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
15		SMOKE DETECTOR ADDRESSABLE	ZONE # AND DEVICE #	SILENT KNIGHT	SK-PHOTO	CEILING	3-0 NL ON- 4 SQ DP	N/A-3.0 RING
5		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	P	PULL STATION	ZONE # AND DEVICE #	SILENT KNIGHT	PULL-SA	WALL	SG NL ON- 4 SQ DP	N/A-SG RING
1		DUCT SMOKE DETECTOR	DEVICE NUMBER	SILENT KNIGHT	SK-DUCT	BY OTHERS	BY OTHERS	BY OTHERS
2	AMM 1	ADDRESSABLE MONITOR MODULE	DEVICE NUMBER	SILENT KNIGHT	SK-MONITOR	BY OTHERS	2G NL ON-4 SQ DP	N/A-2G RING
4	AOM	ADDRESSABLE RELAY MODULE	DEVICE NUMBER	SILENT KNIGHT	SK-RELAY	WALL	2G NL ON-4 SQ DP	N/A-2G RING
6		CEILING SPEAKER STROBE	WATTAGE, CANDELA AND CKT	SYSTEM SENSOR	SPSCWL	CEILING	3-0 NL ON- 4 SQ DP	N/A-4 SQ DEEP
6		WALL SPEAKER STROBE	WATTAGE, CANDELA AND CKT	SYSTEM SENSOR	SPSWL	WALL	SG NL ON- 4 SQ DP	N/A-4 SQ DEEP
4	EOL	END OF LINE RESISTOR	RESISTANCE VALUE	VARIES	N/A	LAST NAC DEVICE IN CIRCUIT	N/A	N/A
EXISTING	FACP	FIRE ALARM VOICE EVAC CONTROL PANEL	PANEL NUMBER	SILENT KNIGHT	5820XL-EVS	WALL	SURFACE- RECESSED	N/A
1	BPS	BOOSTER POWER SUPPLY	PANEL NUMBER	SILENT KNIGHT	5499	WALL	SURFACE- RECESSED	N/A
1	AMP	AMPLIFIER	PANEL NUMBER	SILENT KNIGHT	INT-50	WALL	SURFACE- 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	ANNUCIATOR 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 ELEVAOTR 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

FIRE ALARM & SMOKE DEVICE SCHEDULE

MODULE POINT NUMBER	DEVICE DESCRIPTION	DEVICE LOCATION	SMOKE DETECTOR POINT NUMBER	DEVICE DESCRIPTION	DEVICE LOCATION
M:001	PULL STATION	SPRINKLER RISER ROOM 103	S:001	FACP & BPS SMOKE	SPRINKLER RISER ROOM 103
M:002	DUAL MONITOR MODULE- DOUBLE CHECK VALVE IN AND OUT	SPRINKLER RISER ROOM 103	S:002	AV CLOSET SMOKE	AV CLOSET 101A
M:003	DUAL MONITOR MODULE- DOUBLE CHECK VALVE IN AND OUT	SPRINKLER RISER ROOM 103	S:003	NAC DEVICE SMOKE	SPRINKLER RISER ROOM 103
M:004	MONITOR MODULE- TAMPER SWITCH	SPRINKLER RISER ROOM 103	S:004	STORAGE ROOM SMOKE	STORAGE ROOM 101
M:005	MONITOR MODULE- PIV VALVE	SPRINKLER RISER ROOM 103	S:005	STORAGE ROOM SMOKE	STORAGE ROOM 101
M:006	PULL STATION	ELECTRICAL ROOM 102	S:006	ELECTRICAL ROOM SMOKE	ELECTRICAL ROOM 103
M:007	PULL STATION	GYMNASIUM 100	S:007- S-017	GYMNASIUMS ROOM SMOKE	GYMNASIUM 100
M:008	PULL STATION	GYMNASIUM 100	S:018	STORAGE ROOM SMOKE	STORAGE ROOM 106
M:009	PULL STATION	GYMNASIUM 100	S:019	ALCOVE SMOKE	ALCOVE 105
M:010	PULL STATION	GYMNASIUM 100	S:020- S-023	GYMNASIUMS ROOM SMOKE	GYMNASIUM 100
M:11	SPARE		S:024	STORAGE ROOM SMOKE	STORAGE ROOM 104
M:012	PULL STATION	CORRIDOR EXIT 108B	S:025	STORAGE ROOM SMOKE	STORAGE ROOM 104A
M:013	PULL STATION	UPPER LOBBY	S:026-S-029	SPARE	
M:014	ADDRESS OUTPUT MODULE	DOAS #2- LEVEL 2	S:030	SMOKE DETECTOR	JANITOR RM SMOKE
M:015	ADDRESS OUTPUT MODULE	DAOS #2- LEVEL 2	S:031	SMOKE DETECTOR	LOWER LOBBY ELEC RM
M:016	ADDRESS OUTPUT MODULE	ELEVATOR RECALL	S:032	SMOKE DETECTOR	LEVEL 1 ELEV LOBBY
M:017	ADDRESS OUTPUT MODULE	ALTERNATE ELEVATOR RECALL	S:033	SMOKE DETECTOR	LEVEL 1 ELEV MACH RM
M:018	ADDRESS OUTPUT MODULE	FIRE HAT LIGHT	S:034	HEAT DETECTOR	LEVEL 1 ELEV MACH RM
M:019	ADDRESSABLE INPUT MODULE	ELEVATOR MACH ROOM- HEAT DETECTOR	S:035	SMOKE DETECTOR	LEVEL 1 LOBBY- ABOVE CEILING
M:020	ADDRESSABLE INPUT MODULE	ELEV MACH ROOM- POWER SUPERVISION	S:036	SMOKE DETECTOR	LEVEL 1 LOBBY
M021	PULL STATION	LOWER LOBBY	S:037	SMOKE DETECTOR	LEVEL 1 LOBBY
			S:038	SMOKE DETECTOR (ABOVE CEILING)	LEVEL 1 LOBBYY- ABOVE CEILING
			S:039	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 111- ABOVE CEILING
			S:040	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 111
			S:041	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 111- ABOVE CEILING
			S:042	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 111
			S:043	SMOKE	LEVEL 1 CLASS ROOM 112- ABOVE CEILING
			S:044	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 112
			S:045	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 112- ABOVE CEILING
			S:046	SMOKE DETECTOR	LEVLE 1 CLASS ROOM 112
			S:047	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 113- ABOVE CEILING
			S:048	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 113
			S:049	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 113- ABOVE CEILING
			S:050	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 113
			S:051	SMOKE DETECTOR	EAST CORRIDOR
			S:052	SMOKE DETECTOR	EAST CORRIDOR- ABOVE CEILING
			S:053	SMOKE DETECTOR	CENTER CORRIDOR
			S:054	SMOKE DETECTOR	CENTER CORRIDOR- ABOVE CEILING
			S:055	SMOKE DETECTOR	WEST CORRIDOR
			S:056	SMOKE DETECTOR	WEST CORRIDOR- ABOVE CEILING
			S:057	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108
			S:058	SMOKE DETECTOR	LEVEL1 CLASS ROOM 108- ABOVE CEILING
			S:059	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108-
			S:060	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108- ABOVE CEILING
			S:061	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 109
			S:062	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 109- ABOVE CEILING
			S:063	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 109-
			S:064	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 109- ABOVE CEILING
			S:065	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 110
			S:066	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 110- ABOVE CEILING
			S:067	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 110
			S:068	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 110- ABOVE CEILING
			S:069	SMOKE DETECTOR	LEVEL 2 LOBBY
			S:070	SMOKE DETECTOR	LEVEL 2 LOBBY
			S:071	SMOKE DETECTOR	LEVEL 2 LOBBY
			S:072	SMOKE DETECTOR	LEVEL 2 LOBBY
			S:073	SMOKE DETECTOR	LEVEL 2 LOBBY- ABOVE CEILING
			S:074	SMOKE DETECTOR	LEVEL 2 LOBBY
			S:075	SMOKE DETECTOR	LEVEL 2 LOBBY- ABOVE CEILING
			S:076	SMOKE DETECTOR	LEVEL 2 LOBBY- ABOVE CEILING
			S:077	SMOKE DETECTOR	LEVEL 2 LOBBY
			S:078	SMOKE DETECTOR	TOP OF ELEVATOR SHAFT
			S:079	DUCT SMOKE DETECTOR	ROOF TOP DOAS #2
			S:079	DUCT SMOKE DETECTOR	DOAS #1

THE APPROVED CONSTRUCTION PLANS AND ALL ENGINEERING 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.

