

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
40		SMOKE DETECTOR ADDRESSABLE	ZONE # AND DEVICE #	SILENT KNIGHT	SK-PHOTO	CEILING	3-0 NL ON- 4 SQ DP	N/A-3.0 RING
47		SMOKE DETECTOR ADDRESSABLE	ZONE # AND DEVICE #	SILENT KNIGHT	SK-PHOTO	ABOVE CEILING	3-0 NL ON- 4 SQ DP	N/A-3.0 RING
2		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
2		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	VARIES	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 FUNCTIONS	INPUT/OUTPUT MATRIX							
	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

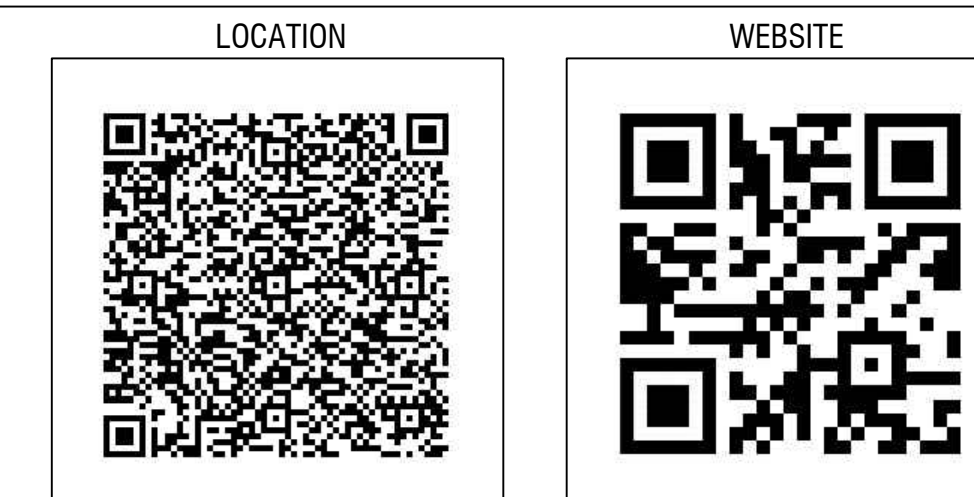
FA000	COVER
FA001	RISER
FA002	BATTERY CALCS
FA003	DETAILS
FA004	DETAILS
FA100	FLOOR PLAN LEVEL 1
FA101	FLOOR PLAN LEVEL 2
FA102	FLOOR PLAN ROOF

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

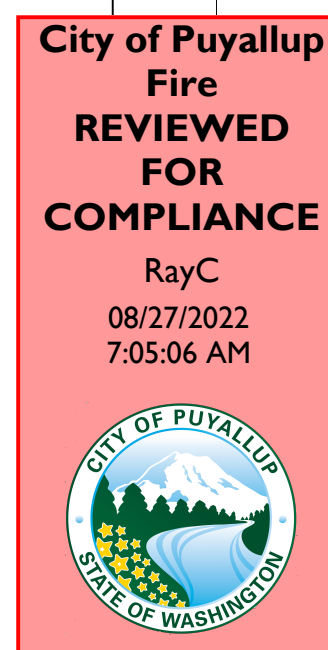
AREA SMOKE DETECTORS SHALL NOT BE INSTALLED MORE THAN 30' APART CENTER TO CENTER AND NO MORE THAN 15' FROM ANY WALL OR PROTECTED AREA

