

CENTRIS - SOUTH HILL DATACENTER FIRE REPAIR & NEW BATTERY RM

1023 39TH AVE SE, PUYALLUP, WA 98374

SYM	DESCRIPTION	MODEL#	MANUFACTURER	BACK BOX
APSPK10	POWER SUPPLY - 10A	APS10A	EST	INCLUDED - 26"H X 15"W X 5.3"D
UCIOXX	SIGA-CT1 MODULE UNIVERSAL INPUT/OUTPUT MODULE MOTHERBOARD	UIO	EST	MOUNTED IN TERMINAL CABINET
DI	DUAL INPUT MODULE	SIGA-CT2	EST	4" SQUARE BOX, 1-1/2" DEEP, SINGLE GANG COVER
CR	CONTROL RELAY MODULE	SIGA-CR	EST	4" SQUARE BOX, 1-1/2" DEEP, SINGLE GANG COVER
CH	CONTROL RELAY MODULE HIGH VOLTAGE	SIGA-CRH	EST	4" SQUARE BOX, 1-1/2" DEEP, DOUBLE GANG COVER
ASD10	XTRALIS AIR SAMPLING DETECTOR (VESDA) 1 PIPE, FIXED SPEED	VEP-A00-1P	XTRALIS	INCLUDED - 8.9"H X 13.8"W X 5.3"D
ASD4	XTRALIS AIR SAMPLING DETECTOR (VESDA) 4 PIPES	VEP-A10-P	XTRALIS	INCLUDED - 8.9"H X 13.8"W X 5.3"D
REL	EXISTING - RELEASING END OF LINE MODULE	RELA-EOL	EST	1-GANG
REL	EXISTING - RELEASING MODULE	SIGA-REL	EST	MOUNTED IN TERMINAL CABINET
LA	EXISTING - LOW AIR SWITCH	BY OTHERS	BY OTHERS	-
SV	EXISTING - SOLENOID VALVE	BY OTHERS	BY OTHERS	-
TS	EXISTING - TAMPER SWITCH	BY OTHERS	BY OTHERS	-
WFS	EXISTING - WATER FLOW SWITCH	BY OTHERS	BY OTHERS	-
SD	EXISTING - FIRE SMOKE DAMPER	BY OTHERS	BY OTHERS	-
ASD10	XTRALIS AIR SAMPLING DETECTOR (VESDA) 4 PIPES, LCD DISPLAY	VES-A10-P	XTRALIS	INCLUDED - 8.9"H X 13.8"W X 5.3"D
ASD10	XTRALIS AIR SAMPLING DETECTOR (VESDA) 4 PIPES, LCD DISPLAY	VEU-A10	XTRALIS	INCLUDED - 8.9"H X 13.8"W X 5.3"D

SCOPE OF WORK

THIS SCOPE OF WORK INCLUDES:
TWO PART PROJECT UTILIZING EXISTING EST3 FIRE ALARM SYSTEM SUPPORTING VESDA DETECTION AND PRE-ACTION RELEASING FOR DATACENTER PROPERTY.
EST3 SYSTEM IS INTERFACED WITH HOUSE NOTIFIER SYSTEM. HOUSE SYSTEM IS COVERS NOTIFICATION, HVAC INTERFACES, AND OTHER EMERGENCY CONTROL.

PART 1: FIRE REPAIR FOR EXISTING BATTERY ROOM.
EXISTING BATTERY ROOM DAMAGE BY FIRE, ALL DEVICES AND WIRING TO BE REPLACED LIKE FOR LIKE IN EXISTING LOCATIONS WITH EXISTING FUNCTION. TENANT IS INCREASING THE SIZE OF THE BATTERY ROOM AND AS SUCH, THE VESDA ASPIRATING DETECTION PIPEWORK SHALL BE EXTENDED ACCORDINGLY.

PART 2: NEW BATTERY ROOM & BATTERY TYPE CHANGE
A SMALL UPS/BATTERY ROOM IS BEING ADDED, VESDA DETECTION IS PROVIDED FOR NEW BATTERY ROOM. ALL BATTERY ROOMS, INCLUDING ROOM DAMAGED BY FIRE AND EXISTING UNCHANGED BATTERY ROOM, TO BE PROVIDED WITH BATTERY CHARGER SHUTDOWN TO ACTIVATE UPON VESDA FIRE DETECTION.

