

FIRE ALARM DEVICE LEGEND

QTY	SYMBOL	DESCRIPTION	NOTE DETAIL	MANUFACTURER	MODEL #	MOUNTING	MOUNT DEVICE	MOUNT ACC.
1		ADDRESSABLE HEAT DETECTOR	ZONE # AND DEVICE #	SILENT KNIGHT		CEILING	3-0 NL ON- 4 SQ DP	N/A-3-0 RING
128		SMOKE DETECTOR ADDRESSABLE	ZONE # AND DEVICE #	SILENT KNIGHT	SK-PHOTO	CEILING	3-0 NL ON- 4 SQ DP	N/A-3-0 RING
10		PULL STATION	ZONE # AND DEVICE #	SILENT KNIGHT	PULL-SA	WALL	SG NL ON- 4 SQ DP	N/A-SG RING
2		DUCT SMOKE DETECTOR	DEVICE NUMBER	SILENT KNIGHT	SK-DUCT	BY OTHERS	BY OTHERS	BY OTHERS
11		ADDRESSABLE MONITOR MODULE	DEVICE NUMBER	SILENT KNIGHT	SK-MONITOR	BY OTHERS	2G NL ON-4 SQ DP	N/A-2G RING
4		ADDRESSABLE RELAY MODULE	DEVICE NUMBER	SILENT KNIGHT	SK-RELAY	WALL	2G NL ON-4 SQ DP	N/A-2G RING
17		CEILING SPEAKER STROBE	WATTAGE, CANDELA AND CKT	SYSTEM SENSOR	SPSWL	CEILING	3-0 NL ON- 4 SQ DP	N/A-4 SQ DEEP
7		WALL SPEAKER STROBE	WATTAGE, CANDELA AND CKT	SYSTEM SENSOR	SPSWL	WALL	SG NL ON- 4 SQ DP	N/A-4 SQ DEEP
4		END OF LINE RESISTOR	RESISTANCE VALUE	VARIABLE	N/A	LAST NAC DEVICE IN CIRCUIT	N/A	N/A
EXISTING		FIRE ALARM VOICE EVAC CONTROL PANEL	PANEL NUMBER	SILENT KNIGHT	5820XL-EVS	WALL	SURFACE- RECESSED	N/A
2		BOOSTER POWER SUPPLY	PANEL NUMBER	SILENT KNIGHT	5499	WALL	SURFACE- RECESSED	N/A
1		AMPLIFIER	PANEL NUMBER	SILENT KNIGHT	INT-50	WALL	SURFACE- RECESSED	N/A
1		REMOTE ANNUNCIATOR	PANEL NUMBER	SILENT KNIGHT	5860-R	WALL	RECESSED	N/A

WIRE LEGEND

WIRE CALLOUT	SIZE-IN./AWG	TYPE	#CONDUCTORS	FUNCTION
M	16	FPLR	2	SLC ADDRESSABLE CIRCUIT
B	14	FPLR	2	NOTIFICATION CIRCUIT
C	16	CI-FPLR SHIELDED	2	FIREFIGHTER PHONE VOICE CIRCUIT
D	16	CI-FPLR SHIELDED	2	FIREFIGHTER PHONE SLC CIRCUIT
E	16	FPLR	4	ANNUNCIATOR CIRCUIT W/ 24VDC POWER
F	18	CMR	2	2-WAY COMMUNICATION SYSTEM POWER
G	18	TWISTED SHIELDED 2-PAIR CMR	2	2-WAY COMMUNICATION SYSTEM VOICE
H	24	CAT 5 CMP	8	TELCO SERVICE CONNECTION
I	16	TWISTED SHIELDED	2	VOICE EVACUATION SPEAKER CIRCUIT
J	14	FPLP	2	24VDC AUX POWER CIRCUIT

INPUT/OUTPUT MATRIX

INPUT/OUTPUT FUNCTIONS	GENERAL ALARM NOTIFICATION W/ CENTRAL STATION REPORT	SUPERVISORY SIGNAL W/CENTRAL STATION REPORT	ACTIVATE WATER ALARM BELL	CLOSE SMOKE FIRE DAMPERS	CLOSE STAIR PRESSURIZATION FAN DAMPERS	SHUT DOWN HVAC UNITS	ELEVATOR RECALL	ALTERNATE ELEVATOR RECALL
MANUAL PULL STATION- LEVEL 1	X			X		X		
SMOKE DETECTION- LEVEL 1	X			X		X		
MANUAL PULL STATION- LEVEL 2	X			X		X		
SMOKE DETECTION- LEVEL 2	X			X		X		
GENERAL DUCT DETECTION	X	X		X		X		
ELEVATOR LOBBY SMOKE DETECTION LEVEL 1	X			X		X		X
ELEVATOR LOBBY SMOKE DETECTION LEVEL 2	X			X		X		X
ELEVATOR MACHINE RM SMOKE DETECTIONS=	X			X		X		X
WET FIRE SPRINKLER WATER FLOW	X		X	X				
WET FIRE SPRINKLER TAMPER		X						
BI-DIRECTIONAL ANTENNA (IF APPLICABLE)								
AC-POWER LOSS		X						
BATTERY CHARGER TROUBLE		X						
LOW BATTERY		X						
BDA TROUBLE		X						
ANTENNA MALFUNCTION		X						

SHEET INDEX

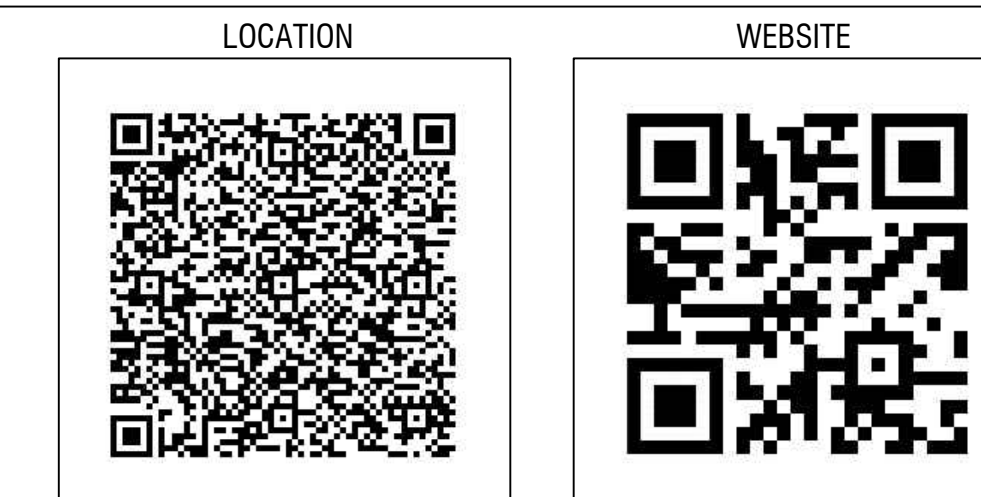
FA000	COVER
FA001	RISER
FA002	BATTERY CALCS
FA003	DETAILS
FA004	DETAILS
FA100	FLOOR PLAN LEVEL 1
FA101	FLOOR PLAN LEVEL 2
FA102	FLOOR PLAN ROOF

CASCADE CHRISTIAN JR HIGH SCHOOL

815 21ST ST SE

PUYALLUP, WA 98372

CONTRACTOR CONTACT INFO



LINX INTEGRATED 11409 58TH AVE E PUYALLUP, WA 98373
PH: 253-848-3036 FAX: 253-848-0542

GENERAL NOTES

HVAC CONTRACTOR SHALL PROVIDE, INSTALL AND PROVIDE POWER TO ANY REQUIRED DUCT DETECTORS. HVAC CONTRACTOR SHALL ALSO MAKE ALL CONNECTIONS AND TERMINATIONS TO HVAC SYSTEMS TO FACILITATE FAN SHUT DOWN FROM DUCT DETECTORS AND HVAC CONTRACTOR SHALL ALSO MAKE AVAILABLE A COMMON TERMINATION POINT FOR CONNECTION TO THE FIRE ALARM SYSTEM TO FACILITATE FAN SHUT DOWN UPON RECEIPT OF A GENERAL FIRE ALARM IF SUCH A FUNCTION IS REQUIRED PER APPLICABLE BUILDING CODES.

ELEVATOR CONTRACTOR SHALL MAKE ALL NECESSARY CONTROL CONNECTIONS INSIDE ELEVATOR CONTROL EQUIPMENT AND PROVIDE A REPRESENTATIVE IN A TIMELY MANNER TO FACILITATE AN ELEVATOR SYSTEMS PRETEST PRIOR TO REQUESTING AN ELEVATOR SYSTEMS FINAL INSPECTION,

ELECTRICAL CONTRACTOR SHALL PROVIDE ALL REQUIRED 120V 20 AMP DEDICATED CIRCUITS AS NECESSARY TO POWER ALL FIRE ALARM CONTROL EQUIPMENT AND LABEL ELECTRICAL SERVICE PANEL CLEARLY IN RED TO INDICATE FIRE ALARM POWER CIRCUITS. ALL FIRE ALARM POWER CIRCUIT BREAKERS WILL HAVE LOCK OUT DEVICES INSTALLED BY ELECTRICAL CONTRACTOR.

ELECTRICAL CONTRACTOR SHALL PROVIDE AND TERMINATE ALL REQUIRED CONNECTIONS TO SMOKE DAMPERS IF PRESENT AND PROVIDE AND TERMINATE THE LINE VOLTAGE POWER CONNECTIONS TO A 24VDC COIL RELAY LOCATED AT THE FIRE ALARM CONTROL PANEL TO FACILITATE CONNECTION TO SAID RELAY FOR THE PURPOSE OF ACTIVATING SMOKE DAMPER UPON RECEIPT OF GENERAL FIRE ALARM

ELECTRICAL CONTRACTOR SHALL PROVIDE ALL CONDUIT NECESSARY TO FACILITATE ACCESS TO OTHERWISE UNREACHABLE PORTIONS OF THE STRUCTURE AND/ OR LOCATIONS DETACHED FROM THE STRUCTURE THAT REQUIRE CONNECTION TO FIRE ALARM SYSTEM INCLUDING BUT NOT LIMITED TO SPRINKLER SYSTEM POST INDICATOR, VALVES REMOTE WATER SUPPLY PITS THAT WILL CONTAIN TAMPER SWITCHES, ETC.