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 SLC 1	DEVICE DESCRIPTION	DEVICE LOCATION	SMOKE DETECTOR POINT NUMBER SLC 2	DEVICE DESCRIPTION	DEVICE LOCATION
M001	PULL STATION	SPRINKLER RISER ROOM 103	S2001	FACP & BPS SMOKE	SPRINKLER RISER ROOM 103	S2001	SMOKE DETECTOR	LEVEL 2 FUTURE RESTROOM
M002	DUAL MONITOR MODULE- DOUBLE CHECK VALVE IN AND OUT	SPRINKLER RISER ROOM 103	S2002	AV CLOSET SMOKE	AV CLOSET 103A	S2002	SMOKE DETECTOR	LEVEL 2 FUTURE RESTROOM
M003	SPRINKLER RISER ROOM 103	S2003	NAC DEVICE SMOKE	SPRINKLER RISER ROOM 103	S2003	SMOKE DETECTOR	LEVEL 2 OUT OF SIDE OF RESTROOMS	
M004	SPRINKLER RISER ROOM 103	S2004	STORAGE ROOM SMOKE	STORAGE ROOM 101	S2004	SMOKE DETECTOR	LEVEL 2 LOBBY CLASS ROOM	
M005	SPRINKLER RISER ROOM 103	S2005	STORAGE ROOM SMOKE	STORAGE ROOM 101	S2005	SMOKE DETECTOR	LEVEL 2 LOBBY CLASS ROOM	
M006	PULL STATION	ELECTRICAL ROOM 102	S2006	ELECTRICAL ROOM SMOKE	ELECTRICAL ROOM 103	S2006	SMOKE DETECTOR	LEVEL 2 SE CLASS ROOM
M007	PULL STATION	GYMNASIUM 100	S2007	GYMNASIUMS ROOM SMOKE	GYMNASIUM 100	S2007	SMOKE DETECTOR	LEVEL 2 SE CLASS ROOM ABOVE CEILING
M008	PULL STATION	GYMNASIUM 100	S2008	STORAGE ROOM SMOKE	STORAGE ROOM 106	S2008	SMOKE DETECTOR	LEVEL 2 SE CLASS ROOM
M009	PULL STATION	GYMNASIUM 100	S2009	ALCOVE SMOKE	ALCOVE 105	S2009	SMOKE DETECTOR	LEVEL 2 SE CLASS ROOM ABOVE CEILING
M010	PULL STATION	GYMNASIUM 100	S2010	GYMNASIUMS ROOM SMOKE	GYMNASIUM 100	S2010	SMOKE DETECTOR	LEVEL 2 SOUTH CENTER CLASS ROOM
M11	SPARE		S2011	STORAGE ROOM SMOKE	STORAGE ROOM 104	S2011	SMOKE DETECTOR	LEVEL 2 SOUTH CENTER CLASS ROOM ABOVE CEILING
M012	PULL STATION	CORRIDOR EXIT 108B	S2012	STORAGE ROOM SMOKE	STORAGE ROOM 104A	S2012	SMOKE DETECTOR	LEVEL 2 SOUTH CENTER CLASS ROOM ABOVE CEILING
M013	PULL STATION	UPPER LOBBY	S2013	SPARE		S2013	SMOKE DETECTOR	LEVEL 2 WEST CORRIDOR CLASS ROOM
M014	ADDRESS OUTPUT MODULE	DOAS #2 - LEVEL 2	S2014	SMOKE DETECTOR	JANITOR RM SMOKE	S2014	SMOKE DETECTOR	LEVEL 2 SW CLASS ROOM
M015	ADDRESS OUTPUT MODULE	DOAS #2 - LEVEL 2	S2015	SMOKE DETECTOR	LOWER LOBBY ELEC RM	S2015	SMOKE DETECTOR	LEVEL 2 SW CLASS ROOM ABOVE CEILING
M016	ADDRESS OUTPUT MODULE	ELEVATOR RECALL	S2016	SMOKE DETECTOR	LEVEL 1 ELEV LOBBY	S2016	SMOKE DETECTOR	LEVEL 2 SW CLASS ROOM
M017	ADDRESS OUTPUT MODULE	ALTERNATE ELEVATOR RECALL	S2017	SMOKE DETECTOR	LEVEL 1 ELEV MACH RM	S2017	SMOKE DETECTOR	LEVEL 2 SW CLASS ROOM ABOVE CEILING
M018	ADDRESS OUTPUT MODULE	FIRE HAT LIGHT	S2018	HEAT DETECTOR	LEVEL 1 ELEV MACH RM	S2018	SMOKE DETECTOR	LEVEL 2 WEST STAIR
M019	ADDRESSABLE INPUT MODULE	ELEVATOR MACH ROOM- HEAT DETECTOR	S2019	SMOKE DETECTOR	LEVEL 1 LOBBY ABOVE CEILING	S2019	SMOKE DETECTOR	LEVEL 2 WEST CORRIDOR ABOVE CEILING
M020	ADDRESSABLE INPUT MODULE	ELEV MACH ROOM- POWER SUPERVISION	S2020	SMOKE DETECTOR	LEVEL 1 LOBBY	S2020	SMOKE DETECTOR	LEVEL 2 WEST CORRIDOR CEILING
M021	PULL STATION	LOWER LOBBY	S2021	SMOKE DETECTOR	LEVEL 1 LOBBY	S2021	SMOKE DETECTOR	LEVEL 2 CENTER CORRIDOR ABOVE CEILING
			S2022	SMOKE DETECTOR (ABOVE CEILING)	LEVEL 1 LOBBY- ABOVE CEILING	S2022	SMOKE DETECTOR (ABOVE CEILING)	LEVEL 2 CENTER CORRIDOR- CEILING
			S2023	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 111 ABOVE CEILING	S2023	SMOKE DETECTOR	LEVEL 2 EAST CORRIDOR ABOVE CEILING
			S2024	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 111	S2024	SMOKE DETECTOR	LEVEL 2 EAST CORRIDOR- CEILING
			S2025	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 111	S2025	SMOKE DETECTOR	LEVEL 2 NE CLASS ROOM
			S2026	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 111	S2026	SMOKE DETECTOR	LEVEL 2 NE CLASS ROOM CEILING
			S2027	SMOKE	LEVEL 1 CLASS ROOM 112 ABOVE CEILING	S2027	SMOKE	LEVEL 2 NE CLASS ROOM
			S2028	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 112	S2028	SMOKE DETECTOR	LEVEL 2 NE CLASS ROOM ABOVE CEILING
			S2029	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 112 ABOVE CEILING	S2029	SMOKE DETECTOR	LEVEL 2 NORTH CENTER CLASS ROOM CEILING
			S2030	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 112	S2030	SMOKE DETECTOR	LEVEL 2 NORTH CENTER CLASS ROOM CEILING
			S2031	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 113 ABOVE CEILING	S2031	SMOKE DETECTOR	LEVEL 2 NORTH CENTER CLASS ROOM ABOVE CEILING
			S2032	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 113	S2032	SMOKE DETECTOR	LEVEL 2 NORTH CENTER CLASS ROOM ABOVE CEILING
			S2033	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 113	S2033	SMOKE DETECTOR	LEVEL 2 NW CLASS ROOM CEILING
			S2034	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 113	S2034	SMOKE DETECTOR	LEVEL 2 NW CLASS ROOM CEILING
			S2035	SMOKE DETECTOR	EAST CORRIDOR	S2035	SMOKE DETECTOR	LEVEL 2 NW CLASS ROOM ABOVE CEILING
			S2036	SMOKE DETECTOR	EAST CORRIDOR- ABOVE CEILING	S2036	SMOKE DETECTOR	LEVEL 2 NW CLASS ROOM ABOVE CEILING
			S2037	SMOKE DETECTOR	CENTER CORRIDOR	S2037	SMOKE DETECTOR	LEVEL 2 STORAGE ROOM ABOVE BPS 2
			S2038	SMOKE DETECTOR	CENTER CORRIDOR- ABOVE CEILING			
			S2039	SMOKE DETECTOR	WEST CORRIDOR			
			S2040	SMOKE DETECTOR	WEST CORRIDOR- ABOVE CEILING			
			S2041	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108			
			S2042	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108 ABOVE CEILING			
			S2043	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108			
			S2044	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108 ABOVE CEILING			
			S2045	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108			
			S2046	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108 ABOVE CEILING			
			S2047	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108			
			S2048	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108			
			S2049	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108			
			S2050	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108			
			S2051	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108			
			S2052	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108			
			S2053	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108			
			S2054	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108			
			S2055	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108			
			S2056	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108			
			S2057	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108			
			S2058	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108			
			S2059	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108			
			S2060	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108			
			S2061	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108			
			S2062	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108			
			S2063	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108			
			S2064	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108			
			S2065	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 110			
			S2066	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 110			
			S2067	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 110			
			S2068	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 110			
			S2069	SMOKE DETECTOR	LEVEL 2 LOBBY			
			S2070	SPARE				
			S2071	SPARE				
			S2072	SMOKE DETECTOR	LEVEL 2 LOBBY			
			S2073	SMOKE DETECTOR	LEVEL 2 LOBBY- ABOVE CEILING			
			S2074	SPARE				
			S2075	SMOKE DETECTOR	LEVEL 2 LOBBY- ABOVE CEILING			
			S2076	SMOKE DETECTOR	LEVEL 2 LOBBY- ABOVE CEILING			
			S2077	SMOKE DETECTOR	LEVEL 2 LOBBY			
			S2078	SMOKE DETECTOR	TOP OF ELEVATOR SHAFT			
			S2079	DUCT SMOKE DETECTOR	ROOF TOP DOAS #2			
			S2079	DUCT SMOKE DETECTOR	ROOF TOP DOAS #1			



Approval of submitted plans is not an approval of omissions or oversight by this office or non-compliance 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.

