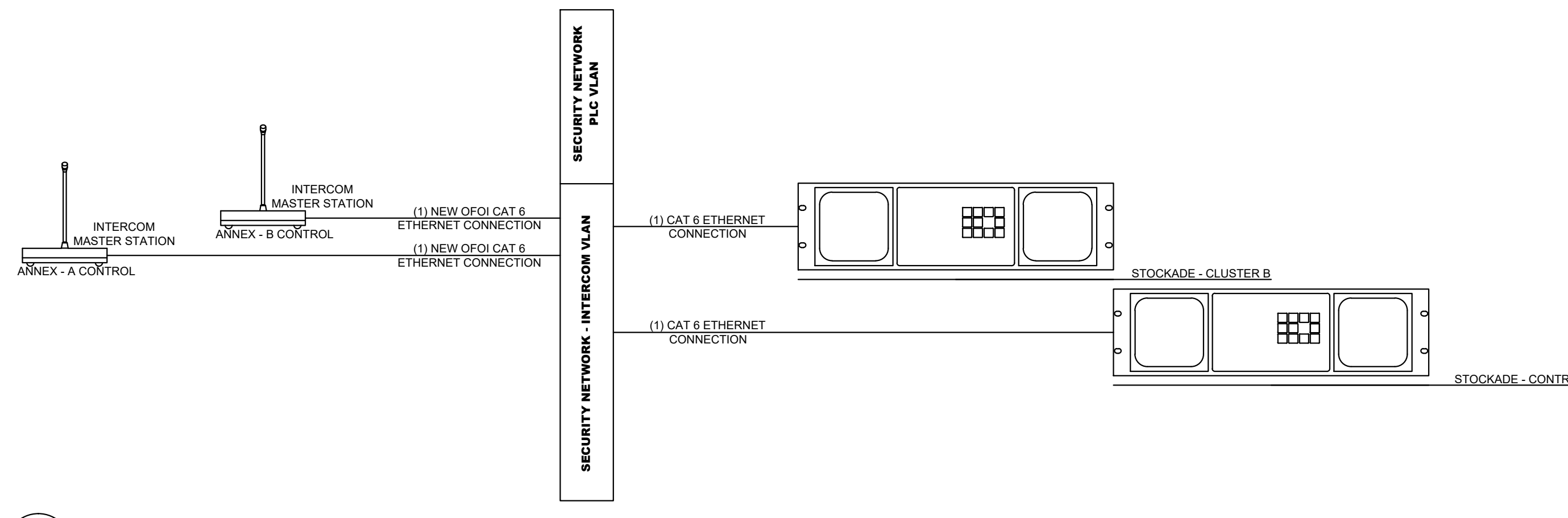
**TECHNOLOGY -  
 DETAILS**

T5.0.01

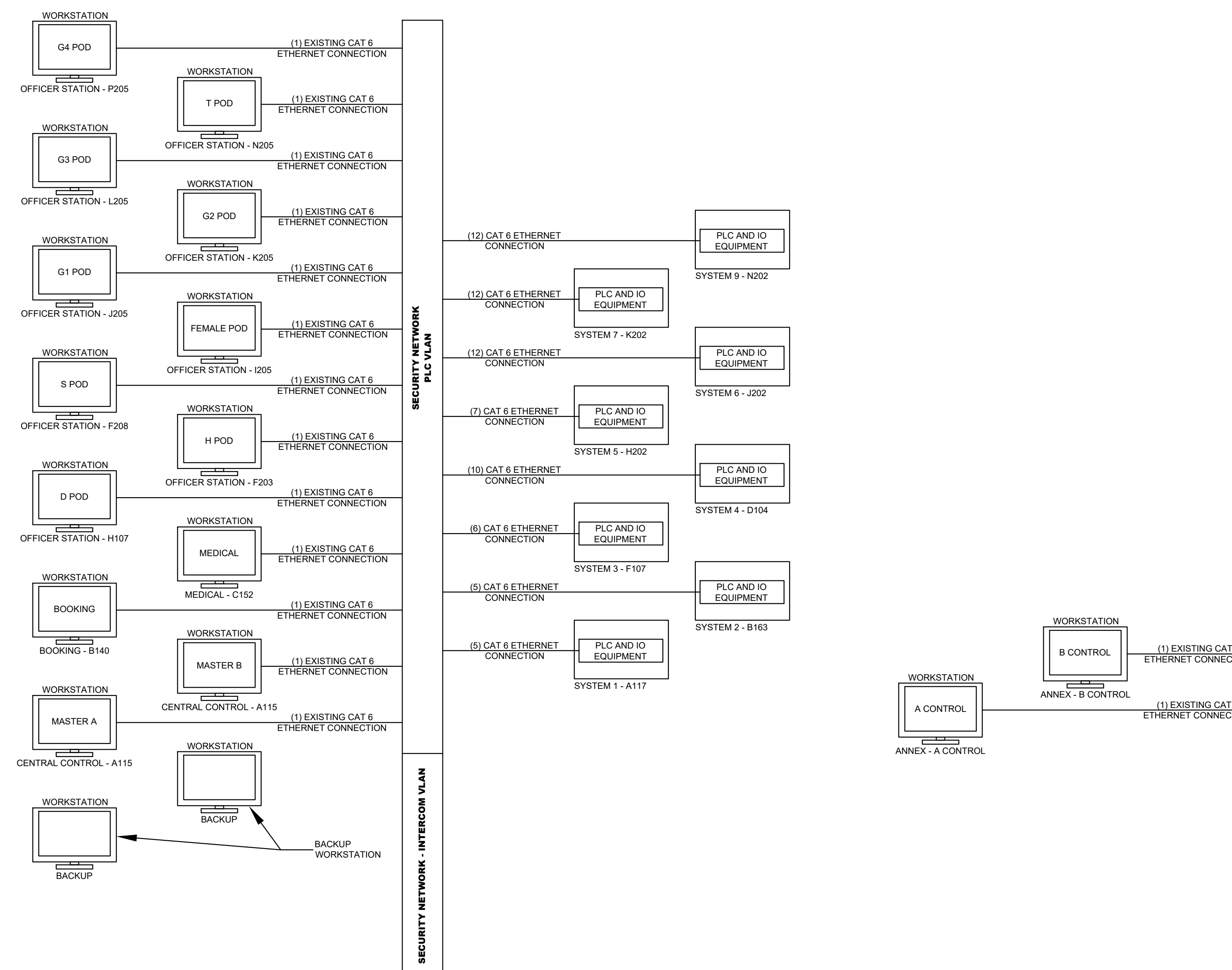
**SECURITY EQUIPMENT UPGRADE PROJECT**  
**MANATEE CO CENTRAL JAIL**  
 14470 HARLEE ROAD, PALMETTO, FL 34221



