
ADDENDUM NO. 2

DATE: 03/22/23

PROJECT:

McKinley/ Fowler Elementary School- Increment 2- Electrical Rebid
Fresno, CA
CUSD Bid No.: 2932

OWNER:

Clovis Unified School District
1450 E. Herndon Ave.
Clovis, CA 93611

ARCHITECT:

DARDEN ARCHITECTS, INC.
Attention: Andrew Corral/ Mike Fennacy
6790 N. West Avenue
Fresno, California 93711
T. (559) 448-8051
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DARDEN PROJECT NO. 2116
DSA File Nos. 10-48
DSA APPL. NO. 02-120543

It will be the responsibility of the General Contractor to submit the information contained in this addendum to all its subcontractors and suppliers. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject Bidder to disqualification.

The following additions, deletions, and revisions to the SHEETS and Project Manual are hereby made and do become a part of these Contract Documents.

PROJECT: McKinley/ Fowler Elementary School- Increment 2

ADDENDUM NO. 4 **DATE: 03223/23**
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INDEX OF ADDENDA TRANSMITTED HEREWITH

SHEETS:

CHANGES TO SHEETS:

ELECTRICAL AD2-E01 THRU AD2-E20

ATTACHMENTS:

SHEETS:

ELECTRICAL AD2-EX01 thru AD2-EX20.

SHEETS:

CHANGES TO SHEETS:

ELECTRICAL:

- AD2-E01** **Refer to Sheet X/E201 – LIGHTING SYSTEMS- FIXTURE SCHEDULE, DETAILS:**
 - 1. Remove and Replace X/E201 – LIGHTING SYSTEMS- FIXTURE SCHEDULE, DETAILS with the attached Sheet AD2-EX01.

- AD2-E02** **Refer to Sheet X/E202 – LIGHTING SYSTEMS- DETAILS:**
 - 1. Remove and Replace X/E202 – LIGHTING SYSTEMS- DETAILS with the attached Sheet AD2-EX02.

- AD2-E03** **Refer to Sheet X/E302 – POWER SYSTEMS- PANEL SCHEDULES, DETAILS:**
 - 1. Remove and Replace X/E302 – POWER SYSTEMS- PANEL SCHEDULES, DETAILS with the attached Sheet AD2-EX03.

- AD2-E04** **Refer to Sheet X/E401 – LOW VOLTAGE SYSTEMS- DETAILS AND DIAGRAMS:**
 - 1. Remove and Replace X/E401 – LOW VOLTAGE SYSTEMS- DETAILS AND DIAGRAMS with the attached Sheet AD2-EX04.

- AD2-E05** **Refer to Sheet X/E501 – FIRE ALARM SYSTEM- SYMBOL, SITE PLAN, NOTES, AND DETAILS:**
 - 1. Remove and Replace X/E501 – FIRE ALARM SYSTEM- SYMBOL, SITE PLAN, NOTES, AND DETAILS with the attached Sheet AD2-EX05.

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- AD2-E06 Refer to Sheet X/E502 – FIRE ALARM SYSTEM- SINGLE LINE DIAGRAM:**
1. Remove and Replace X/E502 – FIRE ALARM SYSTEM- SINGLE LINE DIAGRAM with the attached Sheet AD2-EX06.
- AD2-E07 Refer to Sheet A/E101- BUILDING A- LIGHTING PLAN:**
1. Remove and Replace A/E101- BUILDING A- LIGHTING PLAN with the attached Sheet AD2-EX07.
- AD2-E08 Refer to Sheet A/E201- BUILDING A- POWER PLAN:**
1. Remove and Replace A/E201- BUILDING A- POWER PLAN with the attached Sheet AD2-EX08.
- AD2-E09 Refer to Sheet A/E401- BUILDING A- LOW VOLTAGE PLAN:**
1. Remove and Replace A/E401- BUILDING A- LOW VOLTAGE PLAN with the attached Sheet AD2-EX09.
- AD2-E10 Refer to Sheet A/E501- BUILDING A- FIRE ALARM PLAN:**
1. Remove and Replace A/E501- BUILDING A- FIRE ALARM PLAN with the attached Sheet AD2-EX10.
- AD2-E11 Refer to Sheet B/E201- BUILDING B- POWER PLAN:**
1. Remove and Replace B/E201- BUILDING B- POWER PLAN with the attached Sheet AD2-EX11.
- AD2-E12 Refer to Sheet C/E201- BUILDING C- POWER PLAN:**
1. Remove and Replace C/E201- BUILDING C- POWER PLAN with the attached Sheet AD2-EX12.
- AD2-E13 Refer to Sheet D/E201- BUILDING D- POWER PLAN:**
1. Remove and Replace D/E201- BUILDING D- POWER PLAN with the attached Sheet AD2-EX13.
- AD2-E14 Refer to Sheet E/E101- BUILDING D- LIGHTING PLAN:**
1. Remove and Replace E/E101- BUILDING E- LIGHTING PLAN with the attached Sheet AD2-EX14.
- AD2-E15 Refer to Sheet E/E201- BUILDING E- POWER PLAN:**
1. Remove and Replace E/E201- BUILDING E- POWER PLAN with the attached Sheet AD2-EX15.

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AD2-E16 **Refer to Sheet E/E501- BUILDING E- FIRE ALARM PLAN:**
1. Remove and Replace E/E501- BUILDING E- FIRE ALARM PLAN with the attached Sheet AD2-EX16.

AD2-E17 **Refer to Sheet K/E101- BUILDING K- LIGHTING PLAN:**
1. Remove and Replace K/E101- BUILDING K- LIGHTING PLAN with the attached Sheet AD2-EX17.

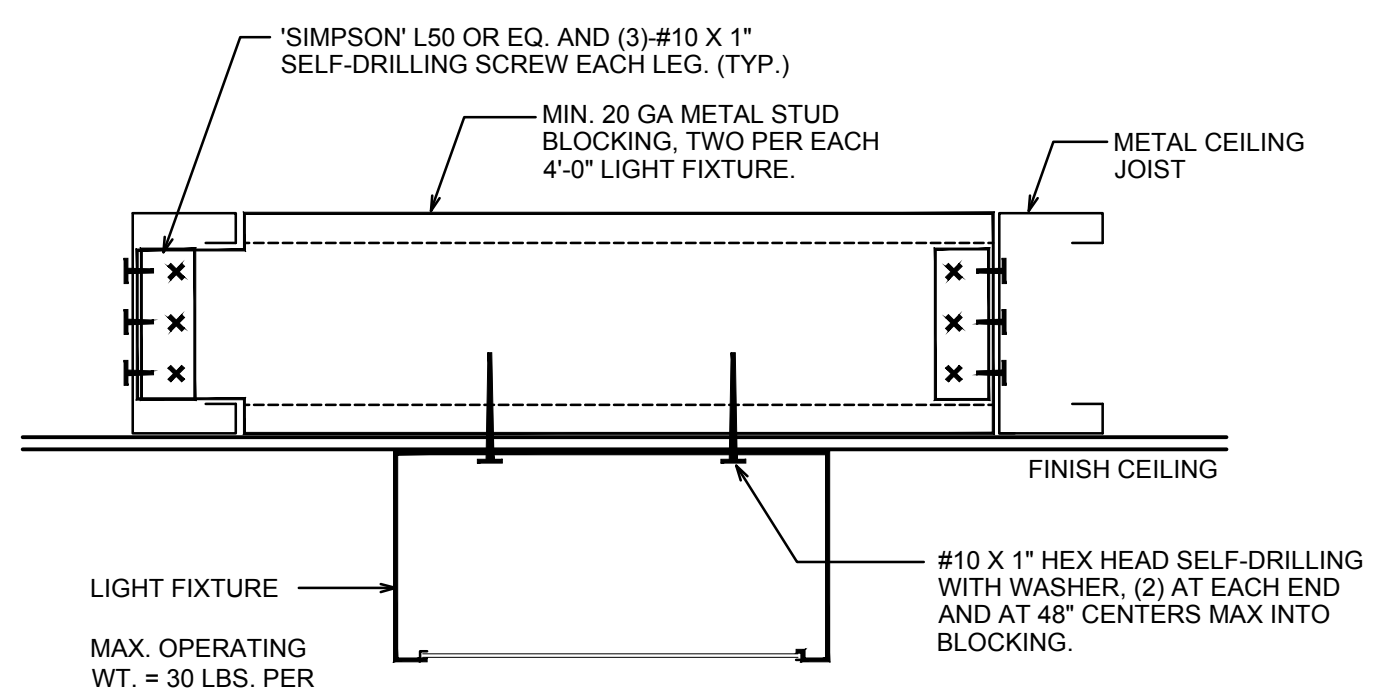
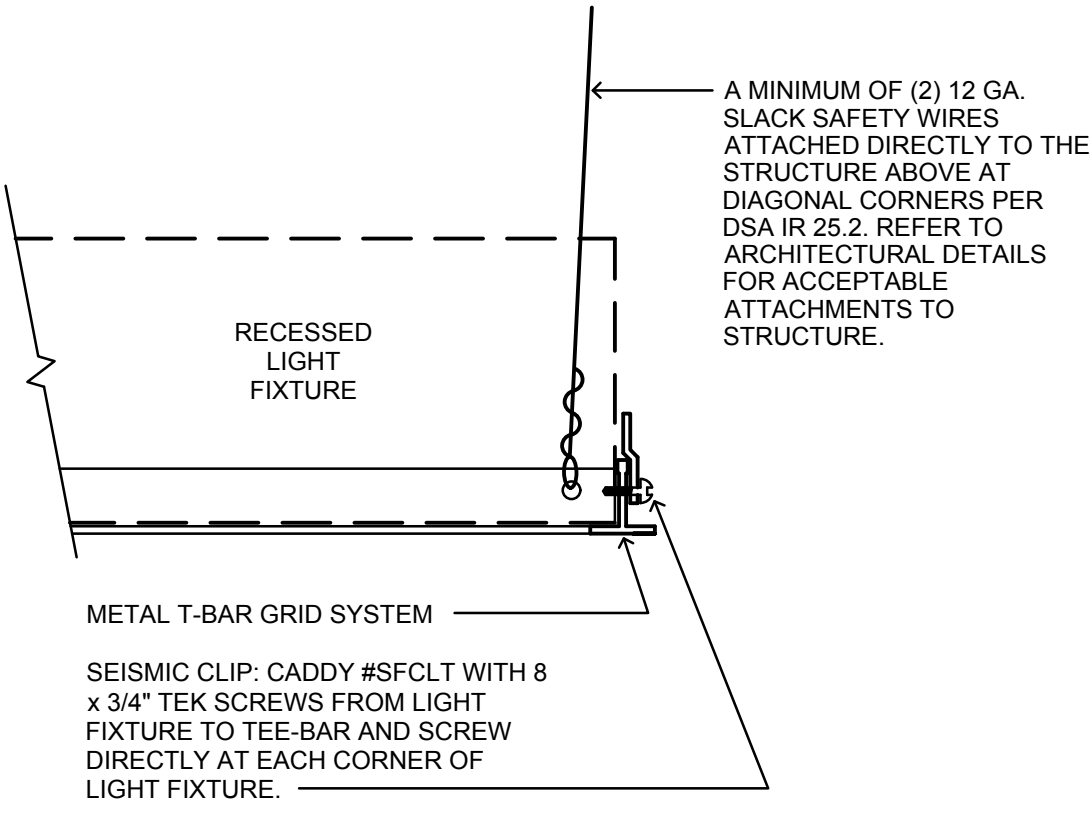
AD2-E18 **Refer to Sheet K/E201- BUILDING K- POWER PLAN:**
1. Remove and Replace K/E201- BUILDING K- POWER PLAN with the attached Sheet AD2-EX18.

AD2-E19 **Refer to Sheet K/E401- BUILDING K- LOW VOLTAGE PLAN:**
1. Remove and Replace K/E401- BUILDING K- LOW VOLTAGE PLAN with the attached Sheet AD2-EX19.

AD2-E20 **Refer to Sheet P/E101- BUILDING P- ELECTRICAL PLAND AND FIRE ALARM PLAN:**
1. Remove and Replace P/E101- BUILDING P- ELECTRICAL PLAND AND FIRE ALARM PLAN with the attached Sheet AD2-EX20.

END OF ADDENDUM NO. 2

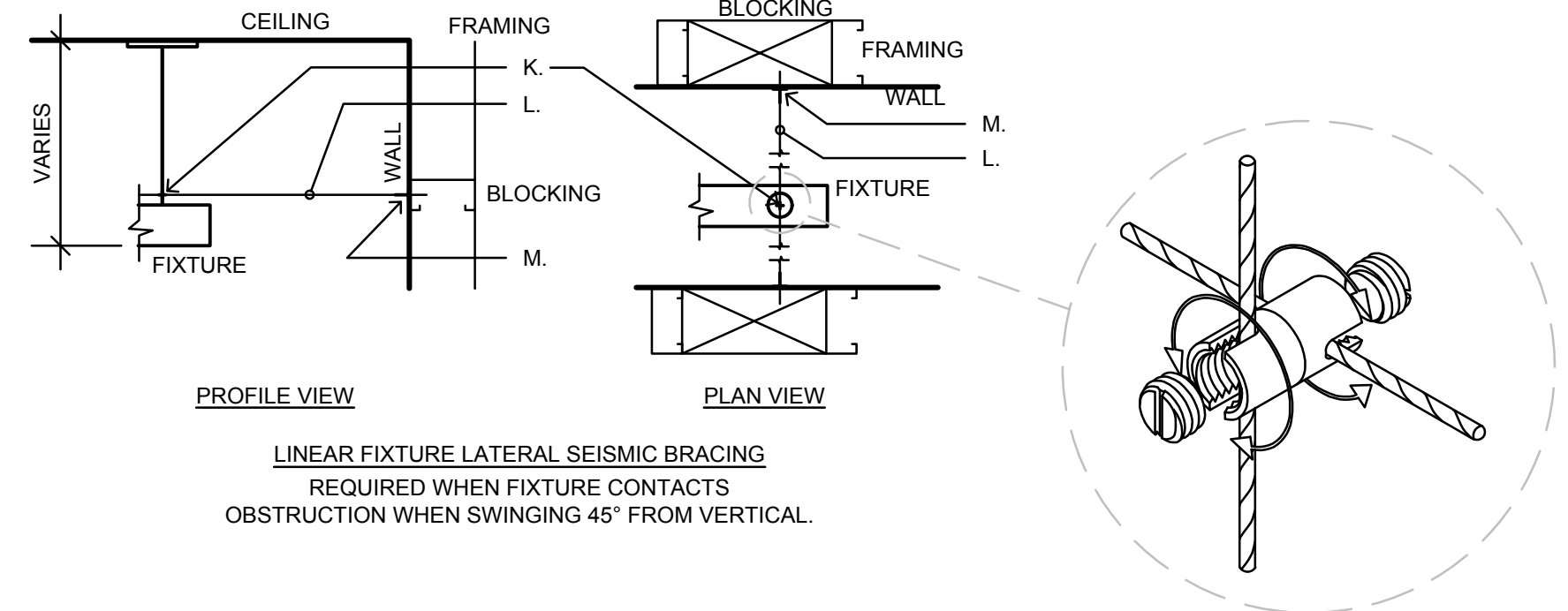
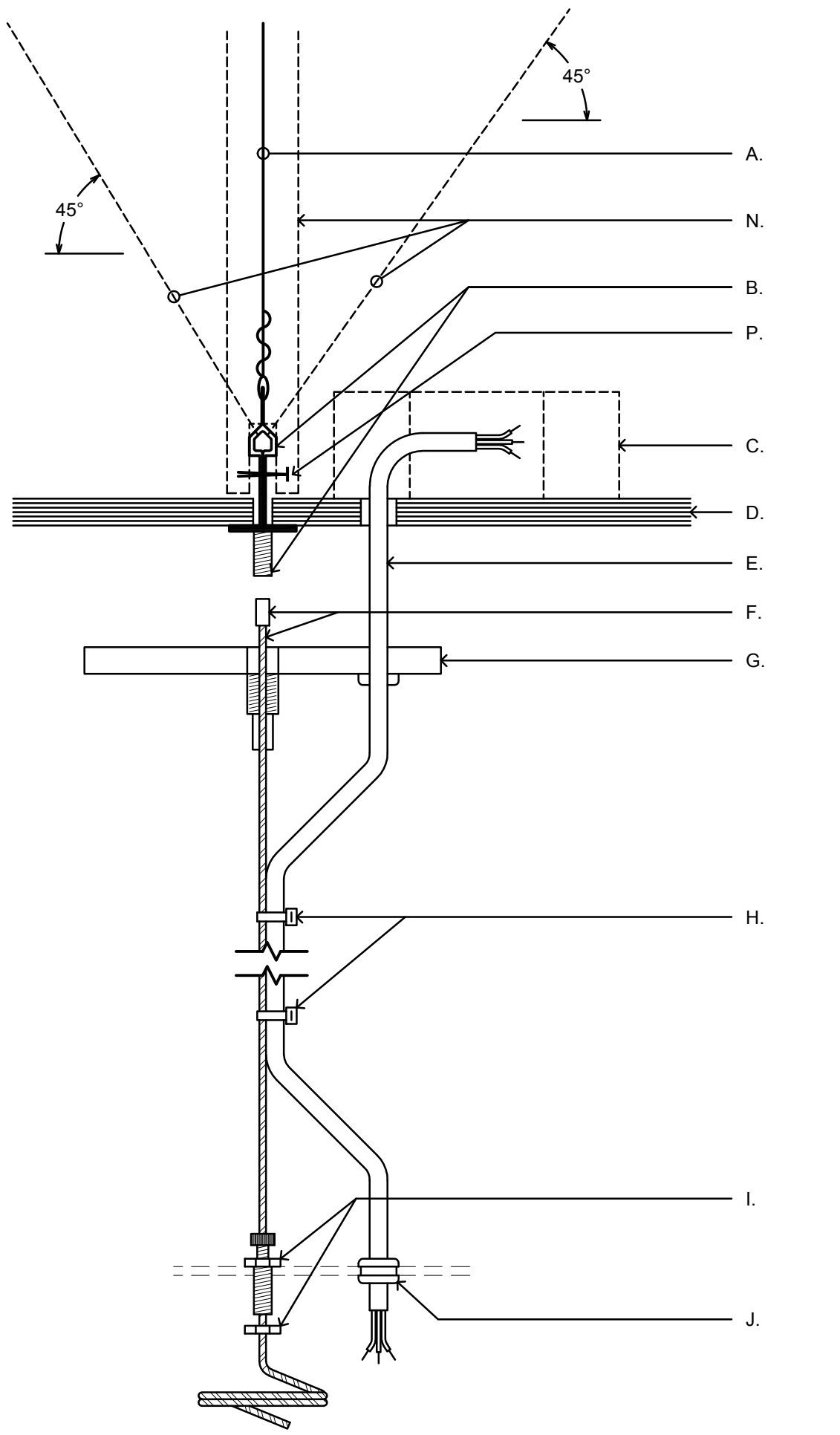
HEAVY DUTY GRID SYSTEM			
LIGHT FIXTURE DIMENSION	WEIGHT	NO. OF HANGER WIRES	TYPE
< 24" x 48"	< 56 LBS	2	SLACK
> 24" x 48"	> 56 LBS	4	TAUT



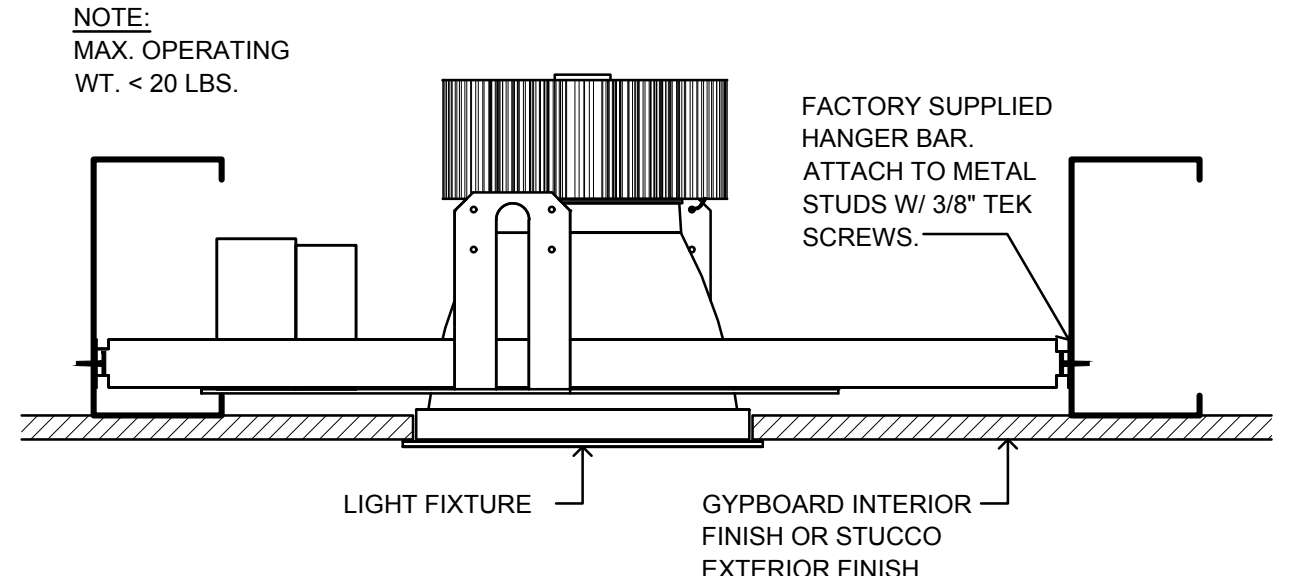
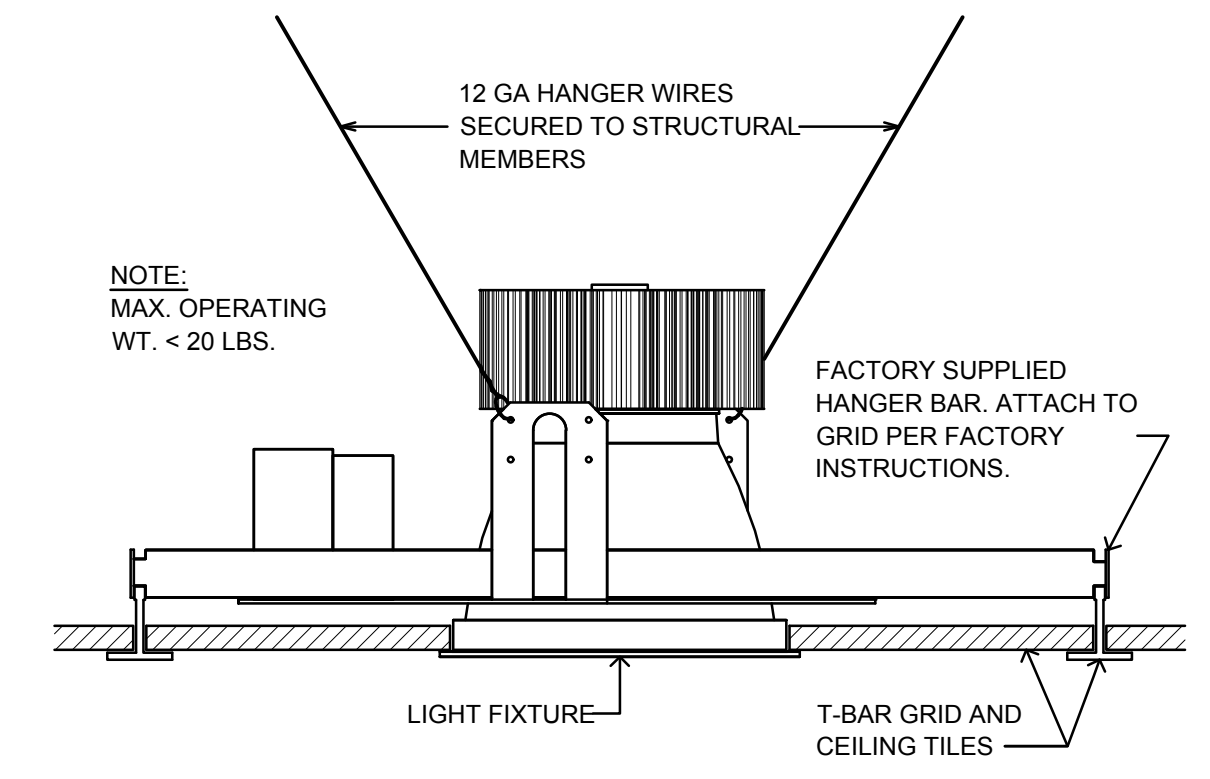
N1 Lay-in Fixture Grid Mounting Detail
No Scale

N5 Surface Fixture Mounting Detail
No Scale

- DETAIL KEY NOTES:**
- A. HANGER WIRE: 12GA GALV. HANGER WIRES FROM SUPPORT CLIP TO ROOF STRUCTURE PER DSA IR 25-2. REFER TO ARCHITECTURAL DETAILS FOR ACCEPTABLE HANGER WIRE CONNECTIONS.
 - B. SUPPORT CLIP: CADDY "INDEPENDENT SUPPORT CLIP" W/ 1/4-20 STUD. ATTACHES OVER T-BAR RUNNER.
 - C. J-BOX: LIGHTING CIRCUIT J-BOX (AT POWER FEED END OF FIXTURE ONLY).
 - D. ACOUSTIC CEILING TILE: INSTALLED IN T-BAR GRID SYSTEM. SEE ARCH. PLANS.
 - E. POWER FEED: WHITE SO CORD, 18/3 OR 18/4, AS REQUIRED.
 - F. AIRCRAFT CABLE: 3/32" STAINLESS STEEL AIRCRAFT CABLE W/ BARREL TERMINAL AT ONE END.
 - G. CANOPY: 1/4" INTERNAL THREAD CEILING COUPLER, AND BARREL TERMINAL CAPTURE, BY MFG'R.
 - H. ZIP TIE: NEATLY ZIP TIE POWER FEED TO AIRCRAFT CABLE AT 6" CENTERS W/ WHITE ZIP TIES.
 - I. GRIPPER: LISTED AIRCRAFT CABLE GRIPPER W/ KNURLED LOCK NUT, 1/4-20" THREADED BODY & NUT ATTACHES TO FIXTURE.
 - J. STRAIN RELIEF: STRAIN RELIEF BUSHING AT FIXTURE.
 - K. CABLE CLAMP: SECURE TO EACH HANGER CABLE WITHIN 4" OF FIXTURE ATTACHMENT POINT.
 - L. LATERAL BRACING CABLE: 3/32" STAINLESS STEEL AIRCRAFT CABLE INSTALLED LONGITUDINALLY ACROSS FIXTURE TO PREVENT SWAYING.
 - M. WALL CABLE ANCHOR: GRIPLOCK #252-M13-1420-SL SECURED WITH #12 SHEET METAL SCREW TO WALL FRAMING/BLOCKING AT EACH END OF FIXTURE.
 - N. COMPRESSION STRUT: PROVIDE COMPRESSION STRUT AND (4) SPLAY WIRES THROUGH MAIN RUNNER PER DSA IR 25-2. WITHIN 6" OF EACH SUPPORT CLIP. SUPPORT CLIPS TO BE SPACED MAX. 8" O.C. & WITHIN 6" OF EACH END. SEE ARCH. DETAILS FOR INSTALLATION REQUIREMENTS.
 - P. INSTALL #10 S.M.S. THROUGH CLIP AND MAIN RUNNER.



E1 Linear Pendant Fixture Mounting Detail
No Scale

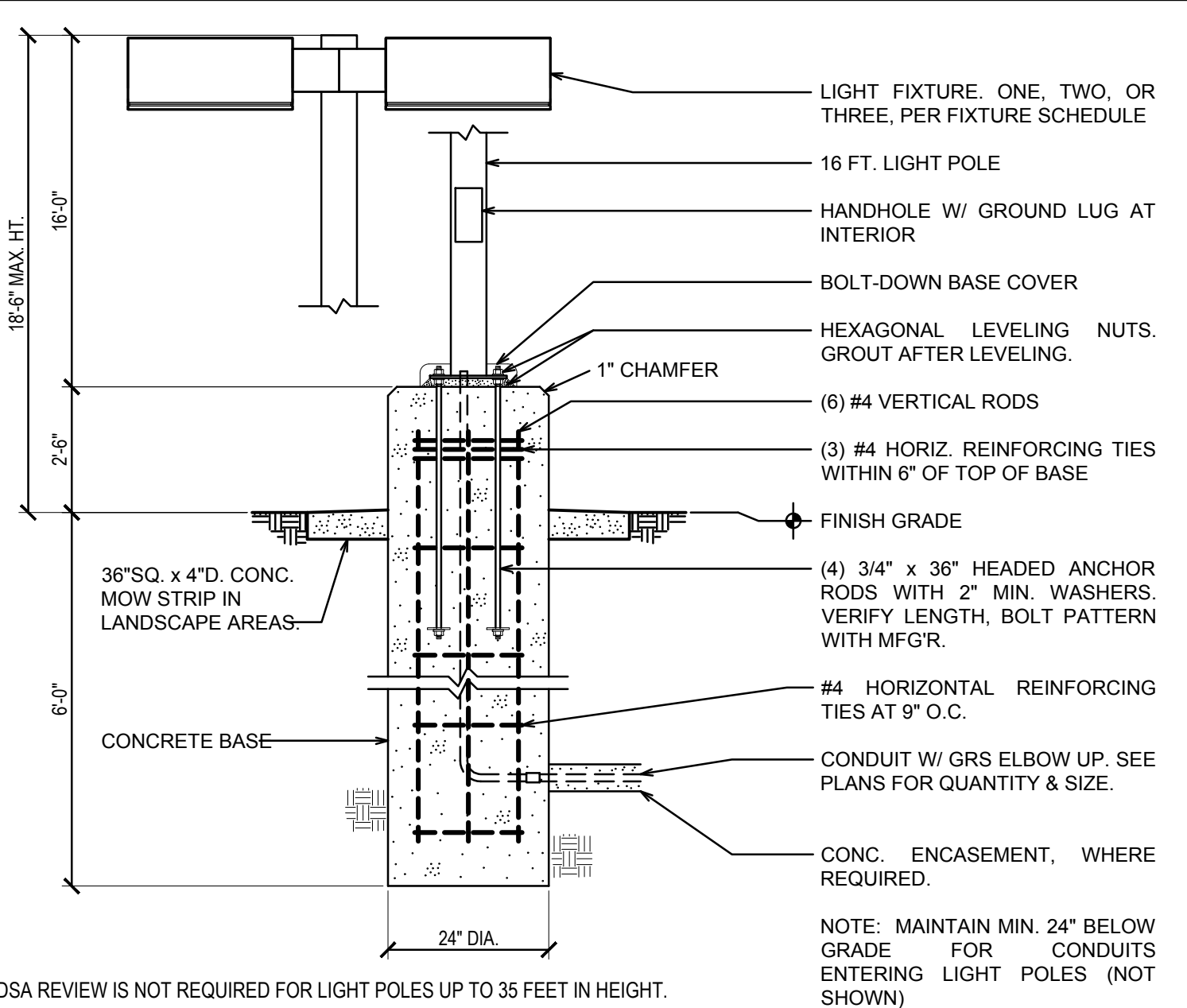


A1 Recessed Downlight Mounting Detail
No Scale

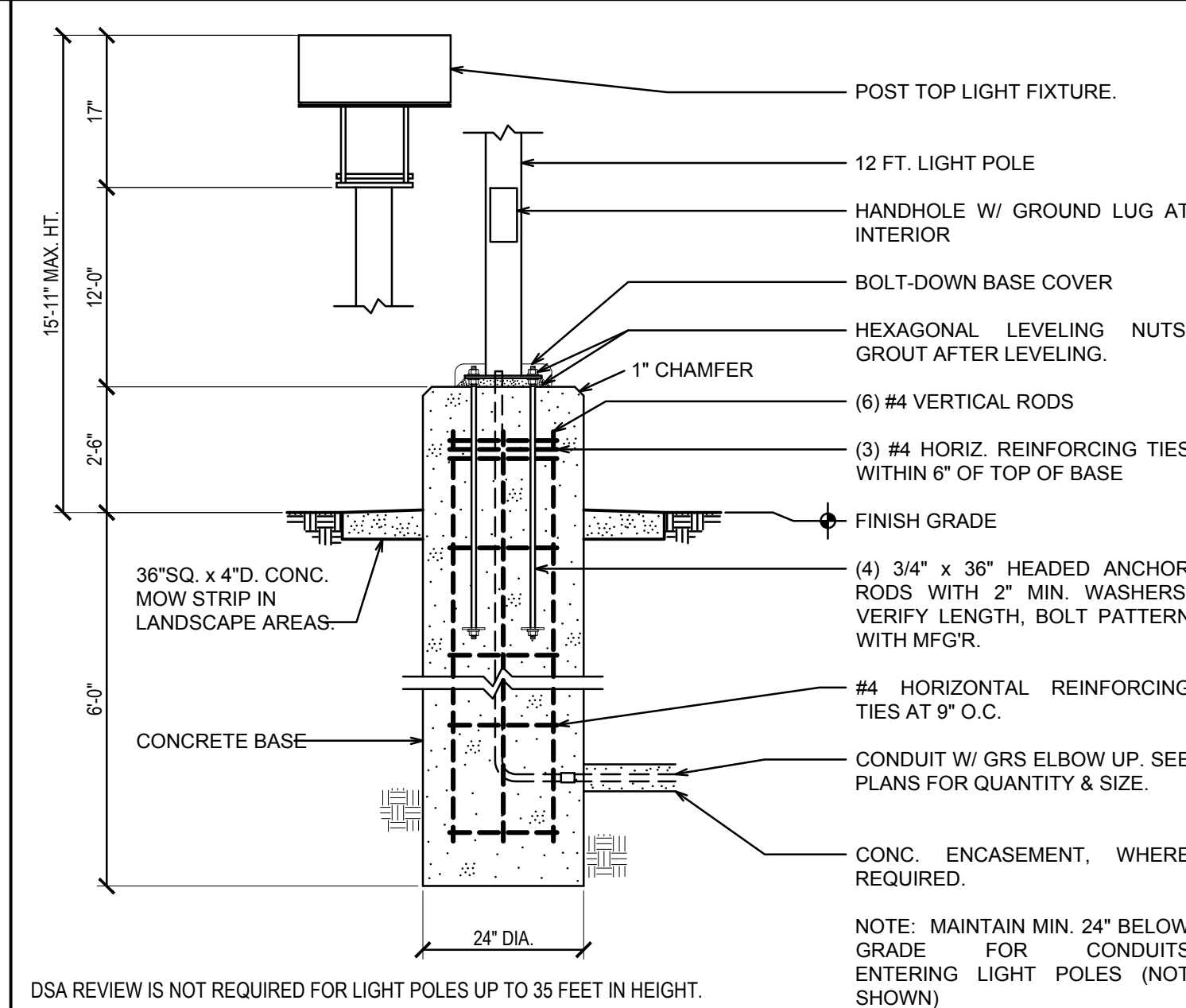
A10 Parking Area Light Pole Detail
No Scale

