

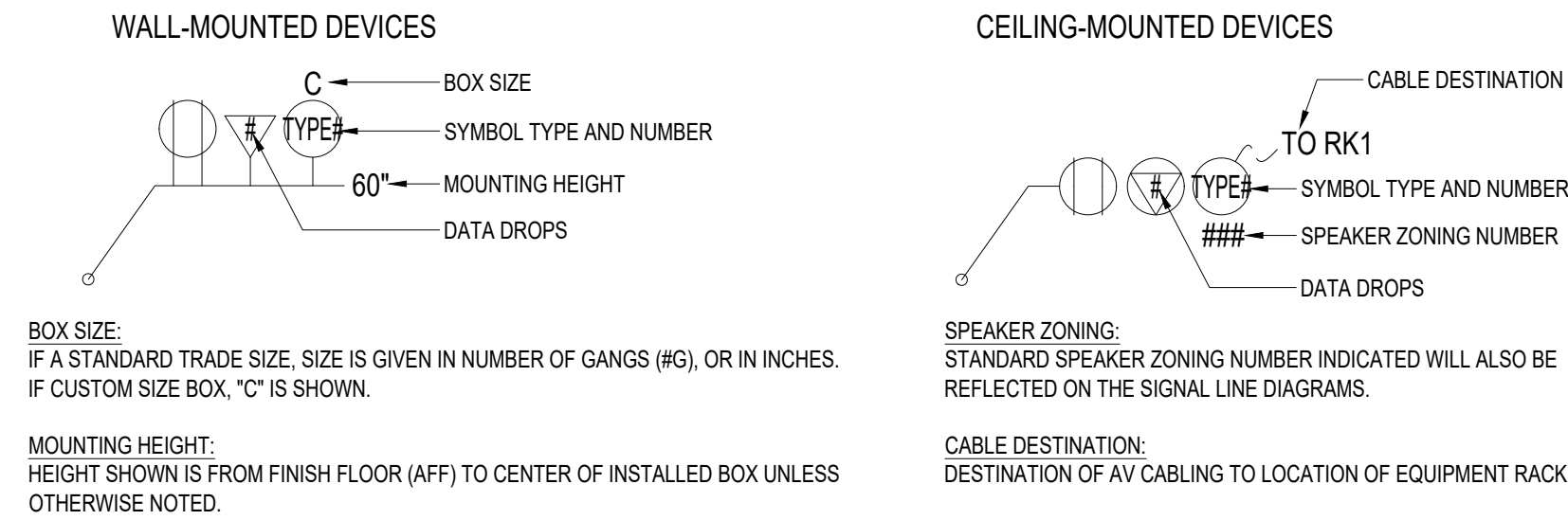
AUDIO VISUAL SYSTEMS SHEET INDEX

#	SHEET NUMBER	SHEET NAME	REV 0	REV 1	REV 2	REV 3	REV 4	REV 5	REV 6	REV 7	REV 8	REV 9	REV10
1	TA001	AV COVER PAGE	○										
2	TA100	AV KEY PLAN	○										
3	TA101.B	AV FLOOR PLAN - SEGMENT B	○										
4	TA101.D	AV FLOOR PLAN - SEGMENT D	○										
5	TA101.E	AV FLOOR PLAN - SEGMENT E	○										
6	TA101.F	AV FLOOR PLAN - SEGMENT F	○										
7	TA101.G	AV FLOOR PLAN - SEGMENT G	○										
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10	TA111.G	AV REFLECTED CEILING PLAN - SEGMENT G	○										
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14	TA204	AV ELEVATIONS SHEET 4 OF 5	○										
15	TA205	AV ELEVATIONS SHEET 5 OF 5	○										
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17	TA502	AV MOUNTING DETAILS SHEET 2 OF 2	○										
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19	TA512	POWER CIRCUIT REQUIREMENTS	○										
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21	TA601-1	PE STORAGE (RACK ROOM) AV SIGNAL FLOW	○										
22	TA601-2	COMPETITION GYM AV SIGNAL FLOW 1 OF 2	○										
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24	TA601-4	HEALTHCARE STUDIO/TEAM MEETING ROOM AV SIGNAL FLOW	○										
25	TA601-5	MULTIPURPOSE GYM AV SIGNAL FLOW	○										
26	TA601-6	PE FITNESS ROOM AV SIGNAL FLOW	○										
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28	TA601-8	WEIGHT ROOM AV SIGNAL FLOW 2 OF 2	○										
29	TA601-9	WRESTLING ROOM AV SIGNAL FLOW	○										
30	TA602-E	PE STORAGE (RACK ROOM) AV EQUIPMENT RACK ELEVATION	○										
31	TA603-E	WEIGHT ROOM AV EQUIPMENT RACK ELEVATION	○										
32	TA604	HEAT LOAD CALCULATION	○										
33	TA605	CABLE PULL SCHEDULE	○										
34	TA800	TERMINATION NOTES	○										

LEGEND: ○ CURRENT △ REVISED ▲ NEW ⊘ OMITTED

LEGENDS

SYMBOLS	DESCRIPTION	
	WALL-MOUNTED DEVICE	SYMBOL TYPES: ALS = ASSISTED LISTEN ANTENNA ANT = MICROPHONE ANTENNA AV = AV GROMMET PLATE CAM = CAMERA FA = FLOOR ACCESS FB = FLOOR BOX KP = KEYPAD/CONTROLLER LCD = LCD DISPLAY LVC = SCREEN LOW VOLTAGE CONTROL LVS = SCREEN SWITCH MAP = MICROPHONE ACCESS POINT MIC = MICROPHONE OS = OCCUPANCY SENSOR PRJ = PROJECTOR PS = PARTITION SENSOR PT = POKETHRU RK = AV EQUIPMENT RACK RS = ROOM SCHEDULER SPK = SPEAKER SUB = SUBWOOFER TP = TOUCHPANEL TV = CATV DROP VC = VOLUME CONTROL WAP = WIRELESS ACCESS POINT WP = WALL PLATE WMR = WIRELESS MIC RECEIVER
	FLOOR-MOUNTED DEVICE	
	CEILING-MOUNTED DEVICE	
	MODULAR/FURNITURE MOUNTED DEVICE	
	20A DUPLEX RECEPTACLE WALL MOUNTED	
	20A QUAD RECEPTACLE WALL MOUNTED	
	20A JUNCTION BOX ON 6FT WHIP. TYPICAL FOR POWERED SCREENS	
	DATA OUTLET (# INDICATES DATA DROPS)	

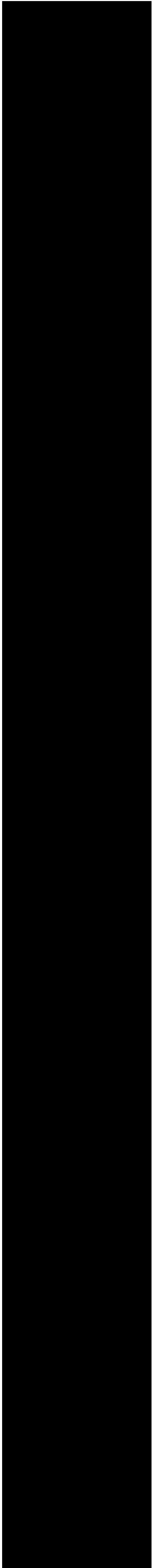


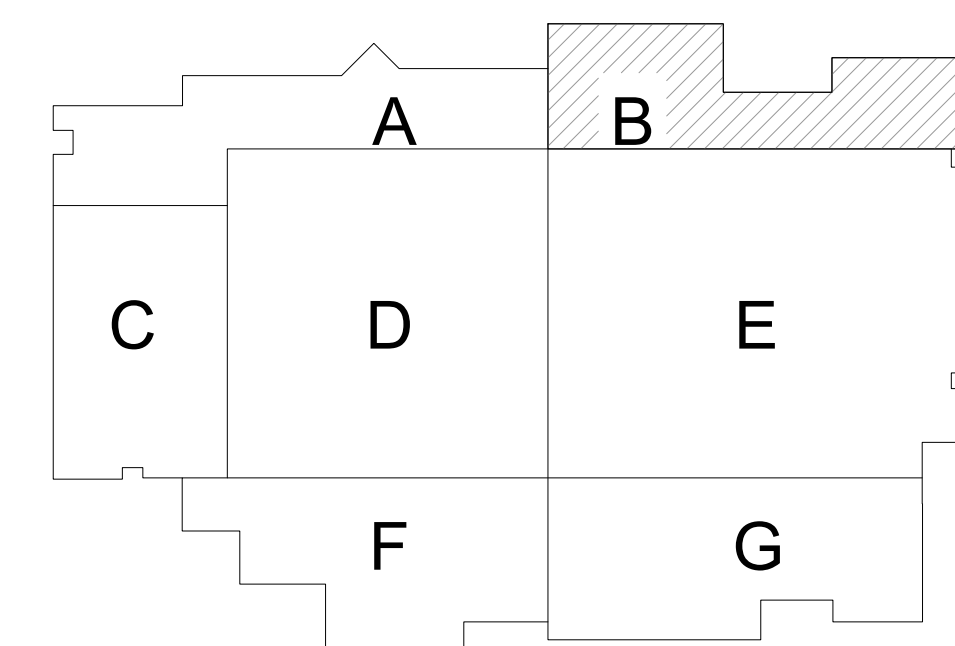
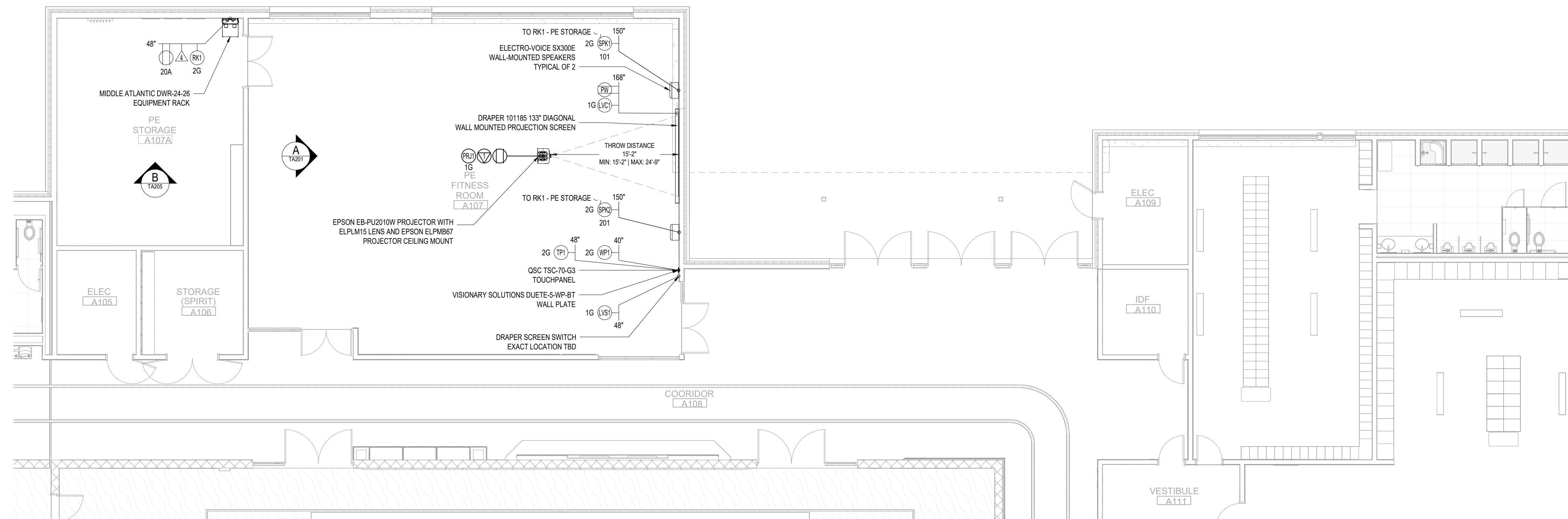
KEYNOTES:

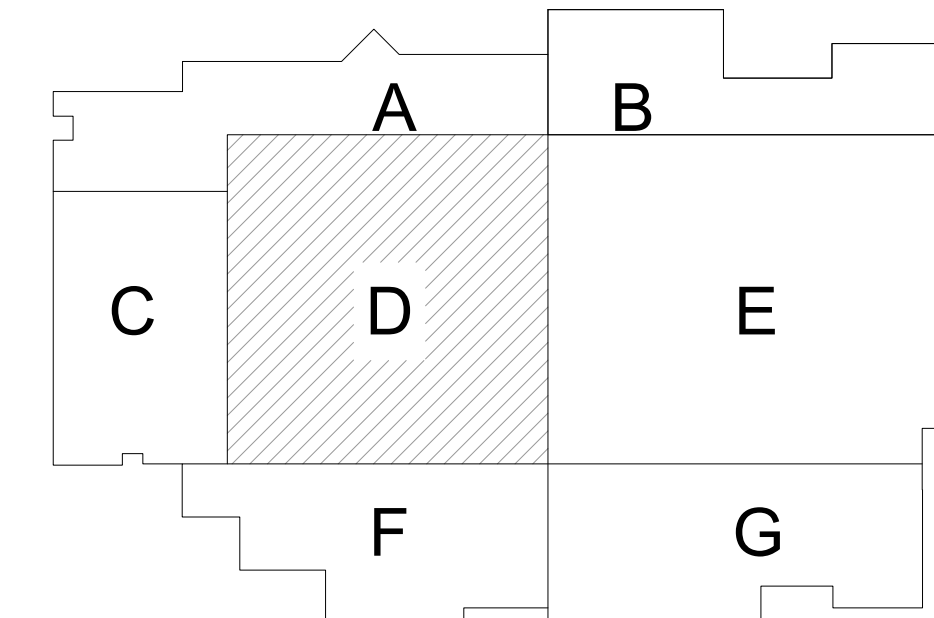
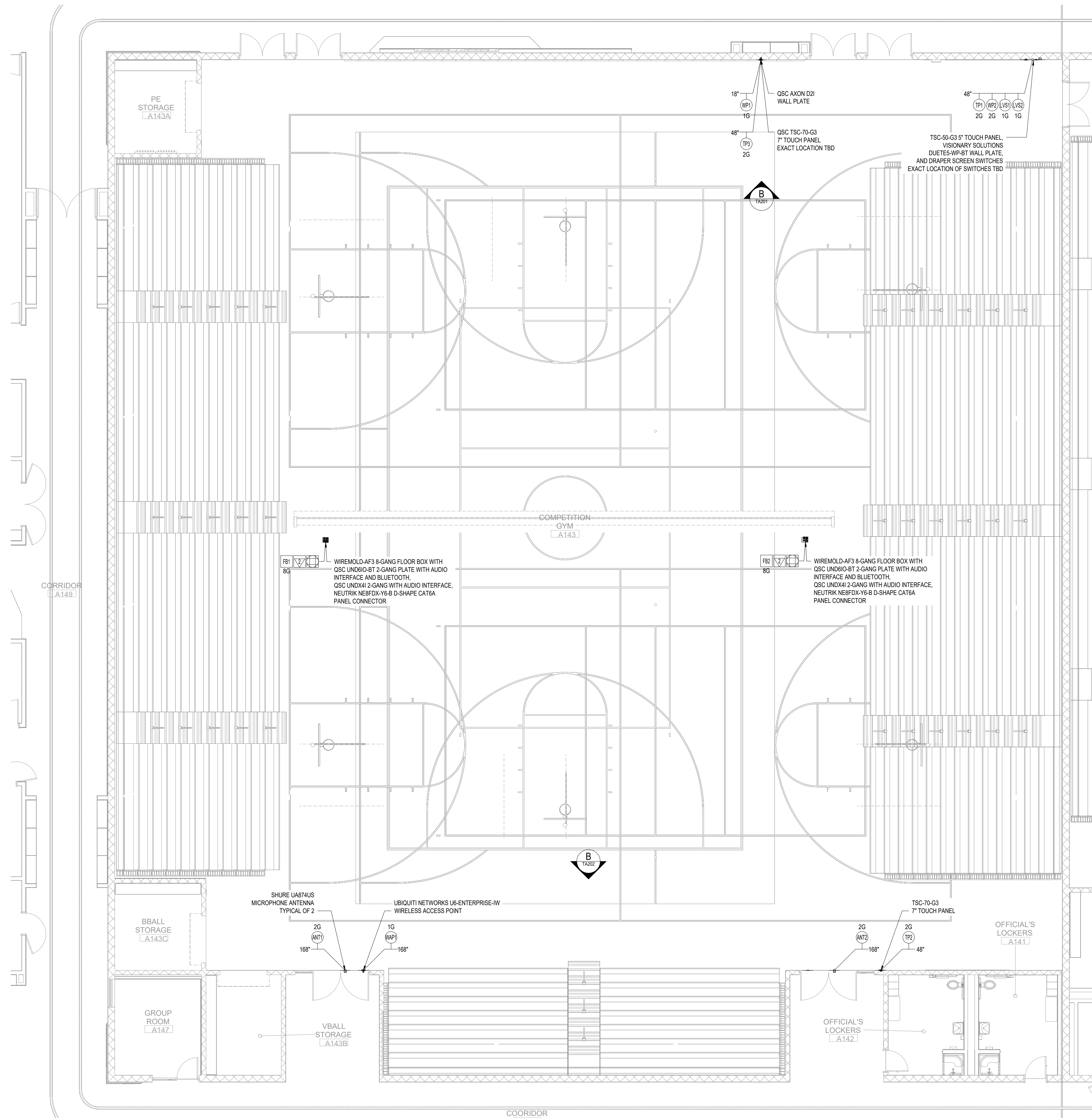
1 (1) 1-1/4" CONDUIT FROM FLOOR ACCESS TO BACKBOX BEHIND DISPLAY. POWER & DATA TO BE PROVIDED BY OTHERS.

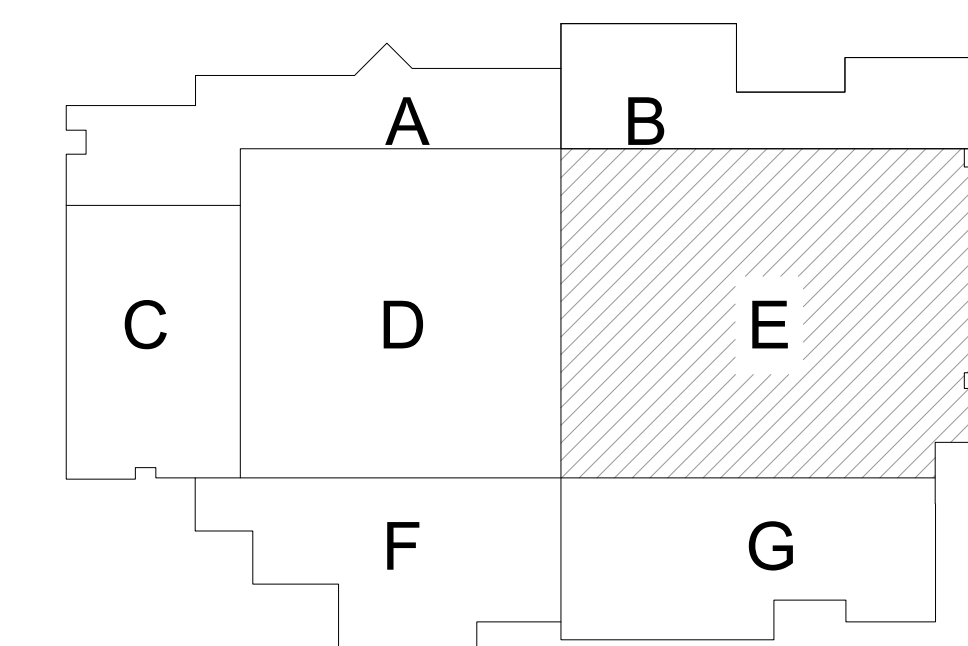
CABLE LEGEND

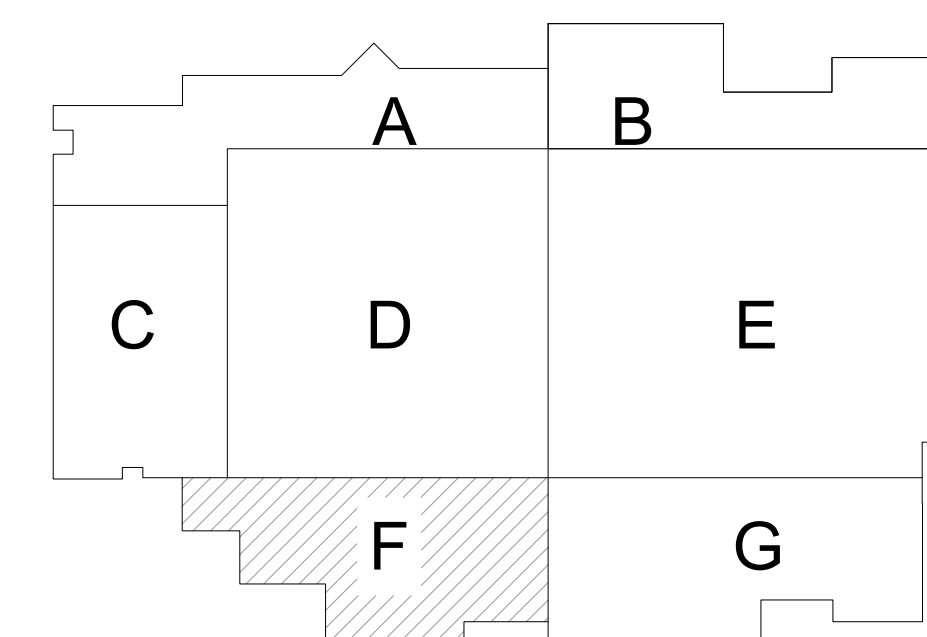
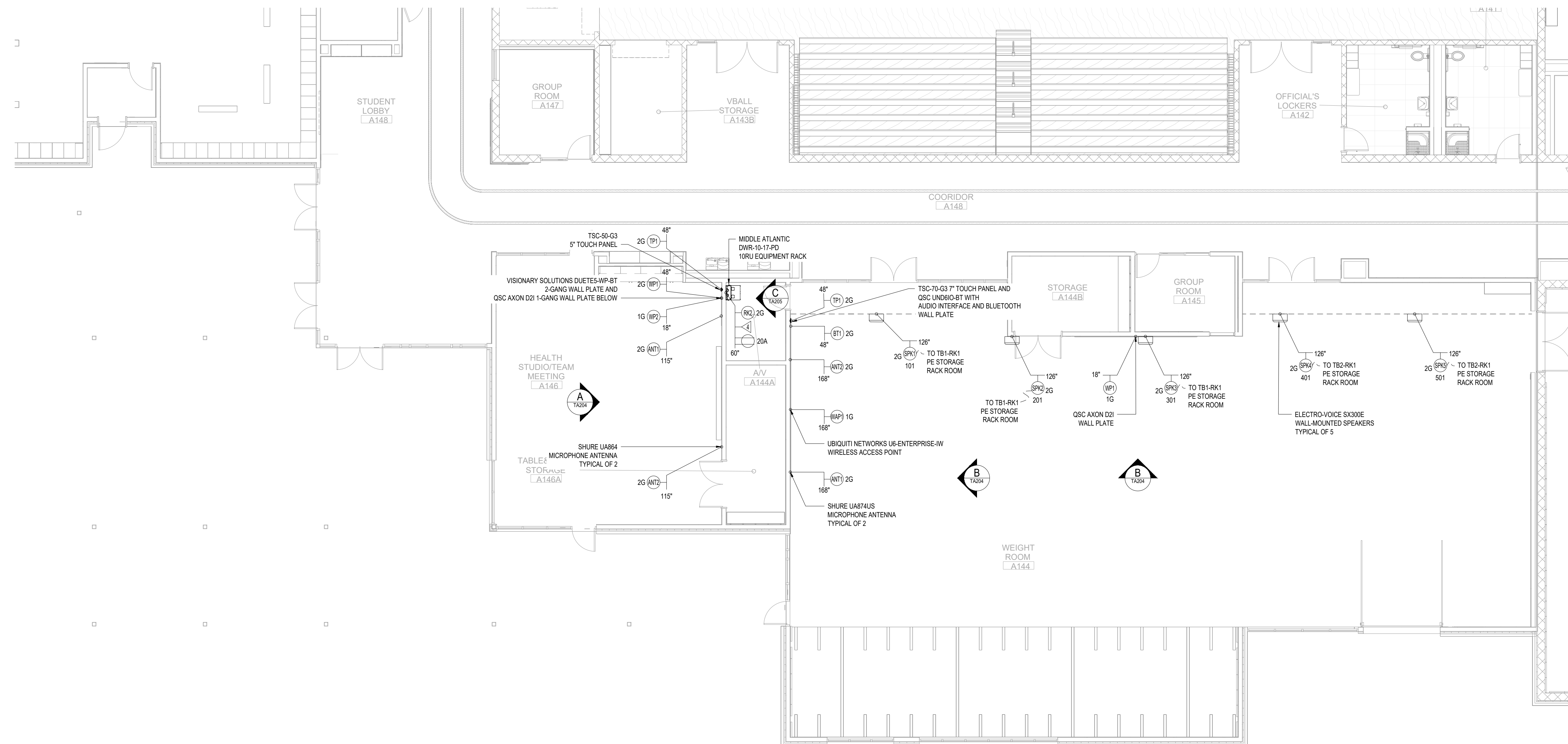
LABEL	TYPE	DESCRIPTION
AUD	AUDIO	22 AWG 2 COND, SHIELDED, PLENUM
C6A	CAT6A SHIELDED	CAT6A, SHIELDED, PLENUM
C6S	CAT6 SHIELDED	CAT6, SHIELDED, PLENUM
C6U	CAT6 UNSHIELDED	CAT6, UNSHIELDED, PLENUM
CRE	CRESNET	CRESTRON CRESNET OR APPROVED EQUIVALENT
CON	CONTROL	22 AWG 4 COND, SHIELDED, PLENUM
FIB	FIBER OPTIC	FIBER OPTIC (SPECIFY IN DESCRIPTION)
PRE	PREMADE CABLE	SPECIFIED BELOW EACH LABEL
PWR	POWER (TYP. LOW VOLTAGE)	16 AWG 2 COND, UNSHIELDED, PLENUM
RFA	RF ANTENNA	RG8, 10 AWG CENTER W/ COPPER SHIELD
RG6	RG6 VIDEO	RG6, 20 AWG CENTER W/ COPPER SHIELD
SPK	70V SPEAKER	16 AWG 2 COND, UNSHIELDED, PLENUM
SPL	LOW IMPEDANCE SPEAKER	14 AWG 2 COND, 19/27 BARE COPPER, UNSHIELDED PLENUM
XX	OTHER	SPECIFIED BELOW EACH LABEL