6)ELECTRICAL CONTRACTOR SHALL PROVIDE ALL BOXES AND HARDWARE NECESSARY TO FACILITATE ABOVE LISTED ELECTRICAL SCOPE OF SYSTEMS INTEGRATION.

GENERAL CONTRACTOR SHALL COORDINATE AND BE MADE RESPONSIBLE FOR THE COMPLETION OF ALL TRADES INVOLVED IN THE FIRE ALARM SYSTEM INSTALLATION PROCESS. GENERAL CONTRACTOR SHALL ADHERE TO THE REQUIREMENTS OF THE BELOW LISTED FIRE ALARM SYSTEMS COMPLETION CHECK LIST AND THIS SECTION AND WILL ENSURE ALL ASPECTS OF WORK HAVE BEEN COMPLETED PRIOR TO REQUESTING A FINAL FIRE ALARM SYSTEMS INSPECTION.

THESE DRAWINGS RELATE TO FIRE ALARM INSTALLATION ONLY AND IN NO WAY SHOULD BE CONSTRUED AS GENERAL CONSTRUCTION DOCUMENTS OR AN ADDENDUM TO ANY OTHER CONSTRUCTION DRAWINGS.

INSTALLATION NOTES

ALL CIRCUITS TO BE CLASS B SUPERVISION, FIRE ALARM SYSTEM TO REPORT BY DEVICE ADDRESSABLE POINT IN MULTIPLEX SYSTEM OR BY ZONE IN CONVENTIONAL SYSTEMS AS NOTED IN SUBMITTAL DOCUMENTS AND THIS PAGE

ALL WIRING TO BE FIRE POWER LIMITED AND PROPERLY RATED FOR INSTALLATION ENVIRONMENT

SMOKE DETECTORS SHALL NOT BE INSTALLED CLOSER THAN 36" TO ANY HVAC INLET/OUTLET

AREA SMOKE DETECTORS SHALL NOT BE INSTALLED MORE THAN 30' APART CENTER TO CENTER AND NO MORE THAN 15' FROM ANY WALL OR PROTECTED AREA

CORRIDOR SMOKE DETECTORS SHALL NOT BE INSTALLED MORE THAN 42' APART CENTER TO CENTER AND NO MORE THAN 15' FROM ANY WALL OR PROTECTED AREA

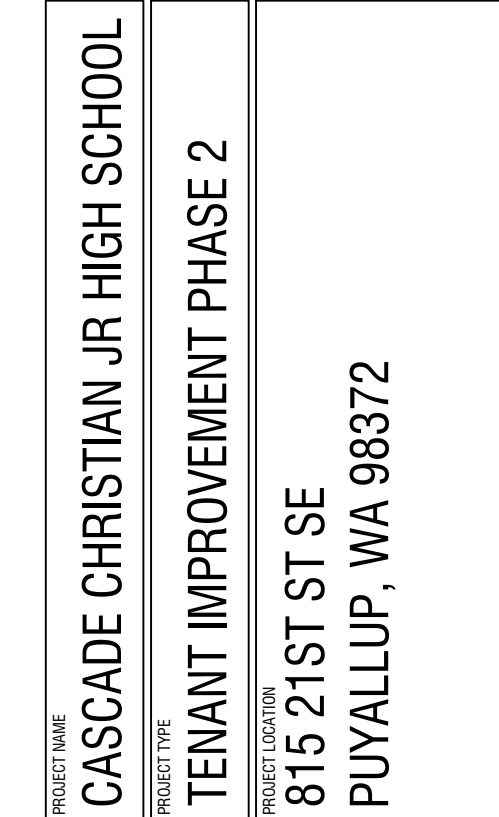
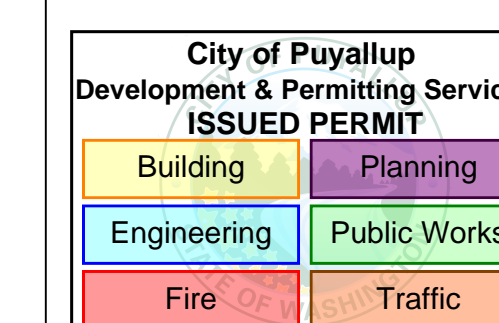
ALL WALL MOUNTED NOTIFICATION AND INITIATING DEVICES SHALL BE MOUNTED PER MOUNTING DETAIL ON THIS PAGE