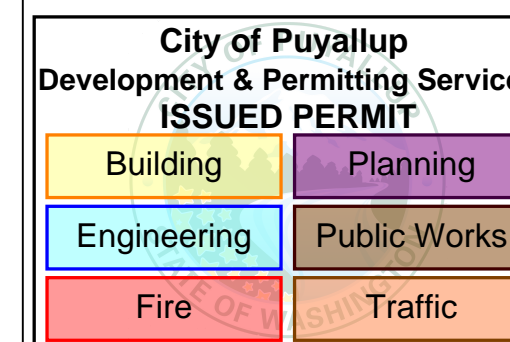
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CITY APPROVAL STAMP

CASCADE CHRISTIAN JR HIGH SCHOOL
TENANT IMPROVEMENT PHASE 2
815 21ST ST SE
PUYALLUP, WA 98372

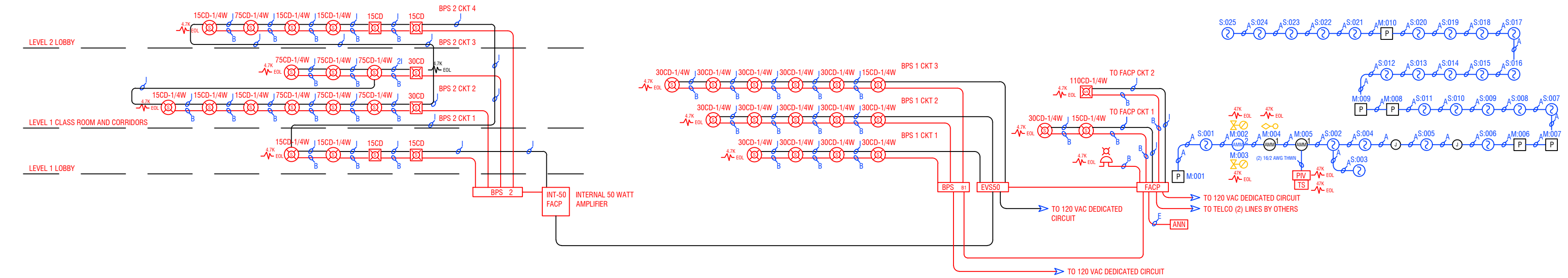
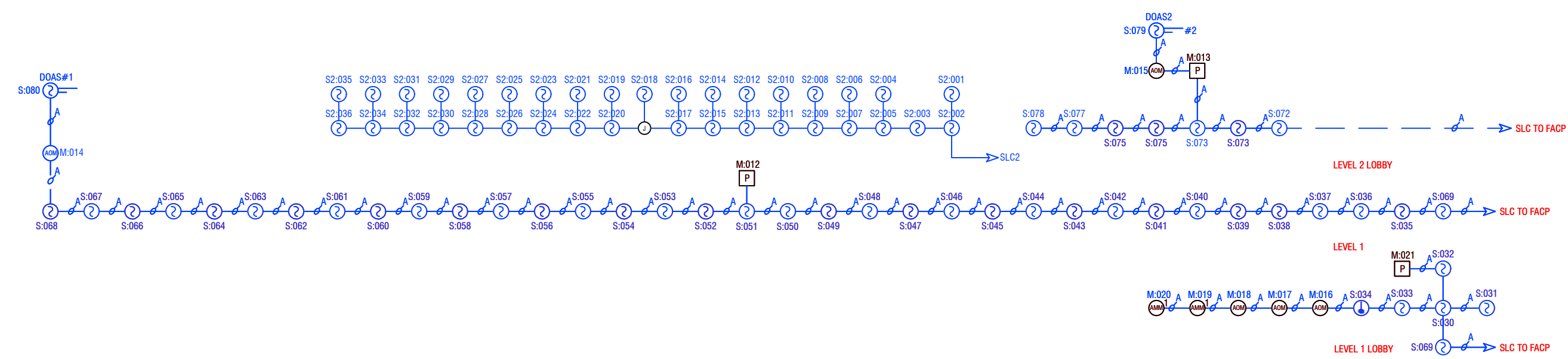
DESIGNER OF RECORD



DESIGN SET

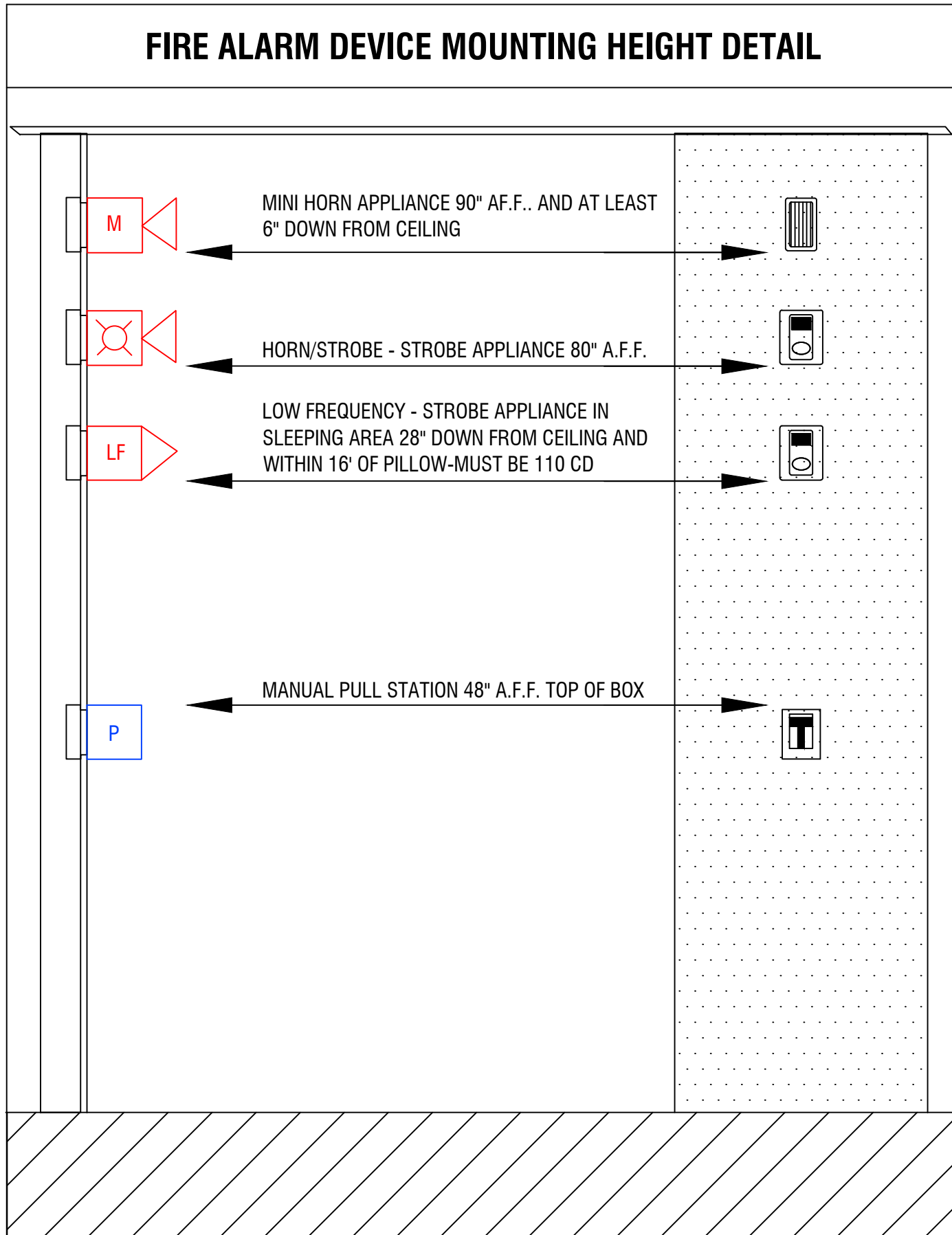
REVISION #	REV DATE
1	
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6	
7	
8	

