

General Notes:

1. All Stage Lighting (SL) requirements provided for as follows:
- Lighting Contractor (LC):

1. Provide and install all SL equipment as noted in the AVL drawings and SL system specifications.

2. Make all low voltage terminations per equipment manufacturers specifications.
- Electrical Contractor (EC):

1. Provide and install all electrical service, feeds, conduit, chases, fittings, wire trays, distribution panels, and enclosures, based on the SL design documents and electrical plans.

2. Provide and pull all low voltage control wire. Note all low voltage substitutions must be approved by Consultant.

3. Provide and pull all line voltage wire.

4. Make all line voltage terminations.
- General Contractor (GC):

1. Is responsible to provide and install all structure to support all SL equipment.

2. Is responsible for millwork required for lighting and control devices.

3. Is responsible for painting all exposed conduit, pipe, boxes, and structural support in a flat black finish, or other appropriate color.

4. Is responsible for trim out and paint finishes on millwork.
2. All work is to be done in accordance with all applicable, Federal, State, and Local codes.
3. All installation details shown in these drawings are design concepts and for reference only.
4. Materials to be used, structural soundness, electrical design, etc. must be approved by the Architect, General Contractor, Structural Engineer, Electrical Engineer, and any other applicable parties.
5. It is the General Contractors responsibility that all structural mounting points conform to local codes.
6. All SL rigging is to be done using entertainment industry methods and standards. All rigging equipment must be rated hardware.
7. The exact location of all SL panels and boxes shall be coordinated with the GC, EC and LC. Heights listed are recommendations and should be coordinated with other devices where applicable.
8. All conduit and wire to take the most direct route possible between locations.
9. All control cables are to be labeled on both ends, using a Brady (or equivalent) labeler, per plan designations. Allow 2' of excess cable at both ends unless otherwise noted on the plan.
10. All cable shall be continuous and without splices unless otherwise specified.
11. All high voltage circuits are to have a neutral per circuit. Common neutrals are not acceptable. NO EXCEPTIONS.
12. All circuits must have appropriate ground conductors.
13. All line voltage circuits (hot and neutral) must be kept in pairs and each wire is to be marked with its corresponding circuit number on both ends using Ideal wire markers or equivalent.
15. The EC should be advised that stranded wire is recommended for use with all SL line voltage systems for the greatest ease of routing and hookup.
16. Dimmer room requirements:

a. Temperature range of 40' – 85' F 24 hours a day.

b. Relative humidity in the range of 30% - 70% non-condensing.

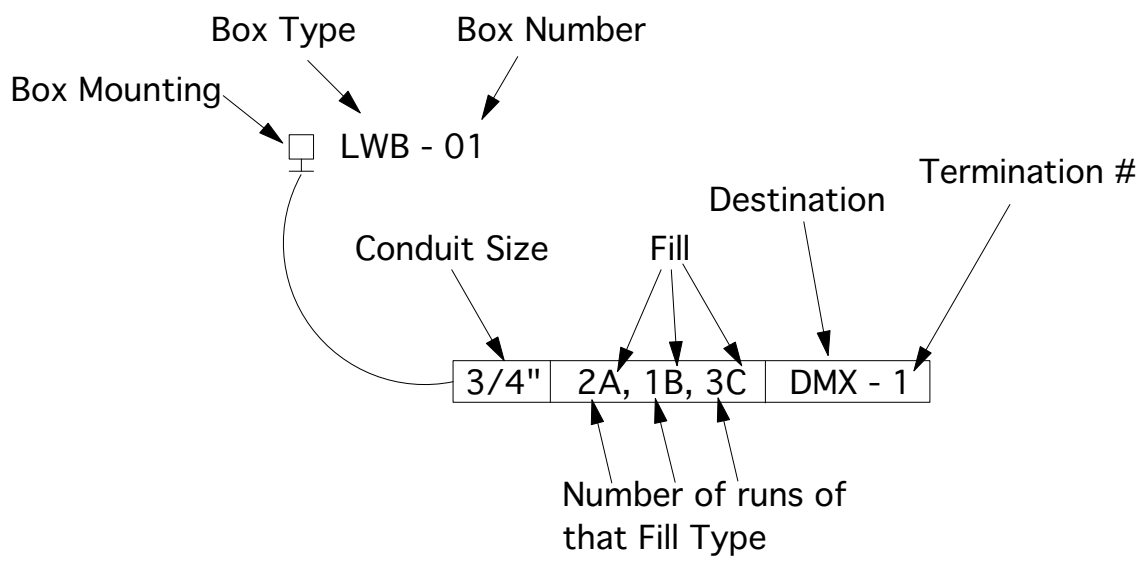
c. Clean, low dust environment. Painted/sealed walls, ceiling, and floor to help eliminate dust.

d. Air Conditioning system capable of dissipating dimmer generated heat PLUS any heat generated by other equipment in the room such as transformers.

e. Dimmer rack requires a minimum of 10" top clearance for proper air ventilation and 6" clearance on the left side for proper door swing for correct insertion and removal of dimmer modules.

General Symbols:

- Pipe Mount Box
- Wall Box
- Ceiling Box
- Custom Box
- Flush Floor Box with power
- Flush Floor Box
- 20Amp Duplex Outlet



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Conduit, wire size, and ground count to be determined by the electrical engineer or Electrical Contractor for all line voltage circuits.

Box Types

- LCS- Lighting Connector Strip
- LPB - Lighting Pipe Box
- LWB - Lighting Wall Box
- LCB - Lighting Ceiling Box
- LFB - Lighting Floor Box
- GJB - Gridiron Junction Box

Lighting Conduit Fill Types

Some types might not be used

Type	Manufacturer	Part #	Application
A	Belden	9729	DMX
B	Belden	8471	Unison Link
C	Carol	(1) #14 AWG Stranded (green)	Unison Ground
D	Carol	(2) #16 AWG Stranded (one red, one black)	RFU Power, Unison AUX Power, Network Power
E	Belden	1583A	Network, DMX
F	Belden	9728	DMX, RFU
G	Carol	(1) #16 AWG stranded (green)	Network Ground
H	Carol	(1) Hot, (1) Nuetral (wire size and grounds TBD by EE)	20 Amp Dimmed Circuit
J	Carol	(1) Hot, (1) Nuetral (wire size and grounds TBD by EE)	20 Amp Non-dimmed Circuit
K	Carol	(2) Hot, (1) Ground (wire size and grounds TBD by EE)	20 Amp 208 Volt Non-dimmed Circuit
L	Carol	(2) Hot, (1) Neutral, (1) Ground (wire size and grounds TBD by EE)	20 Amp 120/208 Volt Non-dimmed Circuit
M	Carol	(3) Hot, (1) Neutral, (1) Ground (wire size and grounds TBD by EE)	20 Amp 3 Phase 120/208 Volt non-dimmed circuit
N	Carol	(3) Hot, (1) Ground (wire size and grounds TBD by EE)	20 Amp 3 Phase 208 Volt non-dimmed circuit
P	Belden	27615A (6) #16 conductors	Motor Control
R	Data Flex	Scroller Power/Data Cable	LED Power and Data
S	Belden	27331A (3) #16 conductors	Motor Control

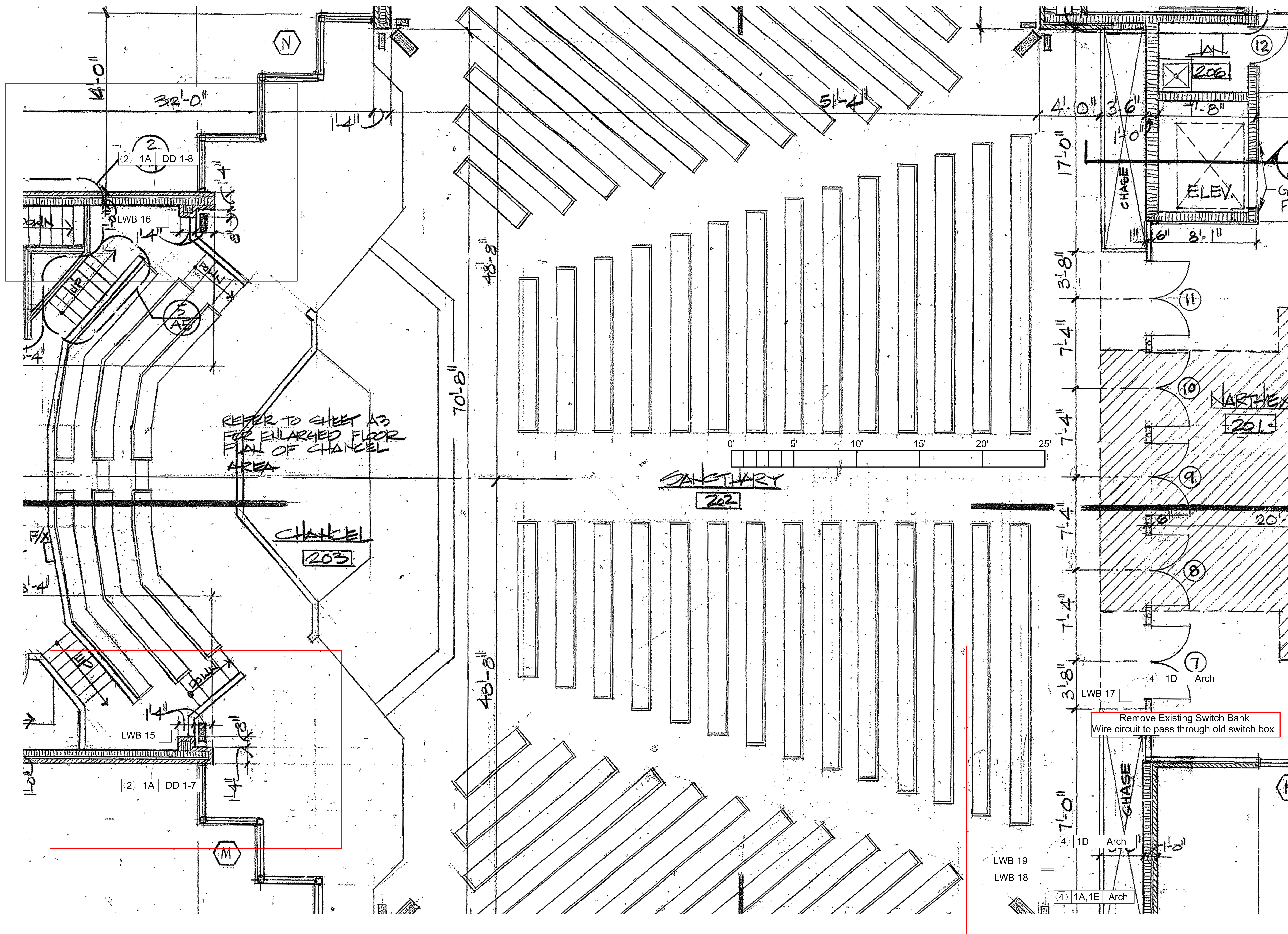
All wire substitutions must be approved by Consultant