DESIGN CRITERIA APPLICABLE STANDARDS AND GUIDANCE:

NFPA 72, 2019 EDITION
2021 INTERNATIONAL BUILDING CODES
2023 NATIONAL ELECTRICAL CODE

OCCUPANCY/USE CLASSIFICATIONS:
S-2 - DATACENTER
B-BUSINESS

DOCUMENTATION AVAILABLE TO CONVERGINT TECHNOLOGIES
MECHANICAL DRAWINGS BY STANTEC DATED 10/30/2025

CONTACT INFORMATION

FIRE ALARM DESIGNER

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SALES REPRESENTATIVE

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GENERAL NOTES

THE FOLLOWING NOTES ARE INTENDED TO BE GENERAL IN NATURE AND ARE NOT SPECIFIC TO EACH PROJECT. THESE NOTES ARE TO BE FOLLOWED WHERE APPLICABLE TO INDIVIDUAL PROJECTS AND SHOULD NOT BE TAKEN AS SCOPE OR DIRECTION WHERE THEY CONFLICT WITH INFORMATION FOUND ELSEWHERE IN THIS DRAWING SET.

- ALL WIRE AND CONDUIT SHALL BE INSTALLED IN ACCORDANCE WITH PLANS AND SPECIFICATIONS AND SHALL MEET ALL APPLICABLE CODES.
- ALL WIRE AND CABLE SHALL BE RATED FOR FIRE ALARM USE PER THE LATEST REVISIONS OF THE NATIONAL ELECTRICAL CODE (NEC) SECTION 760. THIS IS A POWER LIMITED FIRE ALARM SYSTEM. ALL CABLE MUST BE MARKED FPL, FPLP, FPLR OR CI FURTHER NEC, REQUIRES ALL WIRE BE RATED FOR THE ENVIRONMENT FOR WHICH IT IS INSTALLED. ANY REFERENCES TO WIRE DESIGNATIONS ASSUME ELECTRICAL CONTRACTOR WILL SUBSTITUTE APPROPRIATE WIRE TO MEET CODE.
- ALL CONDUCTORS SHALL TEST FREE OF GROUNDS AND SHORTS BEFORE MAKING ANY CONNECTION TO THE FIRE ALARM CONTROL PANEL.
- TO RETAIN WARRANTY, THE FIRE ALARM EQUIPMENT MUST BE POWERED UP UNDER THE SUPERVISION OF A QUALIFIED MANUFACTURERS TECHNICIAN.
- THE INSTALLING ELECTRICAL CONTRACTOR SHALL COORDINATE ALL FIELD CHANGES WITH THE FIRE ALARM CONTRACTOR. THIS INCLUDES CHANGES IN DEVICES, WIRE, CONDUIT RUNS AND OPERATION OF THE SYSTEM. FIRE ALARM CONTRACTOR SHALL NOT BE HELD RESPONSIBLE FOR UNDOCUMENTED CHANGES OR THE RESULTS OF THOSE CHANGES.
- FIRE ALARM NOTIFICATION DEVICES SHALL BE AUDIBLE THROUGHOUT THE SPACE AND SHALL HAVE A SOUND PRESSURE LEVEL NOT LESS THAN 15db ABOVE THE AVERAGE AMBIENT SOUND LEVEL OR 5db ABOVE THE MAXIMUM SOUND LEVEL, MEASURED AT 5'0" ABOVE THE FINISHED FLOOR.
- MAIN BUILDING FIRE ALARM & SUPPRESSION SYSTEMS SHALL BE CLASS "B" WIRING. PRE-ACTION & DELUGE ALARM SYSTEMS SHALL BE CLASS "A" WIRING. CLASS "A" APPLICATIONS SHALL MAINTAIN A MINIMUM SEPARATION OF 48 INCHES HORIZONTALLY & 12 INCHES VERTICALLY BETWEEN OUTGOING AND RETURN CIRCUITS.