CONTRACTOR CONTACT INFO

LOCATION

WEBSITE

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 FACILATE 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

LINX integrated
PUYALLUP ■ SPOKANE
11409 58Th Ave E-Puyallup, WA. PH 253-848-6998 FX 253-848-0542

CITY APPROVAL STAMP

City of Puyallup
Fire
REVIEWED FOR COMPLIANCE
DDrake
05/12/2022
7:15:39 AM

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	
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NOTES

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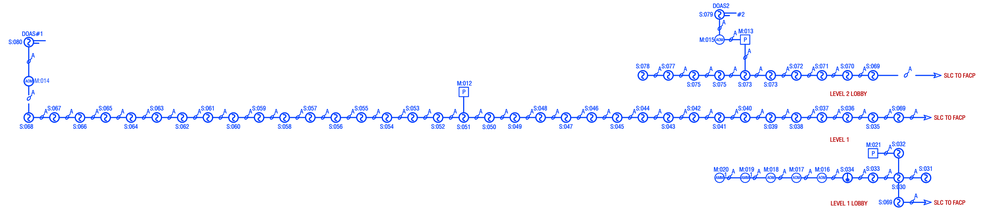
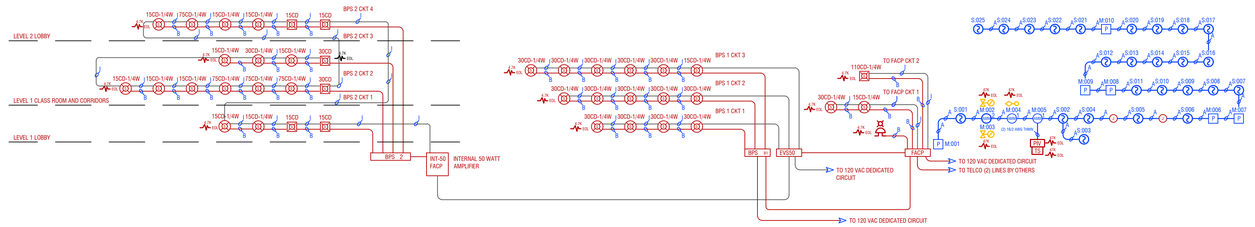
PROJECT NUMBER: PC210008
SHEET NAME: COVER PAGE
DRAWN: SLF
DATE: 08/31/2021
DRAWING NUMBER: FA000





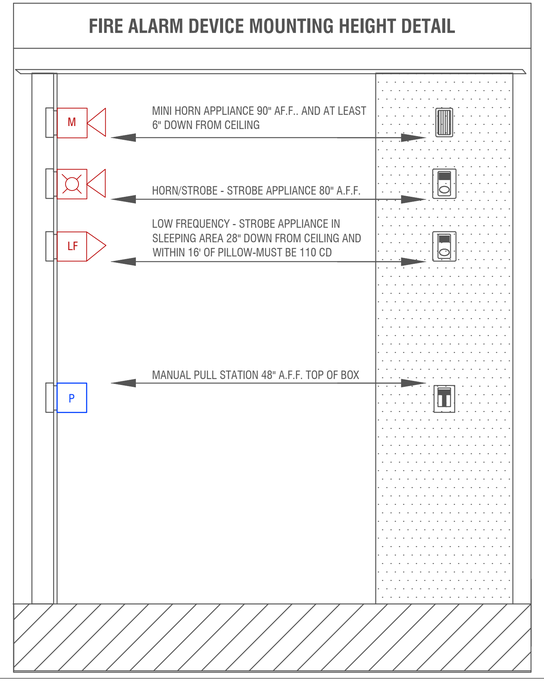
RISER SCHOOL & LOBBY

NO SCALE

RISER DIAGRAM GYM

NO SCALE

FIRE ALARM DEVICE MOUNTING HEIGHT DETAIL



LINX 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
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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

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: 2/21/2022

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	73	0.022	0.022						
SK	Ion		0.000	0.000						
SK	Heat, Heat-HT		0.000	0.000						
SK	Heat ROR	1	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	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	8	0.003	0.003						
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		0.000	0.000						
5860	LCD Remote Annunc		0.000	0.000						
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%

N/A

Total Standby Current (Amps)	0.318	0.004	Total Alarm Current (Amps)
Standby Time In Hours	24	0.250	Alarm Time In Minutes / 60 (15 Mins)
Total Standby AH Required	7.635	0.001	Total Alarm AH Required
Total Combined AH Required	7.64		
Multiply By The Derating Factor	1.20		
Minimum Battery AmpHours Required	**9.16**		

Command Shortcuts

Configure Circuits | Print Page

SILENT KNIGHT

5499 Power Expander Calculations
Version 02.18.09

Global Project Values:

Project Name: CASCADE CHRISTIAN JR HIGH
Project ID: PC190002
Prepared By: DAVID JUSTICE
Date: 9/8/2021

Standby Hours: 24
Alarm Mins: 5
Derating Factor: 1.2
Voltage Drop Warning Threshold %: 10

Panel ID: 5499
Location: SPRINKLER RISER ROOM

Model: 5499 Power Expander
Volts: 24 VDC

Max NAC Current: 3.0 Amps
Max Panel Current: 9.0 Amps

Ckt.#	Circuit Name		Current Draw Standby	Current Draw Alarm	Wire AWG & Type	Ohms Per 1000 Ft.	Length(ft) One-Way	Actual Ohms	Volts @ EOL	%Drop
5499	5499 Pwr Module	1	0.075	0.205						
NAC #1	5499 Circuit 1	cfg.	0.000	0.180	#14 Solid	2.52	100	0.50	20.31	0.44%
NAC #2	5499 Circuit 2	cfg.	0.000	0.374	#14 Solid	2.52	356	1.79	19.73	3.29%
NAC #3	5499 Circuit 3	cfg.	0.000	0.484	#14 Solid	2.52	375	1.89	19.49	4.48%
NAC #4	5499 Circuit 4	cfg.	0.000	0.336	#14 Solid	2.52	250	1.26	19.98	2.08%
Aux	5499 Aux Power Out	cfg.	0.000	0.000	#14 Solid	2.52		0.00	20.40	0.00%

Total Standby Current (Amps)	0.075	1.579	Total Alarm Current (Amps)
Standby Time In Hours	24	0.083	Alarm Time In Minutes / 60 (5 Mins)
Total Standby AH Required	1.800	0.132	Total Alarm AH Required
Total Combined AH Required	1.93		
Multiply By The Derating Factor	1.20		
Minimum Battery AmpHours Required	**2.32**		

Wire resistances are based upon an ambient temperature of 72 degrees F. Because of the minimal difference between solid and stranded wire no differential was made.

Configure Circuits | Print Page

SILENT KNIGHT

Circuit Configuration

Print Circuits Detail

Project Information

Project Name: CASCADE CHRISTIAN JR HIGH
Project ID: PC190002
Prepared By: DAVID JUSTICE
Date: 9/8/2021

Ckt. Number: NAC #1
Ckt. Name: 5499 Circuit 1
Panel ID: 5499
Max Circuit Current: 3 Amps

Qty	Device	Current Draw Each Standby	Current Draw Each Alarm	Current Draw Total Standby	Current Draw Total Alarm
2	SYSTEM SENSOR SPSWL (15CD)	0.000	0.060	0.000	0.120
2	SYSTEM SENSOR SPSCWL (15CD)	0.000	0.060	0.000	0.120
	Unused	0.000	0.000	0.000	0.000
	Unused	0.000	0.000	0.000	0.000
				0.000	0.000
			Totals	0.000	0.240

< Return To Power Supply Config | Edit Device Database

Ckt. Number: NAC #2
Ckt. Name: 5499 Circuit 2
Panel ID: 5499
Max Circuit Current: 3 Amps

Qty	Device	Current Draw Each Standby	Current Draw Each Alarm	Current Draw Total Standby	Current Draw Total Alarm
1	SYSTEM SENSOR SPSWL (30CD)	0.000	0.086	0.000	0.086
3	SYSTEM SENSOR SPSCWL (75CD)	0.000	0.036	0.000	0.108
3	SYSTEM SENSOR SPSCWL (15CD)	0.000	0.060	0.000	0.180
	Unused	0.000	0.000	0.000	0.000
				0.000	0.000
			Totals	0.000	0.374

< Return To Power Supply Config | Edit Device Database

Ckt. Number: NAC #3
Ckt. Name: 5499 Circuit 3
Panel ID: 5499
Max Circuit Current: 3 Amps

Qty	Device	Current Draw Each Standby	Current Draw Each Alarm	Current Draw Total Standby	Current Draw Total Alarm
1	SYSTEM SENSOR SPSWL (30CD)	0.000	0.086	0.000	0.086
1	SYSTEM SENSOR SPSWL (30CD)	0.000	0.000	0.000	0.000
2	SYSTEM SENSOR SPSCWL (15CD)	0.000	0.060	0.000	0.120
	Unused	0.000	0.000	0.000	0.000
				0.000	0.000
			Totals	0.000	0.206

< Return To Power Supply Config | Edit Device Database

Ckt. Number: NAC #4
Ckt. Name: 5499 Circuit 4
Panel ID: 5499
Max Circuit Current: 3 Amps

Qty	Device	Current Draw Each Standby	Current Draw Each Alarm	Current Draw Total Standby	Current Draw Total Alarm
2	SYSTEM SENSOR SPSWL (15CD)	0.000	0.060	0.000	0.120
1	SYSTEM SENSOR SPSCWL (75CD)	0.000	0.036	0.000	0.036
3	SYSTEM SENSOR SPSCWL (15CD)	0.000	0.060	0.000	0.180
	Unused	0.000	0.000	0.000	0.000
				0.000	0.000
			Totals	0.000	0.336

< Return To Power Supply Config | Edit Device Database

Ckt. Number: Aux
Ckt. Name: 5499 Aux Power Out
Panel ID: 5499
Max Circuit Current: 3 Amps

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
				0.000	0.000
			Totals	0.000	0.000

< Return To Power Supply Config | Edit Device Database

SILENT KNIGHT

EVS-50W Calculations

Global Project Values:

Project Name: CASCADE CHRISTIAN JUNIOR
Project ID: PC190002
Prepared By: DAVID JUSTICE
Date: 2/21/2022

