SALESPERSON:

ANDREW EARLE 861 INDUSTRY DRIVE TUKWILA, WA 98188 PHONE: (206) 920-4321

PROJECT DESIGNER:

CHRIS NORRIS PROJECT DESIGNER 861 INDUSTRY DRIVE TUKWILA, WA 98188 PHONE: (425) 420-8786

BILL HUGGINS

PROJECT MANAGER:

PROJECT MANAGER 861 INDUSTRY DRIVE TUKWILA, WA 98188 PHONE: (206) 472-3867

PROJECT FIRE ALARM SYSTEM NOTES:

- ALL WORK TO CONFORM TO 2016 ED. NFPA 72, 2018 IBC, INCLUDING WA STATE AMENDMENTS, AND 2020 NFPA 70 (NEC) STANDARDS.
- 2. SYSTEM DESIGN BASED ON INTERNATIONAL FIRE CODE 2018 AND/OR LOCAL AUTHORITY HAVING JURISDICTION CODES AND/OR ADDENDUM
- WALL MOUNT NOTIFICATION DEVICES TO BE MOUNTED 84" AFF, OR 6" BELOW CEILING (WHICHEVER DISTANCE IS LOWER), TO STROBE LENS OR SOUNDER.
- 4. PULL STATIONS TO BE MOUNTED:
- NO GREATER THAN 48" AFF TO DEVICE HANDLE.
- WITHIN 5' OF THE DOOR.
- FIRE ALARM CONTROL PANEL TO BE ON UN-SWITCHED, DEDICATED 120VAC CIRCUIT WITH CIRCUIT BREAKER LOCK ON
- WIRING METHOD TO BE OPEN CABLE UNLESS BELOW 7' AND EXPOSED, THEN IT WILL BE CONTAINED WITHIN CONDUIT UNLESS IN OCCUPANCY WHERE CONDUIT IS REQUIRED THROUGH OUT.
- SMOKE AND HEAT DETECTORS TO BE INSTALLED:
- 7.1. 12" MAX FROM SIDEWALLS
- 7.2. MORE THAN 36" FROM ANY HVAC DIFFUSER
- 7.3. NOT IN CLOSE PROXIMITY TO FLUORESCENT LIGHTING 7.4. AT LEAST 6" DOWN FROM PEAK IN SLOPED CEILING
- 8. ALL JUNCTION BOXES, MUD RINGS, AND BOX COVERS TO BE PAINTED RED (INSIDE AND OUT).
- 9. EXTERIOR HORN STROBES TO BE MOUNTED IN THE TOP 2/3 OF THE BUILDING STRUCTURE FACING THE ANTICIPATED FIRE DEPARTMENT ACCESS ROAD.

CODE INFORMATION

FIRE ALARM AUTHORITY HAVING JURISDICTION CITY OF PUYALLUP FIRE DEPARTMENT

FIRE ALARM DESIGNER OF RECORD HOWARD WILLIAMSON NICET LEVEL IV, FIRE ALARM SYSTEMS NICET ID: 82289

PROJECT CODE REFERENCES:

- INTERNATIONAL BUILDING CODE (2018ED), INC. WASH. STATE
- INTERNATIONAL FIRE CODE (2018ED), INC. WASH. STATE AND CITY OF SEATTLE AMENDMENTS
- INTERNATIONAL MECHANICAL CODE (2018ED)
- NATIONAL FIRE ALARM AND SIGNALING CODE (NFPA 72, 2016ED)
- NATIONAL ELECTRICAL CODE (NFPA 70, 2020ED)

PROJECT DESCRIPTION

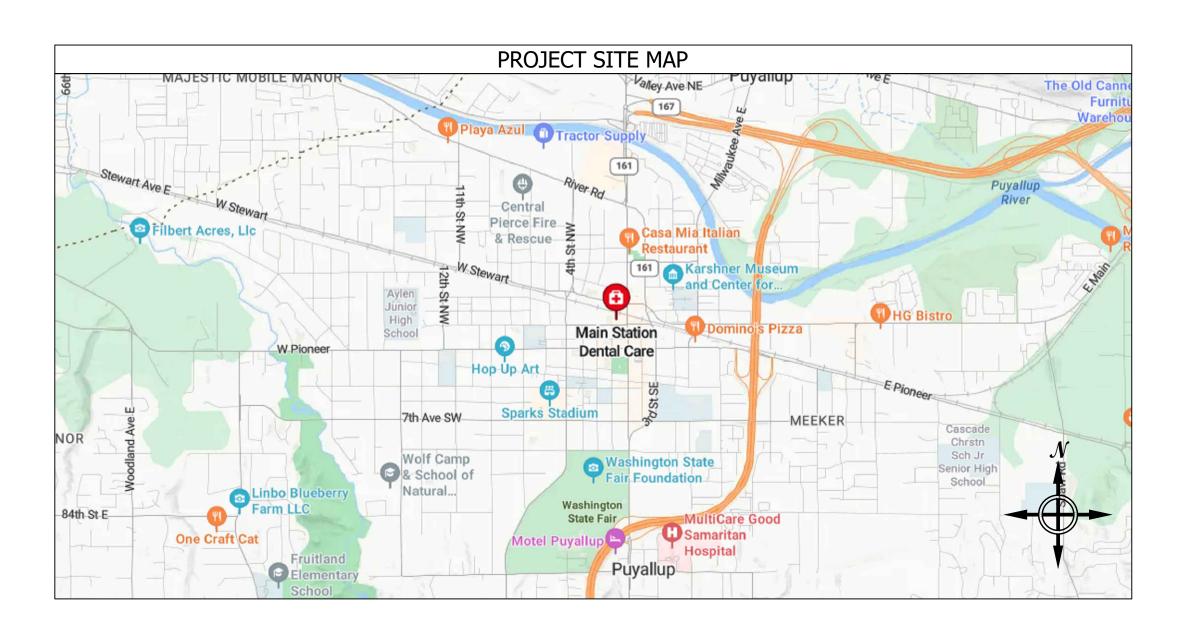
THE INTENT OF THIS DESIGN IS TO INSTALL A NEW FIRE ALARM SYSTEM FOR OWNER IMPROVEMENT.