- ALL PULL STATIONS AND NOTIFICATION DEVICES SHALL BE MOUNTED AT HEIGHTS SPECIFIED PER NFPA 72 AND ADA REQUIREMENTS.
- ALL DETECTOR SPACING SHALL BE PER NFPA 72 & LOCAL CODES.
- ELECTRICAL CONTRACTOR SHALL COORDINATE ALL ROUGH-IN LOCATIONS WITH OTHER TRADES.
- ALL FIRE ALARM DEVICES SHALL BE SECURELY FASTENED TO WALLS OR CEILINGS.
- SMOKE DETECTORS SHALL NOT BE LOCATED CLOSER THAN 36" TO ANY AIR REGISTER OR DIFFUSER.
- HEAT DETECTORS SHALL NOT BE LOCATED CLOSER THAN 36" TO ANY AIR REGISTER OR DIFFUSER.
- PER NFPA 72, CHAPTER 17, SMOKE DETECTORS INSTALLED PRIOR TO FINAL CLEAN MUST BE CLEANED AND VERIFIED TO BE OPERATING IN ACCORDANCE WITH THE LISTED SENSITIVITY, OR THEY SHALL BE REPLACED PRIOR TO THE FINAL COMMISSIONING OF THE SYSTEM. CONVERGINT BEARS NO RESPONSIBILITY FOR LABOR OR MATERIAL ASSOCIATED WITH CLEANING, SENSITIVITY TESTING OR REPLACEMENT OF SMOKE DETECTORS INSTALLED PRIOR TO FINAL CLEANING.
- HEAT DETECTORS SHALL NOT BE LOCATED CLOSER THAN 36" TO ANY HEAT GENERATING DEVICE (FUSES, BOILERS, WATER HEATERS, ETC.) IN MECHANICAL ROOMS.
- HEAT DETECTORS SHALL NOT BE LOCATED CLOSER THAN 18" TO ANY PART OF ANY LIGHT FIXTURE.
- HEAT DETECTORS SHALL BE MOUNTED WITHIN 24" OF A SPRINKLER HEAD WHEN USED FOR ELEVATOR SHUNT TRIP IN ELEVATOR MACHINE ROOMS & SHAFTS.
- INITIATING AND SIGNALING CIRCUITS MAY BE RUN IN SAME CONDUIT.
- ALL CONDUCTORS SHALL BE LABELED BY ZONE OR SLC LOOP NUMBER.
- THESE DRAWINGS ARE INTENDED TO SHOW PROJECT SPECIFIC PANELS, DEVICES AND WIRING DEPICTED DIAGRAMMATICALLY. WIRING SHOWN IS NOT INTENDED TO DEPICT RACEWAY OR PATHWAY LOCATIONS. DEVICE AND PANEL LOCATIONS SHALL BE COORDINATED BY INSTALLING CONTRACTOR AS PART OF THE CONSTRUCTION PROCESS.
- AS THE FIRE ALARM VENDOR UTILIZED FOR THIS BUILDING, NFPA 72 REQUIRES WE KEEP ACCURATE RECORD DRAWING INFORMATION. AS SUCH, IT IS NECESSARY THAT WE DEPICT EXISTING DEVICES AND WIRING IN ADDITION TO THOSE COMPONENTS ASSOCIATED WITH YOUR SCOPE WHERE APPLICABLE. UNLESS OTHERWISE NOTED, IT IS ASSUMED EXISTING COMPONENTS WILL REMAIN UN-DISTURBED BY YOUR SCOPE OF WORK. TO AID IN IDENTIFYING NEW VS. EXISTING WE WILL TURN EXISTING COMPONENTS TO A LIGHTER SHADE. REMOVAL OF THE EXISTING DEVICES AND WIRING MAY OTHERWISE IMPACT THE CONTEXT OF THE COMPLETE, CODE REQUIRED FIRE ALARM SYSTEM, THEREFORE THEY CANNOT BE OMITTED FROM OUR DRAWING PACKAGE.