Standby Hours: 24
Alarm Mins: 15
Derating: 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	4	0.000	0.180
	Total Standby Current (AMPS):		0.100	0.760
	Standby Time In Hours		24	0.250
	Total Standby AH Required		2.400	0.190
	Total Combined AH Required		2.59	
	Multiply By The Derating Factor		1.20	
	Minimum Battery AmpHours Required		**3.11**	

dB LINE LOSS CALCULATION

CASCADE CHRISTIAN JR High

SPEAKERS — INT-50

50.00 WATTS AVAILABLE
4.00 WATTS USE
46.00 WATTS SPA

DEVICE	SIGNAL CIRCUIT		SIGNAL CIRCUIT		SIGNAL CIRCUIT		SIGNAL CIRCUIT		SIGNAL CIRCUIT		SIGNAL CIRCUIT		SIGNAL CIRCUIT	
POWER (WATTS)	1													
	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
Speaker - 1/4 Watt Tap 0.25		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
Speaker - 1 Watt Tap 1.00		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
Speaker - 4 Watt Tap 4.00		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
Speaker - 8 Watt Tap 8.00		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
Speaker 70.7V														
Speaker - 1/8 Watt Tap 0.13		0.00		0.00		0.00		0.00		0.00		0.00		0.00
Speaker - 1/4 Watt Tap 0.25	16	4.00	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
Speaker - 1 Watt Tap 1.00		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
Speaker - 4 Watt Tap 4.00		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
Speaker - 8 Watt Tap 8.00		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
TOTAL POWER ON CIRCUIT	4.00 WATTS		0.00 WATTS		0.00 WATTS		0.00 WATTS		0.00 WATTS		0.00 WATTS		0.00 WATTS	
LOAD RESISTANCE	1250 OHMS		0 OHMS		0 OHMS		0 OHMS		0 OHMS		0 OHMS		0 OHMS	
TOTAL WIRE LENGTH	1000 FT.		FT.		FT.		FT.		FT.		FT.		FT.	
WIRE SIZE	16 AWG		16 AWG		16 AWG		16 AWG		16 AWG		16 AWG		16 AWG	
TOTAL WIRE RESISTANCE	10.16 OHMS		0 OHMS		0 OHMS		0 OHMS		0 OHMS		0 OHMS		0 OHMS	
POWER LINE LOSS (dB)	-0.04 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))

*Values per NFPA 70

LINX 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
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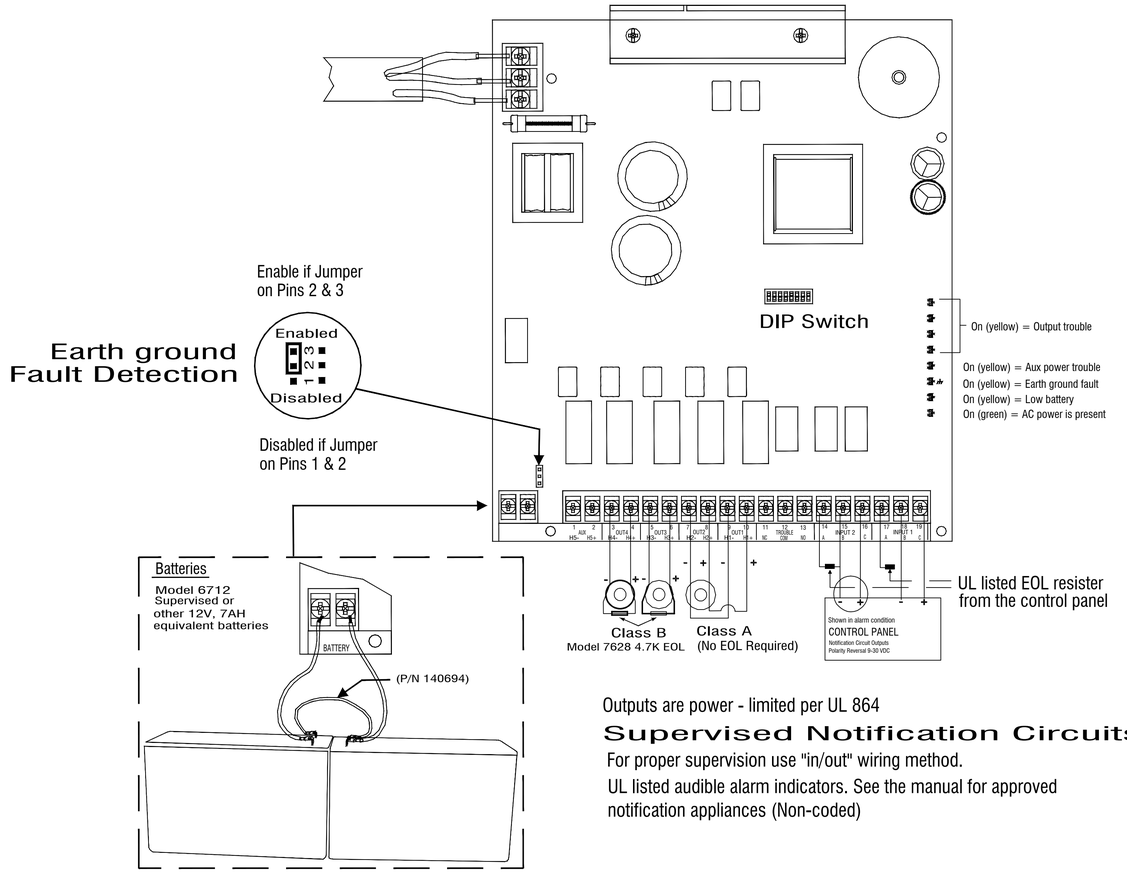
PROJECT NUMBER: PC210008
SHEET NAME: BATTERY CALCS
DRAWN: SLF
DATE: 08/31/2021
DRAWING NUMBER: FA002



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 Diaram

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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

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PROJECT NUMBER: PC210008
SHEET NAME: BOOSTER DETAIL
DRAWN: SLF
DATE: 08/31/2021
DRAWING NUMBER: FA003

LINX 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

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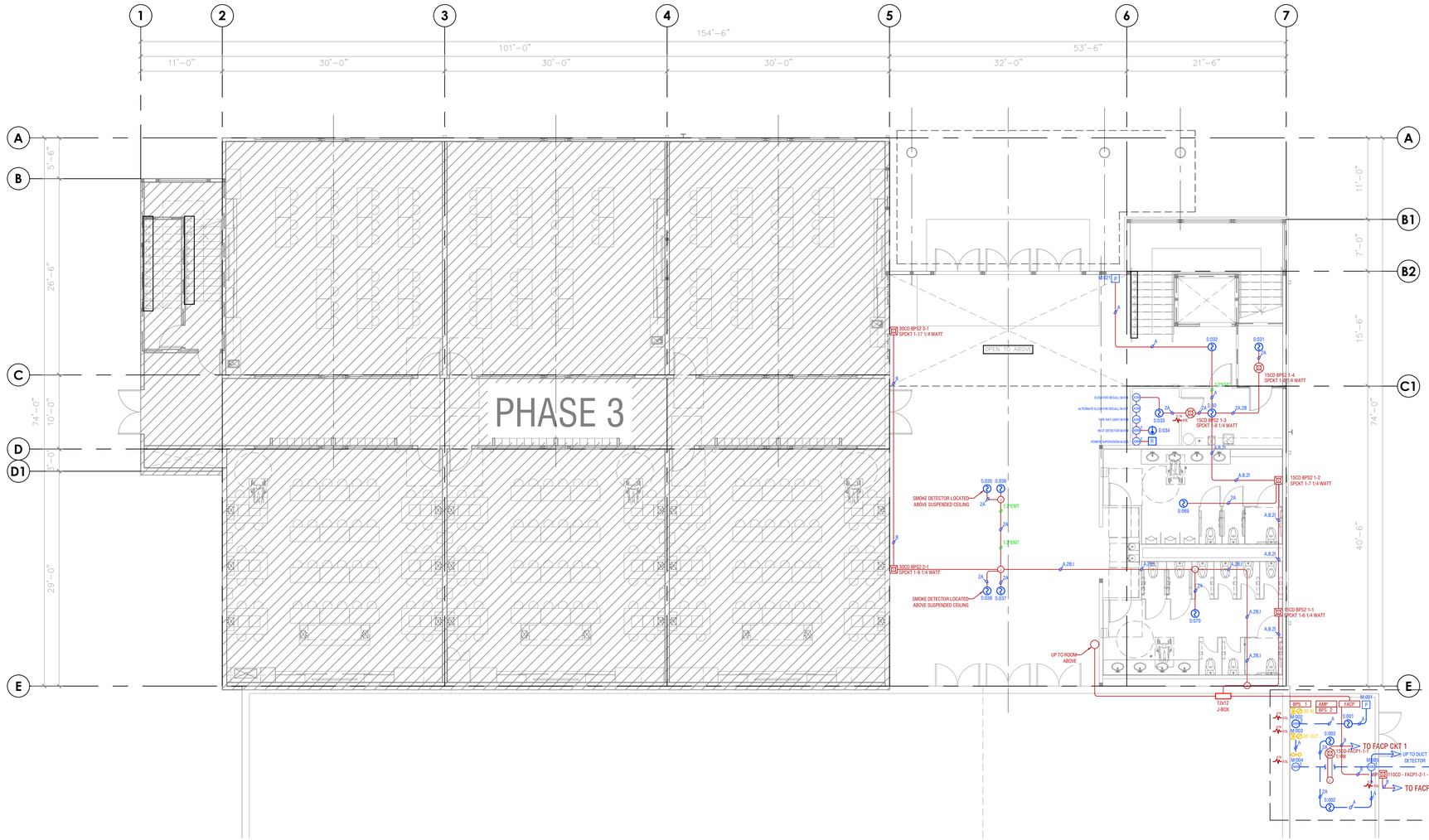
PROJECT NUMBER: PC210008
SHEET NAME: FACP DETAIL
DRAWN: SLF
DATE: 08/31/2021
DRAWING NUMBER: FA004