TYPE	MANUFACTURER	CATALOG NO.	SOURCE	WATTS	VOLTAGE	MOUNTING	DETAIL	REMARK
A	LITHONIA	2BLT2 40LHE ADSM EZ1 LP835 NLTAIR2 RIO	LED	30.8	120-277	REC GRID	N1/X/E201	NLTAIR2
AS	LITHONIA	2BLT2 40LHE ADSM EZ1 LP835 NLTAIR2 RES7PDT	LED	30.8	120-277	REC GRID	N1/X/E201	NLTAIR2 / INTEGRAL OCC/DL SENSOR
ASE	LITHONIA	2BLT2 40LHE ADSM EZ1 LP835 NLTAIR2 RES7PDTM	LED	30.8	120-277	REC GRID	N1/X/E201	NLTAIR2 / INTEGRAL OCC/DL SENSOR / EMERGENCY FIXTURE
B	LITHONIA	2BLT4 60LHE ADSM EZ1 LP835 NLTAIR2 RIO	LED	43.6	120-277	REC GRID	N1/X/E201	NLTAIR2
BS	LITHONIA	2BLT4 60LHE ADSM EZ1 LP835 NLTAIR2 RES7PDT	LED	43.6	120-277	REC GRID	N1/X/E201	NLTAIR2 / INTEGRAL OCC/DL SENSOR
BE	LITHONIA	2BLT4 60LHE ADSM EZ1 LP835 NLTAIR2 RIDEM	LED	43.6	120-277	REC GRID	N1/X/E201	NLTAIR2 / EMERGENCY FIXTURE
BSE	LITHONIA	2BLT4 60LHE ADSM EZ1 LP835 NLTAIR2 RES7PDTM	LED	43.6	120-277	REC GRID	N1/X/E201	NLTAIR2 / INTEGRAL OCC/DL SENSOR / EMERGENCY FIXTURE
C	LUMINAIRE	VPF8 4FT MIN10 NLTAIR2 50W 35K MVOLT OP WHT RIO	LED	53.3	120-277	SURF CLG	N1/X/E201	NLTAIR2
CE	LUMINAIRE	VPF8 4FT MIN10 NLTAIR2 50W 35K MVOLT OP WHT RIO	LED	53.3	120-277	SURF CLG	N1/X/E201	NLTAIR2 / EMERGENCY FIXTURE
CS	LUMINAIRE	VPF8 4FT MIN10 NLTAIR2 50W 35K MVOLT OP WHT RES7PDT	LED	53.3	120-277	SURF CLG	N1/X/E201	NLTAIR2 / INTEGRAL OCC/DL SENSOR
CSE	LUMINAIRE	VPF8 4FT MIN10 NLTAIR2 50W 35K MVOLT OP WHT RES7PDTM	LED	53.3	120-277	SURF CLG	N1/X/E201	NLTAIR2 / INTEGRAL OCC/DL SENSOR / EMERGENCY FIXTURE
C2	LUMINAIRE	VPF8 2FT MIN10 NLTAIR2 25W 35K MVOLT OP WHT RIO	LED	26.6	120-277	SURF CLG	N1/X/E201	NLTAIR2
C2SE	LUMINAIRE	VPF8 2FT MIN10 NLTAIR2 25W 35K MVOLT OP WHT RES7PDTM	LED	26.6	120-277	SURF CLG	N1/X/E201	NLTAIR2 / INTEGRAL OCC/DL SENSOR / EMERGENCY FIXTURE
D4	PRUDENTIAL	BPROS LIN LED35 HO HO 4" [C] YBK BTW HCW ADC DC UNV CA96 X3 ECO NLIGHT-AIR	LED	84.0	120-277	SUSPENDED	E1/X/E201	
D4E	PRUDENTIAL	BPROS LIN LED35 HO HO 4" [C] YBK BTW HCW ADC DC UNV CA96 X3 ECO NLIGHT-AIR EMC	LED	84.0	120-277	SUSPENDED	E1/X/E201	EMERGENCY FIXTURE (4-FOOT SECTION)
DBE	PRUDENTIAL	BPROS LIN LED35 HO HO 8" [C] YBK BTW HCW ADC DC UNV CA96 X3 ECO NLIGHT-AIR EMC	LED	168.0	120-277	SUSPENDED	E1/X/E201	EMERGENCY FIXTURE (4-FOOT SECTION)
DBSE	PRUDENTIAL	BPROS LIN LED35 HO HO 8" [C] YBK BTW HCW ADC DC UNV CA96 X3 ECO NLIGHT-AIR EMC NLT-AIR-RESPD	LED	168.0	120-277	SUSPENDED	E1/X/E201	EMERGENCY FIXTURE (4-FOOT SECTION)
D12E	PRUDENTIAL	BPROS LIN LED35 HO HO 12" [C] YBK BTW HCW ADC DC UNV CA96 X3 ECO NLIGHT-AIR EMC	LED	252.0	120-277	SUSPENDED	E1/X/E201	EMERGENCY FIXTURE (4-FOOT SECTION)
D12SE	PRUDENTIAL	BPROS LIN LED35 HO HO 12" [C] YBK BTW HCW ADC DC UNV CA96 X3 ECO NLIGHT-AIR EMC NLT-AIR-RESPD	LED	252.0	120-277	SUSPENDED	E1/X/E201	EMERGENCY FIXTURE (4-FOOT SECTION)
D16E	PRUDENTIAL	BPROS LIN LED35 HO HO 16" [C] YBK BTW HCW ADC DC UNV CA96 X3 ECO NLIGHT-AIR EMC	LED	336.0	120-277	SUSPENDED	E1/X/E201	EMERGENCY FIXTURE (4-FOOT SECTION)
D20S	PRUDENTIAL	BPROS LIN LED35 HO HO 20" [C] YBK BTW HCW ADC DC UNV CA96 X3 ECO NLIGHT-AIR EMC NLT-AIR-RESPD	LED	420.0	120-277	SUSPENDED	E1/X/E201	EMERGENCY FIXTURE (4-FOOT SECTION)
D20SE	PRUDENTIAL	BPROS LIN LED35 HO HO 20" [C] YBK BTW HCW ADC DC UNV CA96 X3 ECO NLIGHT-AIR EMC NLT-AIR-RESPD	LED	420.0	120-277	SUSPENDED	E1/X/E201	EMERGENCY FIXTURE (4-FOOT SECTION)
F	LITHONIA	ZL1D L48 5000LM FST MVOLT 35K 80CRI WH HC36	LED	41.0	120-277	CHAIN	MFG'R	<20 LBS.
FE	LITHONIA	ZL1D L48 5000LM FST MVOLT 35K 80CRI WH HC36	LED	41.0	120-277	CHAIN	MFG'R	<20 LBS. / EMERGENCY FIXTURE
G	LITHONIA	TYPE "C2" FIXTURE MOUNTED HORIZONTALLY ON WALL ABOVE DOOR	LED	26.6	120-277	WALL	N5/X/E201	
H4	GOTHAM	EV04 35/15 AR MD LSS MVOLT G21	LED	13.7	120-277	RECESSED	A1/X/E201	
H6	GOTHAM	EV06 35/30 AR MD LSS MVOLT G21	LED	29.5	120-277	RECESSED	A1/X/E201	
H6E	GOTHAM	EV06 35/30 AR MD LSS MVOLT G21	LED	29.5	120-277	RECESSED	A1/X/E201	EMERGENCY FIXTURE
J	LITHONIA	2BLT2 40LHE ADSM EZ1 LP835 NLTAIR2 RIO 2X25MKSH PAF	LED	30.8	120-277	SURF CLG	N5/X/E201	NLTAIR2
J5E	LITHONIA	2BLT2 40LHE ADSM EZ1 LP835 NLTAIR2 RES7PDTM 2X25MKSH PAF	LED	30.8	120-277	SURF CLG	N5/X/E201	NLTAIR2 / INTEGRAL OCC/DL SENSOR / EMERGENCY FIXTURE
K	LUMINAIRE	VPF12 4FT MIN10 NLTAIR2 80W 35K MVOLT OP WHT RIO	LED	82.0	120-277	SURF CLG	N5/X/E201	NLTAIR2
K5E	LUMINAIRE	VPF12 4FT MIN10 NLTAIR2 80W 35K MVOLT OP WHT RES7PDTM	LED	82.0	120-277	SURF CLG	N5/X/E201	NLTAIR2 / INTEGRAL OCC/DL SENSOR
L	LITHONIA	EPANL 2X4 6800LMHE 80CRI 35K MIN10 EZT MVOLT NLTAIR2 RIO	LED	48.0	120-277	RECESSED	N1/X/E201	NLTAIR2
LS	LITHONIA	EPANL 2X4 6800LMHE 80CRI 35K MIN10 EZT MVOLT NLTAIR2 RES7PDT	LED	48.0	120-277	RECESSED	N1/X/E201	NLTAIR2 / INTEGRAL OCC/DL SENSOR
LSE	LITHONIA	EPANL 2X4 6800LMHE 80CRI 35K MIN10 EZT MVOLT NLTAIR2 RES7PDTM	LED	48.0	120-277	RECESSED	N1/X/E201	NLTAIR2 / INTEGRAL OCC/DL SENSOR / EMERGENCY FIXTURE
L2	LITHONIA	EPANL 2X2 3400LMHE 80CRI 35K MIN10 EZT MVOLT NLTAIR2 RIO	LED	27.0	120-277	RECESSED	N1/X/E201	NLTAIR2
L2SE	LITHONIA	EPANL 2X2 3400LMHE 80CRI 35K MIN10 EZT MVOLT NLTAIR2 RES7PDTM	LED	27.0	120-277	RECESSED	N1/X/E201	NLTAIR2 / INTEGRAL OCC/DL SENSOR / EMERGENCY FIXTURE
M	PRUDENTIAL	ZES-PRO 44 LED35 HO SAL CC SC UNV CA144 X3 DM01	LED	200.0	120-277	SUSPENDED	D1/X/E202	
ME	PRUDENTIAL	ZES-PRO 44 LED35 HO SAL CC SC UNV CA144 X3 DM01	LED	200.0	120-277	SUSPENDED	D1/X/E202	EMERGENCY FIXTURE
M2	PRUDENTIAL	ZES-PRO 44 LED35 HO SAL CC SC UNV CA144 X3 DM01	LED	104.0	120-277	SUSPENDED	D1/X/E202	
M2E	PRUDENTIAL	ZES-PRO 44 LED35 HO SAL CC SC UNV CA144 X3 DM01	LED	104.0	120-277	SUSPENDED	D1/X/E202	EMERGENCY FIXTURE
N6	GOTHAM	EV06CC 35/15 AR MD LSS MVOLT EZ1 SGB CCAN45 C120 90CRI [C]	LED	14.7	120-277	SUSPENDED	A1/X/E201	<20 LBS.
P1	LITHONIA	EV06VR 40/15 AR MD PCL MVOLT EZ10 DNA	LED	14.7	120-277	RECESSED	A1/X/E201	<20 LBS.
P1E	LITHONIA	EV06VR 40/15 AR MD PCL MVOLT EZ10 DNA	LED	14.7	120-277	RECESSED	A1/X/E201	<20 LBS. / EMERGENCY FIXTURE
P2	LUMINAIRE	VPF4 2FT MIN1 20W 40K MVOLT OP [C] WL	LED	21.0	120-277	SURFACE	MFG'R	<20 LBS.
P2E	LUMINAIRE	VPF4 2FT MIN1 20W 40K MVOLT OP [C] WL	LED	21.0	120-277	SURFACE	MFG'R	<20 LBS. / EMERGENCY FIXTURE
P3	LITHONIA	WDGE2 LED P2 40K 80CRI T3M MVOLT [C]	LED	19.0	120-277	WALL	MFG'R	<20 LBS.
P3E	LITHONIA	WDGE2 LED P2 40K 80CRI T3M MVOLT [C]	LED	19.0	120-277	WALL	MFG'R	<20 LBS. / EMERGENCY FIXTURE
P4	LITHONIA	LVP58 LPL MIN1 10W 40K MVOLT CLP BRZ WL PHSC	LED	10.0	120-277	WALL	MFG'R	<20 LBS.
Q	LITHONIA	ARV13 MIN1 15W 40K MVOLT OP [COLOR] SHCAB	LED	15.0	120-277	SURFACE	N1/X/E201	<20 LBS. UTILIZE 1/2" CONDUIT FOR THESE FIXTURE BACKBOXES
RU	LITHONIA	ZL1D L24/48/96 1500/3000/6000LM FST MVOLT 35K 90CRI	LED	6.7 / FT	120-277	SURFACE	MFG'R	MOUNT ON TOP OF SOFFIT. REFER TO PLANS FOR OA LENGTH
RD	LITHONIA	ZL1D L24/48/96 1500/3000/6000LM FST MVOLT 35K 90CRI	LED	6.7 / FT	120-277	SURFACE	MFG'R	MOUNT ON BOTTOM OF SOFFIT. REFER TO PLANS FOR OA LENGTH
S4	LITHONIA	DSX1 LED P7 7MM MVOLT RPA PIRH SF [C] / 25" RSS POLE	LED	183.0	277	25" POLE	A10/X/E201	
S5	LITHONIA	RAOPT LED P4 40K SYM MVOLT P74 PIR SF [C] / 12" RSS POLE	LED	86.0	277	12" POLE	A14/X/E201	
T	HYDREL	PLACER A P1 90CRI 30K 120 40DEG FLC WMC S12 L3 C1 [COLOR]	LED	11.0	120	WALL	MFG'R	<20 LBS.
X	LUMINAIRE	TLE*G	LED	1.0	120-277	UNIVERSAL	MFG'R	<20 LBS. / EMERGENCY FIXTURE *SEE PLANS FOR 1 OR 2 FACES.
XN	BEGHELLI	TSL 1 G 10 GRY U	N/A	N/A	N/A	UNIVERSAL	MFG'R	<20 LBS. / SELF LUMINOUS TRITIUM EMERGENCY FIXTURE

F10 Light Fixture Schedule
No Scale



A10 Parking Area Light Pole Detail
No Scale



A14 Pedestrian Light Pole Detail
No Scale

**FOR BIDDING ONLY
-NOT FOR CONSTRUCTION-**

Agency Approval

LIGHTING GENERAL NOTES

- THE CONTRACTOR SHALL INSTALL A COMPLETE AND OPERATIONAL LIGHTING SYSTEM FULLY CONFORMING WITH THE CALIFORNIA ENERGY COMMISSION'S TITLE 24 REQUIREMENTS.
- THE SPECIFIED LIGHTING COMPONENTS ARE PARTS OF A DIGITAL, WIRELESS, PROGRAMMABLE SYSTEM BASED ON THE LITHONIA LIGHT AIR PRODUCT LINE.
- THE SYSTEM IS CONTROLLED AND PROGRAMMED THROUGH AN iLIGHT ECLYPSE GATEWAY LOCATED IN EACH BUILDING. THE GATEWAY REQUIRES A 120V OUTLET AND DATA OUTLET AT THE ELECTRONICS BACKBOARD. THE GATEWAY CONNECTS TO THE OWNER'S LAN WITH A CAT 6 CABLE.
- EACH FIXTURE AND CONTROL DEVICE REQUIRES LINE VOLTAGE, UNSWITCHED POWER, AND HAS A BUILT-IN, WIRELESS CONNECTIVITY.
- SOME FIXTURES SUCH AS DOWNLIGHTS AND SIGNAGE ARE WIRED TO AND CONTROLLED BY AN iLIGHT AIR POWER PACK WITH DIMMING CAPABILITY. POWER PACKS REQUIRE LINE VOLTAGE, UNSWITCHED POWER. VERIFY THE DIMMING PROTOCOL OF DIMMING FIXTURES AND ORDER THE APPROPRIATE POWER PACK.
- EMERGENCY FIXTURES AND POWER PACKS REQUIRE BOTH A CONNECTION TO THE INVERTER EMERGENCY LIGHTING CIRCUIT AND A LOCAL NORMAL LIGHTING CIRCUIT. UPON LOSS OF THE NORMAL CIRCUIT, THE FIXTURE TURNS ON AND RAMP'S UP TO 100% LIGHT OUTPUT.
- THE PLANS GENERALLY SHOW THE LOCATION OF SWITCHES, SENSORS, CONTROL MODULES ETC. ACTUAL LOCATIONS AND INSTALLATION REQUIREMENTS SHALL BE COORDINATED WITH THE MANUFACTURER'S SHOP DRAWINGS.
- LIGHTING FIXTURE COLORS, WHEN NOT SPECIFIED, SHALL BE SELECTED BY THE ARCHITECT'S OFFICE. DO NOT SUBMIT COLORS THAT HAVE NOT BEEN SELECTED OR APPROVED BY THE ARCHITECT.
- THE CONTRACTOR SHALL FURNISH SYSTEM PROGRAMMING BY FACTORY PERSONNEL OR THE FACTORY'S APPROVED THIRD PARTY VENDOR TO ENSURE COMPLIANCE WITH THE REQUIREMENTS OF TITLE 24. THE CONTRACTOR SHALL NOT ATTEMPT PROGRAMMING UNLESS SPECIFICALLY AUTHORIZED BY THE FACTORY.
- SUBMIT COMPLETE LIGHTING CONTROL SHOP DRAWINGS FURNISHED BY THE FACTORY TO THE ENGINEER FOR REVIEW.
- A SUBSTITUTE LIGHTING FIXTURES AND CONTROLS PACKAGE FROM ANOTHER MANUFACTURER MAY BE ACCEPTABLE. THE SUBSTITUTE PACKAGE SHALL BE EQUAL OR GREATER IN ALL RESPECTS TO THE SPECIFIED PACKAGE. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL REQUIRED COMPONENTS, ADDITIONAL WIRING FOR DIMMING OPERATION OF LIGHT FIXTURES, AND ANYTHING ELSE NEEDED FOR A COMPLETE AND OPERATIONAL SYSTEM. A SUBSTITUTE PACKAGE SHALL IN NO WAY INCUR COSTS TO THE OWNER. SUBMIT SUBSTITUTE PACKAGE, INCLUDING SHOP DRAWINGS, TO ENGINEER FOR REVIEW AND APPROVAL. FAILURE TO COMPLY WITH THIS REQUIREMENT MAY RESULT IN REJECTION OF SUBSTITUTE COMPONENTS.
- CALIFORNIA ENERGY CODE SECTION 10-103 REQUIRES ACCEPTANCE TESTING ON ALL NEWLY INSTALLED LIGHTING CONTROLS AFTER INSTALLATION AND BEFORE PROJECT COMPLETION.
- LIGHTING CONTROLS ACCEPTANCE TESTS MUST BE PERFORMED BY A CERTIFIED LIGHTING CONTROLS TEST TECHNICIAN ("ATT"). A LISTING OF CERTIFIED ATTS CAN BE FOUND AT [HTTPS://WWW.ENERGY.CA.GOV/PROGRAMS-AND-TOPICS/PROGRAMS/ACCEPTANCE-TEST-TECHNICIAN-CERTIFICATION-PROVIDER-PROGRAM/](https://www.energy.ca.gov/programs-and-topics/programs/acceptance-test-technician-certification-provider-program/). ACCEPTANCE TESTING PROCEDURES MUST BE REPEATED, AND DEFICIENCIES MUST BE CORRECTED BY THE BUILDING OR INSTALLING CONTRACTOR UNTIL THE CONSTRUCTION/INSTALLATION OF THE LIGHTING SYSTEM CONFORMS AND PASSES THE REQUIRED ACCEPTANCE CRITERIA.

General Notes

Hardin-Davidson Engineering
356 Pollasky Ave., Suite 200, Clovis, CA 93612
559.323.4995 tel • 559.323.4928 fax
www.hardin-davidson.com

Consultant

McKinley/Fowler Elementary School
Clovis Unified School District
Fresno, CA 93727

Project

Lighting Systems
Fixture Schedule, Details

Drawing

darden architects
ARCHITECTURE PLANNING INTERIORS
www.dardenarchitects.com
6790 N. West Ave. • Fresno, CA 93711 • T. 559.448.8051

Architect

No.	Revision/Submission	Date
2	Addendum 2- Electrical Rebid	03/22/23

Revision

Designed By: SD
Checked By: SD
Reviewed By: SD

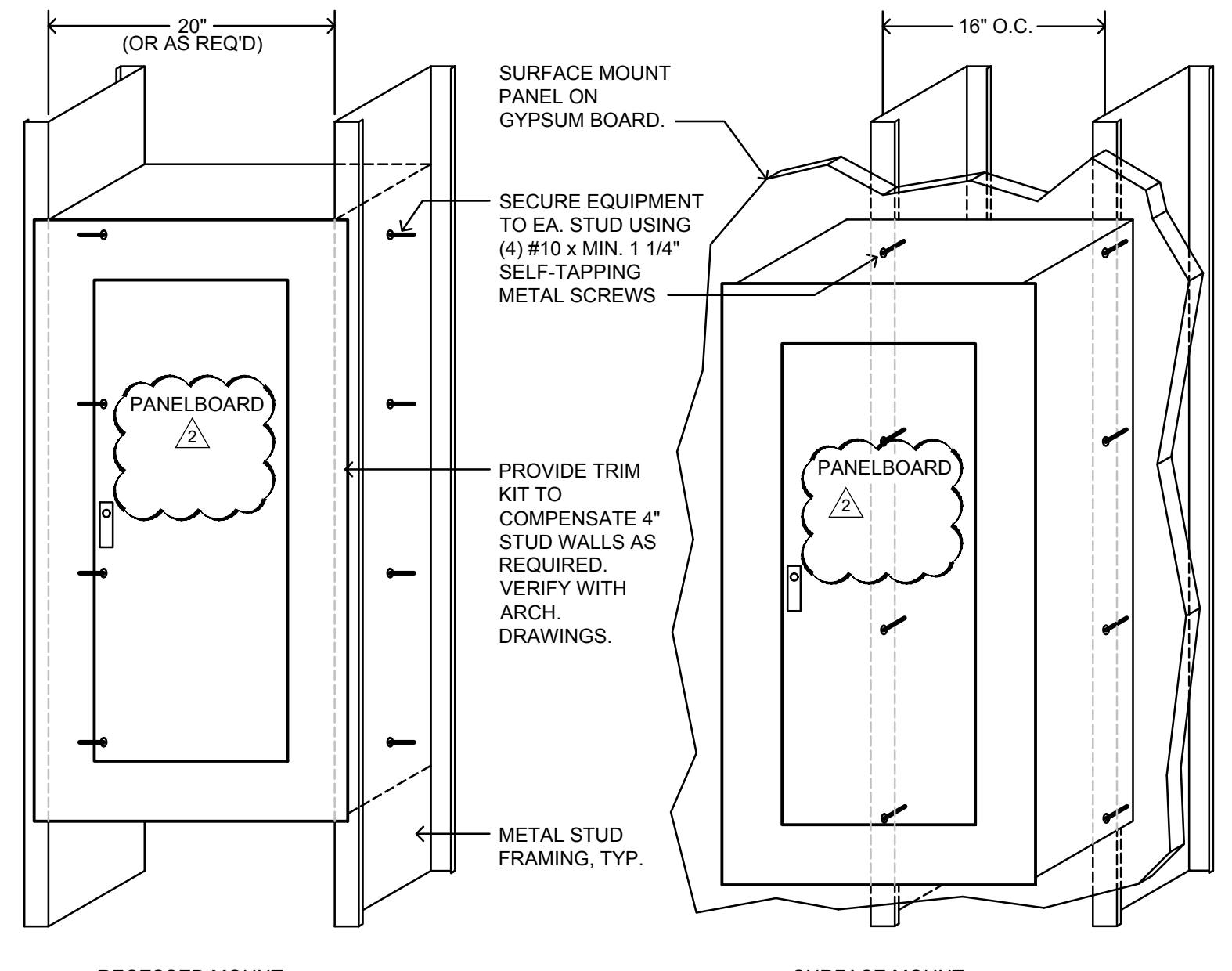
Scale: As indicated
Project Number: 2116
Date: 09/19/2022

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PANELBOARD WEIGHTS/DIMS	
UP TO 400 AMPS - 20"W x 5.75"D	600-800 AMPS - 30"W x 8"D
30 CIRCUITS: 72"H, 450 LBS.	30 CIRCUITS: 72"H, 475 LBS.
42 CIRCUITS: 72"H, 450 LBS.	42 CIRCUITS: 72"H, 495 LBS.
54 CIRCUITS: 84"H, 525 LBS.	54 CIRCUITS: 84"H, 570 LBS.



THIS DETAIL APPLIES TO NEW WALL CONSTRUCTION WHERE STUD SPACING CAN BE ADJUSTED. AT EXISTING WALLS, RECESSED INSTALLATION MAY REQUIRE FIELD INSPECTION AND DETAILING, SUBJECT TO APPROVAL BY ON-SITE DSA INSPECTOR.

THIS DETAIL APPLIES TO EITHER NEW OR EXISTING WALL CONSTRUCTION. PANEL SHALL BE CENTERED OVER EXISTING STUD FRAMING. WHERE THIS IS NOT POSSIBLE, METALLIC HORIZONTAL BRACING SHALL BE ATTACHED ACROSS (3) WALL STUDS AND LINED UP WITH TOP, CENTER, AND BOTTOM OF PANEL.

PANEL "AH" SCHEDULE									
277/480V 3Φ 4W 42KAIC INDOOR / SURFACE									
CKT. NO.	DESCRIPTION	BREAKER AMPS POLES	VA	Φ	VA	BREAKER AMPS POLES	DESCRIPTION	CKT. NO.	
1	HVAC UNIT HC-A1	30 3	5457	A	1600	15	1	LIGHTS	2
3	---	---	---	---	---	---	---	---	4
5	---	---	---	---	---	---	---	---	6
7	HVAC UNIT HC-A2	35 3	5235	A	1550	15	1	LCP, INVERTER, EXTERIOR LIGHTS	8
9	---	---	---	---	---	---	---	---	10
11	---	---	---	---	---	---	---	---	12
13	HVAC UNIT VRF ODU 1-1	25 3	4986	A				SPACE ONLY	14
15	---	---	---	---	---	---	---	---	16
17	---	---	---	---	---	---	---	---	18
19	HVAC UNIT ERV-1	15 3	1302	A				SPACE ONLY	20
21	---	---	---	---	---	---	---	---	22
23	---	---	---	---	---	---	---	---	24
25	SPACE ONLY				18576	125	3	XFMR "TAL" / PANEL "AL"	26
27	SPACE ONLY								28
29	SPACE ONLY								30
LOAD SUMMARY:			Φ A 38706 VA		BUSING: 250A				
			Φ B 34138 VA		MAIN: 250A				
			Φ C 33285 VA						
CONNECTED LOAD:			106.1 kVA						
MAX CURRENT:			140 A						

PANEL "AL" SCHEDULE										
120/208V 3Φ 4W 22KAIC INDOOR / SURFACE										
CKT. NO.	DESCRIPTION	BREAKER AMPS POLES	VA	Φ	VA	BREAKER AMPS POLES	DESCRIPTION	CKT. NO.		
1	OUTLETS - MAIN OFFICE 100	20 1	720	A	720	20 1	OUTLETS - LIBRARY OPEN AREA 113	2		
3	OUTLETS - MAIN OFFICE 100	20 1	720	B	900	20 1	OUTLETS - LIBRARY OPEN AREA 113	4		
5	OUTLETS - MAIN OFFICE 100	20 1	540	C	900	20 1	OUTLETS - LIBRARY OPEN AREA 113	6		
7	OUTLETS - MAIN OFFICE 100	20 1	900	A	720	20 1	OUTLETS - LIBRARY OPEN AREA 113	8		
9	OUTLETS - OFFICE 101	20 1	900	B	720	20 1	OUTLETS - LIBRARY CLASSRM 114	10		
11	OUTLETS - OFFICE 102	20 1	900	C	720	20 1	OUTLETS - LIBRARY CLASSRM 114	12		
13	OUTLETS - CONF. 103	20 1	540	A	900	20 1	OUTLETS - LIBRARY CLASSRM 114, STOR 115	14		
15	OUTLETS - CONF. 103	20 1	540	B	900	20 1	OUTLETS - LIBRARY CLASSRM 114, STOR 115	16		
17	OUTLETS - PRINCIPAL'S OFFICE 105	20 1	1080	C	720	20 1	PROJECTOR & SCREEN - LIBRARY OPEN 113	20		
19	OUTLETS - WORKROOM 110	20 1	900	A			SPARE	22		
21	REFRIGERATOR - WORKROOM 110	20 1	1000	B	20	1	SPARE	24		
23	COPIER - WORKROOM 110	20 1	500	C	20	1	SPARE	26		
25	OUTLETS - GIS OFFICE 111	20 1	900	A			SPACE ONLY	28		
27	OUTLETS - NURSE 112	20 1	720	B			SPACE ONLY	30		
29	OUTLETS - NURSE 112, TOILET 112A	20 1	900	C			SPACE ONLY	32		
31	OUTLETS - ELEC. RM 120, HALLWAY 116	20 1	900	A	1250	20 2	WATER HEATER WH-1	34		
33	DRINKING FOUNTAIN - HALLWAY 116	20 1	600	B	1250	--	----	36		
35	OUTLETS - CUST 107, RR 106, 108, STOR 109	20 1	900	C	93	15	1	EXHAUST FAN EF-A1	38	
37	OUTLETS - HALLWAY 117, 118	20 1	900	A	931	25	2	HVAC ODU/IDU-A1	40	
39	OUTLET - ELEC. RM 120	20 1	360	B	931	--	----	42		
41	AUTO DOOR OPERATOR - MAIN OFFICE 100	20 1	180	A	1115	20 2	HVAC VRF IDU 1-1A, 7A, 8A, & BCC	44		
43	SPARE	20 1	A						46	
45	SPARE	20 1	B		1321	20 2	HVAC VRF IDU 1-2A to 4A, 5A, 6A	48		
47	SPARE	20 1	C		1277	--	----	50		
49	EXTERIOR DOORS ACCESS CONTROL	20 1	600	A	6580	125 3	PANEL "AL-IT"	52		
51	OUTLETS - ROOF	20 1	540	B	4180	--	----	54		
53	FA SPRINKLER RISER BELL *	20 1	180	C	4080	--	----			
LOAD SUMMARY:			Φ A 18576 VA		BUSING: 250A					
			Φ B 15582 VA		MAIN: 250A					
			Φ C 14085 VA							
CONNECTED LOAD:			48.2 kVA							
MAX CURRENT:			155 A							

PANEL "ALIT" SCHEDULE									
120/208V 3Φ 4W 22KAIC INDOOR / SURFACE									
CKT. NO.	DESCRIPTION	BREAKER AMPS POLES	VA	Φ	VA	BREAKER AMPS POLES	DESCRIPTION	CKT. NO.	
1	SERVER RACK OUTLETS	20 1	360	A	2500	30 2	SERVER RACK UPS OUTLET	2	
3	SERVER RACK OUTLETS	20 1	360	B	2500	--	----	4	
5	CONVENIENCE OUTLETS	20 1	360	C	2500	30 2	SERVER RACK UPS OUTLET	6	
7	CONVENIENCE OUTLETS	20 1	360	A	2500	--	----	8	
9	CONVENIENCE OUTLETS	20 1	360	B	500	20 1	EMS PANEL	10	
11	CONVENIENCE OUTLETS	20 1	360	C	500	20 1	SECURITY PANEL	12	
13	CONVENIENCE OUTLETS	20 1	360	A	500	20 1	FA ALARM PANEL *	14	
15	CONVENIENCE OUTLETS	20 1	360	B	100	20 1	LIGHTING GATEWAY	16	
17	A/T MPOE OUTLETS	20 1	360	C	20	1	SPARE	18	
19	SPARE	20 1	A		20	1	SPARE	20	
21	SPARE	20 1	B		20	1	SPARE	22	
23	SPARE	20 1	C		20	1	SPARE	24	
25	SPARE	20 1	A		--	--	SURGE PROTECTIVE DEVICE	26	
27	SPARE	20 1	B		--	--	----	28	
29	SPARE	20 1	C		--	--	----	30	
LOAD SUMMARY:			Φ A 6580 VA		BUSING: 125A				
			Φ B 4180 VA		MAIN: 125A				
			Φ C 4080 VA						
CONNECTED LOAD:			14.8 kVA						
MAX CURRENT:			55 A						

PANEL "BH" SCHEDULE										
277/480V 3Φ 4W 42KAIC INDOOR / SURFACE										
CKT. NO.	DESCRIPTION	BREAKER AMPS POLES	VA	Φ	VA	BREAKER AMPS POLES	DESCRIPTION	CKT. NO.		
1	HVAC UNIT HC-B1	35 3	5235	A	1527	15 1	LIGHTS	2		
3	---	---	---	---	---	---	---	---	4	
5	---	---	---	---	---	---	---	---	6	
7	HVAC UNIT HC-B2	35 3	5235	A	1012	15 1	LIGHTS	8		
9	---	---	---	---	---	---	---	---	10	
11	---	---	---	---	---	---	---	---	12	
13	HVAC UNIT HC-B3	35 3	5235	A	549	15 1	PARKING LOT LIGHTS	14		
15	---	---	---	---	---	---	---	---	16	
17	---	---	---	---	---	---	---	---	18	
19	HVAC UNIT HC-B4	35 3	5235	A			SPACE ONLY	20		
21	---	---	---	---	---	---	---	---	22	
23	---	---	---	---	---	---	---	---	24	
25	HVAC UNIT HC-B5	35 3	5235	A			SPACE ONLY	26		
27	---	---	---	---	---	---	---	---	28	
29	---	---	---	---	---	---	---	---	30	
31	HVAC UNIT HC-B6	35 3	5235	A			SPACE ONLY	32		
33	---	---	---	---	---	---	---	---	34	
35	---	---	---	---	---	---	---	---	36	
37	HVAC UNIT HC-B7	35 3	5235	A			SPACE ONLY	38		
39	---	---	---	---	---	---	---	---	40	
41	---	---	---	---	---	---	---	---	42	
43	HVAC UNIT HC-B8	35 3	5235	A			SPACE ONLY	44		
45	---	---	---	---	---	---	---	---	46	
47	---	---	---	---	---	---	---	---	48	
49	HVAC UNIT HC-B9	35 3	6601	A	21347	175 3	XFMR "TBL" / PANEL "BL"	50		
51	---	---	---	---	---	---	---	---	52	
53	---	---	---	---	---	---	---	---	54	
LOAD SUMMARY:			Φ A 72919 VA		BUSING: 400A					
			Φ B 71628 VA		MAIN: 400A					
			Φ C 65575 VA							
CONNECTED LOAD:			210.1 kVA							
MAX CURRENT:			263 A							

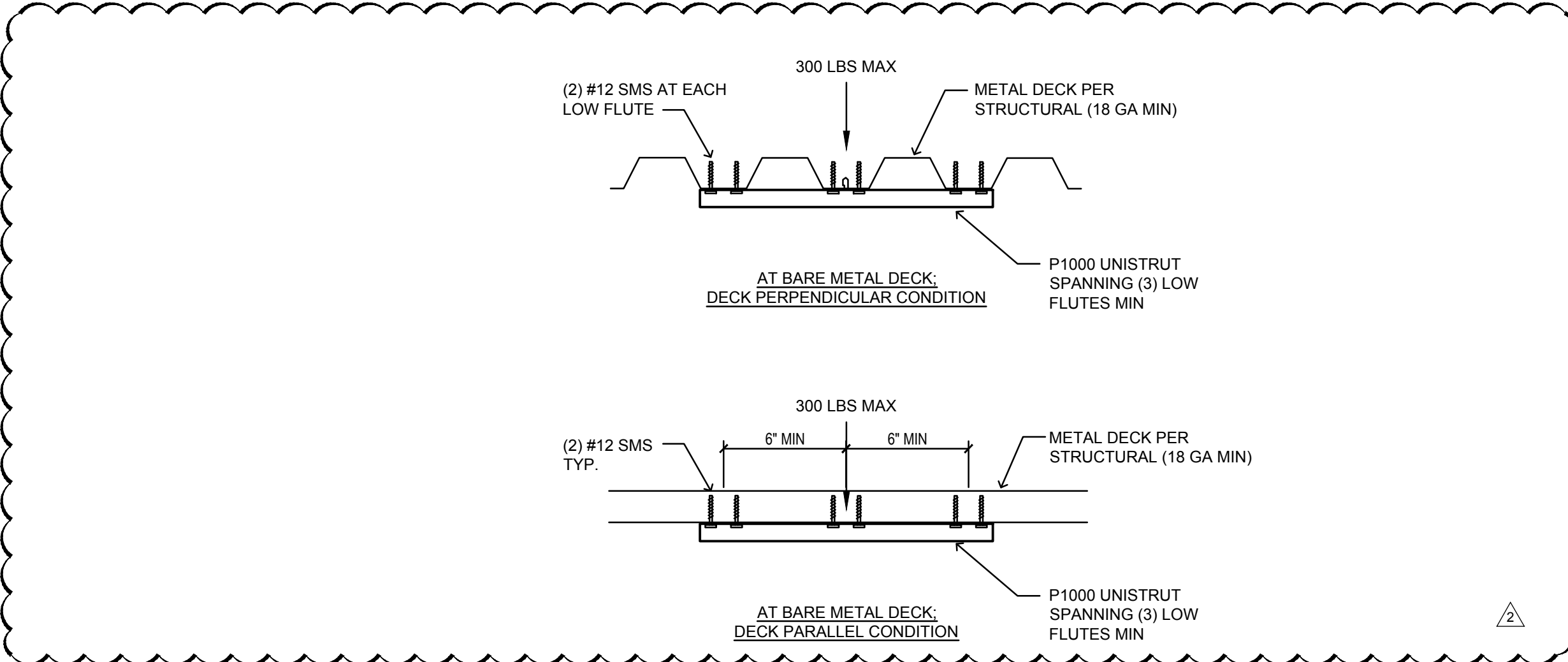
PANEL "BL" SCHEDULE									
120/208V 3Φ 4W 22KAIC INDOOR / SURFACE									
CKT. NO.	DESCRIPTION	BREAKER AMPS POLES	VA	Φ	VA	BREAKER AMPS POLES	DESCRIPTION	CKT. NO.	
1	OUTLETS - CLASSROOM 100	20 1	720	A	720	20 1	OUTLETS - TELE 111, CORR. 108, CP-1	2	
3	OUTLETS - CLASSROOM 100	20 1	900	B	540	20 1	OUTLETS - CORR. 108, R.R. 109, CUST. 113	4	
5	OUTLETS - CLASSROOM 100	20 1	720	C	2000	20 1	HAND DRYER - STUDENT R.R. 109	6	
7	CHARGING STAT. - CLASSROOM 100	20 1	720	A	2000	20 1	HAND DRYER - STUDENT R.R. 109	8	
9	OUTLETS - CLASSROOM 101	20 1	720	B	2000	20 1	HAND DRYER - STUDENT R.R. 110	10	
11	OUTLETS - CLASSROOM 101	20 1	900	C	2000	20 1	HAND DRYER - STUDENT R.R. 110	12	
13	OUTLETS - CLASSROOM 101	20 1	720	A	720	20 1	OUTLETS - ELEC 112	14	
15	CHARGING STAT. - CLASSROOM 101	20 1	720	B	360	20 1	OUTLETS - EXTERIOR	16	
17	OUTLETS - CLASSROOM 102	20 1	900	C	600	20 1	EXTERIOR DOORS ACCESS CONTROL	18	
19	OUTLETS - CLASSROOM 102	20 1	900	A			SPARE	20	
21	OUTLETS - CLASSROOM 102	20 1	720	B	20	1	SPARE	22	
23	CHARGING STAT. - CLASSROOM 102	20 1	720	C	20	1	SPARE	24	
25	OUTLETS - CLASSROOM 103	20 1	720	A	20	1	SPARE	26	
27	OUTLETS - CLASSROOM 103	20 1	900	B	1250	20 2	WATER HEATER WH-2	28	
29	OUTLETS - CLASSROOM 103	20 1	720	C	1250	--	----	30	
31	CHARGING STAT. - CLASSROOM 103	20 1	720	A	6607	200 3	PANEL "BL1"	32	
33	SPARE	20 1	B		5828	--	----	34	
35	SPARE	20 1	C		4686	--	----	36	
37	IRRIGATION CONTROL - SITE	20 1	180	A	4080	100 3	PANEL "BL-IT"	38	
39	OUTLETS - ROOF	20 1	1260	B	4080	--	----	40	
41	FA SPRINKLER RISER BELL *	20 1	180	C	1320	--	----	42	
LOAD SUMMARY:			Φ A 18807 VA		BUSING: 400A				
			Φ B 19278 VA		MAIN: 400A				
			Φ C 15816 VA						
CONNECTED LOAD:			53.9 kVA						
MAX CURRENT:			161 A						