WIRE LEGEND

ALL WIRING AND INSTALLATION METHODS SHALL BE IN COMPLIANCE WITH CURRENT RELEVANT NATIONAL AND LOCAL ELECTRICAL CODE ARTICLES AND RELATED SECTION CODE REQUIREMENTS.

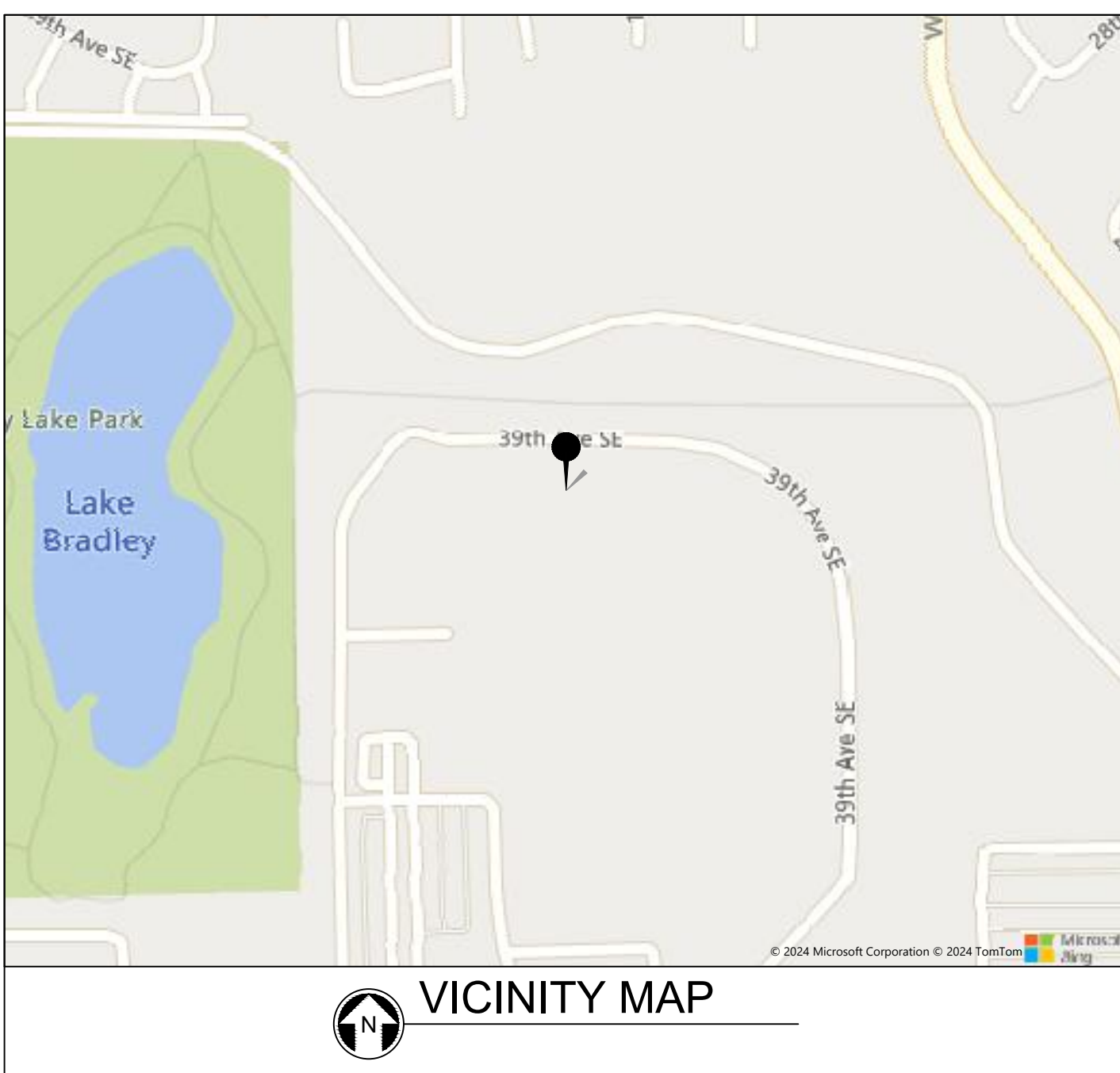
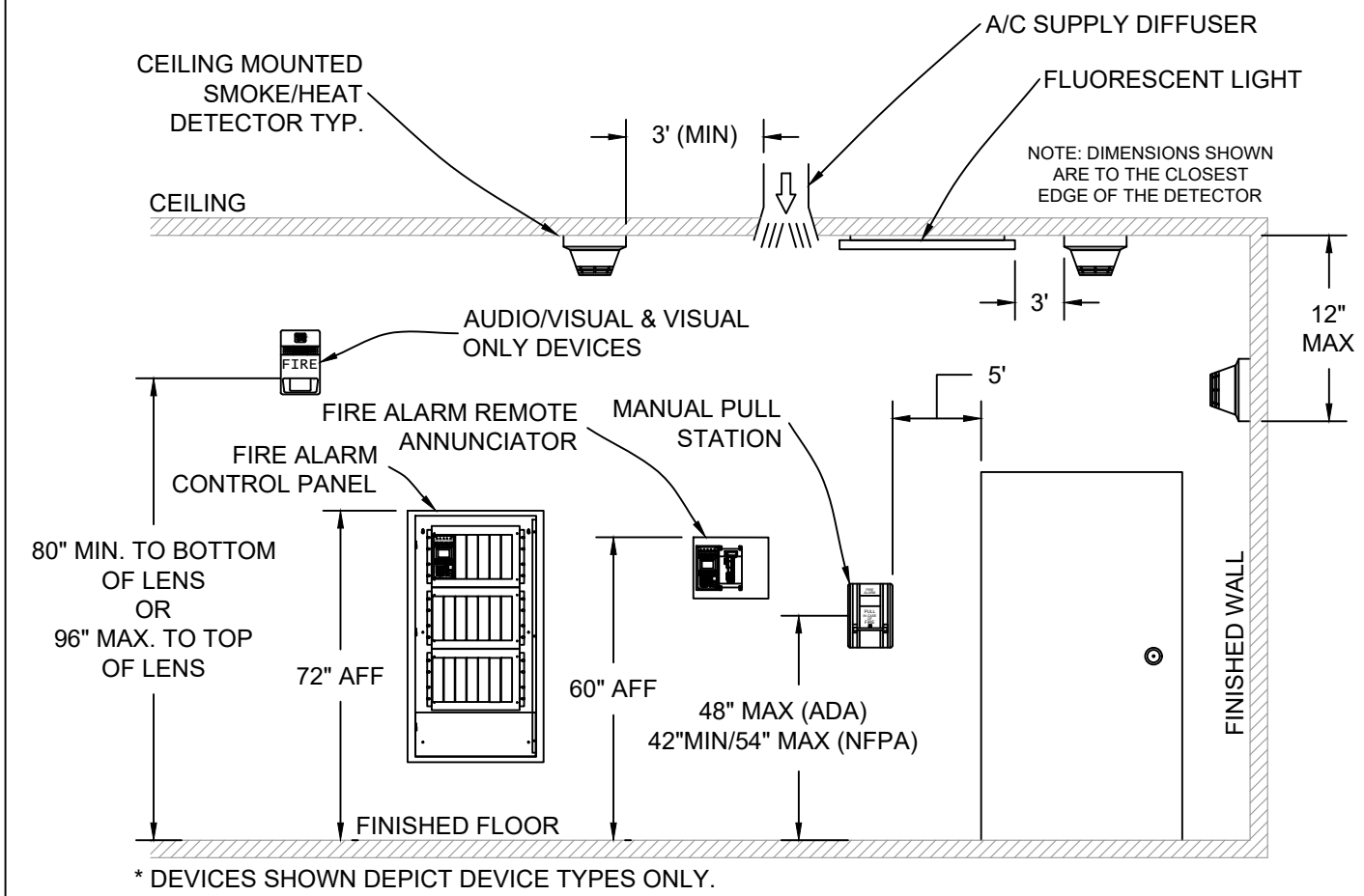
WIRING INSTALLATION NOTES:

- * LABEL ALL ZONE WIRES WITH ZONE NUMBER TAG AND DESCRIPTION.
- * LABEL ALL SIGNAL CIRCUIT WIRES WITH SIGNAL CIRCUIT NUMBER TAG AND DESCRIPTION.
- * LABEL ALL NETWORK, ANNUNCIATOR AND I/O CONTROL CIRCUIT WIRING WITH CIRCUIT NUMBER TAG AND DESCRIPTION.
- * VERIFY WITH OWNER AND GENERAL CONTRACTOR THAT OPEN CABLE IS ALLOWED ON SPECIFIC SITE. (FPL, FPLP, RISER, OR 2 HOUR RATED)
- * WHERE REQUIRED, OUR DRAWINGS WILL NOTE WIRE OR PATHWAY REQUIRING SURVIVABILITY. SUBSTITUTE THE RELEVANT CABLE WITH AN EQUIVALENT CABLE COMPATIBLE WITH THE MEANS OF SURVIVABILITY. THIS OFTEN INCLUDES: C/C OR CI CABLE (CIRCUIT INTEGRITY), CONCRETE ENCASEMENT OR OTHER MEANS AS APPROVED BY THE AHJ. REFER TO NFPA 72 FOR FURTHER INFORMATION.

CIRCUIT DESCRIPTION	NON PLENUM: (FPLR, FPL)	SINGLE COND.: (THHN, TFFN)	PLENUM RATED: (FPLP)
A ZONE/INPUT CIRCUIT 2 COND. 16 AWG	BELDEN 5220UL [3.85Q] [24pF/FT]	(2) #16 AWG	BELDEN 6220UL [3.85Q] [37pF/FT]
C NAC CIRCUIT 2 COND. 14 AWG	BELDEN 5120UL [2.43Q] [23pF/FT]	(2) #14 AWG	BELDEN 6120UL [2.43Q] [37pF/FT]
D MASS. NOTIFICATION NAC CIRCUIT 2 COND. 14 AWG	BELDEN 5120UL [2.43Q] [23pF/FT]	(2) #14 AWG	BELDEN 6120UL [2.43Q] [37pF/FT]
E DOOR HOLDER/CONTROL CIRCUIT 2 COND. 14 AWG	BELDEN 5120UL [2.43Q] [23pF/FT]	(2) #14 AWG	BELDEN 6120UL [2.43Q] [37pF/FT]
F FANH/VAC SHUTDOWN 2 COND. 14 AWG	BELDEN 5120UL [2.43Q] [23pF/FT]	(2) #14 AWG	BELDEN 6120UL [2.43Q] [37pF/FT]
G FUTURE ADA NAC CIRCUIT 2 COND. 14 AWG	BELDEN 5120UL [2.43Q] [23pF/FT]	(2) #14 AWG	BELDEN 6120UL [2.43Q] [37pF/FT]
H PHONE CIRCUIT 2 COND. 16 AWG SHIELDED	BELDEN 5220FL [3.8Q] [65.5pF/FT]	N/A	BELDEN 6220FL [3.85Q] [77pF/FT]
J SPEAKER CIRCUIT 2 COND. 16 AWG	BELDEN 5220UL [3.85Q] [24pF/FT]	(2) #16 AWG	BELDEN 6220UL [3.85Q] [37pF/FT]
L ELEVATOR CONTROL 2 COND. 14 AWG	BELDEN 5120UL [2.43Q] [23pF/FT]	(2) #14 AWG	BELDEN 6120UL [2.43Q] [37pF/FT]
M AUDIO RISER 2 COND. 16 AWG SHIELDED	BELDEN 5220FL [3.8Q] [65.5pF/FT]	N/A	BELDEN 6220FL [3.85Q] [77pF/FT]
N NETWORK COMMUNICATIONS 2 COND. 16 AWG	BELDEN 5220UL [3.85Q] [24pF/FT]	(2) #16 AWG	BELDEN 6220UL [3.85Q] [37pF/FT]
P 24VDC AUX. POWER 2 COND. 14 AWG	BELDEN 5120UL [2.43Q] [23pF/FT]	(2) #14 AWG	BELDEN 6120UL [2.43Q] [37pF/FT]
Q VESDA NET 2 COND. 22 AWG	BELDEN 9841 [24Q] [12.8pF/FT]	N/A	BELDEN 89841 [24Q] [12pF/FT]
R REMOTE LED CIRCUIT 2 COND. 16 AWG	BELDEN 5220UL [3.85Q] [24pF/FT]	(2) #16 AWG	BELDEN 6220UL [3.85Q] [37pF/FT]
S ADDRESSABLE DATA SLC LOOP 2 COND. 18 AWG	BELDEN 5320UL [6.4Q] [29pF/FT]	(2) #18 AWG	BELDEN 6320UL [6.4Q] [31pF/FT]
T1 ANALOG TWO-WAY COMM. CABLE 2 COND. 18 AWG	N/A	N/A	RATH RP66010001 [2-HOUR CIC]
T2 ANALOG TWO-WAY COMM. CABLE 2 COND. 18 AWG	RATH 66120 [2-HOUR]	N/A	N/A
TP ANALOG TWO-WAY POWER CABLE 2 COND. 18 AWG	N/A	N/A	RATH R66010001 [2-HOUR CIC]
U SUPPRESSION RELEASING CIRCUIT 2 COND. 14 AWG	BELDEN 5120UL [2.43Q] [23pF/FT]	(2) #14 AWG	BELDEN 6120UL [2.43Q] [37pF/FT]
W SINGLE MODE FIBER NETWORK 8.3u SM	BUDGET SMXLO2SMXHI2: 15/25 dbm CONNECTOR: DUPLEX SC		
X MULTIMODE FIBER NETWORK 50/125u, 62.5/125u OR 100/140u MM	BUDGET MMXVR: 10 dbm CONNECTOR: ST		
Y TWO-WAY COMMUNICATIONS CAT5E - (4) PAIR 22 AWG	BELDEN 1583A	N/A	BELDEN 1585A
Z FIRE/SMOKE DAMPER INTERFACE 2 COND. 14 AWG	BELDEN 5120UL [2.43Q] [23pF/FT]	(2) #14 AWG	BELDEN 6120UL [2.43Q] [37pF/FT]

NOTE: ALL LISTED RESISTANCE AND CAPACITANCE ARE CONDUCTOR TO CONDUCTOR. ALL RESISTANCE VALUES ARE PER 1000 FEET.