FIRE PLAN FLOOR 1 (PHASE 2)

1/8"=1'

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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

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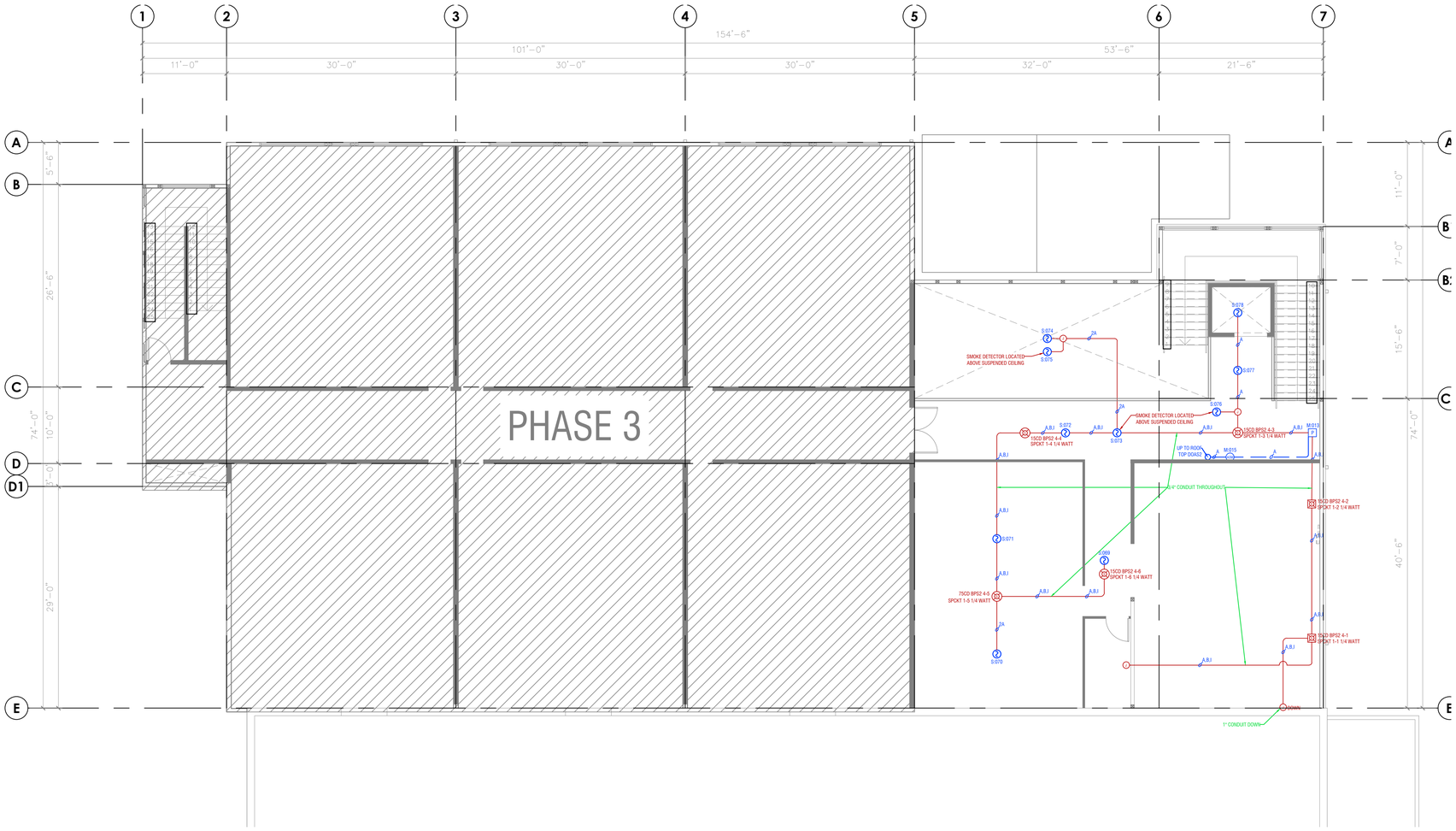
PROJECT NUMBER: PC210008
SHEET NAME: LEVEL 1 FLOOR PLAN
DRAWN: SLF
DATE: 08/31/2021
DRAWING NUMBER: FA100



FIRE PLAN FLOOR 2 (PHASE 2)

1/8"=1'

LINX 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

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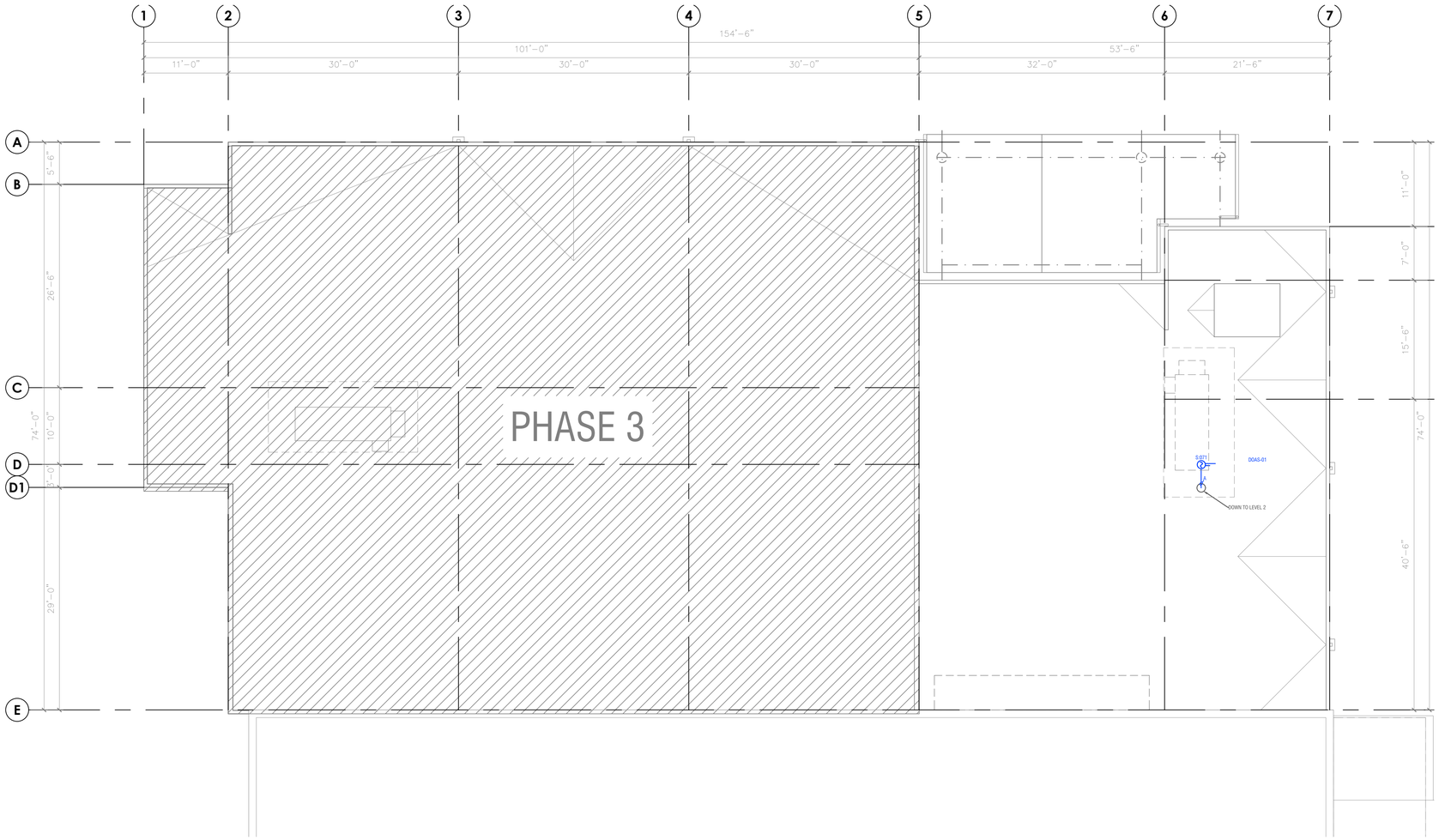
PROJECT NUMBER: PC210008
SHEET NAME: LEVEL 2 FLOOR PLAN
DRAWN: SLF
DATE: 08/31/2021
DRAWING NUMBER: FA101



FIRE PLAN ROOF (PHASE 2)

1/8"=1'

LINX 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

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PROJECT NUMBER: PC210008
SHEET NAME: ROOF FLOOR PLAN
DRAWN: SLF
DATE: 08/31/2021
DRAWING NUMBER: FA102