PROJECT NUMBER



RISER SCHOOL & LOBBY
NO SCALE

RISER DIAGRAM GYM
NO SCALE



JINX integrated
PUYALLUP SPOKANE
11409 58th Ave E-Puyallup, WA, PH 253-848-6998 FX 253-848-0542

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
City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

DESIGN SET

REVISION #	REV DATE
1	
2	
3	
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NOTES

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PROJECT NUMBER: PC210008
SHEET NAME: RISER DIAGRAM
DRAWN: SLF
DATE: 08/31/2021
DRAWING NUMBER:

FA001

S:\PLANS\2019 PROJECTS\PC190002 - CASCADE CHRISTIAN JR HIGH\PHASE 3\FIRE\CASCADE CHRISTIAN JR HIGH - FIRE - COMBINED - 08-16-2022.dwg, 8/18/2022 8:23:50 AM

SILENT KNIGHT
5820XL-EVS Calculations
Version 10.24.14

Global Project Values:
Project Name: CASCADE CHRISTIAN JR HIGH
Project ID: PC190002
Prepared By: DAVID JUSTICE
Date: 8/16/2022

Standby Hours: 24
Alarm Mins: 15
Derating Factor: 1.2
Voltage Drop Warning Threshold %: 15

Panel ID: 5820XL-EVS
Location: SPRINKLER RISER ROOM

Model: 5820XL-EVS Add. Fire Alarm Control
Volts: 24 VDC

Max NAC Current: 3.0 Amps
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	111	0.033	0.033							
SK	Ion		0.000	0.000							
SK	Heat, Heat-HT		0.000	0.000							
SK	Heat ROR	13	0.004	0.004							
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, Mirimon	4	0.002	0.002							
SK	Monitor-2	6	0.005	0.005							
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	SILC 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)			0.409	0.004	Total Alarm Current (Amps)						
Standby Time In Hours			24	0.250	Alarm Time In Minutes / 60 (15 Mins)						
Total Standby AH Required			9.813	0.001	Total Alarm AH Required						
Total Combined AH Required			9.81								
Multiply By The Derating Factor			1.20								
Minimum Battery AmpHours Required			11.78								

Command Shortcuts
Configure Circuits Print Page

SILENT KNIGHT
EVS-50W Calculations

Global Project Values:
Project Name: CASCADE CHRISTIAN JUNIOR
Project ID: PC190002
Prepared By: DAVID JUSTICE
Date: 8/16/2022

Standby Hours: 24
Alarm Mins: 15
Derating Factor: 1.2

Panel ID: INT-50
Location: FACP

Model: EVS-50W Audio Amplifier

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 (00cd)	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
		Totals		0.000	0.160

< Return To Main Edit Device Database

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 5WK 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
		Totals		0.000	0.202

< Return To Main Edit Device Database

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

< Return To Main Edit Device Database

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

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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

< Return To Main Edit Device Database

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

< Return To Main Edit Device Database

dB LINE LOSS CALCULATION

CASCADE CHRISTIAN JR High

SPEAKERS	50.00 WATTS AVAILABLE 8.50 WATTS USE 41.50 WATTS SPA (WATTS)	INT-50								QTY	TOTAL
		SIGNAL CIRCUIT	SIGNAL CIRCUIT	SIGNAL CIRCUIT	SIGNAL CIRCUIT	SIGNAL CIRCUIT	SIGNAL CIRCUIT	SIGNAL CIRCUIT	SIGNAL CIRCUIT		
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	0.00	0
Speaker - 1/4 Watt Tap	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Speaker - 1/2 Watt Tap	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Speaker - 1 Watt Tap	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Speaker - 2 Watt Tap	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Speaker - 4 Watt Tap	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Speaker - 7.5 Watt Tap	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Speaker - 8 Watt Tap	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Speaker - 15 Watt Tap	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
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	0.00	0
Speaker - 1/4 Watt Tap	0.25	34	8.50	0	0.00	0.00	0.00	0.00	0.00	0.00	34
Speaker - 1/2 Watt Tap	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Speaker - 1 Watt Tap	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Speaker - 2 Watt Tap	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Speaker - 4 Watt Tap	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Speaker - 7.5 Watt Tap	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Speaker - 8 Watt Tap	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Speaker - 15 Watt Tap	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
TOTAL POWER ON CIRCUIT		8.50 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		588 OHMS	0 OHMS	0 OHMS	0 OHMS	0 OHMS	0 OHMS	0 OHMS	0 OHMS	0 OHMS	
TOTAL WIRE LENGTH		2000 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		20.32 OHMS	0 OHMS	0 OHMS	0 OHMS	0 OHMS	0 OHMS	0 OHMS	0 OHMS	0 OHMS	
POWER LINE LOSS (dB)		-0.15 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
16 AWG = 5.08
14 AWG = 3.26
12 AWG = 2.05