FACP TO BE OPERATED AT A TEMPERATURE NO LOWER THAN 32 DEGREES

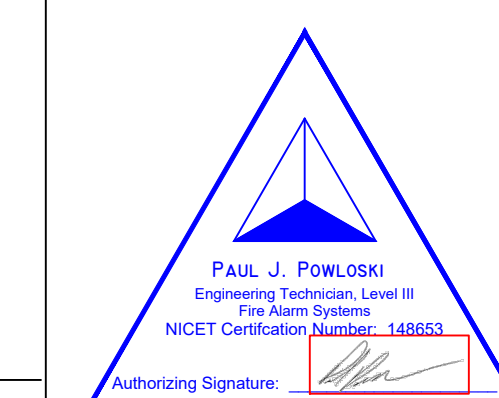
MODULE POINT NUMBER	DEVICE DESCRIPTION	DEVICE LOCATION	SMOKE DETECTOR POINT NUMBER SCL 1	DEVICE DESCRIPTION	DEVICE LOCATION	SMOKE DETECTOR POINT NUMBER SCL 1	DEVICE DESCRIPTION	DEVICE LOCATION
M-001	PULL STATION	SPRINKLER RISER ROOM 103	S-001	FACP & BPS SMOKE	SPRINKLER RISER ROOM 103	S-001	SMOKE DETECTOR	LEVEL 2 MENS RESTROOM
M-002	DUAL MONITOR MODULE- DOUBLE CHECK VALVE IN AND OUT	SPRINKLER RISER ROOM 103	S-002	AV CLOSET SMOKE	AV CLOSET 101A	S-002	SMOKE DETECTOR	LEVEL 2 OFFICE
M-003	DUAL MONITOR MODULE- DOUBLE CHECK VALVE IN AND OUT	SPRINKLER RISER ROOM 103	S-003	NAC DEVICE SMOKE	SPRINKLER RISER ROOM 103	S-003	SMOKE DETECTOR	LEVEL 2 OFFICE
M-004	MONITOR MODULE- TAMPER SWITCH	SPRINKLER RISER ROOM 103	S-004	STORAGE ROOM SMOKE	STORAGE ROOM 101	S-004	SMOKE DETECTOR	LEVEL 2 ELEC RM COVER BPS2
M-005	MONITOR MODULE- PIV VALVE	SPRINKLER RISER ROOM 103	S-005	STORAGE ROOM SMOKE	STORAGE ROOM 101	S-005	SMOKE DETECTOR	LEVEL 2 CLASS ROOM 401
M-006	PULL STATION	ELECTRICAL ROOM 102	S-006	ELECTRICAL ROOM SMOKE	ELECTRICAL ROOM 103	S-006	SMOKE DETECTOR	LEVEL 2 CLASS ROOM 401
M-007	PULL STATION	GYMNASIUM 100	S-007, S-017	GYMNASIUM ROOM SMOKE	GYMNASIUM 100	S-007	SMOKE DETECTOR	LEVEL 2 CLASS ROOM 401
M-008	PULL STATION	GYMNASIUM 100	S-018	STORAGE ROOM SMOKE	STORAGE ROOM 106	S-008	SMOKE DETECTOR	LEVEL 2 CLASS ROOM 402
M-009	PULL STATION	GYMNASIUM 100	S-019	ALCOVE SMOKE	ALCOVE 105	S-009	SMOKE DETECTOR	LEVEL 2 CLASS ROOM 403
M-010	PULL STATION	GYMNASIUM 100	S-020, S-023	GYMNASIUM ROOM SMOKE	GYMNASIUM 100	S-090	SMOKE DETECTOR	LEVEL 2 CLASS ROOM 403
M-11	SPARE		S-024	STORAGE ROOM SMOKE	STORAGE ROOM 104	S2-091	SMOKE DETECTOR	LEVEL 2 CLASS ROOM 403
M-012	PULL STATION	CORRIDOR EXIT 108B	S-025	STORAGE ROOM SMOKE	STORAGE ROOM 104A	S-092	SMOKE DETECTOR- ABOVE CEILING	WEST CORRIDOR
M-013	PULL STATION	UPPER LOBBY	S-026, S-029	SPARE		S-093	SMOKE DETECTOR- ABOVE CEILING	CENTER CORRIDOR
M-014	ADDRESS OUTPUT MODULE	DOAS #2- LEVEL 2	S-030	SMOKE DETECTOR	JANITOR RM SMOKE	S-094	SMOKE DETECTOR- ABOVE CEILING	EAST CORRIDOR
M-015	ADDRESS OUTPUT MODULE	DOAS #2- LEVEL 2	S-031	SMOKE DETECTOR	LOWER LOBBY ELEC RM	S-095	SMOKE DETECTOR	
M-016	ADDRESS OUTPUT MODULE	ELEVATOR RECALL	S-032	SMOKE DETECTOR	LEVEL 1 ELEV LOBBY	S-096	SMOKE DETECTOR- ABOVE CEILING	LEVEL 2 CLASS ROOM 404
M-017	ADDRESS OUTPUT MODULE	ALTERNATE ELEVATOR RECALL	S-033	SMOKE DETECTOR	LEVEL 1 ELEV MACH RM	S-097	SMOKE DETECTOR- ABOVE CEILING	LEVEL 2 CLASS ROOM 404
M-018	ADDRESS OUTPUT MODULE	FIRE HAT LIGHT	S-034	HEAT DETECTOR	LEVEL 1 ELEV MACH RM	S-098	SMOKE DETECTOR- ABOVE CEILING	LEVEL 2 CLASS ROOM 405
M-019	ADDRESSABLE INPUT MODULE	ELEVATOR MACH ROOM- HEAT DETECTOR	S-035	SMOKE DETECTOR	LEVEL 1 LOBBY- ABOVE CEILING	S-099	SMOKE DETECTOR- ABOVE CEILING	LEVEL 2 CLASS ROOM 405
M-020	ADDRESSABLE INPUT MODULE	ELEV MACH ROOM- POWER SUPERVISORY	S-036	SMOKE DETECTOR	LEVEL 1 LOBBY	S-100	SMOKE DETECTOR- ABOVE CEILING	LEVEL 2 CLASS ROOM 405
M-021	PULL STATION	LOWER LOBBY	S-037	SMOKE DETECTOR	LEVEL 1 LOBBY	S-101	SMOKE DETECTOR- ABOVE CEILING	LEVEL 2 CLASS ROOM 406
			S-038	SMOKE DETECTOR (ABOVE CEILING)	LEVEL 1 LOBBY- ABOVE CEILING	S-102	SMOKE DETECTOR (ABOVE CEILING)	LEVEL 2 CENTER LOBBY
			S-039	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 302- ABOVE CEILING	S-103	SPARE	
			S-040	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 302- ABOVE CEILING	S-104	SPARE	
			S-041	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 302- ABOVE CEILING	S-105	SPARE	
			S-042	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 302- ABOVE CEILING	S-106	SMOKE DETECTOR	TOP OF STAIRS
			S-043	SMOKE	LEVEL 1 CLASS ROOM 302- ABOVE CEILING	S-107	SMOKE DETECTOR	TOP OF STAIRS
			S-044	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 302- ABOVE CEILING	S-108	SMOKE DETECTOR	LEVEL 2 CLASS ROOM 401
			S-045	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 302- ABOVE CEILING	S-109	SMOKE DETECTOR	LEVEL 2 CLASS ROOM 401
			S-046	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 302- ABOVE CEILING	S-110	SMOKE DETECTOR	LEVEL 2 CLASS ROOM 402
			S-047	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 303- ABOVE CEILING	S-111	SMOKE DETECTOR	LEVEL 2 CLASS ROOM 402
			S-048	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 303- ABOVE CEILING	S-112	SMOKE DETECTOR	LEVEL 2 CLASS ROOM 402
			S-049	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 303- ABOVE CEILING	S-113	SMOKE DETECTOR	LEVEL 2 CLASS ROOM 403
			S-050	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 303- ABOVE CEILING	S-114	SMOKE DETECTOR	LEVEL 2 WEST CORRIDOR
			S-051	SMOKE DETECTOR	EAST CORRIDOR	S-115	SMOKE DETECTOR	LEVEL 2 CENTER CORRIDOR
			S-052	SMOKE DETECTOR	EAST CORRIDOR- ABOVE CEILING	S-116	SMOKE DETECTOR	LEVEL 2 EAST CORRIDOR
			S-053	SMOKE DETECTOR	CENTER CORRIDOR	S-117	SMOKE DETECTOR	LEVEL 2 CLASS ROOM 404
			S-054	SMOKE DETECTOR	CENTER CORRIDOR- ABOVE CEILING	S-118	SMOKE DETECTOR	LEVEL 2 CLASS ROOM 404
			S-055	SMOKE DETECTOR	WEST CORRIDOR	S-119	SMOKE DETECTOR	LEVEL 2 CLASS ROOM 405
			S-056	SMOKE DETECTOR	WEST CORRIDOR- ABOVE CEILING	S-120	SMOKE DETECTOR	LEVEL 2 CLASS ROOM 405
			S-057	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 306	S-121	SMOKE DETECTOR	LEVEL 2 CLASS ROOM 405
			S-058	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 306- ABOVE CEILING	S-122	SMOKE DETECTOR	LEVEL 2 CLASS ROOM 406
			S-059	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 306- ABOVE CEILING	S-123	SMOKE DETECTOR	TEACHERS LOUNGE ROOM 400
			S-060	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 306- ABOVE CEILING	S-124	SMOKE DETECTOR	TEACHERS LOUNGE ROOM 400
			S-061	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 305	S-125 THRU S-129	SPARE	
			S-062	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 305- ABOVE CEILING	S-130	SMOKE DETECTOR	ABOVE UTILITY CLOSET
			S-063	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 305- ABOVE CEILING	S-131 THRU S-139	SPARE	
			S-064	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 305- ABOVE CEILING	S-140	SMOKE DETECTOR	UNDER NE STAIRS
			S-065	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 304	S-141	SMOKE DETECTOR	UNDER NW STAIRS
			S-066	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 304- ABOVE CEILING	S-143	SMOKE DETECTOR- ABOVE CEILING	WOMENS RESTROOM
			S-067	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 304	S-144 THRU S-153	SPARE	
			S-068	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 304- ABOVE CEILING	S-154	SMOKE DETECTOR	LEVEL 2 MAIN LOBBY
			S-069	SMOKE DETECTOR	LEVEL 1 MENS RESTROD.	S-155	SMOKE DETECTOR- ABOVE CEILING	LEVEL 2 MAIN LOBBY
			S-070	SMOKE DETECTOR	LEVEL 1 WOMENS RESTROOM			
			S-071	SPARE				
			S-072	SMOKE DETECTOR	LEVEL 2 LOBBY			
			S-073	SMOKE DETECTOR	LEVEL 2 LOBBY- ABOVE CEILING			
			S-074	SPARE				
			S-075	SPARE				
			S-076	SPARE				
			S-077	SPARE				
			S-078	SPARE				
			S-079	SPARE				
			S-080	SMOKE DETECTOR	LEVEL 2 WOMENS RESTROOM			



CITY APPROVAL STAMP



DESIGNER OF RECORD



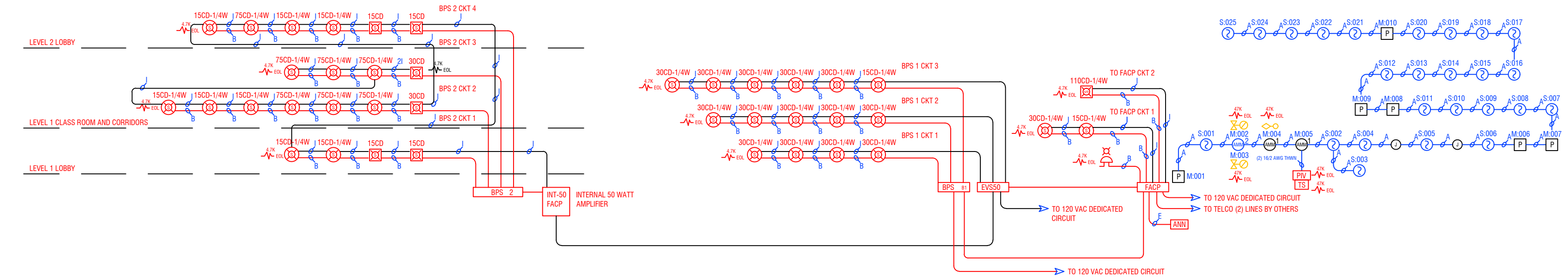
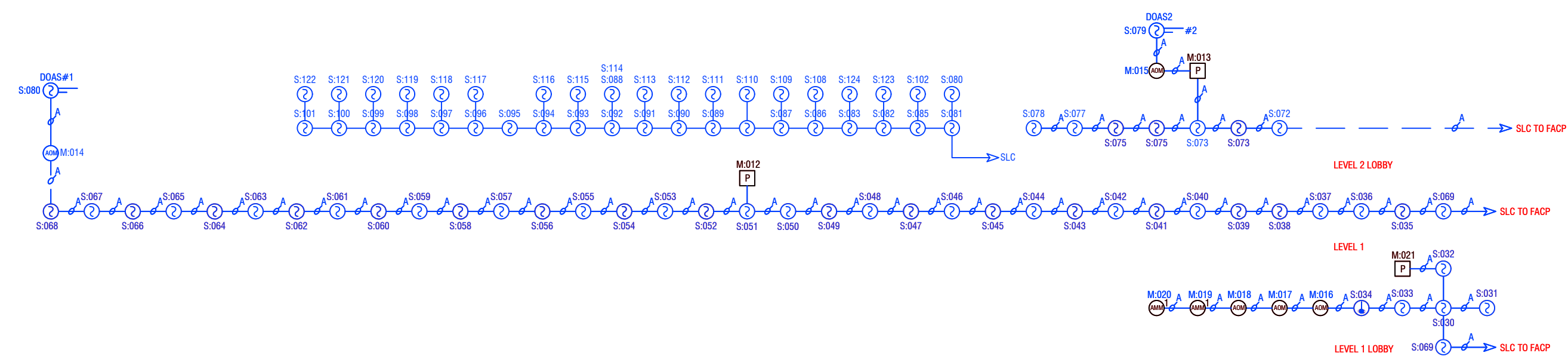
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REVISION #	REV DATE
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PROJECT NUMBER	SHEET NAME
PC210008	COVER PAGE