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
15		SMOKE DETECTOR ADDRESSABLE	ZONE # AND DEVICE #	SILENT KNIGHT	SK-PHOTO	CEILING	3-0 NL ON- 4 SQ DP	N/A-3.0 RING
15		SMOKE DETECTOR ADDRESSABLE	ZONE # AND DEVICE #	SILENT KNIGHT	SK-PHOTO	ABOVE CEILING	3-0 NL ON- 4 SQ DP	N/A-3.0 RING
1	P	PULL STATION	ZONE # AND DEVICE #	SILENT KNIGHT	PULL-SA	WALL	SG NL ON- 4 SQ DP	N/A-SG RING
1		DUCT SMOKE DETECTOR	DEVICE NUMBER	SILENT KNIGHT	SK-DUCT	BY OTHERS	BY OTHERS	BY OTHERS
	AMM 1	ADDRESSABLE MONITOR MODULE	DEVICE NUMBER	SILENT KNIGHT	SK-MONITOR	BY OTHERS	2G NL ON-4 SQ DP	N/A-2G RING
1	AOM	ADDRESSABLE RELAY MODULE	DEVICE NUMBER	SILENT KNIGHT	SK-RELAY	WALL	2G NL ON-4 SQ DP	N/A-2G RING
9		CEILING SPEAKER STROBE	WATTAGE, CANDELA AND CKT	SYSTEM SENSOR	SPSCWL	CEILING	3-0 NL ON- 4 SQ DP	N/A-4 SQ DEEP
		WALL SPEAKER STROBE	WATTAGE, CANDELA AND CKT	SYSTEM SENSOR	SPSWL	WALL	SG NL ON- 4 SQ DP	N/A-4 SQ DEEP
	EOL	END OF LINE RESISTOR	RESISTANCE VALUE	VARIES	N/A	LAST NAC DEVICE IN CIRCUIT	N/A	N/A
EXISTING	FACP	FIRE ALARM VOICE EVAC CONTROL PANEL	PANEL NUMBER	SILENT KNIGHT	5820XL-EVS	WALL	SURFACE- RECESSED	N/A
1	BPS	BOOSTER POWER SUPPLY	PANEL NUMBER	SILENT KNIGHT	5499	WALL	SURFACE- RECESSED	N/A
1	AMP	AMPLIFIER	PANEL NUMBER	SILENT KNIGHT	INT-50	WALL	SURFACE- RECESSED	N/A

WIRE LEGEND

WIRE CALLOUT	SIZE-IN./AWG	TYPE	#CONDUCTORS	FUNCTION
A	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	ANNUCIATOR 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 ELEVAOTR 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

FIRE ALARM & SMOKE DEVICE SCHEDULE

MODULE POINT NUMBER	DEVICE DESCRIPTION	DEVICE LOCATION	SMOKE DETECTOR POINT NUMBER	DEVICE DESCRIPTION	DEVICE LOCATION
M:001	PULL STATION	SPRINKLER RISER ROOM 103	S:001	FACP & BPS SMOKE	SPRINKLER RISER ROOM 103
M:002	DUAL MONITOR MODULE- DOUBLE CHECK VALVE IN AND OUT	SPRINKLER RISER ROOM 103	S:002	AV CLOSET SMOKE	AV CLOSET 101A
M:003	DUAL MONITOR MODULE- DOUBLE CHECK VALVE IN AND OUT	SPRINKLER RISER ROOM 103	S:003	NAC DEVICE SMOKE	SPRINKLER RISER ROOM 103
M:004	MONITOR MODULE- TAMPER SWITCH	SPRINKLER RISER ROOM 103	S:004	STORAGE ROOM SMOKE	STORAGE ROOM 101
M:005	MONITOR MODULE- PIV VALVE	SPRINKLER RISER ROOM 103	S:005	STORAGE ROOM SMOKE	STORAGE ROOM 101
M:006	PULL STATION	ELECTRICAL ROOM 102	S:006	ELECTRICAL ROOM SMOKE	ELECTRICAL ROOM 103
M:007	PULL STATION	GYMNASIUM 100	S:007- S-017	GYMNASIUMS ROOM SMOKE	GYMNASIUM 100
M:008	PULL STATION	GYMNASIUM 100	S:018	STORAGE ROOM SMOKE	STORAGE ROOM 106
M:009	PULL STATION	GYMNASIUM 100	S:019	ALCOVE SMOKE	ALCOVE 105
M:010	PULL STATION	GYMNASIUM 100	S:020- S-023	GYMNASIUMS ROOM SMOKE	GYMNASIUM 100
M:11	SPARE		S:024	STORAGE ROOM SMOKE	STORAGE ROOM 104
M:012	PULL STATION	CORRIDOR EXIT 108B	S:025	STORAGE ROOM SMOKE	STORAGE ROOM 104A
M:013	PULL STATION	UPPER LOBBY	S:026-S-029	SPARE	
M:014	ADDRESS OUTPUT MODULE	DOAS #2- LEVEL 2	S:030	SMOKE DETECTOR	JANITOR RM SMOKE
M:015	ADDRESS OUTPUT MODULE	DAOS #2 -LEVEL 2	S:031	SMOKE DETECTOR	LOWER LOBBY ELEC RM
M:016	ADDRESS OUTPUT MODULE	ELEVATOR RECALL	S:032	SMOKE DETECTOR	LEVEL 1 ELEV LOBBY
M:017	ADDRESS OUTPUT MODULE	ALTERNATE ELEVATOR RECALL	S:033	SMOKE DETECTOR	LEVEL 1 ELEV MACH RM
M:018	ADDRESS OUTPUT MODULE	FIRE HAT LIGHT	S:034	HEAT DETECTOR	LEVEL 1 ELEV MACH RM
M:019	ADDRESSABLE INPUT MODULE	ELEVATOR MACH ROOM- HEAT DETECTOR	S:035	SMOKE DETECTOR	LEVEL 1 LOBBY- ABOVE CEILING
M:020	ADDRESSABLE INPUT MODULE	ELEV MACH ROOM- POWER SUPERVISION	S:036	SMOKE DETECTOR	LEVEL 1 LOBBY
M021	PULL STATION	LOWER LOBBY	S:037	SMOKE DETECTOR	LEVEL 1 LOBBY
			S:038	SMOKE DETECTOR (ABOVE CEILING)	LEVEL 1 LOBBYY- ABOVE CEILING
			S:039	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 111- ABOVE CEILING
			S:040	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 111
			S:041	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 111- ABOVE CEILING
			S:042	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 111
			S:043	SMOKE	LEVEL 1 CLASS ROOM 112- ABOVE CEILING
			S:044	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 112
			S:045	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 112- ABOVE CEILING
			S:046	SMOKE DETECTOR	LEVLE 1 CLASS ROOM 112
			S:047	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 113- ABOVE CEILING
			S:048	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 113
			S:049	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 113- ABOVE CEILING
			S:050	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 113
			S:051	SMOKE DETECTOR	EAST CORRIDOR
			S:052	SMOKE DETECTOR	EAST CORRIDOR- ABOVE CEILING
			S:053	SMOKE DETECTOR	CENTER CORRIDOR
			S:054	SMOKE DETECTOR	CENTER CORRIDOR- ABOVE CEILING
			S:055	SMOKE DETECTOR	WEST CORRIDOR
			S:056	SMOKE DETECTOR	WEST CORRIDOR- ABOVE CEILING
			S:057	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108
			S:058	SMOKE DETECTOR	LEVEL1 CLASS ROOM 108- ABOVE CEILING
			S:059	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108-
			S:060	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 108- ABOVE CEILING
			S:061	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 109
			S:062	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 109- ABOVE CEILING
			S:063	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 109-
			S:064	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 109- ABOVE CEILING
			S:065	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 110
			S:066	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 110- ABOVE CEILING
			S:067	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 110
			S:068	SMOKE DETECTOR	LEVEL 1 CLASS ROOM 110- ABOVE CEILING
			S:069	SMOKE DETECTOR	LEVEL 2 LOBBY
			S:070	SMOKE DETECTOR	LEVEL 2 LOBBY
			S:071	SMOKE DETECTOR	LEVEL 2 LOBBY
			S:072	SMOKE DETECTOR	LEVEL 2 LOBBY
			S:073	SMOKE DETECTOR	LEVEL 2 LOBBY- ABOVE CEILING
			S:074	SMOKE DETECTOR	LEVEL 2 LOBBY
			S:075	SMOKE DETECTOR	LEVEL 2 LOBBY- ABOVE CEILING
			S:076	SMOKE DETECTOR	LEVEL 2 LOBBY- ABOVE CEILING
			S:077	SMOKE DETECTOR	LEVEL 2 LOBBY
			S:078	SMOKE DETECTOR	TOP OF ELEVATOR SHAFT
			S:079	DUCT SMOKE DETECTOR	ROOF TOP DOAS #2
			S:079	DUCT SMOKE DETECTOR	DOAS #1

CONTRACTOR CONTACT INFO

LOCATION

WEBSITE

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 FACILATE 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

LINX 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 3
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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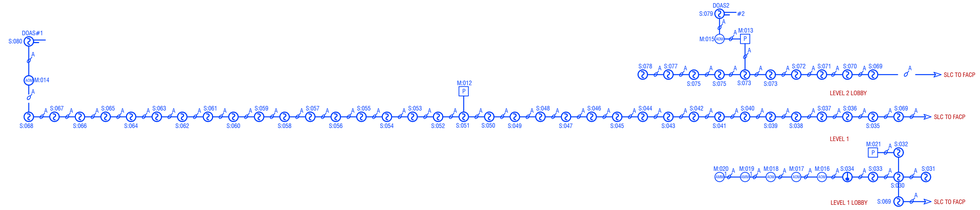
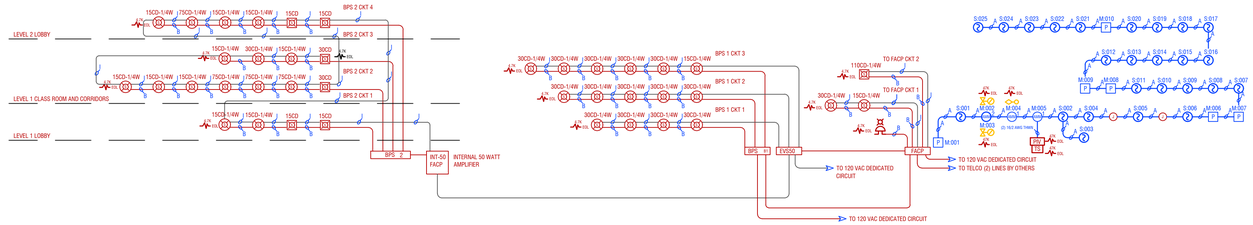
PROJECT NUMBER: PC210008
SHEET NAME: COVER PAGE
DRAWN: SLF
DATE: 08/31/2021
DRAWING NUMBER: FA000