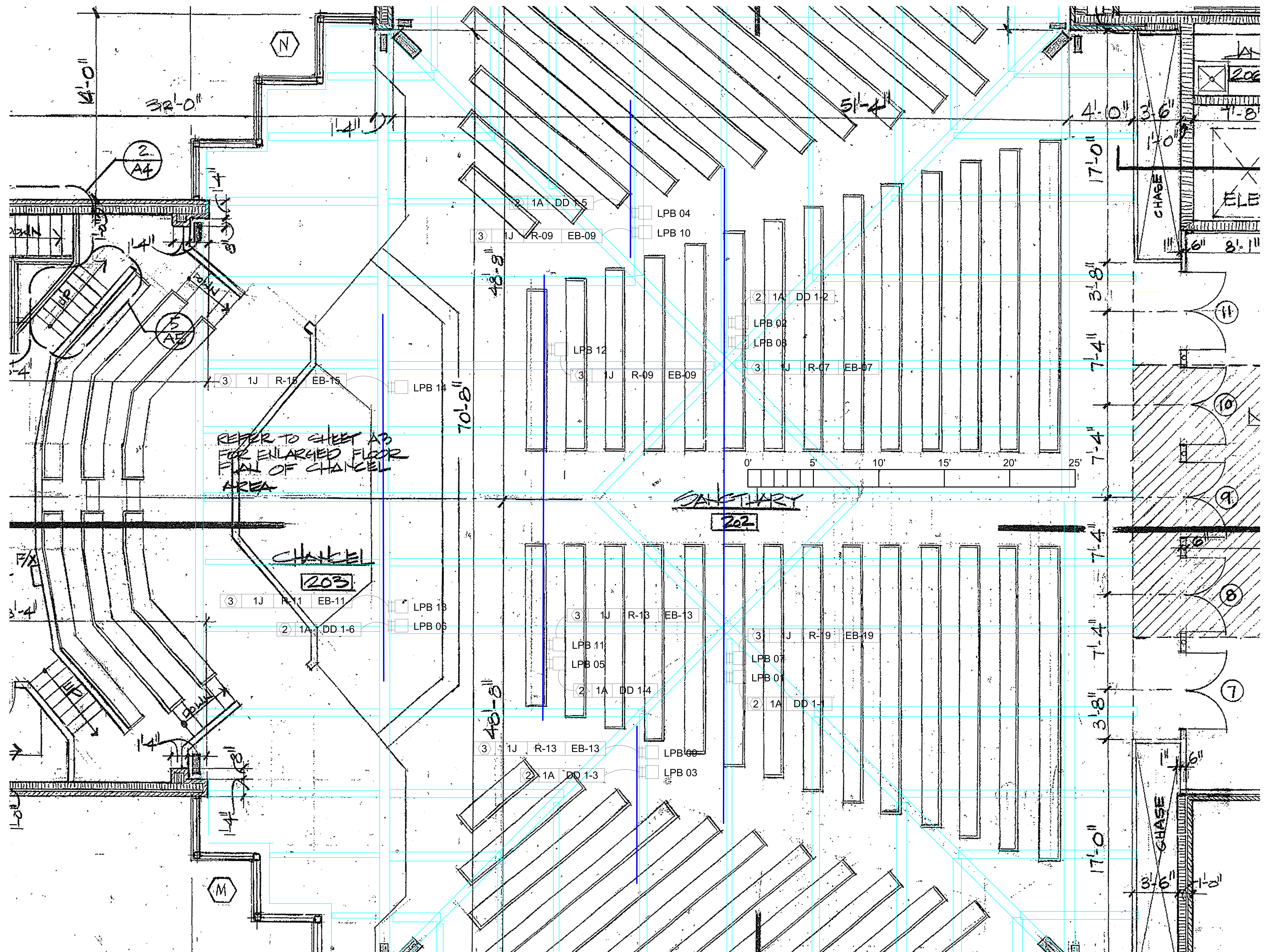
Special Notes Denoted With ## :

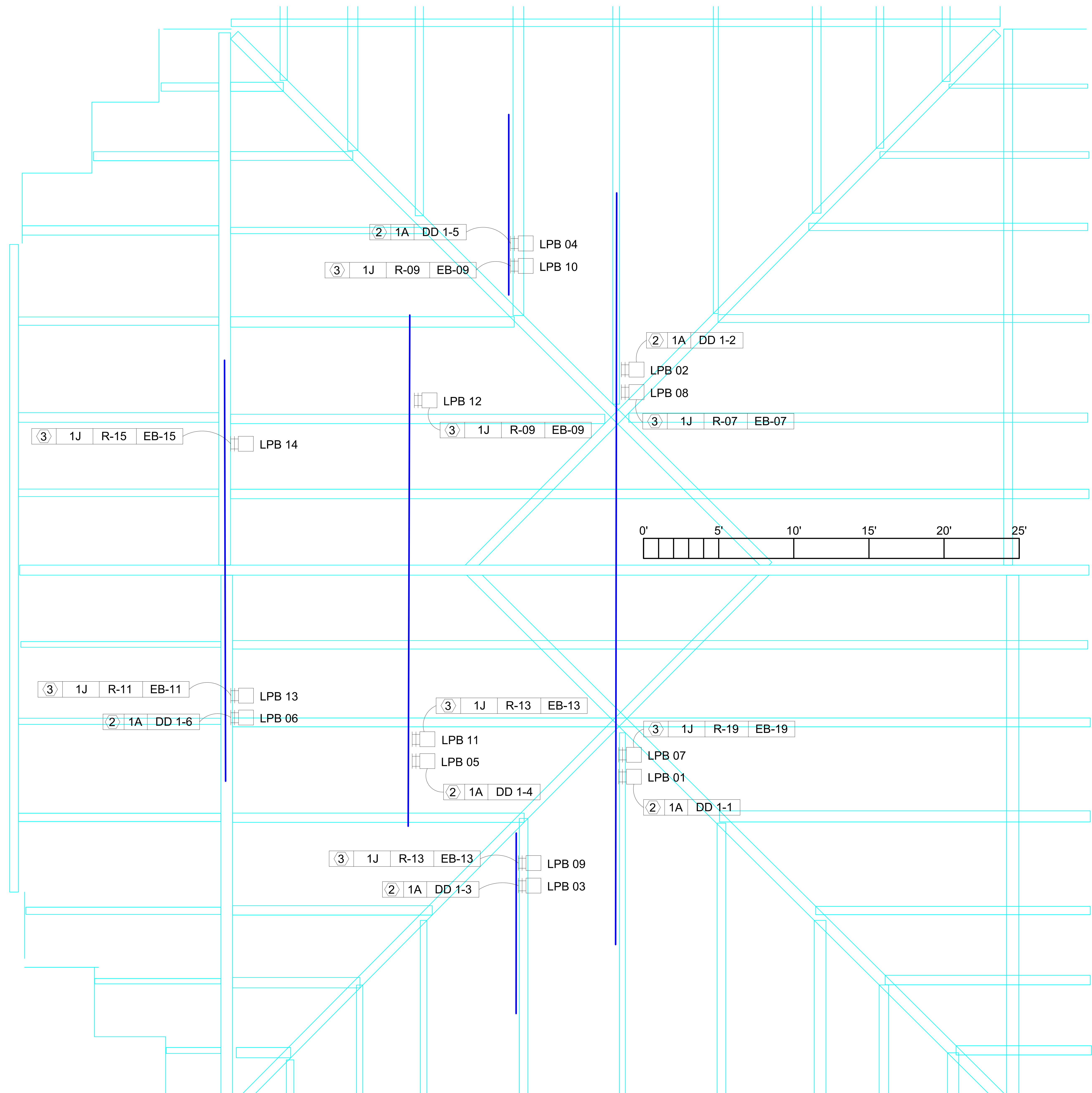
1. Conduit, wire size, and ground count to be determined by the electrical engineer or Electrical Contractor for all line voltage circuits.
2. Run data cable to DD free air. Could also be CAT5 cable with proper connectors or wireless.
3. Circuits for these boxes are from existing stage light circuits.
4. Architectural control. Postion as needed. Data connections are topology free.

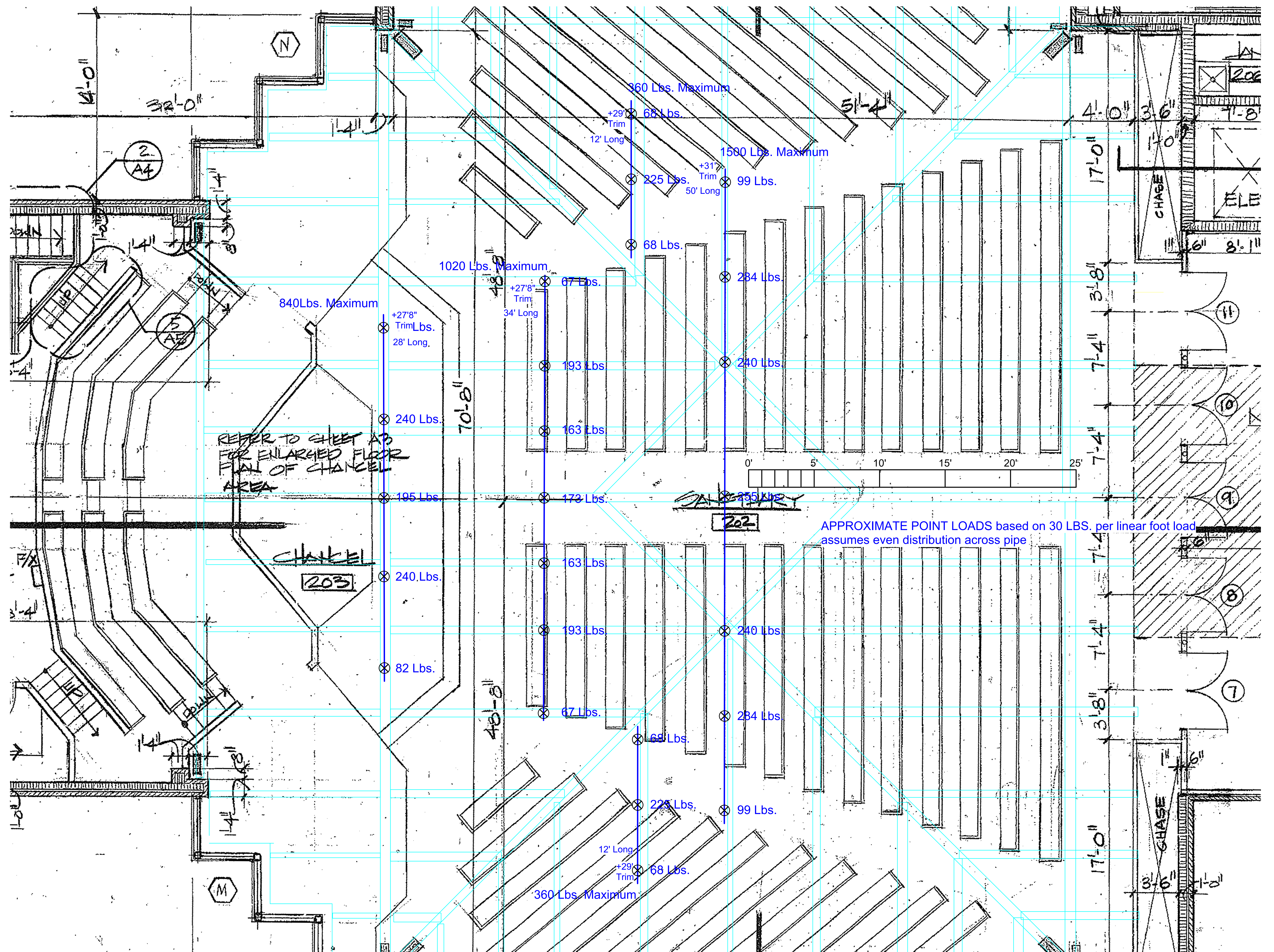
Drawing Index:

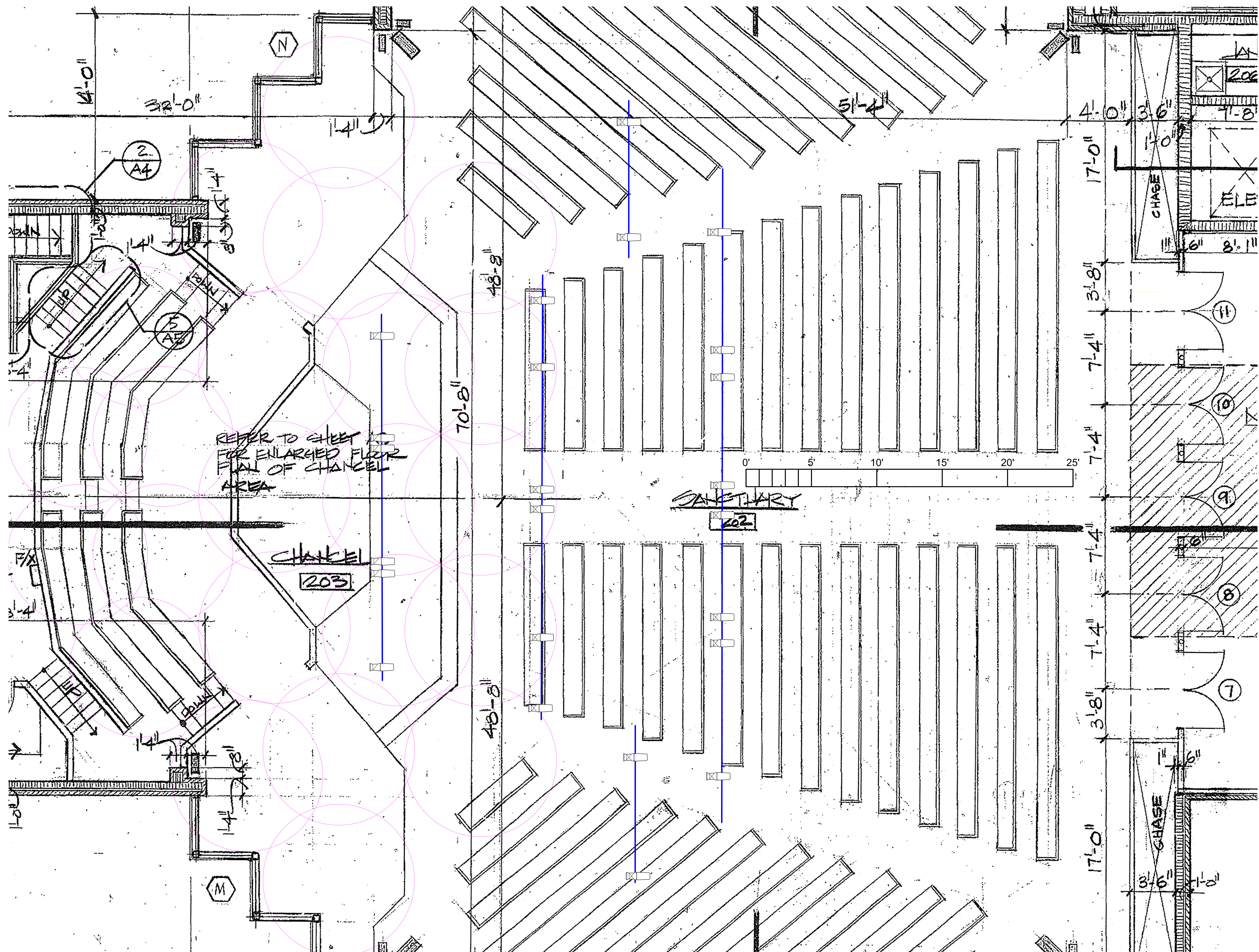
Item#	Drawing Number	Drawing Description	Issue Date	Revision #	Revision Date
1	AVL 0-1	NOTES - 0 Notes and index	8/17/15		
2	AVL 1-1	PLANS - 1 Lighting Lower Level	8/17/15		
3	AVL 1-2	Lighting Upper Level	8/17/15		
4	AVL 1-3	Lighting Upper Level No Floor Plan	8/17/15		
5	AVL 1-4	Rigging Plan	8/17/15		
6	AVL 1-5	Lighting Plot	8/17/15		
7	AVL 1-6	Existing House Light Circuits	8/17/15		
8	AVL 2-1	ELEVATIONS - 2 Front Elevation	8/17/15		
9	AVL 3-1	SECTIONS - 3 Cross Section	8/17/15		
10	AVL 4-1	LARGE SCALE PLANS - 4 Mechanical Room	8/17/15		
11	AVL 5-1	DETAILS - 5 SmartSwitch Relay Panel	8/17/15		
12	AVL 5-2	Architectural Controller	8/17/15		
13	AVL 5-3	Devices	8/17/15		
14	AVL 5-4	Devices 2	8/17/15		
15	AVL 6-1	DIAGRAMS and SCHEDULES - 6 Schedules	8/17/15		
16	AVL 6-2	System Riser	8/17/15		
17	AVL 7-1	USER DEFINED - 7 Existing Stage Lighting Electrical Circuit Detail			
18	AVL 7-2	Electrical Switch Bank Detail			