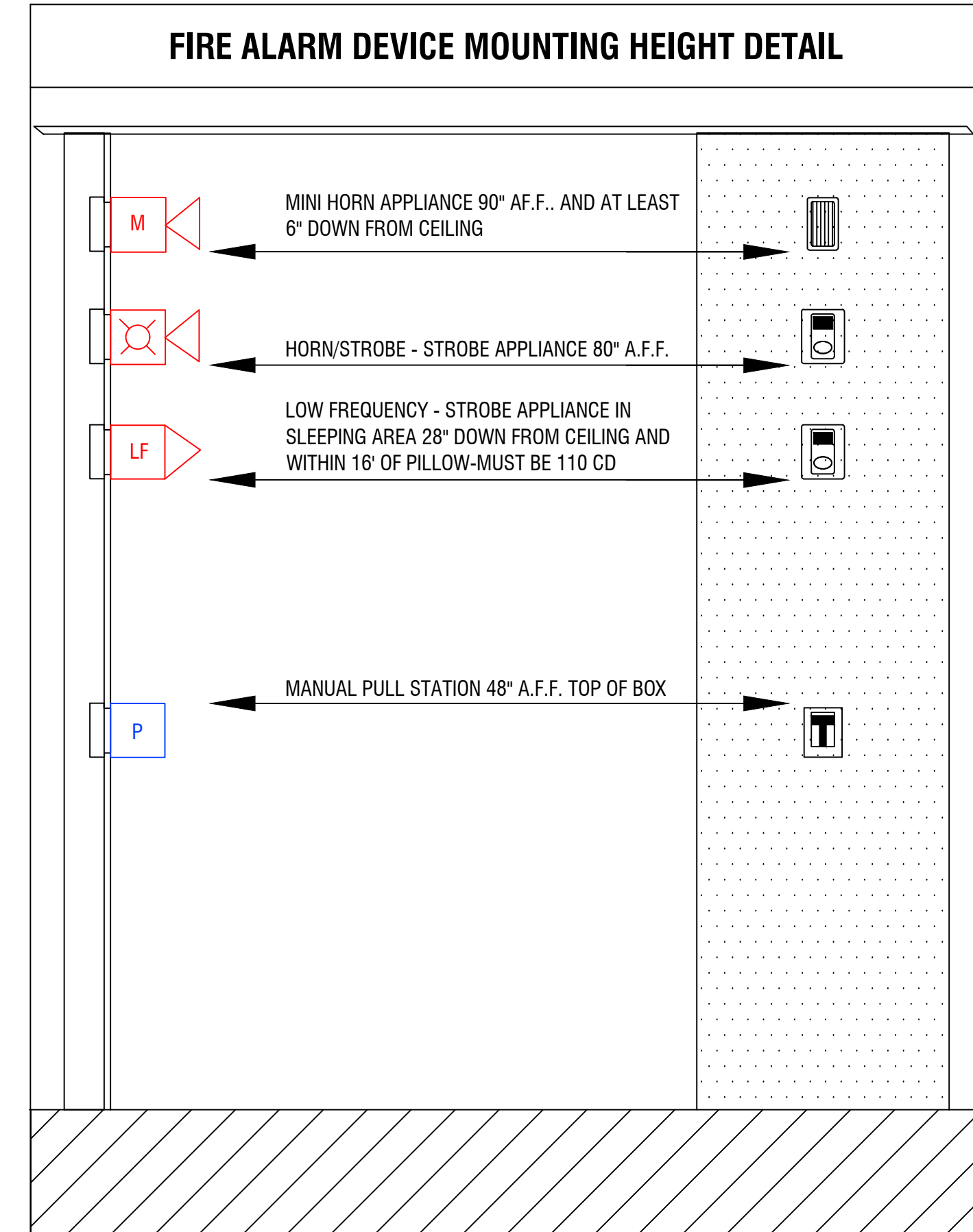
DRAWN	DATE
SLF	10/26/2023

FA000



RISER SCHOOL & LOBBY
NO SCALE

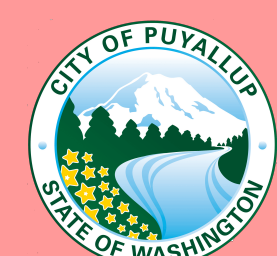
RISER DIAGRAM GYM
NO SCALE



**City of Puyallup
Fire
REVIEWED
FOR
COMPLIANCE**
DDrake
11/30/2023
11:44:30 AM

THE APPROVED CONSTRUCTION PLANS AND ALL ENGINEERING PLANS MUST BE POSTED ON THE JOB AT ALL INSPECTIONS IN A VISIBLE AND READILY ACCESSIBLE LOCATION.

Approval of submitted plans is not an approval of omissions or oversight by this office or noncompliance with any applicable regulations of local government. The contractor is responsible for making sure that the building complies with all applicable building codes and regulations of the local government.



JINX integrated
P U Y A L L U P S P O K A N E
11409 58Th Ave E-Puyallup, WA, PH 253-848-6998 FX 253-848-0542

CITY APPROVAL STAMP
City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building Planning
Engineering Public Works
Fire Traffic

PROJECT NAME: CASCADE CHRISTIAN JR HIGH SCHOOL
PROJECT TYPE: TENANT IMPROVEMENT PHASE 2
PROJECT LOCATION: 815 21ST ST SE PUYALLUP, WA 98372

DESIGNER OF RECORD
PAUL J. POWLOSKI
Engineering Technician, Level III
NICET Certification Number: 148803
Authorizing Signature: _____

DESIGN SET
REVISION # REV DATE
1
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8
NOTES
1
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7
PROJECT NUMBER: PC210008 SHEET NAME: RISER DIAGRAM
DRAWN: SLF DATE: 10/26/2023
DRAWING NUMBER: FA001

SILENT KNIGHT Global Project Values:
 Project Name: CASCADE CHRISTIAN JR HIGH Standby Hours: 24
 Project ID: PC190002 Alarm Mins: 15
 Prepared By: DAVID JUSTICE Derating Factor: 1.2
 Date: 10/18/2023 Voltage Drop Warning Threshold %: 15

5820XL-EVS Calculations
 Version: 10.24.14

Panel ID: 5820XL-EVS Model: 5820XL-EVS Add. Fire Alarm Control Max NAC Current: 3.0 Amps
 Location: SPRINKLER RISER ROOM Volts: 24 VDC Max Panel Current: 6.0 Amps

Ckt. #	Circuit Name	Qty	Current Draw Standby	Current Draw Alarm	Wire AWG & Type	Ohms Per 1000 Ft.	Length(ft) One-Way	Actual Ohms	Volts @ EOL	% Drop
5820XL-EVS	5820XL-EVS CTRL Panel	1	0.275	0.440						
SK	Photo, Photo-T, Photo-R	128	0.038	0.038						
SK	Ion		0.000	0.000						
SK	Heat, Heat-HT		0.000	0.000						
SK	Heat ROR	0	0.000	0.000						
SK	Beam, Beam-T		0.000	0.000						
SK	Duct	2	0.001	0.001						
SK	Acclimate		0.000	0.000						
SK	Fire-CO		0.000	0.000						
SK	Control	1	0.000	0.000						
SK	Control-6		0.000	0.000						
SK	Monitor, Minimon	11	0.004	0.004						
SK	Monitor-2	0	0.000	0.000						
SK	Monitor-10		0.000	0.000						
SK	Pull-SA, Pull-DA	10	0.004	0.004						
SK	Relay	4	0.001	0.001						
SK	Relay-6		0.000	0.000						
SK	Zone		0.000	0.000						
SK	Zone-6		0.000	0.000						
SK	Relay-Mon-2		0.000	0.000						
SK	Isolator Module		0.000	0.000						
B224BI	Isolator Base		0.000	0.000						
B200SR	Sounder Base		0.000	0.000						
B200S	Sounder Base		0.000	0.000						
B200SR-LF	Low Freq Sounder Base		0.000	0.000						
B200S-LF	Low Freq Sounder Base		0.000	0.000						
B224RB	Relay Base		0.000	0.000						
RTS151	Magnetic Remote Test		0.000	0.000						
RTS151KEY	Key Activated Test		0.000	0.000						
RA100Z	Remote LED		0.000	0.000						
5815XL	SLC Loop Expander	1	0.055	0.055						
5860	LCD Remote Annunc	1	0.020	0.025						
5824	Serial/Parallel Module		0.000	0.000						
5496	Power Expander		0.000	0.000						
5895XL	Power Expander		0.000	0.000						
5865-4	LED Annunciator (4G)		0.000	0.000						
5865-3	LED Annunciator (3G)		0.000	0.000						
5880	LED Driver Module		0.000	0.000						
5883	Relay Module		0.000	0.000						
EVS-VCM	Voice Control Module		0.000	0.000						
EVS-SW24	Switch Expander		0.000	0.000						
EVS-AMP	50W, 100W, or 125W	1	0.010	0.010						
EVS-RVM	Remote Voice Module		0.000	0.000						
EVS-100WBU	Backup Amp Card		0.000	0.000						
PGM-I/O #1	Notification Appl Circuit	cfg	0.000	0.160	#14 Solid	2.52	30	0.15	20.38	0.12%
PGM-I/O #2	Notification Appl Circuit	cfg	0.000	0.202	#14 Solid	2.52	20	0.10	20.38	0.10%
PGM-I/O #3	Notification Appl Circuit	cfg	0.000	0.000	#14 Solid	2.52		0.00	20.40	0.00%
PGM-I/O #4	Notification Appl Circuit	cfg	0.000	0.000	#14 Solid	2.52		0.00	20.40	0.00%
PGM-I/O #5	Notification Appl Circuit	cfg	0.000	0.000	#14 Solid	2.52		0.00	20.40	0.00%
PGM-I/O #6	Notification Appl Circuit	cfg	0.000	0.000	#14 Solid	2.52		0.00	20.40	0.00%
Total Standby Current (Amps)			0.408	0.004	Total Alarm Current (Amps)					
Standby Time In Hours			24	0.250	Alarm Time In Minutes / 60 (15 Mins)					
Total Standby AH Required			9.797	0.001	Total Alarm AH Required					
Total Combined AH Required			9.80		Command Shortcuts					
Multiply By The Derating Factor			1.20		Configure Circuits					
Minimum Battery AmpHours Required			11.76		Print Page					

SILENT KNIGHT Global Project Values:
 Project Name: CASCADE CHRISTIAN JUNIOR Standby Hours: 24
 Project ID: PC190002 Alarm Mins: 15
 Prepared By: DAVID JUSTICE Derating Factor: 1.2
 Date: 8/16/2022

EVS-50W Calculations

Panel ID: INT-50 Model: EVS-50W Audio Amplifier
 Location: FACP

Ckt. #	Circuit Name	Qty	Current Draw Standby	Current Draw Alarm
EVS-50W	EVS-50W Amplifier 25 Volts*		0.000	0.000
EVS-50W	EVS-50W Amplifier 70.7V Volts*	1	0.100	0.580
EVS-CE4	4 Zone Expander	0	0.000	0.000
Watts	Enter Number of Watts	9	0.000	0.405
Total Standby Current (AMPS)			0.100	0.985
Standby Time In Hours			24	0.250
Total Standby AH Required			2.400	0.246
Total Combined AH Required			2.65	
Multiply By The Derating Factor			1.20	
Minimum Battery AmpHours Required			3.18	