LOAD RESISTANCE (LR)= (VOLTAGE x VOLTAGE) / POWER
POWER LINE LOSS (dB) = 10 x Log (1 - (WR / (WR+LR)))

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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

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

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building Planning
Engineering Public Works
Fire Traffic

DESIGN SET

REVISION #	REV DATE
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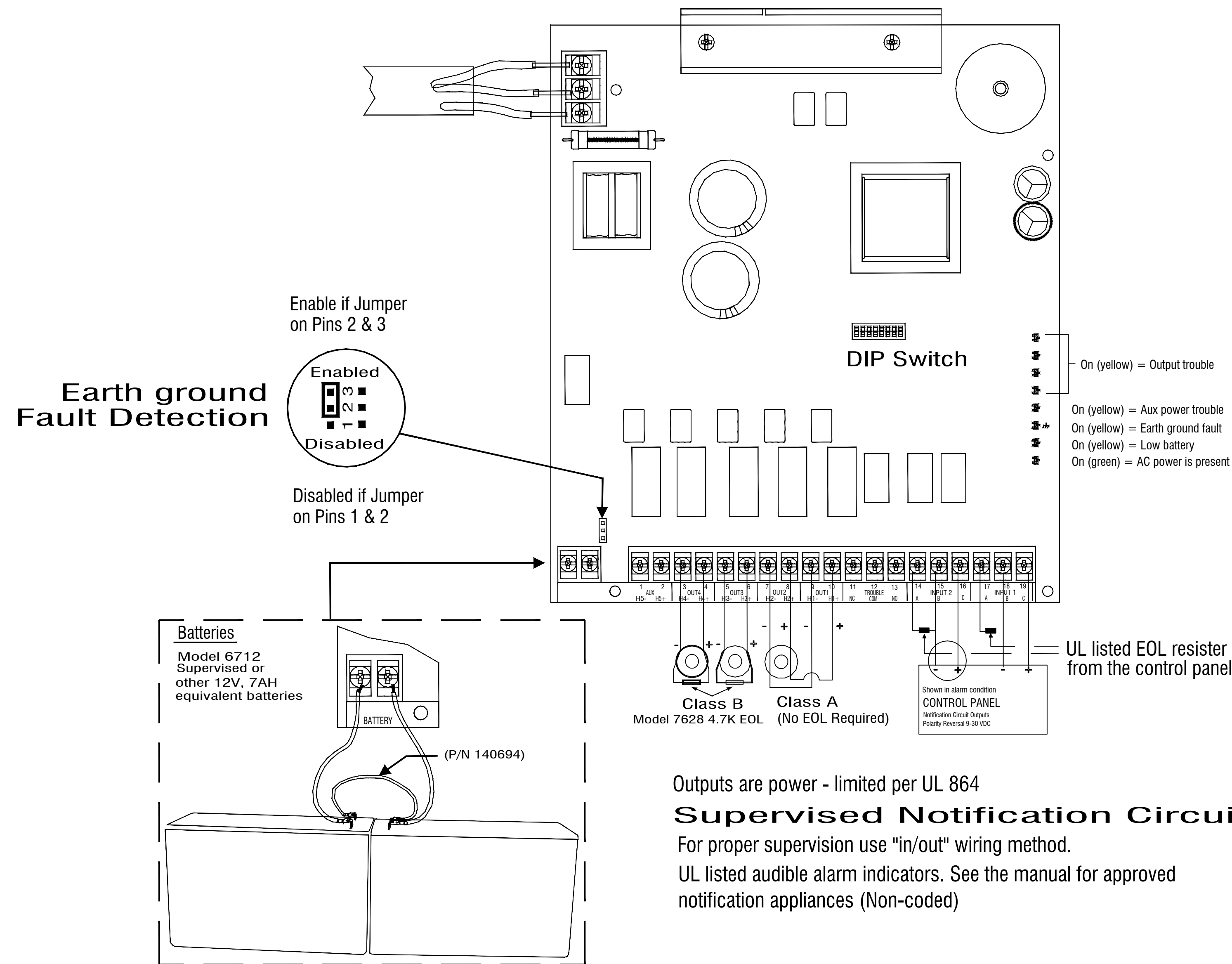
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PROJECT NUMBER: PC210008 SHEET NAME: BATTERY CALCS
DRAWN: SLF DATE: 08/31/2021
DRAWING NUMBER:

FA002

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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

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

City of Puyallup
 Development & Permitting Services
 ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