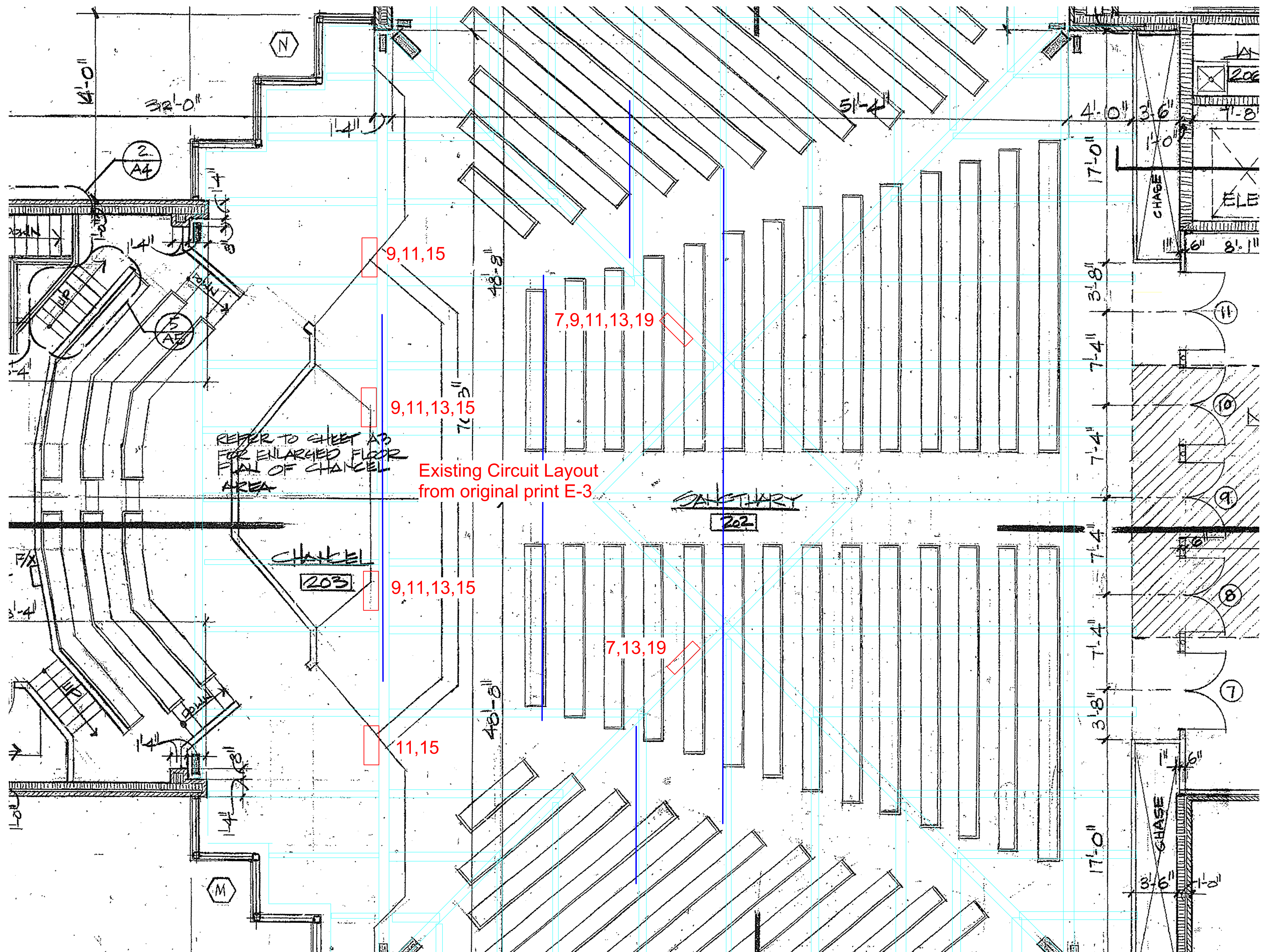


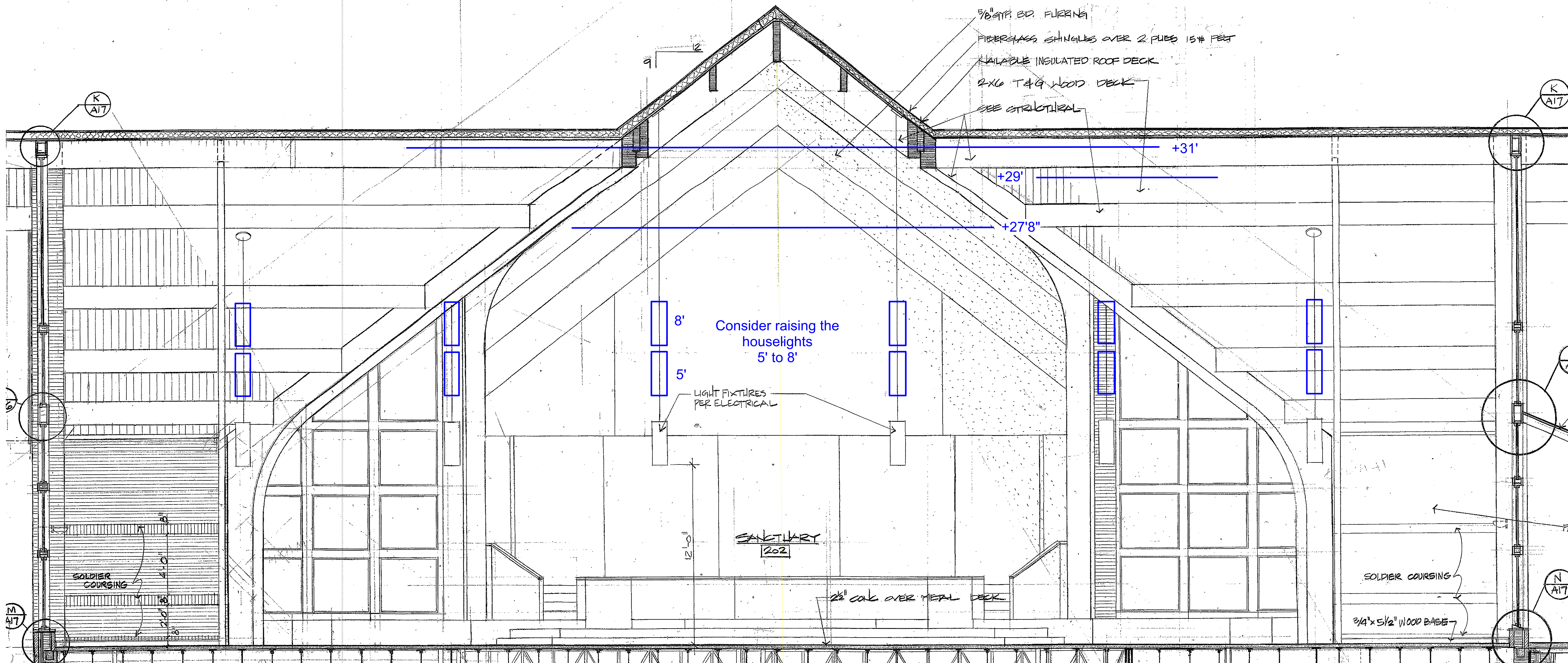


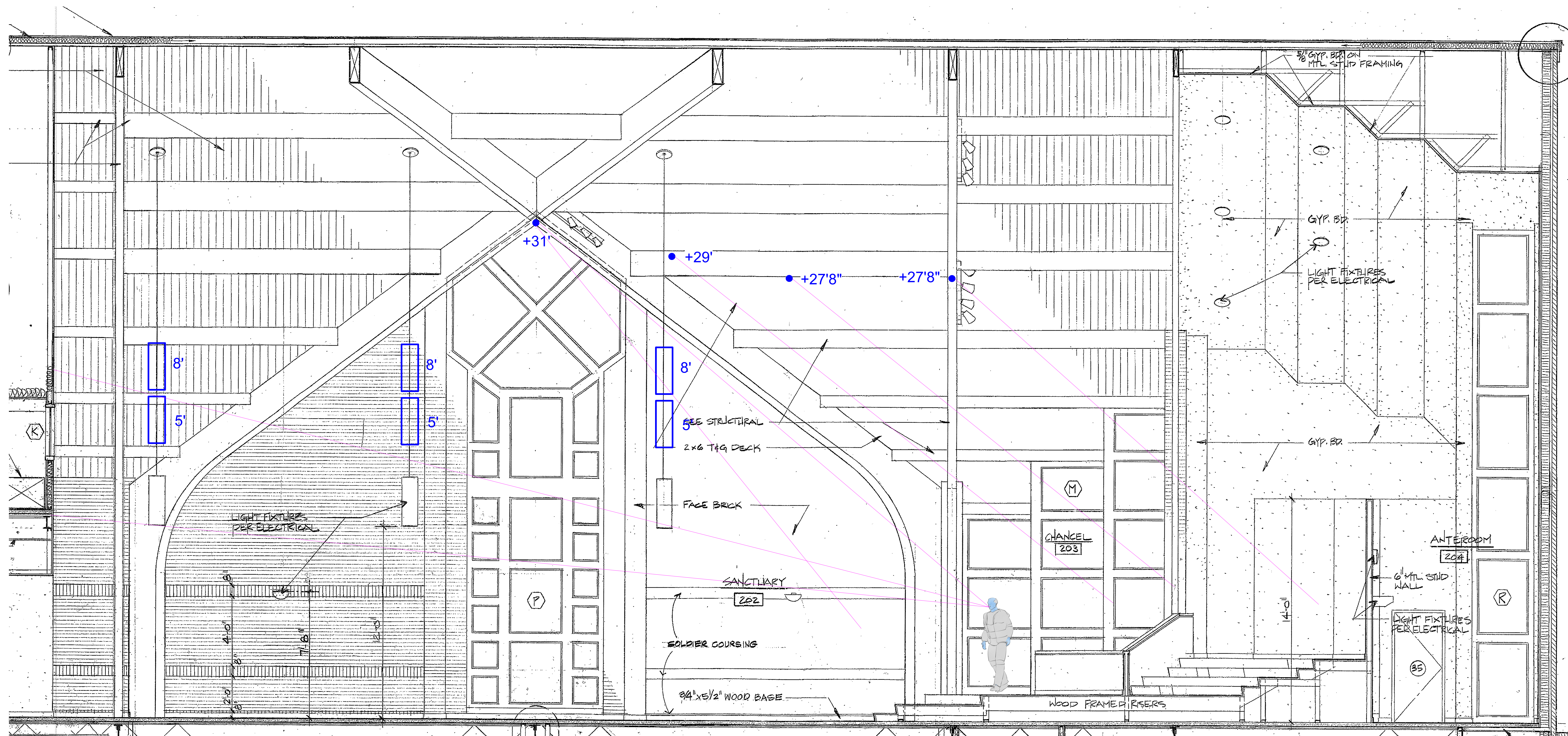


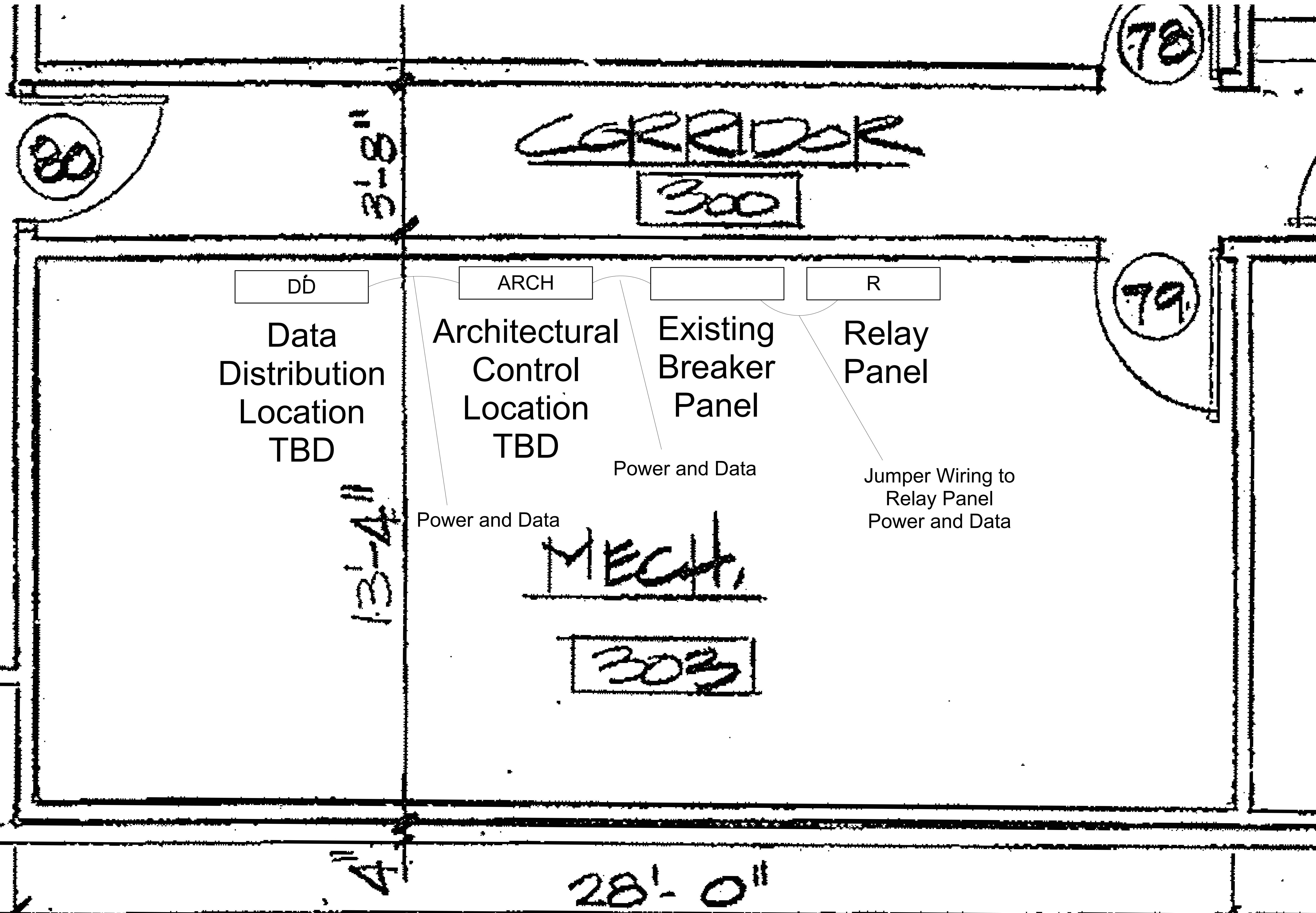
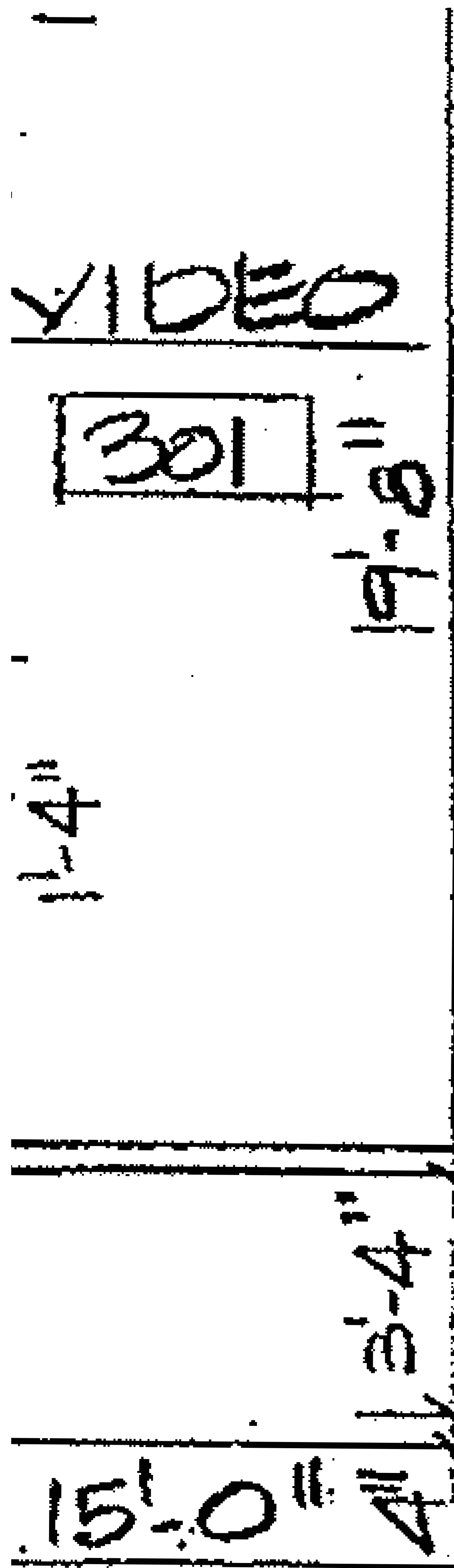






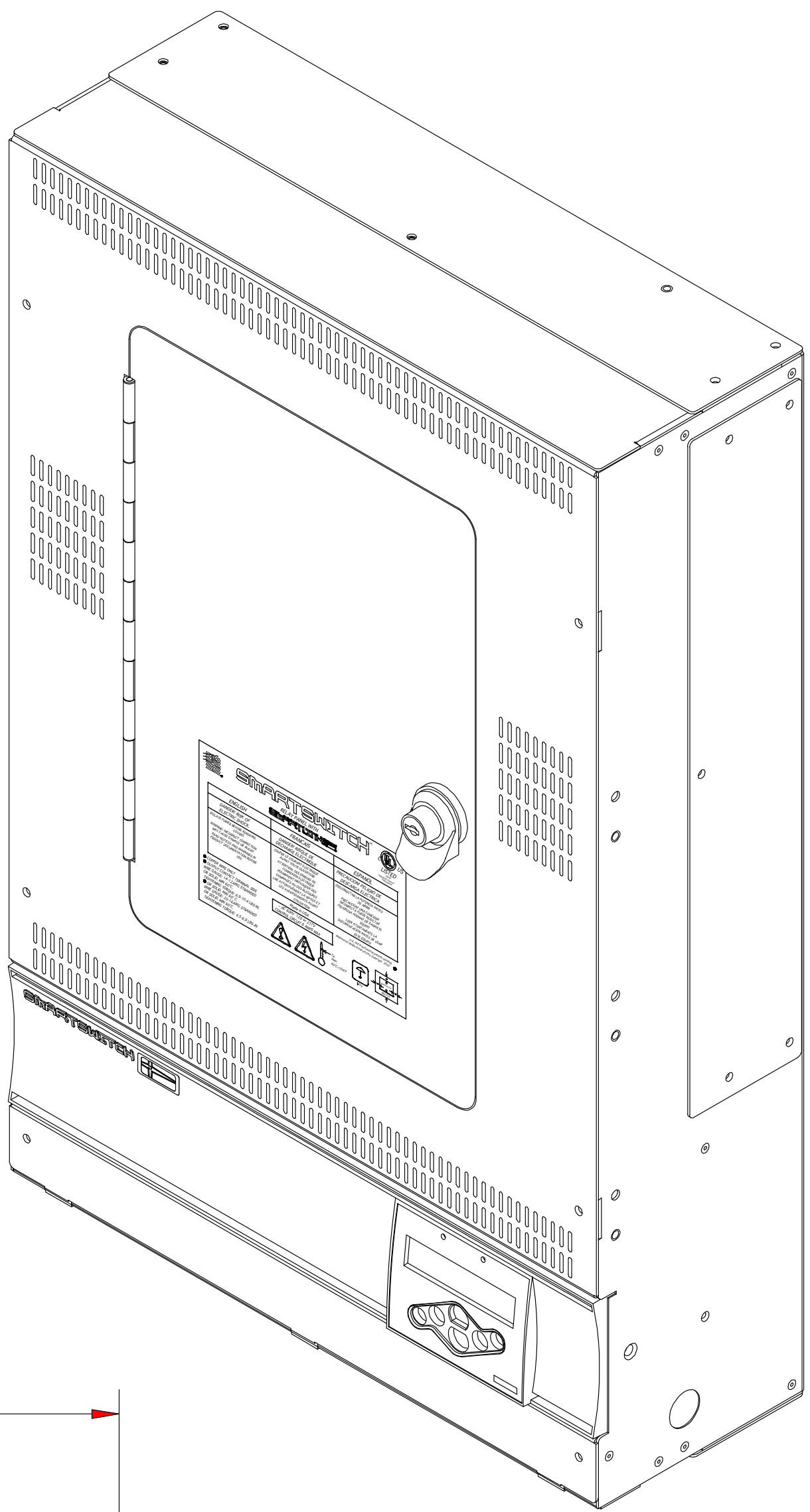
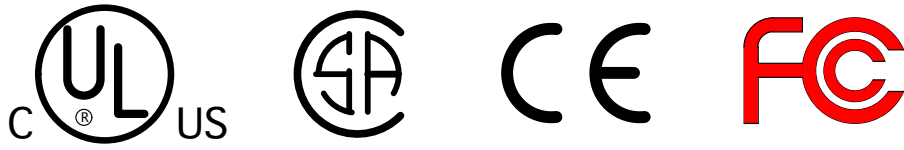