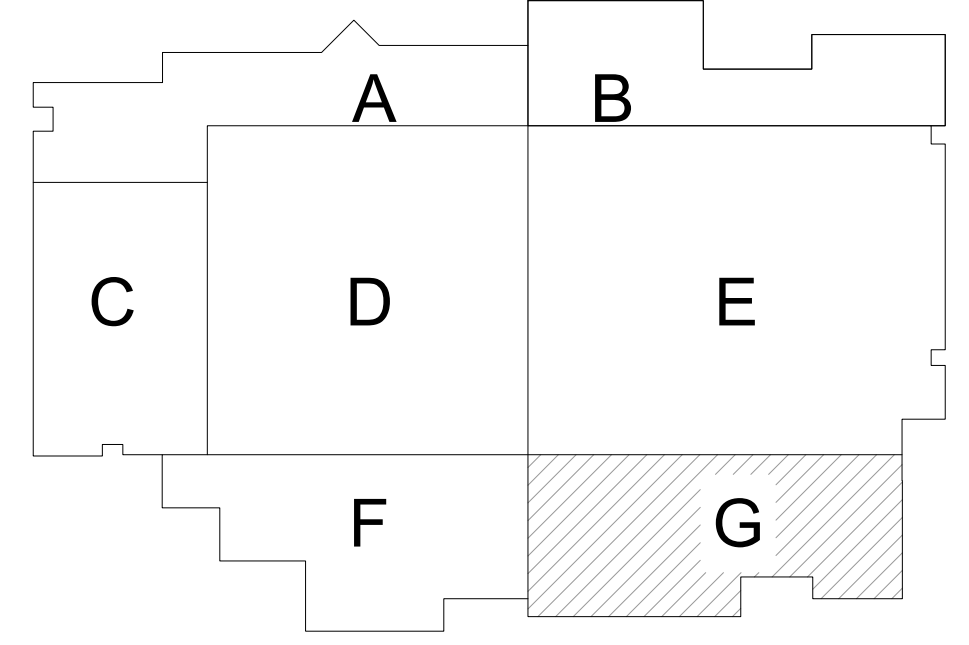
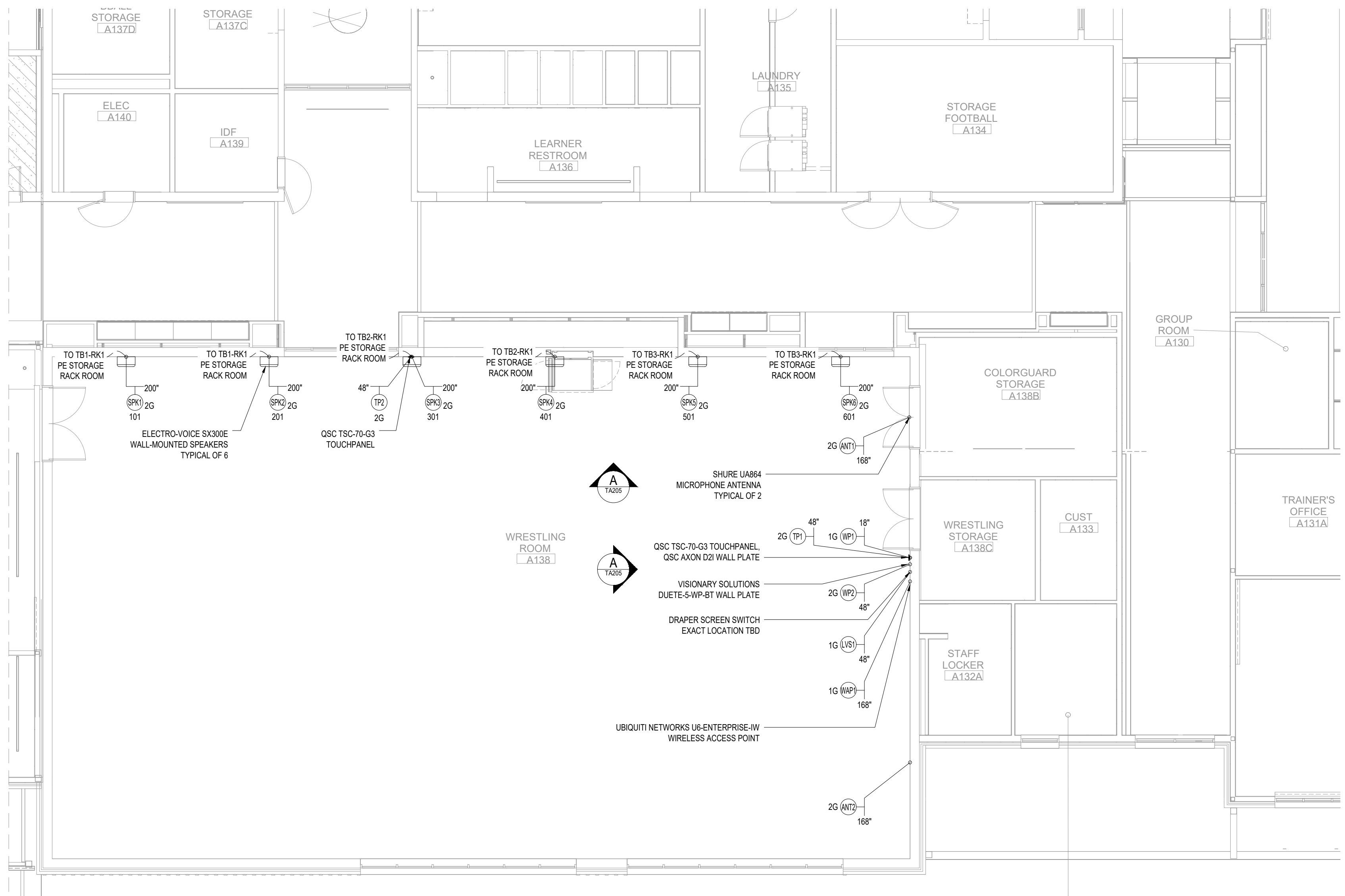








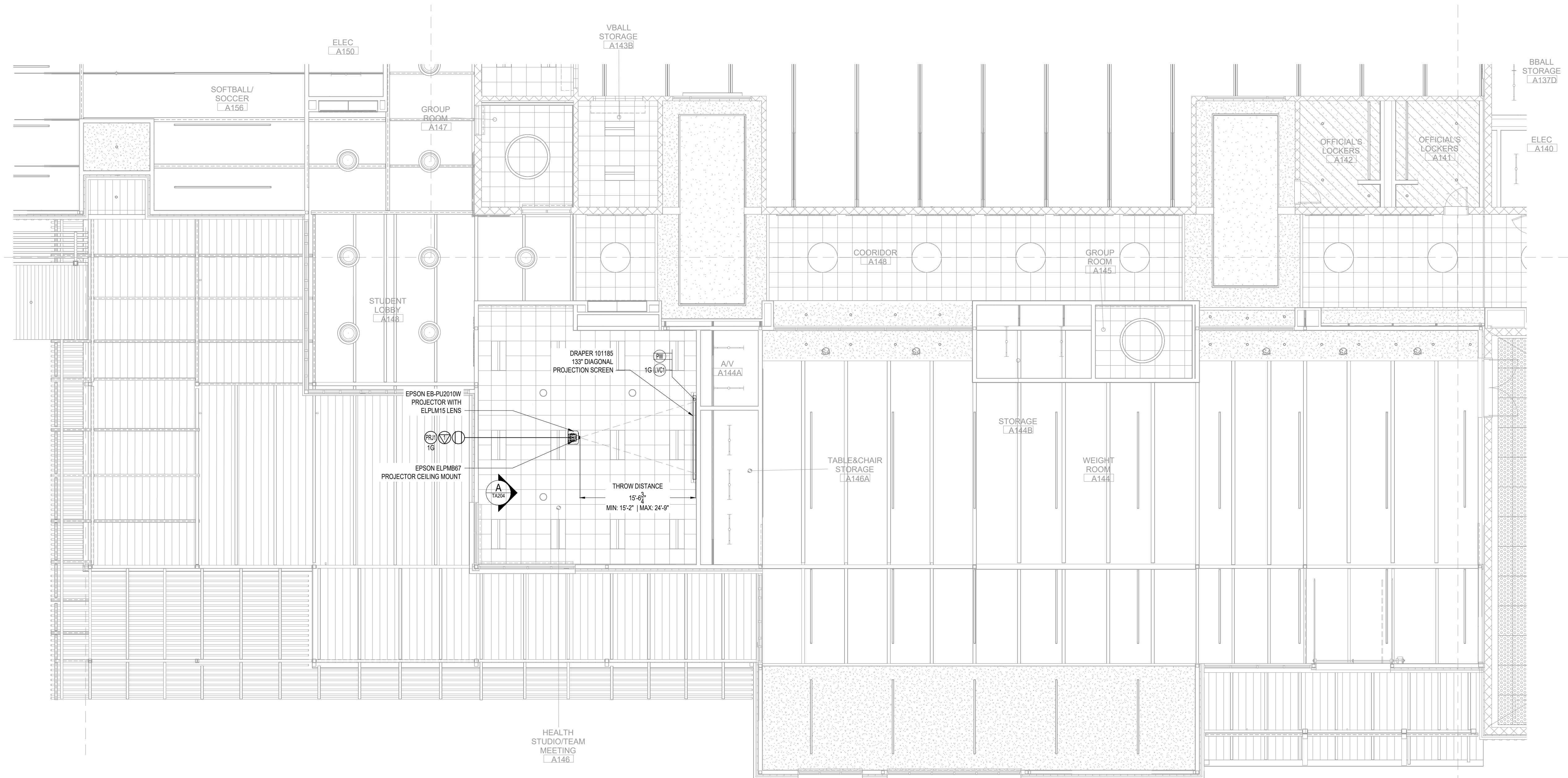




A WRESTLING ROOM - A138 (SEGMENT G)
AV FLOOR PLAN

SCALE:
1/8" = 1'-0"

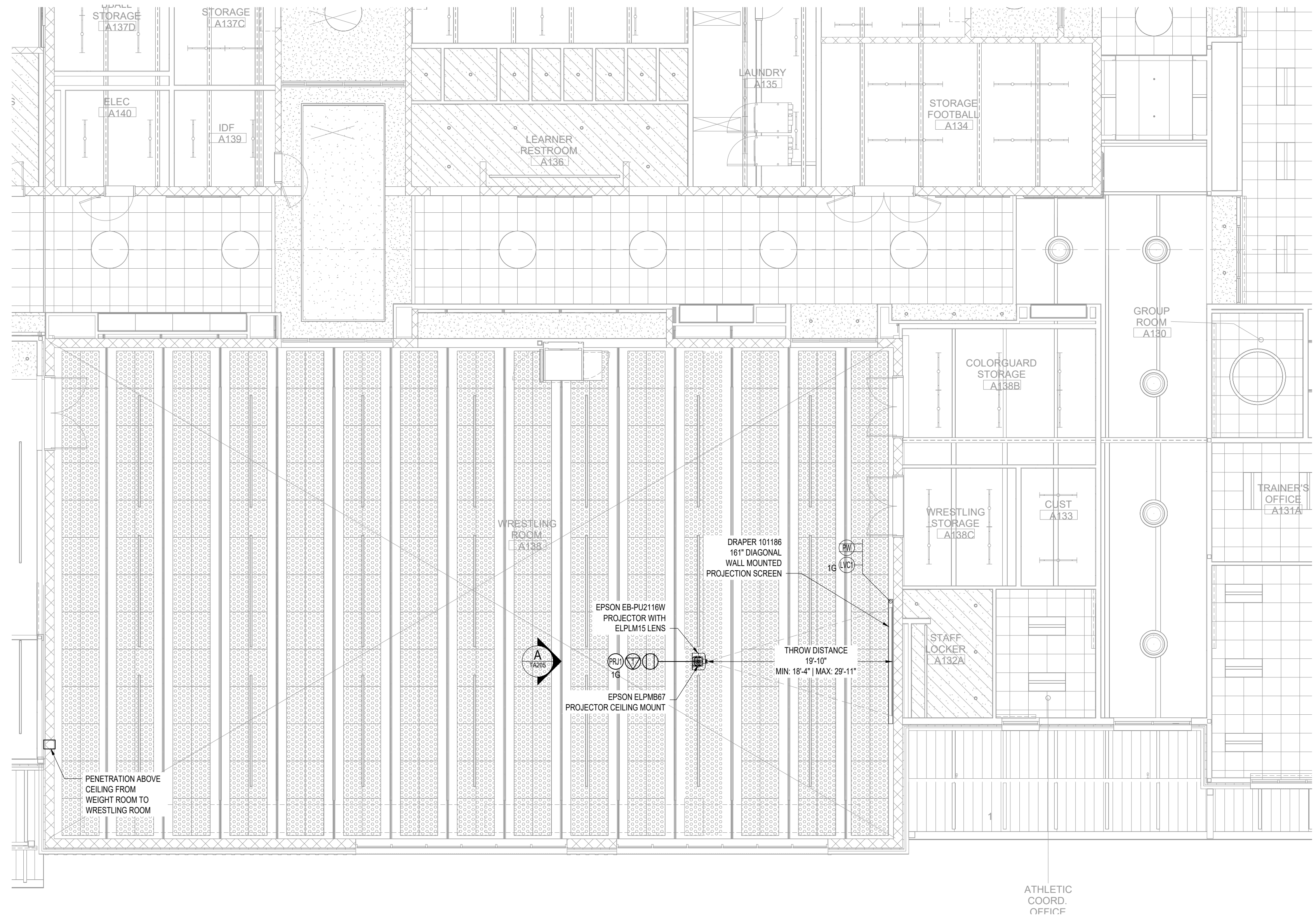


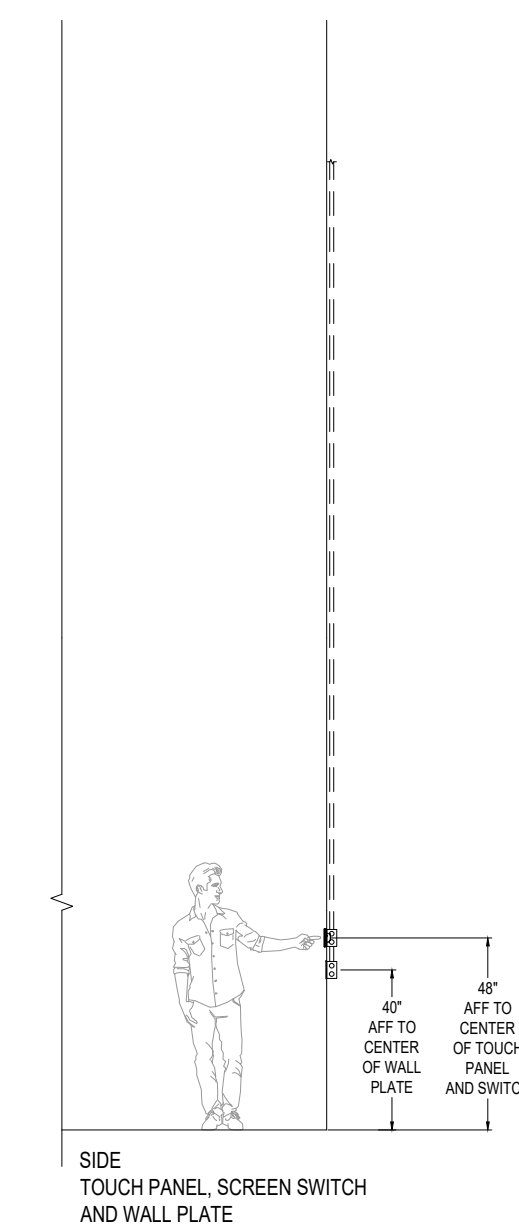
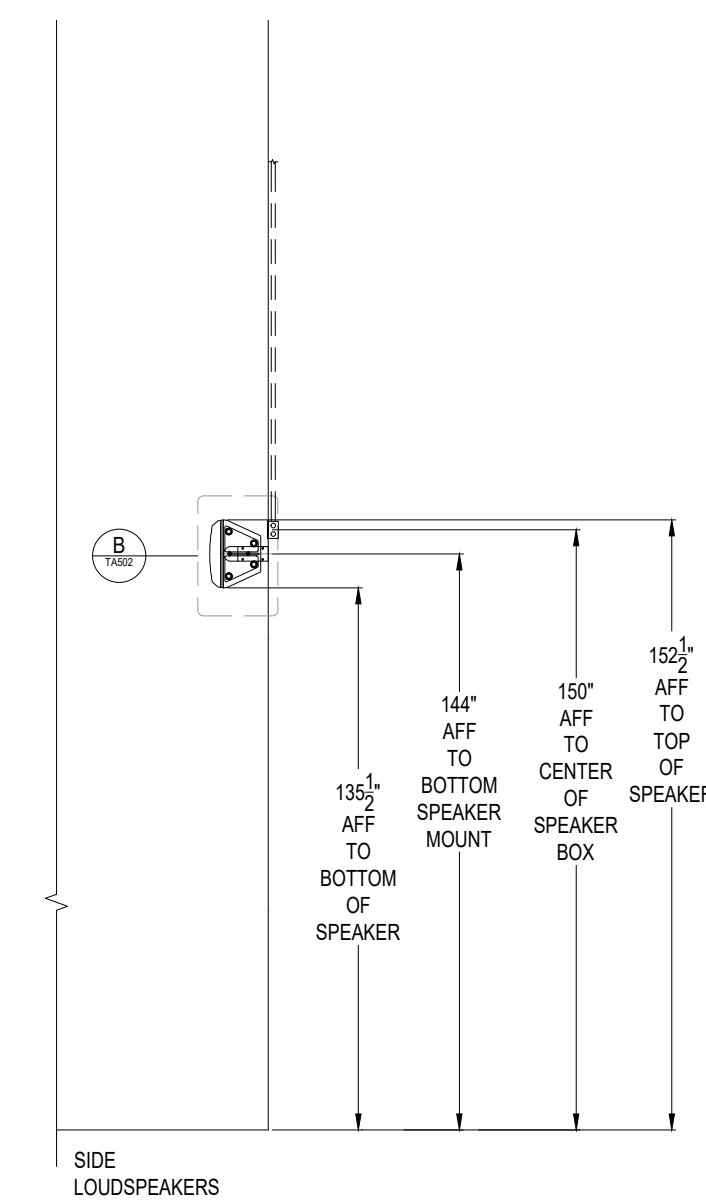
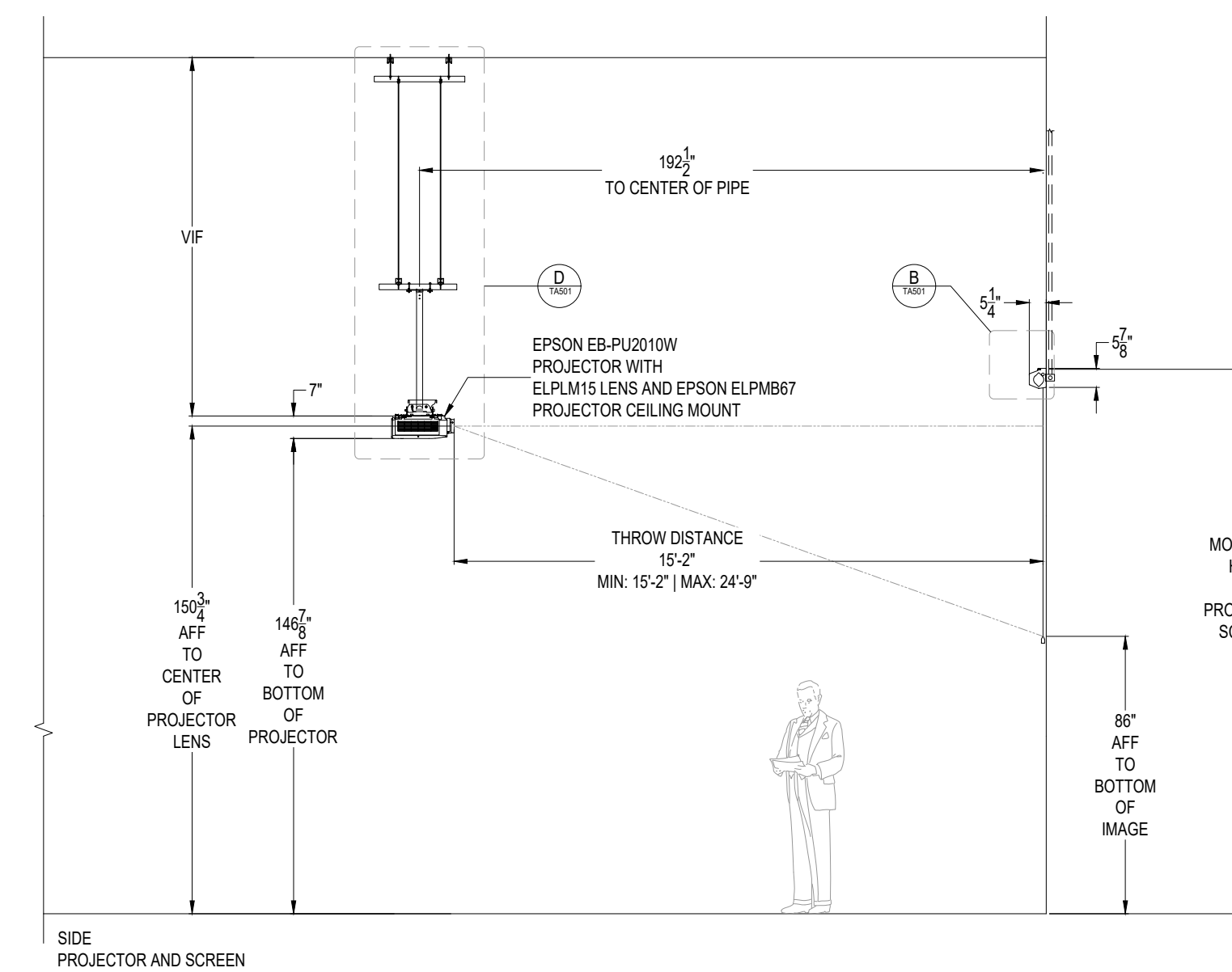
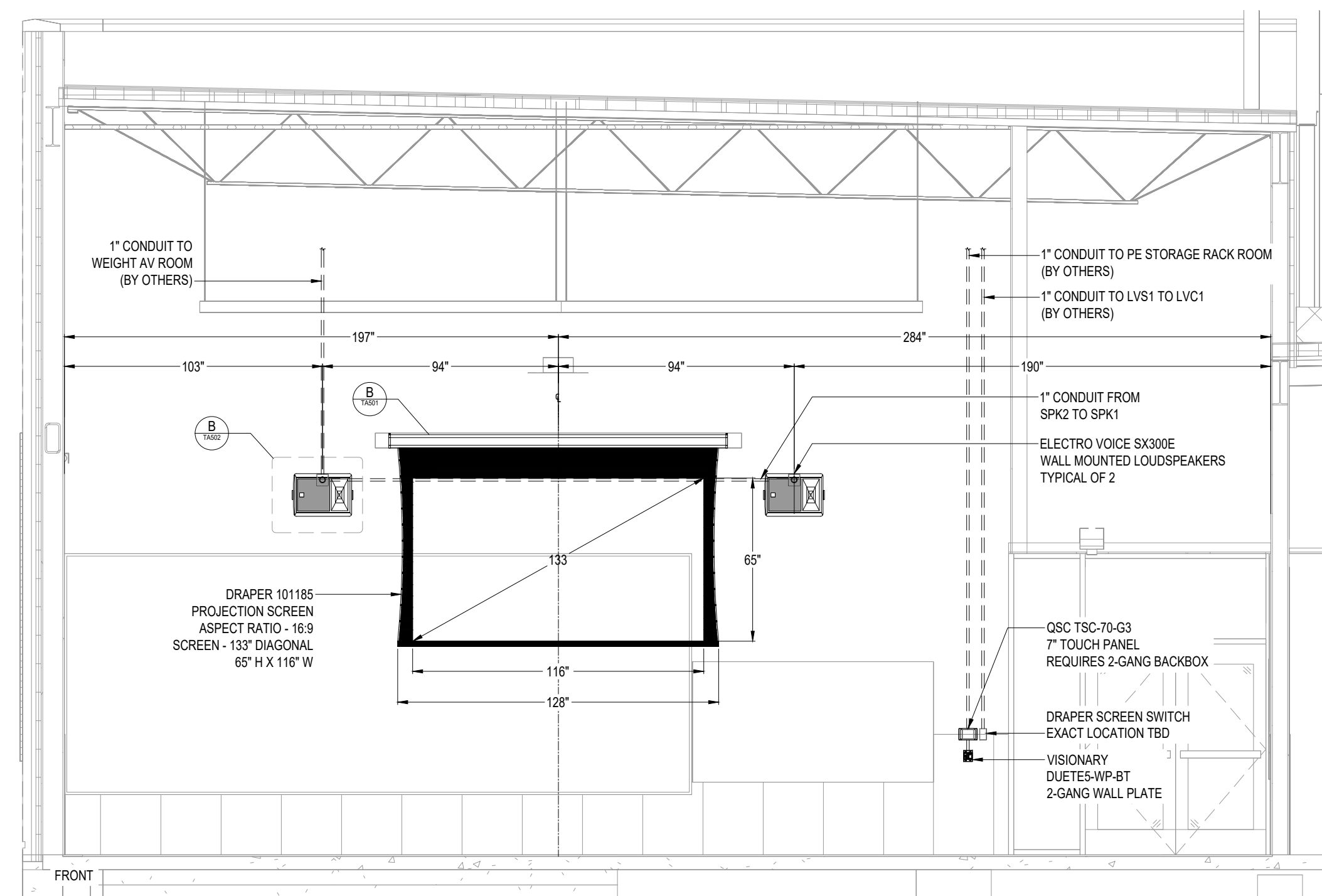


A

HEALTH STUDIO / TEAM MEETING - A146 (SEGMENT F)
AV REFLECTED CEILING PLAN

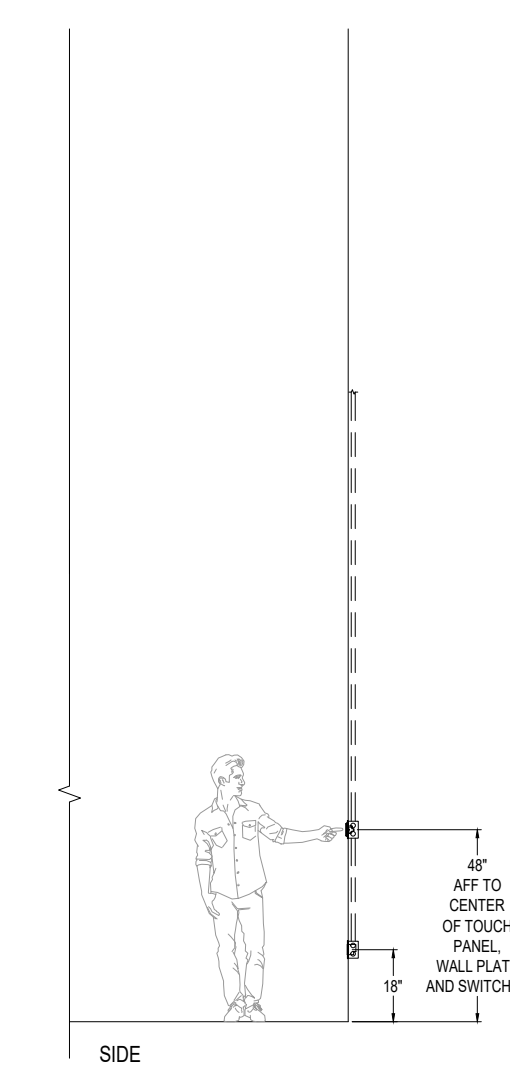
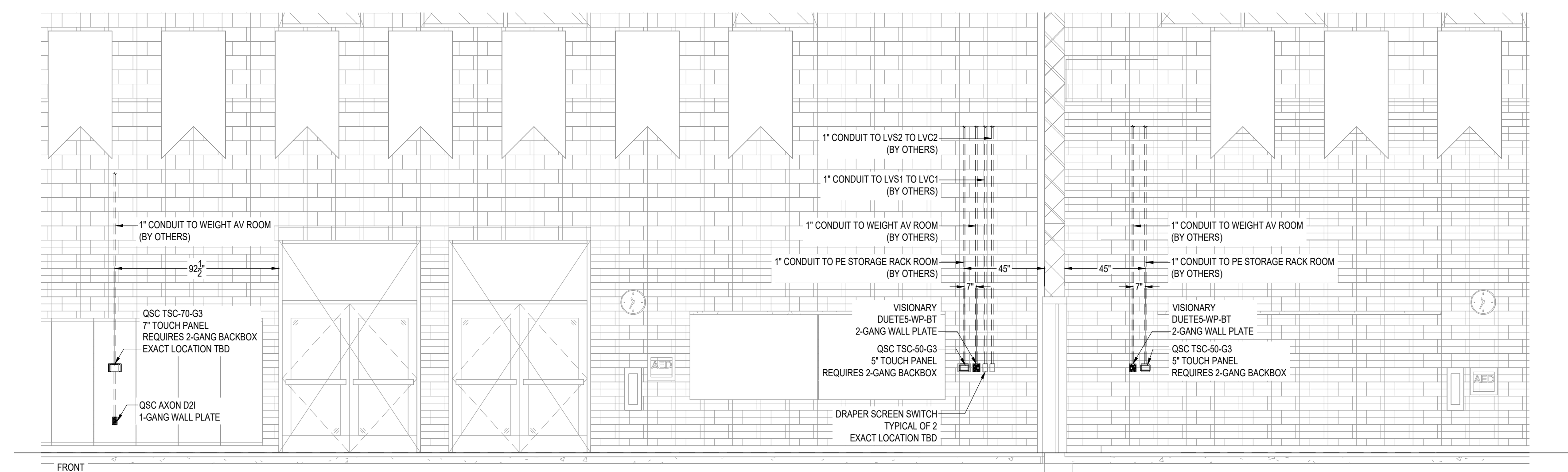
SCALE:
1/8" = 1'-0"