COMMUNICATION METHOD

COMMUNICATION OF ALL TROUBLE, SUPERVISORY, AND ALARM SIGNALS FOR THIS OWNER IMPROVEMENT SHALL BE PROVIDED AND INSTALLED WITH A COMMUNICATOR/COMMUNICATION MEANS ACCEPTABLE BY THE AHJ, VIA THE

CHC PUYALLUP GARAGE

SEA-TAC ELECTRIC 111 W. MAIN, PUYALLUP, WA 98371



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

INPL	JT/C	TUC	PU	T	MA ⁻	ΓRΙ	X											
	CTRL UNIT ANNUNCIATION NOTIFICATION								El	LEV/	ATO	R						
	COMMON ALARM SIGNAL INDICATOR	ACTUATE AUDIBLE ALARM SIGNAL	COMMON SUPERVISORY SIGNAL INDICATOR	AUDIBLE SUPERVISORY SIGNAL	ACTUATE COMMON TROUBLE SIGANAL INDICATOR	ACTUATE AUDIBLE TROUBLE SIGNAL	APPROPRIATE LOCATION INDICATOR	ACTUATE ALARM EVACUATION SIGNALS		DISPLAY CHANGE OF STATUS	ALARM SIGNAL TO SUPERVISING STATION	TRANSMIT SUPV. SIGNAL TO SUPERVISING STATION	TROUBLE SIGNAL TO SUPERVISING STATION		ELEVATORS TO LEVEL 1 (PRIMARY)	LEV	ELEVATOR "FIRE HAT"	R
	ACTUATE	ACTUA	ACTUATE	ACTUATE	ACTUA	ACTUA	ACTUATE	ACTUA		DISPL	TRANSMIT	TRANS	TRANSMIT		RECALL		FLASH	
SYSTEM INPUTS	Α	В	С	D	E	F	G	Н	Ι	J	К	L	М	N	0	Р	Q	R
1 SMOKE SENSOR DETECTOR	*	*					*	*		*	*				*			
2 MANUAL PULL STATION	*	*					*	*		*	*							
3 HEAT SENSOR/DETECTOR	*	*					*	*		*	*							
4 KITCHEN HOOD SUPPRESSION SYSTEM	*	*					*	*		*	*							
5 SPRINKLER WATERFLOW SWITCH	*	*					*	*		*	*							
6 SPRINKLER VALVE SUPERVISORY SWITCH			*	*			*			*		*						
7 ELEVATOR SHAFT HEAT DETECTOR															*		*	
8 FIRE ALARM AC POWER FAILURE					*	*				*			*					
9 FIRE ALARM SYSTEM LOW BATTERY					*	*				*			*					
10 OPEN CIRCUIT OR GROUND FAULT					*	*				*			*					
11 CLASS B NOTIFICATION CIRCUIT (NAC) - SHORT					*	*				*			*					
12					T T								Π					

City of Puyallup **REVIEWED** FOR **COMPLIANCE**

DDrake 01/31/2024 11:22:51 AM

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.

SHEET INDEX								
SHEET NUMBER	SHEET DESCRIPTION							
FA0.00	COVER SHEET LEGENDS & INDEX							
FA0.01	TYPICAL WIRING DETAILS							
FA0.02	TYPICAL DEVICE MOUNTING REQUIREMENTS							
FA0.03	NAC CIRCUIT LOAD, VOLTAGE DROP & BATTERY LOAD AND BACK-UP CALCULATIONS							
FA0.10	FIRE ALARM SYSTEM RISER DIAGRAM							
FA2.01N	LEVEL 1 FIRE ALARM NOTIFICATION SYSTEM PLAN							
FA2.01I	LEVEL 1 FIRE ALARM INITIATION SYSTEM PLAN							
FA2.02	LEVEL 2 FIRE ALARM SYSTEM PLAN							
FA2.03	LEVEL 3 FIRE ALARM SYSTEM PLAN							
FA2.04	ROOF FIRE ALARM SYSTEM PLAN							