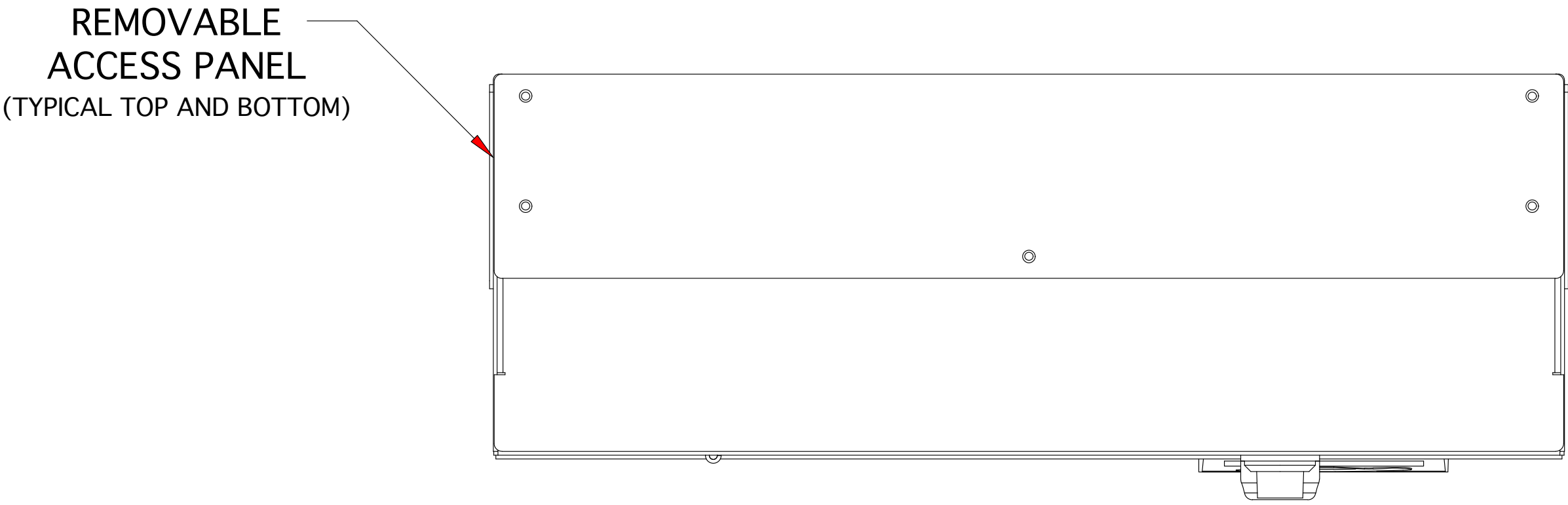
NOTES:

- 1.) SMARTSWITCH IS CONSTRUCTED OF 16GA. STEEL WITH THE EXCEPTION OF THE CONTROL PANEL WHICH IS A DARK BLUE MOLDED ABS PLASTIC. STEEL ENCLOSURE IS FINISHED IN A BLACK FINE-TEXTURED POWDER COAT.
- 2.) EIGHT MOUNTING KEYHOLES ARE PROVIDED ON BACK OF ENCLOSURE FOR WALL-MOUNTING APPLICATION.
- 3.) INPUT VOLTAGE: 110VAC OR 277VAC AT 47-62 Hz. INTERNAL SCREW TERMINALS ARE PROVIDED FOR POWER AND RELAY CONTROL.
- 4.) SMARTSWITCH MEETS OR EXCEEDS REQUIREMENTS FOR EACH OF THE FOLLOWING STANDARDS:

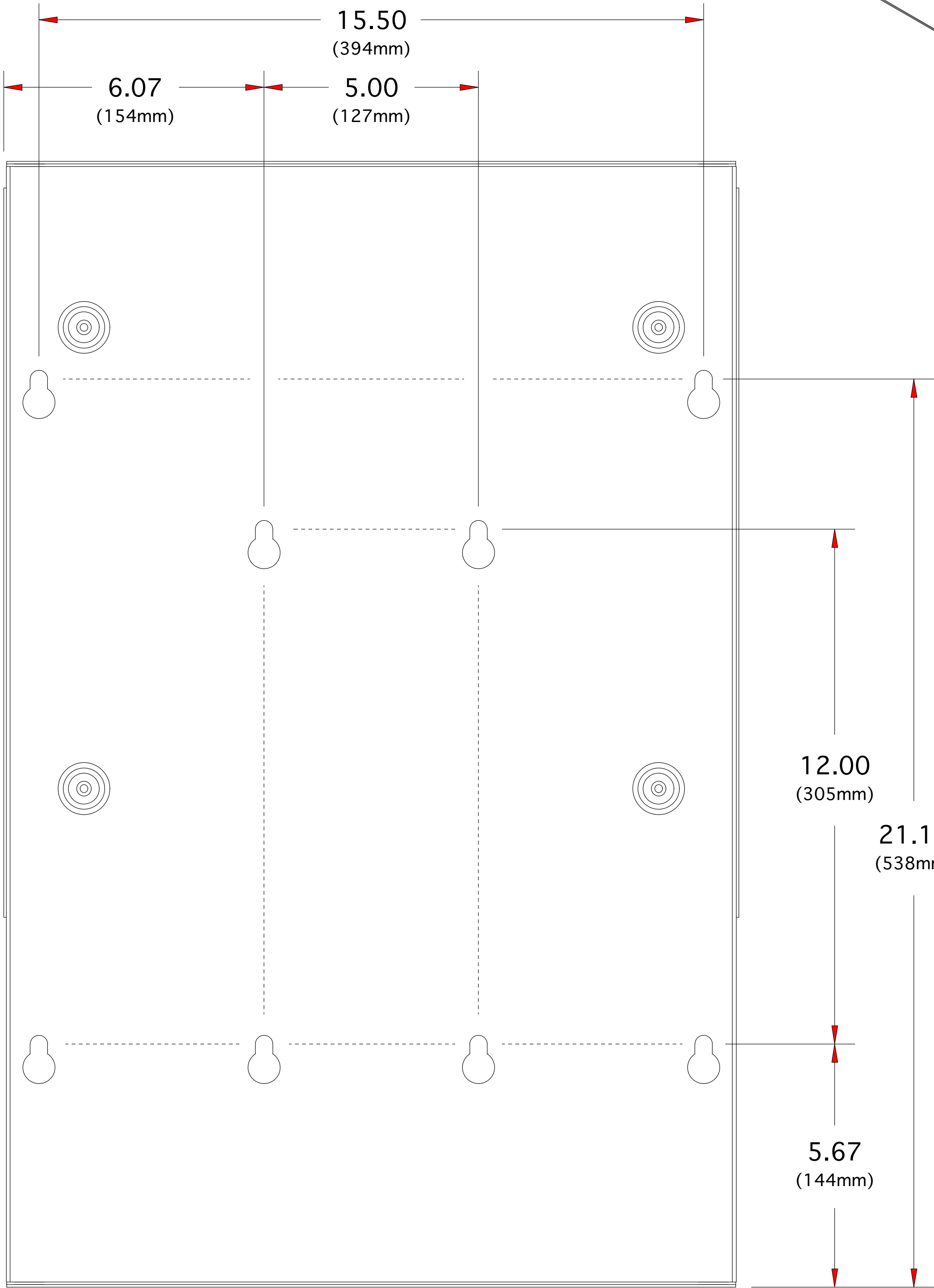


ISOMETRIC VIEW
(5/8 SCALE)