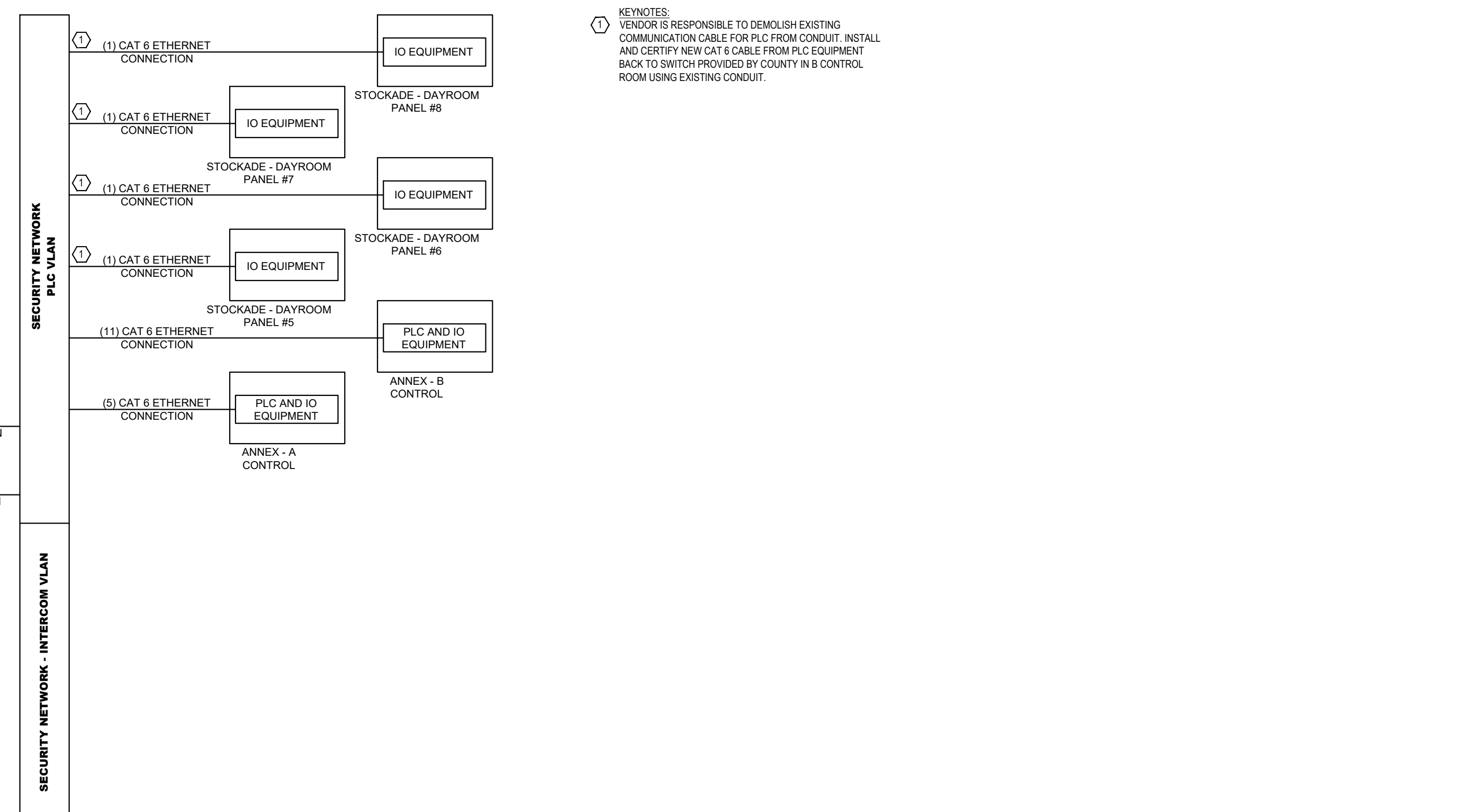
1 CENTRAL JAIL INTERCOM ETHERNET RISER DIAGRAM  
 NS



2 ANNEX INTERCOM ETHERNET RISER DIAGRAM  
 NS



3 CENTRAL JAIL PLC ETHERNET RISER DIAGRAM  
 NS



4 ANNEX PLC ETHERNET RISER DIAGRAM  
 NS

GENERAL NOTES:  
 1. DESIGNS DIAGRAMMATIC AND NOT BE USED FOR CONSTRUCTION. EXACT PART