DESIGN SET

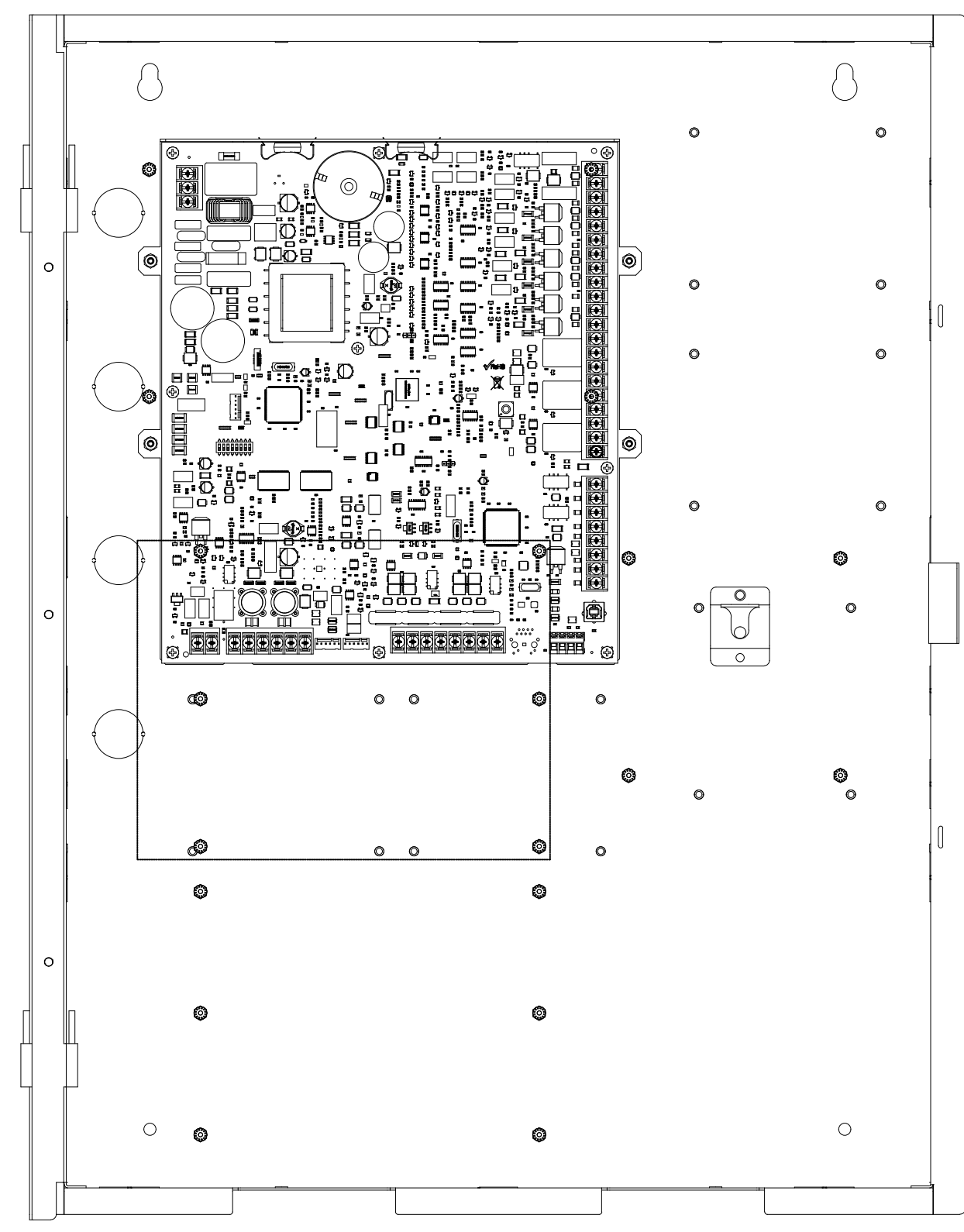
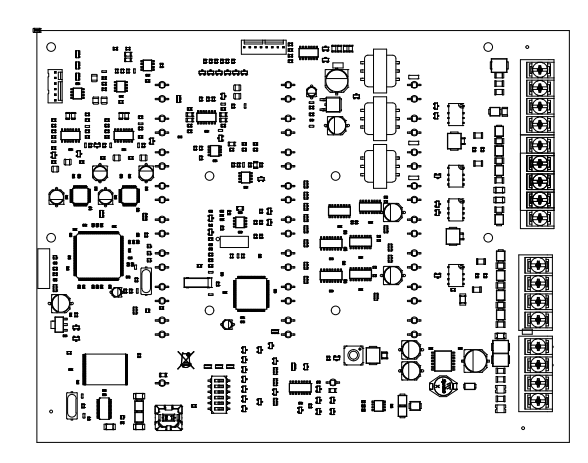
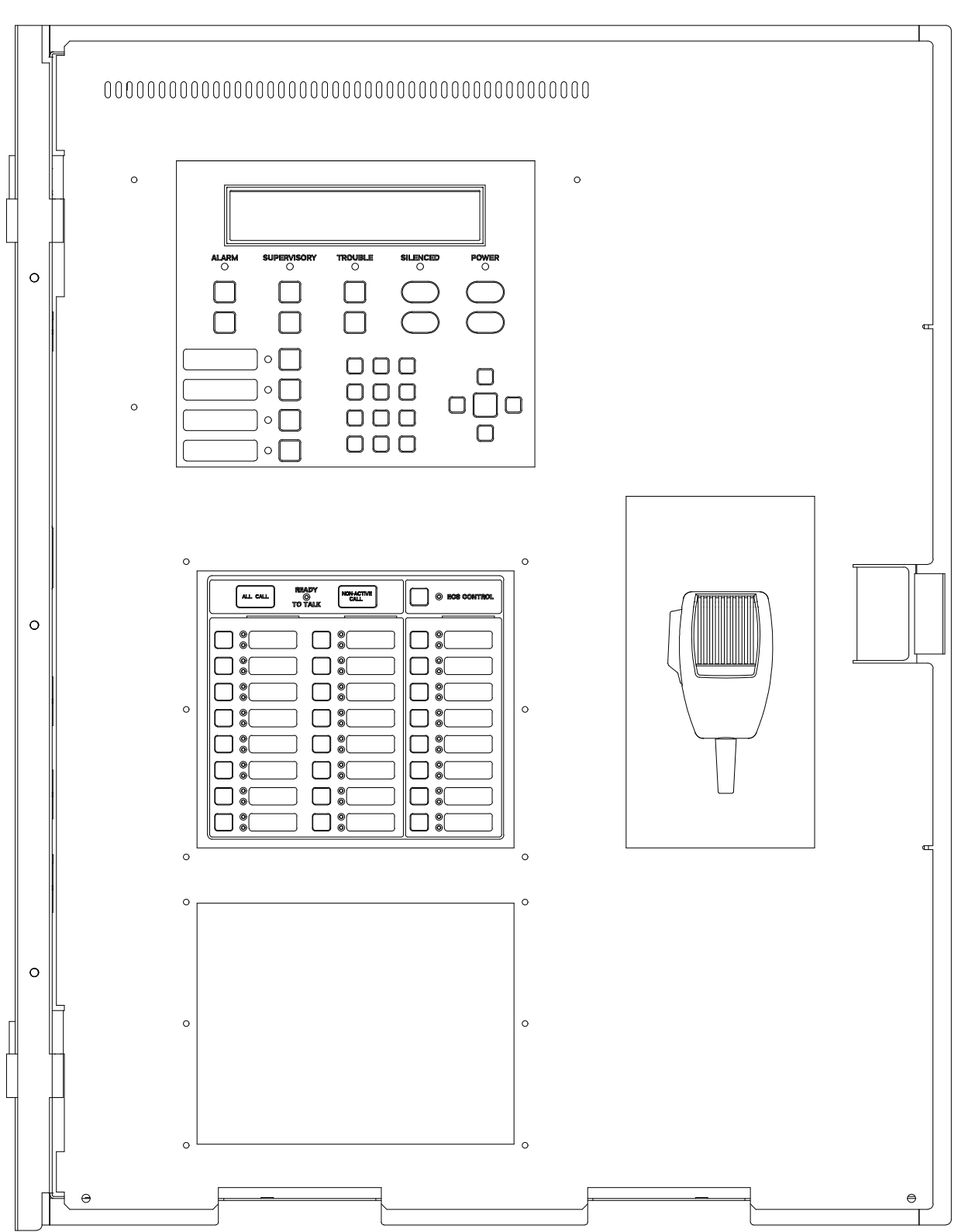
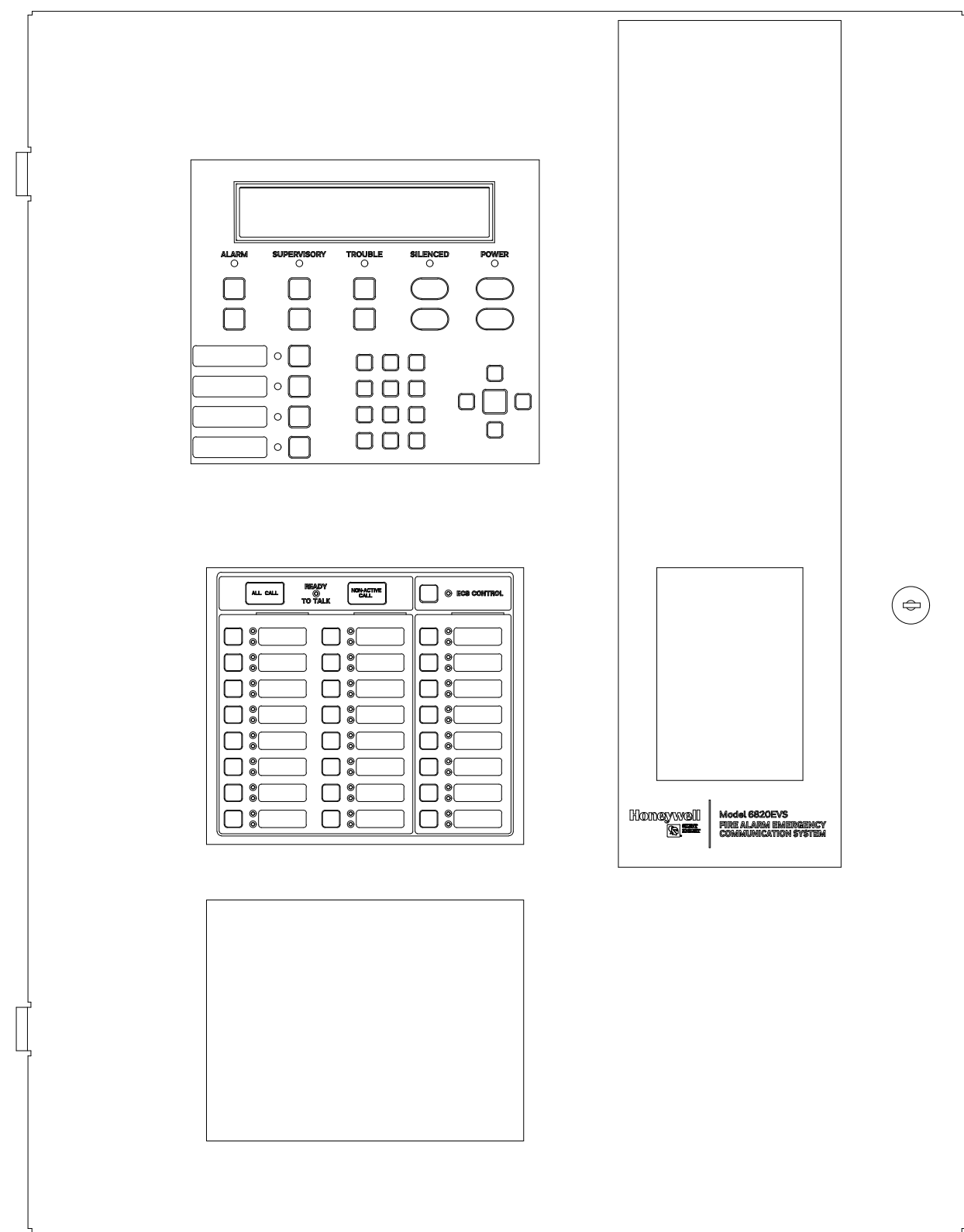
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PROJECT NUMBER PC210008	SHEET NAME BOOSTER DETAIL
DRAWN SLF	DATE 08/31/2021