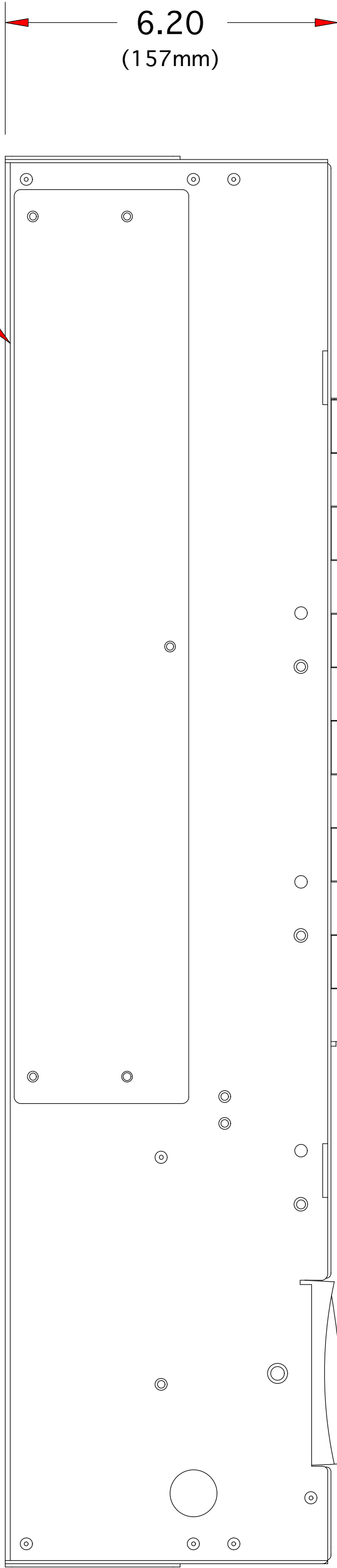
TOP VIEW



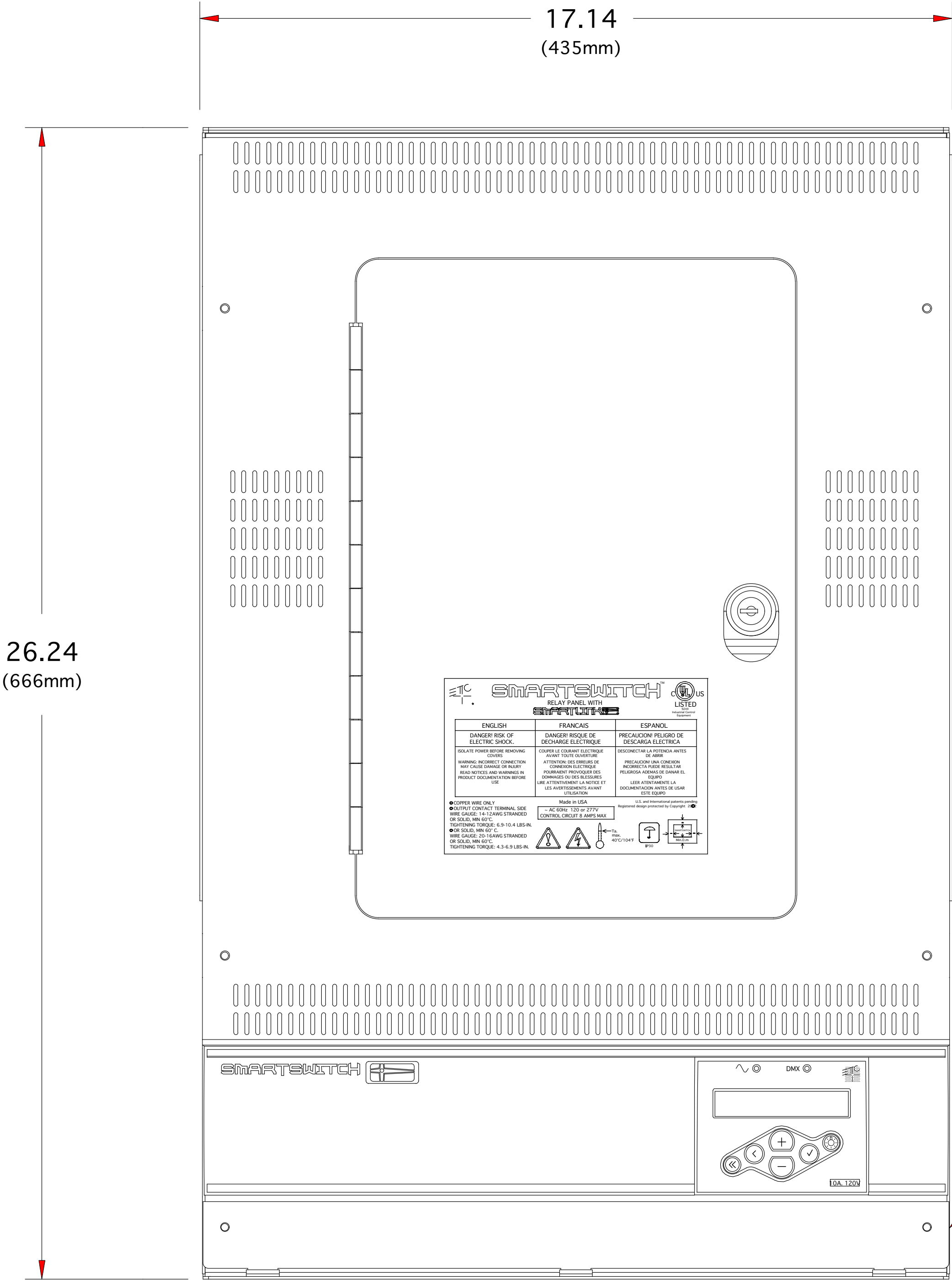
REAR VIEW



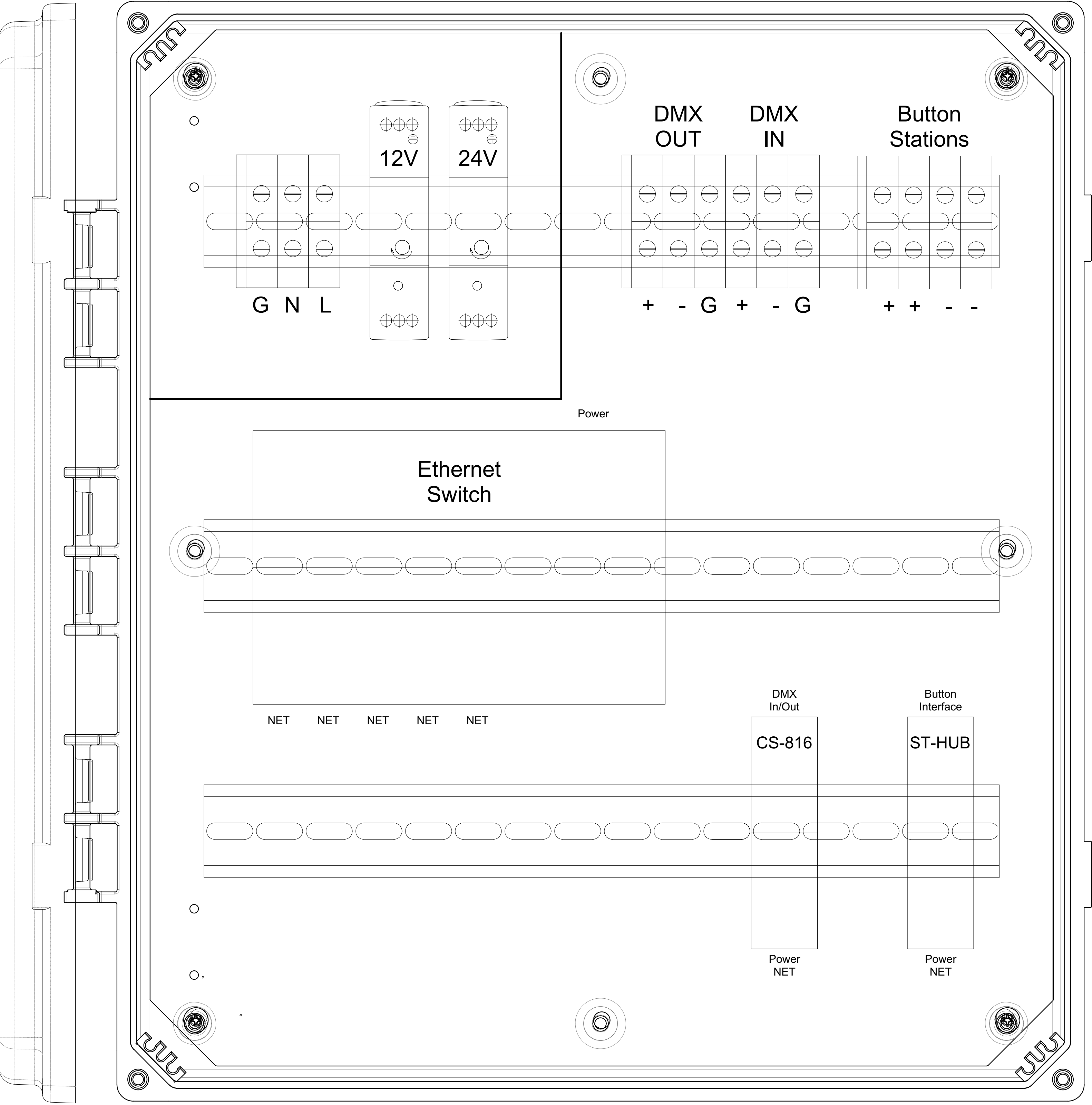
SIDE VIEW

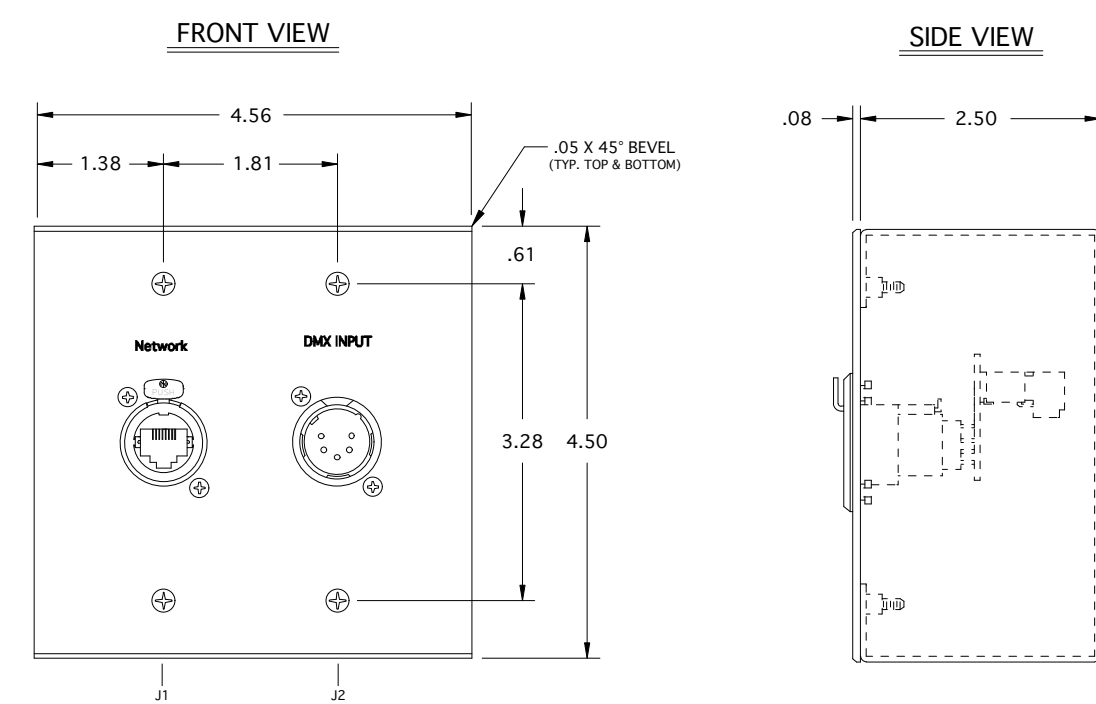


FRONT VIEW

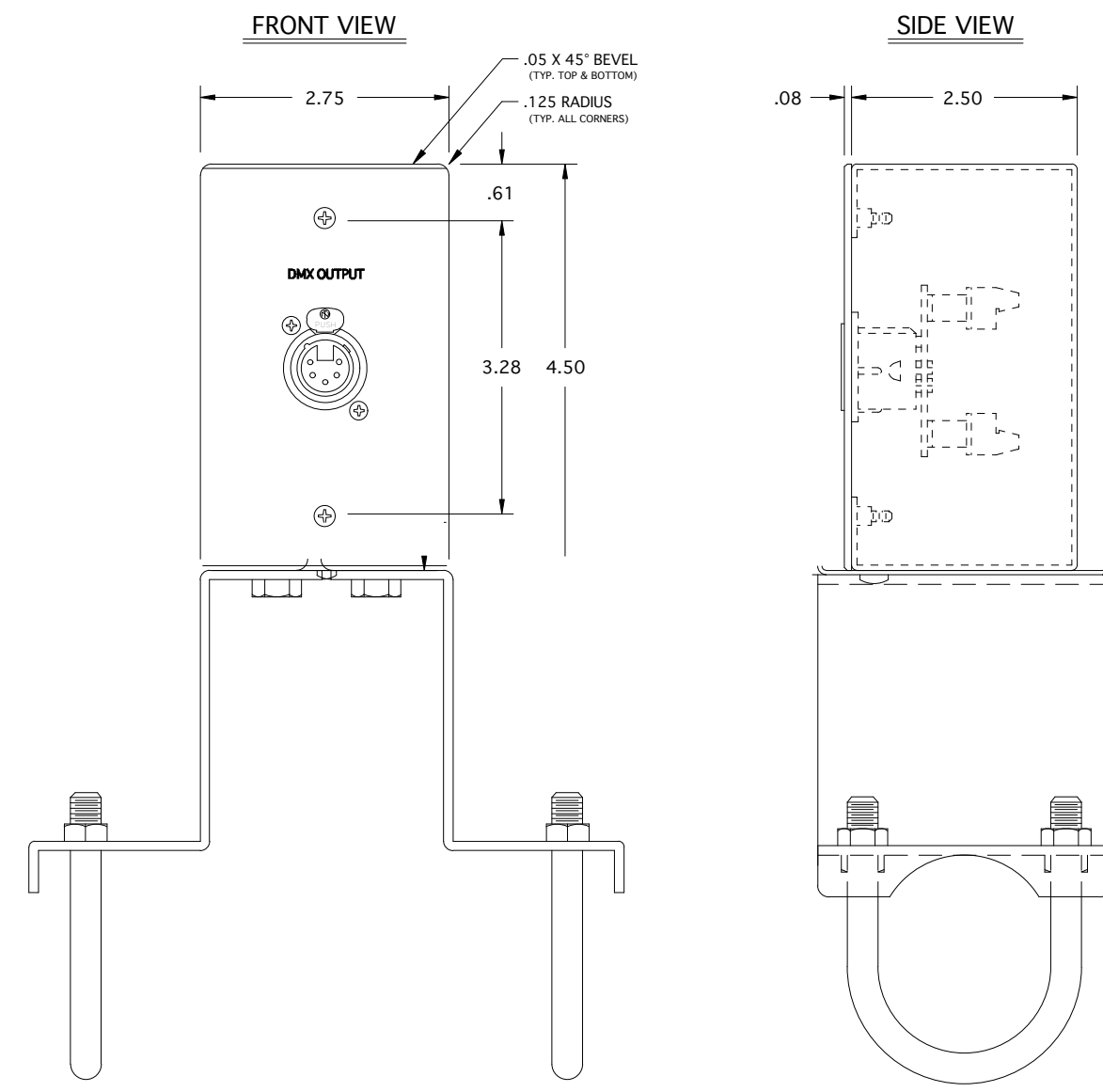


LOW-VOLTAGE
TERMINATION
ACCESS PANEL

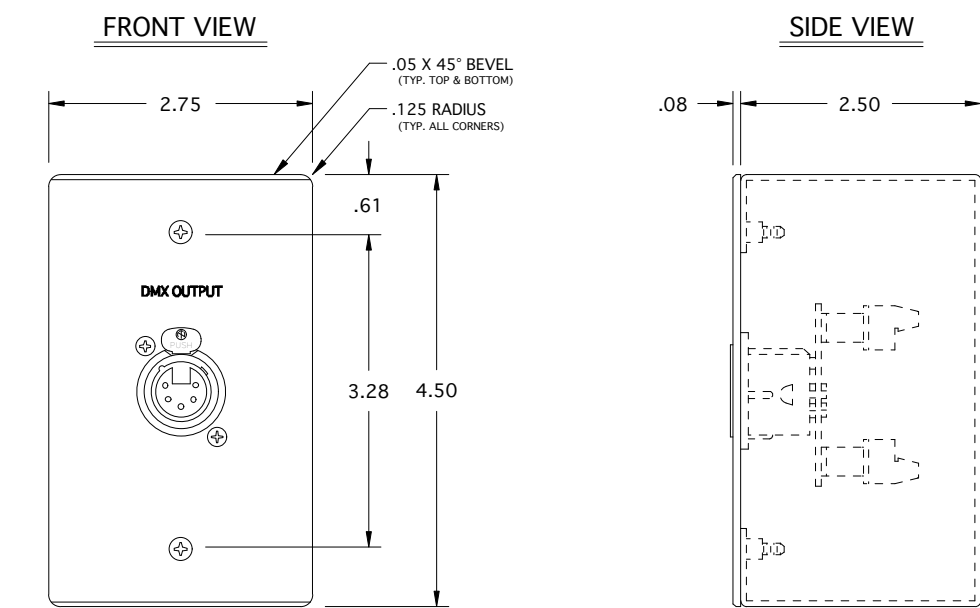




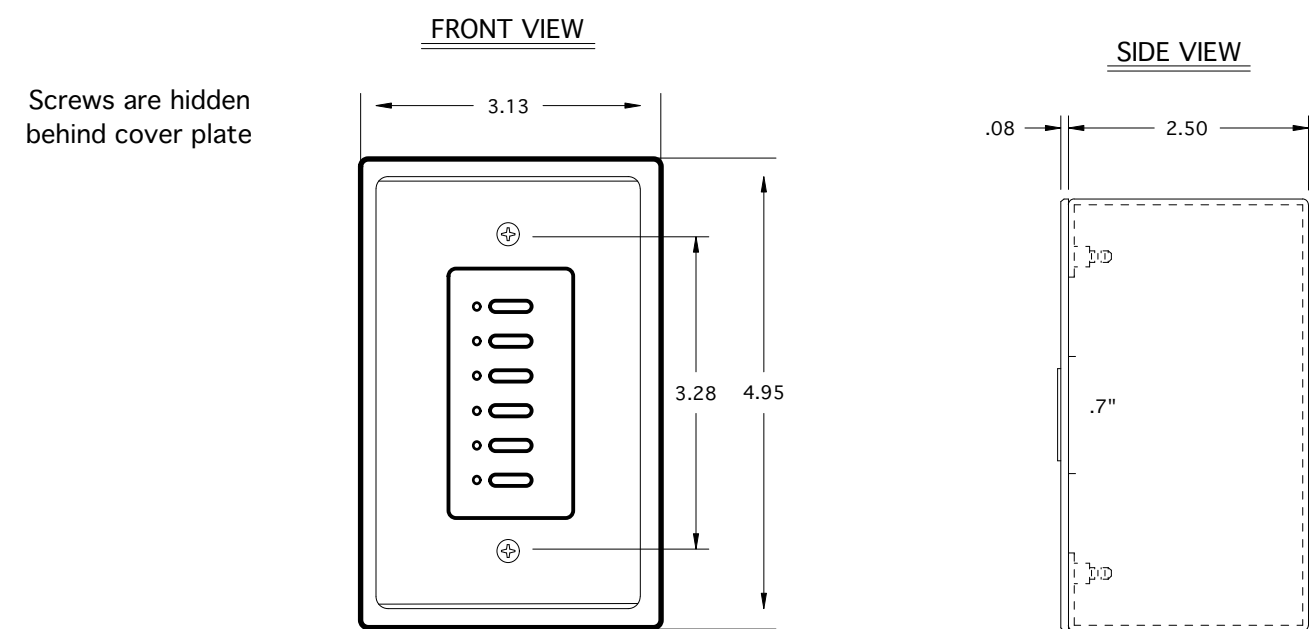
Network / DMX Input



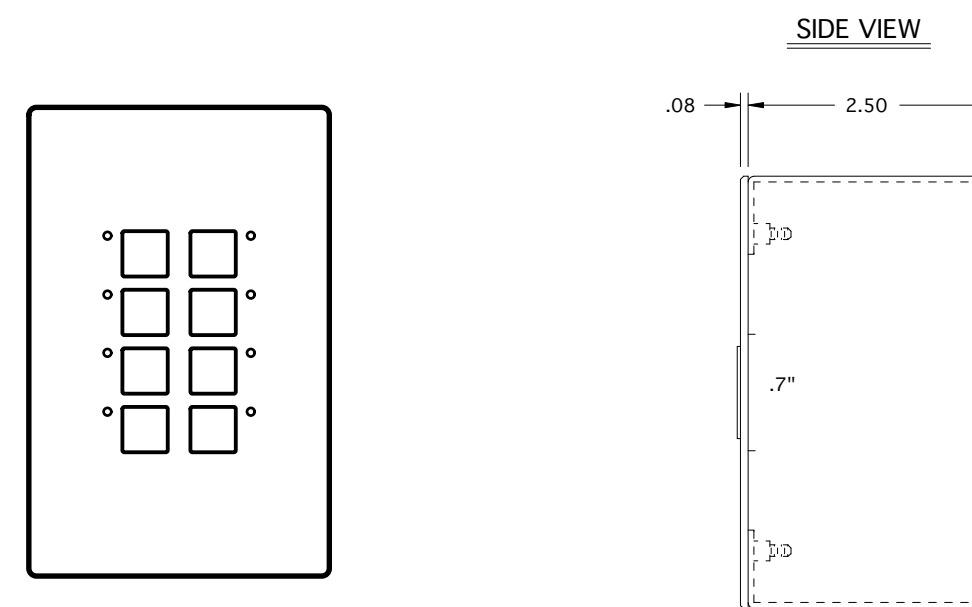
Pipe Mount DMX Output



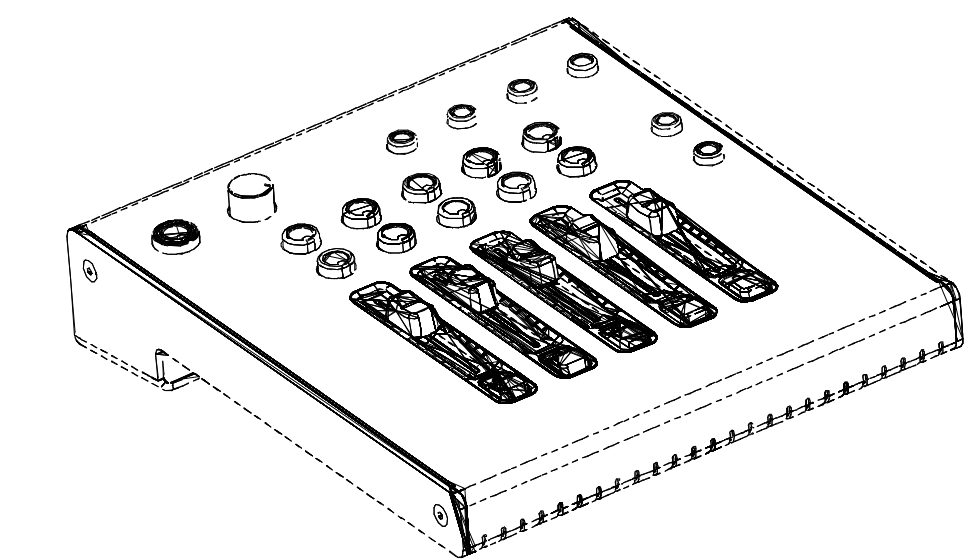
DMX Output



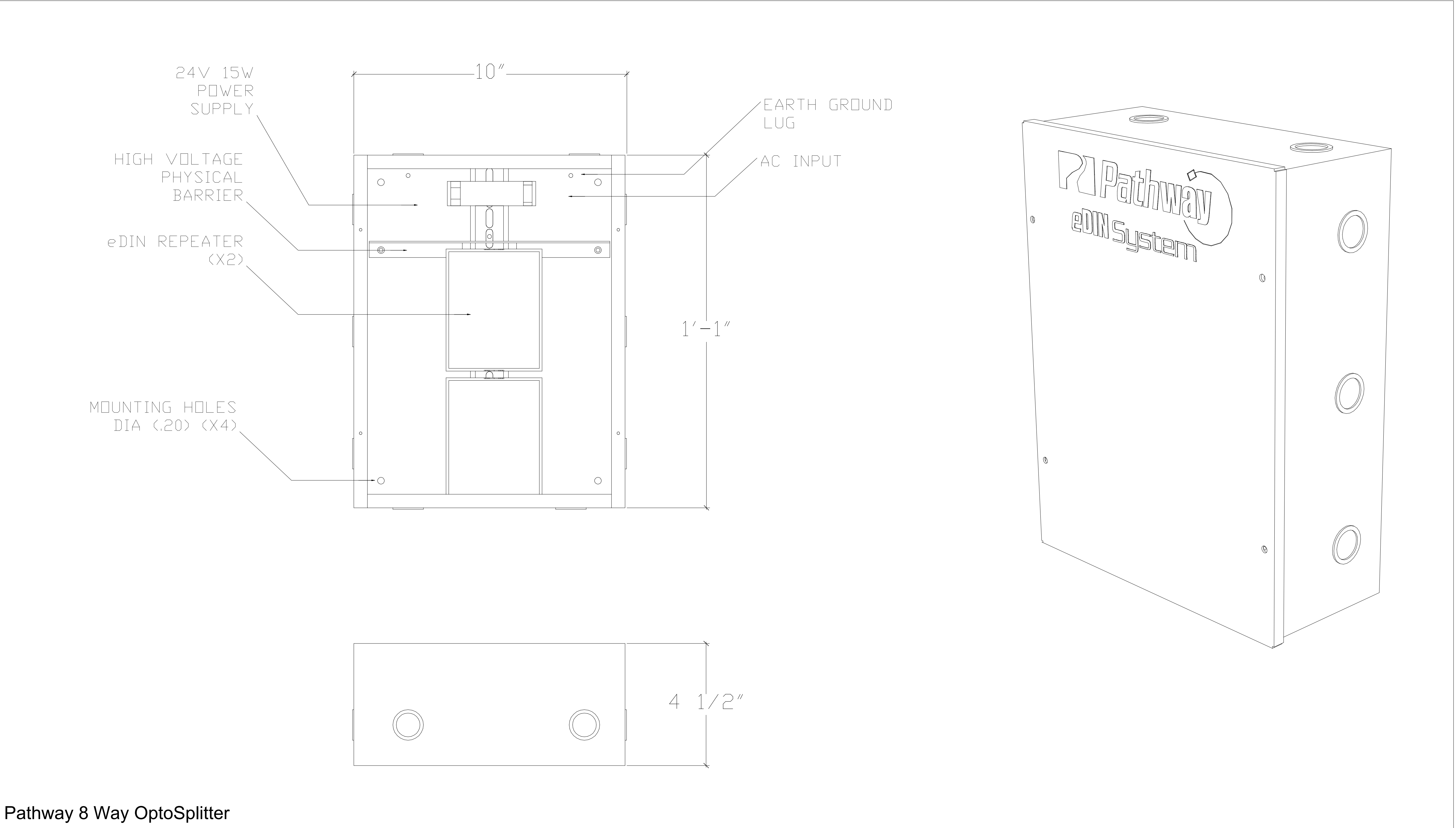
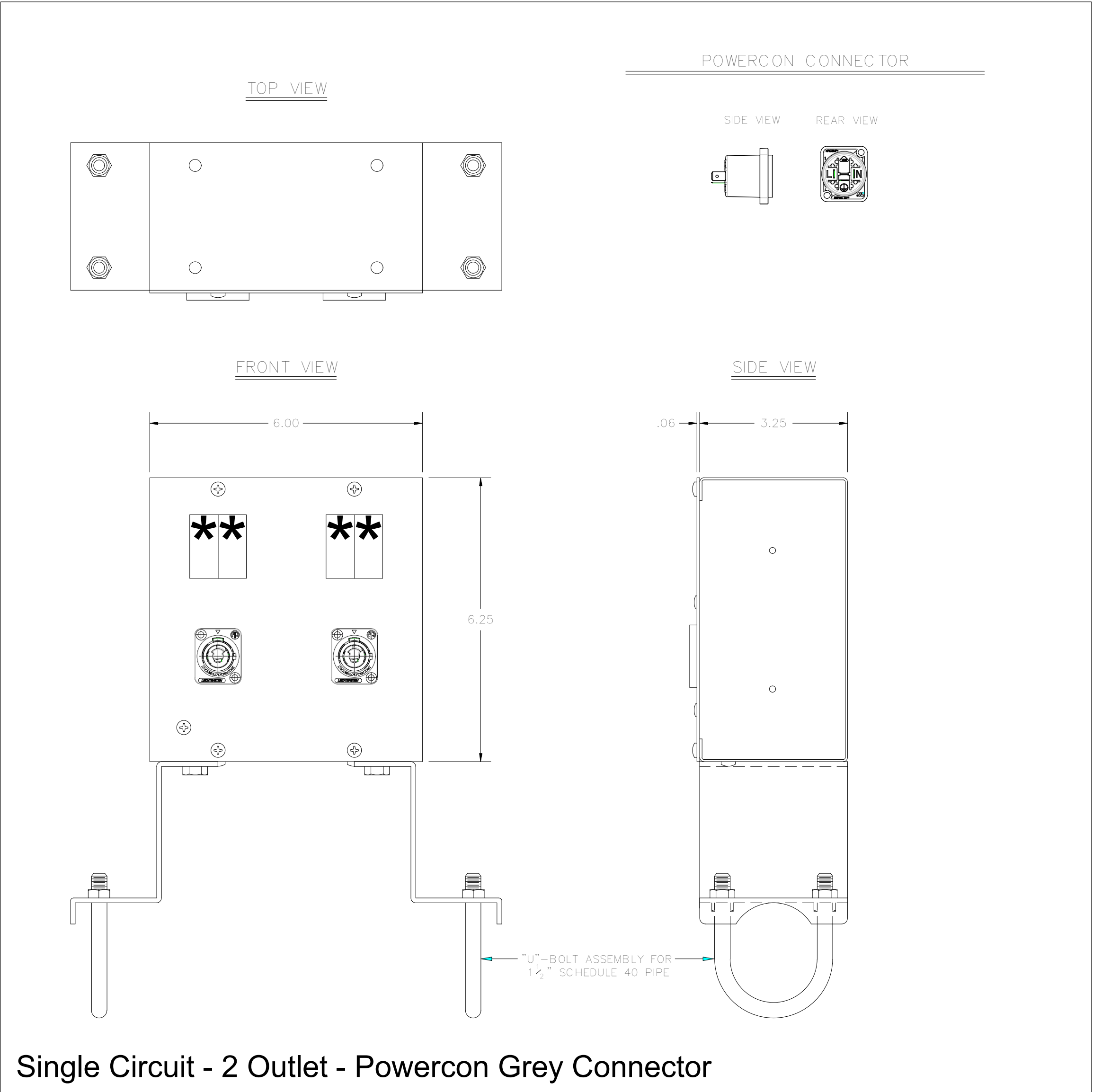
Interactive Technologies 6 Button Entry Preset Stations



Interactive Technologies 8 Button Entry Preset Stations



Jands Vista M1 Control Surface



Box Schedule

Box Type	Box Number	Box/Device Size	Box Description	Location	Drawing Number	Mounting	Height	Signal	Back Box Provided By	Back Box Installed By	Device Provided By	Device Installed By
LPB-1		4.50' x 2.75" x 2.50"	Lighting Pipe Box	Sanctuary	AVL 1-2	Pipe Mount	Pipe Height	Data	Lighting Contractor	Lighting Contractor	Lighting Contractor	Lighting Contractor
LPB-2		4.50' x 2.75" x 2.50"	Lighting Pipe Box	Sanctuary	AVL 1-2	Pipe Mount	Pipe Height	Data	Lighting Contractor	Lighting Contractor	Lighting Contractor	Lighting Contractor
LPB-3		4.50' x 2.75" x 2.50"	Lighting Pipe Box	Sanctuary	AVL 1-2	Pipe Mount	Pipe Height	Data	Lighting Contractor	Lighting Contractor	Lighting Contractor	Lighting Contractor
LPB-4		4.50' x 2.75" x 2.50"	Lighting Pipe Box	Sanctuary	AVL 1-2	Pipe Mount	Pipe Height	Data	Lighting Contractor	Lighting Contractor	Lighting Contractor	Lighting Contractor