REQUIREMENTS AND LOCATIONS TO BE FIELD VERIFIED.

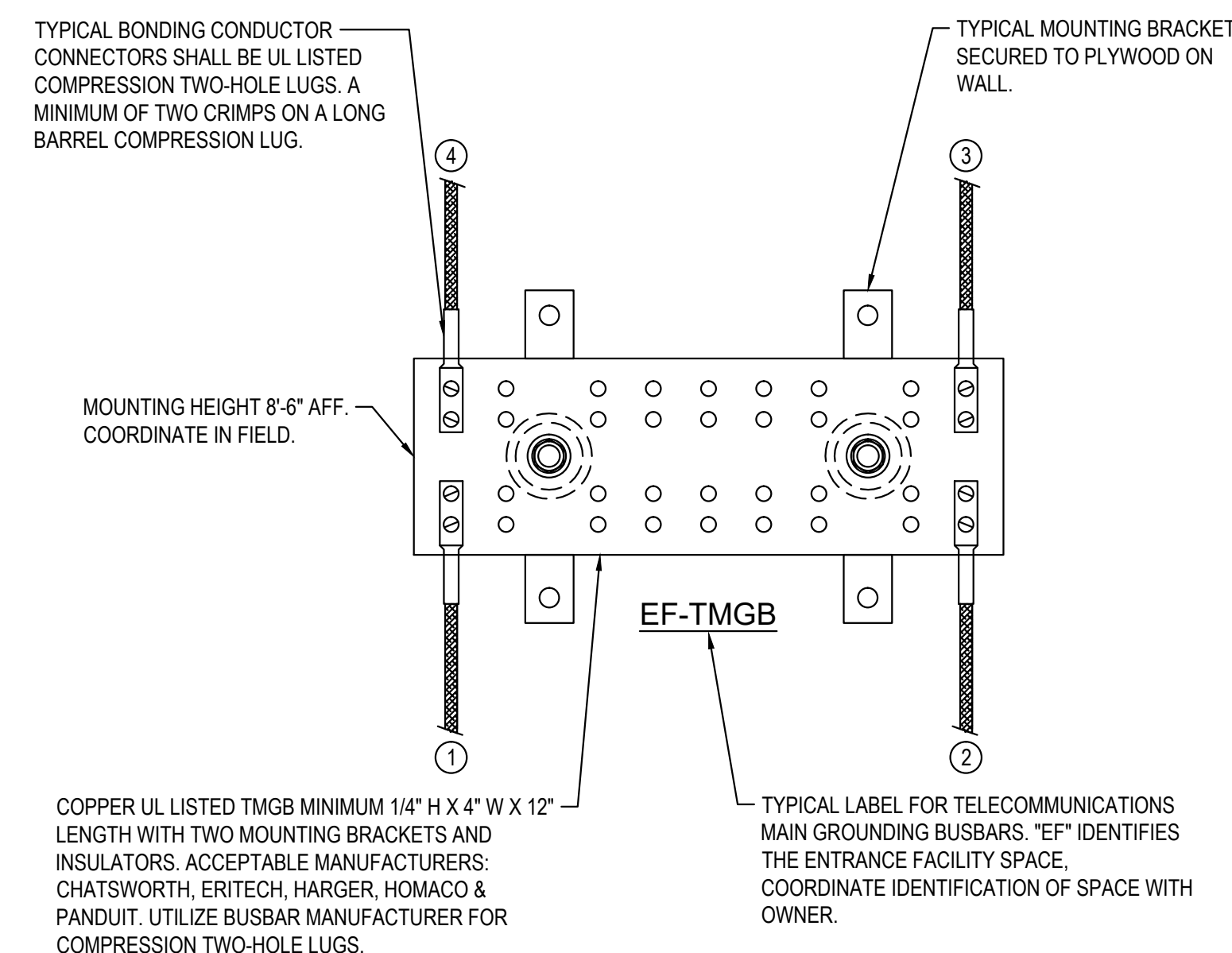
KEYNOTES:  
 ① VENDOR IS RESPONSIBLE TO DEMOLISH EXISTING COMMUNICATION CABLE FOR PLC FROM CONDUIT. INSTALL AND CERTIFY NEW CAT 6 CABLE FROM PLC EQUIPMENT BACK TO SWITCH PROVIDED BY COUNTY IN B CONTROL ROOM USING EXISTING CONDUIT.