SILENT KNIGHT Circuit Configuration Print Circuits Detail

Project Information
 Project Name: CASCADE CHRISTIAN JR HIGH Project ID: PC190002
 Prepared By: DAVID JUSTICE Date:

Ckt. Number: PGM-I/O #1 Panel ID: 5820XL-EVS
 Ckt. Name: Notification Appl Circuit I/O Use: Notification Appl Circuit

Qty	Device	Current Draw Each Standby	Current Draw Each Alarm	Current Draw Total Standby	Current Draw Total Alarm
1	System Sensor S/SC Strobe (30cd)	0.000	0.094	0.000	0.094
1	System Sensor S/SC Strobe (15cd)	0.000	0.066	0.000	0.066
	Unused	0.000	0.000	0.000	0.000
	Unused	0.000	0.000	0.000	0.000
	Unused	0.000	0.000	0.000	0.000
Totals		0.000	0.160	0.000	0.160

Ckt. Number: PGM-I/O #2 Panel ID: 5820XL-EVS
 Ckt. Name: Notification Appl Circuit I/O Use: Notification Appl Circuit

Qty	Device	Current Draw Each Standby	Current Draw Each Alarm	Current Draw Total Standby	Current Draw Total Alarm
1	System Sensor SWK WP Strobe (110cd)	0.000	0.202	0.000	0.202
	Unused	0.000	0.000	0.000	0.000
	Unused	0.000	0.000	0.000	0.000
	Unused	0.000	0.000	0.000	0.000
Totals		0.000	0.202	0.000	0.202

Ckt. Number: PGM-I/O #3 Panel ID: 5820XL-EVS
 Ckt. Name: Notification Appl Circuit I/O Use: Notification Appl Circuit

Qty	Device	Current Draw Each Standby	Current Draw Each Alarm	Current Draw Total Standby	Current Draw Total Alarm
	Unused	0.000	0.000	0.000	0.000
	Unused	0.000	0.000	0.000	0.000
	Unused	0.000	0.000	0.000	0.000
	Unused	0.000	0.000	0.000	0.000
Totals		0.000	0.000	0.000	0.000

Ckt. Number: PGM-I/O #4 Panel ID: 5820XL-EVS
 Ckt. Name: Notification Appl Circuit I/O Use: Notification Appl Circuit

Qty	Device	Current Draw Each Standby	Current Draw Each Alarm	Current Draw Total Standby	Current Draw Total Alarm
	Unused	0.000	0.000	0.000	0.000
	Unused	0.000	0.000	0.000	0.000
	Unused	0.000	0.000	0.000	0.000
	Unused	0.000	0.000	0.000	0.000
Totals		0.000	0.000	0.000	0.000

Ckt. Number: PGM-I/O #5 Panel ID: 5820XL-EVS
 Ckt. Name: Notification Appl Circuit I/O Use: Notification Appl Circuit

Qty	Device	Current Draw Each Standby	Current Draw Each Alarm	Current Draw Total Standby	Current Draw Total Alarm
	Unused	0.000	0.000	0.000	0.000
	Unused	0.000	0.000	0.000	0.000
	Unused	0.000	0.000	0.000	0.000
	Unused	0.000	0.000	0.000	0.000
Totals		0.000	0.000	0.000	0.000

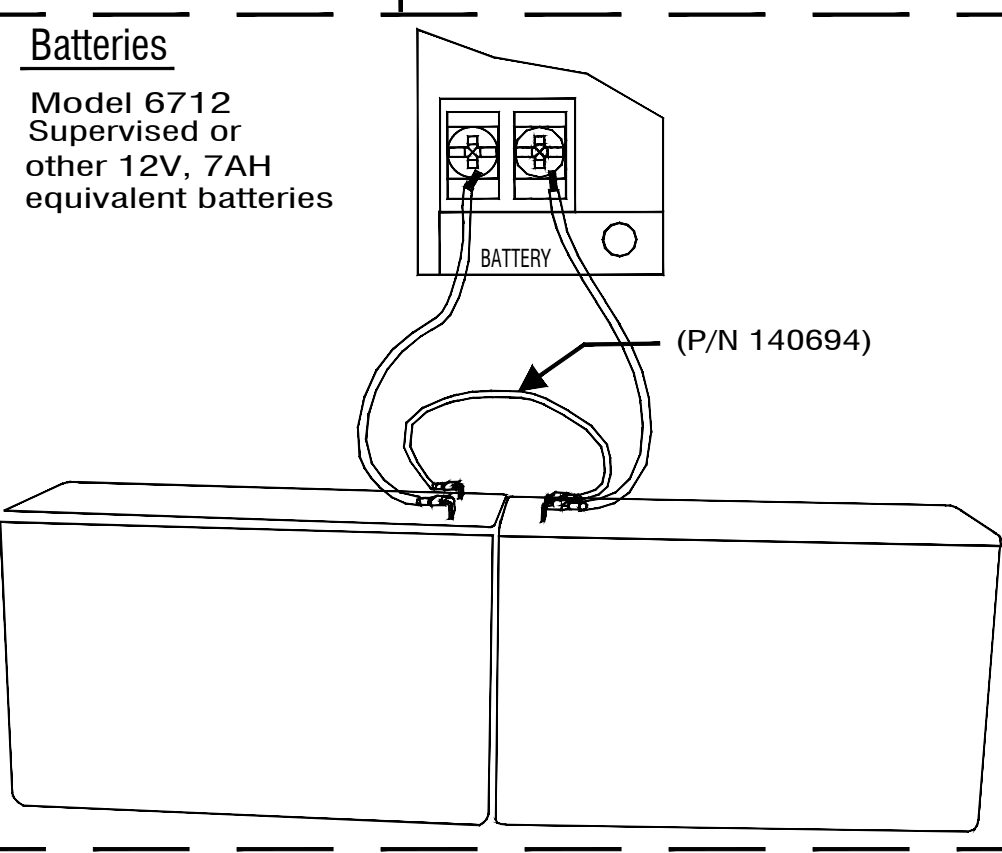
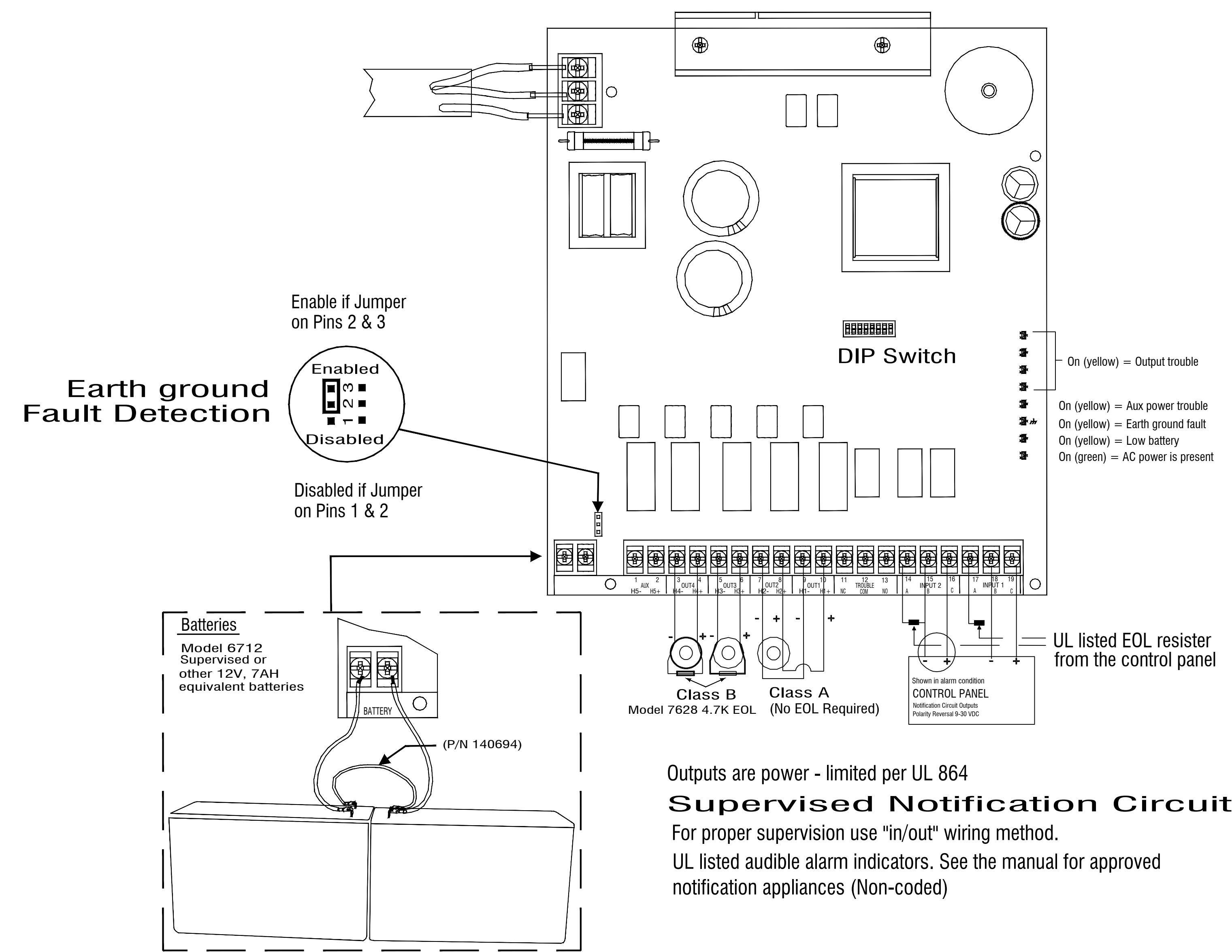
Ckt. Number: PGM-I/O #6 Panel ID: 5820XL-EVS
 Ckt. Name: Notification Appl Circuit I/O Use: Notification Appl Circuit