		FIRE	ALARM SYST	EM EQUIPMENT	T LEGEND	
SYMBOL	QTY	PART #	MANUFACTURER	DESCRIPTION	MOUNTING	BACK BOX
FACP	1	IPA-4000	POTTER	FIRE ALARM SYSTEM CONTROL PANEL	MAX 66" AFF TO CENTER OF DOOR OF PANEL, MINIMUM 36" OPENING CLEARANCE BETWEEN MULTIPLE PANELS IN ROOMS	INCLUDED
BPS	1	PSN-106	POTTER	BOOSTER POWER SUPPLY PANEL	MAX 66" AFF TO CENTER OF DOOR OF PANEL, MINIMUM 36" OPENING CLEARANCE BETWEEN MULTIPLE PANELS IN ROOMS	INCLUDED
₹	69	PAD200-PD W/PAD100-6DB	POTTER	INTELLIGENT PHOTO ELECTRIC SMOKE DETECTOR W/BASE	CEILING MOUNTED; SEE PROJECT FIRE ALARM SYSTEM NOTE 7, THIS SHEET; 30'-0" NOMINAL SPACING	4" SQUARE
(<u>s</u>) ^A	18	PAD200-PD W/PAD100-6DB	POTTER	INTELLIGENT PHOTO ELECTRIC SMOKE DETECTOR W/BASE	ABOVE FINISHED CEILING MOUNTED	4" SQUARE
(4	PAD100-HD	POTTER	INTELLIGENT CONVENTIONAL HEAT DETECTOR W/BASE	CEILING MOUNTED; SEE PROJECT FIRE ALARM SYSTEM NOTE 7, THIS SHEET; 30'-0" NOMINAL SPACING	4" SQUARE
F	12	PAD100-PSDA	POTTER	ADDRESSABLE MANUAL PULL STATION	WALL MOUNTED 48" AFF TO PULL STATION HANDLE	4" SQUARE
TS	5	(BY OTHERS)		TAMPER SWITCH (SUPPLIED BY OTHERS)	FIELD LOCATE MODULES. MODULES SHALL BE MOUNTED NO MORE THAN 36" FROM THE DEVICE(S) BEING SUPERVISED	
WF	3	(BY OTHERS)		WATERFLOW (SUPPLIED BY OTHERS)	FIELD LOCATE MODULES. MODULES SHALL BE MOUNTED NO MORE THAN 36" FROM THE DEVICE(S) BEING SUPERVISED	
(MM)	8	PAD100-MIM	POTTER	ADDRESSABLE MICRO INPUT MODULE	FIELD LOCATE MODULES. MODULES SHALL BE MOUNTED NO MORE THAN 36" FROM THE DEVICE(S) BEING SUPERVISED	4" SQUARE
(RM)	4	PAD100-OROI	POTTER	ONE RELAY & ONE INPUT MODULE	FIELD LOCATE MODULES. MODULES SHALL BE MOUNTED NO MORE THAN 36" FROM THE DEVICE(S) BEING SUPERVISED	4" SQUARE
\otimes	22	PC2WL	SYSTEM SENSOR	HORN STROBE - CEILING MOUNT - WHITE	CEILING-MOUNTED	SINGLE GANG
©	15	SCWL	SYSTEM SENSOR	STROBE - CEILING MOUNT - WHITE	CEILING-MOUNTED	SINGLE GANG
O	29	P2RK	SYSTEM SENSOR	OUTDOOR HORN STROBE - WALL MOUNT - RED	WALL-MOUNTED MAX 96" TO LENS OR WITHIN 6" OF CEILING ON LOW CEILINGS; SEE PROJECT FIRE ALARM SYSTEM NOTE 9, THIS SHEET.	4" SQUARE
Q X	1	PBA-2410	POTTER	OUTDOOR BELL - WALL MOUNT - RED	WALL-MOUNTED MAX 96" TO LENS OR WITHIN 6" OF CEILING ON LOW CEILINGS; SEE PROJECT FIRE ALARM SYSTEM NOTE 9, THIS SHEET.	BBX1

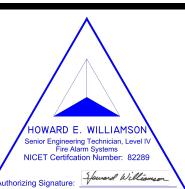
	FIRE ALARM SYSTEM WIRE LEGEND										
SYMBOL	DESCRIPTION	COLOR CODING	CIRCUIT APPLICATION	NOTES							
B	14 AWG 2 CONDUCTOR BARE COPPER, TWISTED, NON-SHIELDED PLENUM FIRE ALARM, FPLP (UL)	RED JACKET w/ YELLOW STRIPE	NAC POWER CIRCUIT								
A	18 AWG 2 CONDUCTOR BARE COPPER, TWISTED, NON-SHIELDED PLENUM FIRE ALARM, FPLR (UL), ½" EMT CABLE	RED JACKET w/ BLUE STRIPE	DIGITAL DATA BUS (NFC-DA, RM, RPU)								
F	18 AWG 2 CONDUCTOR FPL SHLD SOL 2-HR LSZH 105C EMT CABLE	RED JACKET	DIGITAL DATA BUS								

NOTES: **STRIPES ARE NOT REQUIRED. HOWEVER IT DOES MAKE IT EASIER FOR CIRCUIT IDENTIFICATION.