PANEL "BL1" SCHEDULE										
120/208V 3Φ 4W 22KAIC INDOOR / SURFACE										
CKT. NO.	DESCRIPTION	BREAKER AMPS POLES	VA	Φ	VA	BREAKER AMPS POLES	DESCRIPTION	CKT. NO.		
1	OUTLETS - CLASSROOM 104	20 1	720	A	931	25 2	HVAC ODU/IDU-B1	2		
3	OUTLETS - CLASSROOM 104	20 1	900	B	931	--	----	4		
5	OUTLETS - CLASSROOM 104	20 1	720	C	93	15	1	EXHAUST FAN EF-B1	6	
7	CHARGING STAT. - CLASSROOM 104	20 1	720	A	1176	15 1	EXHAUST FAN EF-B2	8		
9	OUTLETS - CLASSROOM 105	20 1	720	B	37	15	1	EXHAUST FAN EF-B3	10	
11	OUTLETS - CLASSROOM 105	20 1	900	C	93	15	1	EXHAUST FAN EF-B4	12	
13	OUTLETS - CLASSROOM 105	20 1	720	A	20	1	SPARE	14		
15	CHARGING STAT. - CLASSROOM 105	20 1	720	B	20	1	SPARE	16		
17	OUTLETS - CLASSROOM 106	20 1	720	C	20	1	SPARE	18		
19	OUTLETS - CLASSROOM 106	20 1	900	A	20	1	SPARE	20		
21	OUTLETS - CLASSROOM 106	20 1	720	B	20	1	SPARE	22		
23	CHARGING STAT. - CLASSROOM 106	20 1	720	C	20	1	SPARE	24		
25	OUTLETS - CLASSROOM 107	20 1	720							

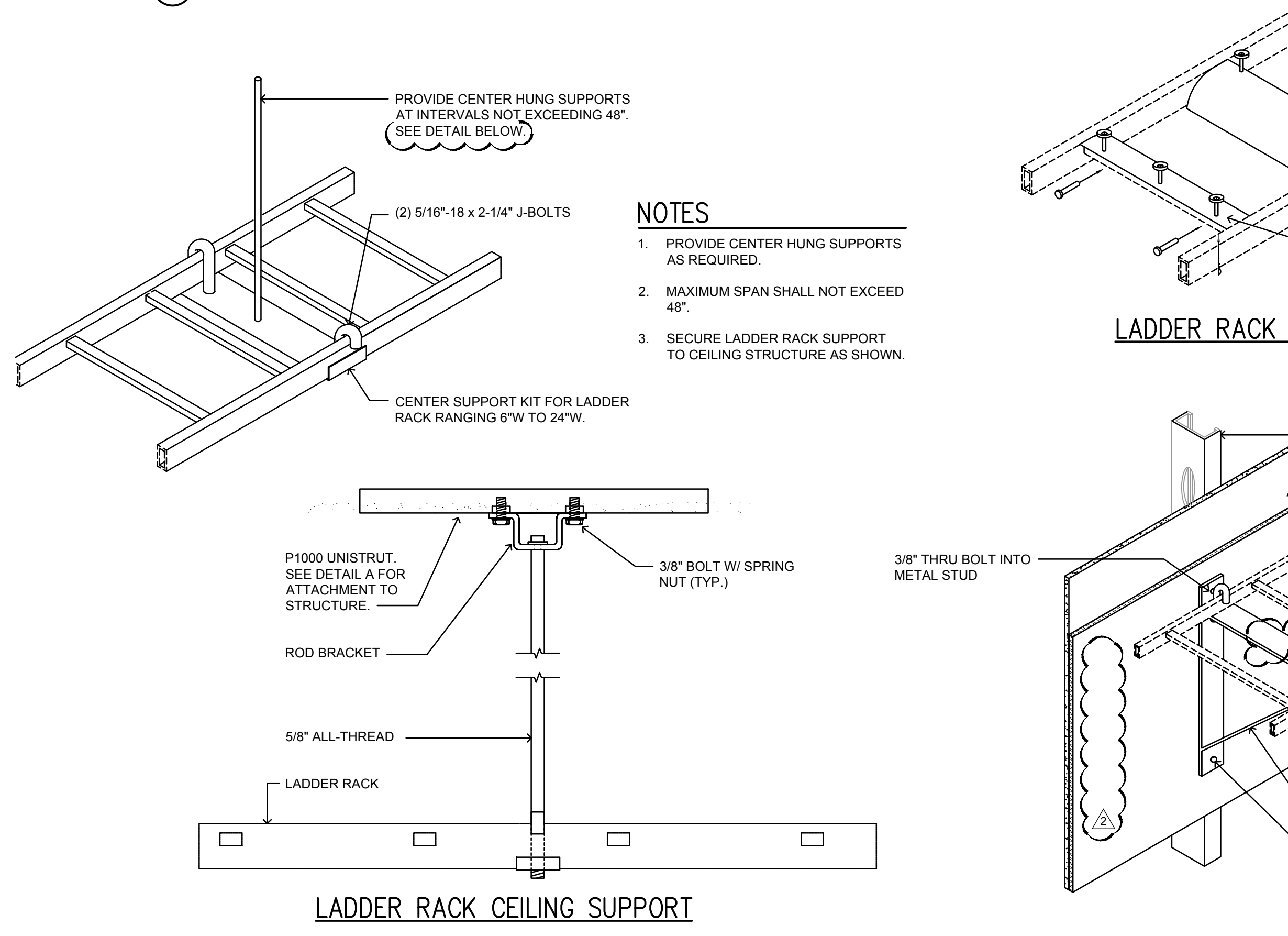
LOW VOLTAGE GENERAL SCOPE OF WORK

- THE CONTRACTOR SHALL PROVIDE A COMPLETE AND OPERATIONAL DATA AND VOICE COMMUNICATIONS LOCAL AREA NETWORK (LAN), INCLUDING MAIN AND INTERMEDIATE DATA FRAMES, SITEWIDE SINGLEMODE FIBER OPTIC CABLING, COPPER CAT5 AND CAT6 CABLING, LABELING, LADDER RACKING, CABLE MANAGEMENT, TERMINATION OF ALL CABLES, PATCH PANELS AND CABLES, COMMUNICATIONS GROUND BUS BAR AND GROUND CONNECTION, UNINTERRUPTIBLE POWER SUPPLIES, DATA AND COMMUNICATION OUTLETS, WIRELESS ACCESS POINT OUTLETS, AND TESTING AND REPORTS FOR ALL INSTALLED CABLES, NETWORK ELECTRONICS SUCH AS GATEWAYS AND SWITCHES, AND PATCH CABLES SHALL BE FURNISHED BY THE OWNER AND INSTALLED BY THE CONTRACTOR. DELIVER REPORTS TO OWNER. REFER TO SPECIFICATIONS SECTIONS 270000, 270528, 271000, AND 272010. SEE DETAIL 370.3 FOR SITE FIBER OPTIC CABLING.
- THE CONTRACTOR SHALL PROVIDE A COMPLETE AND OPERATIONAL PUBLIC ADDRESS SYSTEM, INCLUDING AMPLIFIER RACK, AMPLIFIER AND RELATED ELECTRONICS, TERMINATION BLOCKS, SITE CABLING, SPEAKER CABLING, LABELING, PROGRAMMING, TESTING, AND REPORTS. THE SYSTEM SHALL BE INTERFACED WITH THE VOIP SYSTEM TO ALLOW ANNOUNCEMENTS AND WITH OTHER AUDIO/VIDEO SYSTEMS TO OVERRIDE THOSE SYSTEMS WHEN MAKING ANNOUNCEMENTS. REFER TO SPECIFICATIONS SECTIONS 270000 AND 270000. SEE DETAIL 470.3 FOR SITE COPPER CABLING.
- THE CONTRACTOR SHALL PROVIDE A COMPLETE AND OPERATIONAL WIRELESS MASTER CLOCK SYSTEM, INCLUDING GATEWAY AND WIRELESS TRANSMITTERS, WALL CLOCKS, AND BATTERIES. REFER TO SPECIFICATIONS SECTIONS 270000 AND 275313.
- THE CONTRACTOR SHALL PROVIDE A COMPLETE VIDEO SURVEILLANCE SYSTEM, INCLUDING NETWORK VIDEO RECORDERS, INTERFACE WITH THE LAN, POWER SUPPLIES, CATEGORY CABLING AND JACKS, LABELING, IP CAMERAS, HOUSINGS, MOUNTING HARDWARE, AND AMING-FRAMING IMAGES, PROGRAMMING, TESTING, AND REPORTS. ONE NETWORK VIDEO RECORDERS AND (30) CAMERAS SHALL BE FURNISHED BY THE OWNER AND INSTALLED BY THE CONTRACTOR. SYSTEM PROGRAMMING AND CONFIGURATION SHALL BE BY THE OWNER. THE LOCATIONS OF CAMERAS TO BE INSTALLED IN THE CAMERA OUTLETS SHOWN ON DRAWINGS SHALL BE DIRECTED BY THE DISTRICT. REFER TO SPECIFICATIONS SECTIONS 270000, 271000, AND 276000.
- THE CONTRACTOR SHALL PROVIDE A COMPLETE AND OPERATIONAL MULTIPURPOSE ROOM AUDIO/VIDEO SYSTEM, TO INCLUDE EQUIPMENT RACK, POWER SEQUENCER, MIXER, AMPLIFIER, CABLING, LABELING, INPUT JACKS FOR MICROPHONE, AUDIO AND VIDEO, DATA JACKS, MICROPHONES AND ACCESSORIES, LOUDSPEAKERS, ASSISTIVE LISTENING SYSTEM WITH TRANSMITTER, ANTENNA, AND DEVICES, PROGRAMMING, TESTING, AND REPORTS. THE PROJECTOR SHALL BE FURNISHED BY THE OWNER AND INSTALLED BY THE CONTRACTOR. REFER TO SPECIFICATIONS SECTIONS 270000, 274040, AND 274220 (2.1) (B).
- THE CONTRACTOR SHALL PROVIDE A COMPLETE AND OPERATIONAL LIBRARY/MULTI-MEDIA AUDIO/VIDEO SYSTEM (EXCLUDES THE COMPUTER CLASSROOM), INCLUDING AUDIO/VIDEO INPUTS WITH HDMI AUDIO/VIDEO, VGA VIDEO, 3.5MM TRS AUDIO, AND USB, AND THE RELATED OUTPUTS LOCATED CONCEALED AT THE PROJECTOR MOUNT HOUSING, AUDIO, VIDEO, AND ACTIVE USB CABLES, DATA JACKS, WIRELESS MEDIA CONVERTER, INSTALLATION OF ALL COMPONENTS, SETUP, PROGRAMMING, TESTING, AND REPORTS. PROJECTORS, WIRELESS MEDIA CONVERTERS, AND ACTIVE USB CABLES SHALL BE FURNISHED BY THE OWNER AND INSTALLED BY THE CONTRACTOR. REFER TO SPECIFICATIONS SECTION 270000 AND 274200 (2.1) (B), (C). THE LIBRARY/MULTI-MEDIA WILL USE A CEILING MOUNT PROJECTOR INSTALLED PER 1/2.0 INSTEAD OF THE SHORT-THROW PROJECTOR LISTED IN THE SPEC.
- THE CONTRACTOR SHALL PROVIDE COMPLETE AND OPERATIONAL CLASSROOM AUDIO/VIDEO SYSTEMS, INCLUDING AUDIO/VIDEO INPUTS WITH HDMI AUDIO/VIDEO, VGA VIDEO, 3.5MM TRS AUDIO, AND USB, AND THE RELATED OUTPUTS LOCATED CONCEALED AT THE PROJECTOR MOUNT HOUSING, AUDIO, VIDEO, AND ACTIVE USB CABLES, DATA JACKS, WIRELESS MEDIA CONVERTER, INSTALLATION OF ALL COMPONENTS, SETUP, PROGRAMMING, TESTING, AND REPORTS. PROJECTORS, WIRELESS MEDIA CONVERTERS, AND ACTIVE USB CABLES SHALL BE FURNISHED BY THE OWNER AND INSTALLED BY THE CONTRACTOR. REFER TO SPECIFICATIONS SECTION 270000 AND 274200 (2.1) (A).
- THE CONTRACTOR SHALL PROVIDE A COMPLETE AND OPERATIONAL TOTAL COVERAGE FIRE ALARM SYSTEM WITH EMERGENCY VOICE/ALARM COMMUNICATIONS, TO INCLUDE CONTROL PANELS, ANNUNCIATORS, OPERATING CONSOLES, POWER SUPPLIES, AMPLIFIERS, PULL STATIONS, SMOKE AND HEAT DETECTION DEVICES, ADDRESSABLE INPUT AND OUTPUT MODULES, SPEAKER STROBES, SPEAKERS, NFPA STYLE 7 NETWORK WITH DEDICATED 8-STRAND SINGLE MODE FIBER OPTIC CABLING, LOCAL COPPER CABLING, LABELING, PROGRAMMING, TESTING, AND REPORTS. DELIVER REPORTS TO OWNER FOR REVIEW. REFER TO SECTION 283100.
- THE CONTRACTOR SHALL PROVIDE COMPLETE AND OPERATIONAL TELEVISION AUDIO/VIDEO SYSTEMS, INCLUDING AUDIO/VIDEO INPUTS WITH HDMI AUDIO/VIDEO AND THE RELATED OUTPUTS LOCATED CONCEALED BEHIND THE TELEVISION, AUDIO/VIDEO CABLES, DATA JACKS, WIRELESS MEDIA CONVERTER, INSTALLATION OF ALL COMPONENTS, SETUP, PROGRAMMING, TESTING, AND REPORTS. TELEVISIONS, MOUNTING BRACKETS, AND WIRELESS MEDIA CONVERTERS SHALL BE FURNISHED BY THE OWNER AND INSTALLED BY THE CONTRACTOR.

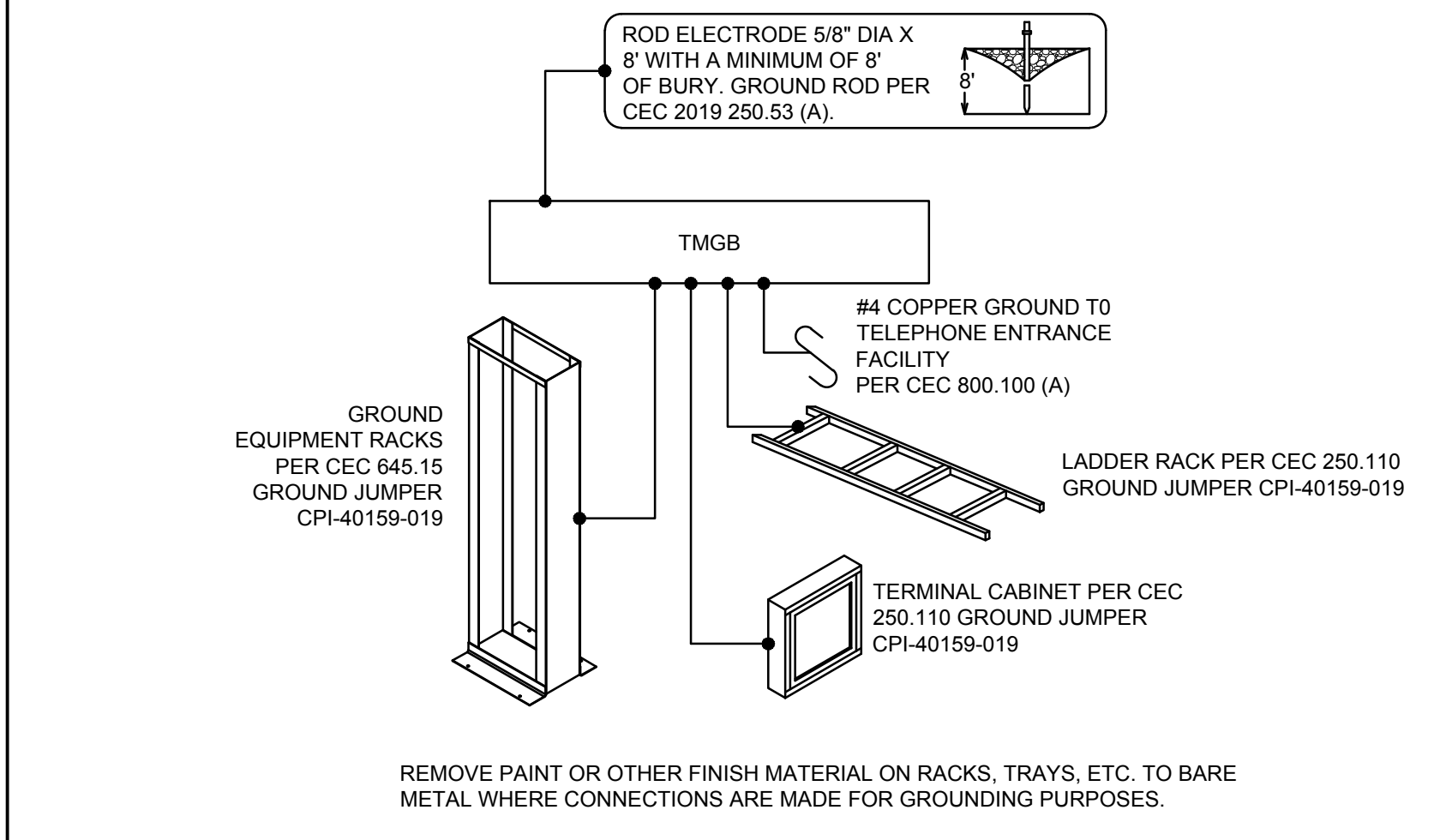
- | PLYWOOD INSTALLATION NOTES: | LADDER RACK NOTES: | GROUNDING NOTES: |
|---|--|---|
| <ol style="list-style-type: none"> INSTALL 3/4" FIRE RESISTANT PAINTED PLYWOOD BACKBOARD AT INTERIOR OF ROOM WHERE SHOWN. SECURE PLYWOOD TO WOOD METAL STUDS WITH #10 x 3" COUNTERSUNK SMS AT 8" CENTERS. | <ol style="list-style-type: none"> THE MAXIMUM CABLE WEIGHT FOR THIS SYSTEM SHALL NOT EXCEED 50 POUNDS PER LINEAR FOOT. THE COMBINED WEIGHT OF THE CABLE AND LADDER RACK SYSTEM SHALL NOT EXCEED 75 POUNDS PER LINEAR FOOT. CONTRACTOR TO PROVIDE SYSTEM THAT DOES NOT REQUIRE SEISMIC BRACING OR DEFERRED APPROVAL FOR THE SELECTED SYSTEM REQUIREMENTS. | <ol style="list-style-type: none"> BOND ALL LADDER RACK SECTIONS AND RACKS TOGETHER AND TO TMGB. REMOVE PAINT FROM COMPONENTS PRIOR TO ATTACHING GROUND LUGS. |



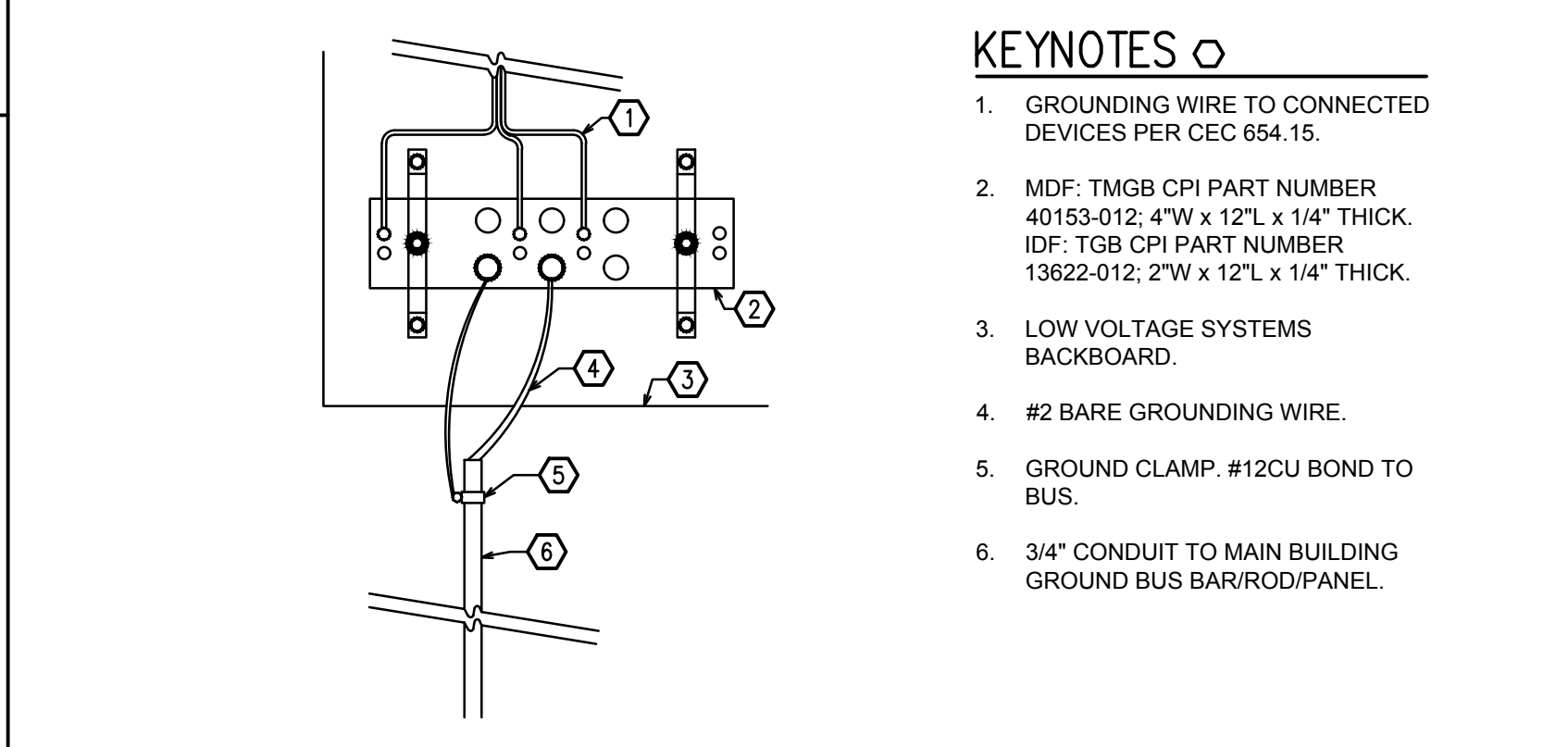
UNISTRUT ATTACHMENT TO STRUCTURE



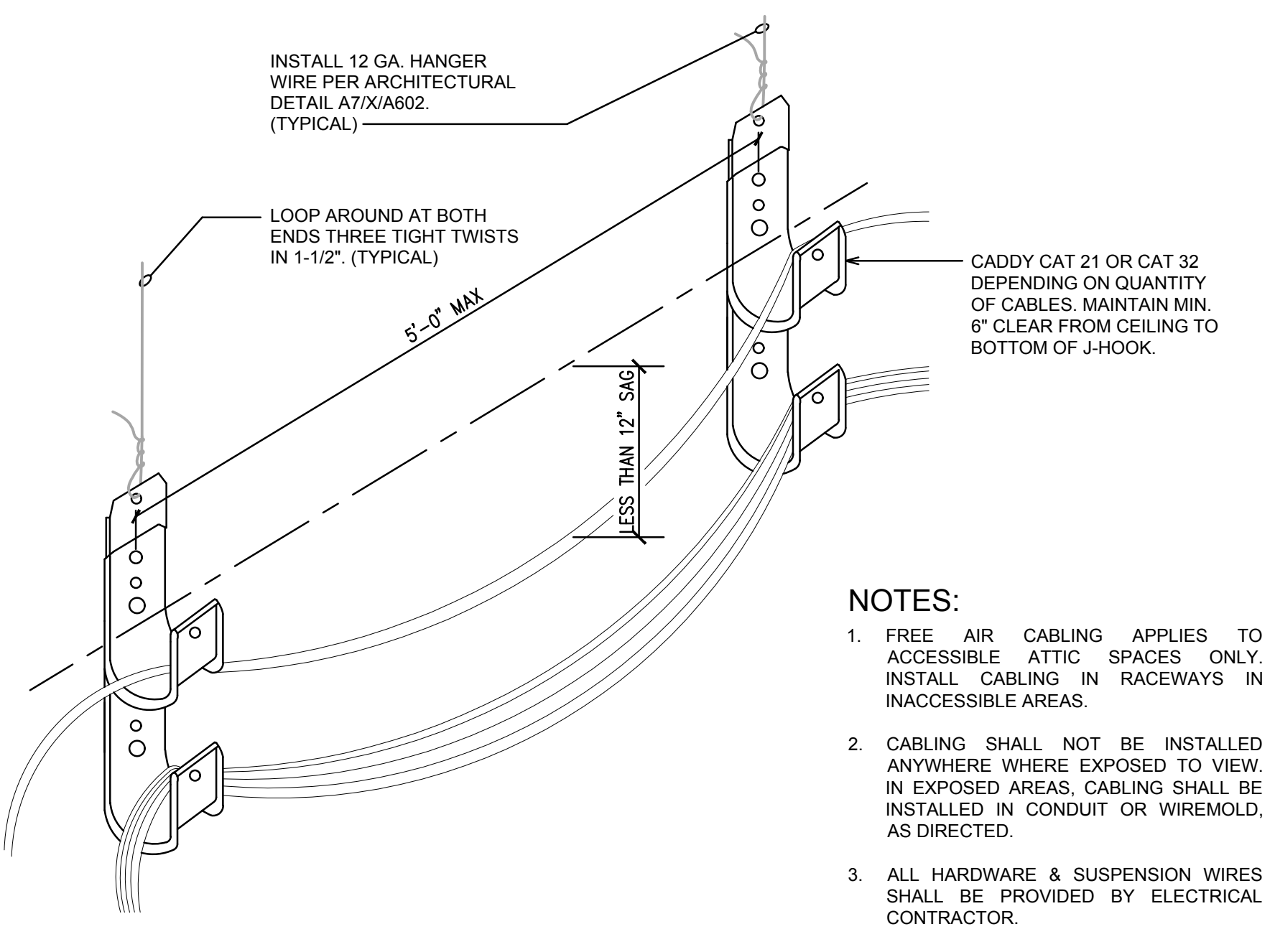
A1 Ladder Rack Installation Detail



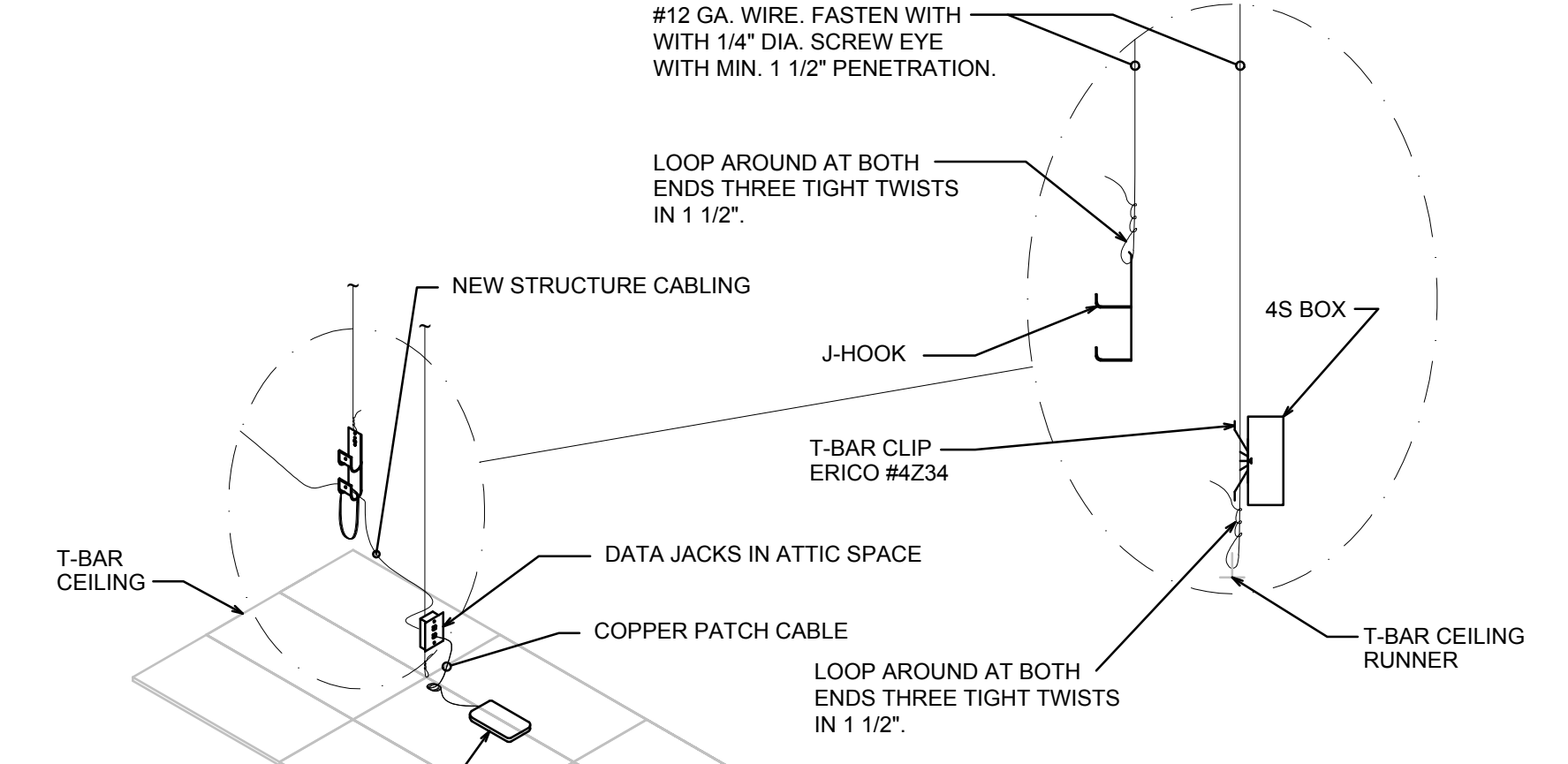
N8 Telecom Main Grounding Bus (TMGB) Building Grounding Detail



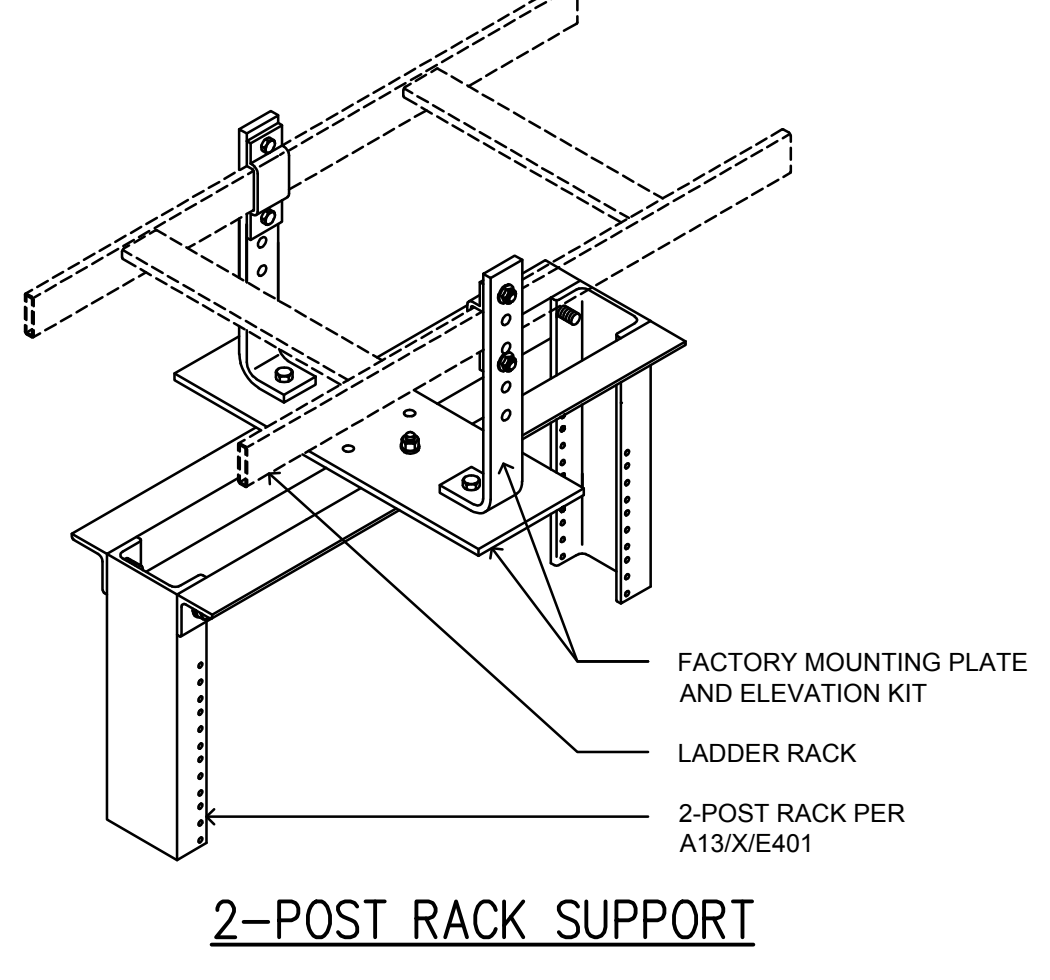
J8 Telecom Main Grounding Bus (TMGB) Installation Detail



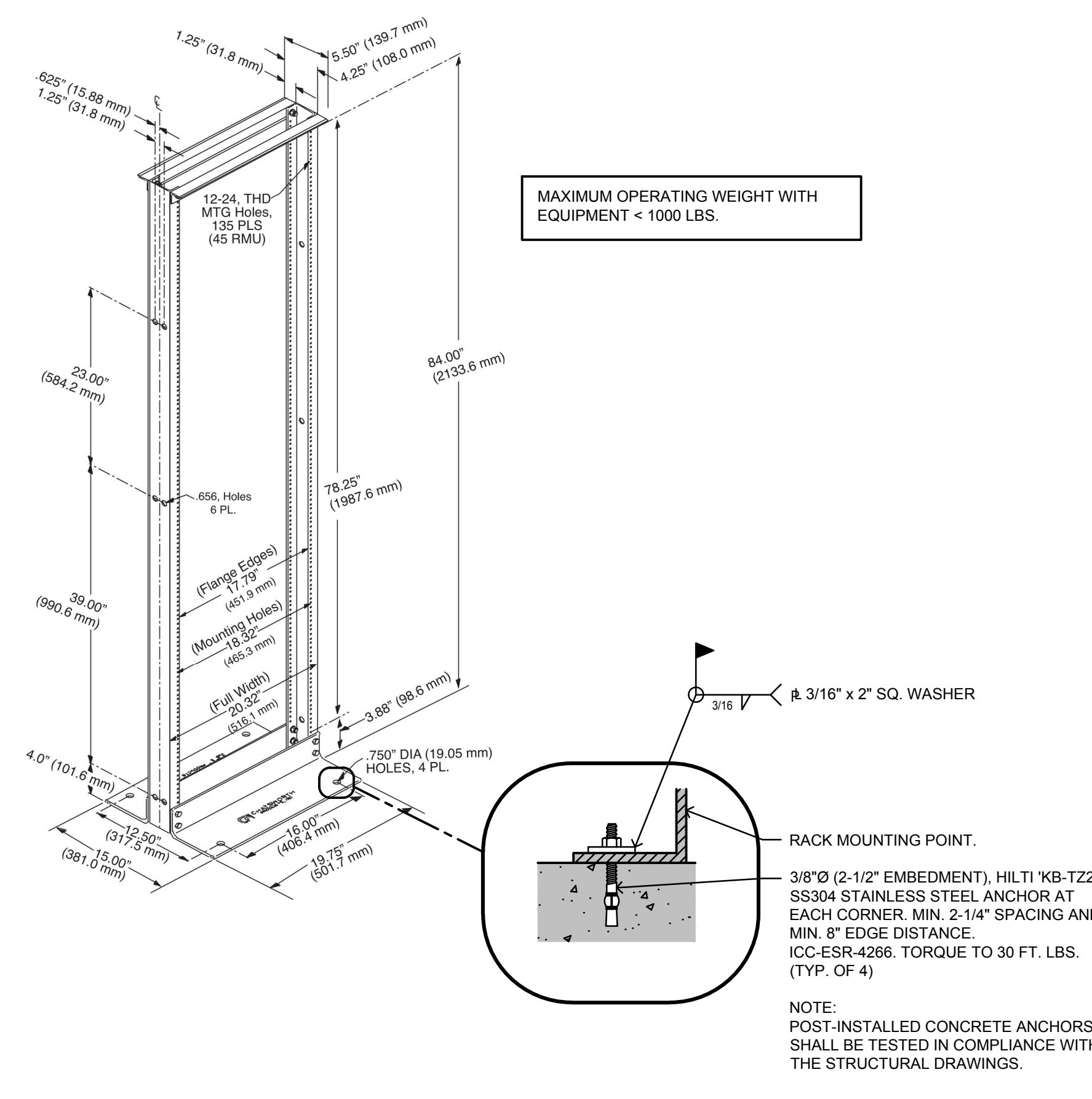
M13 J-Hook Cabling Support Detail



G13 Wireless Access Point Data Jacks Detail



2-POST RACK SUPPORT



A13 2-Post Rack Mounting Detail

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- NOTES:**
- FREE AIR CABLING APPLIES TO ACCESSIBLE ATTIC SPACES ONLY. INSTALL CABLING IN RACEWAYS IN INACCESSIBLE AREAS.
 - CABLING SHALL NOT BE INSTALLED ANYWHERE WHERE EXPOSED TO VIEW IN EXPOSED AREAS. CABLING SHALL BE INSTALLED IN CONDUIT OR WIREMOLD, AS DIRECTED.
 - ALL HARDWARE & SUSPENSION WIRES SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR.
 - THIS APPLIES TO ALL LOW VOLTAGE CABLING, INCLUDING FIRE ALARM.