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

DESIGN SET

REVISION #	REV DATE
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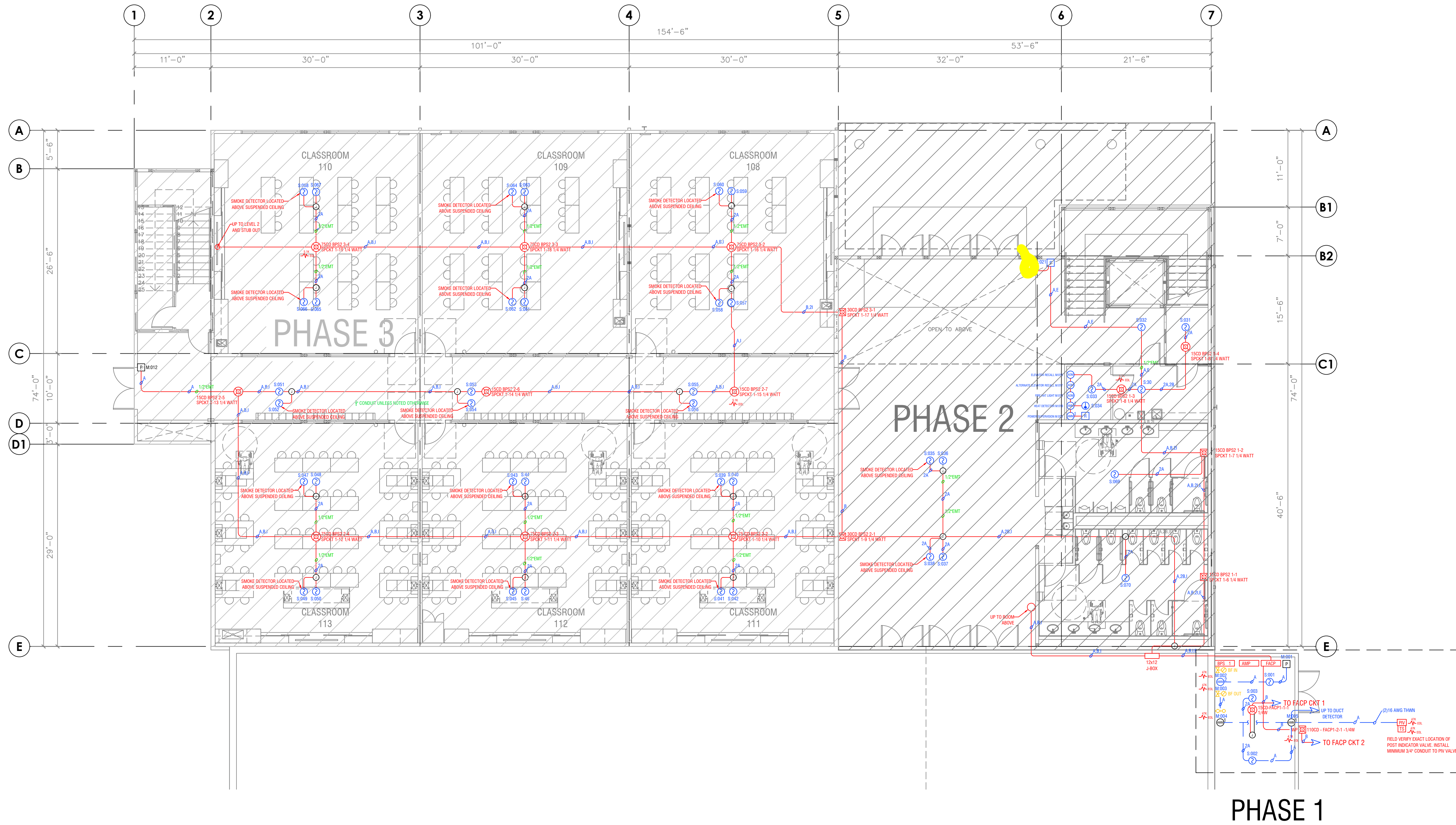
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PROJECT NUMBER: PC210008 SHEET NAME: FACP DETAIL
 DRAWN: SLF DATE: 08/31/2021