LPB-5		4.50' x 2.75" x 2.50"	Lighting Pipe Box	Sanctuary	AVL 1-2	Pipe Mount	Pipe Height	Data	Lighting Contractor	Lighting Contractor	Lighting Contractor	Lighting Contractor
LPB-6		4.50' x 2.75" x 2.50"	Lighting Pipe Box	Sanctuary	AVL 1-2	Pipe Mount	Pipe Height	Data	Lighting Contractor	Lighting Contractor	Lighting Contractor	Lighting Contractor
LPB-7		6" x 6.25" x 3.25"	Lighting Pipe Box	Sanctuary	AVL 1-2	Pipe Mount	Pipe Height	Power	Lighting Contractor	Lighting Contractor	Lighting Contractor	EC
LPB-8		6" x 6.25" x 3.25"	Lighting Pipe Box	Sanctuary	AVL 1-2	Pipe Mount	Pipe Height	Power	Lighting Contractor	Lighting Contractor	Lighting Contractor	EC
LPB-9		6" x 6.25" x 3.25"	Lighting Pipe Box	Sanctuary	AVL 1-2	Pipe Mount	Pipe Height	Power	Lighting Contractor	Lighting Contractor	Lighting Contractor	EC
LPB-10		6" x 6.25" x 3.25"	Lighting Pipe Box	Sanctuary	AVL 1-2	Pipe Mount	Pipe Height	Power	Lighting Contractor	Lighting Contractor	Lighting Contractor	EC
LPB-11		6" x 6.25" x 3.25"	Lighting Pipe Box	Sanctuary	AVL 1-2	Pipe Mount	Pipe Height	Power	Lighting Contractor	Lighting Contractor	Lighting Contractor	EC
LPB-12		6" x 6.25" x 3.25"	Lighting Pipe Box	Sanctuary	AVL 1-2	Pipe Mount	Pipe Height	Power	Lighting Contractor	Lighting Contractor	Lighting Contractor	EC
LPB-13		6" x 6.25" x 3.25"	Lighting Pipe Box	Sanctuary	AVL 1-2	Pipe Mount	Pipe Height	Power	Lighting Contractor	Lighting Contractor	Lighting Contractor	EC
LPB-14		6" x 6.25" x 3.25"	Lighting Pipe Box	Sanctuary	AVL 1-2	Pipe Mount	Pipe Height	Power	Lighting Contractor	Lighting Contractor	Lighting Contractor	EC