General Notes

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Project

Low Voltage Systems
Details and Diagrams

Drawing

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2	Addendum 2- Electrical Rebid	03/22/23

Revision

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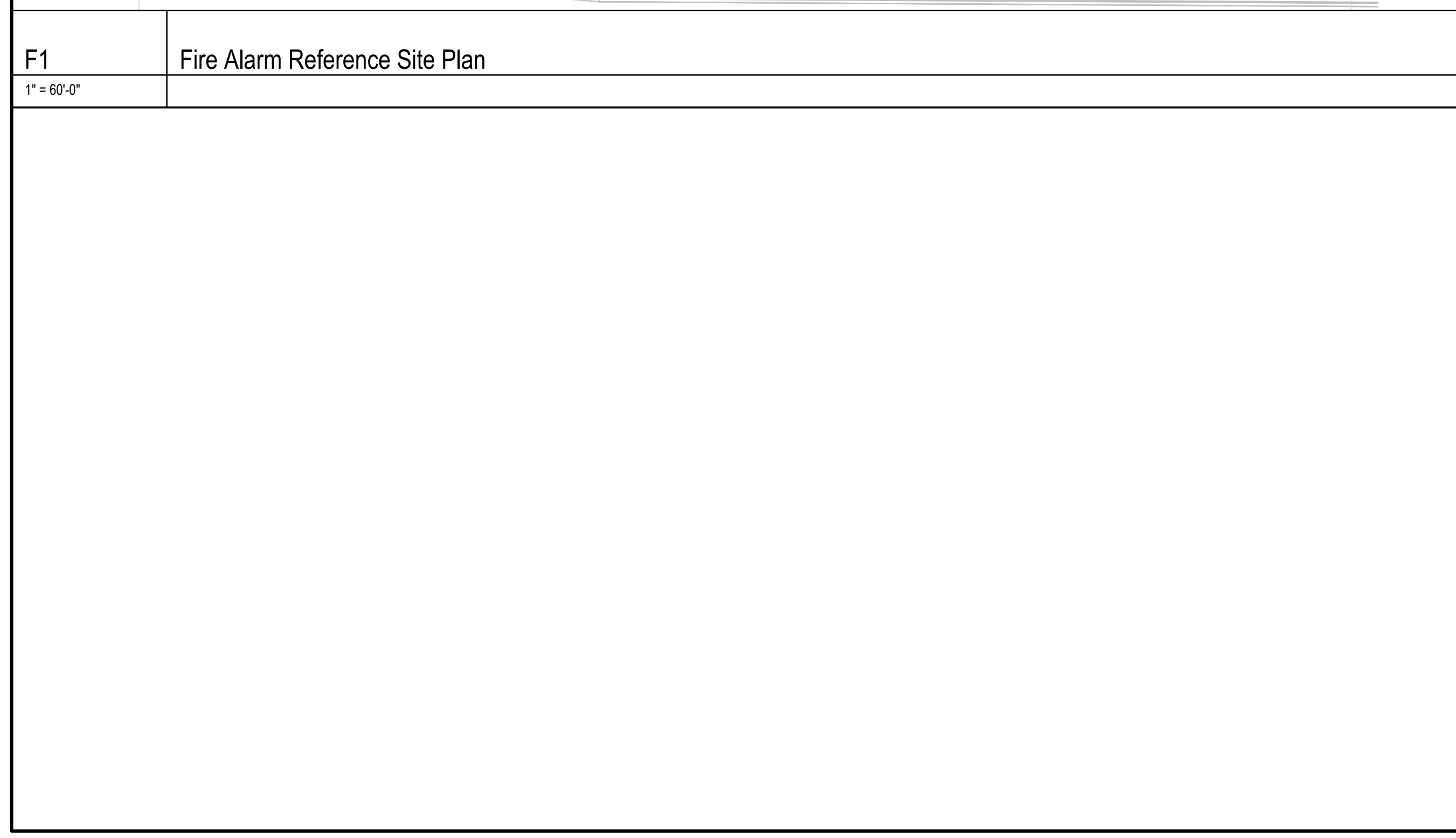
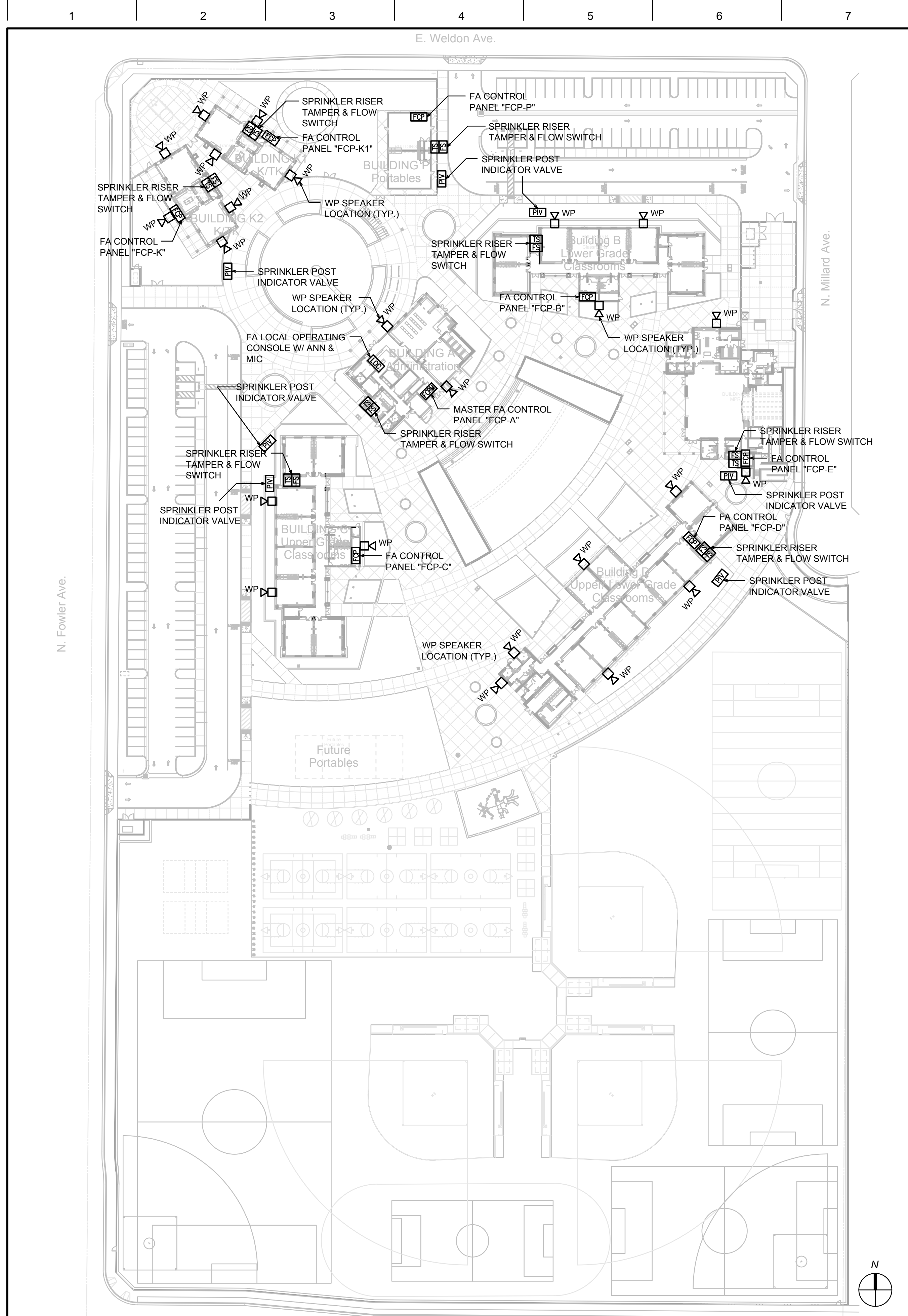
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Date: 09/19/2022 Reviewed By: SD

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FIRE ALARM GENERAL NOTES

- FIRE ALARM SYSTEM: ADDRESSABLE, CLASS B, AUTOMATIC WITH EMERGENCY VOICE/ALARM COMMUNICATION (EVAC).
- ALL WORK SHALL CONFORM TO THE 2016 EDITION OF NFPA 72, AND THE 2019 EDITION OF CBC, CEC, AND CFC.
- INSTALLATION OF THE FIRE ALARM SYSTEM (FAS) SHALL NOT BE STARTED UNTIL DETAILED DESIGN DOCUMENTS AND SPECIFICATIONS, INCLUDING STATE FIRE MARSHAL LISTING NUMBERS FOR EACH COMPONENT OF THE SYSTEM HAS BEEN APPROVED BY DSA.
- UPON COMPLETION OF THE INSTALLATION OF THE FIRE ALARM SYSTEM, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF A DSA PROJECT INSPECTOR. (THE LOCAL FIRE AUTHORITY MAY WITNESS THE TEST).
- A STAMPED SET OF APPROVED FIRE ALARM DESIGN DOCUMENTS SHALL BE ON THE JOB SITE AND USED FOR THE INSTALLATION.
- ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE CODE OR RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF DSA AND THE ARCHITECT/ENGINEER OF THE PROJECT.
- DSA, ARCHITECT/ENGINEER AND OWNER SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO THE FINAL INSPECTION AND/OR TESTING.
- ALL PENETRATIONS THROUGH RATED ASSEMBLIES REQUIRING OPENING PROTECTION SHALL BE PROVIDED WITH A PENETRATION FIRE STOP SYSTEM AS IDENTIFIED IN CBC CHAPTER 7, UL OR OTHER LAB TESTING CRITERIA. APPROVED TYPE OF MATERIALS SHALL BE IDENTIFIED WITHIN THE SPECIFICATION WITHIN THE FIRE ALARM SECTION.
- MICROPHONE ASSOCIATED WITH EMERGENCY VOICE ALARM COMMUNICATION SYSTEMS (EVAC) SHALL BE ACCESSIBLE FOR USE, INSTALLED IN COMPLIANCE WITH CBC SECTIONS 11B-305 AND 11B-308.
- WALL MOUNTED VISUAL NOTIFICATION DEVICES SHALL HAVE THEIR ENTIRE LENS WITHIN AT 80" MINIMUM AND 96" MAXIMUM FROM FINISHED FLOOR.
- WALL MOUNTED AUDIBLE NOTIFICATION DEVICES SHALL HAVE THEIR TOPS MOUNTED AT 90" MINIMUM AND 100" MAXIMUM FROM FINISHED FLOOR AND NO CLOSER THAN 6" TO A HORIZONTAL STRUCTURE.
- AUDIBLE DEVICES SHALL PROVIDE A SOUND PRESSURE LEVEL OF 15 DECIBELS (dBA) ABOVE THE AVERAGE AMBIENT SOUND LEVEL OR 5 dBA ABOVE THE MAXIMUM SOUND LEVEL HAVING A DURATION OF AT LEAST 60 SECONDS, WHICHEVER IS GREATER, IN EVERY SPACE WITHIN A BUILDING THAT MAY BE OCCUPIED AND BE INTELLIGIBLE.
- AUDIBLE DEVICES SHALL BE SYNCHRONIZED TEMPORAL CODE 3 PATTERN, PRIOR TO "EVAC" ANNOUNCEMENT. THE CARBON MONOXIDE SIGNAL SHALL SOUND A FOUR-PULSE TEMPORAL PATTERN PER NFPA 720, 5.8.6.5.1.
- THE CONTRACTOR SHALL ADJUST/INSTALL ALL DEVICES TO MAXIMIZE PERFORMANCE AND TO MINIMIZE FALSE ALARMS.
- VISUAL DEVICES SHALL NOT EXCEED 2 FLASHES PER SECOND AND SHALL NOT BE SLOWER THAN 1 FLASH PER SECOND. THE DEVICE SHALL HAVE A PULSING LIGHT SOURCE NOT LESS THAN 15 CANDELA. VISUAL DEVICES WITHIN 55' FROM EACH OTHER SHALL BE SYNCHRONIZED.
- UNDERGROUND AND EXTERIOR CONDUITS SHALL HAVE WATERTIGHT FITTINGS AND WIRE APPROVED FOR WET LOCATIONS.
- ALL FIRE ALARM WIRING SHALL BE FLP OR FPLP (FIRE POWER LIMITED OR FIRE POWER LIMITED PLENUM) AS REQUIRED FOR APPLICATION. WIRING IN CONDUIT ABOVE GROUND MAY BE THHN OR THWN.
- PER CEC STANDARDS, ALL WIRING SHALL BE PULLED THROUGH EACH JUNCTION BOX AND CONNECTED DIRECTLY TO EACH FIRE DEVICE. DO NOT SPLICE WIRE. ANY CONNECTION SHALL BE BY LUG CONNECTION AT A DEVICE OR AT A FATC TERMINAL BLOCK ONLY. ALL BOXES TO BE SIZED PER CEC.
- SMOKE DETECTORS SHALL NOT BE CLOSER THAN 12" FROM FIRE SPRINKLERS NOR 36" FROM SUPPLY AIR DIFFUSERS. IN AREA OF CONSTRUCTION OR POSSIBLE DAMAGE/CONTAMINATION, NEWLY INSTALLED FIRE ALARM DEVICES SHALL BE COVERED UNTIL THAT AREA IS READY TO BE TURNED OVER TO THE OWNER.
- ALL FIRE ALARM CIRCUITS SHALL BE IN CONDUIT, SURFACE RACEWAY, OR OPEN RUN ABOVE CEILING, UNDER FLOORS, AND IN WALLS IN A NEAT AND PROTECTED MANNER AS INDICATED ON DESIGN DOCUMENTS. EXPOSED CIRCUITS ARE ONLY PERMITTED WHEN NOTED AS EXPOSED ON DESIGN DOCUMENTS. OWNER STANDARDS MAY BE MORE STRINGENT.
- FIRE ALARM PANEL, REMOTES, AND COMPONENTS SHALL BE SECURED TO MOUNTING SURFACES PER MANUFACTURERS' SPECIFICATIONS. ANY SINGLE DEVICE SHALL NOT EXCEED THE WEIGHT OF 20 LBS. WITHOUT SPECIAL MOUNTING DETAILS.
- A DEDICATED BRANCH CIRCUIT SHALL BE PROVIDED FOR FIRE ALARM EQUIPMENT. THIS CIRCUIT SHALL BE ENERGIZED FROM THE COMMON USE AREA PANEL AND SHALL HAVE NO OTHER OUTLETS. THE BREAKER SHALL HAVE A LOCKING DEVICE WITH RED MARKING PER NFPA 72, SECTION 10.6.5.4 AND 10.6.5.2.3 TO BLOCK THE HANDLE IN THE "ON" POSITION. THE CIRCUIT BREAKER SHALL BE LABELED "FIRE ALARM CIRCUIT CONTROL". CIRCUIT ID TO BE LABELED AT THE FIRE PANEL/EXTENDERS.
- THE INSTALLING CONTRACTOR SHALL PROVIDE A RECORD OF COMPLETION IN COMPLIANCE WITH NFPA 72, SECTION 7.5.6.
- CONTROL PANELS AND REMOTE ANNUNCIATORS SHALL BE INSTALLED WITH THEIR BOTTOMS MOUNTED AT 48".
- THE INSTALLING CONTRACTOR SHALL PROVIDE SYSTEM PROGRAMMING FOR SUPERVISORY MONITORING PER CBC 901.6.2.
- SUPERVISORY MONITORING SHALL BE TESTED AND VERIFIED AS SENDING CORRECT SIGNALS IN CONJUNCTIONS WITH FINAL TEST. FIRE ALARM SYSTEMS SHALL TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION IN ACCORDANCE WITH NFPA 72. THE SUPERVISING STATIONS SHALL BE LISTED AS EITHER ULFX (CENTRAL STATION) OR ULIS (REMOTE AND PROPRIETARY) BY UNDERWRITERS LABORATORY (UL) OR SHALL COMPLY WITH THE REQUIREMENTS OF STANDARD FM 3011. A COPY OF ALL DEVICES REPORTED TO THE CENTRAL STATION SHALL BE PROVIDED TO THE OWNER'S ELECTRONICS DEPARTMENT.
- OWNER SHALL BE RESPONSIBLE FOR ESTABLISHING A FIRE SYSTEM MONITORING CONTRACT OR PROVISIONS.
- ALL WIRING IS SHOWN DIAGRAMMATICALLY. SUBJECT TO DSA APPROVAL, CONTRACTOR MAY VARY SEQUENCE OF CIRCUITRY; HOWEVER, ALL CIRCUITS SHALL BE CONTINUOUS AND SUPERVISED.
- ALL CONNECTIONS SHALL BE PROPERLY LABELED BY CONDUCTOR AND SHALL HAVE STA-KON LUG CONNECTORS. PANDUIT TAG (THE WRAP) SEPARATELY.
- FIRE ALARM TERMINAL CABINETS SHALL HAVE SUFFICIENT SPACE, TERMINAL BOARDS AND SCREW TERMINAL CONNECTORS TO ALLOW CONNECTION OF ALL CONDUCTORS SHOWN. PROVIDE BARRIER TO SEPARATE FIRE ALARM SYSTEM WHEN TERMINAL CABINET IS SHARED WITH NON-FIRE ALARM SYSTEMS. CONTRACTOR SHALL BE REQUIRED TO SUBMIT WITH HIS OTHER SHOP DRAWINGS DETAILED DRAWINGS OF HIS PROPOSED CONNECTIONS AT EACH FIRE ALARM TERMINAL CABINET PRIOR TO COMMENCING ANY WORK.
- ALL NAC CIRCUIT CONDUCTORS SHALL BE #12 AWG, STRANDED (19 STRANDS OR LESS) COPPER, UNLESS OTHERWISE NOTED.
- SET END-OF-LINE RESISTORS IN DISTRIBUTION TERMINAL CABINETS.
- BATTERIES SHALL BE STAMPED WITH DATE OF MANUFACTURE.
- INSTALLATION OF FAS EQUIPMENT SHALL BE BY AN AUTHORIZED ENGINEERED SYSTEM DISTRIBUTOR FOR THE EQUIPMENT SPECIFIED BY THE MANUFACTURER FOR SALES, SERVICE, INSTALLATION AND MAINTENANCE. PROVIDE CERTIFICATIONS WITH EQUIPMENT SUBMITTALS. SUBMITTALS BY FIRMS NOT FULFILLING THIS REQUIREMENT WILL BE AUTOMATICALLY REJECTED.
- THE FAS INSTALLER SHALL BE NICET LEVEL 2 CERTIFIED.
- THE FAS INSTALLER SHALL PROVIDE ALL FACTORY WARRANTIES TO THE OWNER AT THE CLOSE UP OF THE PROJECT.
- THE FAS INSTALLER SHALL PROVIDE WRITTEN CERTIFICATION USING NFPA 72 INSPECTION AND TESTING FORMS AND SHALL CERTIFY THAT THE INSTALLATION, TESTING, AND OPERATION CONFORM IN ALL RESPECTS TO THE REQUIREMENTS AS SET FORTH IN TITLE 19 OF THE CALIFORNIA CODE OF REGULATIONS AND PART 3, ARTICLE 790 OF TITLE 24 OF THE C.C.R. AND C.B.C. SECTION 907. THE CONTRACTOR SHALL SUBMIT THE COMPLETED FAS CERTIFICATION AND DESCRIPTION FORM TO DIVISION OF STATE ARCHITECT.
- INCLUDE ALL DEMOLITION OF EXISTING FIRE ALARM SYSTEM WHETHER SPECIFICALLY SHOWN OR NOT. REMOVE ALL CABLING & UNUSED EXPOSED RACEWAY & OUTLETS. BLANK OFF ALL UNUSED WALL & HARD CEILING OUTLETS. REMOVE ALL UNUSED OUTLETS IN TEE-BAR CEILING & REPLACE ACOUSTIC TILES. RETURN ALL DEVICES, APPLIANCES, & CONTROL PANELS TO OWNER IF REQUESTED BY OWNER DURING CONSTRUCTION.
- WHEN FIRE ALARM WORK WILL DISABLE PORTIONS OF THE EXISTING FAS, PROVIDE ALL REQUIRED OVERTIME AND FIRE WATCH IN SCOPE OF WORK.
- WHERE FIRE ALARM DEVICES ARE BEING INSTALLED IN OTHERWISE INACCESSIBLE AREAS, PROVIDE AN ALLOWANCE FOR THE INSTALLATION OF ACCESS PANELS AND ALL WORK ASSOCIATED WITH THE INSTALLATION. THE CONTRACTOR SHALL CUT ALL THE OPENINGS. THE SIZE OF THE ACCESS PANEL SHALL BE DETERMINED BY THE MAN ACCESS REQUIREMENTS. PROVIDE PAINT GRADE ACCESS DOORS AND PAINT TO MATCH THE COLOR & SHEEN OF THE EXISTING CEILING.
- FIRE ALARM SYSTEM INSPECTION, TESTING, AND MAINTENANCE SHALL COMPLY WITH NFPA 72, CHAPTER 14.
- PROVIDE FIRE ALARM RECORD DOCUMENTS CABINET NFPA 72, 7.7.2
 - EVERY NEW FIRE ALARM SYSTEM SHALL PROVIDE A DOCUMENTATION CABINET, INSTALLED AT THE SYSTEM CONTROL PANEL OR OTHER APPROVED LOCATION.
 - THE DOCUMENTATION CABINET SHALL BE PROMINENTLY LABELED "FIRE ALARM SYSTEM RECORD DOCUMENTS".
 - ALL RECORD AND TESTING DOCUMENTATION SHALL BE STORED IN THE CABINET.
 - CONTENTS SHALL BE ACCESSIBLE BY AUTHORIZED PERSONNEL ONLY.
 - WHERE CABINET IS INSTALLED IN A LOCATION OTHER THAN THE SYSTEM CONTROL UNIT, ITS LOCATION SHALL BE IDENTIFIED AT THE SYSTEM CONTROL UNIT.
 - PROVIDE SYSTEM DOCUMENTS AS APPLICABLE:
 - RECORD DRAWINGS/AS-BUILTS
 - EQUIPMENT CUT SHEETS & CSA SFM LISTINGS
 - ALTERNATIVE MEANS AND METHODS
 - PERFORMANCE BASED DESIGN DOCUMENTATION (NFPA 72, 7.3.7)
 - SYSTEM RECORD OF COMPLETION & ANY SUPPLEMENTAL INSPECTION AND TESTING DOCUMENTATION (NFPA 72, 7.8.2)
 - EMERGENCY RESPONSE PLAN (NFPA 72, 7.3.8)
 - EVALUATION DOCUMENTATION (NFPA 72, 7.3.9)
 - RISK ANALYSIS DOCUMENTATION (NFPA 72, 7.3.6)
 - SOFTWARE & FIRMWARE CONTROL DOCUMENTATION (NFPA 72, 23.2.2)

FIRE ALARM CABLING INSTALLATION NOTES

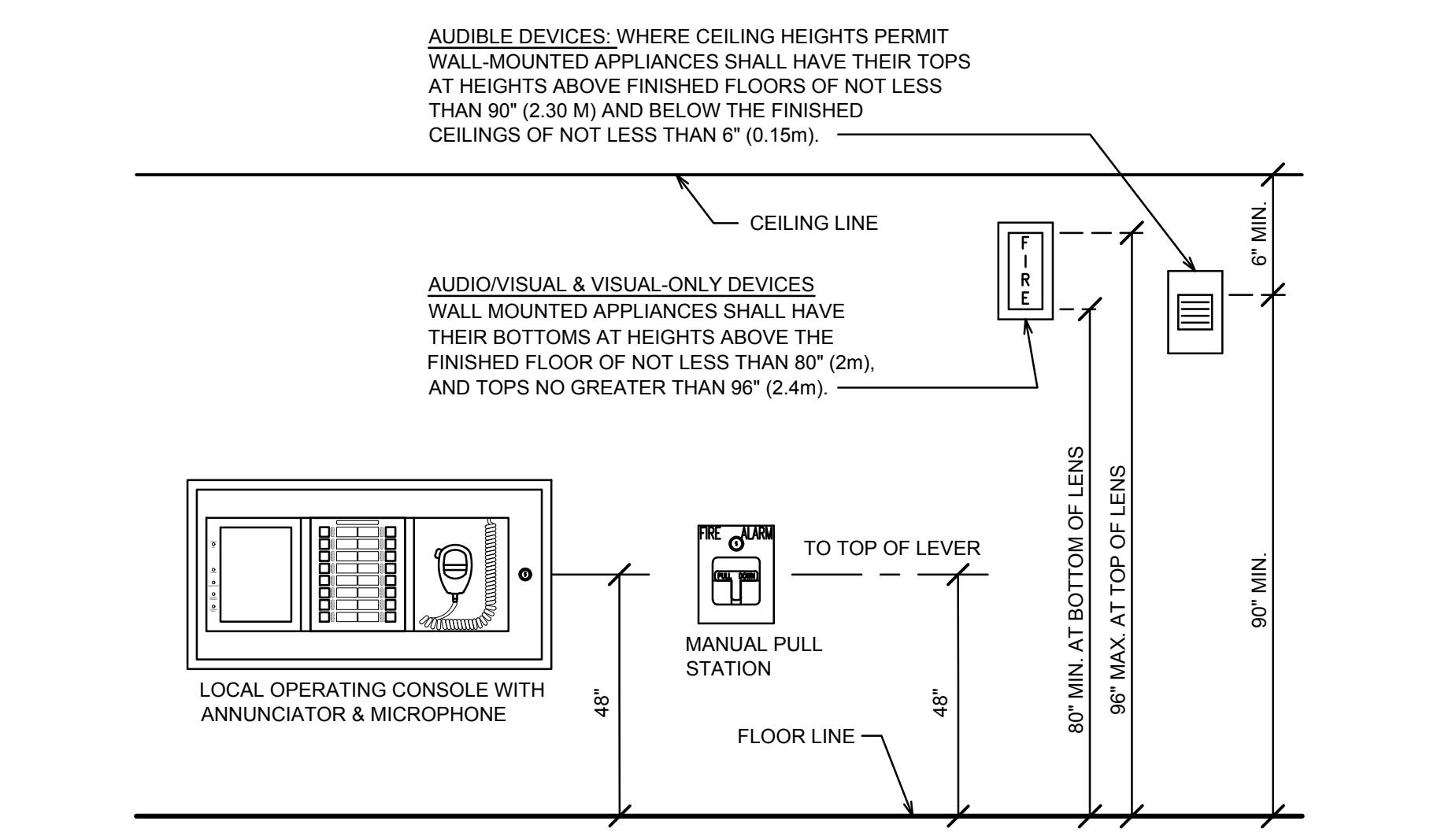
- FIRE ALARM CABLING SHALL BE INSTALLED IN A RACEWAY SYSTEM, EXCEPT AS NOTED BELOW.
- IT SHALL BE ACCEPTABLE TO INSTALL FIRE ALARM CABLING FOR SLC, NAC, EVAC, AND FA NETWORK OPEN AIR IN ATTIC SPACES ABOVE TEE-BAR CEILING. FIRE ALARM CABLING SHALL BE INSTALLED ON DEDICATED J-HOOKS, SEPARATE FROM OTHER SYSTEMS, PER DETAIL M13X/E401.
- WHEREVER A HARD LID CEILING SYSTEM IS PRESENT, THE FIRE ALARM CABLING SHALL BE INSTALLED IN CONDUIT IN THE ATTIC SPACE ABOVE THE CEILING.
- FA FIBER OPTIC NETWORK CABLING SHALL BE RUN DIRECTLY FROM FCP NODE TO FCP NODE (NOT PATCHED IN FROM MDF/IDF) IN A STYLE 7 CONFIGURATION WITH ARMORED, 8-STR SINGLEMODE FIBER OPTIC CABLE. PROVIDE A 1/2" CONDUIT STUB FROM THE TOP OF EACH CONTROL PANEL TO THE HORIZONTAL LADDER RACK ABOVE FOR BRINGING THE FO CABLE INTO THE CABINET. TERMINATE ALL STRANDS SUCH THAT THEY ARE READY TO USE.

FIRE ALARM SYMBOL SCHEDULE

SYMBOL	DESCRIPTION	EQUIPMENT	CSFM
100A	MASTER FIRE ALARM CONTROL PANEL W/ EMERGENCY VOICE/ALARM COMMUNICATION	GAMEWELL-FCI E3 SERIES, FOCAL POINT INTEGRATED, W/ ILMB-E3, RPT-E3-UTP, FSL-E3, ASM-16, INI-VGC, PM-9, LCD-E3, AM-50-70, DACT-E3, TELULAR "TELGUARD" TG-7FS INTERNET/5G COMMUNICATOR	7165-1703-0125 7300-1402-0504
100B	LOCAL OPERATING CONSOLE W/ ANNUNCIATOR & PAGING MICROPHONE	GAMEWELL-FCI E3-LOC W/ NGA, ASM-16, INI-VGC, INCC-MIC	7165-1703-0125
100C	NETWORK FIRE ALARM CONTROL PANEL W/ EMERGENCY VOICE/ALARM COMMUNICATION	GAMEWELL-FCI E3 SERIES W/ ILMB-E3, RPT-E3-UTP, FSL-E3, INI-VGC, PM-9, LCD-E3, AM-50-70	7165-1703-0125
100D	SMOKE DETECTOR, PHOTOELECTRIC DETECTOR BASE	GAMEWELL-FCI #ASD-PL2F GAMEWELL-FCI #B501	7272-1703-0121 7300-1653-0109
100E	HEAT DETECTOR DETECTOR BASE	GAMEWELL-FCI #ATD-L2F GAMEWELL-FCI #B501	7270-1703-0115 7300-1653-0109
100F	SINDER/CARBON-MONOXIDE DETECTOR SOUNDER BASE	GAMEWELL-FCI #MCS-COF GAMEWELL-FCI #B200S	7275-1703-0175 7135-1653-0213
100G	PULL STATION	GAMEWELL-FCI #MS-7	7150-1703-0109
100H	MONITOR MODULE	GAMEWELL-FCI #MM-2F	7300-1703-0102
100I	RELAY MODULE	GAMEWELL-FCI #AM-2SF	7300-1703-0102
100J	VISIBLE NAC DEVICE, CEILING MTD (as INDICATED ON PLANS)	EATON/WHEELLOCK #ELSTWC	7135-0785-0504
100K	SPEAKER/VISIBLE NAC DEVICE, CEILING MTD (WATTS & as INDICATED ON PLANS)	EATON/WHEELLOCK #ELSPSTWC	7320-0785-0505
100L	SPEAKER/VISIBLE NAC DEVICE, WALL MTD (WATTS & as INDICATED ON PLANS)	EATON/WHEELLOCK #ELSPSTR	7320-0785-0505
100M	EXTERIOR SPEAKER, WP, WALL MTD (WATTS INDICATED ON PLANS)	EATON/WHEELLOCK #ET-1010-R	7320-0785-0105
100N	SPRINKLER POST INDICATOR VALVE	SPECIFIED BY FIRE PROTECTION ENG.	
100O	SPRINKLER RISER TAMPER SWITCH	SPECIFIED BY FIRE PROTECTION ENG.	
100P	SPRINKLER RISER FLOW SWITCH	SPECIFIED BY FIRE PROTECTION ENG.	
100Q	SPRINKLER RISER BELL	SPECIFIED BY FIRE PROTECTION ENG.	

ACTION	INITIATION CONDITION	FIRE SPRINKLER TAMPER SWITCH, POST INDICATOR VALVE	CARBON-MONOXIDE (CO) DETECTOR END OF LIFE	CARBON-MONOXIDE (CO) DETECTOR ALARM	SMOKE, HEAT, OR DUCT DETECTOR, FIRE SPRINKLER FLOW SWITCH	POWER LOSS, SHORT CIRCUIT, GROUND FAULT
ANNUNCIATE TROUBLE						
ANNUNCIATE ALARM						
ANNUNCIATE CO ALARM						
ANNUNCIATE SUPERVISORY						
INITIATE NOTIFICATION APPLICANCES						
INITIATE EVAC APPLICANCES						
TRANSMIT TO CENTRAL STATION						
CLOSE FIRE/SMOKE DAMPER						
SHUT DOWN HVAC UNITS						
DOOR RELEASE						
ACCESS CONTROL OVERRIDE						

F13	Fire Alarm Sequence of Operations Matrix
No Scale	



A13	Fire Alarm Wall Mounted Devices Elevation
No Scale	

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General Notes

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 Fresno, CA 93727

Project

Fire Alarm System
 Symbols, Site Plan, Notes, and Details

Drawing

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2	Addendum 2- Electrical Rebid	03/22/23

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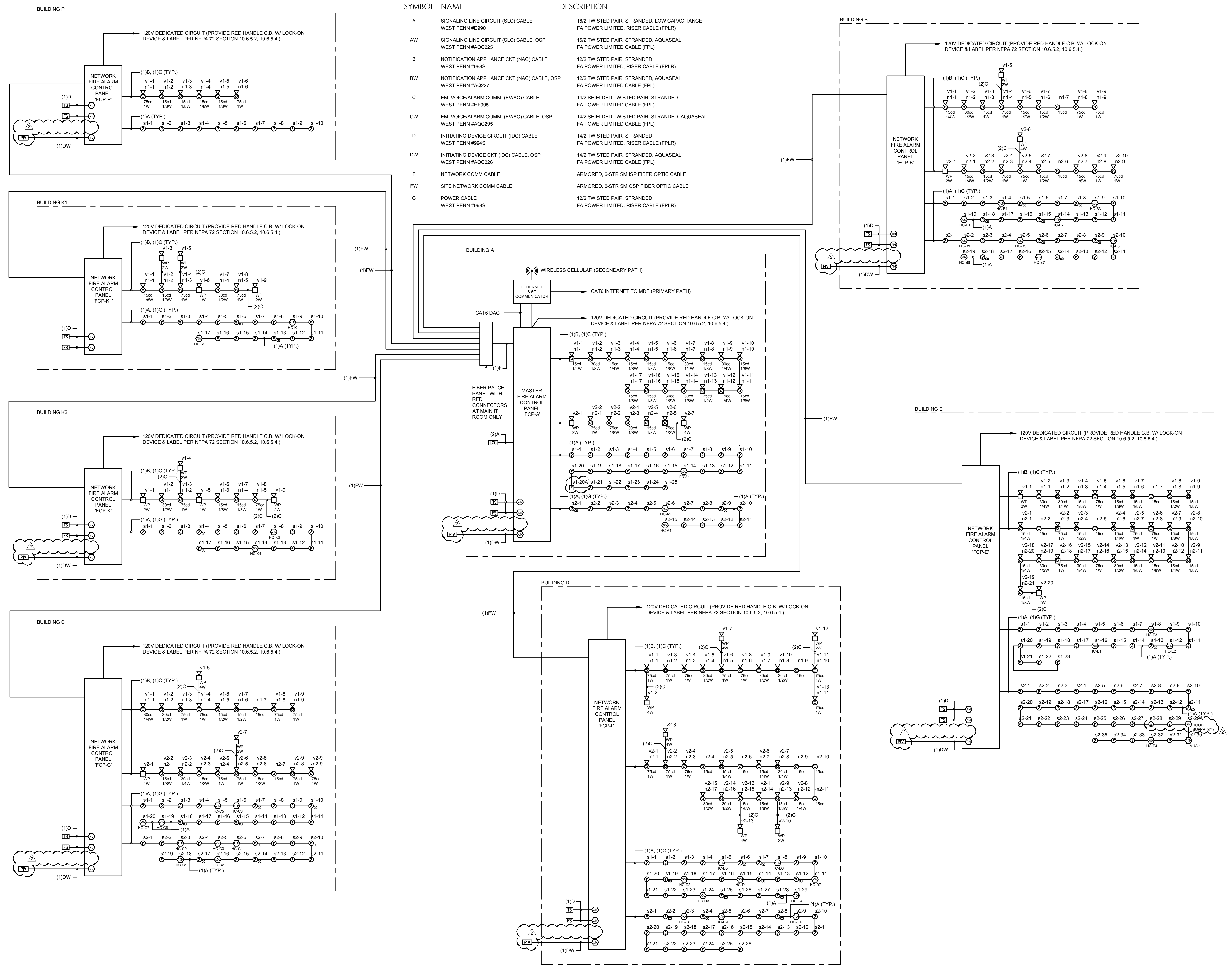
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Date: 09/19/2022 Reviewed By: SD

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FIRE ALARM CABLE SCHEDULE

SYMBOL	NAME	DESCRIPTION
A	SIGNALING LINE CIRCUIT (SLC) CABLE WEST PENN #D980	16/2 TWISTED PAIR, STRANDED, LOW CAPACITANCE FA POWER LIMITED, RISER CABLE (FPLR)
AW	SIGNALING LINE CIRCUIT (SLC) CABLE, OSP WEST PENN #AQC225	16/2 TWISTED PAIR, STRANDED, AQUASEAL FA POWER LIMITED CABLE (FPL)
B	NOTIFICATION APPLIANCE CKT (NAC) CABLE WEST PENN #988S	12/2 TWISTED PAIR, STRANDED FA POWER LIMITED, RISER CABLE (FPLR)
BW	NOTIFICATION APPLIANCE CKT (NAC) CABLE, OSP WEST PENN #AQC227	12/2 TWISTED PAIR, STRANDED, AQUASEAL FA POWER LIMITED CABLE (FPL)
C	EM. VOICE/ALARM COMM. (EV/AC) CABLE WEST PENN #HF95S	14/2 SHIELDED TWISTED PAIR, STRANDED FA POWER LIMITED CABLE (FPL)
CW	EM. VOICE/ALARM COMM. (EV/AC) CABLE, OSP WEST PENN #AQC29S	14/2 SHIELDED TWISTED PAIR, STRANDED, AQUASEAL FA POWER LIMITED CABLE (FPL)
D	INITIATING DEVICE CIRCUIT (IDC) CABLE WEST PENN #994S	14/2 TWISTED PAIR, STRANDED FA POWER LIMITED, RISER CABLE (FPLR)
DW	INITIATING DEVICE CKT (IDC) CABLE, OSP WEST PENN #AQC226	14/2 TWISTED PAIR, STRANDED, AQUASEAL FA POWER LIMITED CABLE (FPL)
F	NETWORK COMM CABLE	ARMORED, 6-STR SM ISP FIBER OPTIC CABLE
FW	SITE NETWORK COMM CABLE	ARMORED, 6-STR SM OSP FIBER OPTIC CABLE
G	POWER CABLE WEST PENN #988S	12/2 TWISTED PAIR, STRANDED FA POWER LIMITED, RISER CABLE (FPLR)



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Fire Alarm System
 Single Line Diagram
 Drawing

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2	Addendum 2- Electrical Rebid	03/22/23

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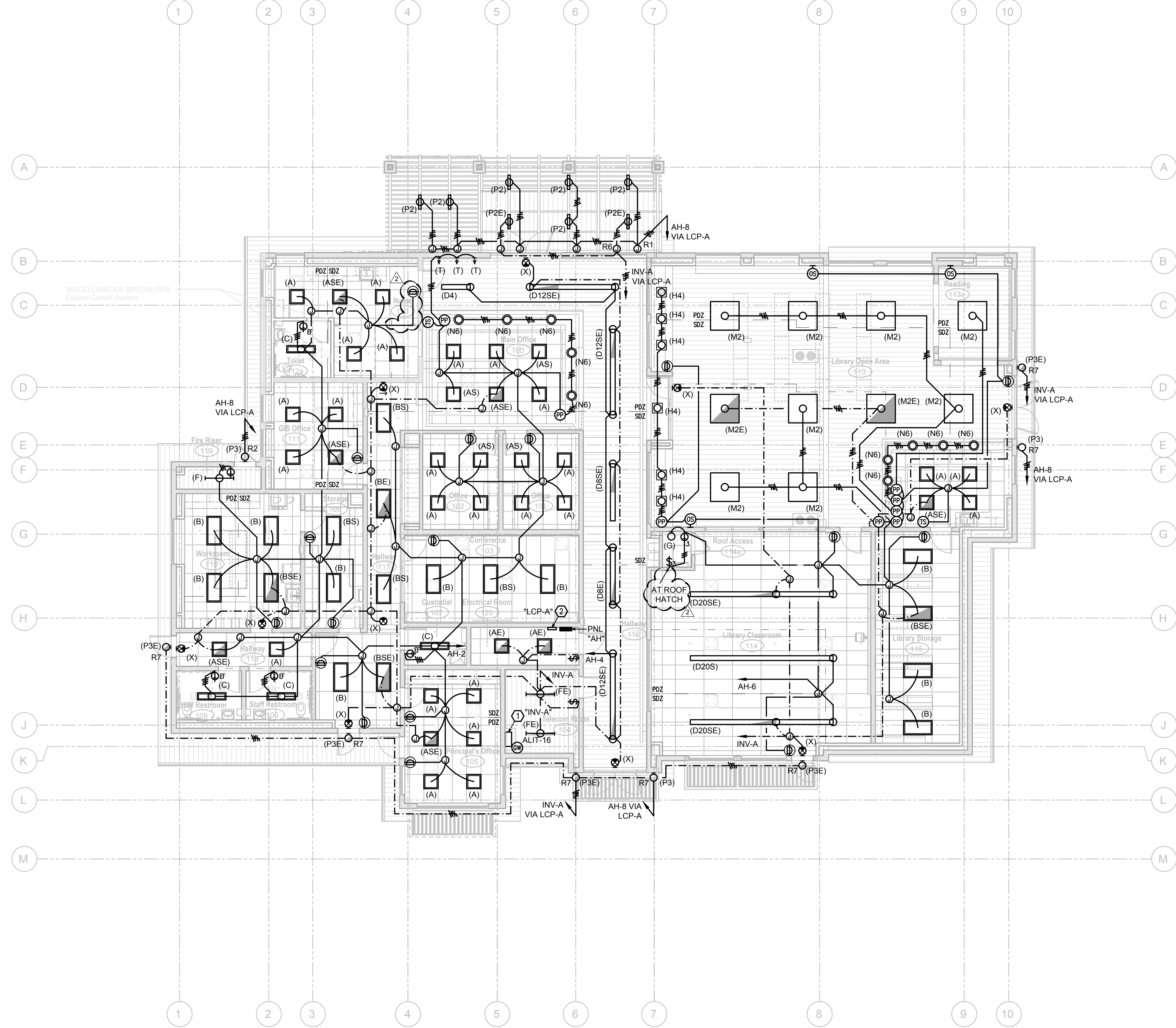
A1 Fire Alarm System Single Line Diagram

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KEYNOTES

- EMERGENCY LIGHTING INVERTER "INV-A": 90 MINUTES RUNTIME. IOTA #ISC-2200-277IN-277OUT-BYPASS-OBS1P277/16AMP/ION. WHEN POWER FAILS, EMERGENCY LIGHTS AUTOMATICALLY SWITCH ON. SEE DETAIL H14/E202 FOR MOUNTING. SEE ENLARGED ELECTRICAL PLAN M14/A/E201 FOR CIRCUIT.
- LIGHTING CONTROL PANEL "LCP-A": LITHONIA #ARP-INTENC16NLT-12FCR-MVOLT-1VB-HLK-SM-DTC. SEE ENLARGED ELECTRICAL PLAN M14/A/E201 FOR CIRCUIT.