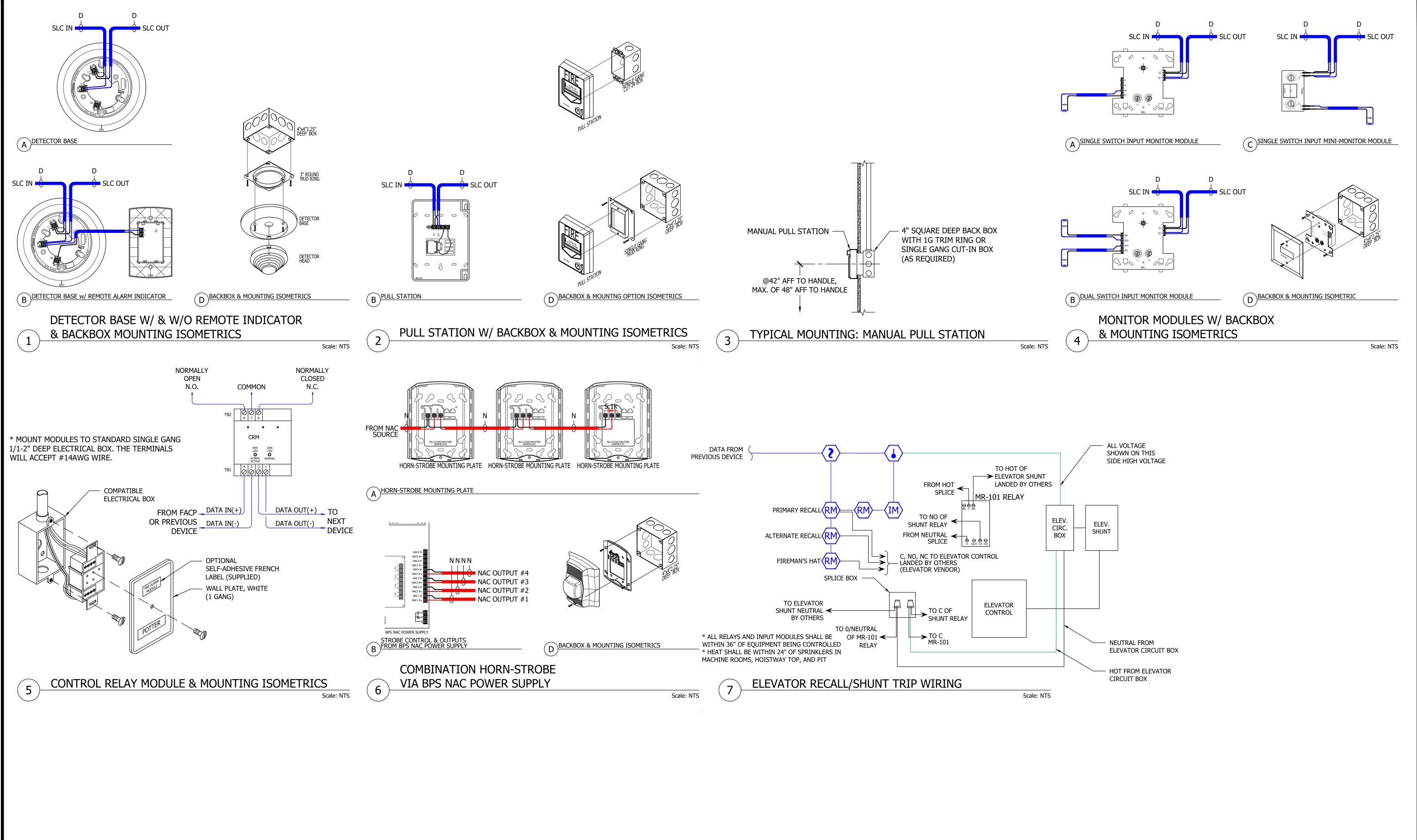
- 2- FPLP CAN BE USED IN MOST ALL APPLICATIONS WITH THE EXCLUSION OF WET AND CIRCUIT INTEGRITY REQUIREMENTS. 3- INSTALL WIRING PER NEC. USE CABLE TYPE CONSISTENT WITH NEC REQUIREMENTS, IE: PLENUM, RISER, UNDERGROUND, ETC.
- 5- THIS CABLE MUST BE INSTALLED IN A CONTINUOUS CONDUIT RACEWAY POINT-TO-POINT. ABSOLUTELY NO SPLICES ARE ALLOWED. NO MC ALLOWED. 6- THIS IS A SPECIFIC CABLE, NO ALTERNATES ARE ALLOWED.

206-575-1962

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SSUED FOR SUBMITTAL	1	12/
	:	



DRAWING TITLE COVER SHEET LEGENDS & INDEX



FROULA
ALARM SYSTEMS, Inc.

Froula Alarm Systems, Inc.
861 Industry Drive
Tukwila, WA 98188
206-575-1962

Iarm Systems, Industry Drive wila, WA 98188 06-575-1962

CHC PUYALLUP GARAGE
SEA-TAC ELECTRIC
111 W. MAIN, PUYALLUP, WA 98371

Issued for Rev. Date

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DRAWING TITLE

TYPICAL DEVICE
WIRING DETAILS

City of Puyallup

Development & Permitting Services
ISSUED PERMIT

Planning

Public Works

Traffic

Building

Engineering

Fire

204733-169-2324
Project No.