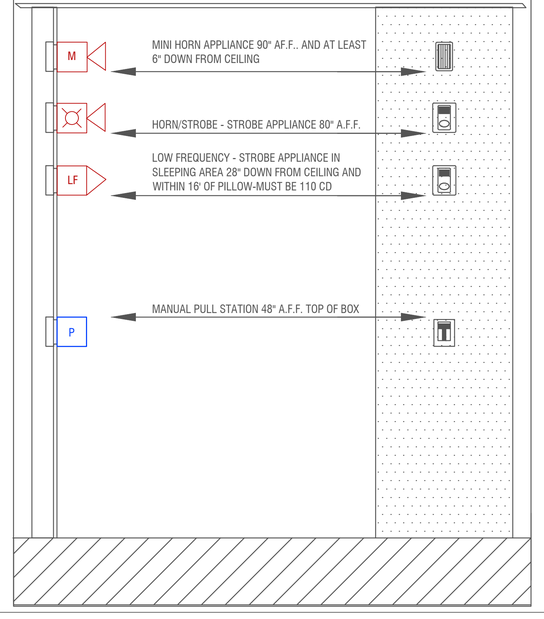
RISER SCHOOL & LOBBY

NO SCALE

RISER DIAGRAM GYM

NO SCALE

FIRE ALARM DEVICE MOUNTING HEIGHT DETAIL



LINX integrated
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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 3
PROJECT LOCATION: 815 21ST ST SE PUYALLUP, WA 98372

DESIGNER OF RECORD

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
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PROJECT NUMBER: PC210008
SHEET NAME: RISER DIAGRAM
DRAWN: SLF
DATE: 08/31/2021
DRAWING NUMBER: FA001

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: 2/21/2022

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	73	0.022	0.022						
SK	Ion		0.000	0.000						
SK	Heat, Heat-HT		0.000	0.000						
SK	Heat ROR	1	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	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	8	0.003	0.003						
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		0.000	0.000						
5860	LCD Remote Annunc		0.000	0.000						
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)		0.318	0.004	Total Alarm Current (Amps)					
	Standby Time In Hours		24	0.250	Alarm Time In Minutes / 60			(15 Mins)		
	Total Standby AH Required		7.635	0.001	Total Alarm AH Required					
	Total Combined AH Required		7.64							
	Multiply By The Derating Factor		1.20							
	Minimum Battery AmpHours Required		**9.16**							

N/A

Command Shortcuts

Configure Circuits | Print Page

SILENT KNIGHT

5499 Power Expander Calculations
Version 02.18.09

Global Project Values:

Project Name: CASCADE CHRISTIAN JR HIGH
Project ID: PC190002
Prepared By: DAVID JUSTICE
Date: 9/8/2021

Standby Hours: 24
Alarm Mins: 5
Derating Factor: 1.2
Voltage Drop Warning Threshold %: 10

Panel ID: 5499
Location: SPRINKLER RISER ROOM

Model: 5499 Power Expander
Volts: 24 VDC

Max NAC Current: 3.0 Amps
Max Panel Current: 9.0 Amps

Ckt.#	Circuit Name		Current Draw Standby	Current Draw Alarm	Wire AWG & Type	Ohms Per 1000 Ft.	Length(ft) One-Way	Actual Ohms	Volts @ EOL	%Drop
5499	5499 Pwr Module	1	0.075	0.205						
NAC #1	5499 Circuit 1	cfg.	0.000	0.180	#14 Solid	2.52	100	0.50	20.31	0.44%
NAC #2	5499 Circuit 2	cfg.	0.000	0.374	#14 Solid	2.52	356	1.79	19.73	3.29%
NAC #3	5499 Circuit 3	cfg.	0.000	0.484	#14 Solid	2.52	375	1.89	19.49	4.48%
NAC #4	5499 Circuit 4	cfg.	0.000	0.336	#14 Solid	2.52	250	1.26	19.98	2.08%
Aux	5499 Aux Power Out	cfg.	0.000	0.000	#14 Solid	2.52		0.00	20.40	0.00%
	Total Standby Current (Amps)		0.075	1.579	Total Alarm Current (Amps)					
	Standby Time In Hours		24	0.083	Alarm Time In Minutes / 60			(5 Mins)		
	Total Standby AH Required		1.800	0.132	Total Alarm AH Required					
	Total Combined AH Required		1.93							
	Multiply By The Derating Factor		1.20							
	Minimum Battery AmpHours Required		**2.32**							

Wire resistances are based upon an ambient temperature of 72 degrees F. Because of the minimal difference between solid and stranded wire no differential was made.

Configure Circuits | Print Page

SILENT KNIGHT

Circuit Configuration

Print Circuits Detail

Project Information
Project Name: CASCADE CHRISTIAN JR HIGH
Project ID: PC190002
Prepared By: DAVID JUSTICE
Date: 9/8/2021

Ckt. Number: NAC #1
Ckt. Name: 5499 Circuit 1
Panel ID: 5499
Max Circuit Current: 3 Amps

Qty	Device	Current Draw Each Standby	Current Draw Each Alarm	Current Draw Total Standby	Current Draw Total Alarm
2	SYSTEM SENSOR SPSWL (15CD)	0.000	0.060	0.000	0.120
2	SYSTEM SENSOR SPSCWL (15CD)	0.000	0.060	0.000	0.120
	Unused	0.000	0.000	0.000	0.000
	Unused	0.000	0.000	0.000	0.000
				0.000	0.000
			Totals	0.000	0.240

< Return To Power Supply Config | Edit Device Database

Ckt. Number: NAC #2
Ckt. Name: 5499 Circuit 2
Panel ID: 5499
Max Circuit Current: 3 Amps

Qty	Device	Current Draw Each Standby	Current Draw Each Alarm	Current Draw Total Standby	Current Draw Total Alarm
1	SYSTEM SENSOR SPSWL (30CD)	0.000	0.086	0.000	0.086
3	SYSTEM SENSOR SPSCWL (75CD)	0.000	0.036	0.000	0.108
3	SYSTEM SENSOR SPSCWL (15CD)	0.000	0.060	0.000	0.180
	Unused	0.000	0.000	0.000	0.000
				0.000	0.000
			Totals	0.000	0.374

< Return To Power Supply Config | Edit Device Database

Ckt. Number: NAC #3
Ckt. Name: 5499 Circuit 3
Panel ID: 5499
Max Circuit Current: 3 Amps

Qty	Device	Current Draw Each Standby	Current Draw Each Alarm	Current Draw Total Standby	Current Draw Total Alarm
1	SYSTEM SENSOR SPSWL (30CD)	0.000	0.086	0.000	0.086
1	SYSTEM SENSOR SPSCWL (30CD)	0.000	0.000	0.000	0.000
2	SYSTEM SENSOR SPSCWL (15CD)	0.000	0.060	0.000	0.120
	Unused	0.000	0.000	0.000	0.000
				0.000	0.000
			Totals	0.000	0.206

< Return To Power Supply Config | Edit Device Database

Ckt. Number: NAC #4
Ckt. Name: 5499 Circuit 4
Panel ID: 5499
Max Circuit Current: 3 Amps

Qty	Device	Current Draw Each Standby	Current Draw Each Alarm	Current Draw Total Standby	Current Draw Total Alarm
2	SYSTEM SENSOR SPSWL (15CD)	0.000	0.060	0.000	0.120
1	SYSTEM SENSOR SPSCWL (75CD)	0.000	0.036	0.000	0.036
3	SYSTEM SENSOR SPSCWL (15CD)	0.000	0.060	0.000	0.180
	Unused	0.000	0.000	0.000	0.000
				0.000	0.000
			Totals	0.000	0.336

< Return To Power Supply Config | Edit Device Database

Ckt. Number: Aux
Ckt. Name: 5499 Aux Power Out
Panel ID: 5499
Max Circuit Current: 3 Amps

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
				0.000	0.000
			Totals	0.000	0.000

< Return To Power Supply Config | Edit Device Database

SILENT KNIGHT

EVS-50W Calculations

Global Project Values:

Project Name: CASCADE CHRISTIAN JUNIOR
Project ID: PC190002
Prepared By: DAVID JUSTICE
Date: 2/21/2022