Qty	Device	Current Draw Each Standby	Current Draw Each Alarm	Current Draw Total Standby	Current Draw Total Alarm
	Unused	0.000	0.000	0.000	0.000
	Unused	0.000	0.000	0.000	0.000
	Unused	0.000	0.000	0.000	0.000
	Unused	0.000	0.000	0.000	0.000
Totals		0.000	0.000	0.000	0.000

dB LINE LOSS CALCULATION

SPEAKERS	CASCADE CHRISTIAN JR High																
	INT-50																
	SIGNAL CIRCUIT	SIGNAL CIRCUIT	SIGNAL CIRCUIT	SIGNAL CIRCUIT	SIGNAL CIRCUIT	SIGNAL CIRCUIT	SIGNAL CIRCUIT	SIGNAL CIRCUIT	SIGNAL CIRCUIT	SIGNAL CIRCUIT	SIGNAL CIRCUIT	SIGNAL CIRCUIT	SIGNAL CIRCUIT	SIGNAL CIRCUIT	SIGNAL CIRCUIT	SIGNAL CIRCUIT	
50.00 WATTS AVAILABLE 12.50 WATTS USE 37.50 WATTS SPA POWER (WATTS)	1																
	QTY	WATTS	QTY	WATTS	QTY	WATTS	QTY	WATTS	QTY	WATTS	QTY	WATTS	QTY	WATTS	QTY	WATTS	
Speaker 25V																	
Speaker - 1/8 Watt Tap	0.13	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Speaker - 1/4 Watt Tap	0.25	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Speaker - 1/2 Watt Tap	0.50	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Speaker - 1 Watt Tap	1.00	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Speaker - 2 Watt Tap	2.00	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Speaker - 4 Watt Tap	4.00	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Speaker - 7.5 Watt Tap	7.50	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Speaker - 8 Watt Tap	8.00	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Speaker - 15 Watt Tap	15.00	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Speaker 70.7V																	
Speaker - 1/8 Watt Tap	0.13	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Speaker - 1/4 Watt Tap	0.25	0.00	50	12.50	0	0.00		0.00		0.00		0.00		0.00		0.00	
Speaker - 1/2 Watt Tap	0.50	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Speaker - 1 Watt Tap	1.00	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Speaker - 2 Watt Tap	2.00	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Speaker - 4 Watt Tap	4.00	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Speaker - 7.5 Watt Tap	7.50	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Speaker - 8 Watt Tap	8.00	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Speaker - 15 Watt Tap	15.00	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	
TOTAL POWER ON CIRCUIT																	
	12.50 WATTS		0.00 WATTS		0.00 WATTS		0.00 WATTS		0.00 WATTS		0.00 WATTS		0.00 WATTS		0.00 WATTS		0.00 WATTS
LOAD RESISTANCE																	
	400 OHMS		0 OHMS		0 OHMS		0 OHMS		0 OHMS		0 OHMS		0 OHMS		0 OHMS		0 OHMS
TOTAL WIRE LENGTH																	
	2500 FT.		FT.		FT.		FT.		FT.		FT.		FT.		FT.		FT.
WIRE SIZE																	
	16 AWG		16 AWG		16 AWG		16 AWG		16 AWG		16 AWG		16 AWG		16 AWG		16 AWG
TOTAL WIRE RESISTANCE																	
	25.4 OHMS		0 OHMS		0 OHMS		0 OHMS		0 OHMS		0 OHMS		0 OHMS		0 OHMS		0 OHMS
POWER LINE LOSS (dB)																	
	-0.27 dB		dB		dB		dB		dB		dB		dB		dB		dB
CIRCUIT LOCATION																	
	LEVEL 1 & 2																
TOTAL WIRE RESISTANCE (WR) = (RESISTANCE / 1000) x DISTANCE																	
WIRE RESISTANCE (Ohms/Kft)*																	
	18 AWG = 8.08		LOAD RESISTANCE (LR) = (VOLTAGE x VOLTAGE)														
	16 AWG = 5.08		POWER														
	14 AWG = 3.26																
	12 AWG = 2.05		POWER LINE LOSS (dB) = 10 x Log (1 - (WR/LR))														
*Values per NFPA 70																	

INTEGRATED
 P U Y A L L U P S P O K A N E
 11409 58Th Ave E-Puyallup, WA, PH 253-848-6998 FX 253-848-0542



Outputs are power - limited per UL 864
Supervised Notification Circuits
 For proper supervision use "in/out" wiring method.
 UL listed audible alarm indicators. See the manual for approved notification appliances (Non-coded)

Electrical Ratings

- Input Voltage — 120 VAC
- Input Current — 3 A
- Input Frequency — 60hz
- Output Circuits — 24 VDC
- (OUT1 - OUT4) — 3 amp
- Trouble — 2.5 A @ 250 VAC
- 2.5 A @ 30 VDC
- Aux Power — 24 VDC, 3 amp

Agency Listings/Requirements:

NFPA
 For local service. Install in accordance with NFPA 72.

NFPA
 Approved by the City of New York Department of Buildings. MEA-429-92-E VOL IV

F.C.C. Information
 This device has been verified to comply with FCC Rules Part 15, Class A. Operation is subject to the following conditions:

- 1) This device may not cause radio interference;
- 2) This device must accept any interference received including any that may cause undesired operation.

Model 5499 Distributed Power Module Wiring Diagram

CITY APPROVAL STAMP

City of Puyallup
 Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

PROJECT NAME: CASCADE CHRISTIAN JR HIGH SCHOOL
 PROJECT TYPE: TENANT IMPROVEMENT PHASE 2
 PROJECT LOCATION: 815 21ST ST SE
 PUYALLUP, WA 98372