12/19/2023
Date

JCN
Drawn By

AS NOTED
Scale

SSUED FOR SUBMITTAL 1 12/15/23

HOWARD E. WILLIAMSON
Senior Engineering Technician, Level IV
Fire Alarm Systems
NICET Certification Number: 82289

Authorizing Signature:

Williamson

Authorizing Signature:

DRAWING TITLE

TYPICAL DEVICE

MOUNTING

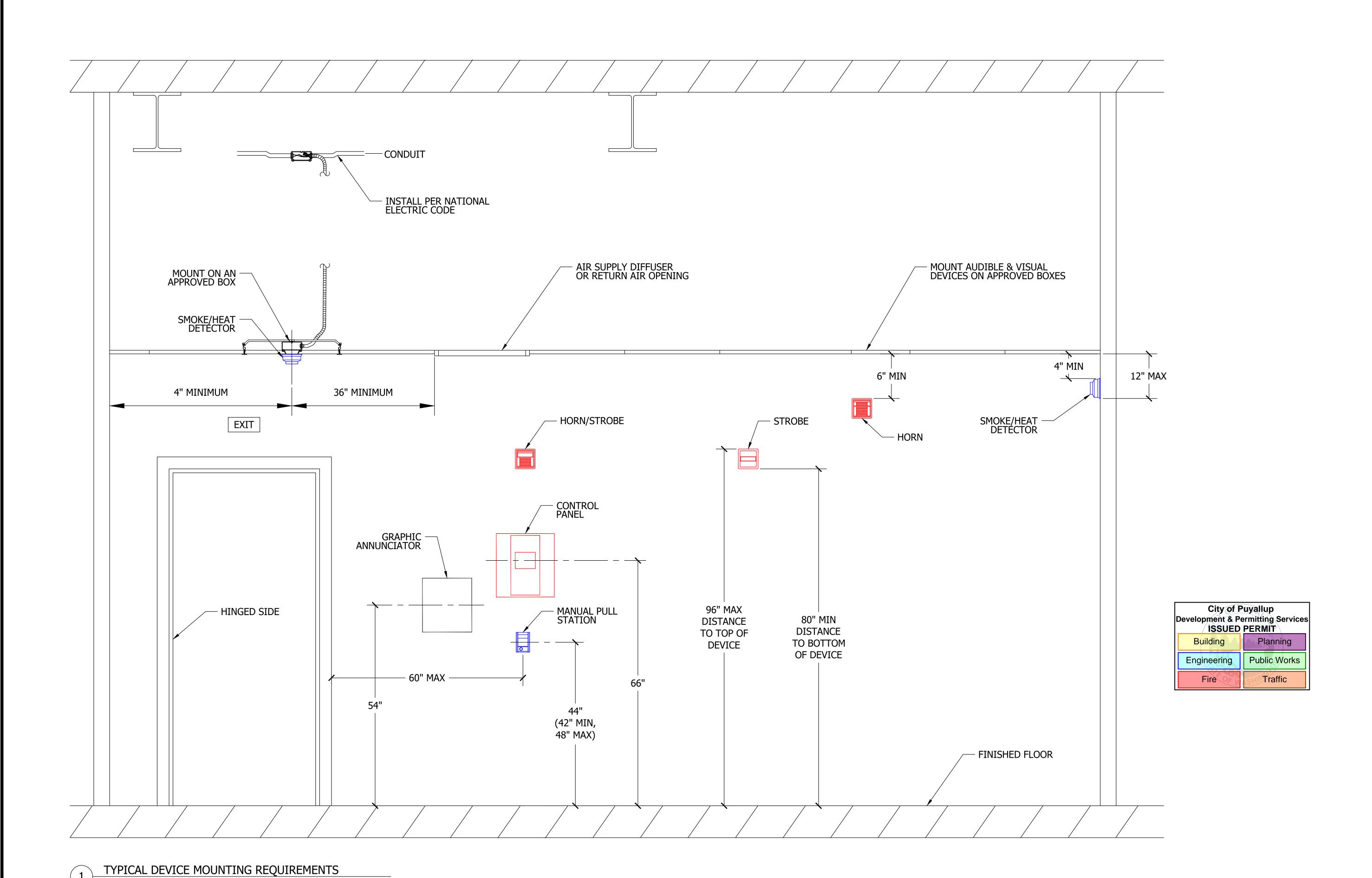
REQUIREMENTS

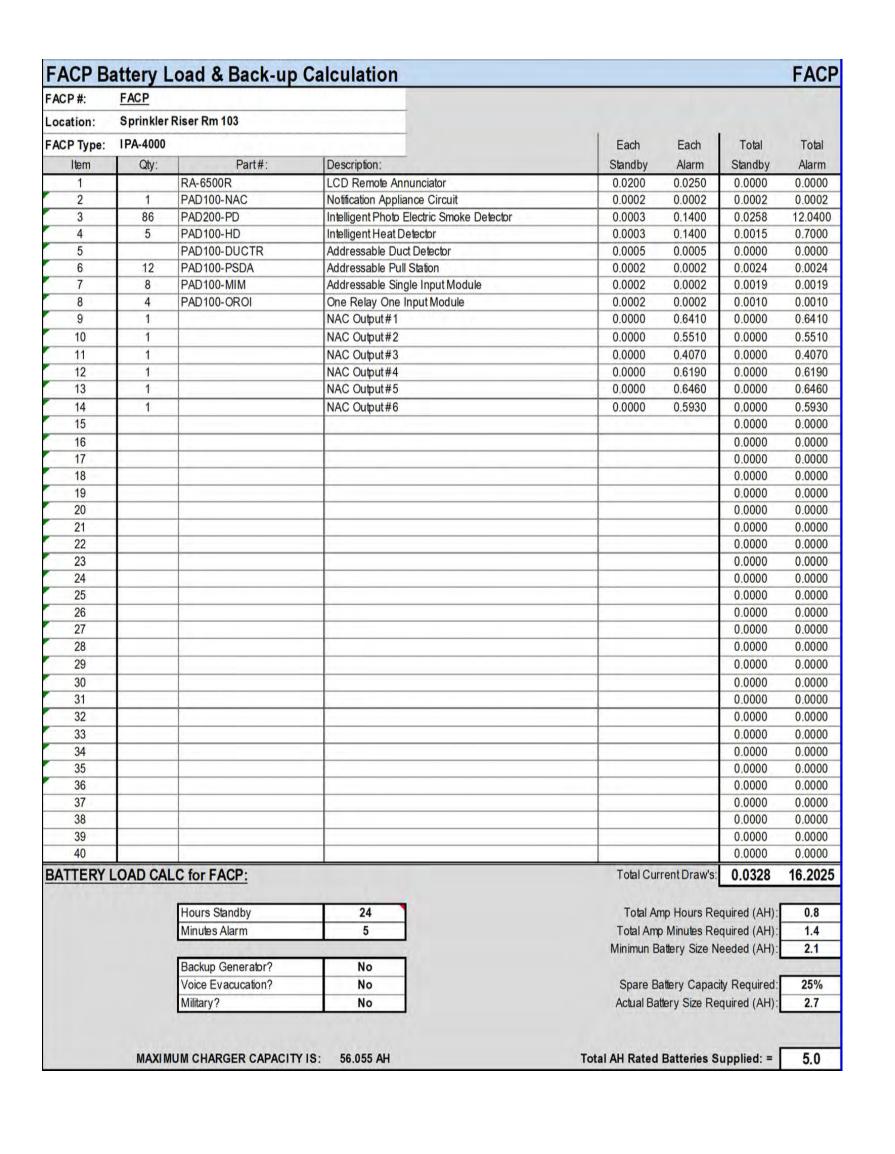
204733-169-2324 Project No. 12/19/2023 Date

JCN
Drawn By

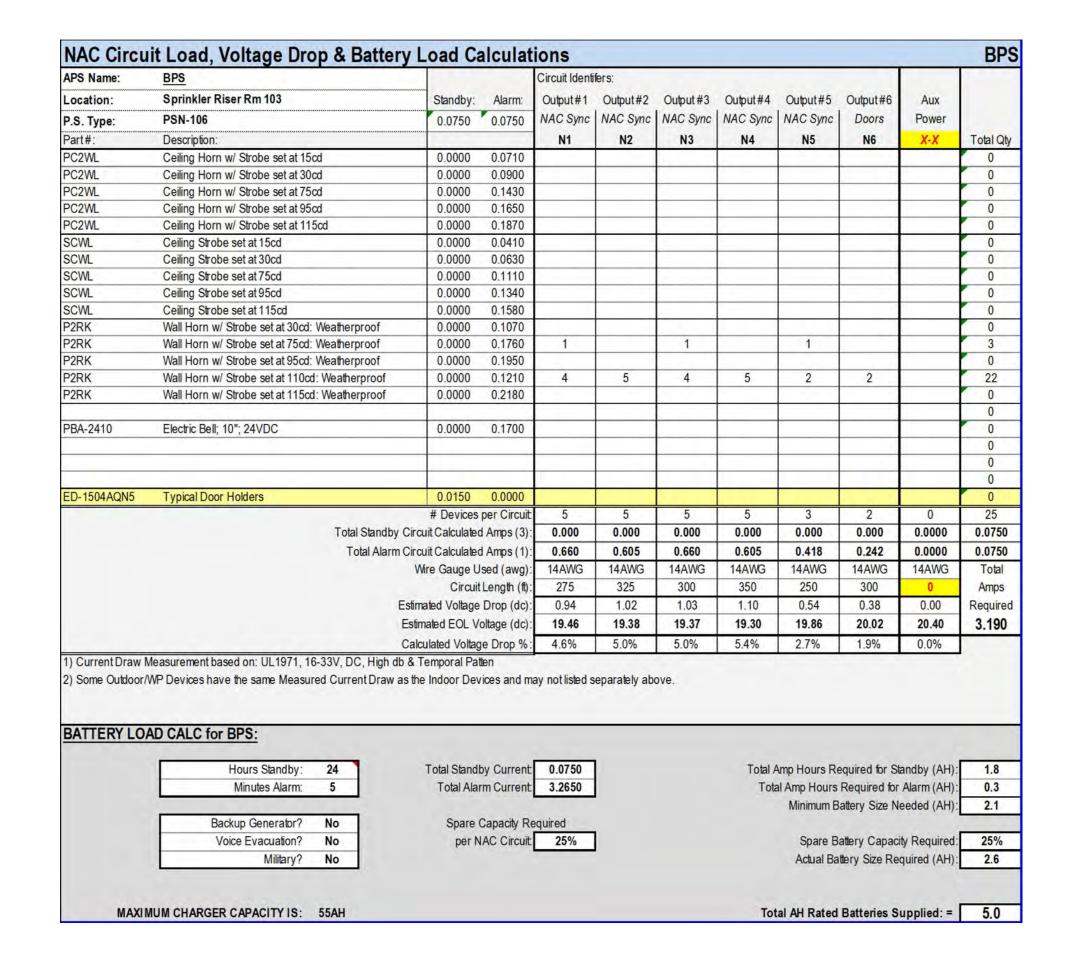
AS NOTED
Scale

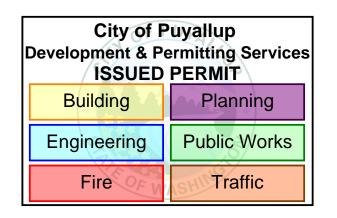
FA0.02
Drawing No.