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Project No.:	2521HE
Checked By:	BF
Designed By:	BF/JM
Drawn By:	JM
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TECHNOLOGY -  
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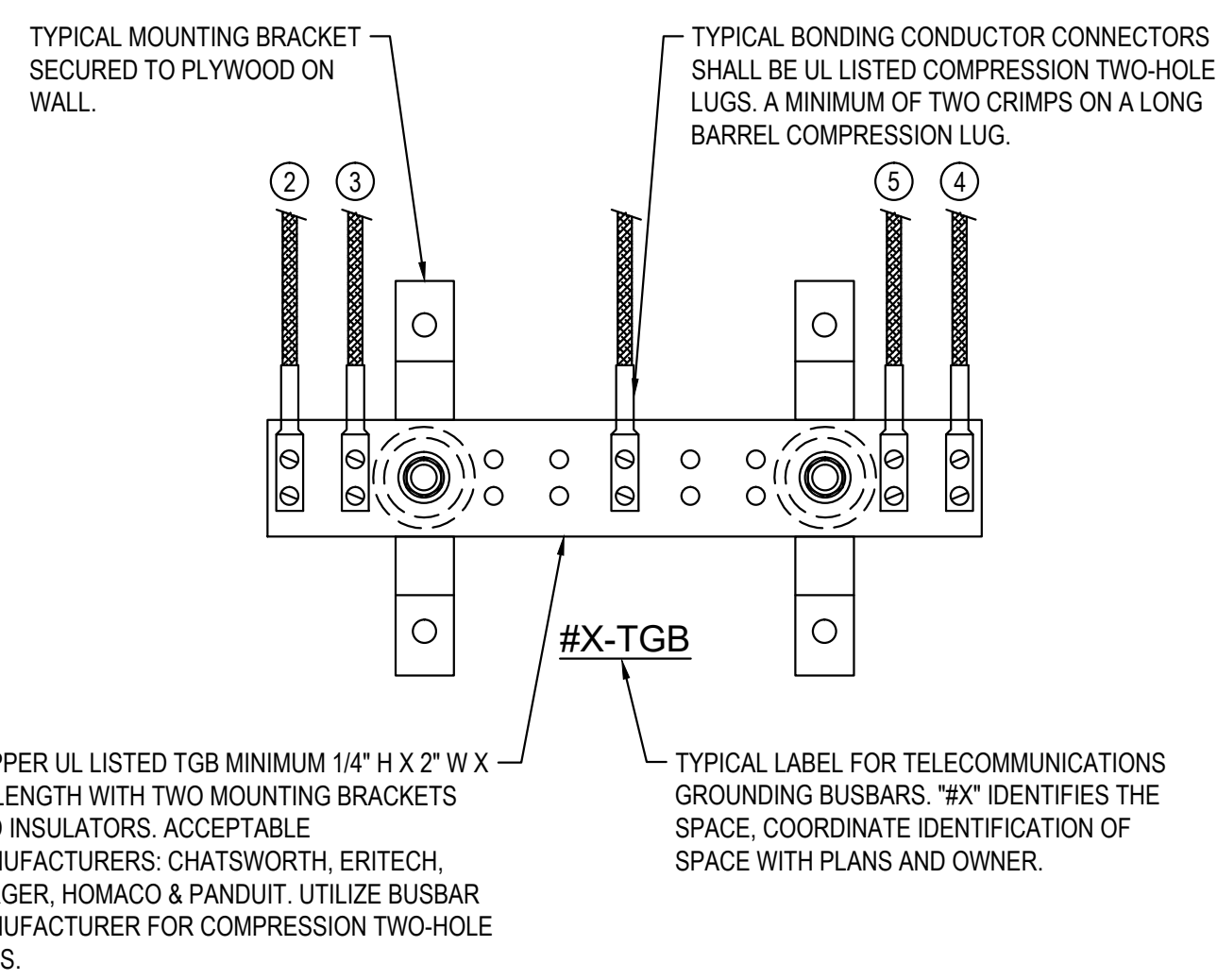
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**GROUNDING & BONDING GENERAL NOTES**