Standby Hours: 24
Alarm Mins: 15
Derating: 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	4	0.000	0.180
	Total Standby Current (AMPS)		0.100	0.760
	Standby Time In Hours		24	0.250
	Total Standby AH Required		2.400	0.190
	Total Combined AH Required		2.59	
	Multiply By The Derating Factor		1.20	
	Minimum Battery AmpHours Required		**3.11**	

dB LINE LOSS CALCULATION

CASCADE CHRISTIAN JR High

SPEAKERS — INT-50

50.00 WATTS AVAILABLE
4.00 WATTS USE
46.00 WATTS SPA

DEVICE	SIGNAL CIRCUIT		SIGNAL CIRCUIT		SIGNAL CIRCUIT		SIGNAL CIRCUIT		SIGNAL CIRCUIT		SIGNAL CIRCUIT		SIGNAL CIRCUIT	
POWER (WATTS)	1													
	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
Speaker - 1/4 Watt Tap 0.25		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
Speaker - 1 Watt Tap 1.00		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
Speaker - 4 Watt Tap 4.00		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
Speaker - 8 Watt Tap 8.00		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
Speaker 70.7V														
Speaker - 1/8 Watt Tap 0.13		0.00		0.00		0.00		0.00		0.00		0.00		0.00
Speaker - 1/4 Watt Tap 0.25	16	4.00	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
Speaker - 1 Watt Tap 1.00		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
Speaker - 4 Watt Tap 4.00		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
Speaker - 8 Watt Tap 8.00		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
TOTAL POWER ON CIRCUIT	4.00 WATTS		0.00 WATTS		0.00 WATTS		0.00 WATTS		0.00 WATTS		0.00 WATTS		0.00 WATTS	
LOAD RESISTANCE	1250 OHMS		0 OHMS		0 OHMS		0 OHMS		0 OHMS		0 OHMS		0 OHMS	
TOTAL WIRE LENGTH	1000 FT.		FT.		FT.		FT.		FT.		FT.		FT.	
WIRE SIZE	16 AWG		16 AWG		16 AWG		16 AWG		16 AWG		16 AWG		16 AWG	
TOTAL WIRE RESISTANCE	10.16 OHMS		0 OHMS		0 OHMS		0 OHMS		0 OHMS		0 OHMS		0 OHMS	
POWER LINE LOSS (dB)	-0.04 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))

*Values per NFPA 70

LINX 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 3
PROJECT LOCATION: 815 21ST ST SE PUYALLUP, WA 98372

DESIGNER OF RECORD

City of Puyallup
Development & Permitting Services
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PROJECT NUMBER: PC210008
SHEET NAME: BATTERY CALCS
DRAWN: SLF
DATE: 08/31/2021
DRAWING NUMBER: FA002

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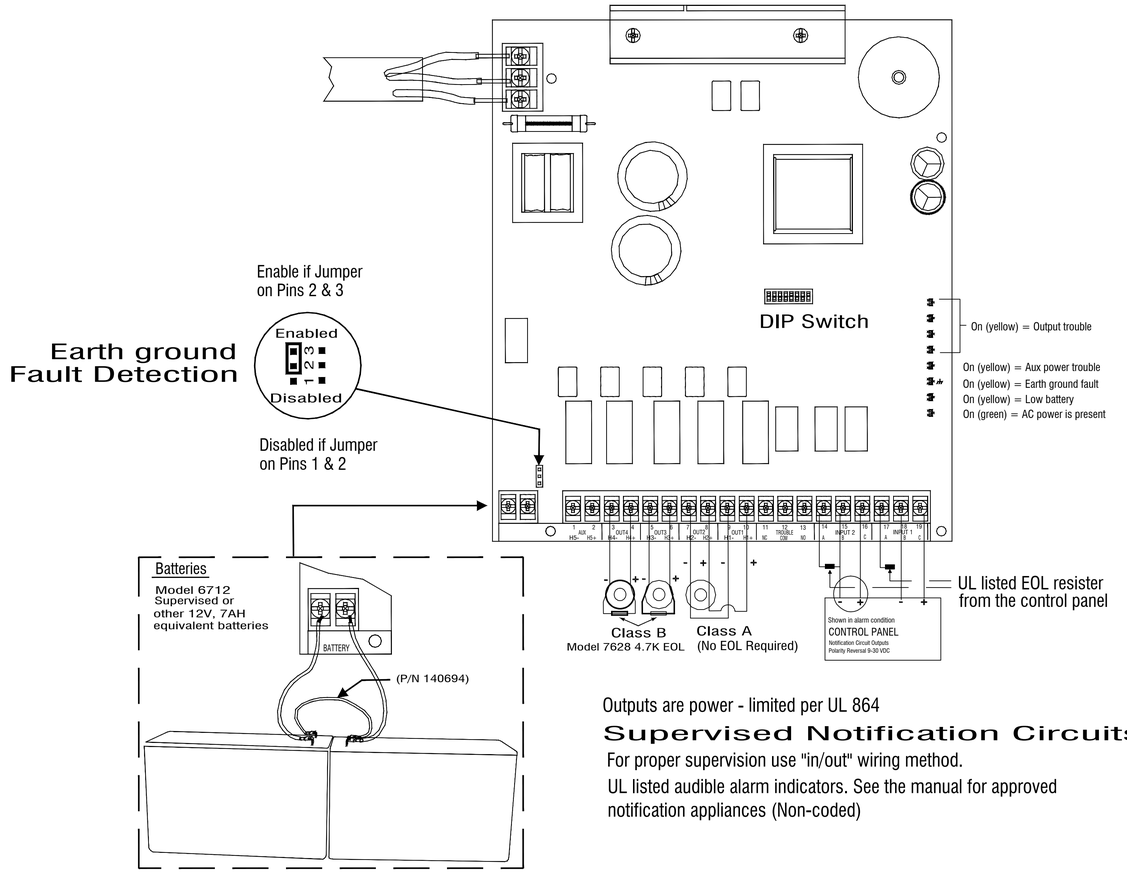

Outputs are power - limited per UL 864

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 Diaram

LINX integrated
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CITY APPROVAL STAMP

PROJECT NAME: CASCADE CHRISTIAN JR HIGH SCHOOL
PROJECT TYPE: TENANT IMPROVEMENT PHASE 3
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: BOOSTER DETAIL
DRAWN: SLF
DATE: 08/31/2021
DRAWING NUMBER: FA003

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CITY APPROVAL STAMP

PROJECT NAME: CASCADE CHRISTIAN JR HIGH SCHOOL

PROJECT TYPE: TENANT IMPROVEMENT PHASE 3

PROJECT LOCATION: 815 21ST ST SE PUYALLUP, WA 98372

DESIGNER OF RECORD

City of Puyallup
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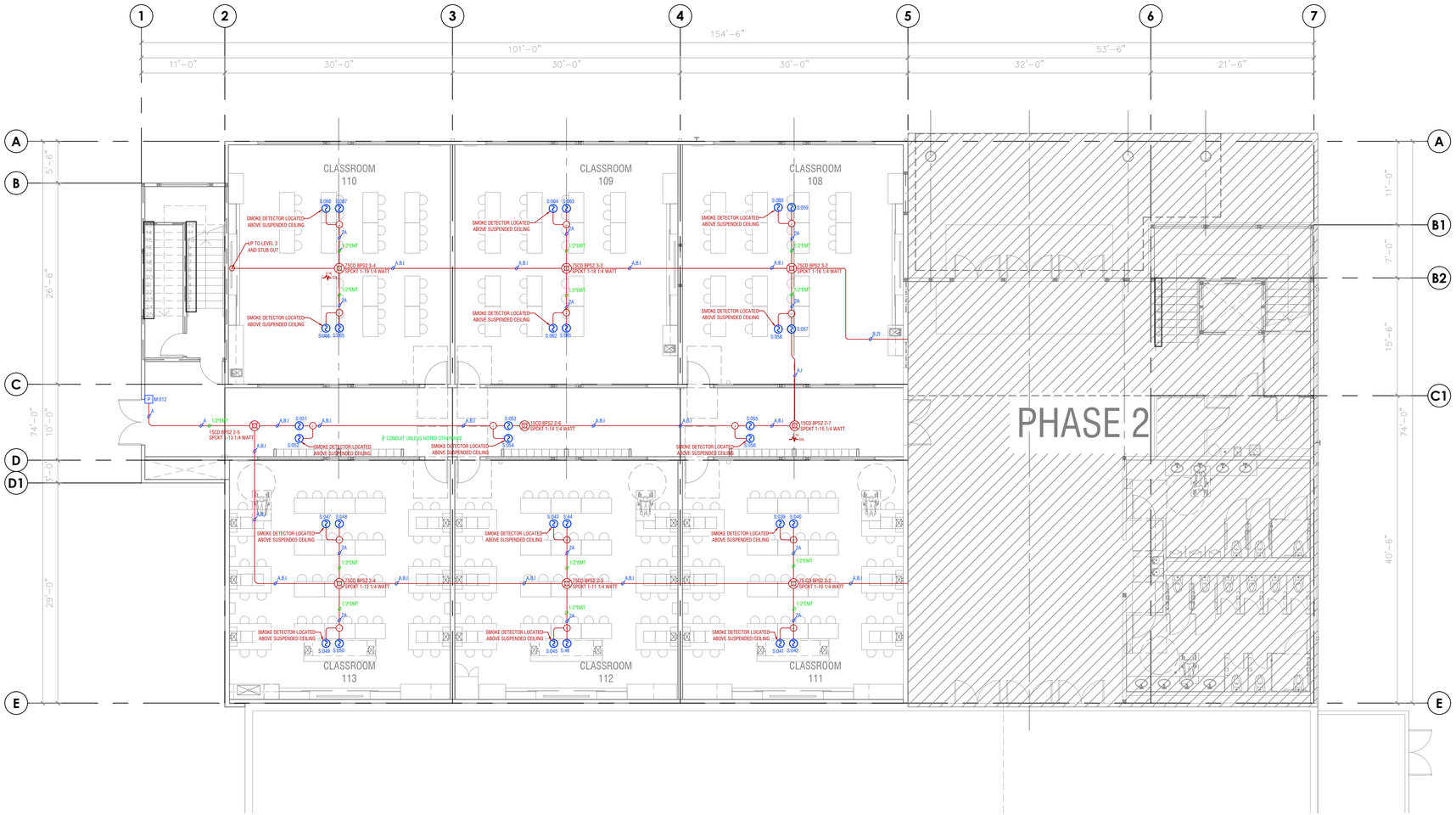
PROJECT NUMBER: PC210008