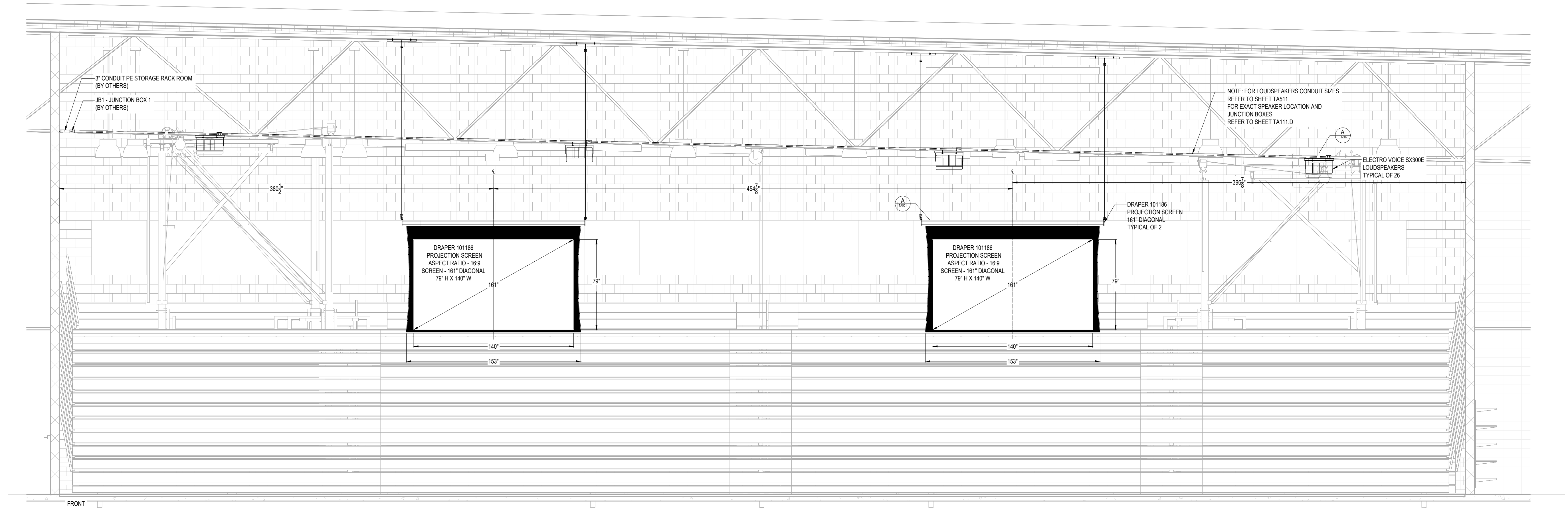
A PE FITNESS ROOM - A107
AV ELEVATION

SCALE:
1/4" = 1'-0"



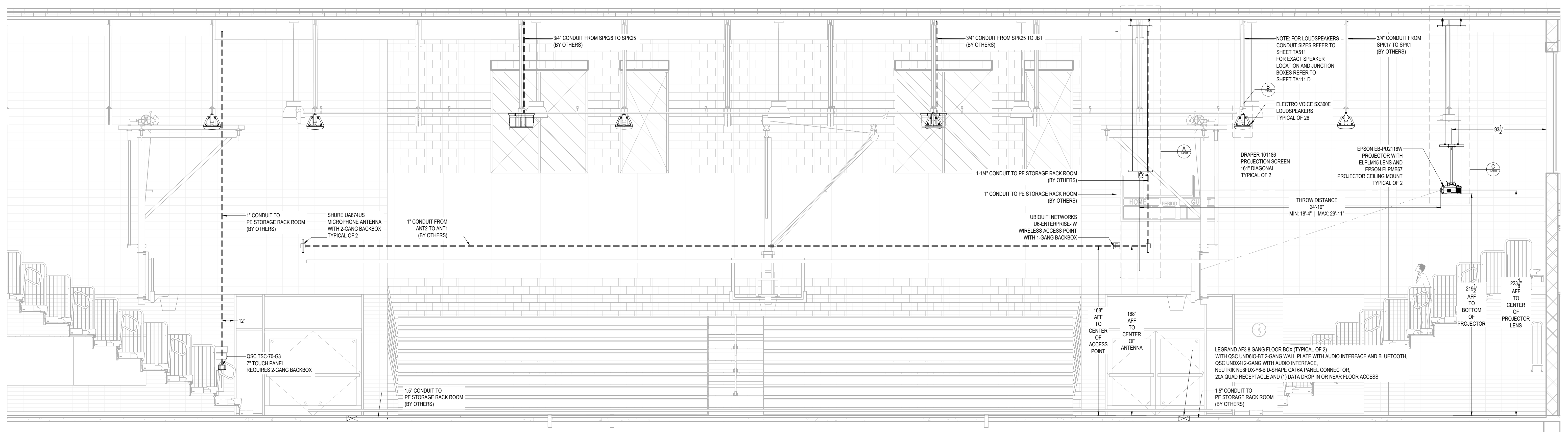
B COMPETITION GYM A143 AND MULTIPURPOSE GYM A137 (PLAN NORTH WALL)
AV ELEVATION

SCALE:
1/4" = 1'-0"



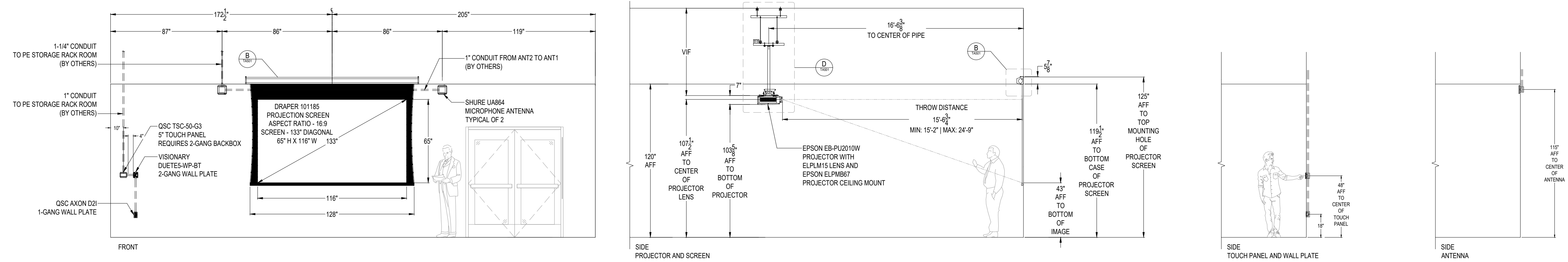
A COMPETITION GYM - A143 (PLAN EAST WALL)
AV ELEVATION

SCALE:
1/4" = 1'-0"



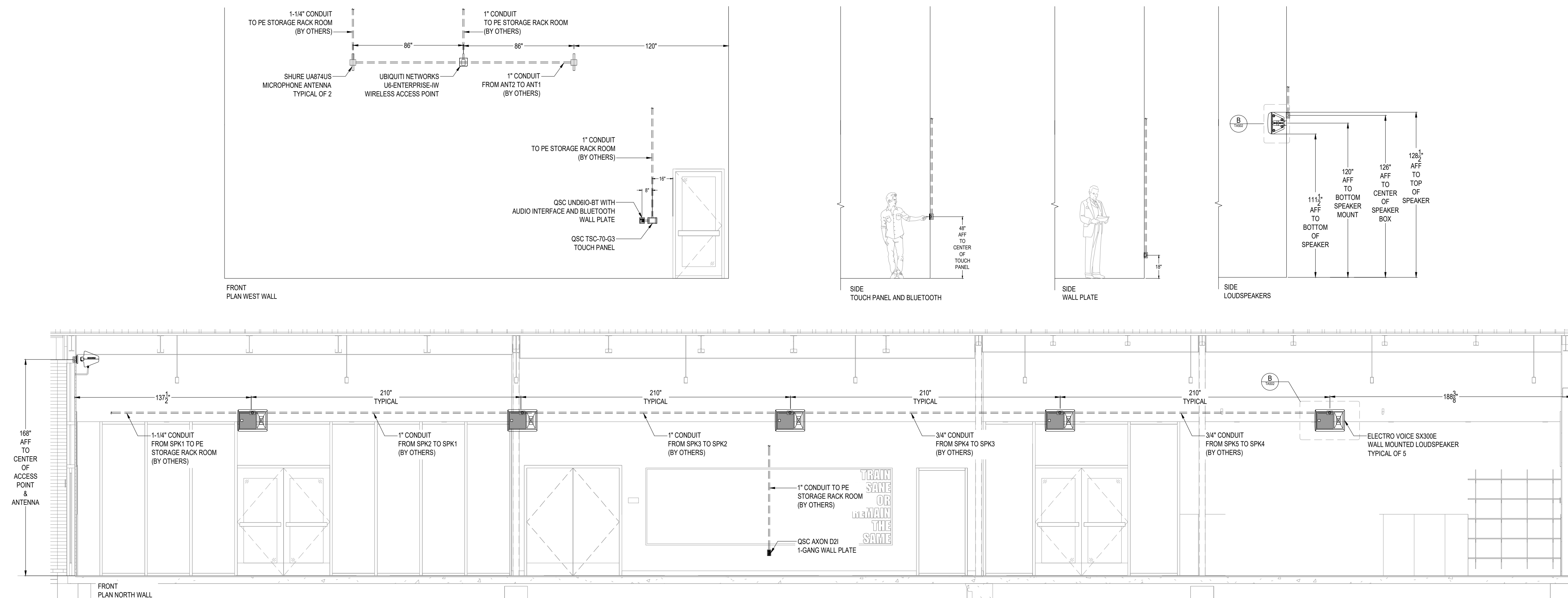
B COMPETITION GYM - A143 (PLAN SOUTH WALL AND SIDE SECTION)
AV ELEVATION

SCALE:
1/4" = 1'-0"



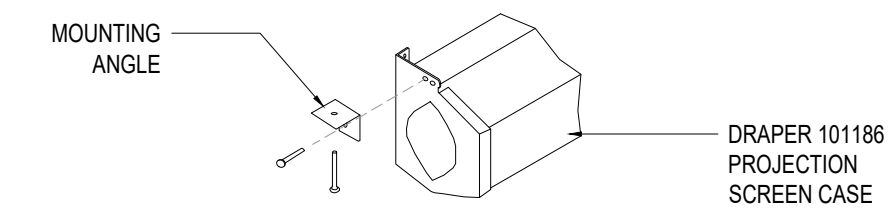
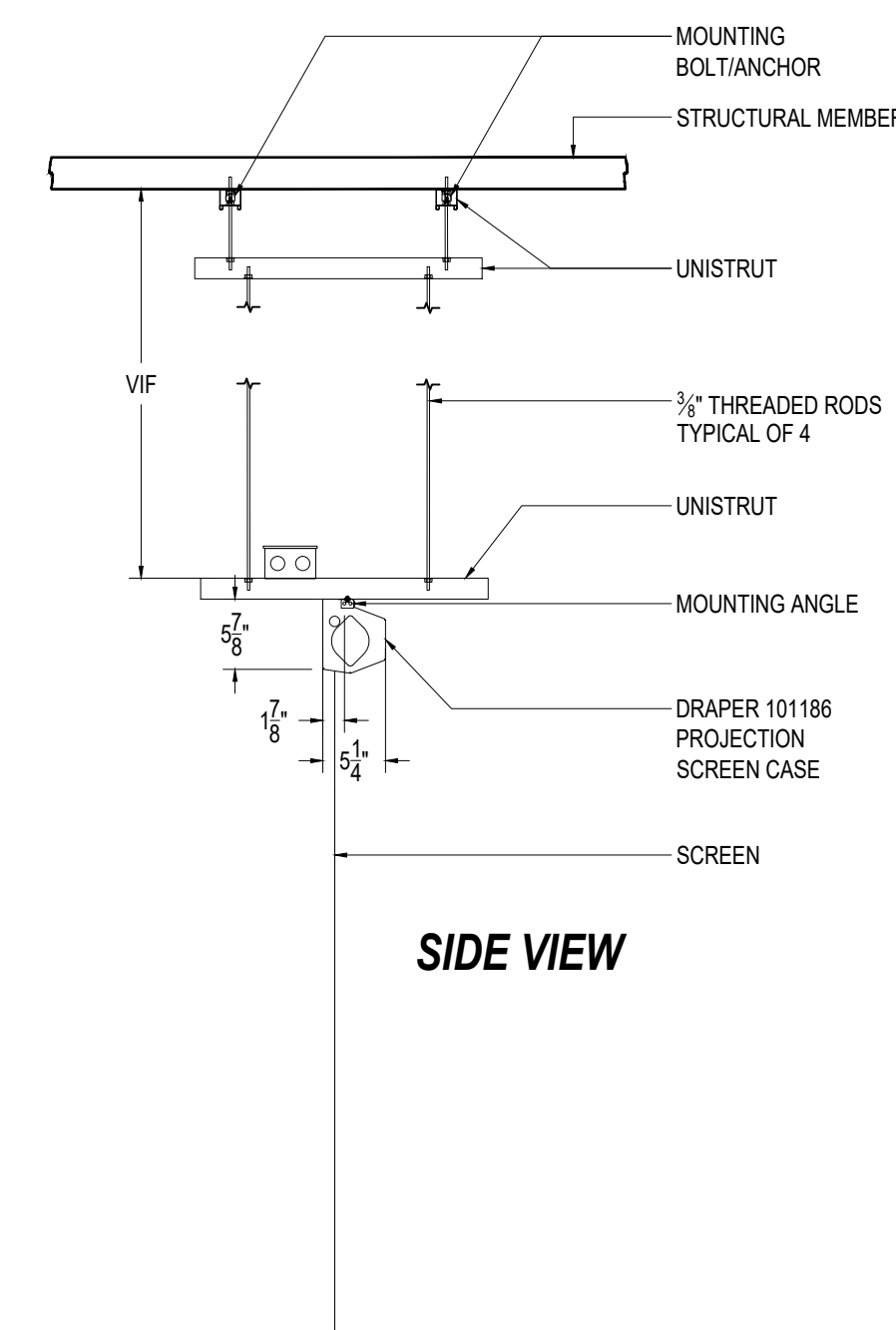
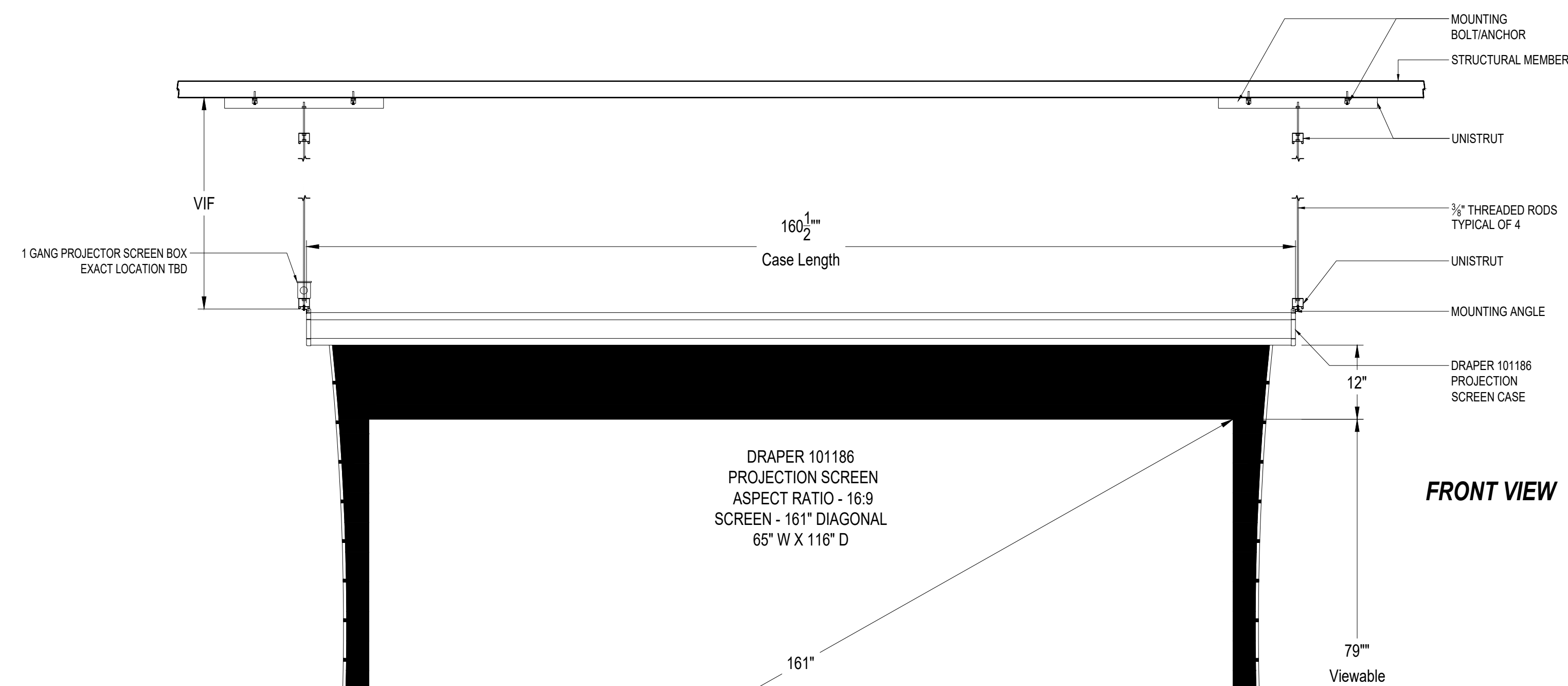
A HEALTH STUDIO/TEAM MEETING - A146
AV ELEVATION

SCALE:
1/4" = 1'-0"



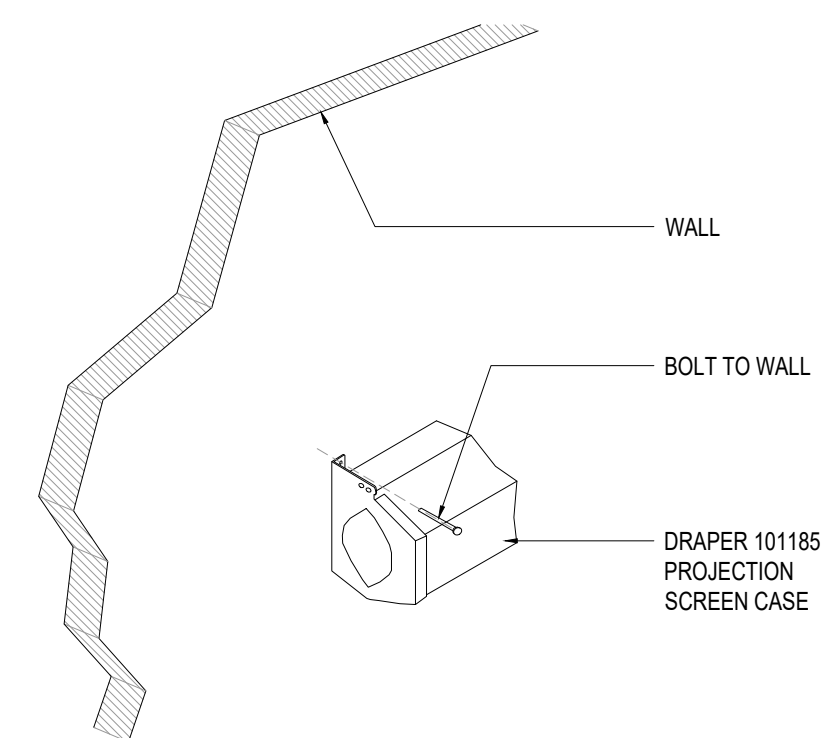
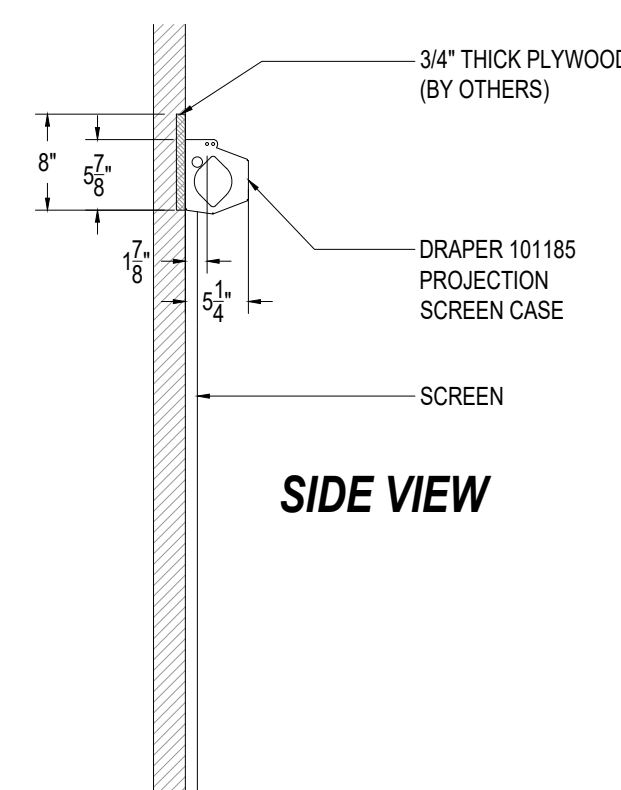
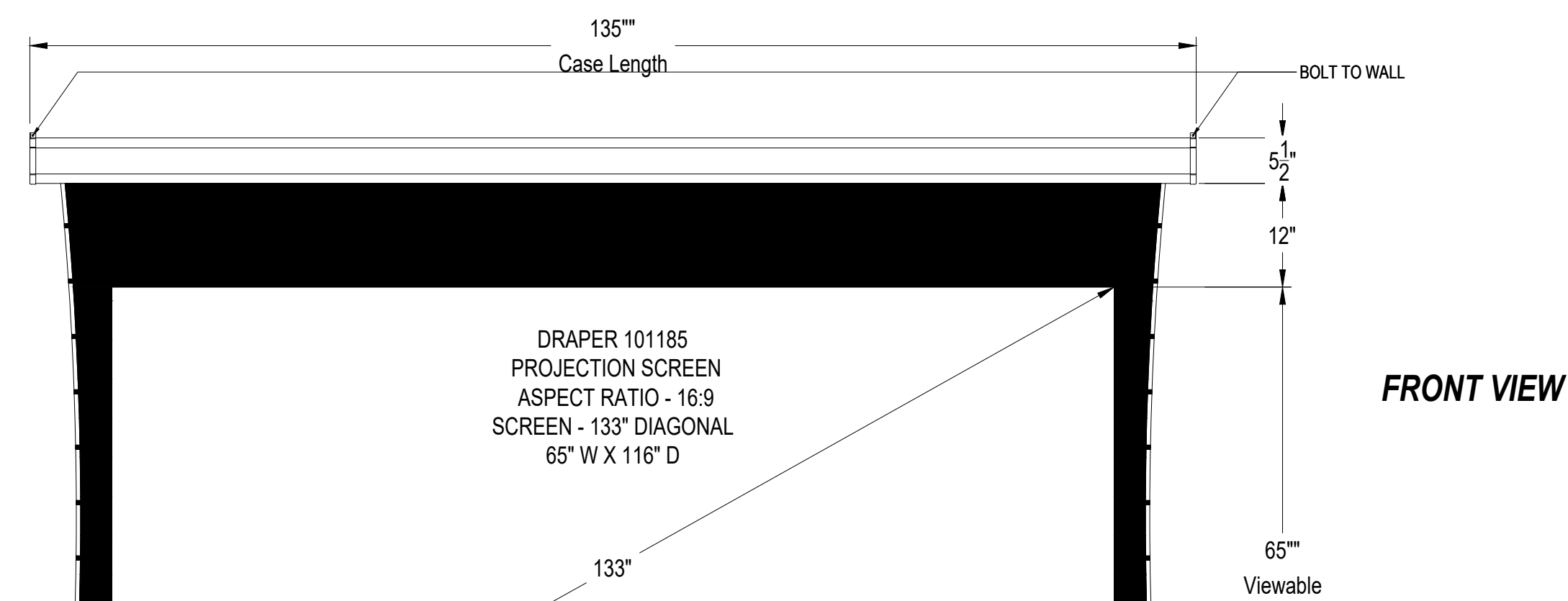
B WEIGHT ROOM - A144
AV ELEVATION

SCALE:
1/4" = 1'-0"



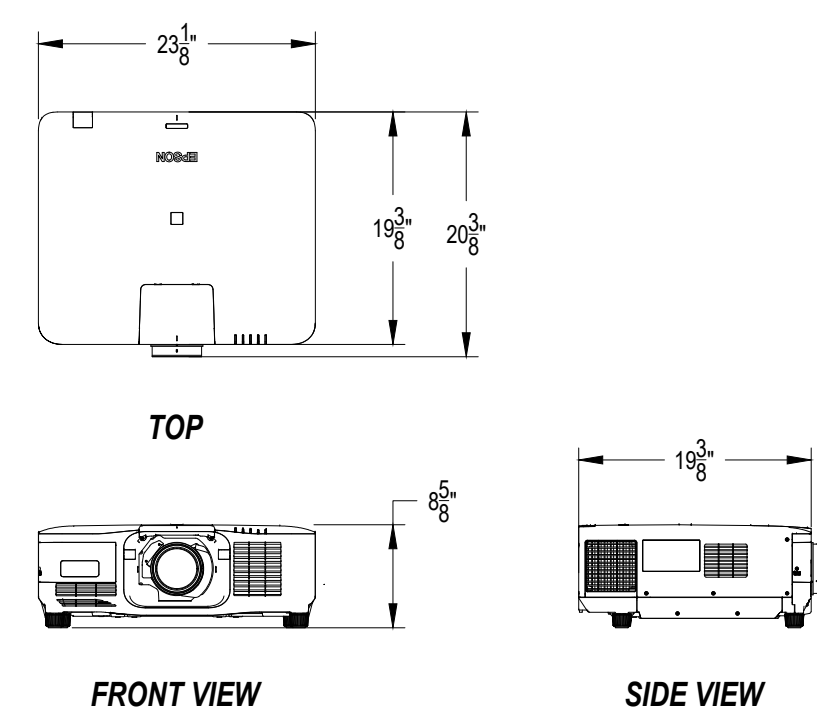
A RAPER 101186 - 161" DIAGONAL PROJECTOR SCREEN
AV MOUNTING DETAIL

SCALE:
3/4" = 1'-0"