	it Load, Voltage Drop & Battery	Load Ca	liculat								FACE
APS Name:	FACP			Circuit Identi							
Location:	Sprinkler Riser Rm 103	Standby:	Alarm:	Output #1	Output#2	Output#3	Output#4	Output #5	Output #6	Aux	
P.S. Type:	IPA-4000	0.1300	0.2200	NAC Sync	NAC Sync	NAC Sync	NAC Sync	NAC Sync	NAC Sync	Power	
Part#:	Description:			N1	N2	N3	N4	N5	N6	X-X	Total Qty
PC2WL	Ceiling Horn w/ Strobe set at 15cd	0.0000	0.0710	3	2	4	1	1			11
PC2WL	Ceiling Horn w/ Strobe set at 30cd	0.0000	0.0900				2	3			5
PC2WL	Ceiling Horn w/ Strobe set at 75cd	0.0000	0.1430		2		1	1	1		5
PC2WL	Ceiling Horn w/ Strobe set at 95cd	0.0000	0.1650						1		1
PC2WL	Ceiling Horn w/ Strobe set at 115cd	0.0000	0.1870								0
SCWL	Ceiling Strobe set at 15cd	0.0000	0.0410	2	3	3	1	1	4		14
SCWL	Ceiling Strobe set at 30cd	0.0000	0.0630				1				1
SCWL	Ceiling Strobe set at 75cd	0.0000	0.1110								0
SCWL	Ceiling Strobe set at 95cd	0.0000	0.1340								0
SCWL	Ceiling Strobe set at 115cd	0.0000	0.1580								0
P2RK	Wall Horn w/ Strobe set at 30cd: Weatherproof	0.0000	0.1070								0
P2RK	Wall Horn w/ Strobe set at 75cd: Weatherproof	0.0000	0.1760	1							1
P2RK	Wall Horn w/ Strobe set at 95cd: Weatherproof	0.0000	0.1950								0
P2RK	Wall Horn w/ Strobe set at 110cd: Weatherproof	0.0000	0.1210				1	1	1		3
P2RK	Wall Horn w/ Strobe set at 115cd: Weatherproof	0.0000	0.2180								0
	, and the second							-			0
PBA-2410	Electric Bell; 10"; 24VDC	0.0000	0.1700	1							1
		133.75									0
											0
											0
ED-1504AQN5	Typical Door Holders	0.0150	0.0000								0
		# Devices	per Circuit	7	7	7	7	7	7	0	42
	Total Standby C	ircuit Calculated	Amps (3):	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.1300
	Total Alarm C	ircuit Calculated	Amps (1):	0.641	0.551	0.407	0.619	0.646	0.593	0.0000	0.2200
		Wire Gauge U	sed (awg):	14AWG	14AWG	14AWG	14AWG	14AWG	14AWG	14AWG	Total
		and the latest term of the lates	Length (ft):		150	175	175	275	300	0	Amps
	Fe	timated Voltage	-		0.43	0.37	0.56	0.92	0.93	0.00	Required
		stimated EOL Vo			19.97	20.03	19.84	19.48	19.47	20.40	3.457
									200		3.431
1) 0 10 1	Measurement based on: UL1971, 16-33V, DC, High db	alculated Voltag		2.0%	2.1%	1.8%	2.8%	4.5%	4.5%	0.0%	
2) Some Outdoor/	WP Devices have the same Measured Current Draw as			nay not listed s	eparately ab	ove.					
BATTERY LO	AD CALC for FACP:										
	House Sheedhin 24	Total Charatt	Ourse t	0.4200			Total	mn Hauss D	nauired for Ct	andby (ALI).	2.4
	Hours Standby: 24	Total Standb						100	equired for Sta		
	Minutes Alarm: 5	I otal Alar	m Current	3.6770			1012		Required for		
		2						IVIINIMUM E	Battery Size Ne	eeded (AH):	3.4
	Backup Generator? No		Capacity R							. =	
	Voice Evacuation? No	per N	AC Circuit								
	Military? No							Actual Ba	attery Size Red	quired (AH):	4.3
2000							200				
MAYIN	NUM CHARGER CAPACITY IS: 56.055AH						Tot	al AH Rated	Batteries Si	upplied: =	5.0