SHEET NAME: FACP DETAIL

DRAWN: SLF

DATE: 08/31/2021

DRAWING NUMBER: FA004



FIRE PLAN FLOOR 1 (PHASE 3)

1/8"=1'

LINX integrated
PUYALLUP ■ SPOKANE
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CITY APPROVAL STAMP

PROJECT NAME: CASCADE CHRISTIAN JR HIGH SCHOOL
PROJECT TYPE: TENANT IMPROVEMENT PHASE 3
PROJECT LOCATION: 815 21ST ST SE PUYALLUP, WA 98372

DESIGNER OF RECORD

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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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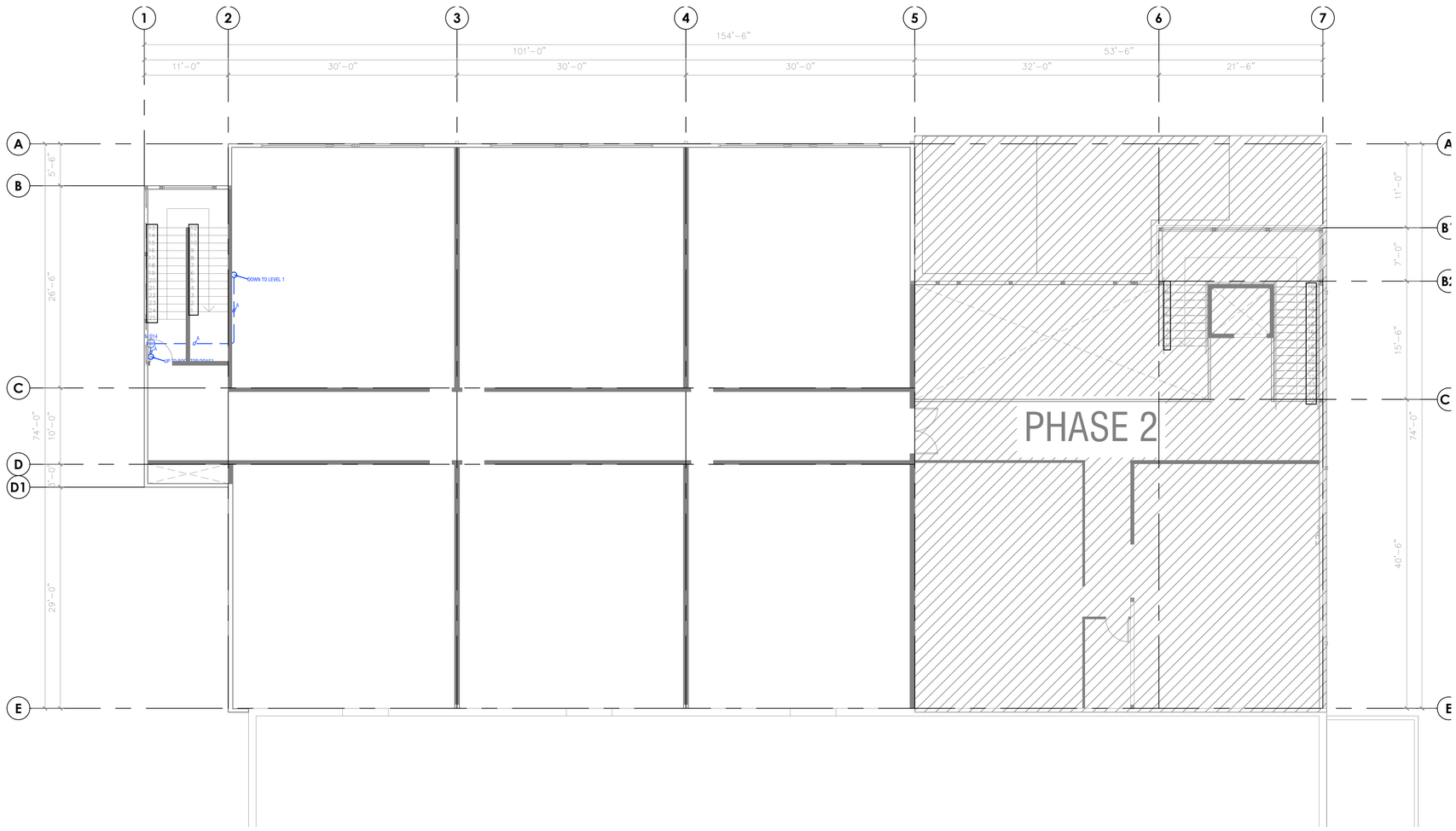

FIRE PLAN FLOOR 2 (PHASE 3)

1/8"=1'

LINX integrated
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CITY APPROVAL STAMP

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PROJECT TYPE: TENANT IMPROVEMENT PHASE 3
PROJECT LOCATION: 815 21ST ST SE PUYALLUP, WA 98372

DESIGNER OF RECORD

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Development & Permitting Services
ISSUED PERMIT

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Engineering	Public Works
Fire	Traffic

DESIGN SET

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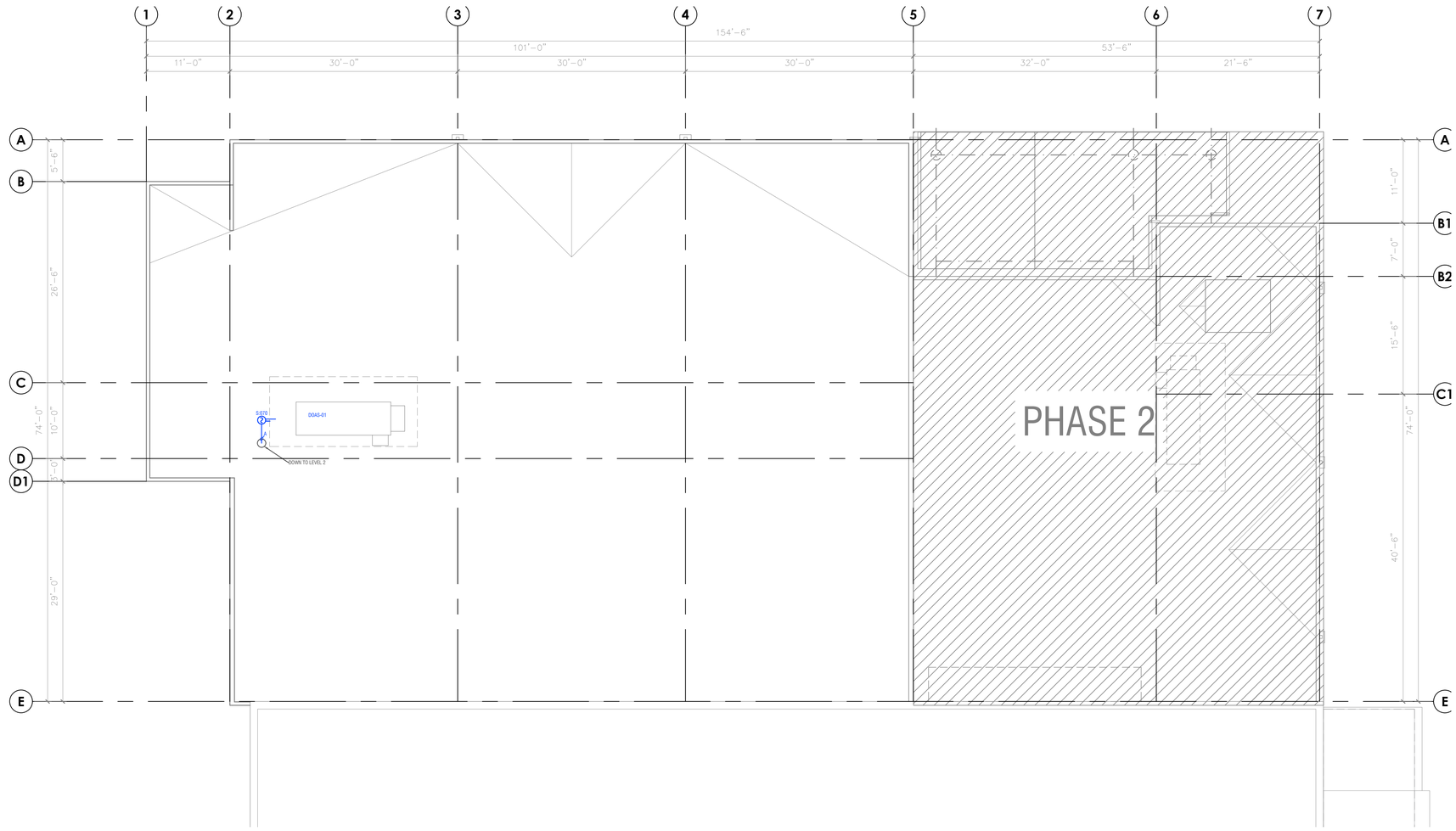
PROJECT NUMBER: PC210008
SHEET NAME: LEVEL 2 FLOOR PLAN
DRAWN: SLF
DATE: 08/31/2021
DRAWING NUMBER: FA101



FIRE PLAN ROOF (PHASE 3)

1/8"=1'

LINX integrated
PUYALLUP ■ SPOKANE
11409 58Th Ave E-Puyallup, WA. PH 253-848-6998 FX 253-848-0542

CITY APPROVAL STAMP

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PROJECT TYPE: TENANT IMPROVEMENT PHASE 3
PROJECT LOCATION: 815 21ST ST SE PUYALLUP, WA 98372

DESIGNER OF RECORD

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PROJECT NUMBER: PC210008
SHEET NAME: ROOF FLOOR PLAN
DRAWN: SLF
DATE: 08/31/2021
DRAWING NUMBER: FA102