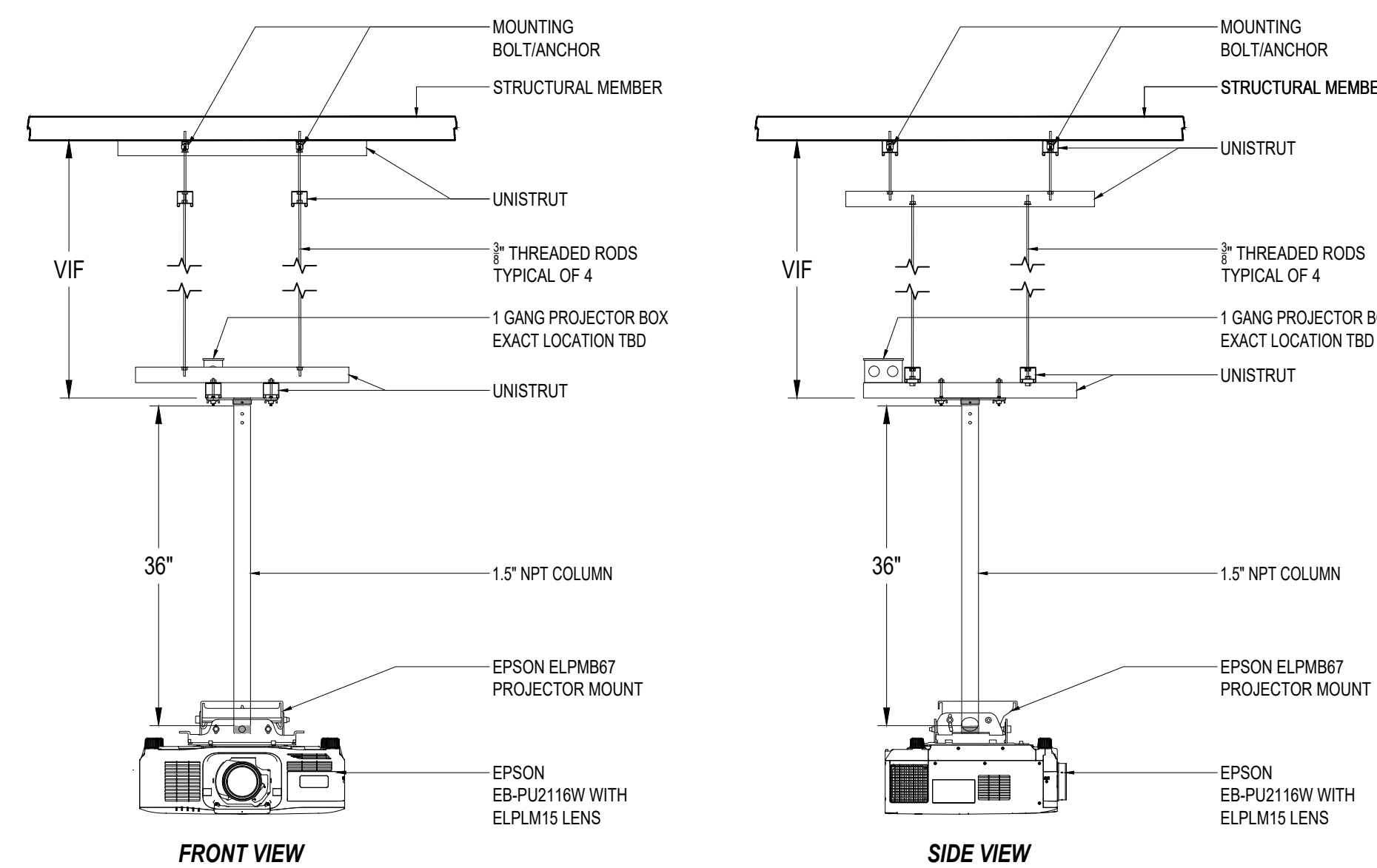


B DRAPER 101185 - 133" DIAGONAL PROJECTOR SCREEN
AV MOUNTING DETAIL

SCALE:
3/4" = 1'-0"



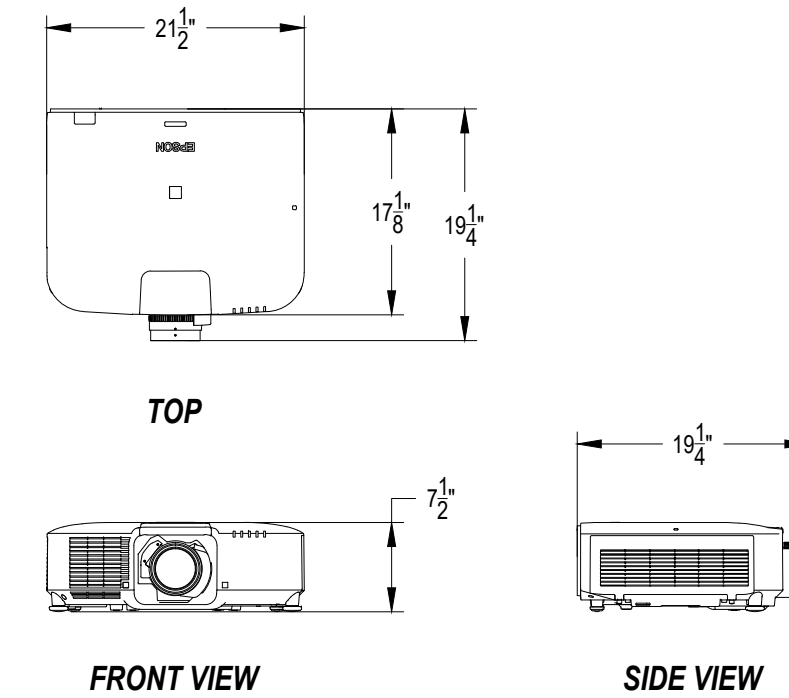
EPSON
EB-PU2116W



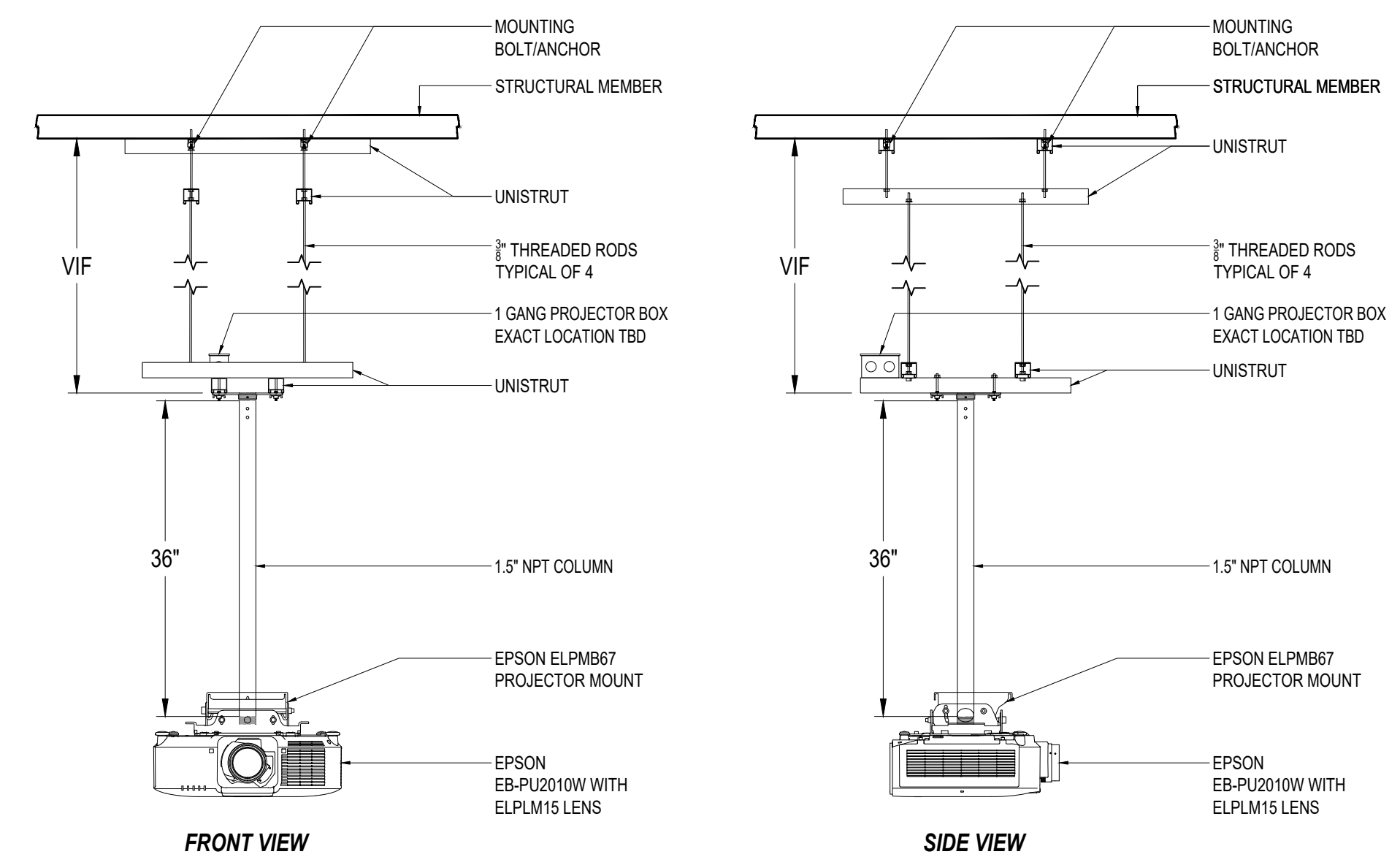
CEILING MOUNTED

C EPSON EB-PU2116W PROJECTOR - CEILING MOUNTED
AV MOUNTING DETAIL

SCALE:
3/4" = 1'-0"



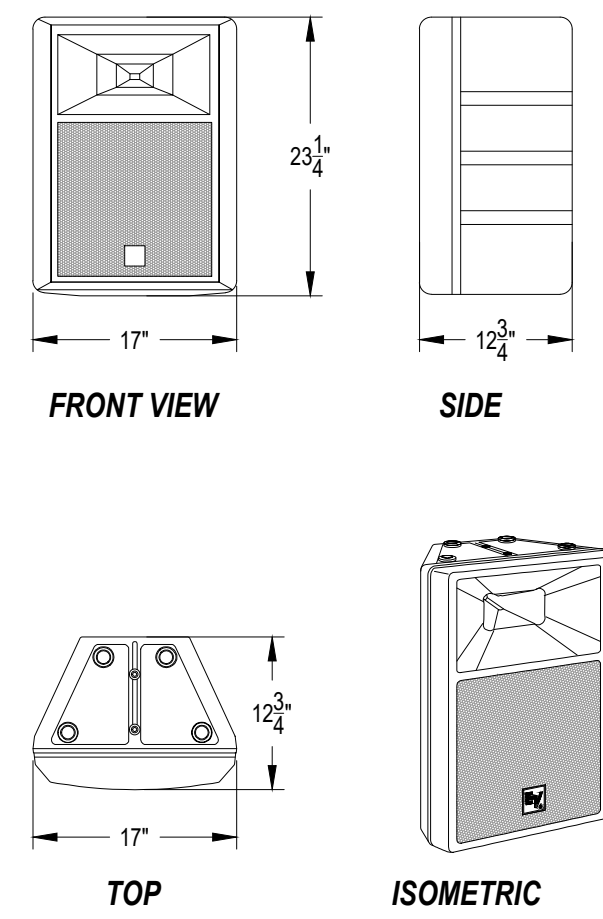
EPSON
EB-PU2010W



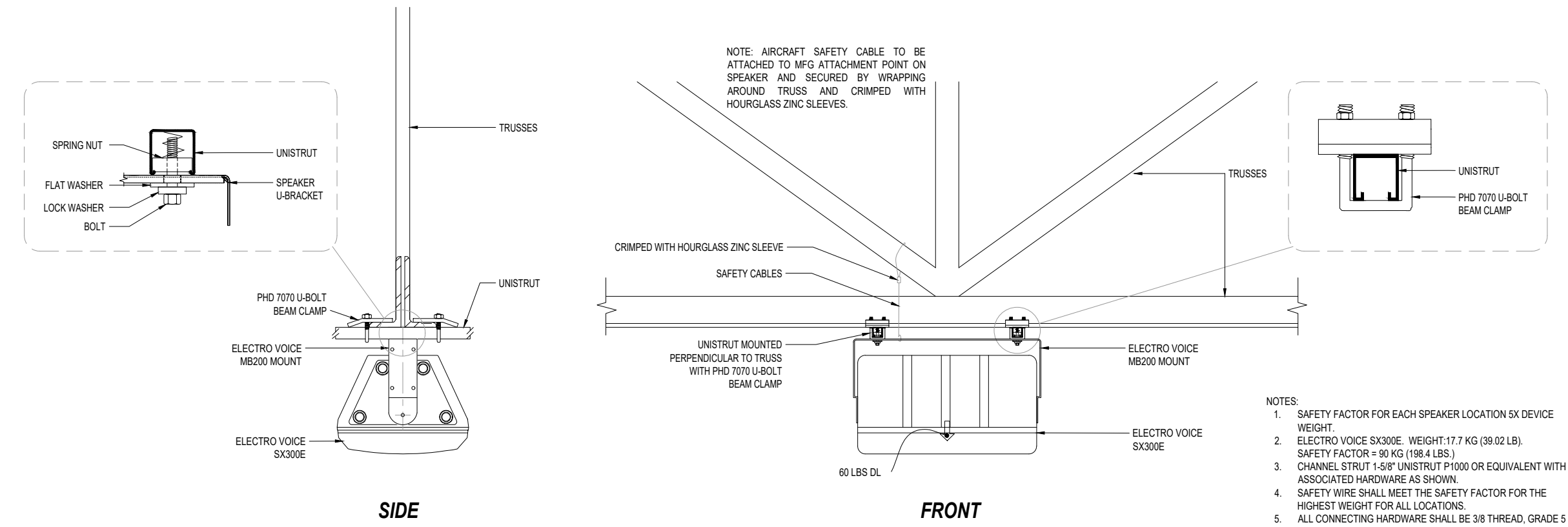
CEILING MOUNTED

D EPSON EB-PU2010W PROJECTOR - CEILING MOUNTED
AV MOUNTING DETAIL

SCALE:
3/4" = 1'-0"



ELECTRO VOICE
SX300E

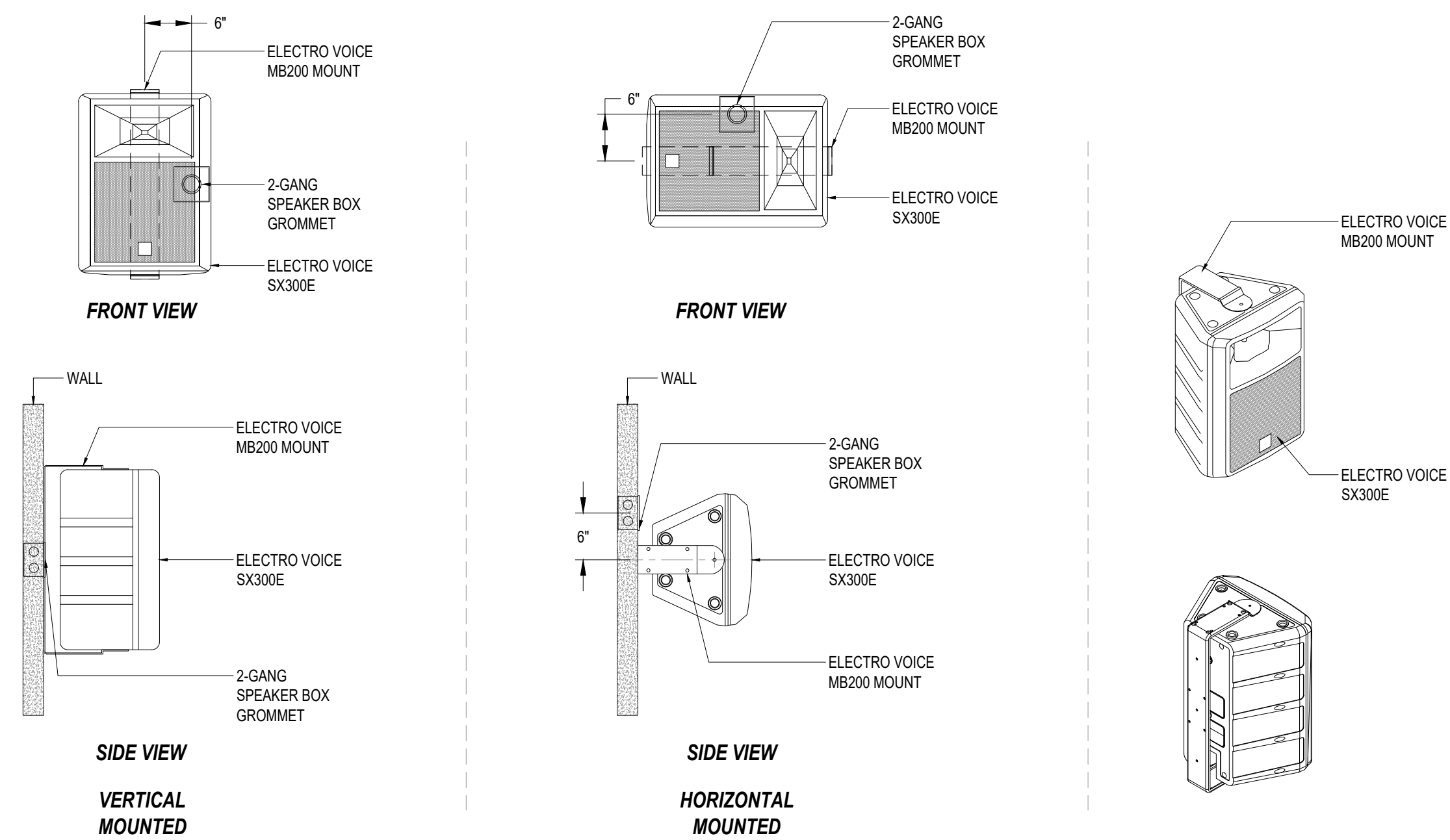


CEILING MOUNTED
(ON TRUSSES)

- NOTES:
1. SAFETY FACTOR FOR EACH SPEAKER LOCATION SX DEVICE WEIGHT
 2. ELECTRO VOICE SX300E WEIGHT 17.7 KG (39.02 LB)
 3. SAFETY FACTOR = 30 KG (136.4 LBS.)
 4. CHANNEL STRUT 1.58" UNISTRUT #1000 OR EQUIVALENT WITH ASSOCIATED HARDWARE AS SHOWN
 5. SAFETY WIRE SHALL MEET THE SAFETY FACTOR FOR THE HIGHEST WEIGHT FOR ALL LOCATIONS
 6. ALL CONNECTING HARDWARE SHALL BE 3/8" THREAD, GRADE 5 OR HIGHER

A ELECTRO VOICE - SPEAKER - CEILING MOUNTED
AV MOUNTING DETAIL

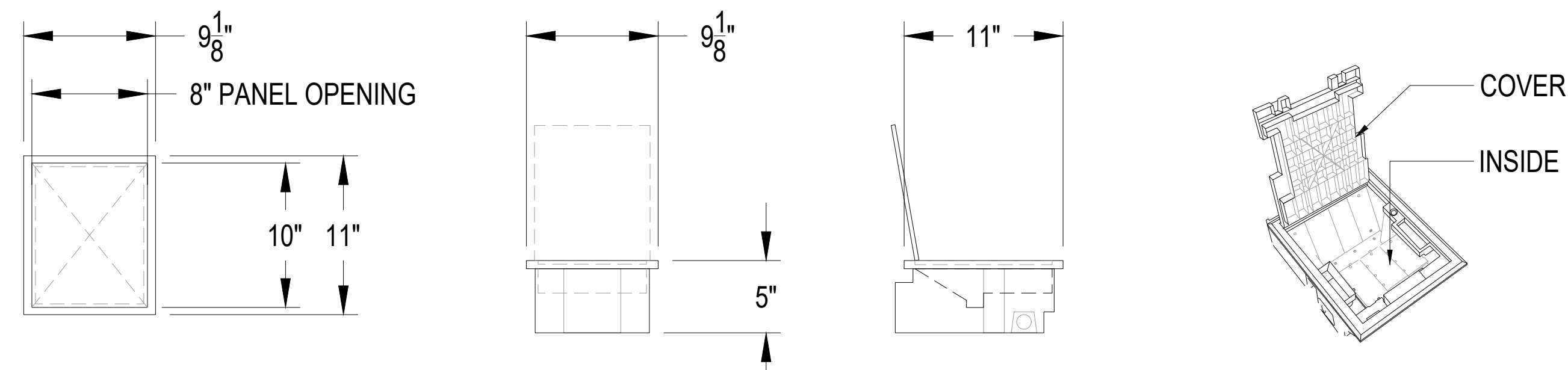
SCALE:
3/4" = 1'-0"



WALL MOUNTED

B ELECTRO VOICE - SPEAKER - WALL MOUNTED
AV MOUNTING DETAIL

SCALE:
3/4" = 1'-0"

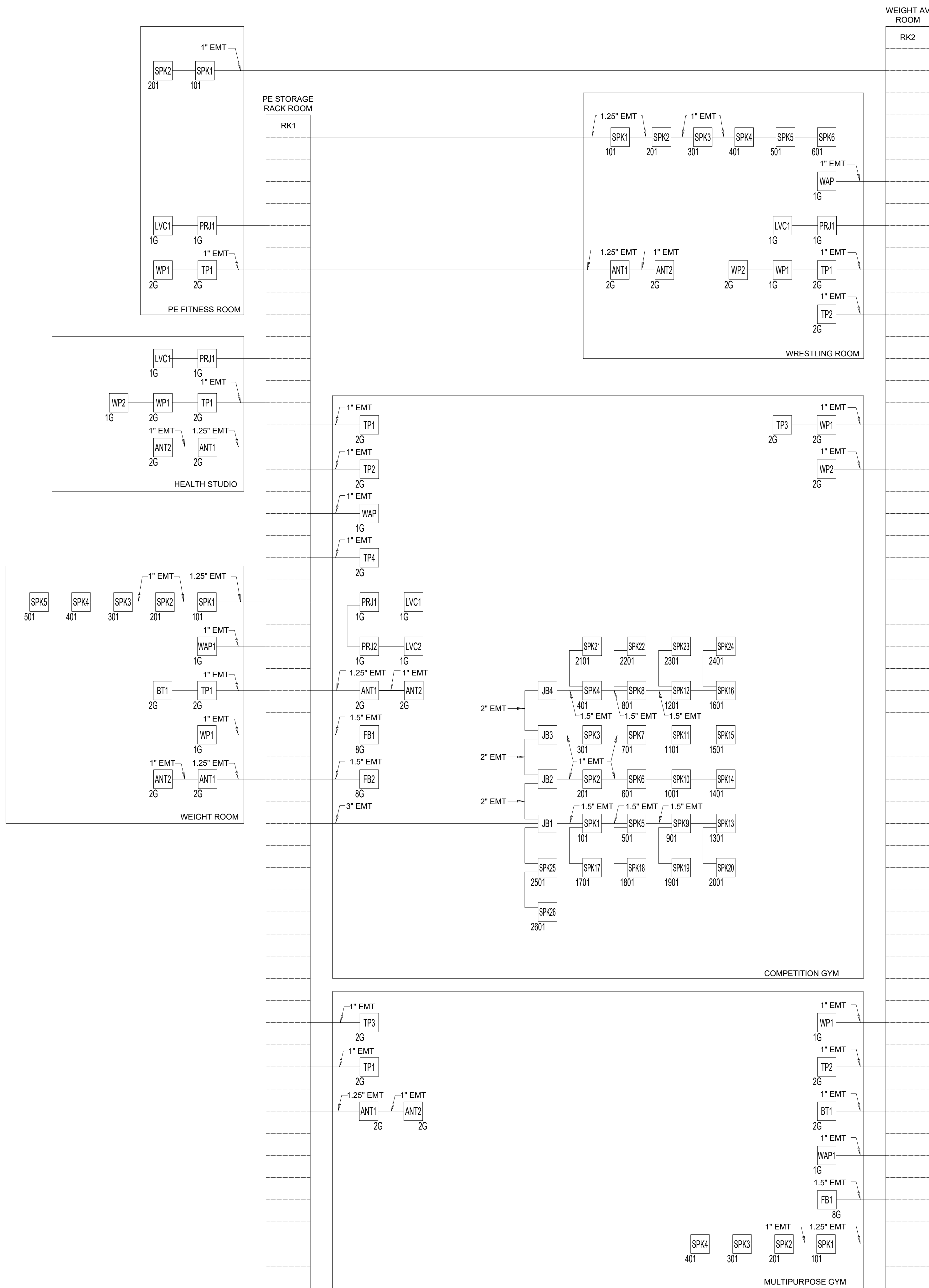


C LEGRAND AF3 8 GANG FLOOR BOX
AV MOUNTING DETAIL

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

ELECTRICAL & CONDUIT INSTALLATION NOTES (DIV. 26)

- ALL 120VAC POWER CONDUCTORS, POWER DISTRIBUTION PANELS, JUNCTION BOXES, TERMINAL PANELS, CONDUITS, WIREWAYS, POWER RECEPTACLES AND ALL OTHER DEVICES ASSOCIATED WITH 120VAC POWER CIRCUITS SHALL BE FURNISHED, INSTALLED AND TERMINATED UNDER DIVISION 26 UNLESS OTHERWISE NOTED.
- ALL CONDUIT SHOWN IS FOR AUDIO/VISUAL AND SOUND REINFORCEMENT SYSTEMS AND IS NOT RELATED TO ANY CONDUIT FOR AC POWER.
- ALL CONDUIT IS 3/4" EMT UNLESS OTHERWISE NOTED.
- ALL CONDUIT CONNECTIONS SHALL BE FURNISHED WITH NYLON BUSHINGS TO PREVENT DAMAGE TO CABLES FROM BURRED OR UNEVENLY CUT CONDUIT.
- USE INSULATED BUSHINGS TO CONNECT CONDUIT TO EQUIPMENT RACKS, TO INSULATE CONDUIT GROUND FROM EQUIPMENT RACK GROUND SYSTEM.
- KEEP 90° BENDS TO A MINIMUM. THE CONDUIT SYSTEM SHALL NOT HAVE MORE THAN THREE 90° BENDS OR THEIR EQUIVALENT BETWEEN PULL BOXES.
- ALL PULL BOXES AND OUTLET BOXES SHALL BE AT LEAST 3-1/2" DEEP.
- ALL CONDUIT RUNS IN EXCESS OF 100 FEET SHALL HAVE INTERMEDIATE JUNCTION BOXES EVERY 100 FEET OR THREE BENDS, WHICHEVER COMES FIRST.
- ALL AUDIO/VISUAL SYSTEM RELATED JUNCTION BOXES SHALL REMAIN ACCESSIBLE AT ALL TIMES.
- INSTALL NYLON PULL STRINGS IN ALL EMPTY CONDUITS.
- CAULK OR OTHERWISE SEAL ALL PENETRATIONS THROUGH ACOUSTICAL PARTITIONS AND BARRIERS.
- ALL PENETRATIONS THROUGH FIRE-RATED WALLS AND ASSEMBLIES SHALL BE SEALED WITH FIRESTOP MATERIAL PER APPLICABLE CODE. REFER TO DIVISION 7.
- ELECTRICAL CONTRACTOR SHALL REFER TO ELECTRICAL DRAWINGS FOR ALL 120VAC CONDUIT SIZING.
- ELECTRICAL CONTRACTOR SHALL REFER TO OTHER DRAWINGS FOR NON-AUDIO/VISUAL SYSTEM RELATED ELECTRICAL INFORMATION FOR THESE AREAS. AUDIO/VISUAL SYSTEM DRAWINGS DO NOT CONTAIN ALL ROOM ELECTRICAL REQUIREMENTS.
- THE ELECTRICAL CONTRACTOR SHALL INSTALL AND WIRE ALL HIGH VOLTAGE DEVICES.
- ALL POWER CIRCUITS SHALL BE 120VAC, 20 AMP DEDICATED CIRCUITS UNLESS OTHERWISE NOTED.
- ELECTRICAL CONTRACTOR SHALL LABEL ALL CIRCUIT BREAKER POSITIONS IN ALL BREAKER PANELS.
- INSTALL SEPARATE DEDICATED NEUTRAL CONDUCTOR FROM POWER DISTRIBUTION PANEL FOR EACH INDIVIDUAL CIRCUIT.
- ALLOW MINIMUM 20% SPARE BREAKERS FOR EACH POWER DISTRIBUTION PANEL.
- 120VAC POWER TO THE EQUIPMENT RACKS SHALL BE TERMINATED INSIDE THE RACKS BY DIV. 26 TO AUDIO/VISUAL SYSTEM SUBCONTRACTOR-SUPPLIED RACEWAY OUTLETS.
- CLEARLY LABEL BREAKER PANEL DOOR "AUDIO/VISUAL SYSTEM EQUIPMENT ONLY".
- INTEGRATED RECESSED LOUDSPEAKER ASSEMBLIES SHALL BE FURNISHED AND INSTALLED BY THE AUDIO/VISUAL SYSTEMS CONTRACTOR. SHOULD SUBSTITUTE EQUIPMENT BE PROVIDED BY THE AV CONTRACTOR THAT REQUIRE THE USE OF DEDICATED LOUDSPEAKER BACK-CANS, THE AV CONTRACTOR SHALL SUPPLY SUCH DEVICES TO DIV. 26 FOR INSTALLATION. ALL OTHER ENCLOSURES AND FLOOR BOXES ASSOCIATED WITH AUDIOVISUAL SCOPES OF WORK, AS CALLED OUT IN THE AUDIOVISUAL DEVICE LEGEND, AND TO INCLUDE EXTERIOR AND SPECIALTY ENCLOSURES LISTED, SHALL BE PROVIDED AND INSTALLED UNDER DIVISION 26, UNLESS EXPLICITLY NOTED OTHERWISE.
- REFER TO "RELATED WORK IN OTHER SECTIONS" IN AUDIO/VISUAL SYSTEM SPECIFICATION SECTIONS FOR ADDITIONAL INFORMATION.
- CONDUIT SHALL BE REQUIRED BETWEEN ANY AND ALL LOUDSPEAKERS. WHERE PLENUM-RATED LOUDSPEAKER CABLE IS ALLOWED BY CODE, THIS CONSULTANT WILL CONSIDER SUBSTITUTION REQUESTS SUBMITTED FORMALLY BY THE CONSTRUCTION TEAM, APPROVAL OF WHICH IS SUBJECT TO THE BEST INTERESTS OF THE PROJECT.
- WIRE NOT INSTALLED IN EQUIPMENT RACKS, NOT PORTABLE, OR NOT INSTALLED IN CONDUIT SHALL BE FIRE-RATED AND MEET ALL APPLICABLE CODES.