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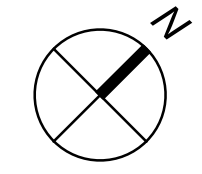
Building A
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Revision

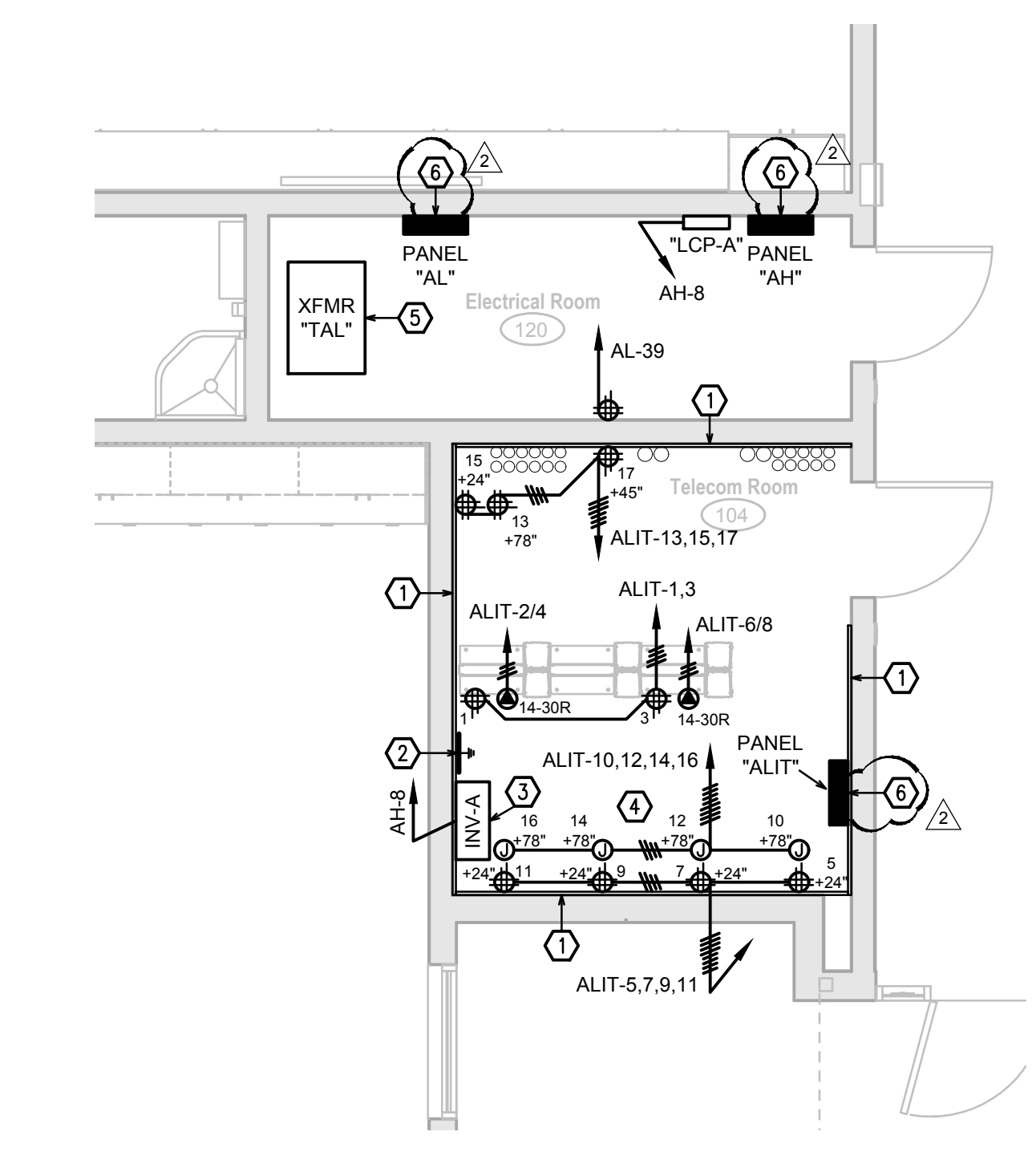
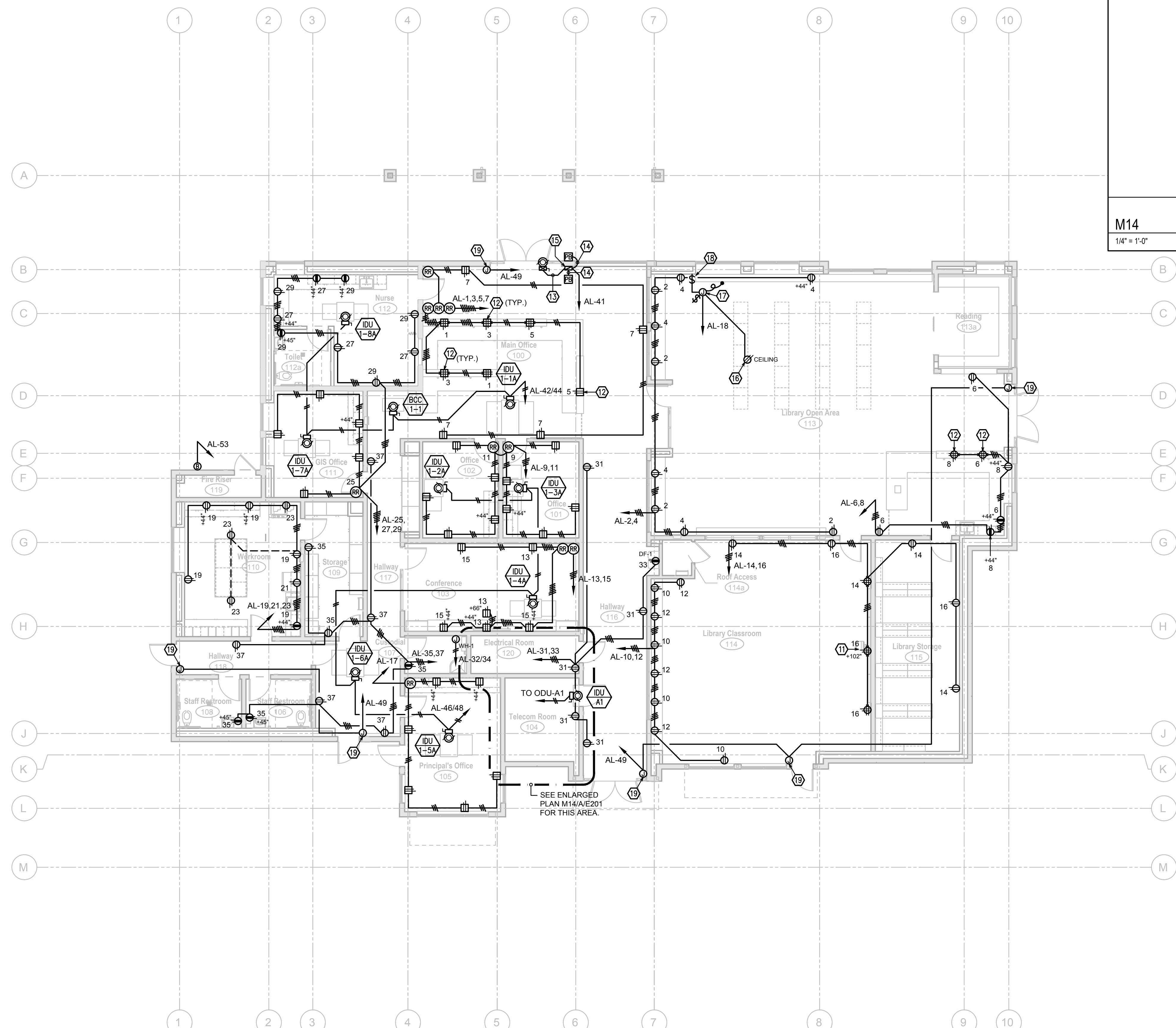
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Date:	09/19/2022	Reviewed By:	SD	
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A1 Building A - Lighting Plan
 1/8" = 1'-0"

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M14 Building A - Enlarged Power Plan
1/4" = 1'-0"

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Agency Approval

KEYNOTES

1. 3/4" THICK x 8" HIGH, FIRE-RESISTANT PLYWOOD BACKBOARD, PAINTED WITH FIRE RESISTANT PAINT. SECURE PLYWOOD TO (2) METAL STUDS WITH #10 x 4" GALVANIZED FLAT HEAD SMS AT 8" CENTERS, WITH MIN. (4) SCREWS AT 8" CENTERS AT EACH WALL STUD, WITH MIN. 2 1/2" EMBEDMENT INTO WALL STUD.
2. PROVIDE TELECOM GROUND BUS PER DETAIL N8X/E401 AND J8X/E401.
3. EMERGENCY LIGHTING INVERTER PER DETAIL H14X/E202.
4. CONNECT POWER TO FA, EMS, SECURITY SYSTEMS AND LIGHTING GATEWAY.
5. PAD MOUNTED TRANSFORMER. SEE DETAIL D10X/E301 FOR MOUNTING. SEE POWER SINGLE LINE DIAGRAM G10X/E301.
6. WALL MOUNTED PANELBOARD. SEE DETAIL L11X/E302 FOR MOUNTING. SEE POWER SINGLE LINE DIAGRAM G10X/E301.
7. SEE TEACHING WALL ELEVATION DETAIL K11X/E402.
12. MOUNT DEVICE(S) INSIDE CASEWORK. SEE ARCHITECTURAL FOR EXACT LOCATION AND ADDITIONAL DETAIL.
13. 12/3 MC POWER AND 16/2 MC CONTROL SNAKE THROUGH WINDOW SYSTEM TO DOOR OPERATOR CONTROLLER. VERIFY REQUIREMENT WITH VENDOR PRIOR TO ROUGH-IN.
14. 1/2" C. 16/2 TO DOOR PUSH BUTTON. VERIFY DOOR PUSH BUTTON LOCATION WITH ARCHITECT. VERIFY REQUIREMENT WITH VENDOR PRIOR TO ROUGH-IN.
15. POWER SUPPLY CABINET WITH HINGED CONSOLE AND LOCK HASP AT +6" TO BOTTOM. VERIFY REQUIREMENT WITH VENDOR PRIOR TO ROUGH-IN.
16. POWER OUTLET FOR PROJECTOR. VERIFY LOCATION OF PROJECTOR MOUNT WITH FACTORY DATA IN RELATION TO SCREEN PRIOR TO ROUGH-IN. MOUNT PROJECTOR PER DETAIL F11X/E302.
17. PROVIDE L5-20R TWIST-LOCK POWER OUTLET AND CONNECT MOTORIZED SCREEN. VERIFY LOCATION PRIOR TO ROUGH-IN.
18. MOTORIZED SCREEN FACTORY WALL CONTROLLER. VERIFY LOCATION PRIOR TO ROUGH-IN. VERIFY ALL REQUIREMENT PER MANUFACTURER.
19. PROVIDE ROUGH-IN AT THIS ENTRANCE FOR FUTURE ACCESS CONTROL SYSTEM. PROVIDE CARD READER J-BOX AT +45" AFF WITH 1/2" CONDUIT TO ATTIC SPACE FOR A DOOR CONTACTOR AND AN ELECTRIC STRIKE. (4) TOTAL FOR DOUBLE DOORS. PROVIDE DATA OUTLET AND J-BOX WITH 120V POWER WIRING IN ATTIC SPACE NEAR DOOR FOR FUTURE CONNECTION TO A DOOR CONTROLLER.

General Notes

Hardin-Davidson Engineering
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www.hardin-davidson.com

Consultant

McKinley/Fowler Elementary School
Clovis Unified School District
Fresno, CA 93727

Project

Building A
Power Plan

Drawing

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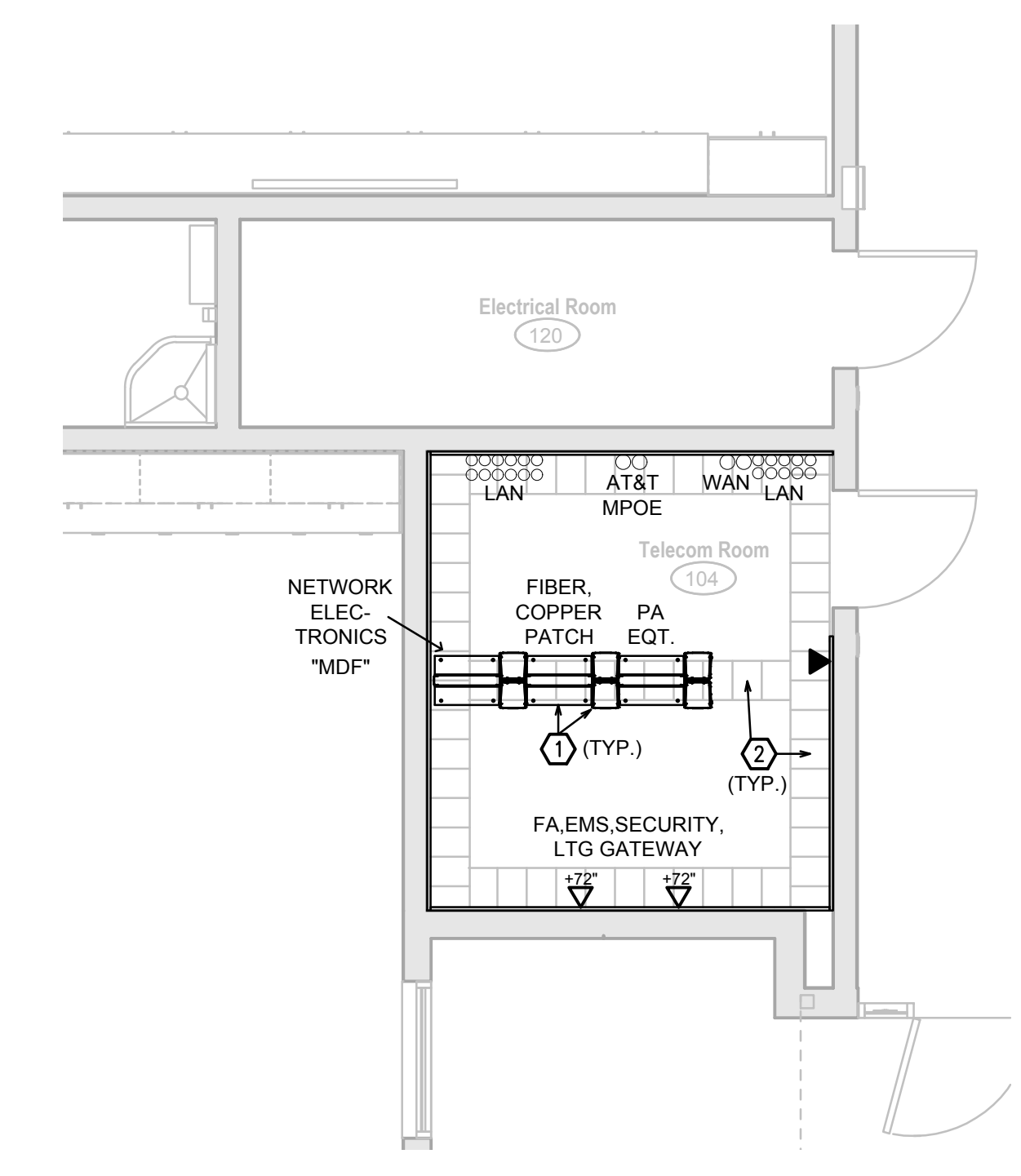
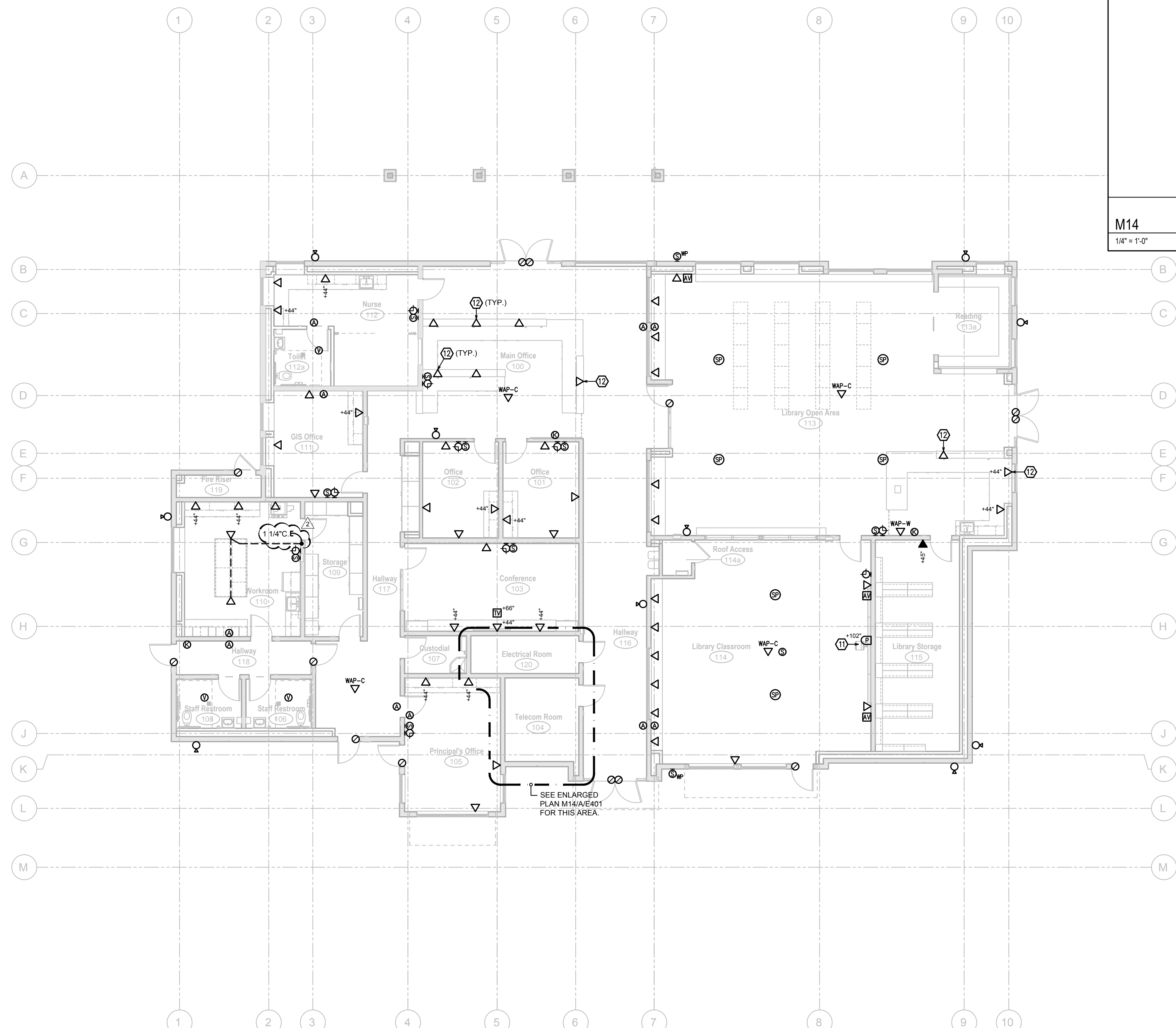
No.	Revision/Submission	Date
2	Addendum 2- Electrical Rebid	03/22/23

Revision	
Designed By:	SD Copyright 2022 Darden Architects

Scale:	As indicated	Drawn By:	HDE	A/E201
Project Number:	2116	Checked By:	SD	
Date:	09/19/2022	Reviewed By:	SD	

A1 Building A - Power Plan
1/8" = 1'-0"

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M14 Building A - Enlarged Low Voltage Plan
1/4" = 1'-0"

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KEYNOTES

1. 2-POST RACK(S), CABLE MANAGEMENT SECTION, AND APPURTENANCES PER SPECS. SEE DETAIL A13/E401 FOR MOUNTING.
2. CHATSWORTH 11252-71X 12" LADDER RACK SYSTEM PER SPECIFICATIONS AND DETAIL A13/E401.
11. SEE TEACHING WALL ELEVATION DETAIL K11/E402.
12. MOUNT DEVICE(S) INSIDE CASEWORK. SEE ARCHITECTURAL FOR EXACT LOCATION AND ADDITIONAL DETAIL.

General Notes

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Fresno, CA 93727

Project

Building A
Low Voltage Plan

Drawing

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2	Addendum 2- Electrical Rebid	03/22/23
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Project Number:	2116	Checked By: SD
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A/E401

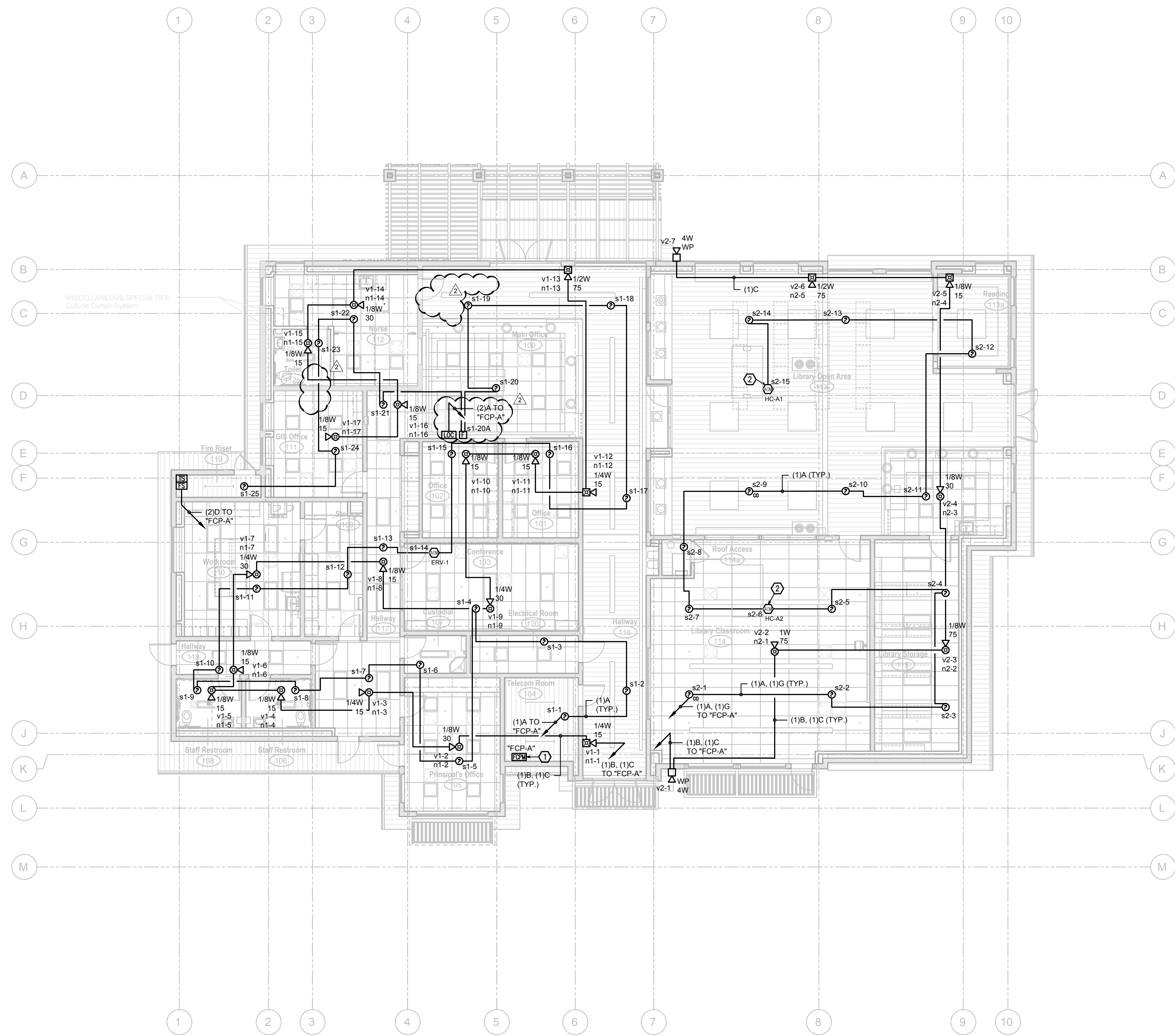
A1 Building A - Low Voltage Plan
1/8" = 1'-0"

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KEYNOTES

1. FIRE ALARM CONTROL PANEL, CONNECT TO DEDICATED 120V 20A CIRCUIT. CIRCUIT BREAKER TO BE EQUIPPED WITH RED HANDLE LOCK-ON DEVICE AND LABEL READING "FIRE ALARM CIRCUIT. DO NOT TURN OFF". CONNECT FA PER FIRE ALARM SINGLE LINE DIAGRAM A1/X/E502. SEE DETAIL AB/X/E302 FOR MOUNTING.
2. CONNECT RELAY MODULE TO MECHANICAL UNIT SHUTDOWN TERMINALS.



General Notes

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 Clovis Unified School District
 Fresno, CA 93727
 Project

Building A
 Fire Alarm Plan
 Drawing

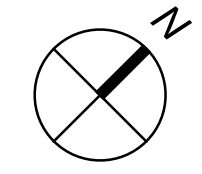
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No.	Revision/Submission	Date
2	Addendum 2- Electrical Rebid	03/22/23

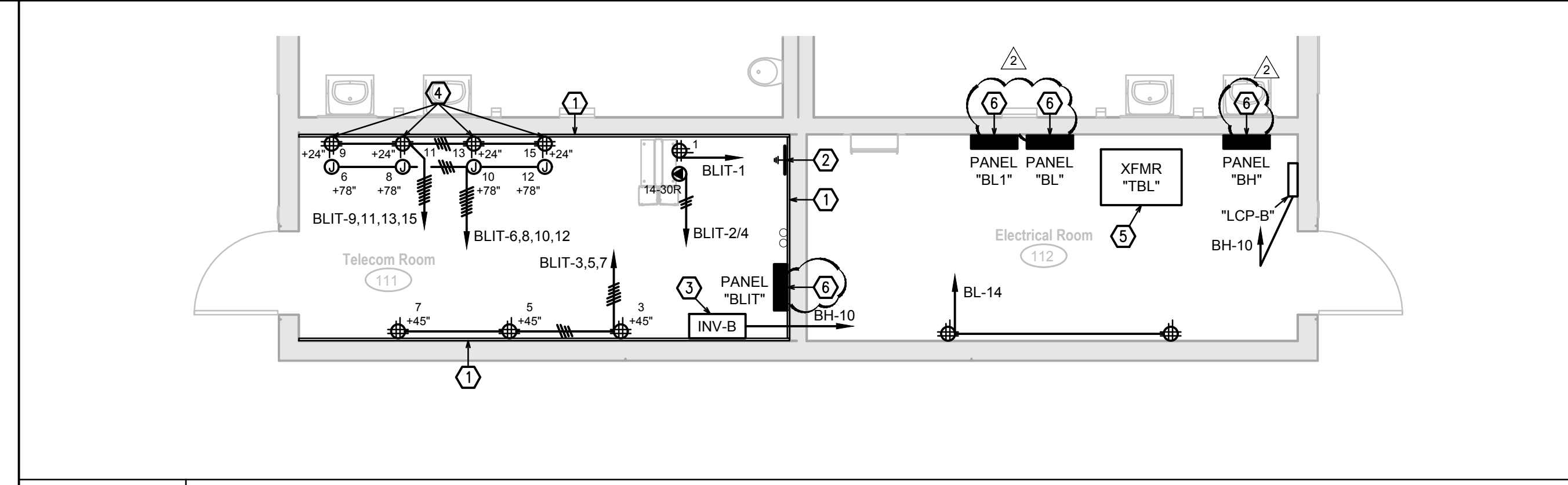
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	Reviewed By: SD	

A/E501



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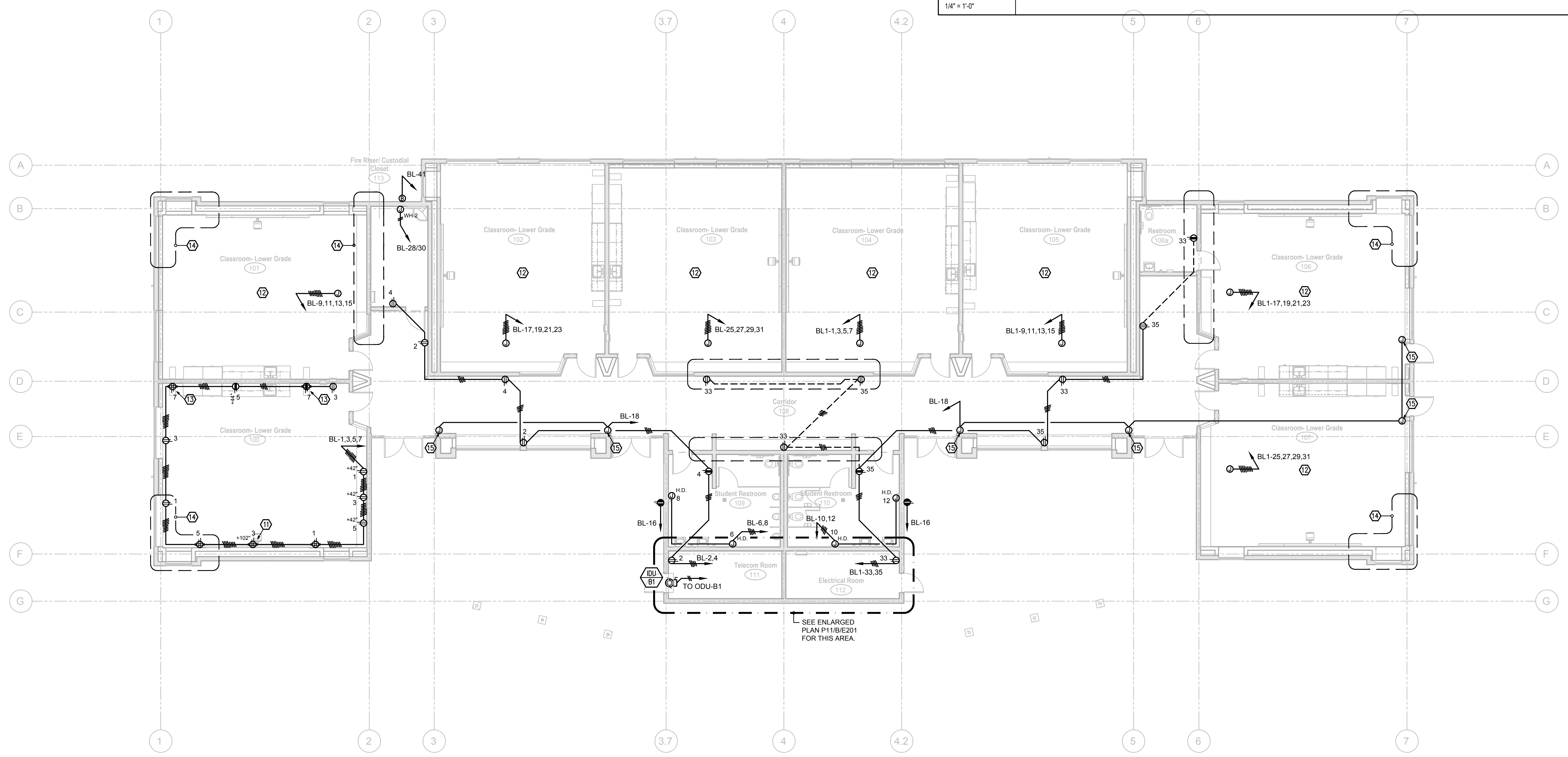
P11 Building B - Enlarged Power Plan
1/4" = 1'-0"

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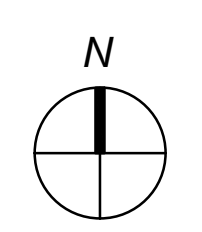
Agency Approval

KEYNOTES

- 3/4" THICK x 8" HIGH, FIRE-RESISTANT PLYWOOD BACKBOARD, PAINTED WITH FIRE RESISTANT PAINT. SECURE PLYWOOD TO (2) METAL STUDS WITH #10 x 4" GALVANIZED FLAT HEAD SMS AT 8" CENTERS, WITH MIN. (4) SCREWS AT 8" CENTERS AT EACH WALL STUD, WITH MIN. 2 1/2" EMBEDMENT INTO WALL STUD.
- PROVIDE TELECOM GROUND BUS PER DETAIL N8/XE401 AND J8/XE401.
- EMERGENCY LIGHTING INVERTER PER DETAIL H14/XE202.
- CONNECT POWER TO FA, EMS, SECURITY SYSTEMS AND LIGHTING GATEWAY.
- PAD MOUNTED TRANSFORMER. SEE DETAIL D10/XE301 FOR MOUNTING. SEE POWER SINGLE LINE DIAGRAM G10/XE301.
- WALL MOUNTED PANELBOARD. SEE DETAIL L1/XE302 FOR MOUNTING. SEE POWER SINGLE LINE DIAGRAM G10/XE301.
- SEE TEACHING WALL ELEVATION DETAIL K10/XE402.
- PROVIDE ELECTRICAL INSTALLATION PER CLASSROOM 100.
- LAPTOP CHARGING STATION POWER OUTLET. VERIFY LOCATION AND REQUIREMENT PRIOR TO ROUGH-IN.
- INDICATED WALL HAS CONCEALED STRUCTURAL BRACING. PROVIDE UNDERGROUND RACEWAYS AS REQUIRED TO ENTER CONCEALED INTO WALL SPACE.
- PROVIDE ROUGH-IN AT THIS ENTRANCE FOR FUTURE ACCESS CONTROL SYSTEM. PROVIDE CARD READER J-BOX AT 45" AFF WITH 1/2" CONDUIT TO ATTIC SPACE FOR A DOOR CONTACTOR AND AN ELECTRIC STRIKE. (4) TOTAL FOR DOUBLE DOORS. PROVIDE DATA OUTLET AND J-BOX WITH 120V POWER WIRING IN ATTIC SPACE NEAR DOOR FOR FUTURE CONNECTION TO A DOOR CONTROLLER.



SEE ENLARGED PLAN P11/B/E201 FOR THIS AREA.