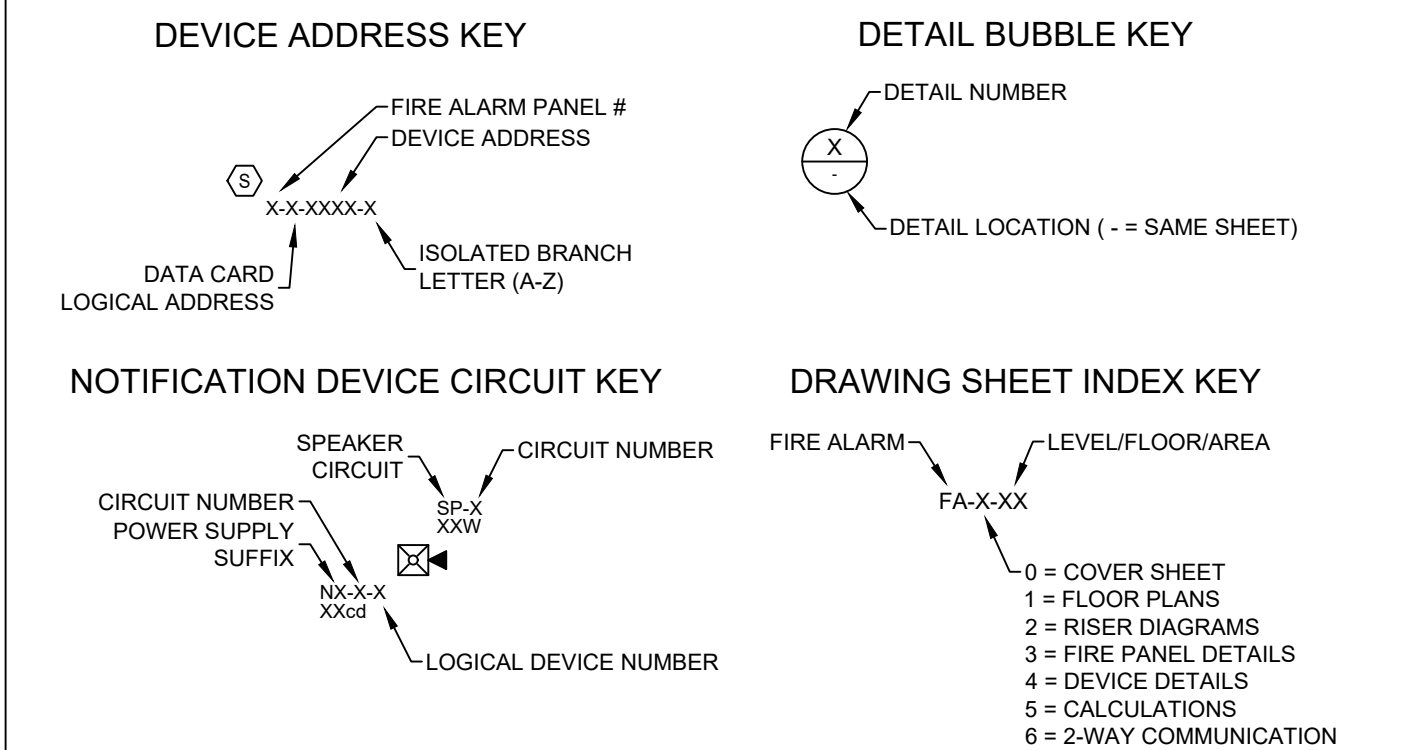
MOUNTING HEIGHTS



ABBREVIATIONS

AC - ABOVE CEILING AFF - ABOVE FINISHED FLOOR ADA - AMERICAN DISABILITIES ACT AHJ - AUTHORITY HAVING JURISDICTION AHU - AIR HANDLING UNIT (THIRD PARTY) ASD - ASPIRATION SMOKE DETECTION CD - CANDELA (EX. 15CD) CIS - COMMON INTELLIGIBILITY SCALE DH - DOOR HOLDER (THIRD PARTY UNO) EF - EXHAUST FAN (THIRD PARTY) ELEV - ELEVATOR (THIRD PARTY) EOL - END OF LINE EPF - ELEVATOR PRESSURIZATION FAN (THIRD PARTY) FA - FIRE ALARM FAA - FIRE ALARM ANNUNCIATOR FACP - FIRE ALARM CONTROL PANEL FACU - FIRE ALARM CONTROL UNIT FATC - FIRE ALARM TERMINAL CABINET FBO - FURNISHED BY OTHERS FCU - FAN COIL UNIT (THIRD PARTY) FFT - FIRE/FIGHTER'S TELEPHONE FM - FACTORY MUTUAL	FSD - FIRE SMOKE DAMPER (THIRD PARTY) HVAC - HEATING, VENTILATION, AND AIR CONDITIONING (THIRD PARTY) LA - LOW AIR (THIRD PARTY) N/A - NOT APPLICABLE NAC - NOTIFICATION APPLIANCE CIRCUIT NFPA - NATIONAL FIRE PROTECTION ASSOCIATION NIC - NOT IN CONTRACT NTS - NOT TO SCALE PS - POWER SUPPLY RTU - ROOF TOP UNIT (THIRD PARTY) SLC - SIGNALING LINE CIRCUIT SPF - STAIR PRESSURIZATION FAN (THIRD PARTY) STI - SPEECH TRANSMISSION INDEX TYP - TYPICAL UNO - UNLESS NOTED OTHERWISE VAV - VARIABLE AIR VOLUME (THIRD PARTY) VFD - VARIABLE FREQUENCY DRIVE (THIRD PARTY) W/ - WITH W - WATT (EX. 12W) WP - WEATHERPROOF XP - EXPLOSION PROOF
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FLOOR PLAN KEY