ALL CONDUITS IS 3/4" EMT UNLESS OTHERWISE NOTED.

A

LBJ ECHS
CONDUIT RISER DIAGRAM

SCALE:
N.T.S

QTY: 20 (120VAC 20-AMP SINGLE PHASE)

POWER CIRCUITS ASSOCIATED WITH SOUND/AV SYSTEMS SHALL NOT BE SERVED FROM POWER DISTRIBUTION PANEL CONTAINING HARMONIC LOADS (MOTORS, DIMMERS, BALLASTS, ETC.)

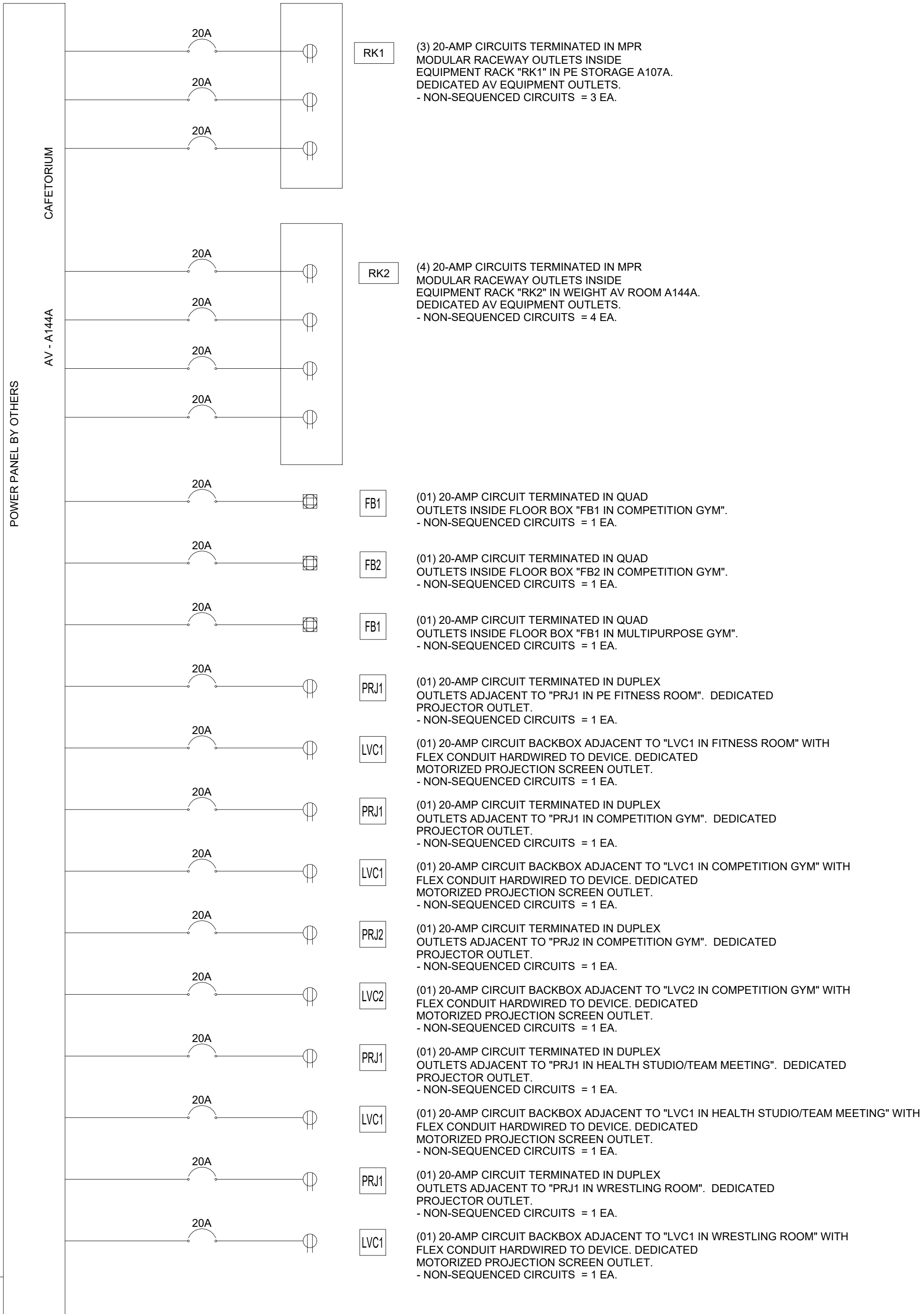
AVERAGE CURRENT DRAW AND HEAT LOADS
ASSOCIATED WITH SOUND/AV SYSTEMS IN
OPERATION WITH TYPICAL PROGRAM MATERIAL
WITH OCCASIONAL CLIPPING:

CURRENT DRAW:

RK1 - 7.8 A

HEAT LOAD

RK1 - 9421.90 BTU/HR

[illegible]

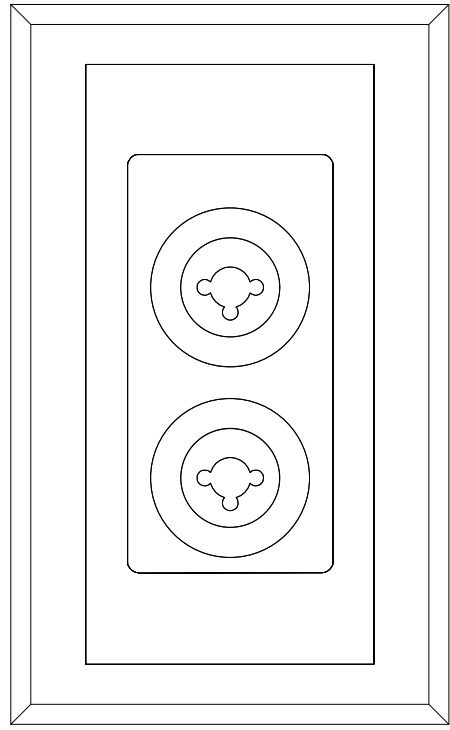


PLATE DETAIL - TYPE WP
QSC AXON D2I
WALL PLATE

A TYPE WP
AV PLATE DETAILS

SCALE:
N.T.S

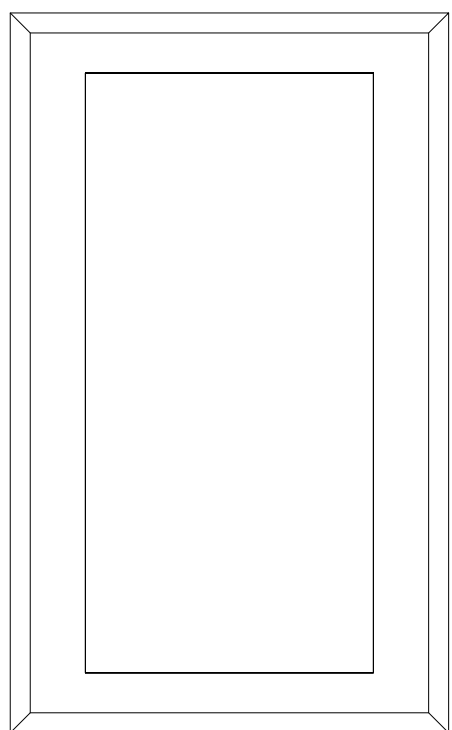


PLATE DETAIL - TYPE WAP
UBIQUITI U6 ENTERPRISE-IW
AUDIOVISUAL WIFI ACCESS POINT

B TYPE WAP
AV PLATE DETAILS

SCALE:
N.T.S

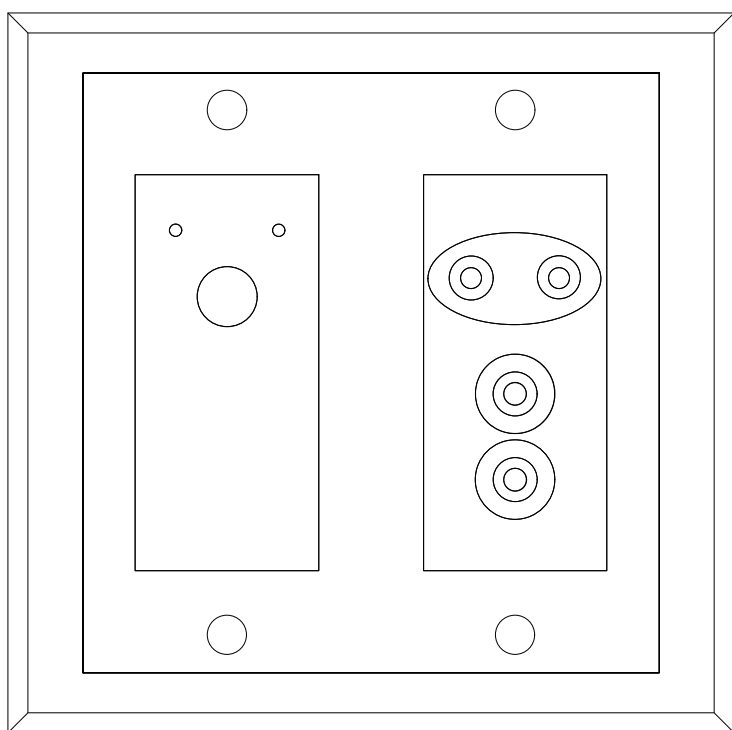


PLATE DETAIL - TYPE BT
QSC - UND6IO-BT
BLUETOOTH INPUT

C TYPE BT
AV PLATE DETAILS

SCALE:
N.T.S

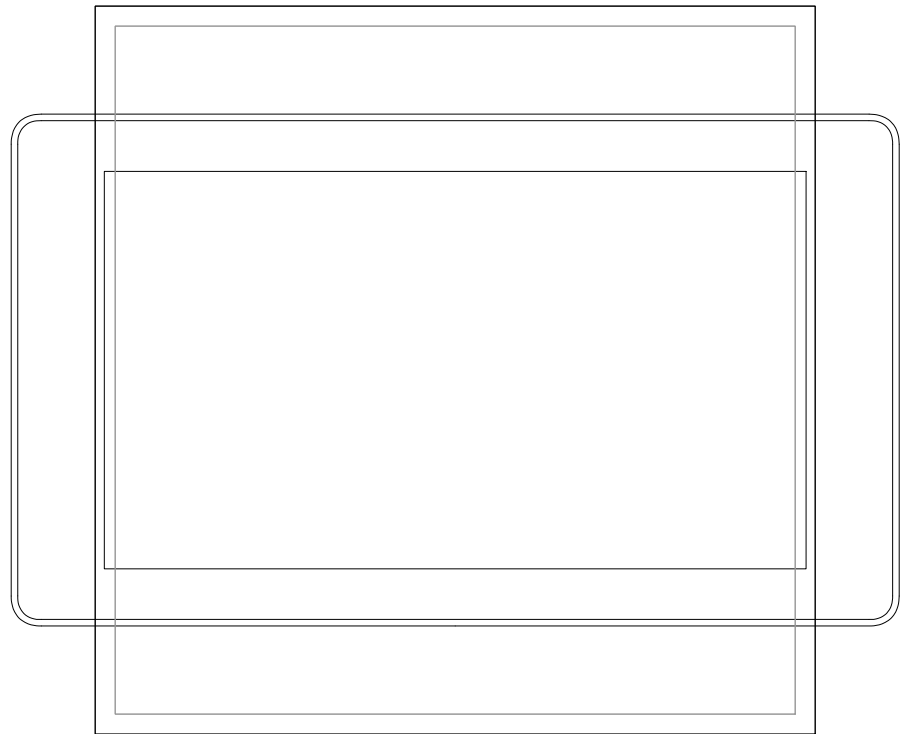


PLATE DETAIL - TYPE TP
QSC - TSC-50-G3
5" TOUCHSCREEN CONTROL

D TYPE TP
AV PLATE DETAILS

SCALE:
N.T.S

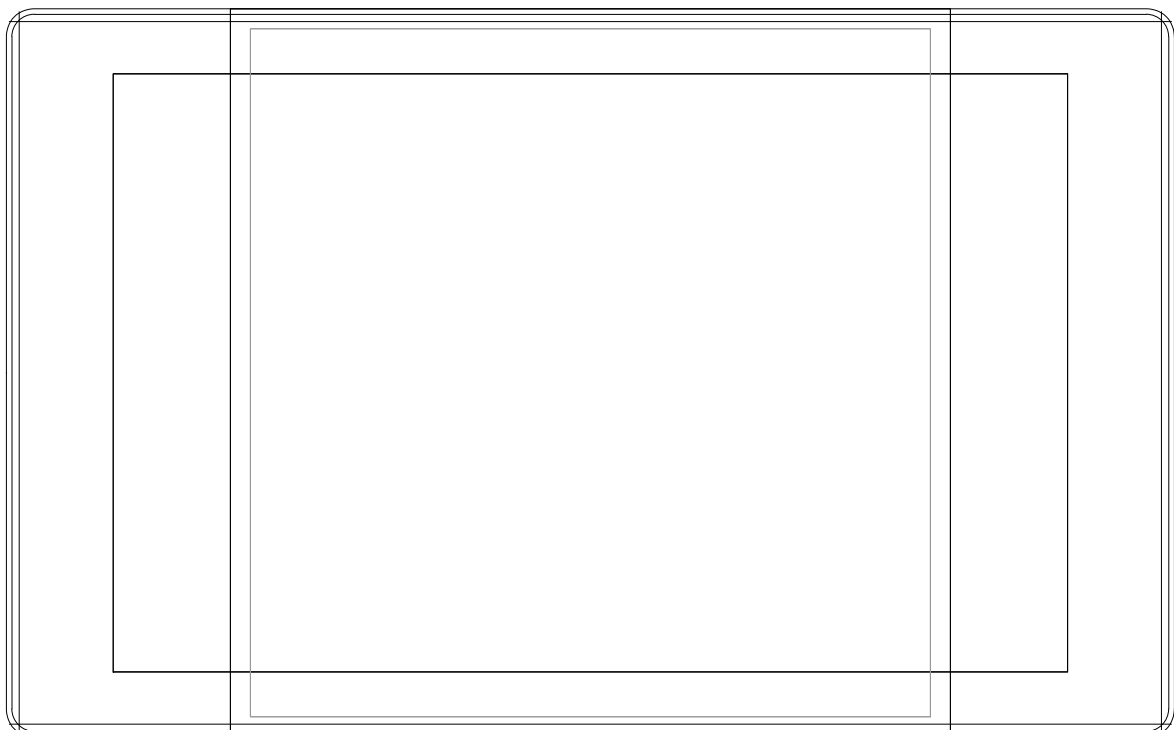


PLATE DETAIL - TYPE TP
QSC - TSC-70-G3
7" TOUCHSCREEN CONTROL

E TYPE TP
AV PLATE DETAILS

SCALE:
N.T.S

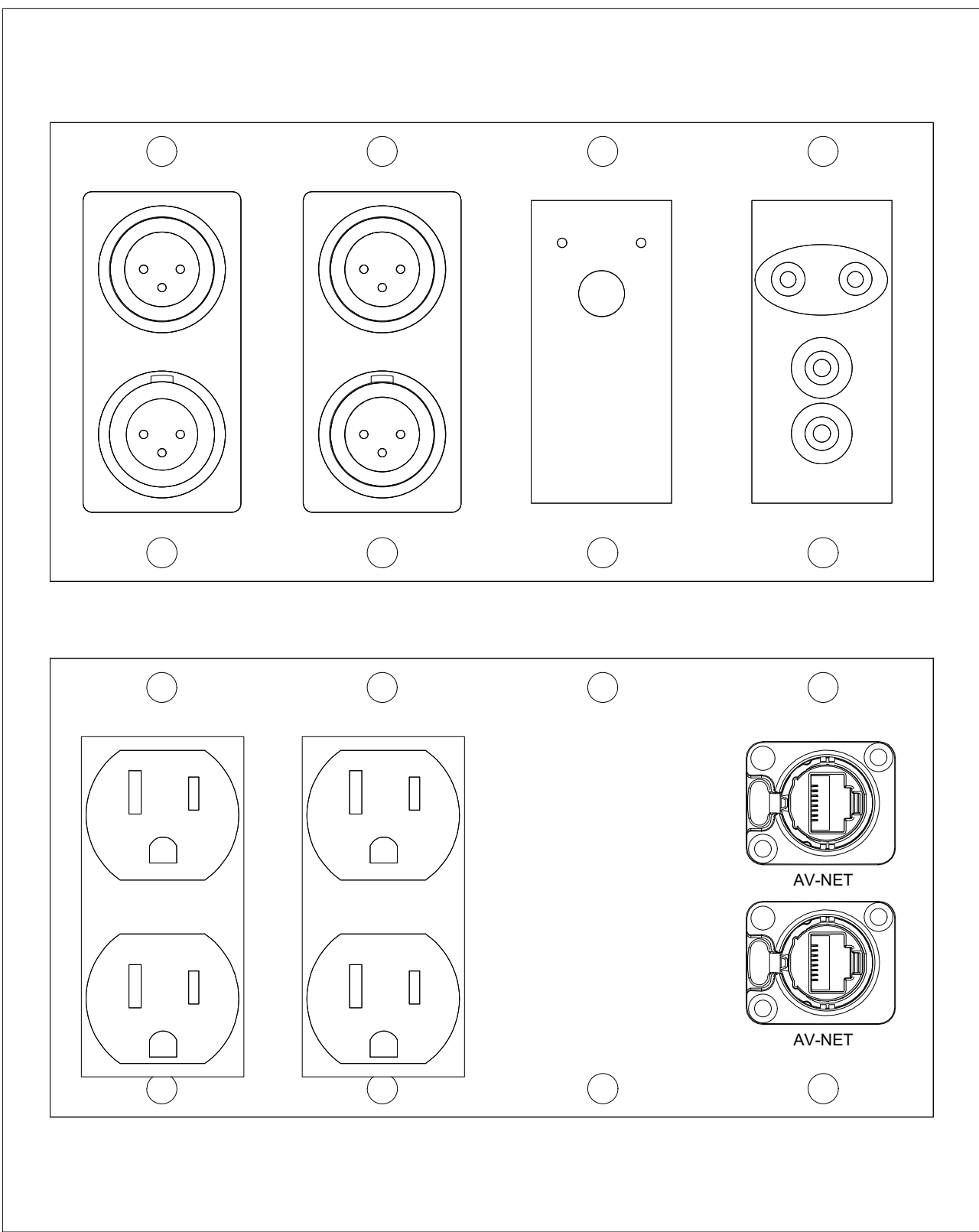


PLATE DETAIL - TYPE FB
WIREMOLD-AF3 8-GANG W/
QSC - UND6IO-BT 2-GANG,
QSC - UNDX4I 2-GANG,
NEUTRIX NE8FDX-Y6-B D-SHAPE
FLOOR BOX

F TYPE FB
AV PLATE DETAILS

SCALE:
N.T.S

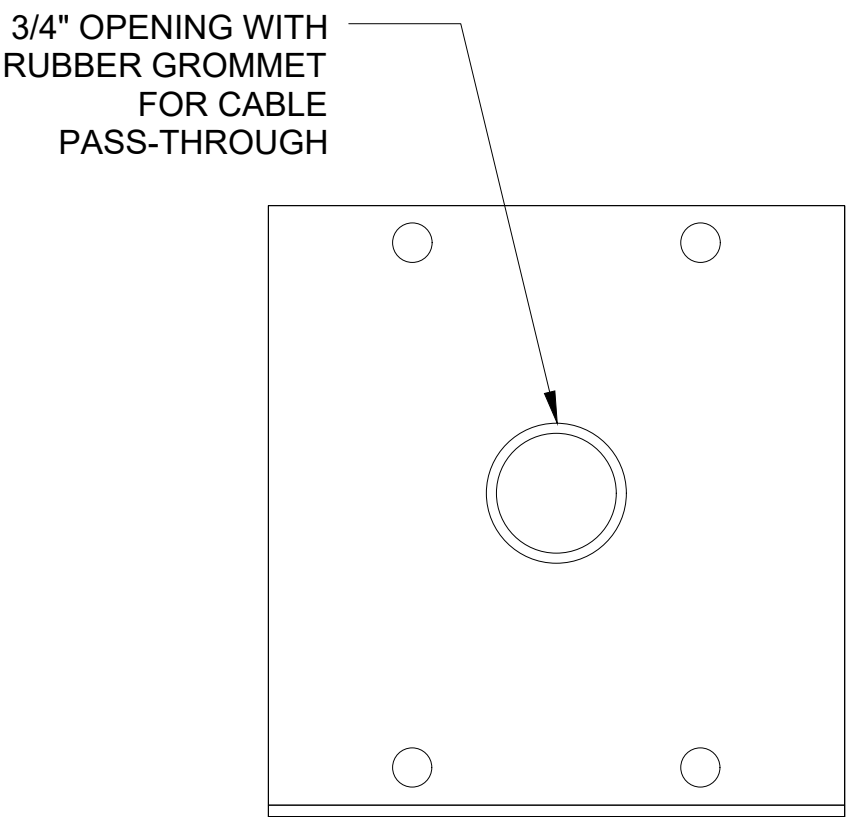


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ELECTRO VOICE - SX300E
SPEAKERS