1. ALL TELECOM GROUNDING WORK SHALL BE PROVIDED AND INSTALLED BY STRUCTURED CABLING CONTRACTOR.
2. BONDING CONDUCTORS SHALL BE #30 AWG COLOR GREEN INSULATED COPPER CONDUCTOR OR SIZED PER "BONDING CONDUCTOR SIZING CHART" (ANSI J-STD-607-B) IN PATHWAY.
3. FASTENING BONDING CONNECTOR TWO-HOLE LUGS TO ALL BUSBARS SHALL BE CLEANED AND APPLY A COPPER ANTI-OXIDANT TO THE CONTACT AREA OF BOTH THE CONNECTOR LUG AND THE BUSBAR.
4. BONDING CONDUCTORS AND BUSBARS SHALL BE LABELED WITH IDENTIFICATION IN ACCORDANCE WITH THE REQUIREMENTS OF ANSITIA/EIA-606-B.
5. BONDING CONDUCTORS SHALL BE LABELED WITH IDENTIFICATION LABEL NOTED BELOW AND SECURED WITH CABLE TIE TO EACH CONDUCTOR. (ANSI J-STD-607-B) IF THIS CONNECTOR OR CABLE IS LOOSE OR MUST BE REMOVED, PLEASE CALL THE BUILDING TELECOMMUNICATIONS MANAGER.
6. STRUCTURED CABLING CONTRACTOR SHALL PERFORM CONTINUITY TESTING MEASUREMENTS OF THE GROUNDING RESISTANCE TO NOT EXCEED 0.1 OHM BETWEEN:
  - A. THE TMGB AND THE NEAREST GROUNDING ELECTRODE.
  - B. THE TGB AND THE NEAREST GROUNDING ELECTRODE.
  - C. EACH TGB AND THE PATHWAY(S), RACK(S), CABINET(S) AND APPLICABLE EQUIPMENT.

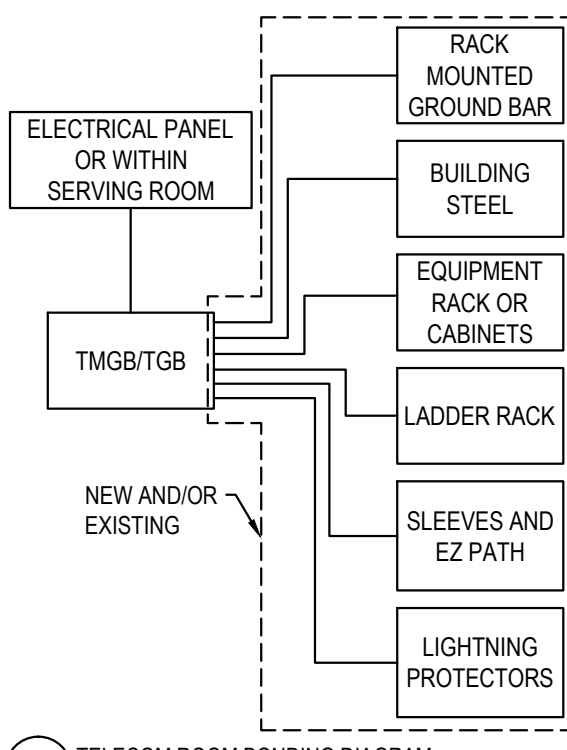


**BONDING CONDUCTOR SIZING CHART**

LENGTH (FEET)	SIZE (AWG)
LESS THAN (<) 13'	# 6
14' - 20'	# 4
21' - 26'	# 3
27' - 33'	# 2
34' - 41'	# 1
42' - 52'	# 1/0
53' - 66'	# 2/0
GREATER THAN (>) 66'	# 3/0