General Notes

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Project

Building B
Power Plan

Drawing

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2	Addendum 2- Electrical Rebid	03/22/23

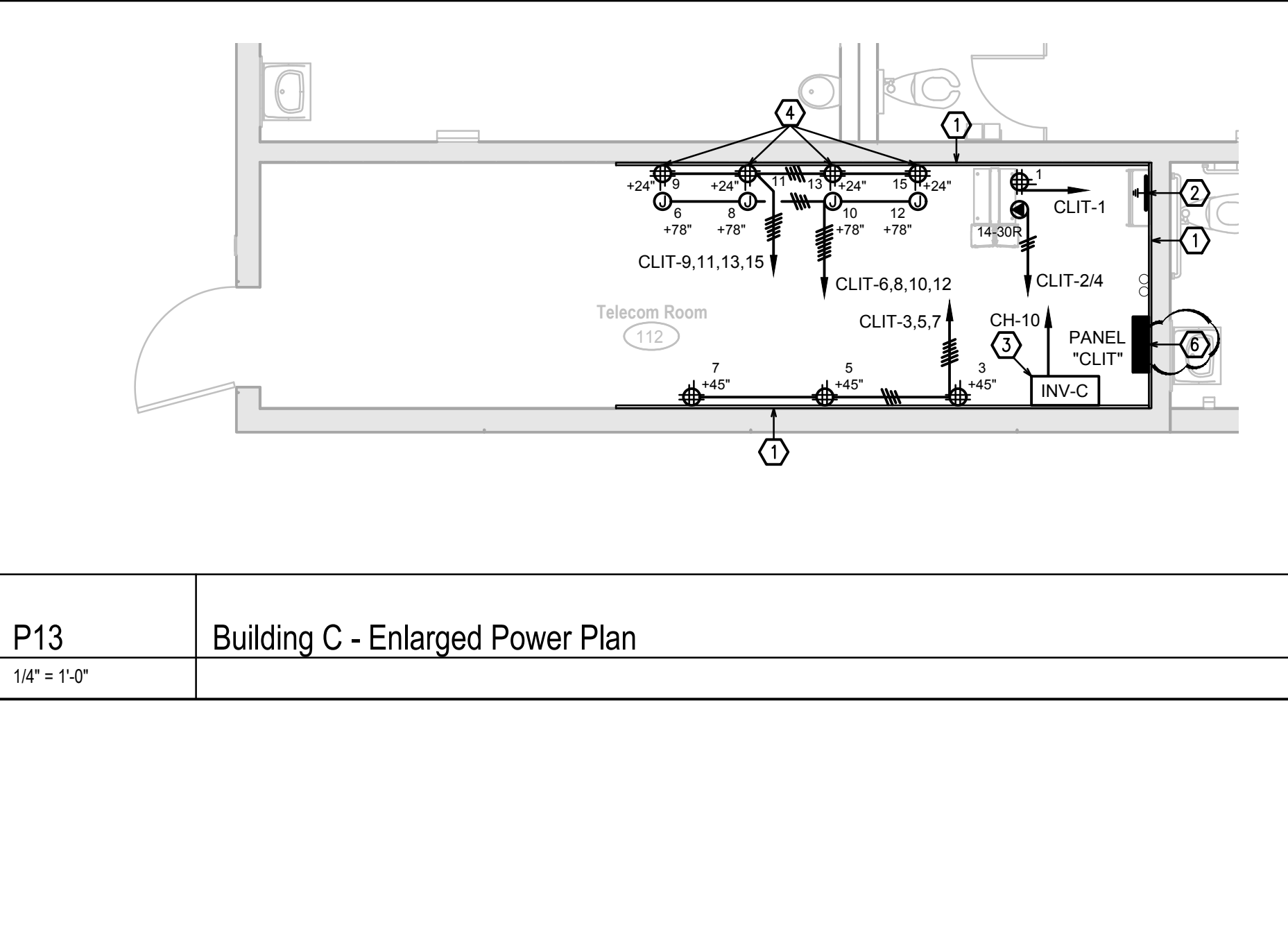
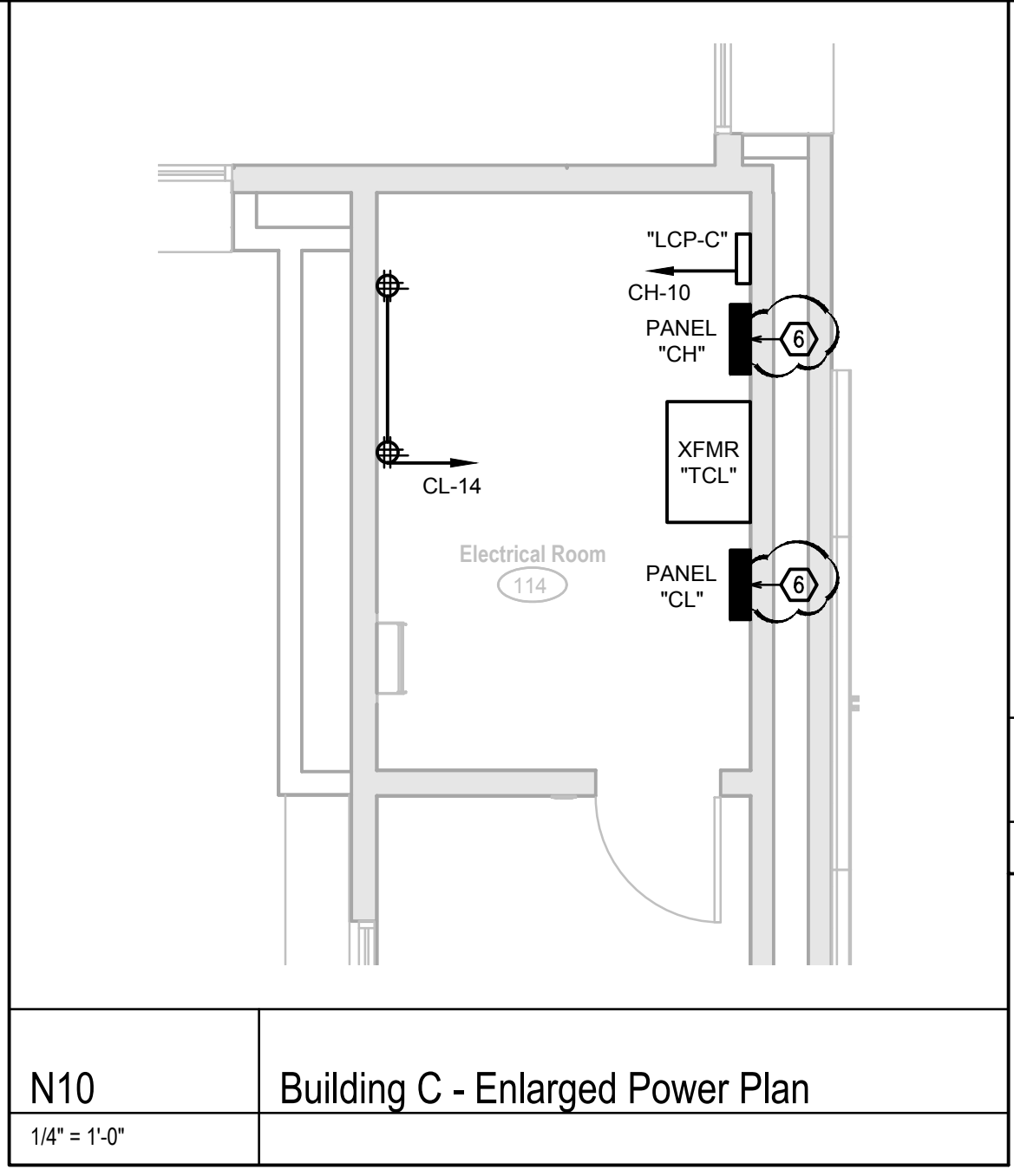
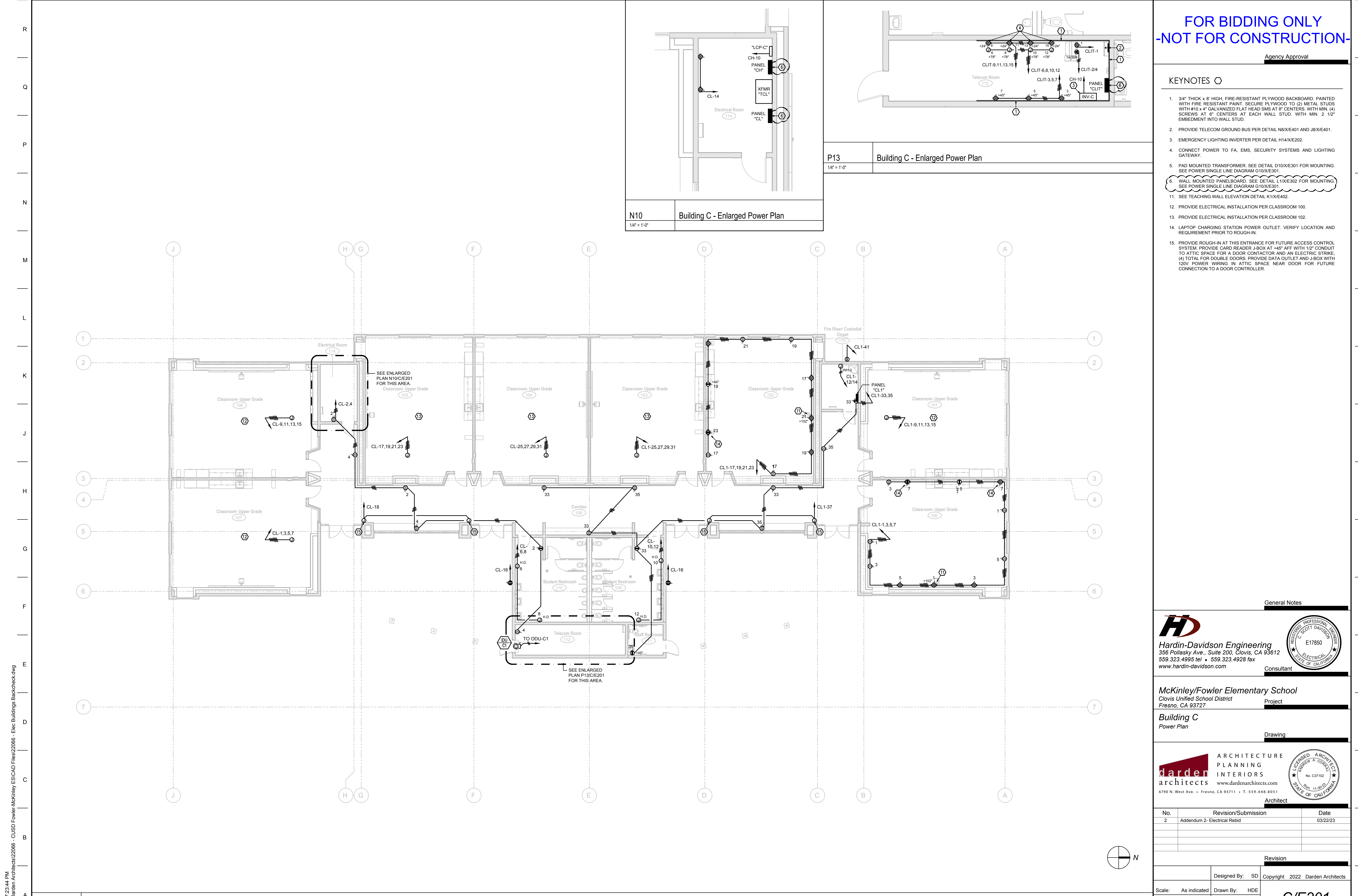
Revision

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Project Number: 2116	Checked By: SD	
Date: 09/19/2022	Reviewed By: SD	

Sheet: _____ of: _____

A1 Building B - Power Plan
1/8" = 1'-0"



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KEYNOTES

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2. PROVIDE TELECOM GROUND BUS PER DETAIL N8/XE401 AND J8/XE401.
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4. CONNECT POWER TO FA, EMS, SECURITY SYSTEMS AND LIGHTING GATEWAY.
5. PAD MOUNTED TRANSFORMER. SEE DETAIL D10/XE301 FOR MOUNTING. SEE POWER SINGLE LINE DIAGRAM G10/XE301.
6. WALL MOUNTED PANELBOARD. SEE DETAIL L1/XE302 FOR MOUNTING. SEE POWER SINGLE LINE DIAGRAM G10/XE301.
7. SEE TEACHING WALL ELEVATION DETAIL K10/XE402.
8. PROVIDE ELECTRICAL INSTALLATION PER CLASSROOM 100.
9. PROVIDE ELECTRICAL INSTALLATION PER CLASSROOM 102.
10. LAPTOP CHARGING STATION POWER OUTLET. VERIFY LOCATION AND REQUIREMENT PRIOR TO ROUGH-IN.
11. PROVIDE ROUGH-IN AT THIS ENTRANCE FOR FUTURE ACCESS CONTROL SYSTEM. PROVIDE CARD READER J-BOX AT +45" AFF WITH 1/2" CONDUIT TO ATTIC SPACE FOR A DOOR CONTACTOR AND AN ELECTRIC STRIKE. (4) TOTAL FOR DOUBLE DOORS. PROVIDE DATA OUTLET AND J-BOX WITH 120V POWER WIRING IN ATTIC SPACE NEAR DOOR FOR FUTURE CONNECTION TO A DOOR CONTROLLER.

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Project

Building C
Power Plan
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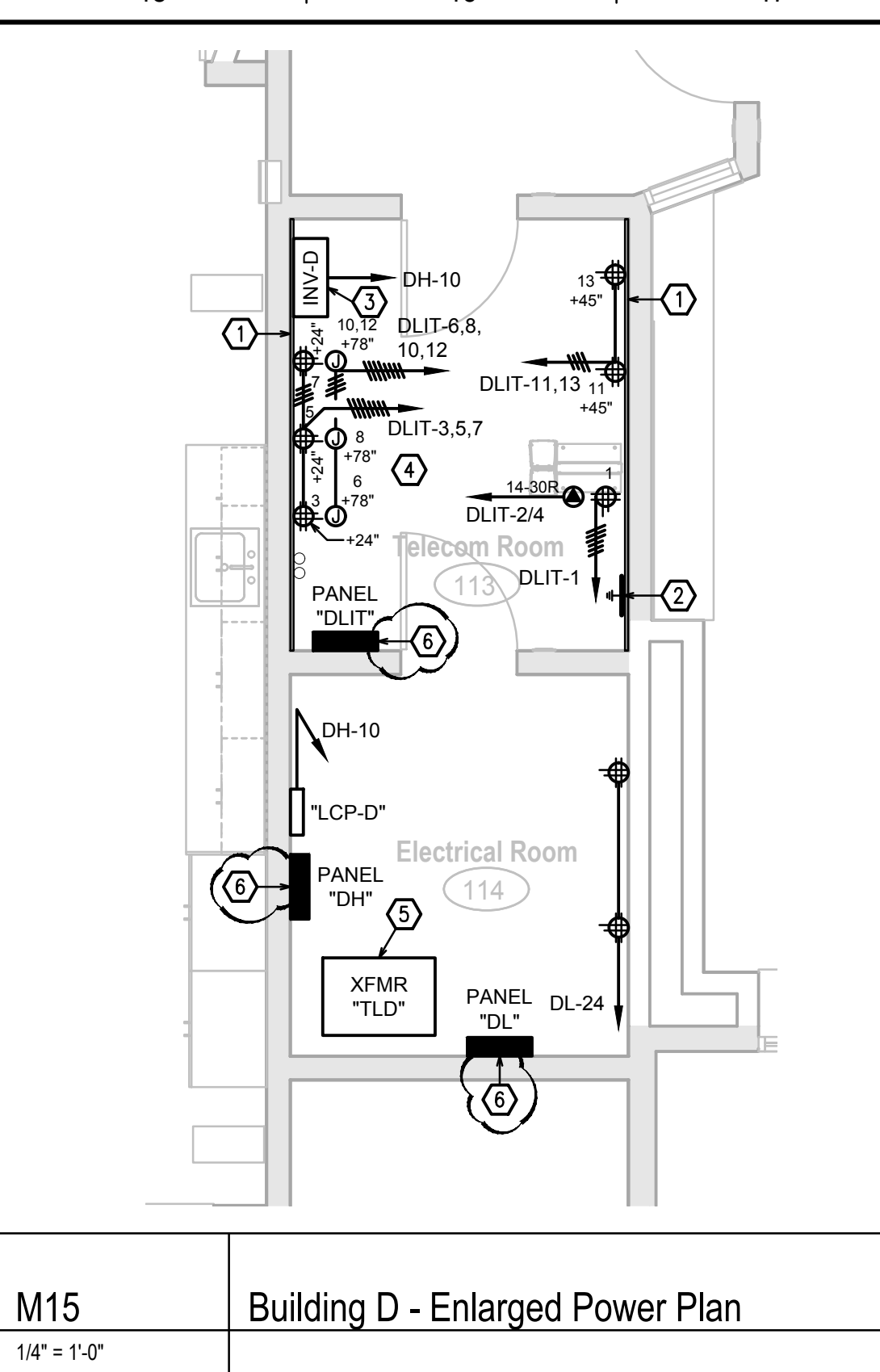
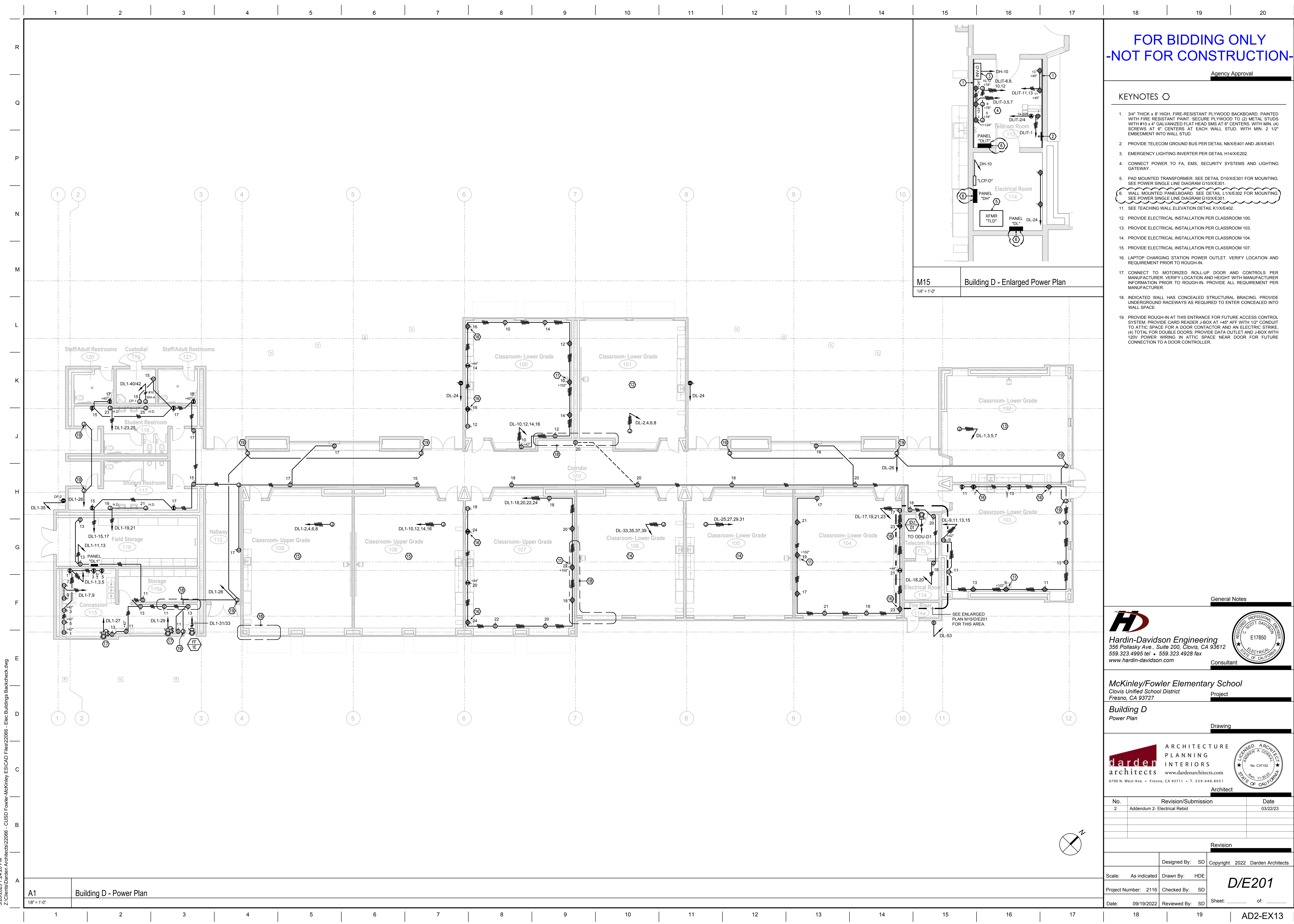
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KEYNOTES

- 3/4" THICK x 8" HIGH, FIRE-RESISTANT PLYWOOD BACKBOARD, PAINTED WITH FIRE RESISTANT PAINT. SECURE PLYWOOD TO (2) METAL STUDS WITH #10 x 4" GALVANIZED FLAT HEAD SMS AT 8" CENTERS, WITH MIN. (4) SCREWS AT 8" CENTERS AT EACH WALL STUD, WITH MIN. 2 1/2" EMBEDMENT INTO WALL STUD.
- PROVIDE TELECOM GROUND BUS PER DETAIL N8X/E401 AND J8X/E401.
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- CONNECT POWER TO FA, EMS, SECURITY SYSTEMS AND LIGHTING GATEWAY.
- PAD MOUNTED TRANSFORMER. SEE DETAIL D10X/E301 FOR MOUNTING. SEE POWER SINGLE LINE DIAGRAM G10X/E301.
- WALL MOUNTED PANELBOARD. SEE DETAIL L11X/E302 FOR MOUNTING. SEE POWER SINGLE LINE DIAGRAM G10X/E301.
- SEE TEACHING WALL ELEVATION DETAIL K10X/E402.
- PROVIDE ELECTRICAL INSTALLATION PER CLASSROOM 100.
- PROVIDE ELECTRICAL INSTALLATION PER CLASSROOM 103.
- PROVIDE ELECTRICAL INSTALLATION PER CLASSROOM 104.
- PROVIDE ELECTRICAL INSTALLATION PER CLASSROOM 107.
- LAPTOP CHARGING STATION POWER OUTLET. VERIFY LOCATION AND REQUIREMENT PRIOR TO ROUGH-IN.
- CONNECT TO MOTORIZED ROLL-UP DOOR AND CONTROLS PER MANUFACTURER. VERIFY LOCATION AND HEIGHT WITH MANUFACTURER INFORMATION PRIOR TO ROUGH-IN. PROVIDE ALL REQUIREMENT PER MANUFACTURER.
- INDICATED WALL HAS CONCEALED STRUCTURAL BRACING. PROVIDE UNDERGROUND RACEWAYS AS REQUIRED TO ENTER CONCEALED INTO WALL SPACE.
- PROVIDE ROUGH-IN AT THIS ENTRANCE FOR FUTURE ACCESS CONTROL SYSTEM. PROVIDE CARD READER J-BOX AT +45" AFF WITH 1/2" CONDUIT TO ATTIC SPACE FOR A DOOR CONTACTOR AND AN ELECTRIC STRIKE. (4) TOTAL FOR DOUBLE DOORS. PROVIDE DATA OUTLET AND J-BOX WITH 120V POWER WIRING IN ATTIC SPACE NEAR DOOR FOR FUTURE CONNECTION TO A DOOR CONTROLLER.

General Notes

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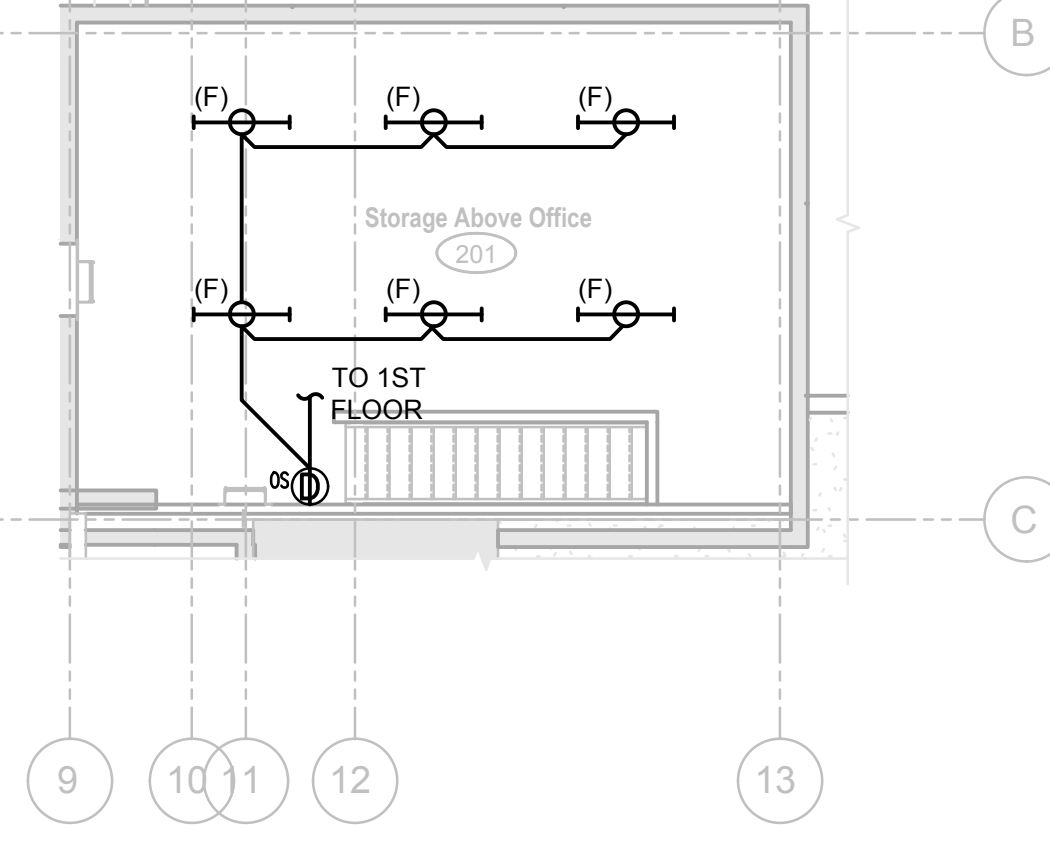
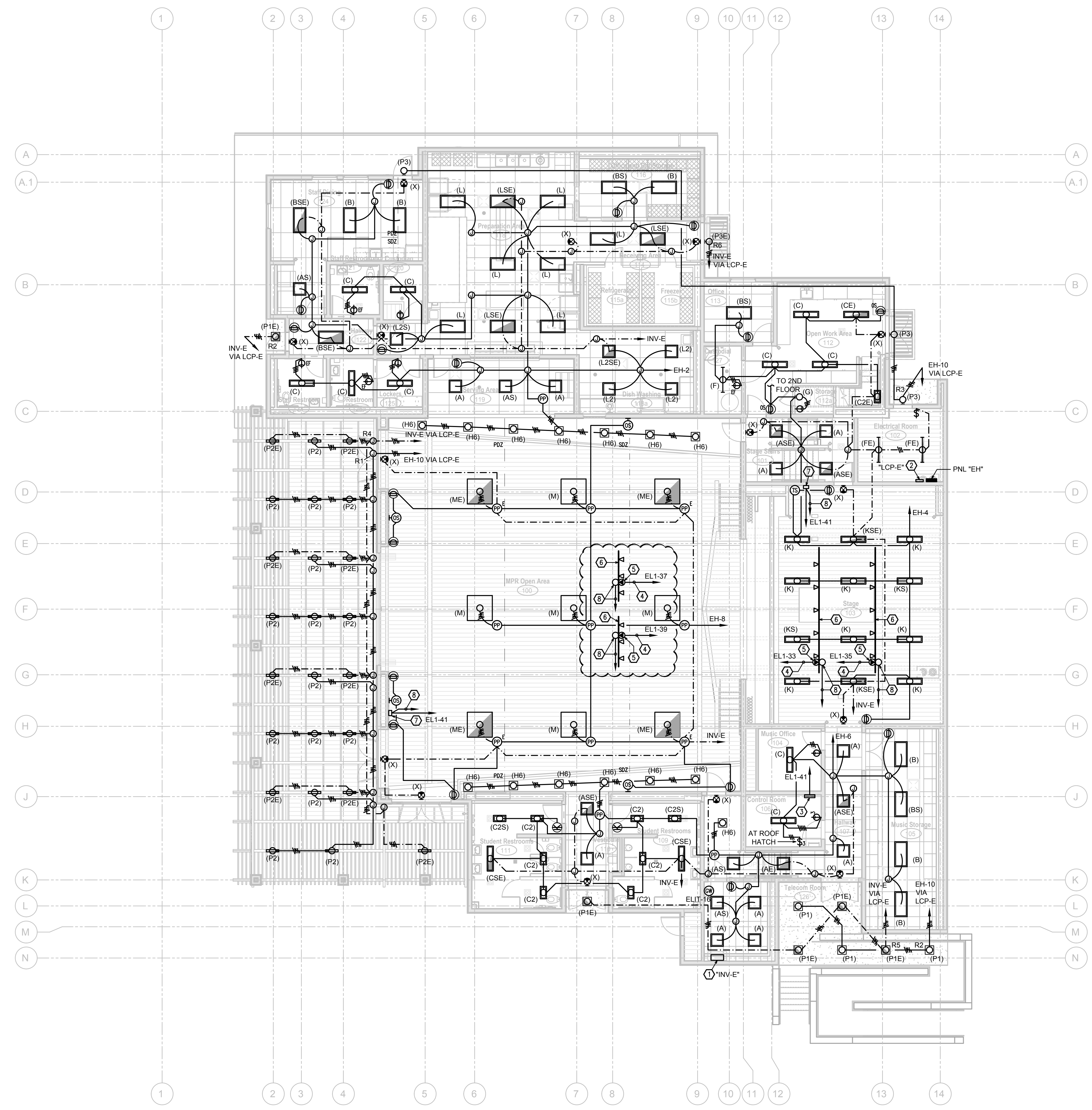
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2	Addendum 2- Electrical Rebid	03/22/23

Revision	
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A1 Building D - Power Plan
 1/8" = 1'-0"



N15 Building E - 2nd Floor Lighting Plan
1/8" = 1'-0"

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KEYNOTES

- EMERGENCY LIGHTING INVERTER "INV-E" 90 MINUTES RUNTIME. IOTA #ISC-2200-277IN-277OUT-BYPASS-086/1P277/16AMP/ION. WHEN POWER FAILS, EMERGENCY LIGHTS AUTOMATICALLY SWITCH ON. SEE DETAIL H14X/E202 FOR MOUNTING. SEE ENLARGED ELECTRICAL PLAN J15/E/E201 FOR CIRCUIT.
- LIGHTING CONTROL PANEL "LCP-E" LITHONIA #ARP-INTENC16NLT-16GR-MVOLT-1VB-HLK-SM-DTC. SEE ENLARGED ELECTRICAL PLAN N15/E/E201 FOR CIRCUIT.
- THEATRICAL LIGHTING DMX CABINET. MOUNT IN LOCATION HIGH ON WALL PER MFGR INSTRUCTIONS.
- RUN #10 WIRES WITH DEDICATED NEUTRALS AND HOMERUN VIA "LCP-E". SEE DETAILS N5X/E202 AND N14X/E202.
- PROVIDE L5-20 LOCKING RECEPTACLE ABOVE BATTEN ON TRUSS. SEE DETAILS N5X/E202 AND N14X/E202.
- THEATRICAL LIGHTS, DMX/RELAY MODULE, AND PIPE BATTEN. PROVIDE (3) LIGHTS PER BATTEN. MOUNT BATTEN AT BOTTOM CHORD OF TRUSS. SEE DETAILS N5X/E202, N10X/E202, AND N14X/E202.
- COLOR TOUCHSCREEN CONTROLLER AND DMX CONSOLE OUTLET FOR THEATRICAL LIGHTS.
- PROVIDE DMX OUTLET AND RUN DMX CABLE PER MFGR TO DMX CONTROLLER.

THEATRICAL LIGHTING SYSTEM

PROVIDE A COMPLETE AND OPERATIONAL THEATRICAL LIGHTING SYSTEM. THE SYSTEM SHALL BE COMPRISED OF A COLOR TOUCHSCREEN CONTROLLERS, CONSOLE OUTLETS, DMX PROCESSOR, WIRELESS TRANSCENDERS, DMX/RELAY MODULES, CONTROL CABLING, POWER OUTLETS, PIPE BATTENS, AND FIVE-COLOR LED THEATRICAL LIGHTS. PROVIDE ALL PROGRAMMING, STARTUP, AND ANY ADDITIONAL REQUIRED COMPONENTS NEEDED FOR A FULLY FUNCTIONAL, TURN KEY SYSTEM. PROVIDE 8 HOURS OF TRAINING FOR OWNER'S DESIGNATED PERSONNEL.

THE SYSTEM SHOWN ON THE PLANS IS BASED ON COMPONENTS FROM ETC AND PATHWAY. THE MAJOR SYSTEM COMPONENTS CONSIST OF:

- ONE (1) DMX CABINET
ABL PATHWAY #PWISA-50W-24VDC-SML-HOR-1NPWDMX-2REPUBB
- TWO (2) INTERFACE TOUCHSCREENS.
ABL PATHWAY #PWCHOREO-WM-512
- TWO (2) "IMPRESSO" COMPATIBLE DMX CONSOLE OUTLETS
- TWO (2) 8FT PIPE BATTENS CONSTRUCTED OF STANDARD 1.5" SCHEDULE 40 BLACK PIPE WITH THREE (3) ETC COLORSOURCE PAR JR (PART #CSPOT3R2550). MOUNT PER DETAIL N1X/E202.
- TWO (2) 20FT PIPE BATTENS CONSTRUCTED OF STANDARD 1.5" SCHEDULE 40 BLACK PIPE WITH FIVE (5) ETC COLORSOURCE PAR (PART #CSPARDB). MOUNT PER DETAIL J1X/E202.

THE THEATRICAL LIGHTING SYSTEM INSTALLATION SHALL BE INSTALLED AS PER THE MANUFACTURER'S APPROVED SHOP DRAWINGS AND THESE PLANS. INTERFACE THE THEATRICAL LIGHTING CONTROLS WITH THE BUILDING'S NLIGHT CONTROLS.