G TYPE SPK
AV PLATE DETAILS

SCALE:
N.T.S

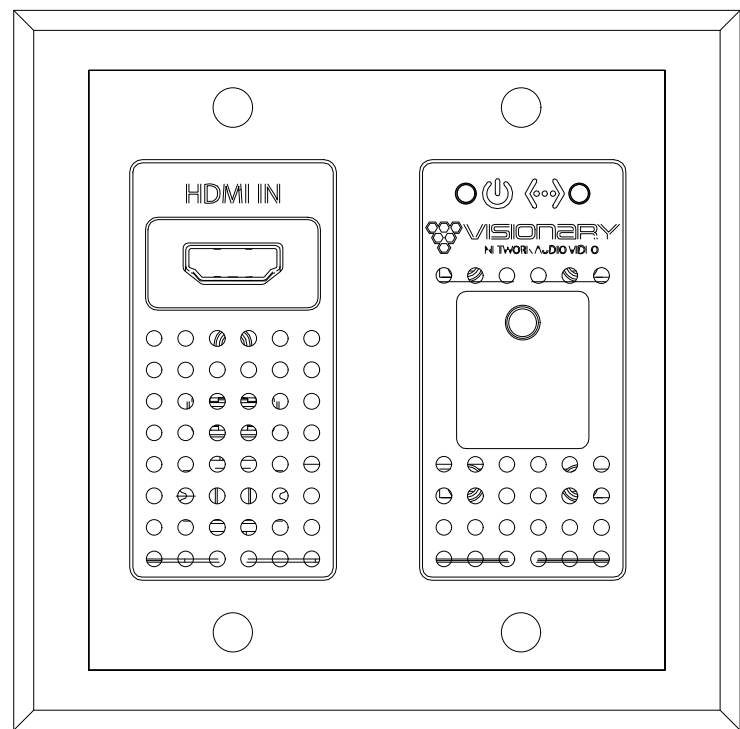


PLATE DETAIL - TYPE WP
VISIONARY DUETE-5-WP-BT
VIDEO INPUT

H TYPE WP
AV PLATE DETAILS

SCALE:
N.T.S

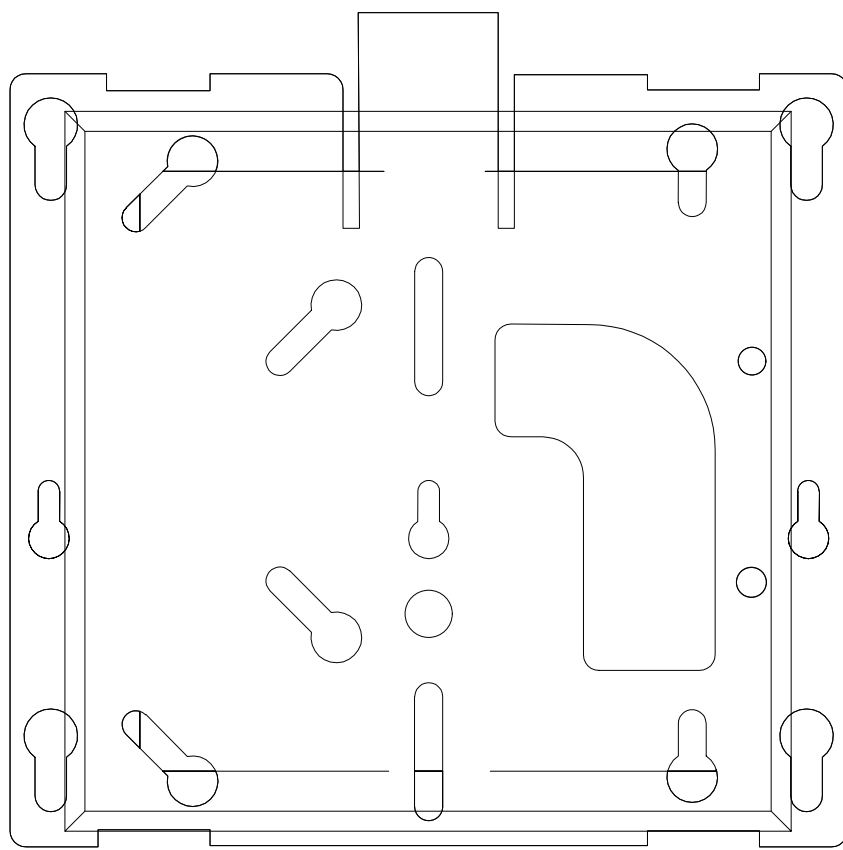
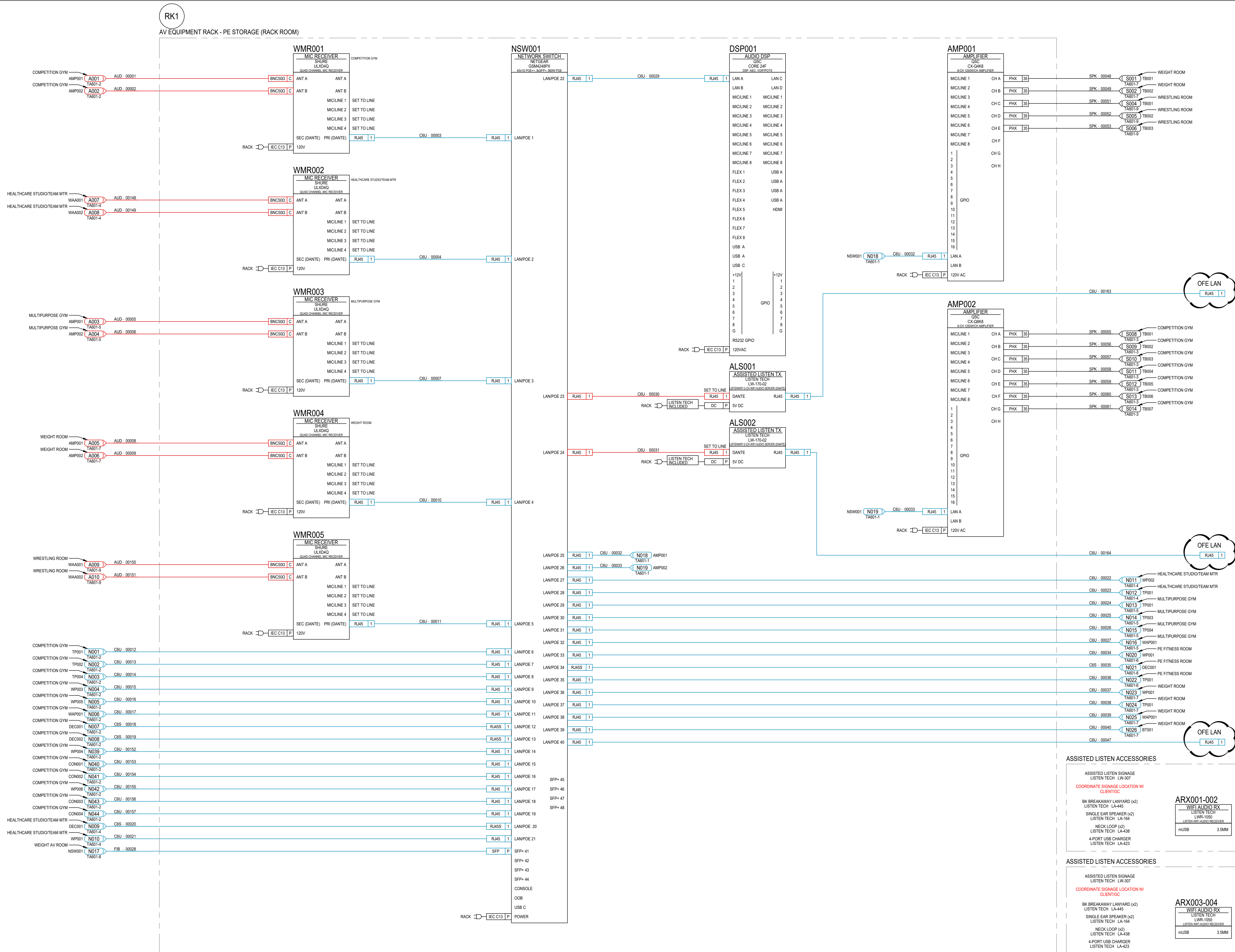
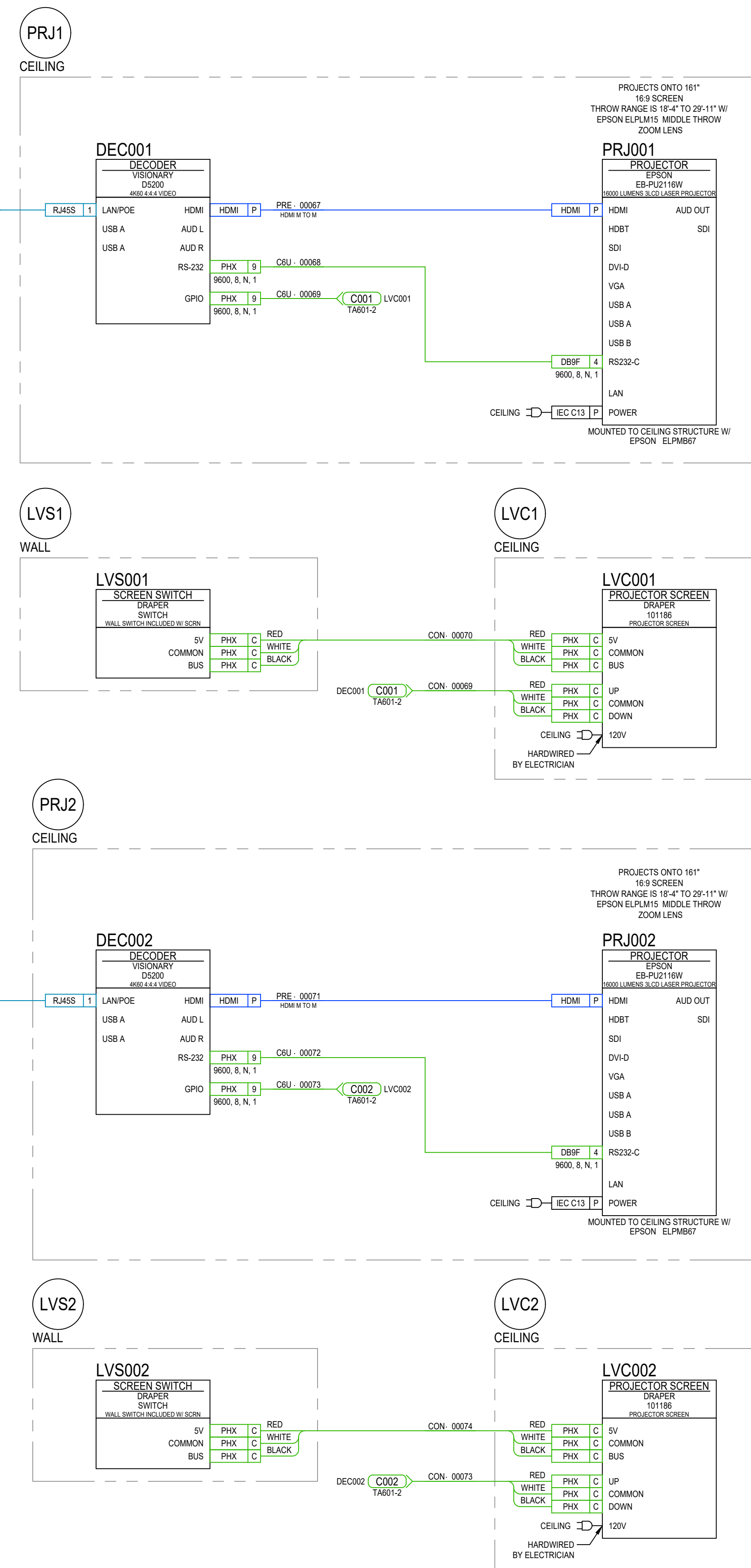
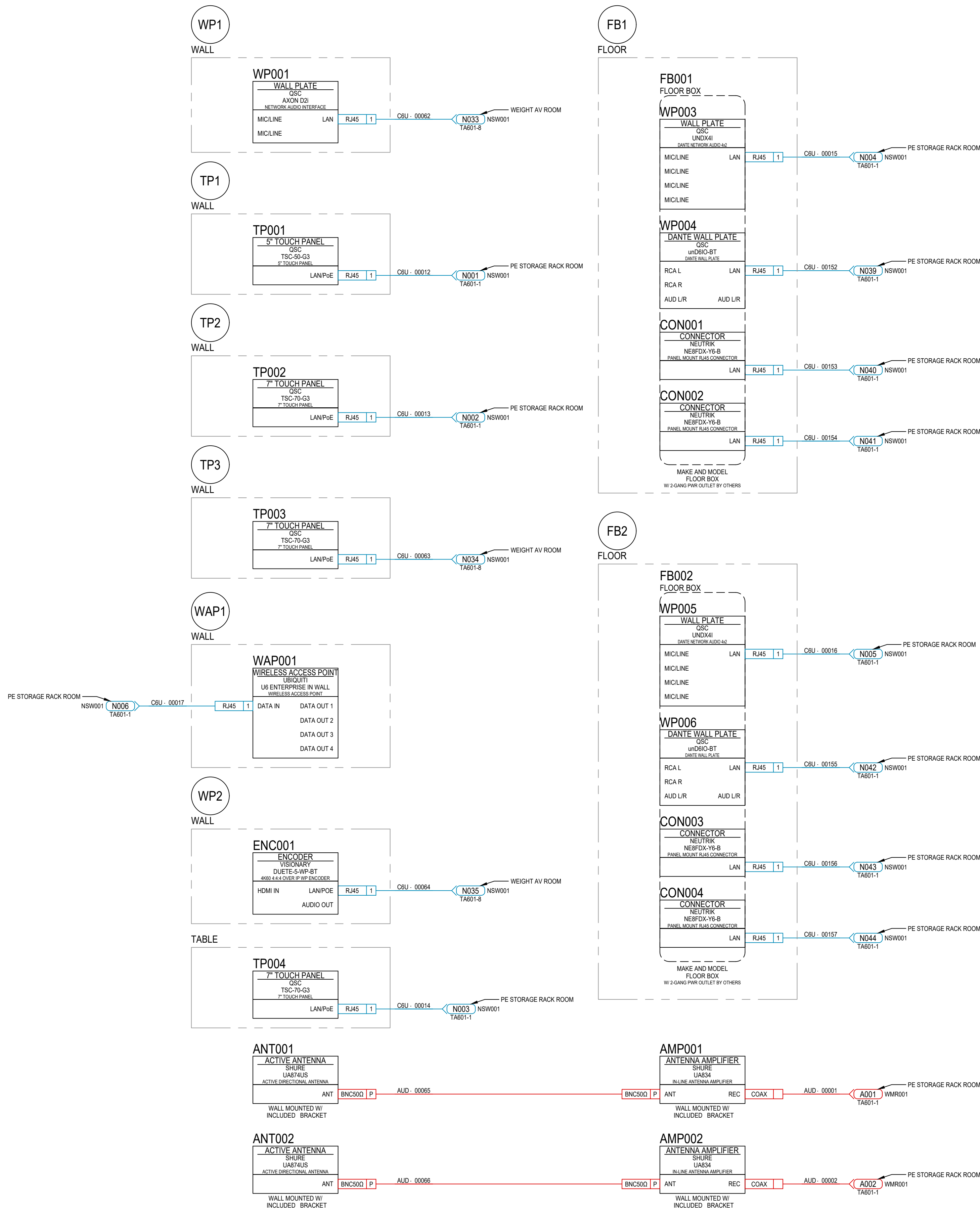


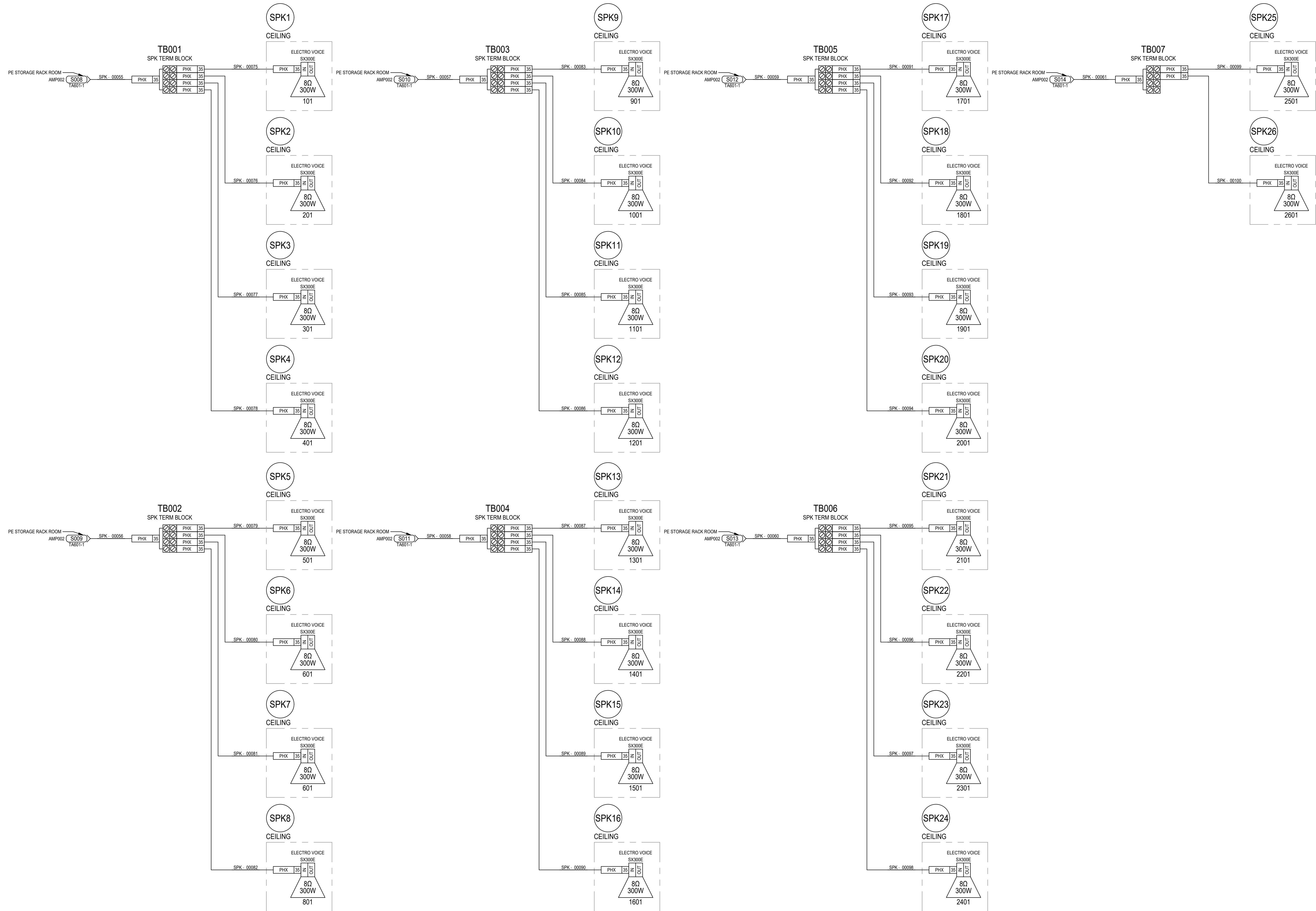
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SHURE - UA864
WIRELESS MIC ANTENNA

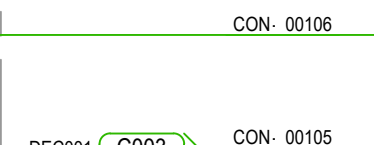
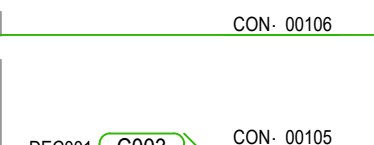
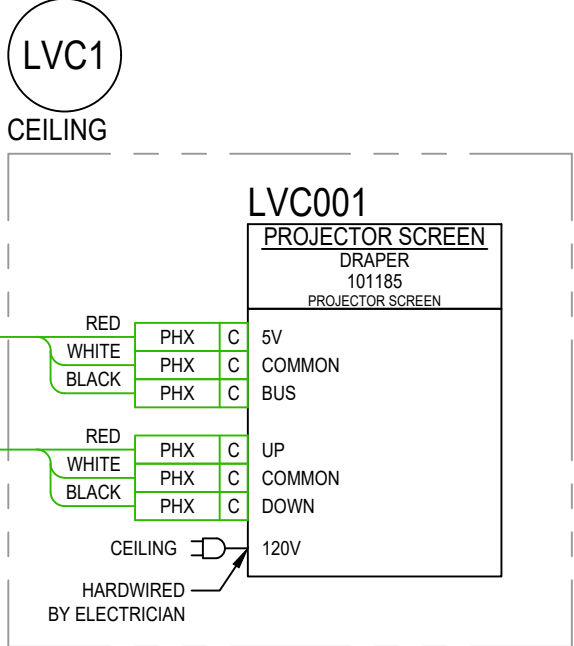
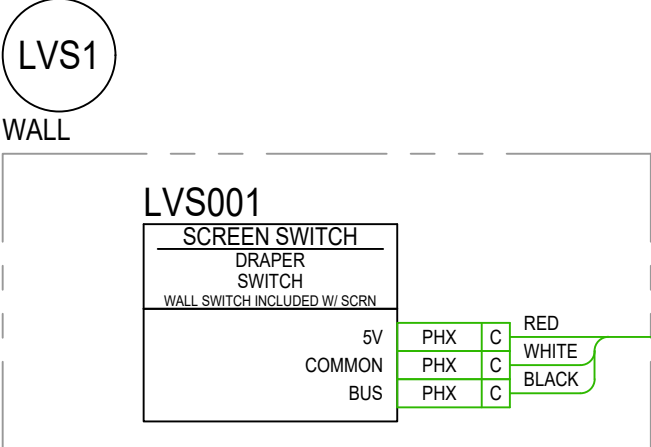
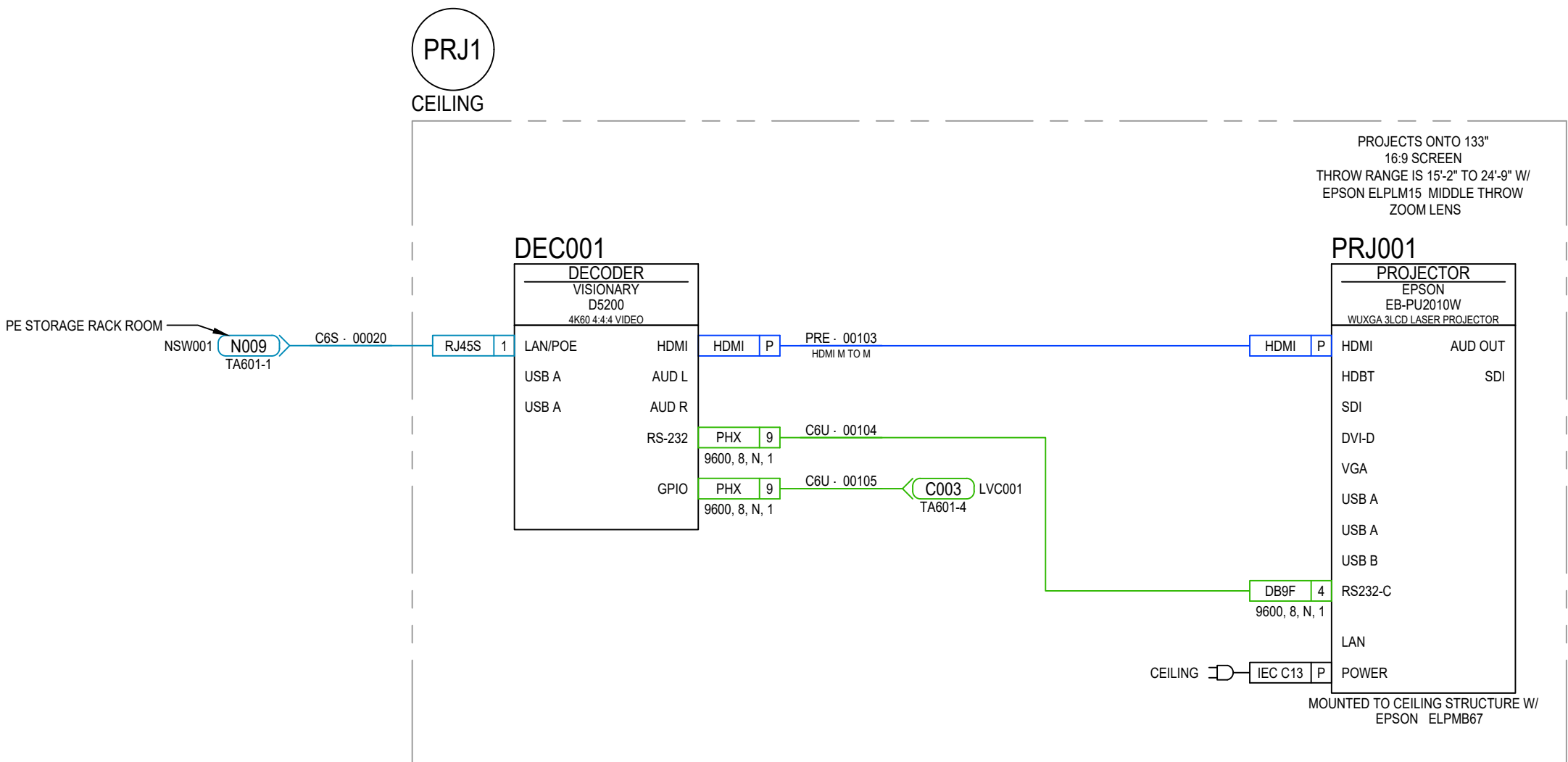
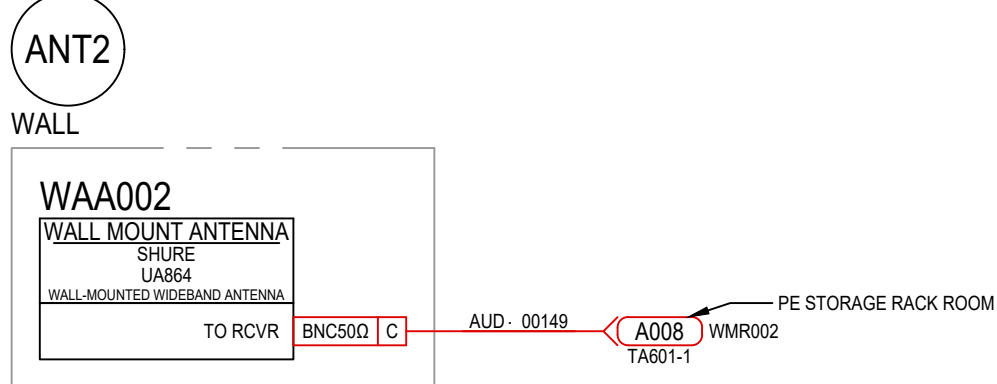
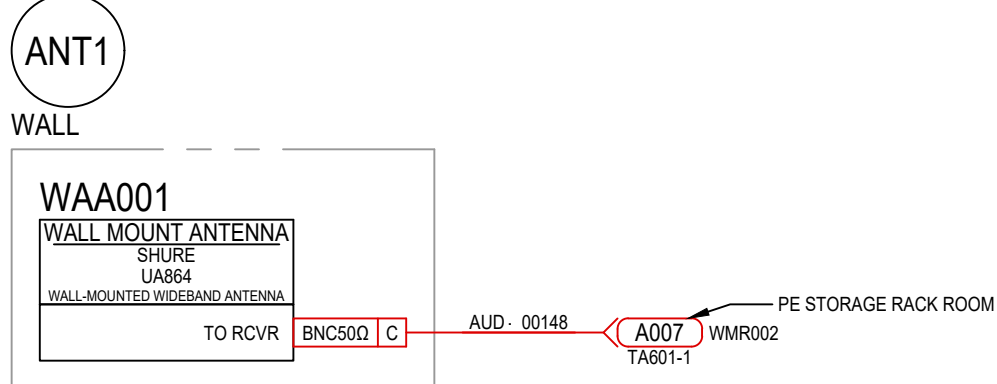
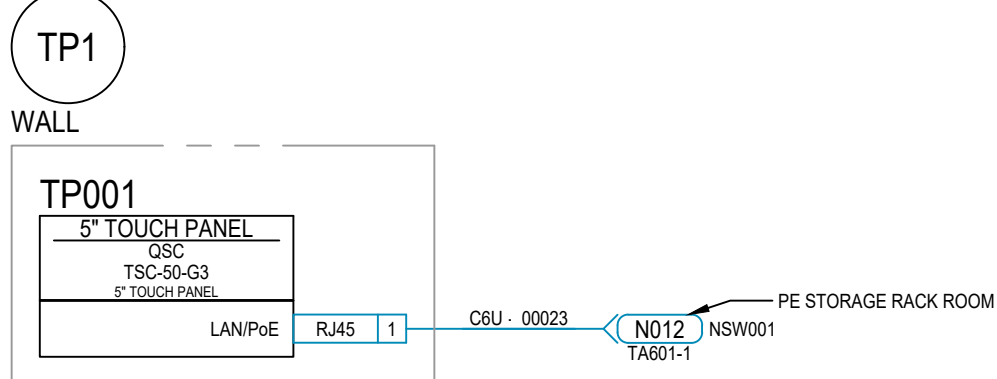
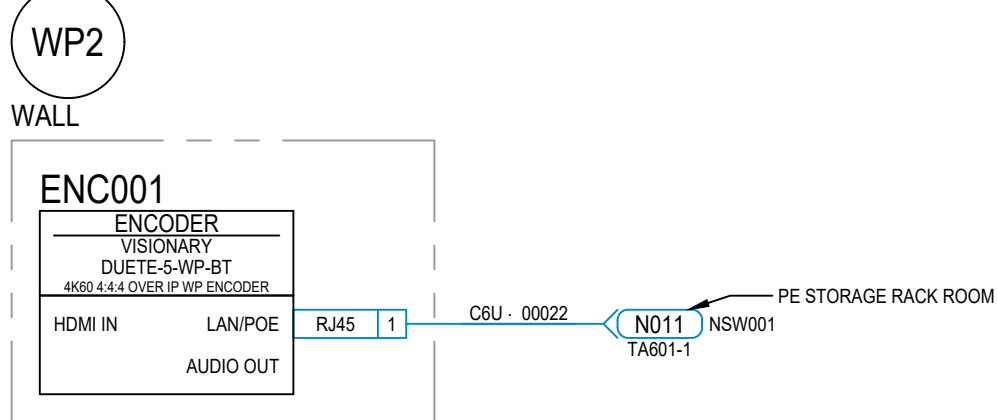
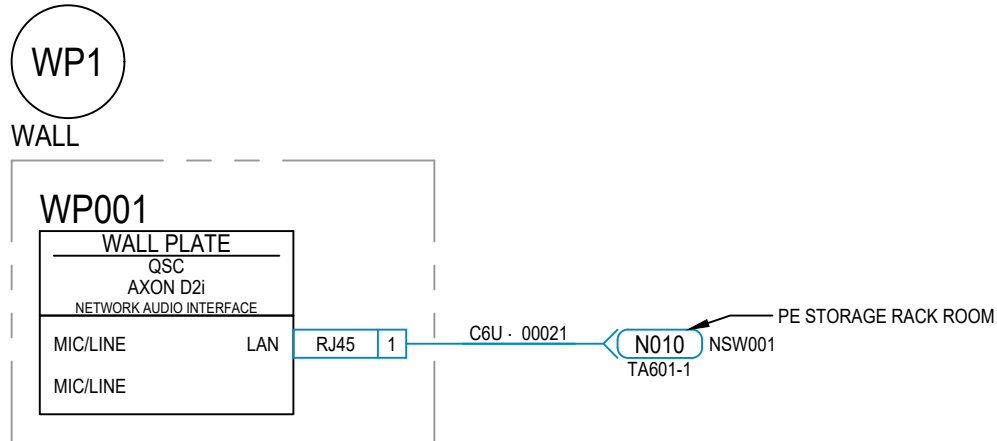
I TYPE ANT
AV PLATE DETAILS