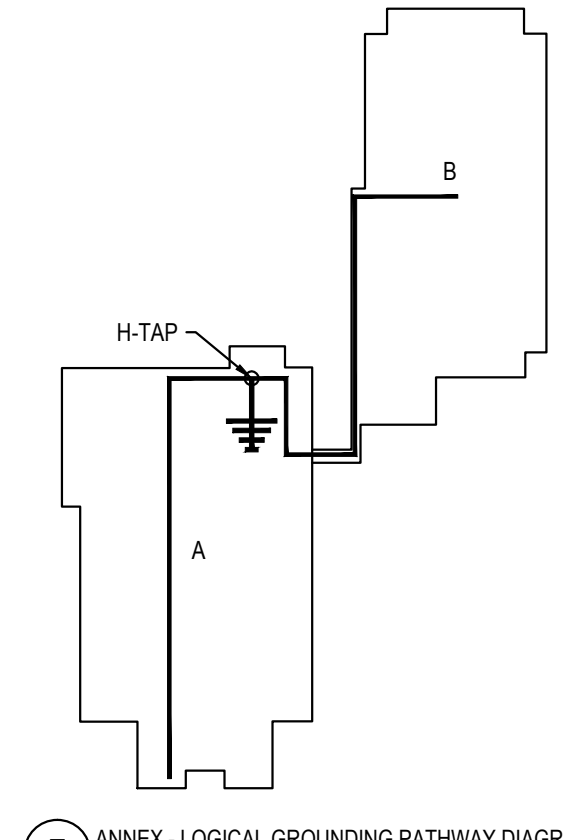
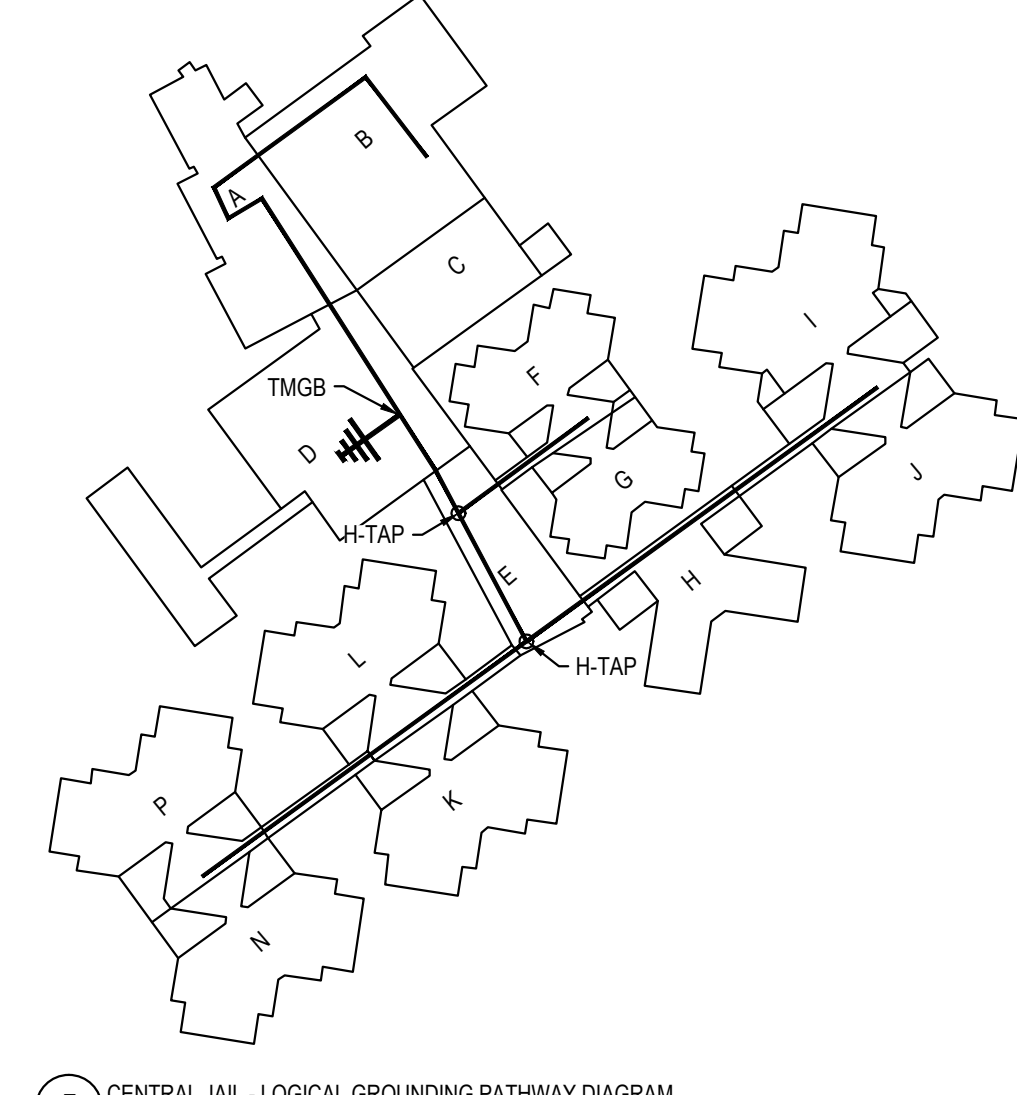
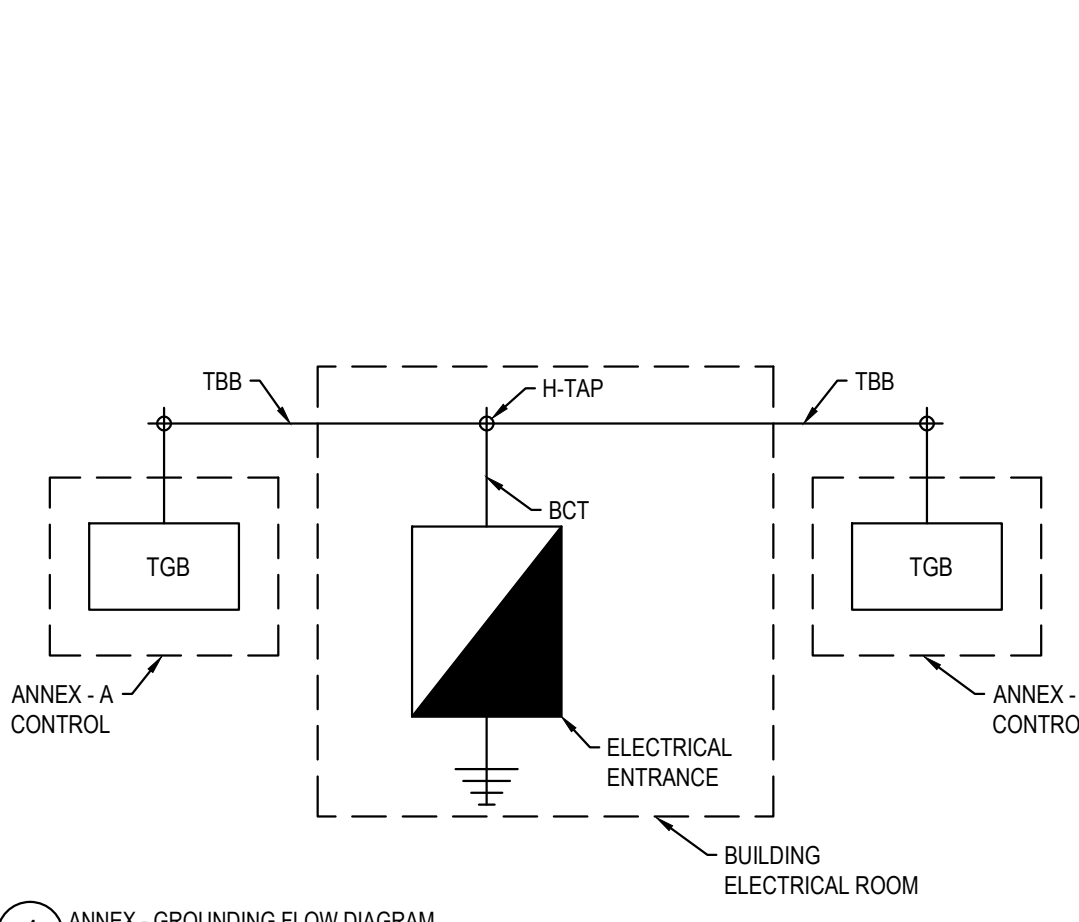