DESIGNER OF RECORD

DESIGN SET

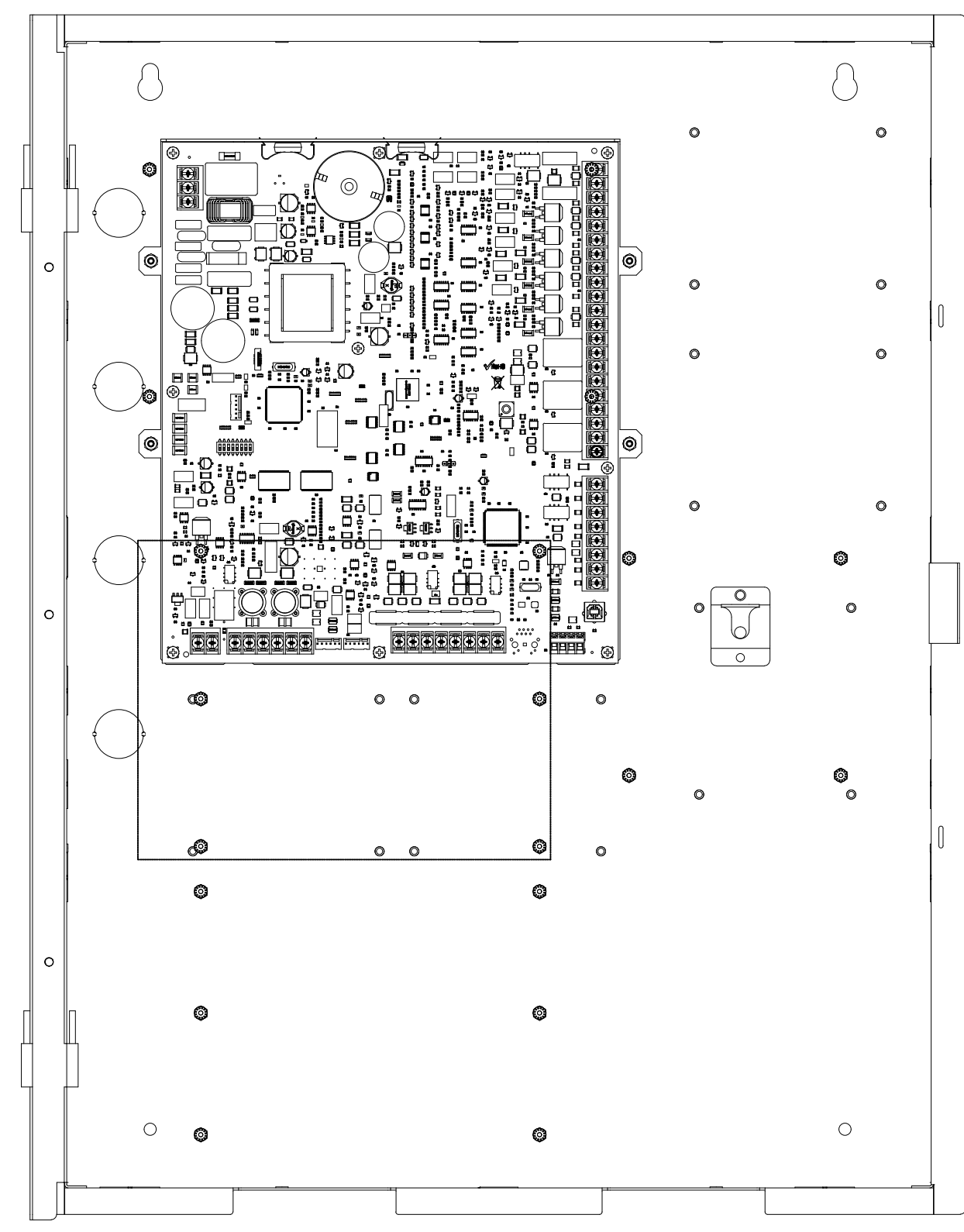
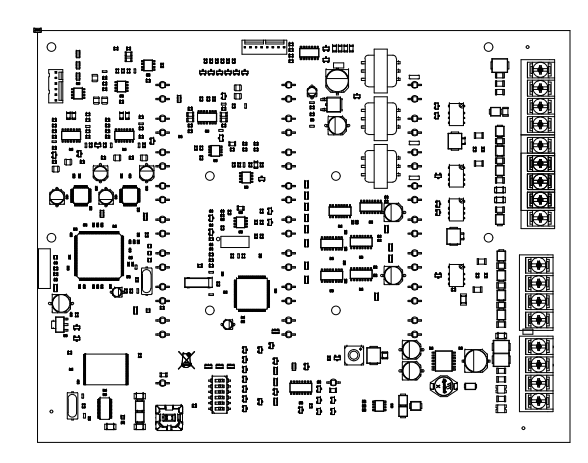
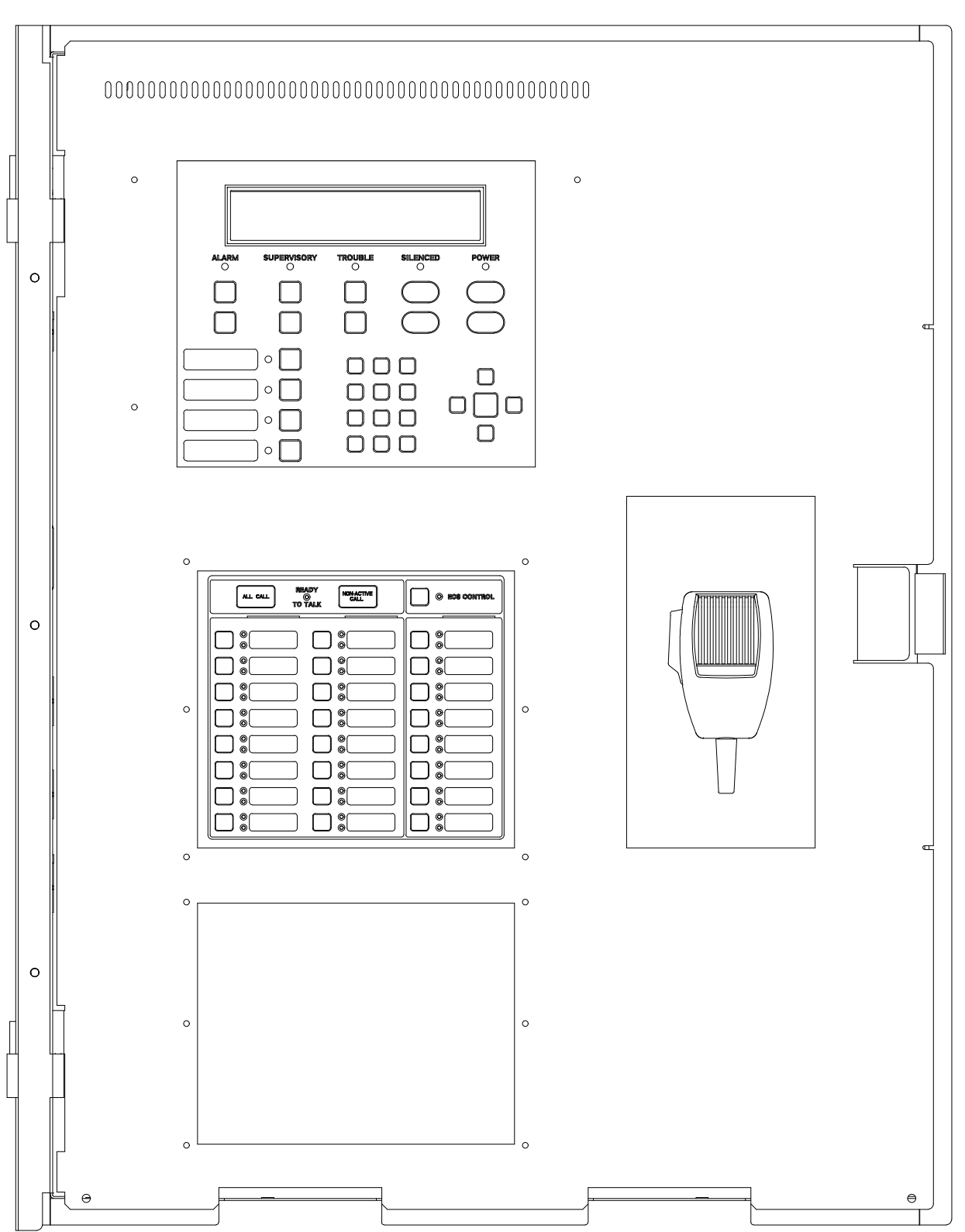
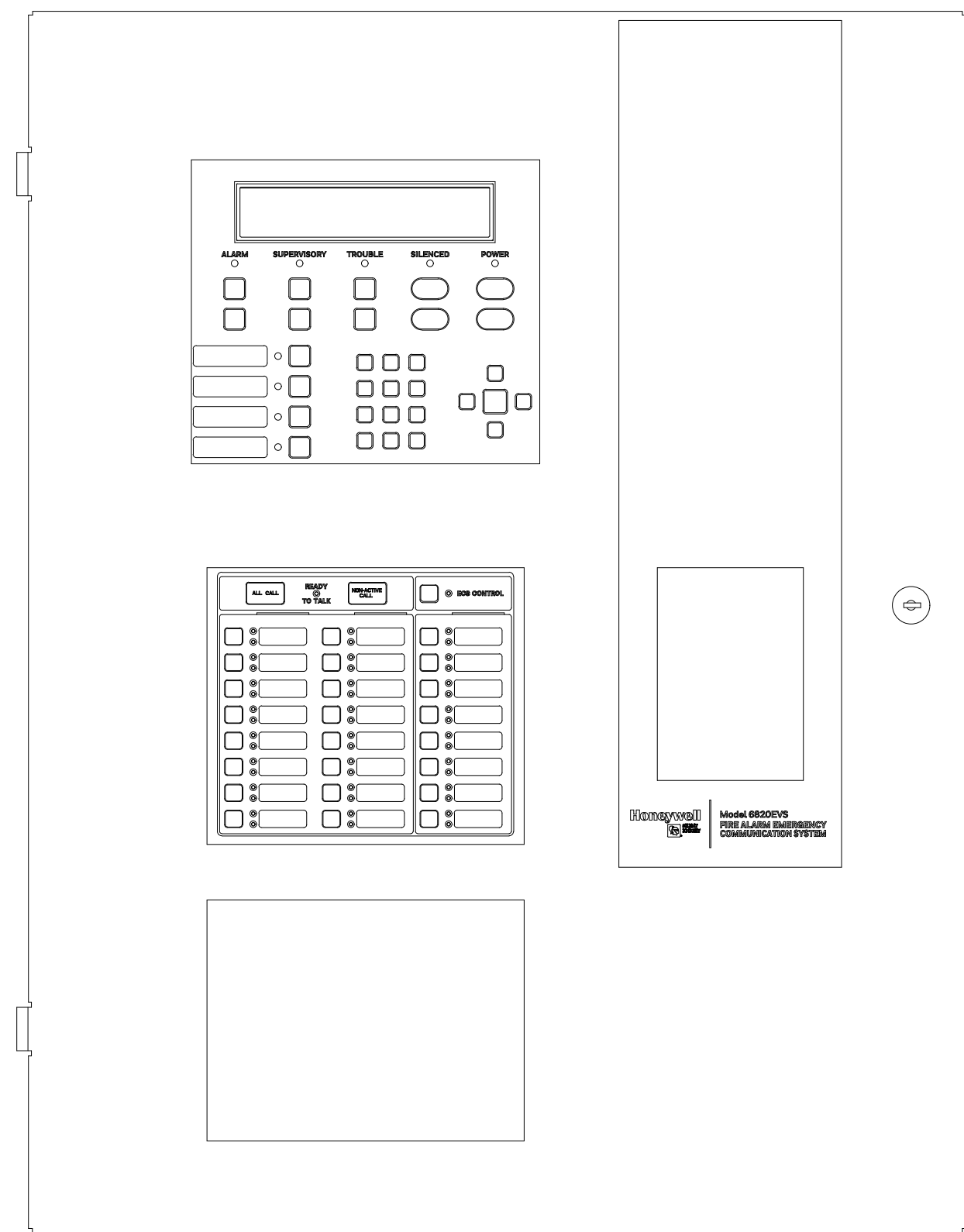
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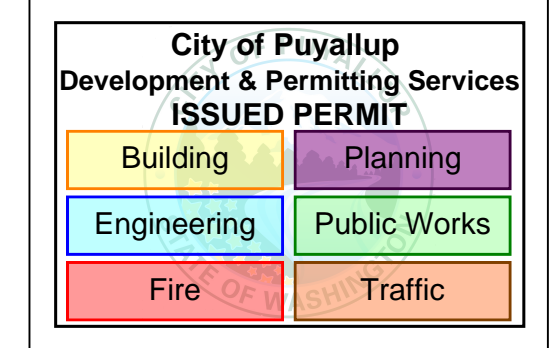
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PROJECT NUMBER PC210008	SHEET NAME BOOSTER DETAIL
DRAWN SLF	DATE 10/26/2023
DRAWING NUMBER	

FA003

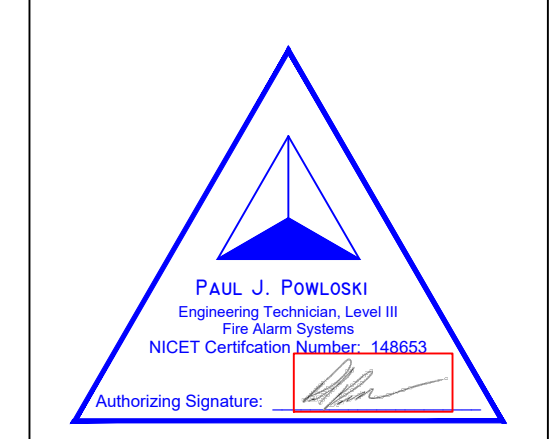


CITY APPROVAL STAMP



PROJECT NAME: **CASCADE CHRISTIAN JR HIGH SCHOOL**
 PROJECT TYPE: **TENANT IMPROVEMENT PHASE 2**
 PROJECT LOCATION: **815 21ST ST SE PUYALLUP, WA 98372**