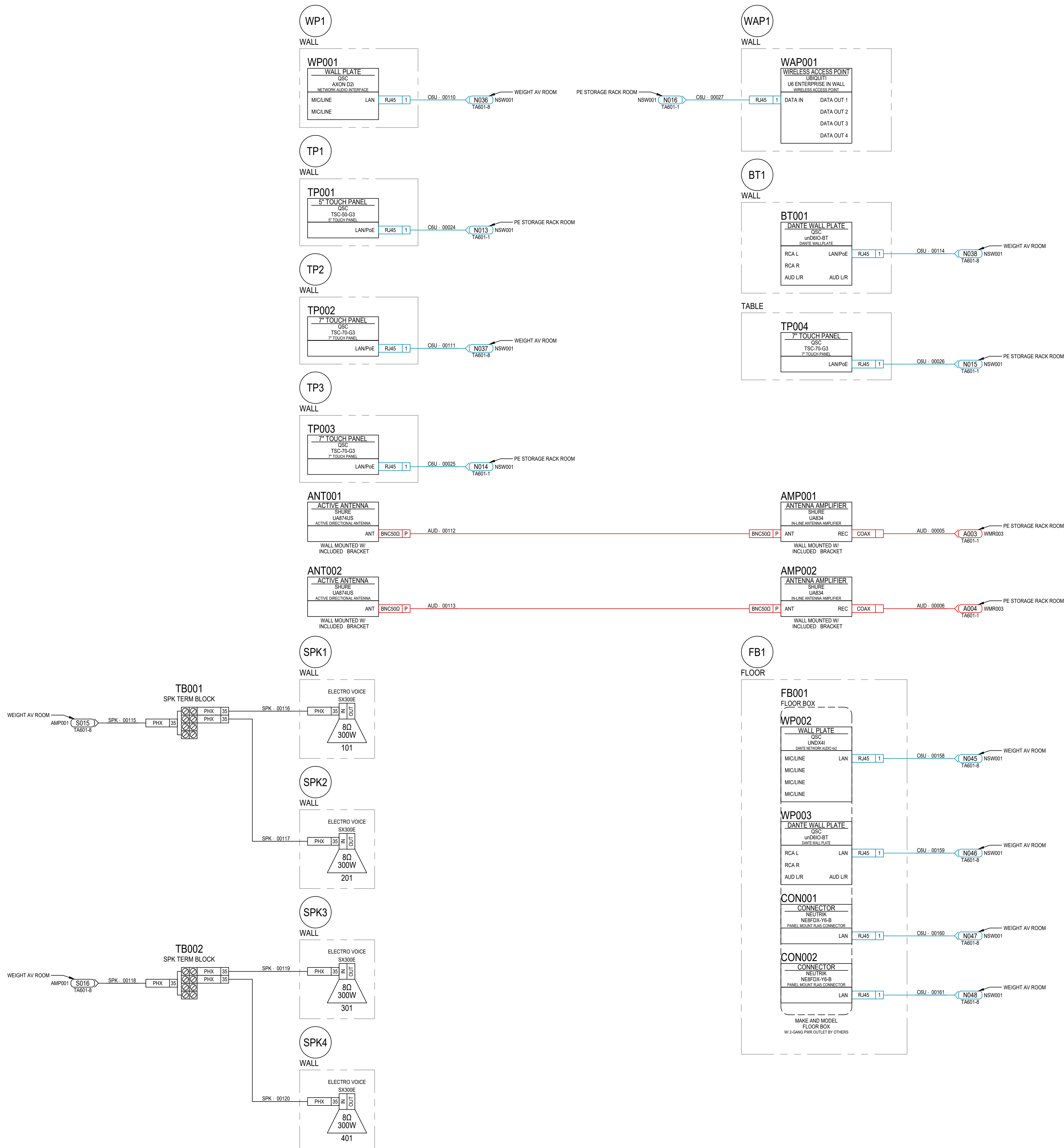
SCALE:
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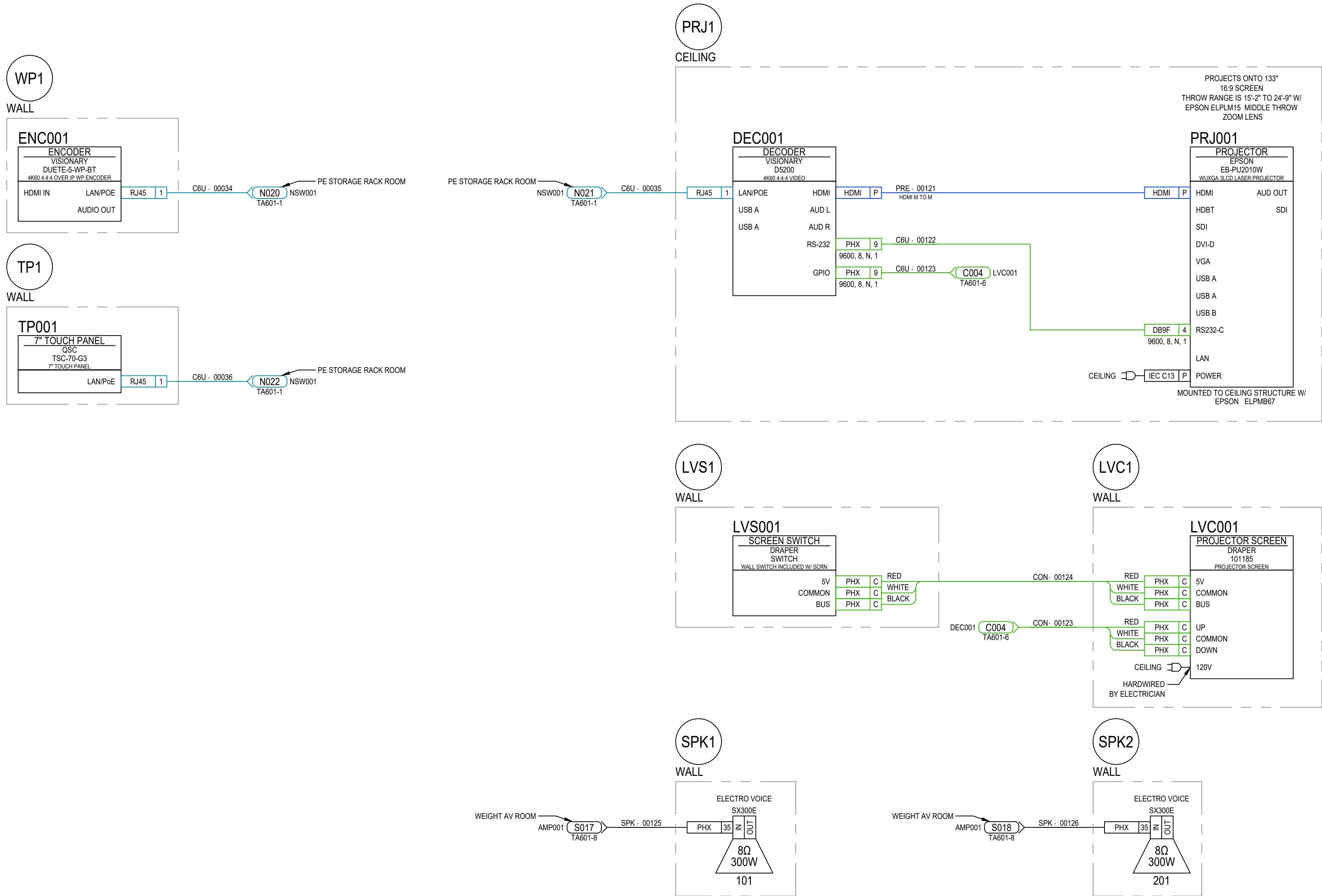


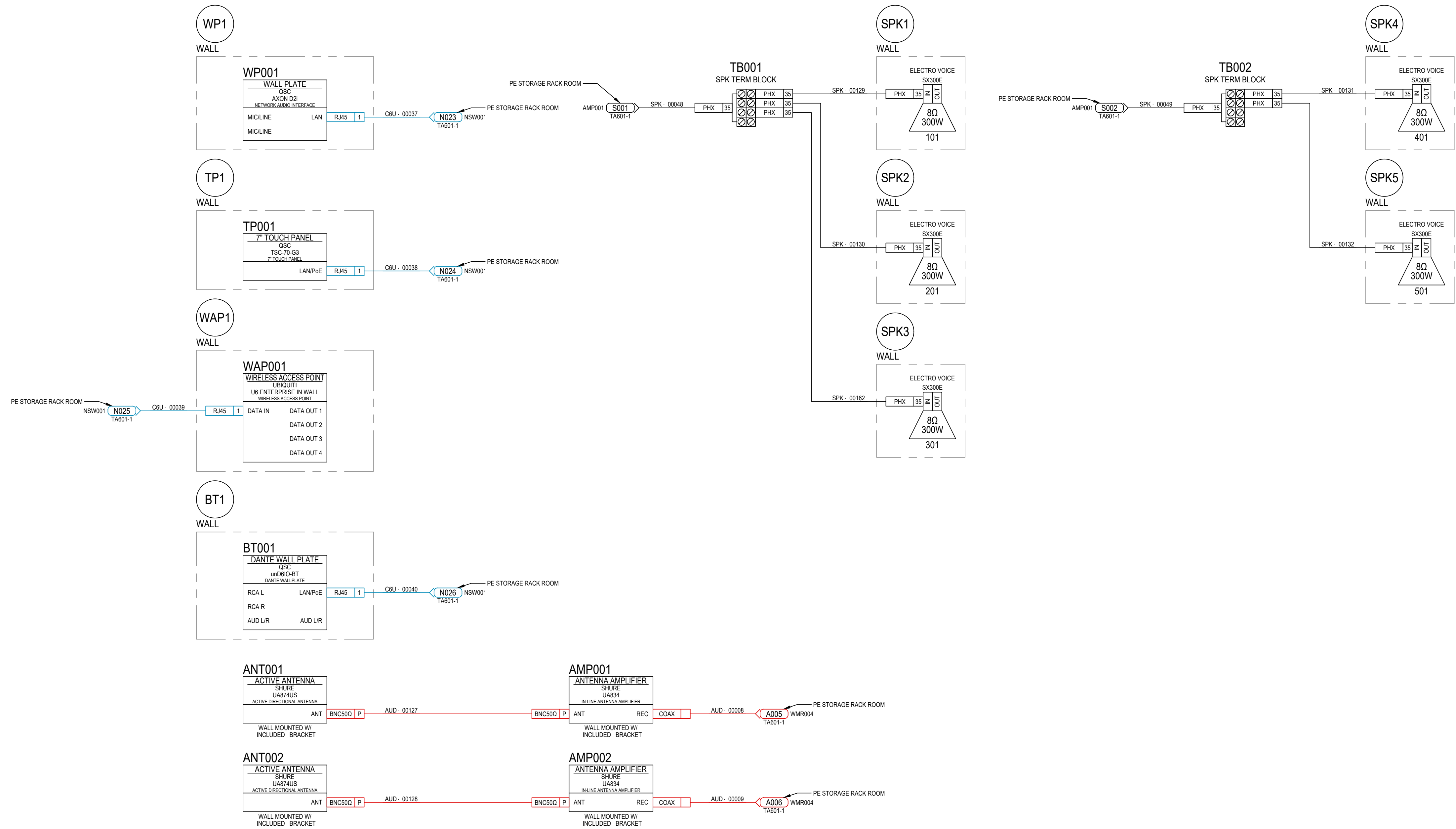




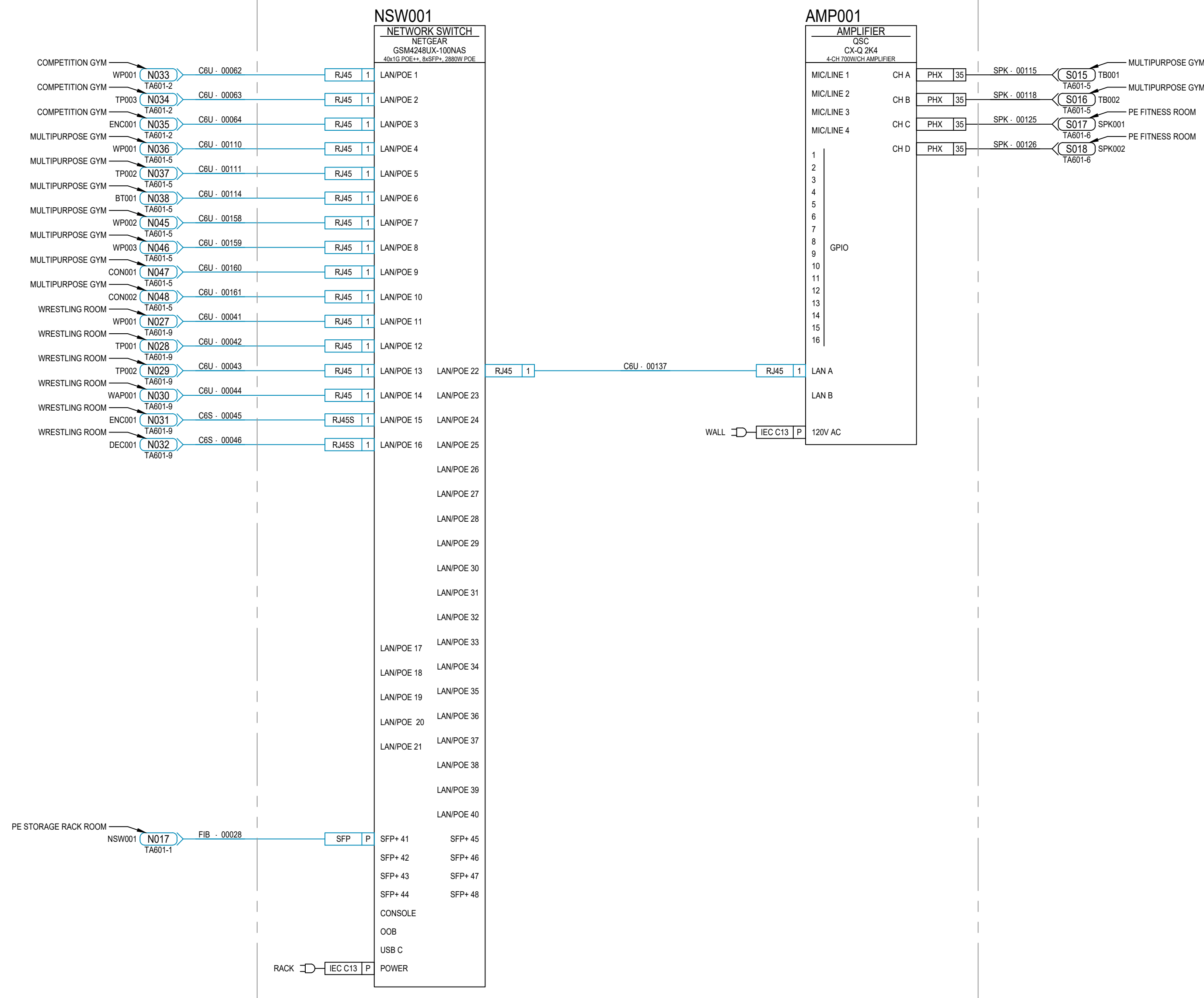


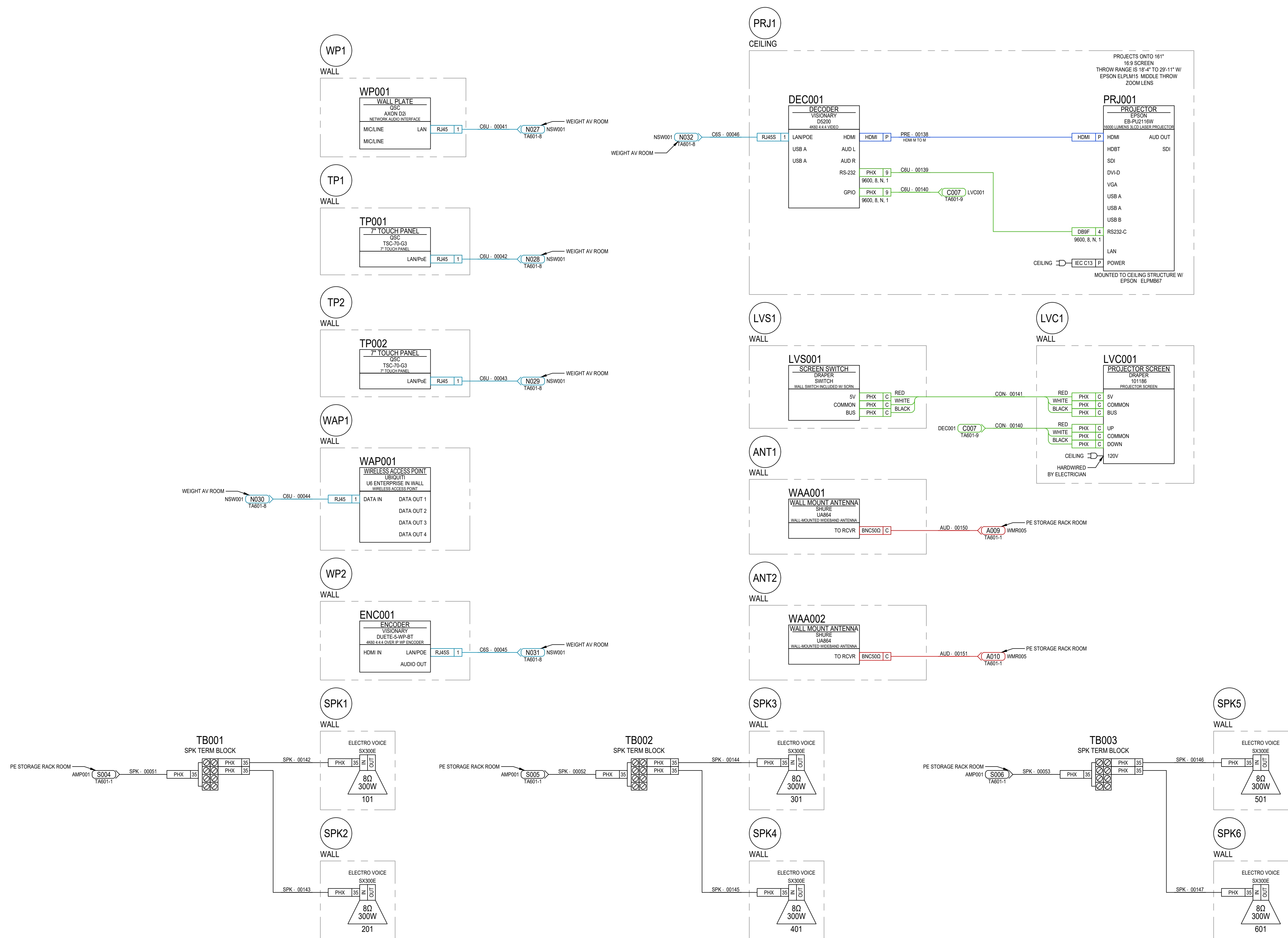


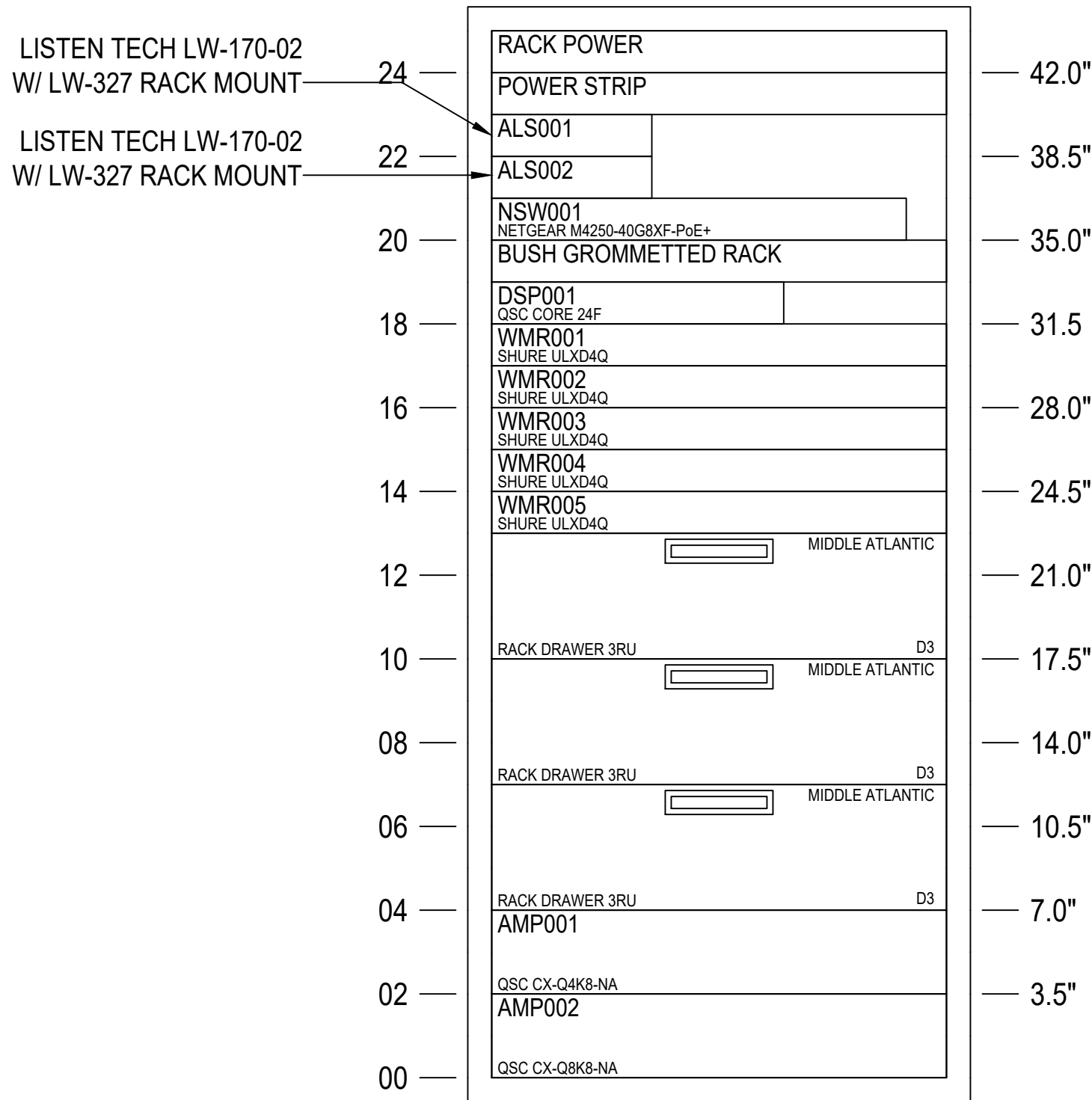




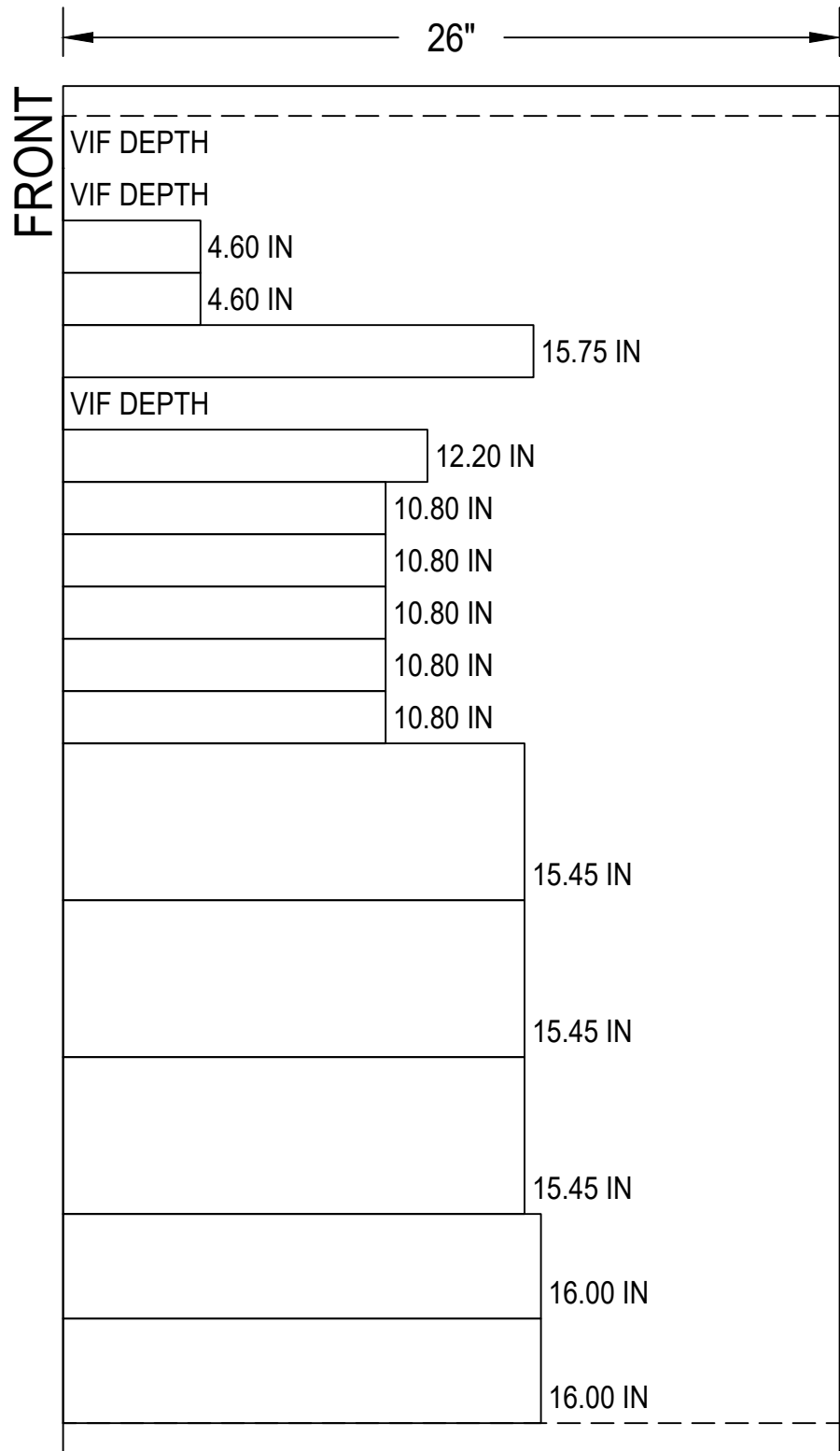
RK2
AV EQUIPMENT RACK - WEIGHT AV ROOM

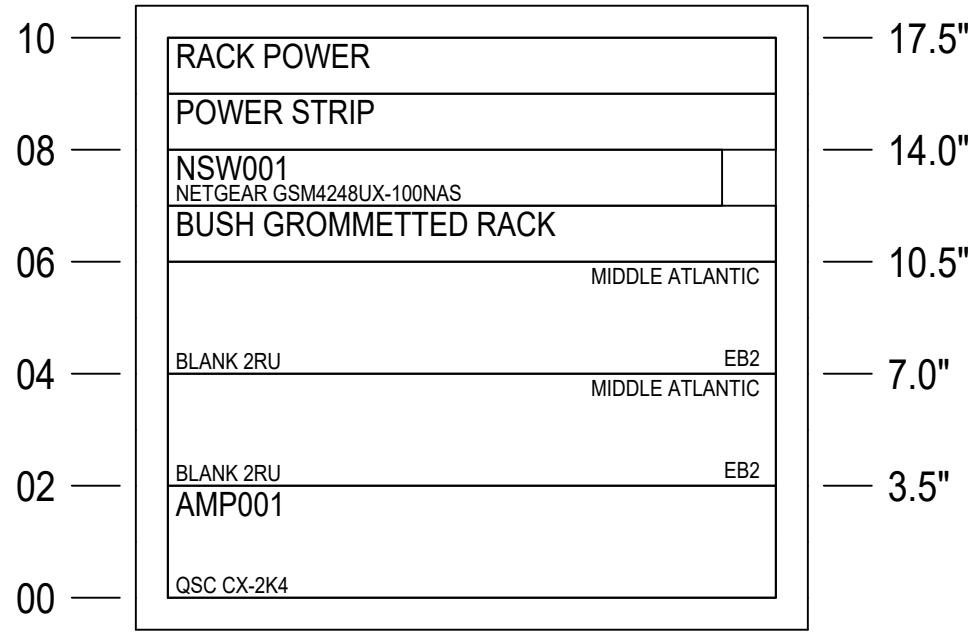




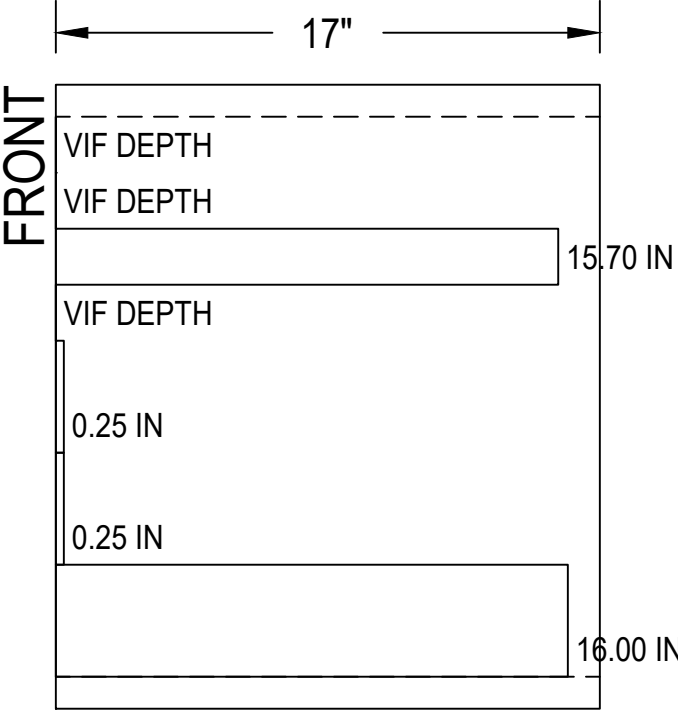


RK1
MIDDLE ATLANTIC
DWR-24-26
24RU RACK





RK2
MIDDLE ATLANTIC
DWR-10-17PD
10RU RACK



	<u>VA ea.</u>	<u>BTU/Hr ea.</u>	<u>QTY</u>	<u>VA</u>	<u>BTU/Hr</u>	
Netgear M4250-40G8XF-PoE+	1197	4084.164	1	1197	4084.16	
SHURE ULXD4Q	12	40.944	5	60	204.72	
Q-SYS Core 24f	150	511.8	1	150	511.80	
Listen LW-170-02-09	12	40.944	2	24	81.89	
QSC CX-Q4K8-NA	575	1961.9	2	1150	3923.80	
			0	0	0.00	
TOTAL				2581	8806.37	BTU/HR
				Total w/ 20% margin	9421.90	BTU/HR