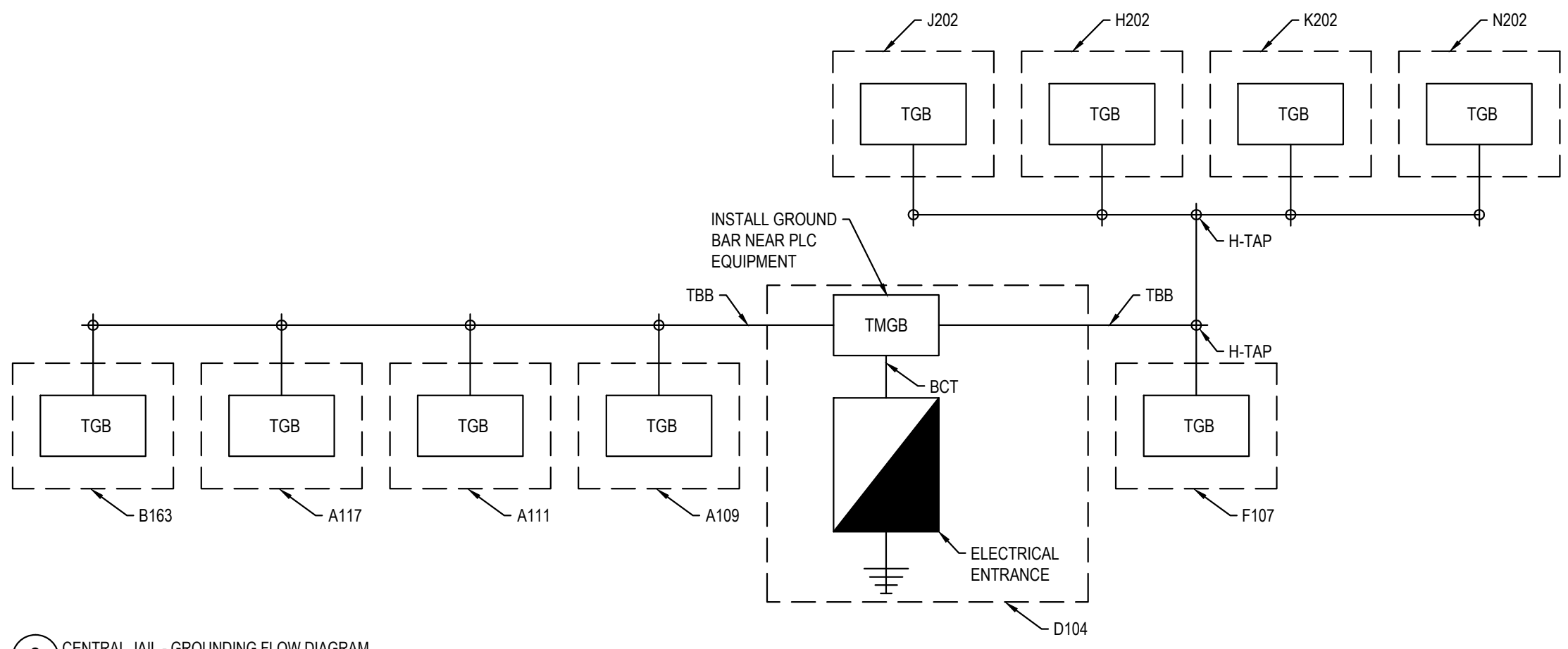
**GROUNDING & BONDING RISER DETAIL NOTES**