DRAWING NUMBER: FA004

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FIRE PLAN FLOOR 1
1/8"=1'

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
City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

DESIGN SET

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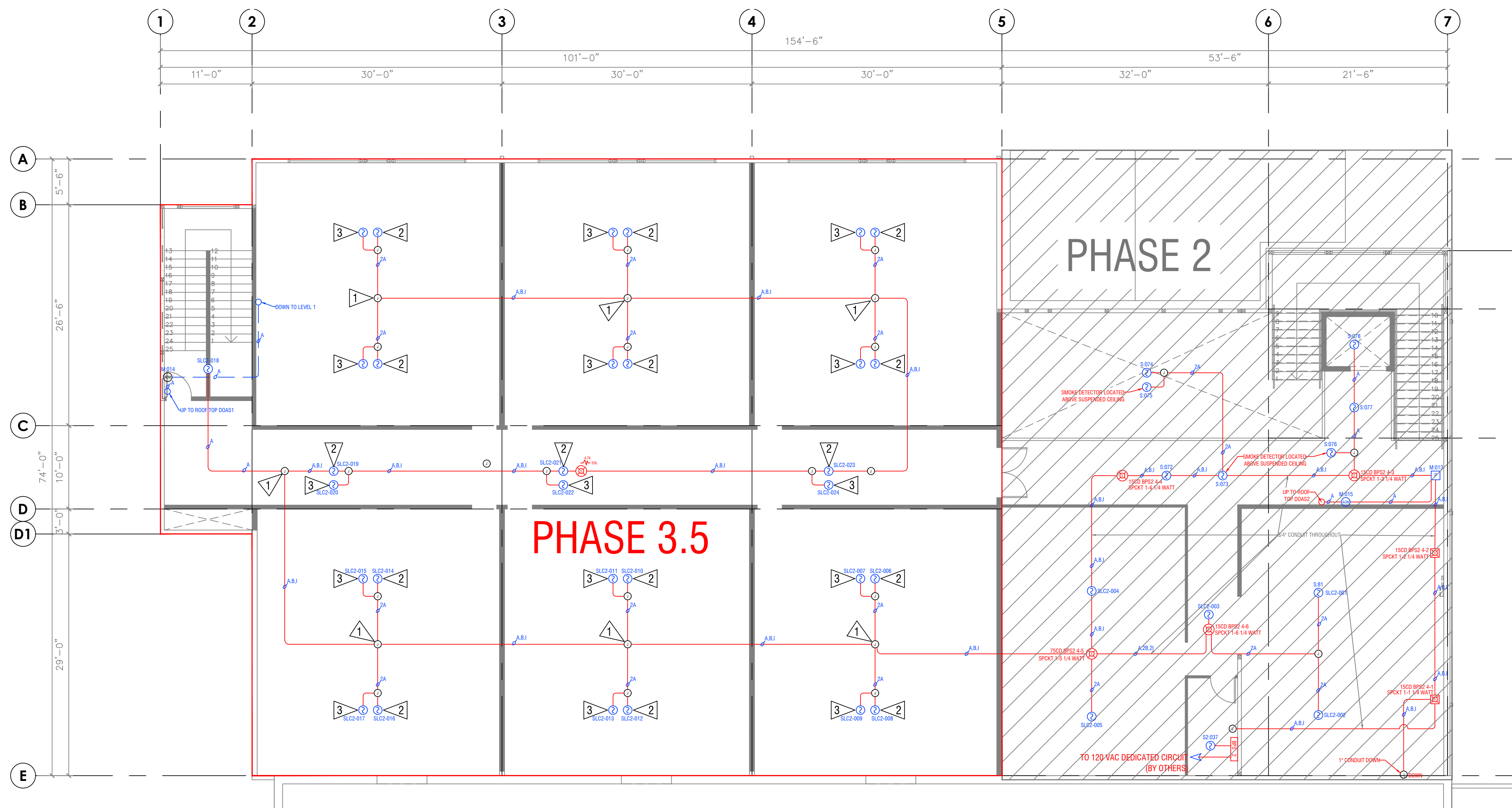
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PROJECT NUMBER: **PC210008** SHEET NAME: **LEVEL 1 FLOOR PLAN**
DRAWN: **SLF** DATE: **08/31/2021**

DRAWING NUMBER: **FA100**

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- 1 FUTURE STROBE (PHASE 3)
- 2 SMOKE DETECTOR MOUNTED ON TOP JOIST
- 3 FUTURE SMOKE DETECTOR MOUNTED ON SUSPENDED CEILING TILE (PHASE 3)

*** PHASE 3.5 (ABOVE SUSPENDED CEILING DETECTION ONLY)**
 No Ceiling is planned in this phase. If ceiling is installed detection is required.

FIRE PLAN FLOOR 2
 1/8"=1'

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

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

City of Puyallup
 Development & Permitting Services
 ISSUED PERMIT

Building Planning
 Engineering Public Works
 Fire Traffic

DESIGN SET

REVISION #	REV DATE
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PROJECT NUMBER: **PC210008** SHEET NAME: **LEVEL 2 FLOOR PLAN**
 DRAWN: **SLF** DATE: **08/31/2021**

FA101