General Notes

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Consultant

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Clovis Unified School District
Fresno, CA 93727

Project

Building E
Lighting Plan

Drawing

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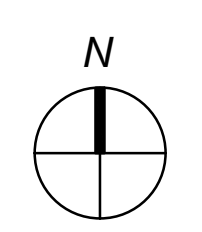
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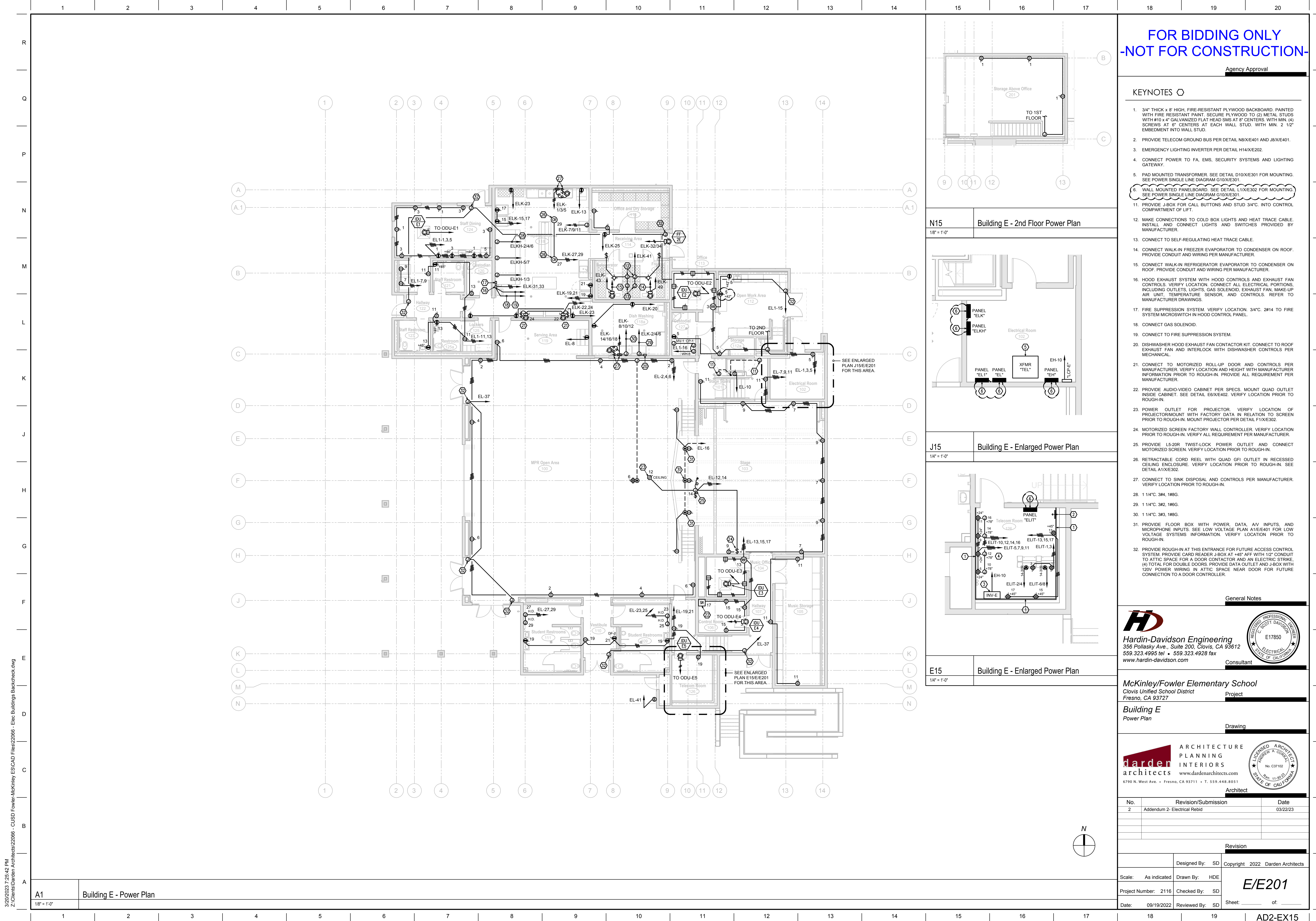
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2	Addendum 2- Electrical Rebid	03/22/23

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Project Number:	2116	Checked By:	SD	
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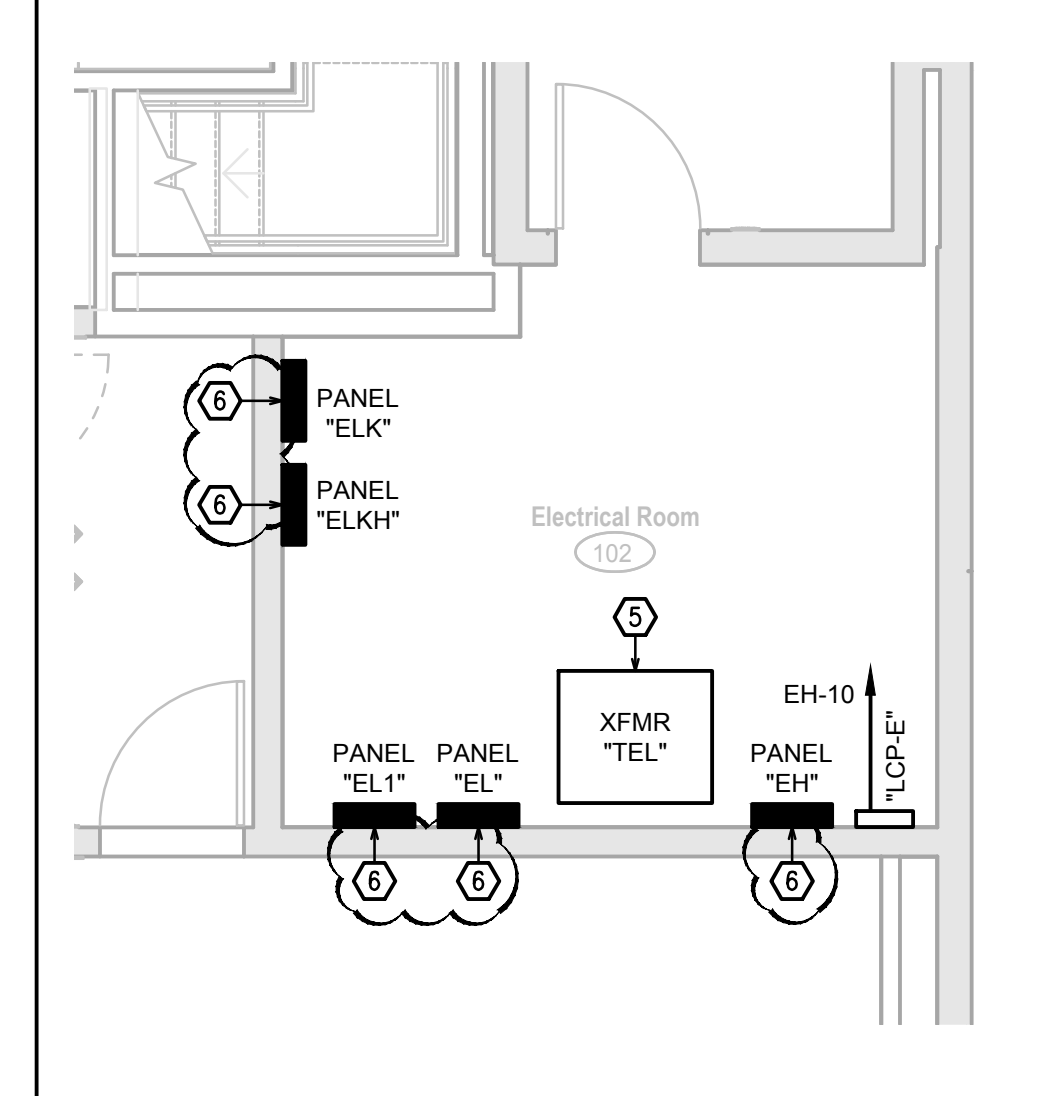
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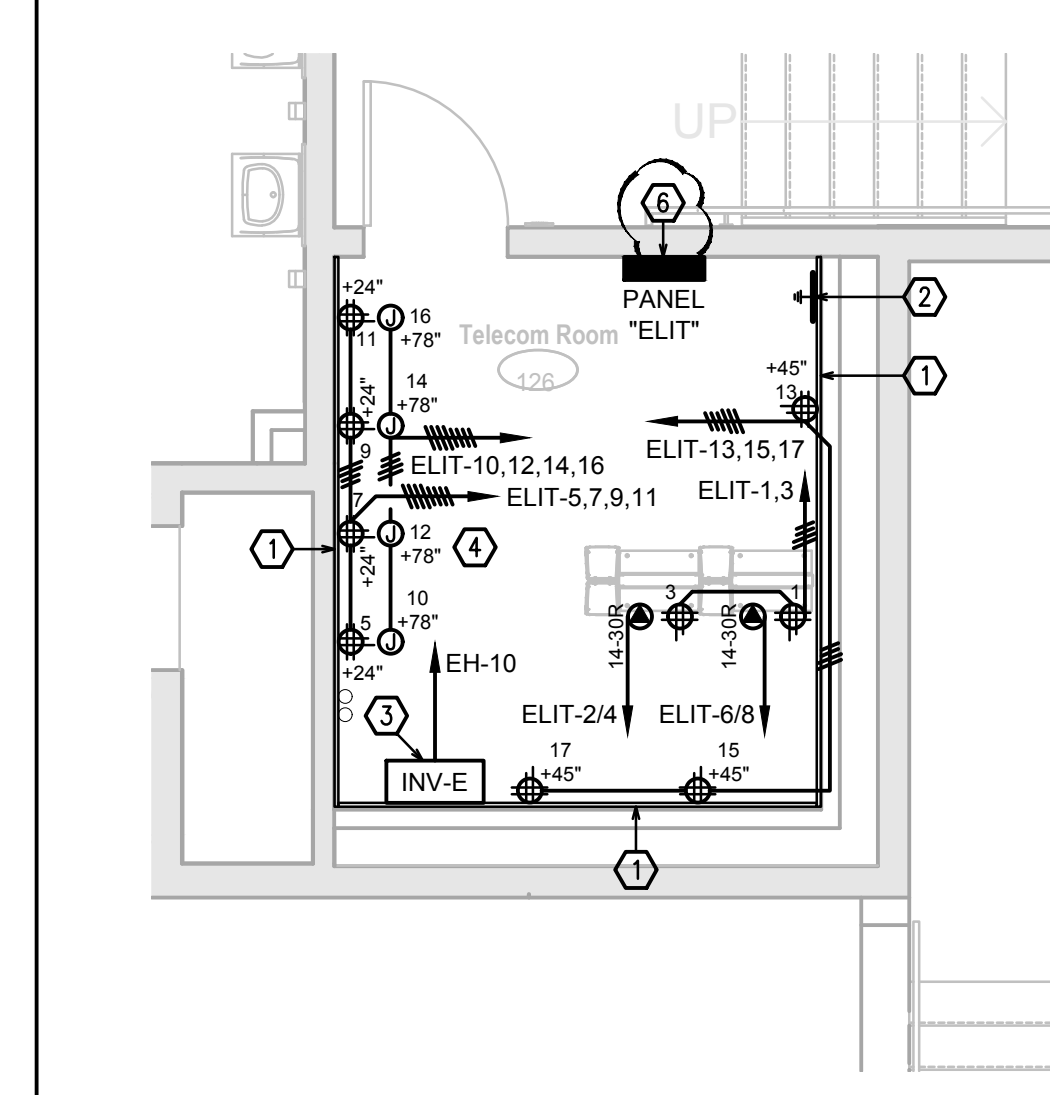
KEYNOTES

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- CONNECT POWER TO FA, EMS, SECURITY SYSTEMS AND LIGHTING GATEWAY.
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- WALL MOUNTED PANELBOARD. SEE DETAIL L11X/E302 FOR MOUNTING. SEE POWER SINGLE LINE DIAGRAM G10X/E301.
- PROVIDE J-BOX FOR CALL BUTTONS AND STUD 3/4". INTO CONTROL COMPARTMENT OF LIFT.
- MAKE CONNECTIONS TO COLD BOX LIGHTS AND HEAT TRACE CABLE. INSTALL AND CONNECT LIGHTS AND SWITCHES PROVIDED BY MANUFACTURER.
- CONNECT TO SELF-REGULATING HEAT TRACE CABLE.
- CONNECT WALK-IN FREEZER EVAPORATOR TO CONDENSER ON ROOF. PROVIDE CONDUIT AND WIRING PER MANUFACTURER.
- CONNECT WALK-IN REFRIGERATOR EVAPORATOR TO CONDENSER ON ROOF. PROVIDE CONDUIT AND WIRING PER MANUFACTURER.
- HOOD EXHAUST SYSTEM WITH HOOD CONTROLS AND EXHAUST FAN CONTROLS. VERIFY LOCATION. CONNECT ALL ELECTRICAL PORTIONS, INCLUDING OUTLETS, LIGHTS, GAS SOLENOID, EXHAUST FAN, MAKE-UP AIR UNIT, TEMPERATURE SENSOR, AND CONTROLS. REFER TO MANUFACTURER DRAWINGS.
- FIRE SUPPRESSION SYSTEM. VERIFY LOCATION. 3/4" x 2#14 TO FIRE SYSTEM MICROSWITCH IN HOOD CONTROL PANEL.
- CONNECT GAS SOLENOID.
- CONNECT TO FIRE SUPPRESSION SYSTEM.
- DISHWASHER HOOD EXHAUST FAN CONTACTOR KIT. CONNECT TO ROOF EXHAUST FAN AND INTERLOCK WITH DISHWASHER CONTROLS PER MECHANICAL.
- CONNECT TO MOTORIZED ROLL-UP DOOR AND CONTROLS PER MANUFACTURER. VERIFY LOCATION AND HEIGHT WITH MANUFACTURER INFORMATION PRIOR TO ROUGH-IN. PROVIDE ALL REQUIREMENT PER MANUFACTURER.
- PROVIDE AUDIO-VIDEO CABINET PER SPECS. MOUNT QUAD OUTLET INSIDE CABINET. SEE DETAIL E8/XE402. VERIFY LOCATION PRIOR TO ROUGH-IN.
- POWER OUTLET FOR PROJECTOR. VERIFY LOCATION OF PROJECTOR/MOUNT WITH FACTORY DATA IN RELATION TO SCREEN PRIOR TO ROUGH-IN. MOUNT PROJECTOR PER DETAIL F11X/E302.
- MOTORIZED SCREEN FACTORY WALL CONTROLLER. VERIFY LOCATION PRIOR TO ROUGH-IN. VERIFY ALL REQUIREMENT PER MANUFACTURER.
- PROVIDE L5-20R TWIST-LOCK POWER OUTLET AND CONNECT MOTORIZED SCREEN. VERIFY LOCATION PRIOR TO ROUGH-IN.
- RETRACTABLE CORD REEL WITH QUAD GFI OUTLET IN RECESSED CEILING ENCLOSURE. VERIFY LOCATION PRIOR TO ROUGH-IN. SEE DETAIL A11X/E302.
- CONNECT TO SINK DISPOSAL AND CONTROLS PER MANUFACTURER. VERIFY LOCATION PRIOR TO ROUGH-IN.
- 1 1/4" x 3/4, 1#8G.
- 1 1/4" x 3/8, 1#8G.
- PROVIDE FLOOR BOX WITH POWER, DATA, AV INPUTS, AND MICROPHONE INPUTS. SEE LOW VOLTAGE PLAN A1/E/E401 FOR LOW VOLTAGE SYSTEMS INFORMATION. VERIFY LOCATION PRIOR TO ROUGH-IN.
- PROVIDE ROUGH-IN AT THIS ENTRANCE FOR FUTURE ACCESS CONTROL SYSTEM. PROVIDE CARD READER J-BOX AT 45" AFF WITH 1/2" CONDUIT TO ATTIC SPACE FOR A DOOR CONTACTOR AND AN ELECTRIC STRIKE. (4) TOTAL FOR DOUBLE DOORS. PROVIDE DATA OUTLET AND J-BOX WITH 120V POWER WIRING IN ATTIC SPACE NEAR DOOR FOR FUTURE CONNECTION TO A DOOR CONTROLLER.

N15 Building E - 2nd Floor Power Plan
1/8" = 1'-0"



J15 Building E - Enlarged Power Plan
1/4" = 1'-0"



E15 Building E - Enlarged Power Plan
1/4" = 1'-0"

General Notes

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2	Addendum 2- Electrical Rebid	03/22/23

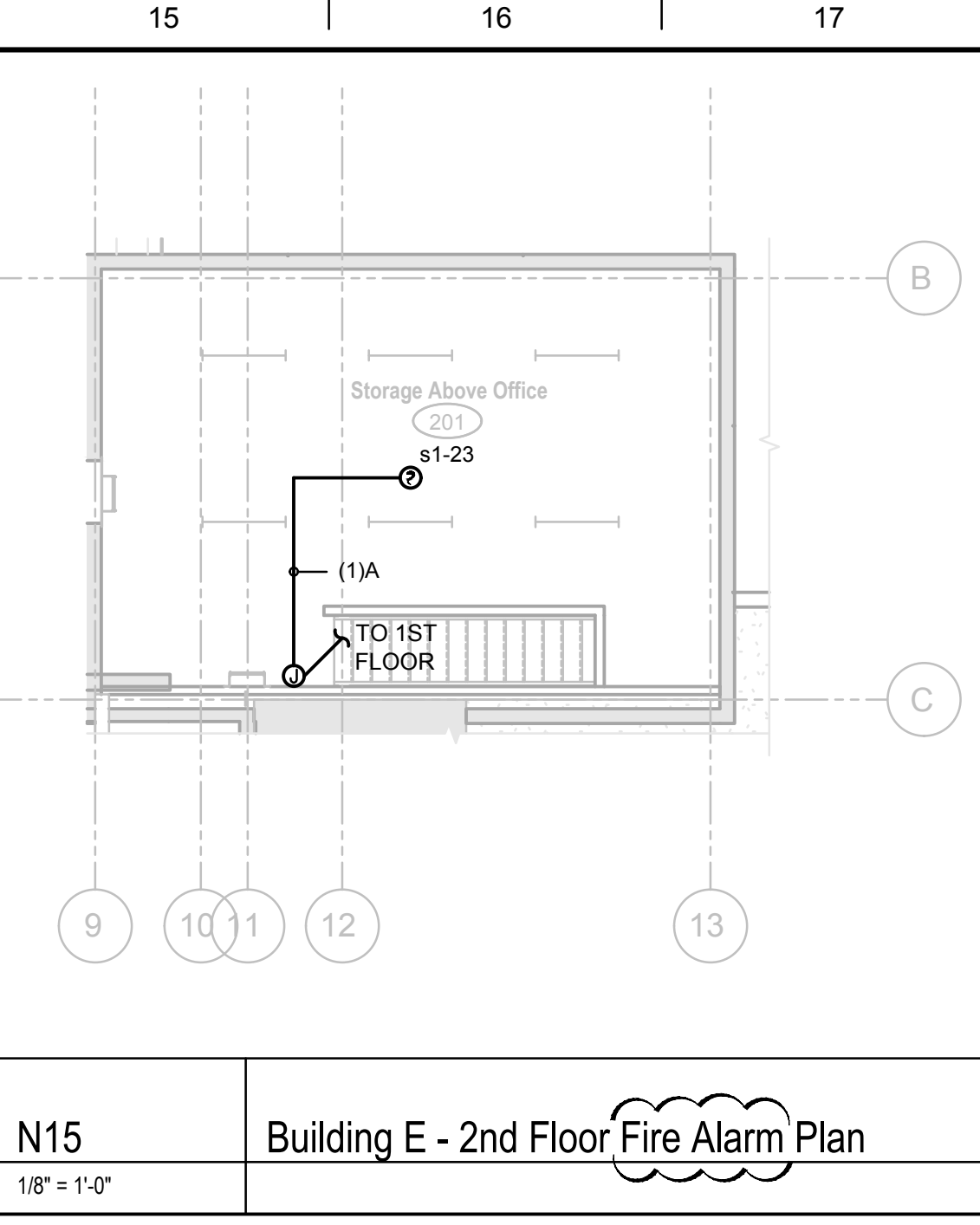
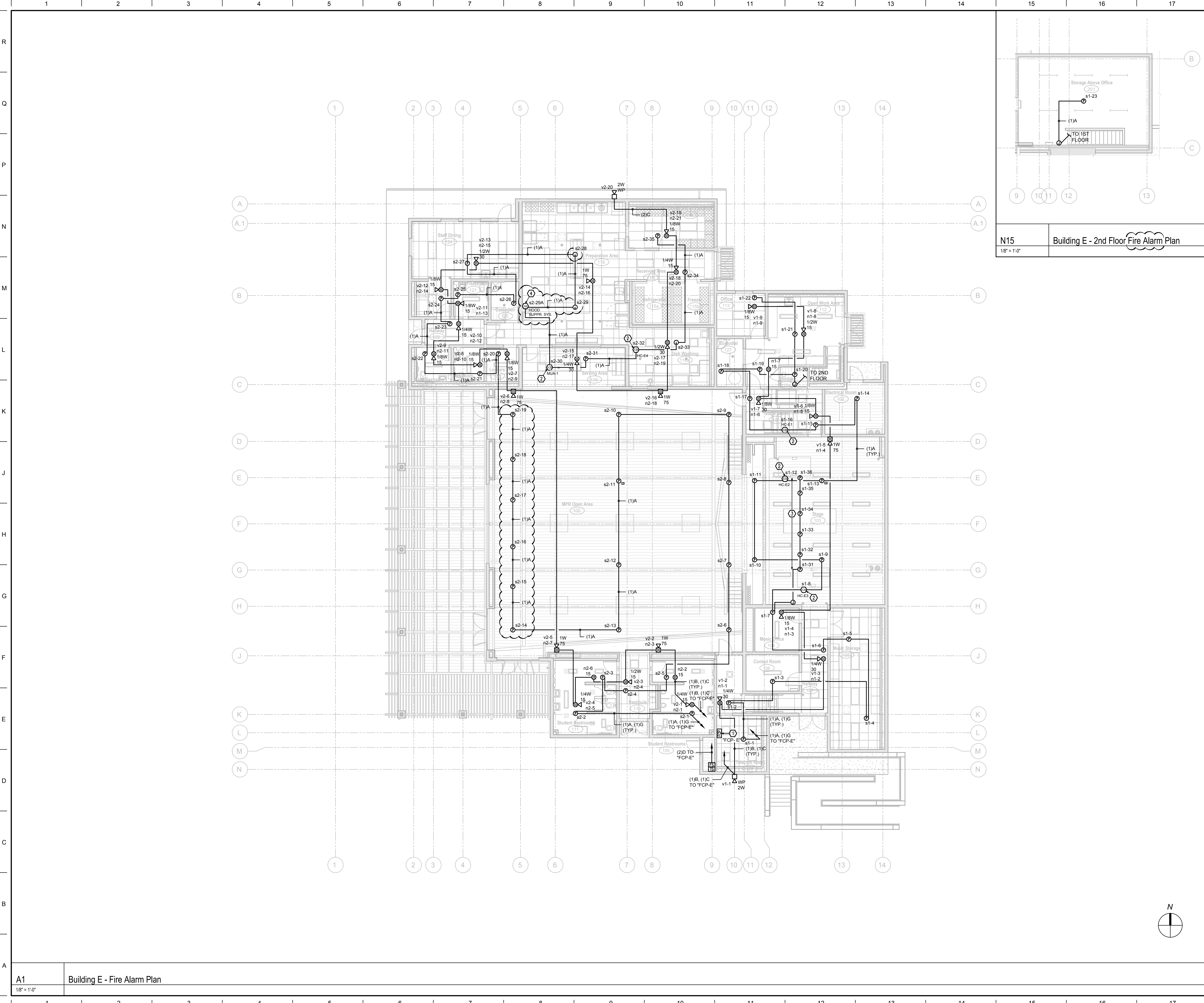
Revision	
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Project Number:	2116	Checked By:	SD	
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A1 Building E - Power Plan
1/8" = 1'-0"

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KEYNOTES

1. FIRE ALARM CONTROL PANEL, CONNECT TO DEDICATED 120V 20A CIRCUIT. CIRCUIT BREAKER TO BE EQUIPPED WITH RED HANDLE LOCK-ON DEVICE AND LABEL READING "FIRE ALARM CIRCUIT. DO NOT TURN OFF". CONNECT FA PER FIRE ALARM SINGLE LINE DIAGRAM A1X/E502. SEE DETAIL ABX/E302 FOR MOUNTING.
2. CONNECT RELAY MODULE TO MECHANICAL UNIT SHUTDOWN TERMINALS.
3. MOUNT DETECTORS IN STORAGE SPACE BENEATH STAGE. PROVIDE METAL CAGE OVER DETECTORS TO PREVENT INADVERTENT DAMAGE.
4. CONNECT MONITOR MODULE TO HOOD FIRE SUPPRESSION SYSTEM.

N15 Building E - 2nd Floor Fire Alarm Plan
1/8" = 1'-0"

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Fire Alarm Plan

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A1 Building E - Fire Alarm Plan
1/8" = 1'-0"

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KEYNOTES

- EMERGENCY LIGHTING INVERTER "INV-K" 90 MINUTES RUNTIME. IOTA #HS-375-LED. WHEN POWER FAILS, EMERGENCY LIGHTS AUTOMATICALLY SWITCH ON. SEE DETAIL H10X/E202 FOR MOUNTING. SEE ENLARGED ELECTRICAL PLAN L7K/E201 FOR CIRCUIT.
- LIGHTING CONTROL PANEL "LCP-K" LITHONIA #ARP-INTENC8NLT-4FCR-MVOLT-1VB-HLK-SM-DTC. SEE ENLARGED ELECTRICAL PLAN L7K/E201 FOR CIRCUIT.
- PROVIDE MAINTENANCE SWITCH IN ATTIC SPACE FOR LIGHTS.
- EMERGENCY LIGHTING INVERTER "INV-K1" 90 MINUTES RUNTIME. IOTA #HS-375-LED. WHEN POWER FAILS, EMERGENCY LIGHTS AUTOMATICALLY SWITCH ON. SEE DETAIL H10X/E202 FOR MOUNTING. SEE ENLARGED PLAN N15K/E201 FOR CIRCUIT.
- LIGHTING CONTROL PANEL "LCP-K1" LITHONIA #ARP-INTENC8NLT-4FCR-MVOLT-1VB-HLK-SM-DTC. SEE ENLARGED ELECTRICAL PLAN N15K/E201 FOR CIRCUIT.

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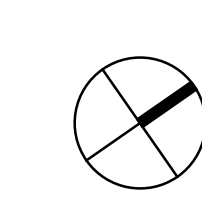
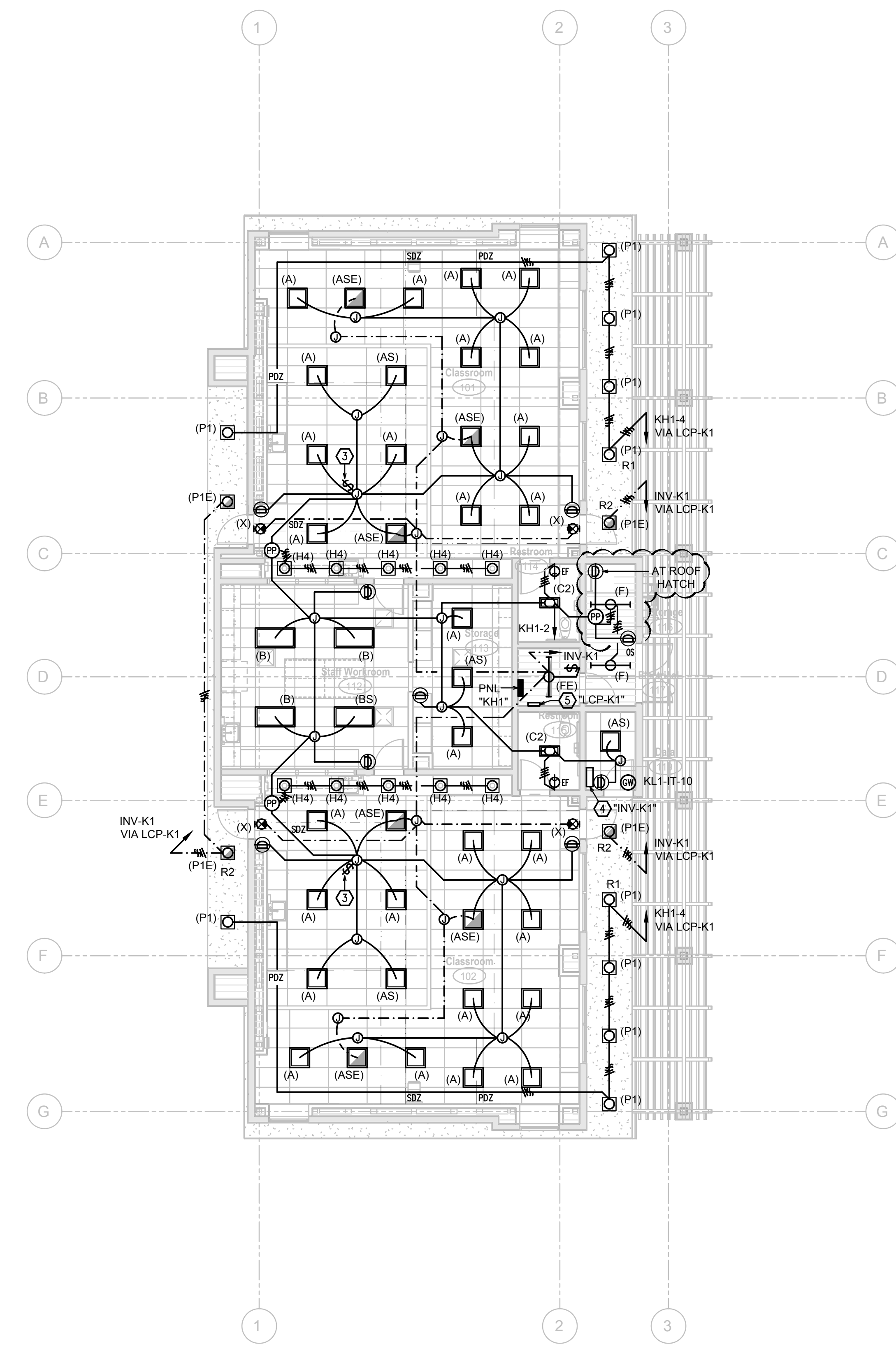
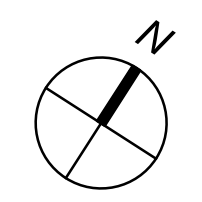
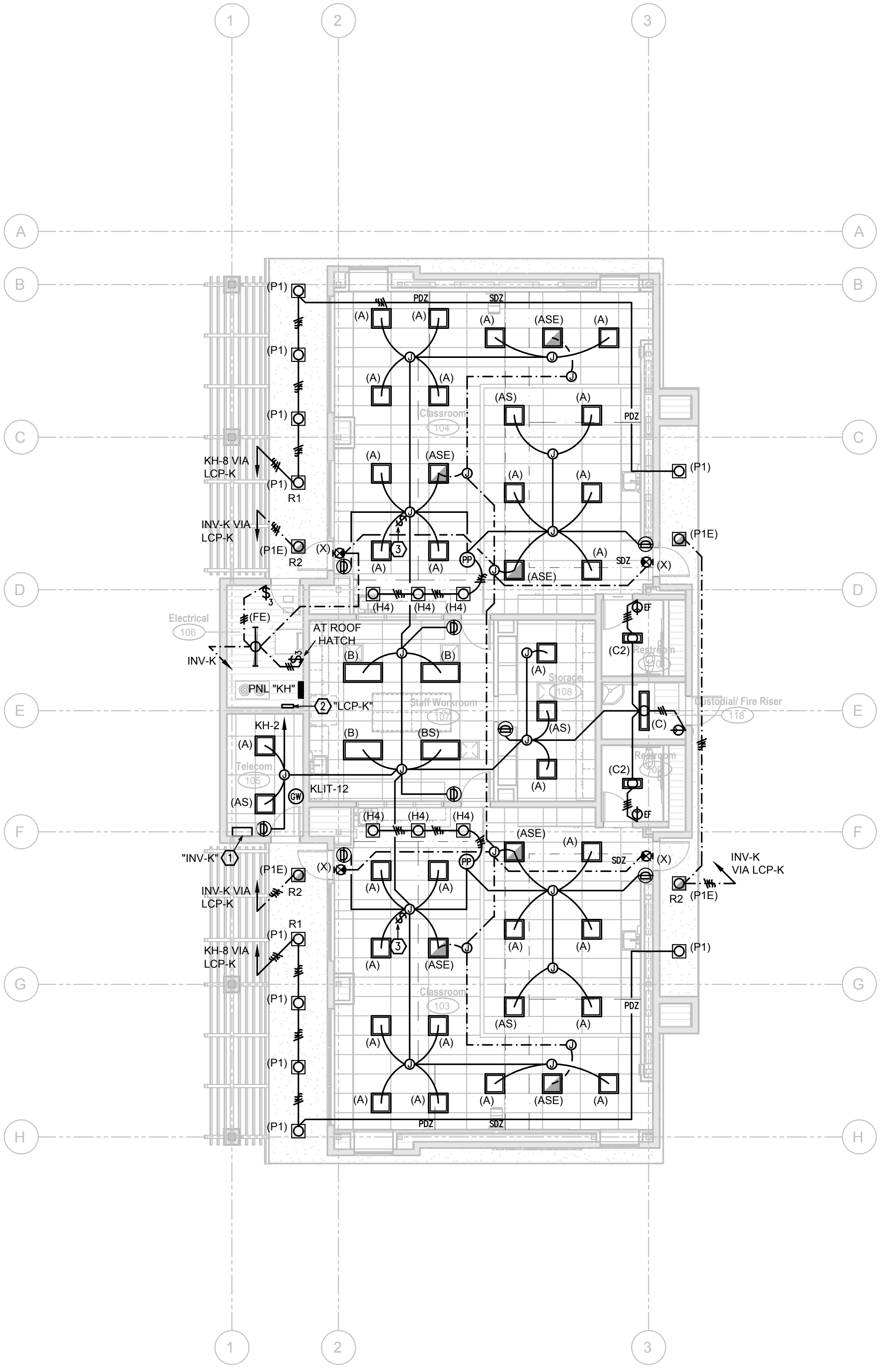
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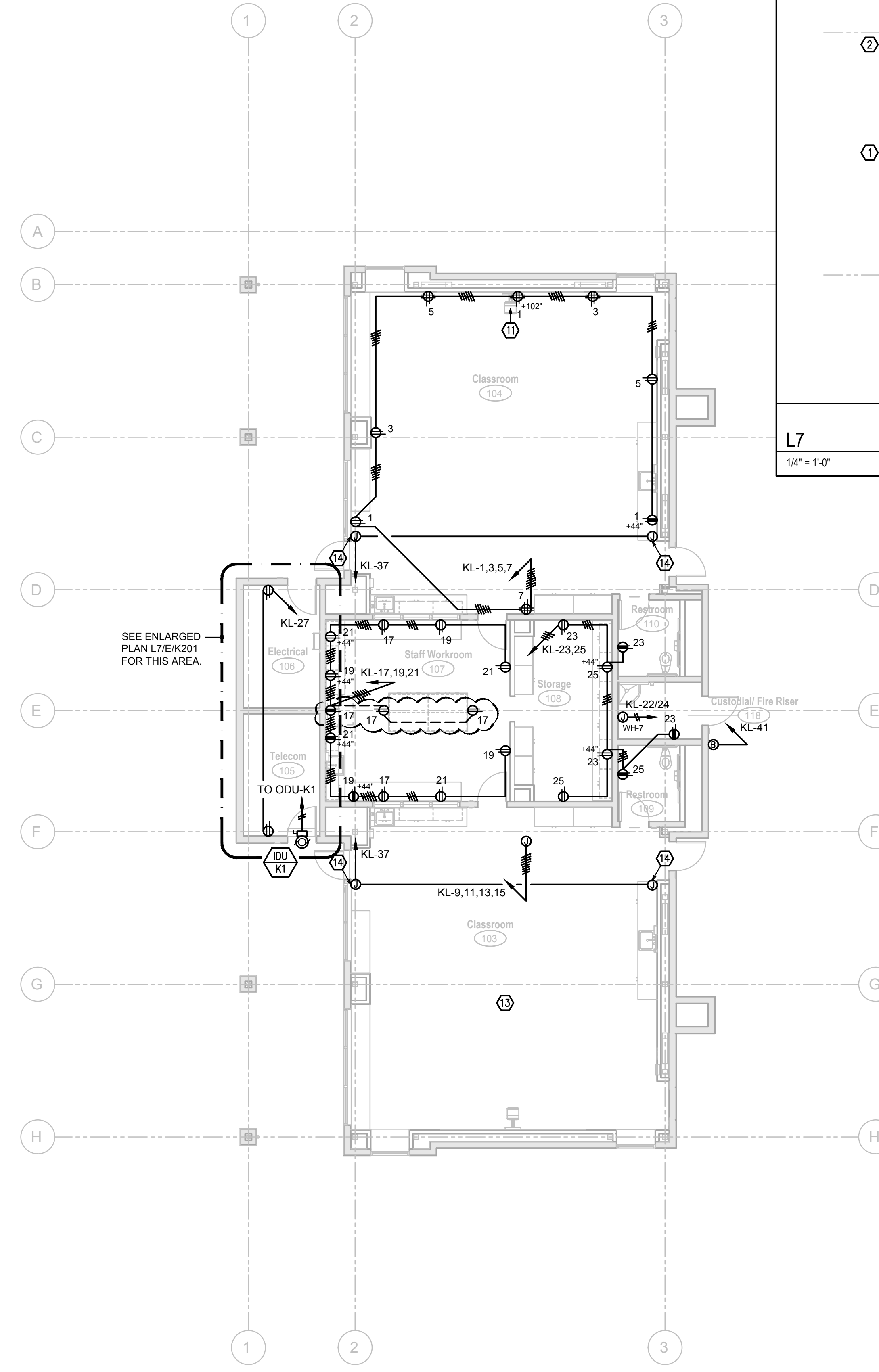


A1 Building K2 - Lighting Plan
 1/8" = 1'-0"

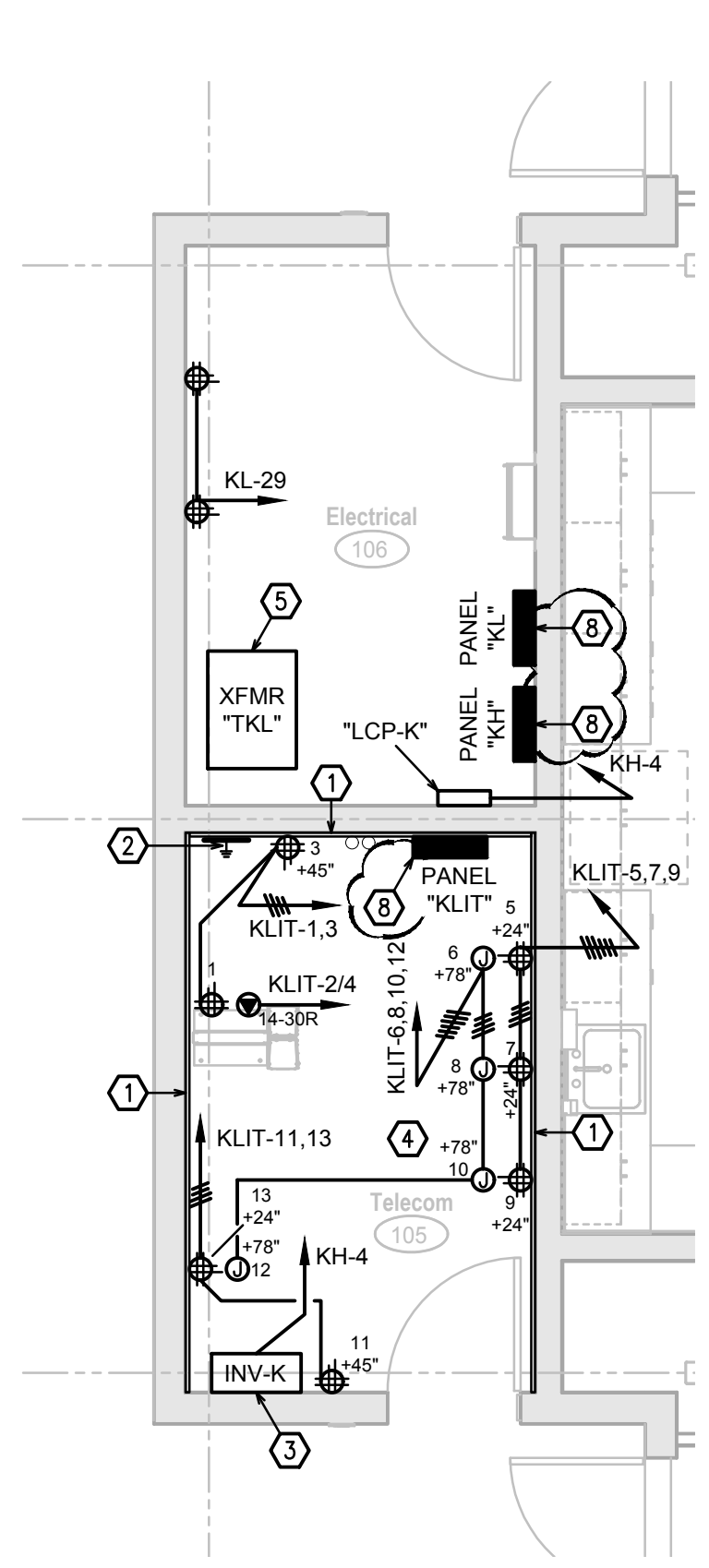
A9 Building K1 - Lighting Plan
 1/8" = 1'-0"