- 1 BONDING CONDUCTOR FOR TELECOMMUNICATIONS (BCT) TO BUILDING GROUNDING ELECTRODE. BCT SHALL NOT BE SMALLER THEN THE TBB.
- 2 BCT TO NEAREST BUILDING STEEL STRUCTURE. IF APPLICABLE UTILIZED EXOTHERMIC WELDING CONNECTION TO BUILDING STEEL.
- 3 TELECOMMUNICATIONS BONDING BACKBONE (TBB) FOR GROUNDING EQUALIZER (GE), IF APPLICABLE.
- 4 TYPICAL TBB(S) THAT INTERCONNECTS ALL TGB(S) WITH THE TMGB.
- 5 BCT TO TELECOMMUNICATIONS CABLE RUNWAY(S), RACK(S), CABINET(S) AND APPLICABLE EQUIPMENT. DAISY CHAINING OF BCT AT RELAY RACKS IS NOT ACCEPTABLE. EACH RACK IS TO HAVE A BCT TO A COMPRESSION LUG TAP TO DEDICATED HOMERUN ACT BACK TO THE TGB. SEE DETAILS.



1 GROUNDING AND BONDING DETAIL  
SCALE: N/A

2 TELECOM ROOM BONDING DIAGRAM  
SCALE: N/A



3 CENTRAL JAIL - GROUNDING FLOW DIAGRAM  
SCALE: N/A

4 ANNEX - GROUNDING FLOW DIAGRAM  
SCALE: N/A

5 CENTRAL JAIL - LOGICAL GROUNDING PATHWAY DIAGRAM  
SCALE: N/A

7 ANNEX - LOGICAL GROUNDING PATHWAY DIAGRAM  
SCALE: N/A

GENERAL NOTES:  
1. DESIGNS DIAGRAMMATIC AND NOT BE USED FOR CONSTRUCTION. EXACT PART REQUIREMENTS AND PATHWAYS TO BE FIELD VERIFIED.

SECURITY EQUIPMENT UPGRADE PROJECT  
MANATEE CO CENTRAL JAIL  
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TECHNOLOGY -  
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T5.0.03