DESIGNER OF RECORD



DESIGN SET

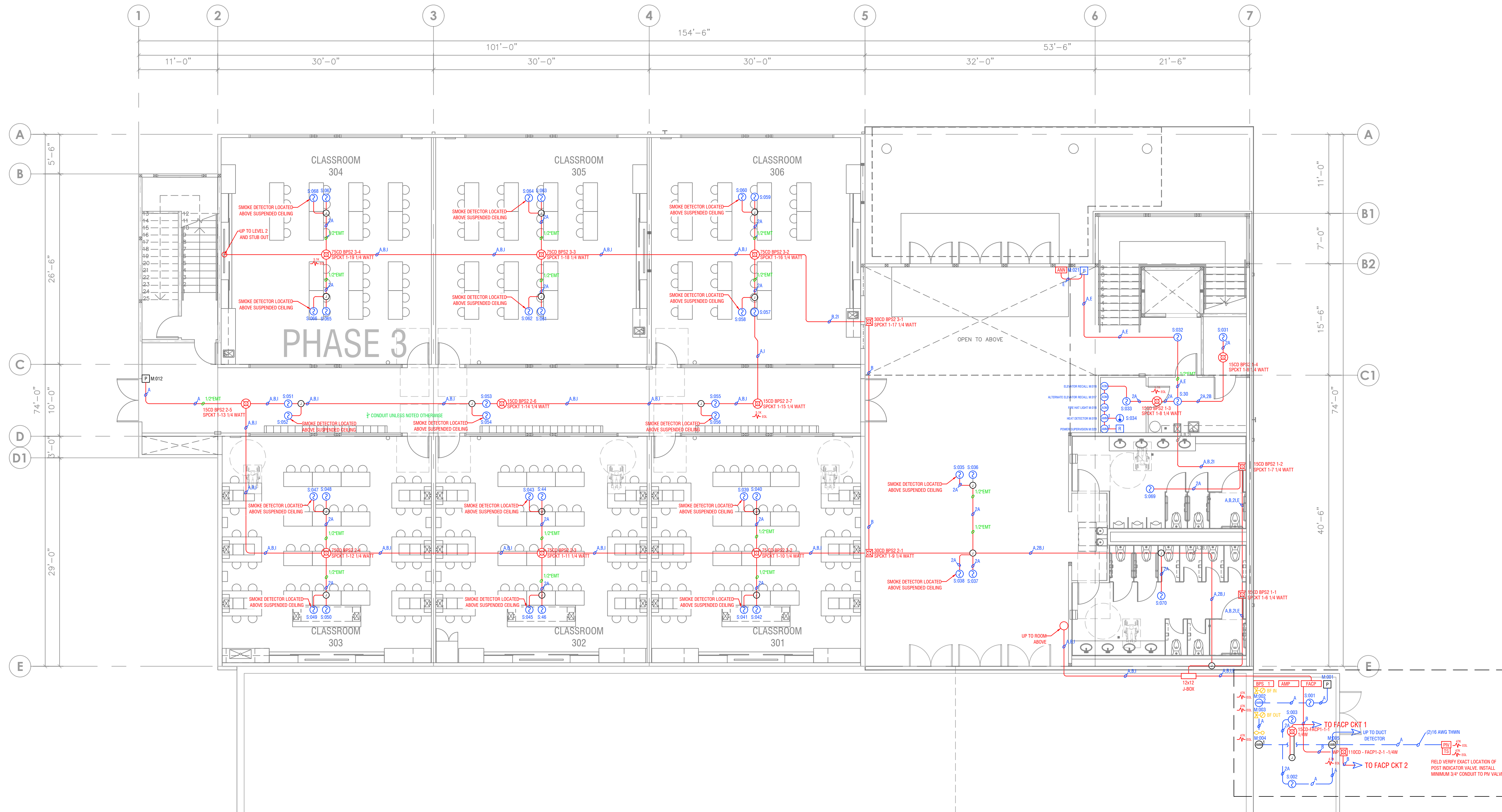
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PROJECT NUMBER PC210008	SHEET NAME FACP DETAIL
DRAWN SLF	DATE 10/26/2023
DRAWING NUMBER	

FA004



PHASE 1

FIRE PLAN FLOOR 1
1/8"=1'

CITY APPROVAL STAMP

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

PROJECT NAME: **CASCADE CHRISTIAN JR HIGH SCHOOL**
PROJECT TYPE: **TENANT IMPROVEMENT PHASE 2**
PROJECT LOCATION: **815 21ST ST SE PUYALLUP, WA 98372**

DESIGNER OF RECORD

PAUL J. POWLOSKI
Engineering Technician, Level III
Fire Alarm Systems
NICET Certification Number: 148853
Authorizing Signature: _____

DESIGN SET

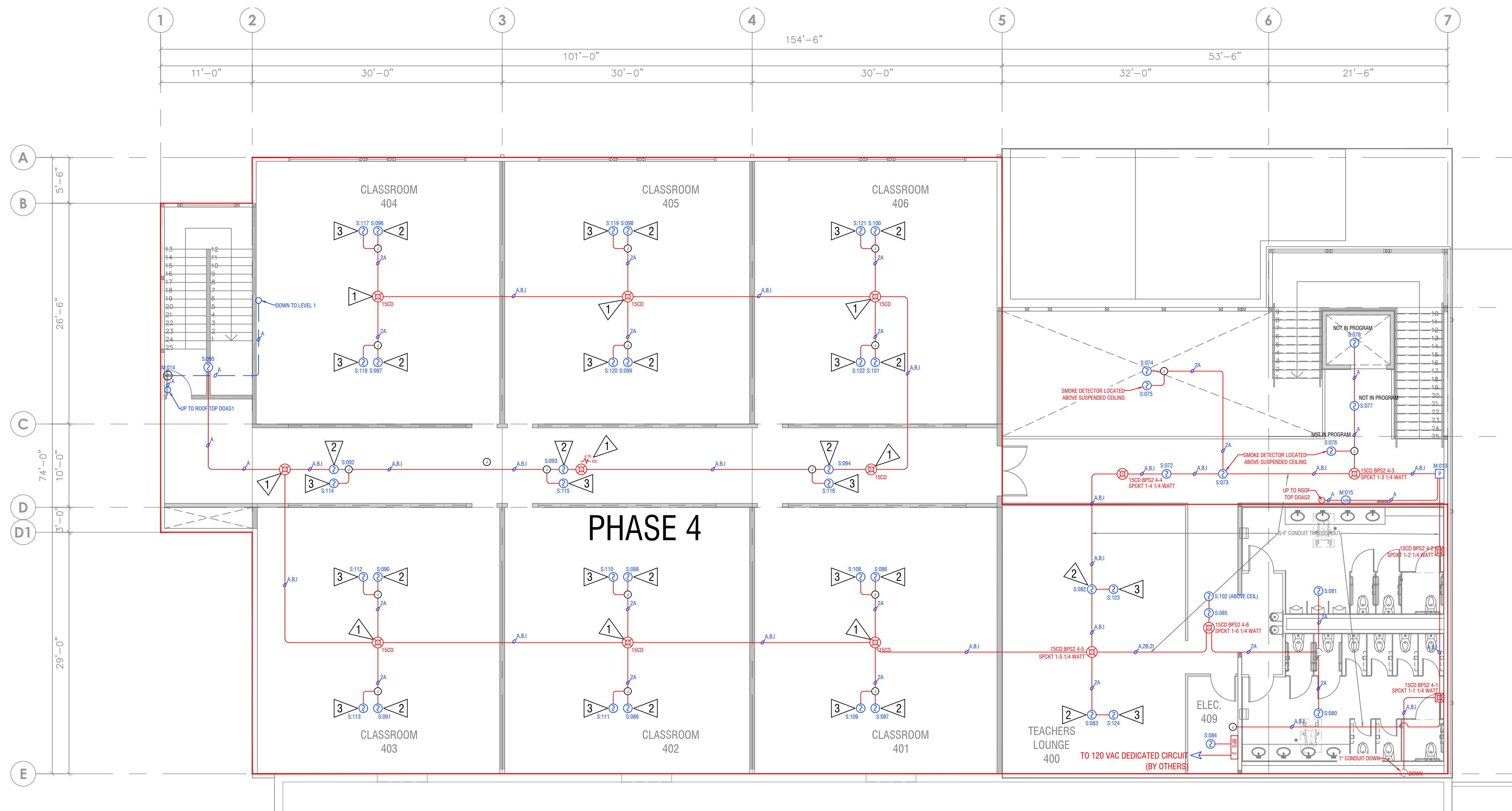
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PROJECT NUMBER PC210008	SHEET NAME LEVEL 1 FLOOR PLAN
DRAWN SLF	DATE 10/26/2023
DRAWING NUMBER	

FA100



- 1 RELOCATE SPEAKER STROBE TO NEW SUSPENDED CEILING
- 2 EXISTING SMOKE DETECTOR MOUNTED ON JOIST ABOVE SUSPENDED CEILING TO REMAIN
- 3 NEW SMOKE DETECTORS MOUNTED ON SUSPENDED CEILING. ADDRESS'S S:108-S:124

*** PHASE 4 - LOWER EXISTING SPEAKER STROBES TO NEW SUSPENDED CEILING, ADD SMOKE DETECTION TO NEW SUSPENDED CEILING**

FIRE PLAN FLOOR 2
1/8"=1'



CITY APPROVAL STAMP

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

PROJECT NAME: CASCADE CHRISTIAN JR HIGH SCHOOL
PROJECT TYPE: TENANT IMPROVEMENT PHASE 2
PROJECT LOCATION: 815 21ST ST SE PUYALLUP, WA 98372

DESIGNER OF RECORD

PAUL J. POWLOSKI
Engineering Technician, Level III
Fire Alarm Systems
NICET Certification Number: 148853
Authorizing Signature: _____

DESIGN SET

REVISION #	REV DATE
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PROJECT NUMBER: PC210008
SHEET NAME: LEVEL 2 FLOOR PLAN
DRAWN: SLF
DATE: 10/26/2023

DRAWING NUMBER: **FA101**