LWB-15		4.50' x 2.75" x 2.50"	Lighting Wall Box	Sanctuary	AVL 1-1	Wall Mount	Working Height	Data	Lighting Contractor	Lighting Contractor	Lighting Contractor	Lighting Contractor
LWB-16		4.50' x 2.75" x 2.50"	Lighting Wall Box	Sanctuary	AVL 1-1	Wall Mount	Working Height	Data	Lighting Contractor	Lighting Contractor	Lighting Contractor	Lighting Contractor
LWB-17		Single Gang Box	Lighting Wall Box	Sanctuary	AVL 1-1	Wall Mount	48" AFF	Ctrl	Lighting Contractor	Lighting Contractor	Lighting Contractor	Lighting Contractor
LWB-18		2 Gang Box	Lighting Wall Box	Sanctuary	AVL 1-1	Wall Mount	Under Counter	Data	Lighting Contractor	Lighting Contractor	Lighting Contractor	Lighting Contractor
LWB-19		Single Gang Box	Lighting Wall Box	Sanctuary	AVL 1-1	Wall Mount	Above Counter	Ctrl	Lighting Contractor	Lighting Contractor	Lighting Contractor	Lighting Contractor

Relay Schedule

Switch			New
Designation	Controls	Breaker #	Relay #
Ss	Cross Spots	19	21
St	Choir Spots	15	15
Su	Choir Downlights	3	3
Sv	Choir Downlights	5	5
Sw	Lights Behind Organ Pipes	1	1
Sm	Sconces and Entry Lights	17	17
Sn	Peak Spots	7	7
So	Choir Spots	9	9
Sp	Choir Spots	11	11
Sq	Peak Spots	19	19
Sr	Peak and Choir Spots	13	13
Sg	House Left Houselight Middle	20	20
Sh	House Center Houselight Middle	12	12
Si	House Right Houselight Middle	4	4
Sj	House Left Houselight Up	18	18
Sk	House Center Houselight Up	10	10
Sl	House Right Houselight Up	2	2
Sa	House Left Houselight Right Down	22	22
Sb	House Left Houselight Left Down	24	24
Sc	House Center Houselight Right Down	14	14
Sd	House Center Houselight Left Down	16	16
Se	House Right Houselight Left Down	6	6
Sf	House Right Houselight Right Down	8	8