	<u>VA ea.</u>	<u>BTU/Hr ea.</u>	<u>QTY</u>	<u>VA</u>	<u>BTU/Hr</u>	
Netgear M4250-40G8XF-PoE+	1197	4084.164	1	1197	4084.16	
QSC CX-Q2K4-NA	252	859.824	1	252	859.82	
			0	0	0.00	
TOTAL				1449	4943.99	BTU/HR
				Total w/ 20% margin	5559.51	BTU/HR

Cable ID	Source Device	Source Location	Destination Device	Destination Location	Cable Type	Quantity	Conduit / Pathway	Length (ft)	Notes
AUD 00001	Rack WMR001 - Ant A	PE Storage	Antenna Amplifier AMP001 - REC	Competition Gym - Wall	Coaxial Cable	1		400.00	
AUD 00002	Rack WMR001 - Ant B	PE Storage	Antenna Amplifier AMP002 - REC	Competition Gym - Wall	Coaxial Cable	1		300.00	
AUD 00148	Rack WMR002 - Ant A	PE Storage	Wall Mount Antenna WAA001 - TO RCVR	Health Care Studio/ Team Meeting Room - Wall	Coaxial Cable	1		300.00	
AUD 00149	Rack WMR002 - Ant B	PE Storage	Wall Mount Antenna WAA002 - TO RCVR	Health Care Studio/ Team Meeting Room - Wall	Coaxial Cable	1		300.00	
AUD 00005	Rack WMR003 - Ant A	PE Storage	Antenna Amplifier AMP001 - REC	Multipurpose Gym - Wall	Coaxial Cable	1		500.00	
AUD 00006	Rack WMR003 - Ant B	PE Storage	Antenna Amplifier AMP002 - REC	Multipurpose Gym - Wall	Coaxial Cable	1		500.00	
AUD 00008	Rack WMR004 - Ant A	PE Storage	Antenna Amplifier AMP001 - REC	Weight Room - Wall	Coaxial Cable	1		100.00	
AUD 00009	Rack WMR004 - Ant B	PE Storage	Antenna Amplifier AMP002 - REC	Weight Room - Wall	Coaxial Cable	1		100.00	
AUD 00150	Rack WMR005 - Ant A	PE Storage	Wall Mount Antenna WAA001 - TO RCVR	Wrestling Room - Wall	Coaxial Cable	1		700.00	
AUD 00151	Rack WMR005 - Ant B	PE Storage	Wall Mount Antenna WAA002 - TO RCVR	Wrestling Room - Wall	Coaxial Cable	1		700.00	
CGU 00012	Rack NSW001 - Port 6	PE Storage	Touch Panel TP001 - Cat6	Competition Gym - Wall	Cat6	1		200.00	
CGU 00013	Rack NSW001 - Port 7	PE Storage	Touch Panel TP002 - Cat6	Competition Gym - Wall	Cat6	1		200.00	
CGU 00014	Rack NSW001 - Port 8	PE Storage	Touch Panel TP004 - Cat6	Competition Gym - Table	Cat6	1		200.00	
CGU 00015	Rack NSW001 - Port 9	PE Storage	Wall Plate WP003 - Cat6	Competition Gym - Floorbox	Cat6	1		300.00	
CGU 00016	Rack NSW001 - Port 10	PE Storage	Wall Plate WP005 - Cat6	Competition Gym - Floorbox	Cat6	1		300.00	
CGU 00017	Rack NSW001 - Port 11	PE Storage	Access Point AP001 - Cat6	Competition Gym - Wall	Cat6	1		400.00	
CGU 00018	Rack NSW001 - Port 12	PE Storage	Decoder DEC001 - Cat6	Competition Gym - Ceiling	Cat6	1		400.00	
CGU 00019	Rack NSW001 - Port 13	PE Storage	Decoder DEC002 - Cat6	Competition Gym - Ceiling	Cat6	1		400.00	
CGU 00152	Rack NSW001 - Port 14	PE Storage	Wall Plate WP004 - Cat6	Competition Gym - Floorbox	Cat6	1		100.00	
CGU 00153	Rack NSW001 - Port 15	PE Storage	Connector CON001 - Cat6	Competition Gym - Floorbox	Cat6	1		100.00	
CGU 00154	Rack NSW001 - Port 16	PE Storage	Connector CON002 - Cat6	Competition Gym - Floorbox	Cat6	1		100.00	
CGU 00155	Rack NSW001 - Port 17	PE Storage	Wall Plate WP006 - Cat6	Competition Gym - Floorbox	Cat6	1		100.00	
CGU 00156	Rack NSW001 - Port 18	PE Storage	Connector CON003 - Cat6	Competition Gym - Floorbox	Cat6	1		200.00	
CGU 00157	Rack NSW001 - Port 19	PE Storage	Connector CON004 - Cat6	Competition Gym - Floorbox	Cat6	1		300.00	
CGU 00020	Rack NSW001 - Port 20	PE Storage	Decoder DEC001 - Cat6	Health Care Studio/ Team Meeting Room - Ceiling	Cat6	1		100.00	
CGU 00021	Rack NSW001 - Port 21	PE Storage	Wall Plate WP001 - Cat6	Health Care Studio/ Team Meeting Room - Wall	Cat6	1		400.00	
CGU 00022	Rack NSW001 - Port 27	PE Storage	Encoder ENC001 - Cat6	Health Care Studio/ Team Meeting Room - Wall	Cat6	1		400.00	
CGU 00023	Rack NSW001 - Port 28	PE Storage	Touch Panel TP001 - Cat6	Health Care Studio/ Team Meeting Room - Wall	Cat6	1		100.00	
CGU 00024	Rack NSW001 - Port 29	PE Storage	Touch Panel TP001 - Cat6	Multipurpose Gym - Wall	Cat6	1		100.00	
CGU 00025	Rack NSW001 - Port 30	PE Storage	Touch Panel TP003 - Cat6	Multipurpose Gym - Wall	Cat6	1		100.00	
CGU 00026	Rack NSW001 - Port 31	PE Storage	Touch Panel TP004 - Cat6	Multipurpose Gym - Table	Cat6	1		500.00	
CGU 00027	Rack NSW001 - Port 32	PE Storage	Access Point AP001 - Cat6	Multipurpose Gym - Wall	Cat6	1		500.00	
CGU 00034	Rack NSW001 - Port 33	PE Storage	Encoder ENC001 - Cat6	PE Fitness Room - Wall	Cat6	1		500.00	
CGU 00035	Rack NSW001 - Port 34	PE Storage	Decoder DEC001 - Cat6	PE Fitness Room - Ceiling	Cat6	1		500.00	
CGU 00036	Rack NSW001 - Port 35	PE Storage	Touch Panel TP001 - Cat6	PE Fitness Room - Wall	Cat6	1		300.00	
CGU 00037	Rack NSW001 - Port 36	PE Storage	Wall Plate WP001 - Cat6	Weight Room - Wall	Cat6	1		300.00	
CGU 00038	Rack NSW001 - Port 37	PE Storage	Touch Panel TP001 - Cat6	Weight Room - Wall	Cat6	1		300.00	
CGU 00039	Rack NSW001 - Port 38	PE Storage	Access Point AP001 - Cat6	Weight Room - Wall	Cat6	1		300.00	
CGU 00040	Rack NSW001 - Port 39	PE Storage	Wall Plate BT001 - Cat6	Weight Room - Wall	Cat6	1		300.00	
CGU 00028	Rack NSW001 - SPF+ Port 41	PE Storage	Network Switch NSW001 - Fiber	Weight AV Room	Fiber	1		300.00	
SPK 00048	Rack AMP001 - Channel 1	PE Storage	SPK Terminal Block TB001 - Speaker Cable	Weight Room - Wall	Speaker Cable	1		400.00	
SPK 00049	Rack AMP001 - Channel 2	PE Storage	SPK Terminal Block TB002 - Speaker Cable	Weight Room - Wall	Speaker Cable	1		200.00	
SPK 00051	Rack AMP001 - Channel 3	PE Storage	SPK Terminal Block TB001 - Speaker Cable	Wrestling Room - Wall	Speaker Cable	1		300.00	
SPK 00052	Rack AMP001 - Channel 4	PE Storage	SPK Terminal Block TB002 - Speaker Cable	Wrestling Room - Wall	Speaker Cable	1		400.00	
SPK 00053	Rack AMP001 - Channel 5	PE Storage	SPK Terminal Block TB003 - Speaker Cable	Wrestling Room - Wall	Speaker Cable	1		300.00	
SPK 00055	Rack AMP002 - Channel 1	PE Storage	SPK Terminal Block TB001 - Speaker Cable	Competition Gym - Ceiling	Speaker Cable	1		200.00	
SPK 00056	Rack AMP002 - Channel 2	PE Storage	SPK Terminal Block TB002 - Speaker Cable	Competition Gym - Ceiling	Speaker Cable	1		300.00	
SPK 00057	Rack AMP002 - Channel 3	PE Storage	SPK Terminal Block TB003 - Speaker Cable	Competition Gym - Ceiling	Speaker Cable	1		300.00	
SPK 00058	Rack AMP002 - Channel 4	PE Storage	SPK Terminal Block TB004 - Speaker Cable	Competition Gym - Ceiling	Speaker Cable	1		300.00	
SPK 00059	Rack AMP002 - Channel 5	PE Storage	SPK Terminal Block TB005 - Speaker Cable	Competition Gym - Ceiling	Speaker Cable	1		300.00	
SPK 00060	Rack AMP002 - Channel 6	PE Storage	SPK Terminal Block TB006 - Speaker Cable	Competition Gym - Ceiling	Speaker Cable	1		300.00	
SPK 00061	Rack AMP002 - Channel 7	PE Storage	SPK Terminal Block TB007 - Speaker Cable	Competition Gym - Ceiling	Speaker Cable	1		300.00	
CGU 00062	Rack NSW001 - Port 1	Weight AV Room	Wall Plate WP001 - Cat6	Competition Gym - Wall	Cat6	1		300.00	
CGU 00063	Rack NSW001 - Port 2	Weight AV Room	Touch Panel TP003 - Cat6	Competition Gym - Wall	Cat6	1		300.00	
CGU 00064	Rack NSW001 - Port 3	Weight AV Room	Encoder ENC001 - Cat6	Competition Gym - Wall	Cat6	1		300.00	
CGU 00110	Rack NSW001 - Port 4	Weight AV Room	Wall Plate WP001 - Cat6	Multipurpose Gym - Wall	Cat6	1		300.00	
CGU 00111	Rack NSW001 - Port 5	Weight AV Room	Touch Panel TP002 - Cat6	Multipurpose Gym - Wall	Cat6	1		500.00	
CGU 00114	Rack NSW001 - Port 6	Weight AV Room	Wall Plate BT001 - Cat6	Multipurpose Gym - Wall	Cat6	1		500.00	
CGU 00158	Rack NSW001 - Port 7	Weight AV Room	Wall Plate WP002 - Cat6	Multipurpose Gym - Floorbox	Cat6	1		700.00	
CGU 00159	Rack NSW001 - Port 8	Weight AV Room	Wall Plate WP003 - Cat6	Multipurpose Gym - Floorbox	Cat6	1		700.00	
CGU 00160	Rack NSW001 - Port 9	Weight AV Room	Connector CON001 - Cat6	Multipurpose Gym - Floorbox	Cat6	1		700.00	
CGU 00161	Rack NSW001 - Port 10	Weight AV Room	Connector CON002 - Cat6	Multipurpose Gym - Floorbox	Cat6	1		300.00	
CGU 00041	Rack NSW001 - Port 11	Weight AV Room	Wall Plate WP001 - Cat6	Wrestling Room - Wall	Cat6	1		300.00	
CGU 00042	Rack NSW001 - Port 12	Weight AV Room	Touch Panel TP001 - Cat6	Wrestling Room - Wall	Cat6	1		300.00	
CGU 00043	Rack NSW001 - Port 13	Weight AV Room	Touch Panel TP002 - Cat6	Wrestling Room - Wall	Cat6	1		300.00	
CGU 00044	Rack NSW001 - Port 14	Weight AV Room	Access Point AP001 - Cat6	Wrestling Room - Wall	Cat6	1		300.00	
CGU 00045	Rack NSW001 - Port 15	Weight AV Room	Encoder ENC001 - Cat6	Wrestling Room - Wall	Cat6	1		300.00	
CGU 00046	Rack NSW001 - Port 16	Weight AV Room	Decoder DEC001 - Cat6	Wrestling Room - Ceiling	Cat6	1		400.00	
SPK 00115	Rack AMP001 - Channel 1	Weight AV Room	SPK Terminal Block TB001 - Speaker Cable	Multipurpose Gym - Wall	Speaker Cable	1		400.00	
SPK 00118	Rack AMP001 - Channel 2	Weight AV Room	SPK Terminal Block TB002 - Speaker Cable	Multipurpose Gym - Wall	Speaker Cable	1		400.00	
SPK 00125	Rack AMP001 - Channel 3	Weight AV Room	Speaker SPK1 - Speaker Cable	PE Fitness Room - Wall	Speaker Cable	1		100.00	
SPK 00126	Rack AMP001 - Channel 4	Weight AV Room	Speaker SPK2 - Speaker Cable	PE Fitness Room - Wall	Speaker Cable	1		100.00	

CONN #
CONN: CONNECTOR TYP
#: TERMINATION NOTE

1

EIA/TIA 568B (COMMON RJ45)

PIN	CAT6 WIRE
1	ORANGE/WHITE
2	ORANGE
3	GREEN/WHITE
4	BLUE
5	BLUE/WHITE
6	GREEN
7	BROWN/WHITE
8	BROWN

RJ45 CONNECTOR

** FOR SHIELDED CAT6, SHIELD CONNECTS TO BOTH RJ45 ENDS UNLESS OTHERWISE NOTED

7

1-WAY SERIAL (NULLED DEVICE)

DEVICE PIN	WIRE	SIGNAL (FROM CONTROL SYSTEM)
2 RX	BLACK	TX (LABELED S **OR +)
5 GND	SHIELD	G (LABELED G **OR -)

PIN 1

DB9 MALE

PIN 5

PIN 6

PIN 9

PIN 5

DB9 FEMALE

PIN 1

PIN 6

PIN 9

* CONNECTOR VIEWED FROM FACE OF CONNECTOR
** FOR AMX "S" IS INDICATED AS "+" AND "G" IS INDICATED AS "-"

13

SCREEN LVC

SCREEN LVC	WIRE	CRESTRON RELAY*
UP	RED	1
DOWN	BLACK	2
COM	WHITE	C

* NOTE THAT RELAY NUMBER SHOWN ON SIGNAL FLOW MAY BE DIFFERENT THAN ABOVE. REFER TO SIGNAL FLOW FOR CORRECT RELAY.

19

3 PIN XLR

PIN	WIRE	SIGNAL
1	SHIELD	GND
2	RED	+
3	BLACK	-

3 PIN XLR MALE

3 PIN XLR FEMALE

** CONNECTOR VIEWED FROM FACE OF CONNECTOR

25

RCA L/R UNBALANCED TO PHOENIX

TS	WIRE	SIGNAL	PHOENIX
RCA L TIP	RED	L	L+
RCA L SLEEVE	SHIELD	GND	GND
RCA R TIP	BLACK	R	R+
RCA R SLEEVE	SHIELD	GND	GND

JUMPER L- OR R- TO GROUND AT PHOENIX

SLEEVE

TIP

TIP

SLEEVE

31

S-VIDEO WIRING

WIRE	SIGNAL
BLACK	LUMINANCE
YELLOW	CHROMA

2

EIA/TIA 568A (UNCOMMON RJ45)

PIN	CAT6 WIRE
1	GREEN/WHITE
2	GREEN
3	ORANGE/WHITE
4	BLUE
5	BLUE/WHITE
6	ORANGE
7	BROWN/WHITE
8	BROWN

RJ45 CONNECTOR

** FOR SHIELDED CAT6, SHIELD CONNECTS TO BOTH RJ45 ENDS UNLESS OTHERWISE NOTED

8

1-WAY SERIAL (STRAIGHT THRU DEVICE)

DEVICE PIN	WIRE	SIGNAL (FROM CONTROL SYSTEM)
3 RX	BLACK	TX (LABELED S **OR +)
5 GND	SHIELD	G (LABELED G **OR -)

PIN 1

DB9 MALE

PIN 5

PIN 6

PIN 9

PIN 5

DB9 FEMALE

PIN 1

PIN 6

PIN 9

* CONNECTOR VIEWED FROM FACE OF CONNECTOR
** FOR AMX "S" IS INDICATED AS "+" AND "G" IS INDICATED AS "-"

14

LIFT RELAY CONTROL

LIFT	WIRE	CRESTRON RELAY*
1 UP	RED	3A
2 DWN	BLACK	4A
6 GND	SHIELD	3B & 4B (JUMPER)

* NOTE THAT RELAY NUMBER SHOWN ON SIGNAL FLOW MAY BE DIFFERENT THAN ABOVE. REFER TO SIGNAL FLOW FOR CORRECT RELAY.

CONNECT ALL PINS STRAIGHT THROUGH FOR CONNECTION TO DISPLAY DEVICES WALL CONTROL SWITCH.

20

STEREO BALANCED - PHOENIX OR 5PIN XLR

SIGNAL	XLR PIN	222 WIRE	224 WIRE
GND	1	SHIELD	SHIELD
L+	2	RED	RED
L-	3	BLACK	BLACK
R+	4	RED	WHITE
R-	5	BLACK	GREEN

5 PIN XLR MALE

5 PIN XLR FEMALE

** CONNECTOR VIEWED FROM FACE OF CONNECTOR

26

PHOENIX INPUT (BAL OR UNBAL) & OUTPUT (BAL) FROM ALL CONNECTIONS BUT 3.5MM

TERMINAL	WIRE	SIGNAL
+	RED	+
-	BLACK	-
GND	SHIELD	GND

3 TERMINAL PHOENIX

TWIST TOGETHER

32

COMPONENT AND AUDIO OVER 5BNC

WIRE	SIGNAL
RED	COMPONENT PR
GREEN	Y
BLUE	COMPONENT PB
BLACK	AUDIO LEFT
YELLOW	AUDIO RIGHT

3

RS232 - 2,3,5 NULL MODEM

DEVICE PIN	WIRE	SIGNAL (FROM CONTROL SYSTEM)
3/TIP RX	RED	RX (TYPICALLY PIN 2)
2/RING TX	BLACK	TX (TYPICALLY PIN 3)
5/SLEEVE GND	SHIELD	GND (TYPICALLY PIN 5)

3.5MM TRS MALE

RING (R)

TIP (T)

SLEEVE (S)

PIN 1

DB9 MALE

PIN 5

PIN 6

PIN 9

PIN 5

DB9 FEMALE

PIN 1

PIN 6

PIN 9

** CONNECTOR VIEWED FROM FACE OF CONNECTOR

9

PHOENIX TO PHOENIX SERIAL

DEVICE PIN	WIRE	SIGNAL (FROM CONTROL SYSTEM)
RX	BLACK	TX (IN SOME CASES "S")
TX	RED	RX (IF APPLIES*)
GND	SHIELD	GND

* SOME CONNECTIONS MAY NOT HAVE AN RX AT CONTROL SYSTEM END
STILL CONNECT THE PIN AT THE DEVICE END

15

SURGEX REMOTE ON

SURGEX (PHOENIX)	WIRE	CRESTRON RELAY*
1 CC	RED	8A
2 CC/+	BLACK	8B

* NOTE THAT RELAY NUMBER SHOWN ON SIGNAL FLOW MAY BE DIFFERENT THAN ABOVE. REFER TO SIGNAL FLOW FOR CORRECT RELAY.

21

UNBALANCED PHOENIX BLOCK TO 3.5MM

PHOENIX	WIRE	TRS
L+	RED	TIP
R+	BLACK	RING
GND	SHIELD	SLEEVE

DO NOT CONNECT L- OR R- AT PHOENIX

3.5MM TRS MALE

RING (R)

TIP (T)

SLEEVE (S)

27

PHOENIX OUTPUT (UNBAL) TO ALL CONNECTIONS BUT 3.5MM

TERMINAL	WIRE	SIGNAL
+	RED	+
-	NOT CONNECTED	
GND	BLACK & SHIELD	GND

3 TERMINAL PHOENIX

33

DM CLASSIC WIRING

D : SHIELDED CAT CABLE
M: UNSHIELDED CAT CABLE

24 A B G:

DMNET	WIRE	XLR 4 PIN (IF APPLICABLE)
G	BLACK 18 AWG	1
A	ORANGE 22 AWG	2
B	GRAY 22 AWG	3
24	RED 18 AWG	4

4

RS232 - 2,3,5 STRAIGHT THROUGH

DEVICE PIN	WIRE	SIGNAL (FROM CONTROL SYSTEM)
2/RING TX	RED	RX (TYPICALLY PIN 2)
3/TIP RX	BLACK	TX (TYPICALLY PIN 3)
5/SLEEVE GND	SHIELD	GND (TYPICALLY PIN 5)

3.5MM TRS MALE

RING (R)

TIP (T)

SLEEVE (S)

PIN 1

DB9 MALE

PIN 5

PIN 6

PIN 9

PIN 5

DB9 FEMALE

PIN 1

PIN 6

PIN 9

** CONNECTOR VIEWED FROM FACE OF CONNECTOR

10

IR EMITTER WIRING

IR FROM CTRL SYS	WIRE ON EMITTER	WIRE ON 224
S ** (OR +)	STRIPED	RED
G ** (OR -)	SOLID	BLACK

CONTROL SYSTEM OUTPUT

IR

S

G

EMITTER PROBE

** FOR AMX "S" IS INDICATED AS "+" AND "G" IS INDICATED AS "-"

16

CLEARONE WIRED CONTROLLER PINOUT

PIN	CAT6 WIRE
1	NO CONNECTION
2	GREEN/WHITE
3	BLUE
4	BLUE/WHITE
5	GREEN
6	NO CONNECTION

RJ11 CONNECTOR

NOTE: IF USING A 4-PIN USE PINOUT FOR PINS 2-5 WHERE 2=1, 3=2, ETC.

22

3.5MM TO UNBALANCED PHOENIX BLOCK

TRS	WIRE	PHOENIX
TIP	RED	L+
RING	BLACK	R+
SLEEVE	SHIELD	GND

JUMPER L- OR R- TO GROUND AT PHOENIX

3.5MM TRS MALE

RING (R)

TIP (T)

SLEEVE (S)

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POLYCOM HDX TABLE MIC EXTENSION (NOT CEILING)

MIC END	SHIELDED CAT6	CODEC END
1	GREEN/WHITE	5
2	GREEN	6
5	ORANGE/WHITE	1
6	ORANGE	2
7	BROWN/WHITE	5
8	BROWN	6
3*	BLUE/WHITE	3*
SHELL	DRAIN WIRE	SHELL

RJ45 CONNECTOR

* PIN 3 MUD ALSO BE JUMPED TO SHELL
** USE SHIELDED RJ45 CONNECTORS

34

4 POLE 3.5MM FOR COMPOSITE/AUDIO

TRS	SIGNAL
TIP (T)	AUDIO L
RING 1 (R1)	VIDEO
RING 2 (R2)	GND
SLEEVE (S)	AUDIO R

S

R2

R1

T

5

RS232 - 2,3,5,7,8 NULL MODEM

DEVICE PIN	WIRE	SIGNAL (FROM CONTROL SYSTEM)
3 RX	RED	RX (TYPICALLY PIN 2)
2 TX	BLACK	TX (TYPICALLY PIN 3)
5 GND	SHIELD	GND (TYPICALLY PIN 5)
8 RTS	GREEN	RTS (TYPICALLY PIN 7)
7 CTS	WHITE	CTS (TYPICALLY PIN 8)

DB9 MALE

DB9 FEMALE

** CONNECTOR VIEWED FROM FACE OF CONNECTOR

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IR RECEIVER AND IR CONNECTOR BLOCK

SIGNAL	NILES WIRE	CAT6 WIRE
12V	RED	GREEN/WHITE
GND	BLACK	ORANGE/WHITE
DATA	YELLOW	GREEN
STATUS	WHITE	BLUE/WHITE

NILES

XANTECH

SIGNAL	XANTCH WIRE	CAT6 WIRE
2 RX	RED	GREEN/WHITE
3 TX	BLACK	ORANGE/WHITE
5 GND	SHIELD	GREEN
7 RTS	BLACK	BLUE/WHITE

** CONNECTOR VIEWED FROM FACE OF CONNECTOR

17

POLYCOM HDCI BREAKOUT SERIAL CABLE

CAMERA PIN	WIRE	CODEC PIN
2 TX	RED	RX 2
3 RX	BLACK	TX 3
5 GND	SHIELD	GND 5
9 IR	WHITE	IR 9

DB9 MALE

** CONNECTOR VIEWED FROM FACE OF CONNECTOR

23

STEREO UNBALANCED 3.5MM & 1/4" TRS

TRS	WIRE	SIGNAL
TIP	RED	LEFT
RING	BLACK	RIGHT
SLEEVE	SHIELD	GND

3.5MM TRS MALE

3.5MM TRS FEMALE

1/4" TRS MALE

29

CLEARONE MIC ARRAY PINOUT

PIN	CAT6 WIRE	MIC TERMINAL
1	ORANGE/WHITE	MIC 1 +
2	ORANGE	MIC 1 -
3	GREEN/WHITE	MIC 1 GND
4	BLUE	MIC 2 +
5	BLUE/WHITE	MIC 2 -
6	GREEN	MIC 2 GND
7	BROWN/WHITE	MIC 3 +
8	BROWN	MIC 3 -

** IF MIC 3 DOES NOT SHARE SAME CHASSIS GROUND WITH MIC 1 OR 2, JUMPER MIC 2 GROUND TO MIC 3 GROUND ON MIXER INPUT

35

70V & 8/4 OHM AMP/SPEAKER WIRING

AMP/SPEAKER	2 CONDUCTOR CABLE	SPEAKER
+	RED OR WHITE	+
-	BLACK	-

6

RS232 - 2,3,5,7,8 STRAIGHT THROUGH

DEVICE PIN	WIRE	SIGNAL (FROM CONTROL SYSTEM)
2 TX	RED	RX (TYPICALLY PIN 2)
3 RX	BLACK	TX (TYPICALLY PIN 3)
5 GND	SHIELD	GND (TYPICALLY PIN 5)
7 CTS	WHITE	RTS (TYPICALLY PIN 7)
8 RTS	GREEN	CTS (TYPICALLY PIN 8)

DB9 MALE

DB9 FEMALE

** CONNECTOR VIEWED FROM FACE OF CONNECTOR

12

CRESNET AND AXLINK

CRESNET	AXLINK	WIRE	XLR 4 PIN
G	GND	BLACK	1
Y	AXP	WHITE	2
Z	AXM	BLUE/GREEN	3
24V	PWR	RED	4

18

PHOENIX TO PHOENIX SERIAL PASSTHRU (DTP)

DEVICE PIN	WIRE	DTP IN/OUT
RX	RED	RX
TX	BLK	TX
GND	SHIELD	GND

24

BALANCED 3.5MM & 1/4" TRS

TRS	WIRE	SIGNAL
TIP	RED	+
RING	BLACK	-
SLEEVE	SHIELD	GND

3.5MM TRS MALE

3.5MM TRS FEMALE

1/4" TRS MALE

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4 POLE 3.5MM FOR CISCO MICS

3.5MM	224 CABLE	SIGNAL	XLR	PHOENIX
TIP	RED	AUD +	2	AUD +
RING 1	BLACK	AUD -	3	AUD -
RING 2	WHITE	CONTROL	3	NONE
SLEEVE	SHIELD	GND	1	GND

* WIRE DESIGNATIONS ARE FOR SPOOL WIRE AND NOT PREMADE CABLES
ALWAYS PERFORM CONTINUITY TEST WITH PREMADE CABLES

4 POLE 3.5MM MALE

3 PIN XLR MALE

3 PIN XLR FEMALE

P

PREMADE CABLE; NO FIELD TERMINATION REQUIRED

C

CUSTOM TERMINATION; SEE SIGNAL FLOW FOR MORE DETAIL