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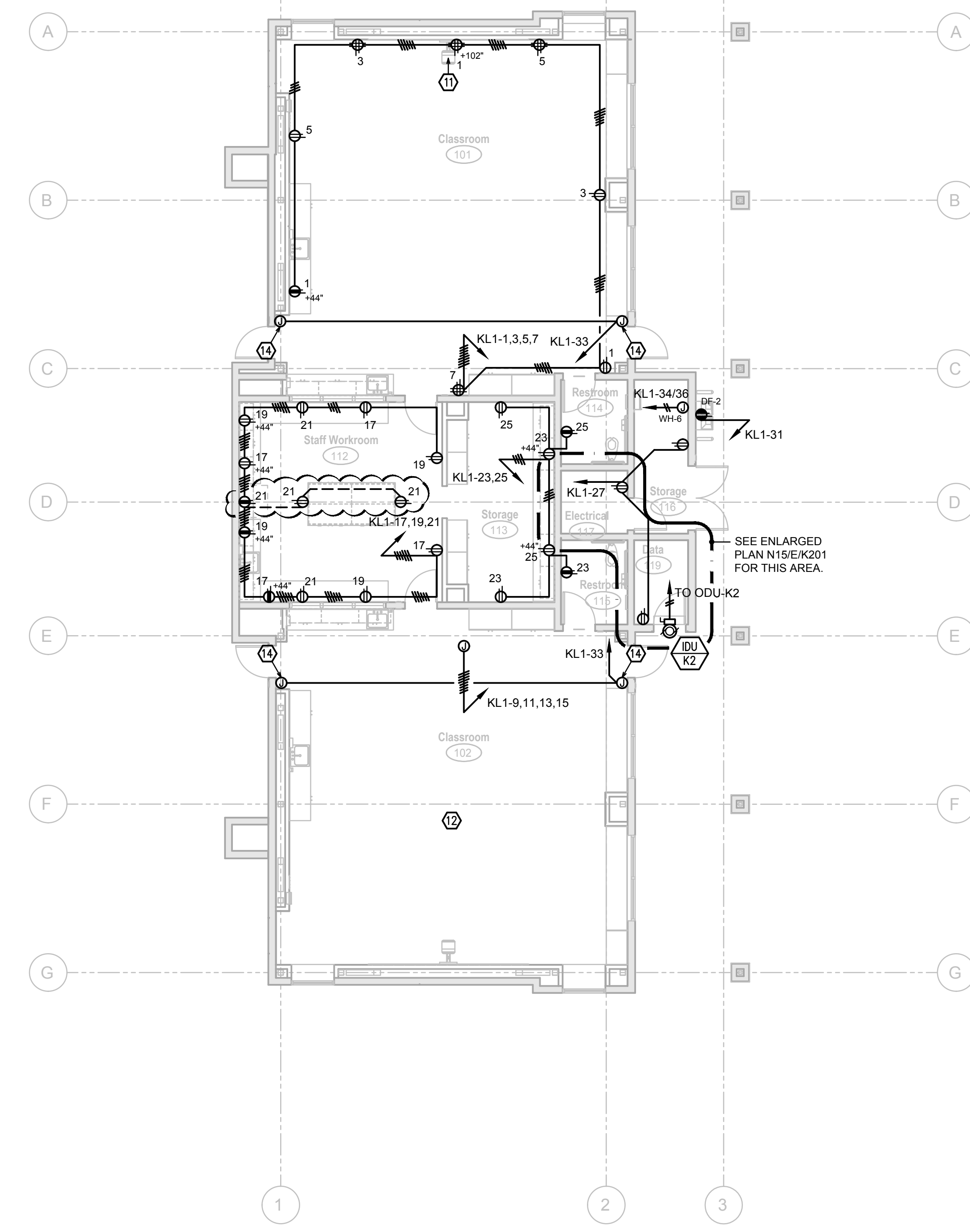
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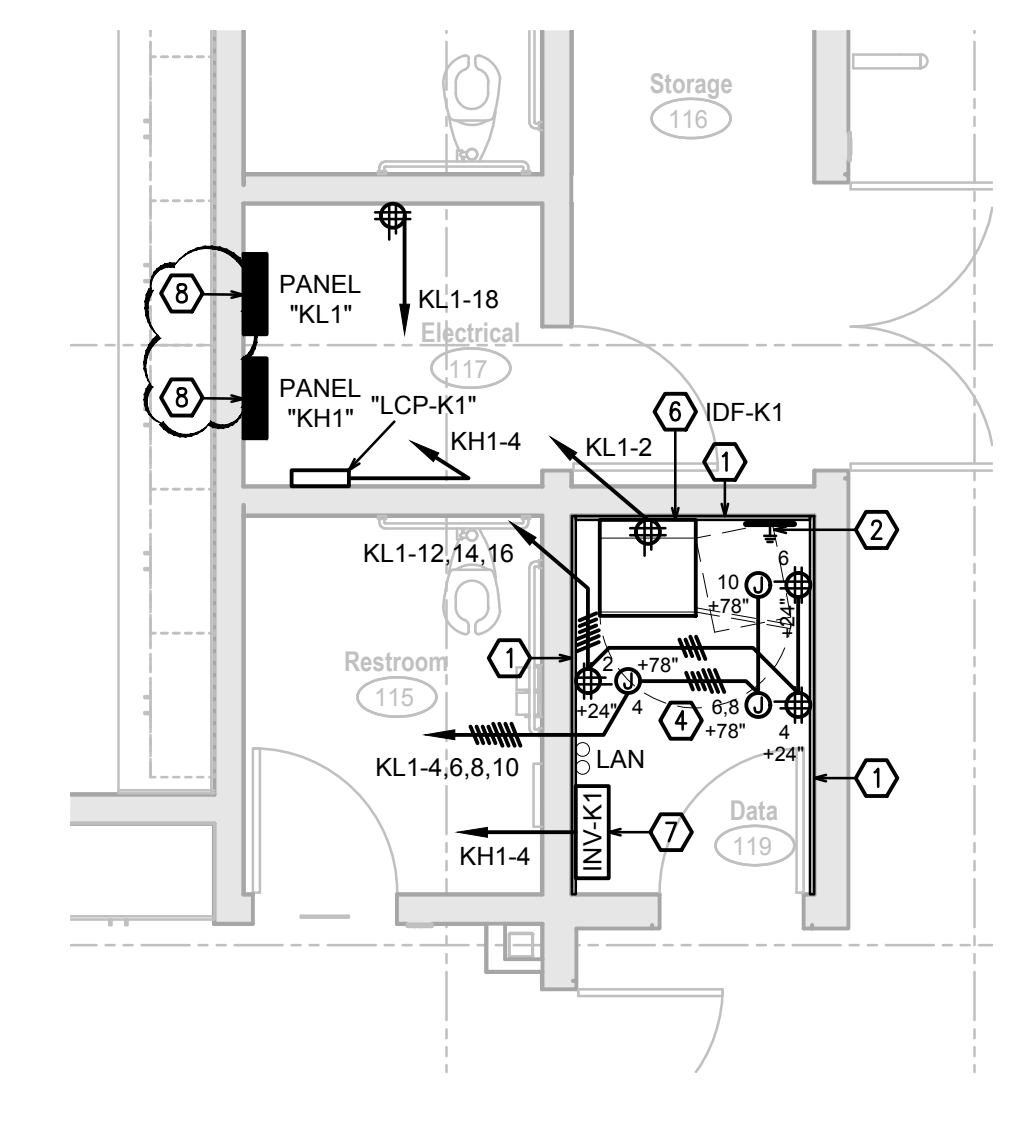
L7 Building K2 - Enlarged Power Plan
1/4" = 1'-0"



A9 Building K1 - Power Plan
1/8" = 1'-0"



N15 Building K1 - Enlarged Power Plan
1/4" = 1'-0"



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KEYNOTES

1. 3/4" THICK x 8" HIGH, FIRE-RESISTANT PLYWOOD BACKBOARD, PAINTED WITH FIRE RESISTANT PAINT. SECURE PLYWOOD TO (2) METAL STUDS WITH #10 x 4" GALVANIZED FLAT HEAD SMS AT 8" CENTERS, WITH MIN. (4) SCREWS AT 8" CENTERS AT EACH WALL STUD, WITH MIN. 2 1/2" EMBEDMENT INTO WALL STUD.
2. PROVIDE TELECOM GROUND BUS PER DETAIL N8/XE401 AND J8/XE401.
3. EMERGENCY LIGHTING INVERTER PER DETAIL H10/XE202.
4. CONNECT POWER TO FA, EMS, SECURITY SYSTEMS AND LIGHTING GATEWAY.
5. PAD MOUNTED TRANSFORMER. SEE DETAIL D10/XE301 FOR MOUNTING. SEE POWER SINGLE LINE DIAGRAM G10/XE301.
6. PROVIDE 36"H IDF CABINET PER SPECS AT +60" AFF. TO BOTTOM OF CABINET. MOUNT POWER OUTLET INSIDE CABINET. SEE DETAIL E6/XE402 FOR MOUNTING.
7. EMERGENCY LIGHTING INVERTER PER DETAIL H10/XE202.
8. WALL MOUNTED PANELBOARD. SEE DETAIL L1/XE302 FOR MOUNTING. SEE POWER SINGLE LINE DIAGRAM G10/XE301.
11. SEE TEACHING WALL ELEVATION DETAIL K1/XE402.
12. PROVIDE ELECTRICAL INSTALLATION PER CLASSROOM 101.
13. PROVIDE ELECTRICAL INSTALLATION PER CLASSROOM 104.
14. PROVIDE ROUGH-IN AT THIS ENTRANCE FOR FUTURE ACCESS CONTROL SYSTEM. PROVIDE CARD READER J-BOX AT +45" AFF WITH 1/2" CONDUIT TO ATTIC SPACE FOR A DOOR CONTACTOR AND AN ELECTRIC STRIKE. (4) TOTAL FOR DOUBLE DOORS. PROVIDE DATA OUTLET AND J-BOX WITH 120V POWER WIRING IN ATTIC SPACE NEAR DOOR FOR FUTURE CONNECTION TO A DOOR CONTROLLER.

General Notes

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2	Addendum 2- Electrical Rebid	03/22/23

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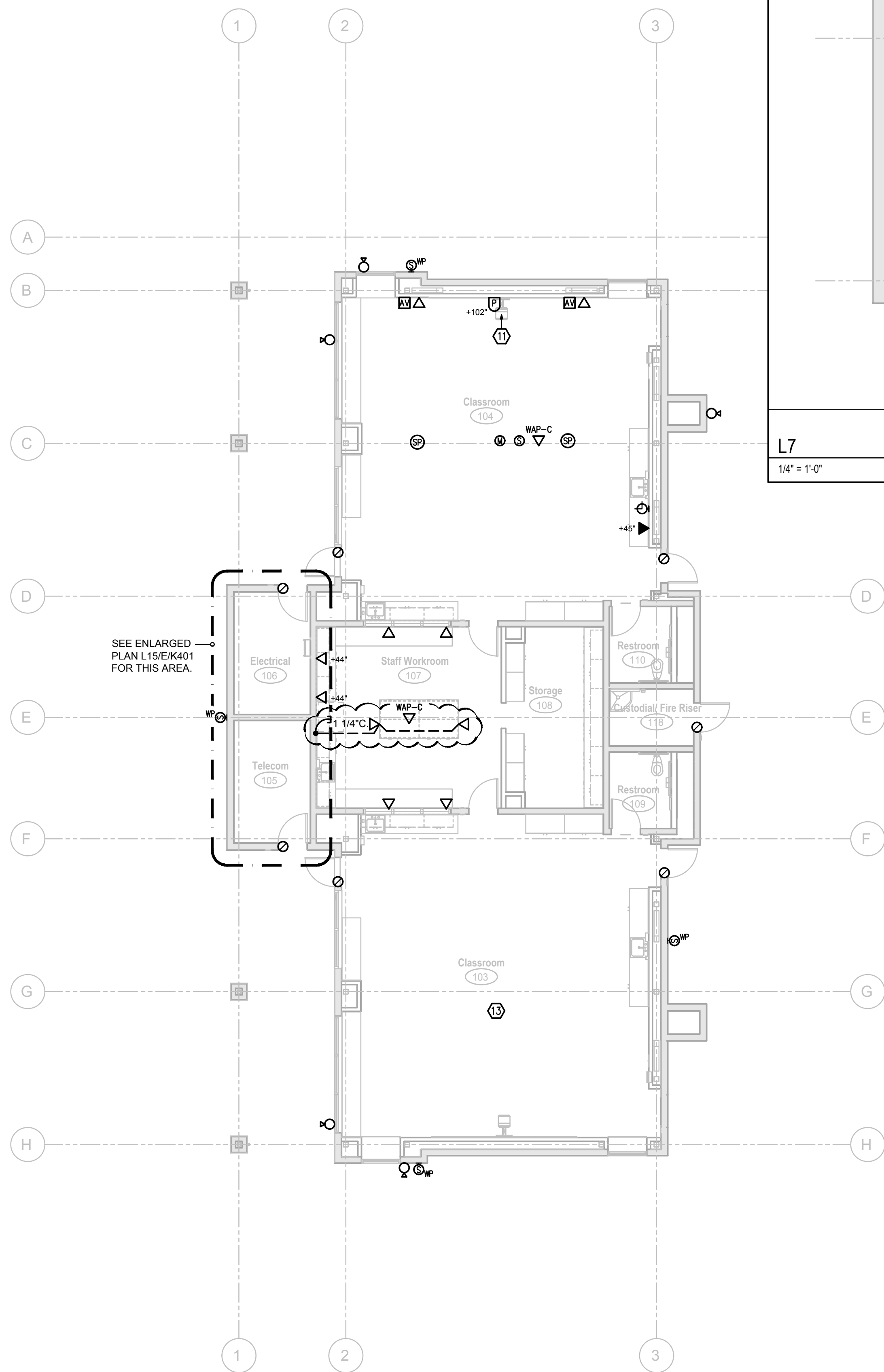
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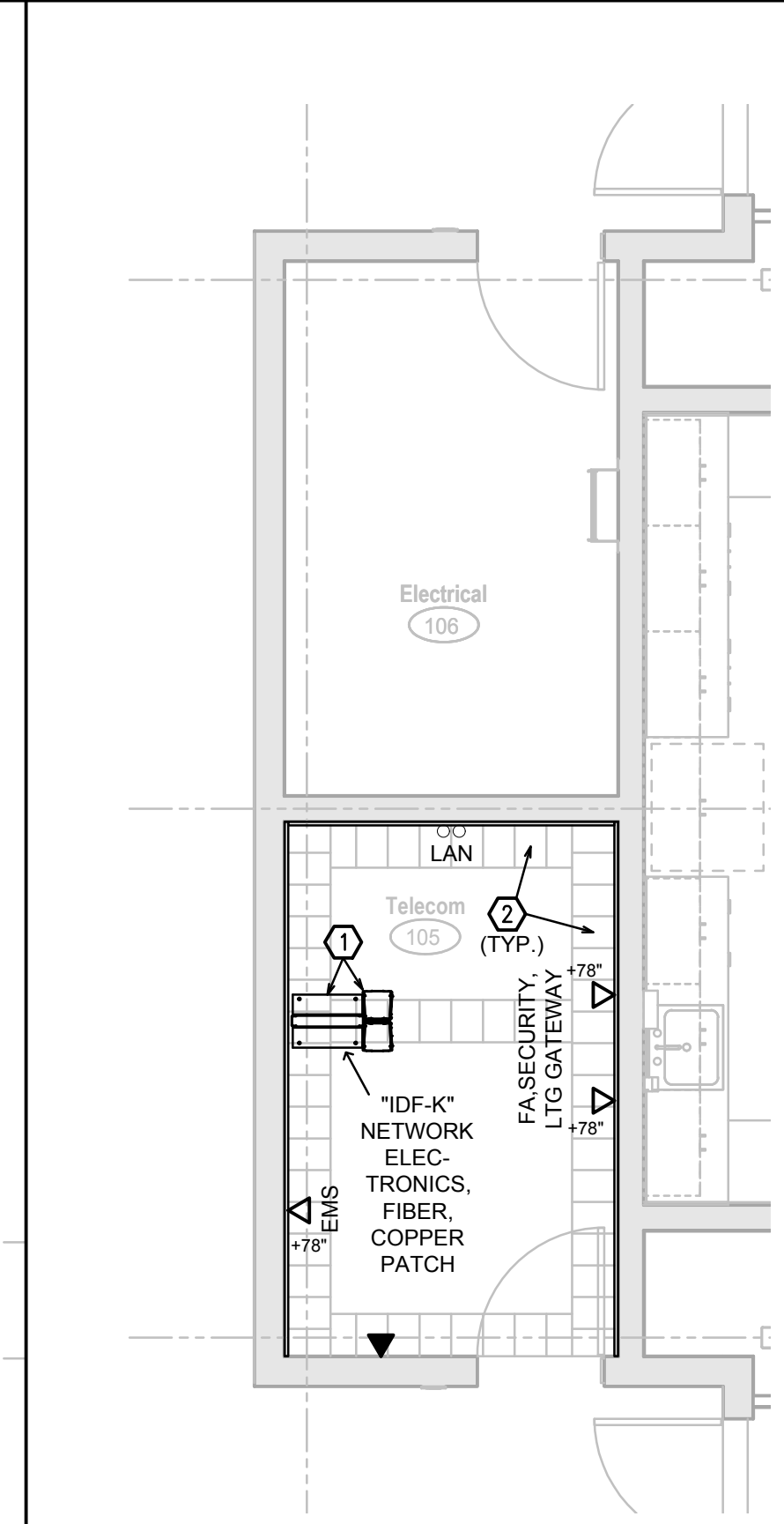
A1 Building K2 - Power Plan
1/8" = 1'-0"

A9 Building K1 - Power Plan
1/8" = 1'-0"

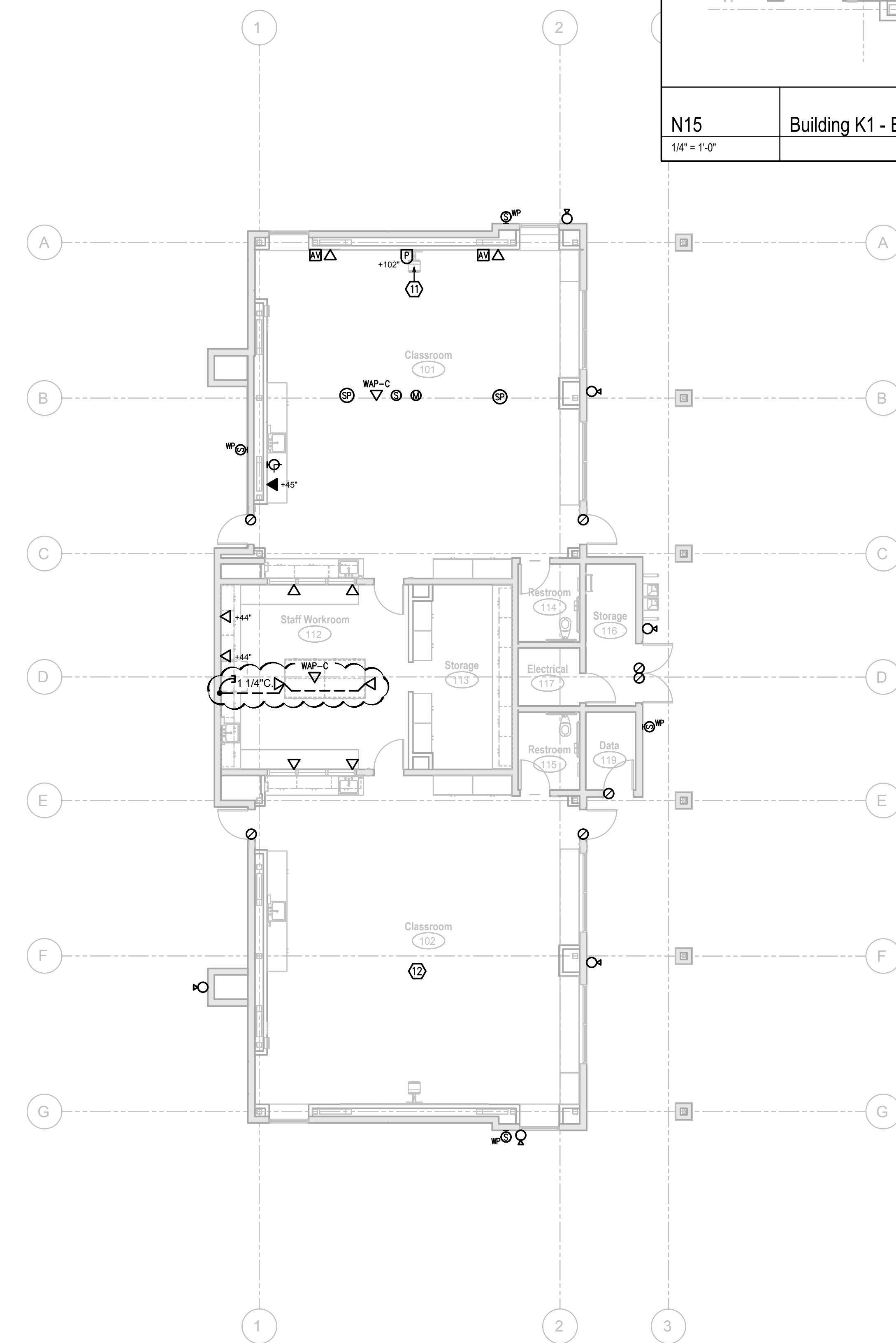
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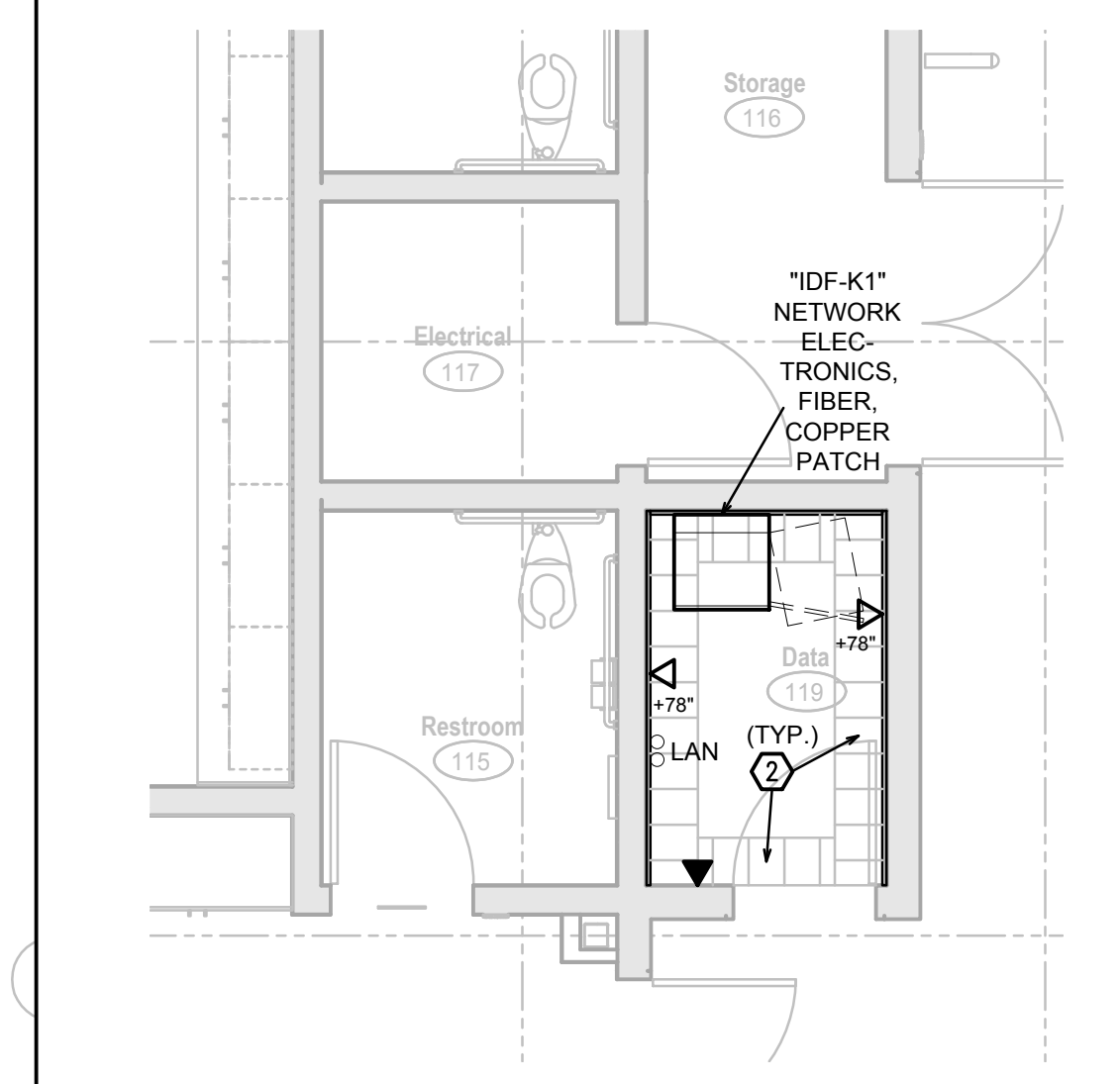
A1 Building K2 - Low Voltage Plan
1/8" = 1'-0"



L7 Building K2 - Enlarged Low Voltage Plan
1/4" = 1'-0"



A9 Building K1 - Low Voltage Plan
1/8" = 1'-0"



N15 Building K1 - Enlarged Low Voltage Plan
1/4" = 1'-0"

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KEYNOTES

1. 2-POST RACK(S), CABLE MANAGEMENT SECTION, AND APPURTENANCES PER SPECS. SEE DETAIL A13/X/E401 FOR MOUNTING.
2. CHATSWORTH 11252-71X 12" LADDER RACK SYSTEM PER SPECIFICATIONS AND DETAIL A11/X/E401.
3. IDF CABINET PER SPECS. SEE DETAIL E6/X/E402 FOR MOUNTING.
11. SEE TEACHING WALL ELEVATION DETAIL K1/X/E402.
12. PROVIDE ELECTRICAL INSTALLATION PER CLASSROOM 101.
13. PROVIDE ELECTRICAL INSTALLATION PER CLASSROOM 104.

General Notes

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KEYNOTES

1. PORTABLE BUILDING PANEL PRE-INSTALLED BY MANUFACTURER. RECONNECT POWER AND GROUND PER DETAIL A15/X/E304 AND A10/X/E304. BOND ALL BUILDING MODULES TOGETHER PER DETAIL D15/X/E304.
2. PORTABLE BUILDING SIGNAL TERMINAL CABINET, NEMA 3R HINGED AND LOCKABLE ENCLOSURE AT +66" TO TOP. INSTALL WIRE GUTTER AT ATTIC HEIGHT WITH (2) 2" & (1) 1" EXTERIOR RISERS AND NIPPLES INTO ACCESSIBLE ATTIC. PAINT TO MATCH BUILDING. INSTALL PATCH PANELS AND MAKE TERMINATIONS AT INTERIOR. SEE DETAIL H14/X/403.
3. ASSEMBLE PORTABLE BUILDING. RECONNECT POWER AND LIGHTING SYSTEMS SEPARATED PRIOR TO TRANSPORT.
4. IDF CABINET PER DETAIL M14/X/403 AND SPECIFICATIONS. INSTALL OUTLET AT INTERIOR AND CONNECT TO DEDICATED 120V 20A CIRCUIT IN BUILDING PANELBOARD.
5. FIRE ALARM CONTROL PANEL, CONNECT TO DEDICATED 120V 20A 1-POLE CIRCUIT BREAKER WITH RED HANDLE LOCK-ON DEVICE IN BUILDING PANELBOARD. CONNECT FA. SEE FIRE ALARM SHEETS. SEE DETAIL M10/X/E403 FOR MOUNTING.
6. PROVIDE INDICATED JACKS AT PRE-INSTALLED BOX BY BLDG. MFCR AND CONNECT TO IDF.
7. PROVIDE INDICATED JACKS FOR WIRELESS ACCESS POINT. INSTALL PER DETAIL G13/X/E401.
8. PROVIDE INDICATED JACKS FOR FUTURE CEILING PROJECTOR. COIL UP 6 FT. EXTRA CABLE WITH JACK ATTACHED AND SECURE IN ATTIC SPACE.
9. PROVIDE WALL MOUNTED VOICE JACK FOR VoIP HANDSET AT PRE-INSTALL BOX BY BLDG. MFCR, ADJACENT TO DOOR.
10. PROVIDE ELECTRICAL IMPROVEMENTS AS SHOWN.
11. PROVIDE INDICATED JACKS AND DEVICES FOR WALL MOUNTED PROJECTOR SYSTEM. SEE TEACHING WALL ELEVATION DETAIL K11/X/E402. INSTALL PROJECTOR MOUNT PER DETAIL E1X/E402.
12. HOMERUN TO 120V 20A 1-POLE CIRCUIT BREAKER IN BUILDING PANELBOARD.
13. WEATHERPROOF GFI OUTLET PRE-INSTALLED BY MANUFACTURER.
14. HOMERUN TO PEDESTAL MOUNTED PANELBOARD "RNL". SEE SITE ELECTRICAL PLAN A1/SD/E201 (INCREMENT 1) AND POWER SINGLE LINE DIAGRAM G10/X/E301.
15. 2" FIBER, 2" C. SIGNAL, AND 1" C. FA TO PEDESTAL MOUNTED TERMINAL CABINET. SEE SITE ELECTRICAL PLAN A1/SD/E201 (INCREMENT 1). PROVIDE CABLING AND CONNECTION PER SITE CABLE LINE DIAGRAMS M11/X/E402 AND G11/X/E402. CONNECT FA PER FIRE ALARM SHEETS.
16. SPRINKLER RISER BELL, CONNECT TO DEDICATED FIRE ALARM CIRCUIT IN BUILDING PANELBOARD.

GENERAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH CUSD SPECIFICATIONS. PROVIDE COMPLETE AND OPERATIONAL SYSTEMS. ANY DISCREPANCIES MUST BE ADDRESSED BY RFI PRIOR TO BID.
2. NOTIFY ENGINEER OF ANY CONDITIONS THAT MAY PREVENT INSTALLATIONS AS SHOWN IN THIS DRAWING.
3. CUSD REQUIRES CONCEALED RACEWAYS AND FLUSH INSTALLATION OF DEVICES IN WALLS. WHERE THIS IS PARTICULARLY DIFFICULT, AND WITH APPROVAL FROM DISTRICT, THE CONTRACTOR MAY BE SURFACE RACEWAYS.

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Building P
 Electrical Plan and Fire Alarm Plan
 Drawing

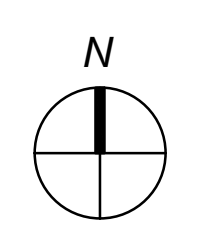
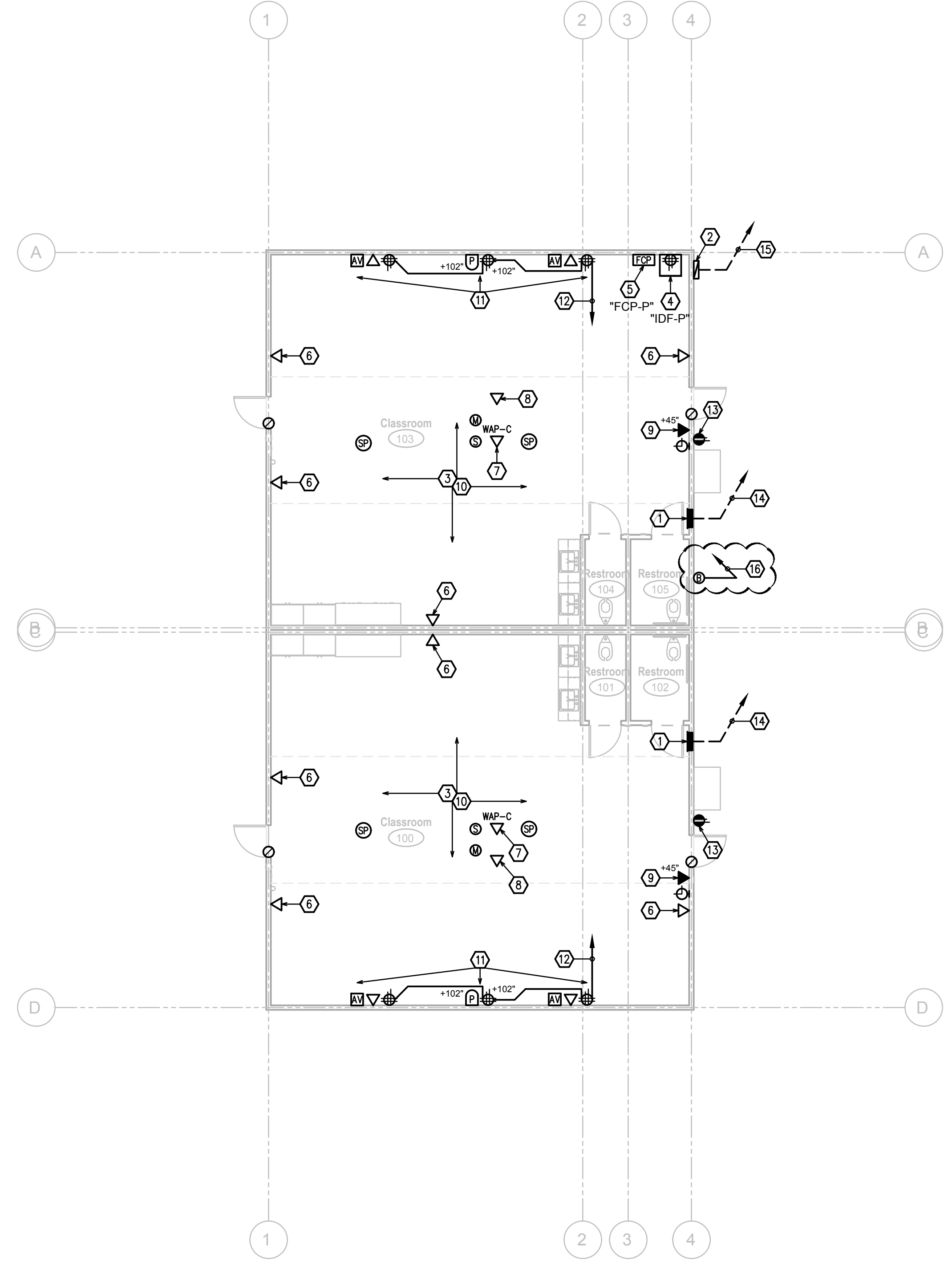
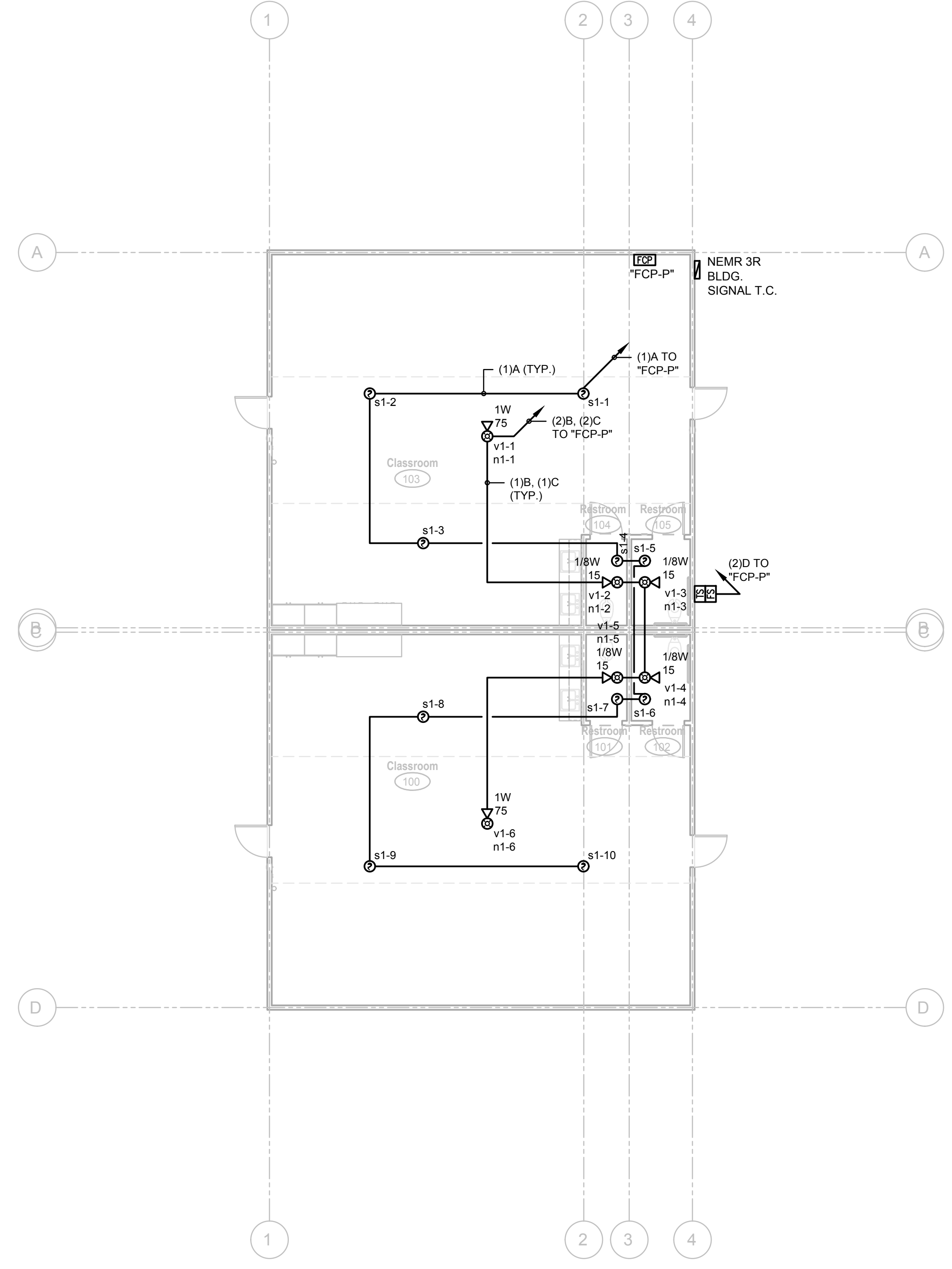
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A1 Building P - Fire Alarm Plan
 1/8" = 1'-0"

A9 Building P - Electrical Plan
 1/8" = 1'-0"