CHC PUYALLUP GARAGE SEA-TAC ELECTRIC 111 W. MAIN, PUYALLUP, WA 98371

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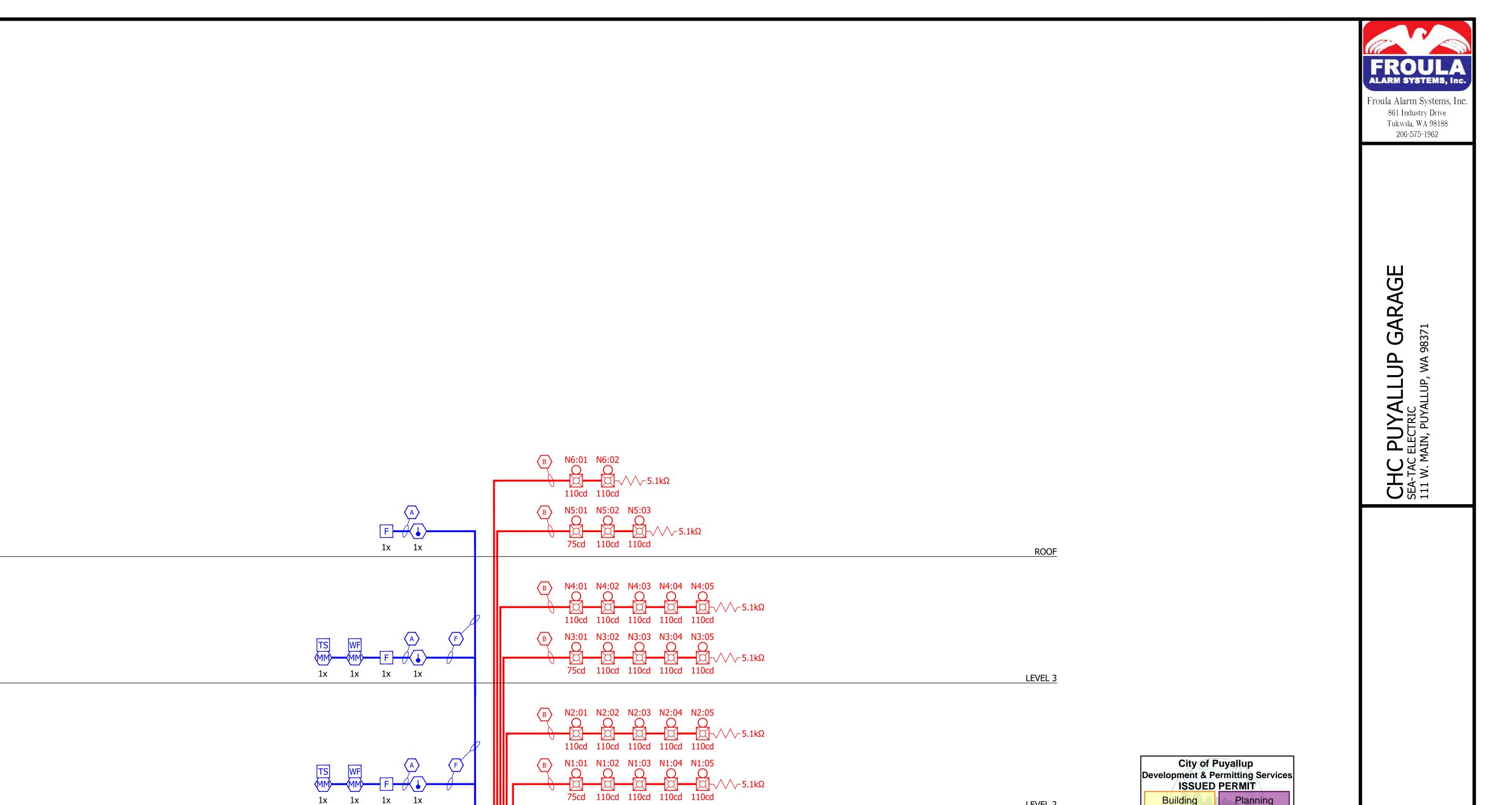
DRAWING TITLE

NAC CIRCUIT LOAD, VOLTAGE DROP & BATTERY LOAD AND BACK-UP CALCULATIONS

204733-169-2324
Project No.

12/19/2023
Date

JCN
Drawn By



B N6:01 N6:02 N6:03 N6:04 N6:05 N6:06 N6:07

B N3:01 N3:02 N3:03 N3:04 N3:05 N3:06 N3:07

B N2:01 N2:02 N2:03 N2:04 N2:05 N2:06 N2:07

B N1:01 N1:02 N1:03 N1:04 N1:05 N1:06 N1:07

15cd 95cd 15cd 15cd 15cd 75cd 110cd

N5:01 N5:02 N5:03 N5:04 N5:05 N5:06 N5:07

30cd 15cd 30cd 15cd 30cd 75cd 110cd

N4:01 N4:02 N4:03 N4:04 N4:05 N4:06 N4:07

75cd 15cd 15cd 30cd 30cd 30cd 110cd

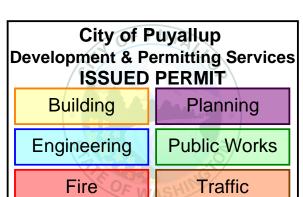
15cd 15cd 15cd 15cd 15cd 15cd 15cd 15cd

15cd 15cd 15cd 15cd 75cd 75cd 15cd

75cd 15cd 15cd 15cd 15cd 15cd 15cd

1x 1x

9x 3x 1x 4x 1x 87x



LEVEL 2

LEVEL 1

Issued for Rev. Date SSUED FOR SUBMITTAL 1 12/15/2 HOWARD E. WILLIAMSO rizing Signature: Journal Williamson

DRAWING TITLE FIRE ALARM SYSTEM RISER DIAGRAM

204733-169-2324 Project No. 12/19/2023 Date

Drawn By AS NOTED Scale

FA0.10 Drawing No.