DESIGNER OF RECORD

JACOB USHER

NICET III

FIRE ALARM SYSTEMS

CERTIFICATION #148102

EXPIRE DATE: 11/01/2028

FOR VERIFICATION, PLEASE VISIT: WWW.NICET.ORG

10/17/2025

City of Puyallup
Fire
REVIEWED
FOR
COMPLIANCE

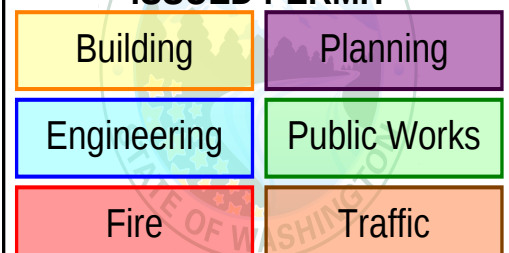
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THE APPROVED CONSTRUCTION
PLANS AND ALL ENGINEERING
MUST BE POSTED ON THE JOB AT
ALL INSPECTIONS IN A VISIBLE AND
READILY ACCESSIBLE LOCATION.

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.

City of Puyallup
Development & Permitting Services
ISSUED PERMIT



SIGNATURE LOOP WIRING LIMITATIONS:

SIGNATURE DUAL DRIVE CONTROLLER MODULES SUPPORTS UP TO 250 INTELLIGENT SIGNATURE DETECTORS AND 250 INTELLIGENT SIGNATURE MODULES

WIRE LENGTH LIMITATIONS:

NON-TWISTED, NON-SHIELDED WIRE
 16AWG - 200FT/1 & 4.02 OHMS/1000 FEET
 18AWG - 200FT/1 & 6.38 OHMS/1000 FEET
 DETECTORS ONLY 16AWG - 125 DETECTORS - 9.275'
 MODULES ONLY 16AWG - 125 MODULES - 7.521'
 DETECTORS AND MODULES 16AWG - 125 OF EACH - 3.608'
 DETECTORS ONLY 18AWG - 125 DETECTORS - 5.839'
 MODULES ONLY 18AWG - 125 MODULES - 4.986'
 DETECTORS AND MODULES 18AWG - 125 OF EACH - 2.271'

TWISTED PAIR, NON-SHIELDED WIRE
 16AWG - 320FT/1 & 4.02 OHMS/1000 FEET
 18AWG - 320FT/1 & 6.38 OHMS/1000 FEET
 DETECTORS ONLY 16AWG - 125 DETECTORS - 9.275'
 MODULES ONLY 16AWG - 125 MODULES - 7.521'
 DETECTORS AND MODULES 16AWG - 125 OF EACH - 3.608'
 DETECTORS ONLY 18AWG - 125 DETECTORS - 5.839'
 MODULES ONLY 18AWG - 125 MODULES - 4.986'
 DETECTORS AND MODULES 18AWG - 125 OF EACH - 2.271'

TWISTED PAIR, SHIELDED WIRE
 16AWG - 620FT/1 & 4.02 OHMS/1000 FEET
 18AWG - 580FT/1 & 6.38 OHMS/1000 FEET
 DETECTORS ONLY 16AWG - 125 DETECTORS - 6.098'
 MODULES ONLY 16AWG - 125 MODULES - 6.038'
 DETECTORS AND MODULES 16AWG - 125 OF EACH - 3.608'
 DETECTORS ONLY 18AWG - 125 DETECTORS - 5.839'
 MODULES ONLY 18AWG - 125 MODULES - 4.986'
 DETECTORS AND MODULES 18AWG - 125 OF EACH - 2.271'

SIGNATURE DATA LOOP WIRING, CLASS B ONLY

SERIES PARALLEL WIRING, ACCEPTABLE

SIGNATURE DATA LOOP WIRING, CLASS B ONLY

T-TAPPING AT EVERY DEVICE, UNACCEPTABLE

T-TAPPING, ACCEPTABLE

STAR-TAPPING, UNACCEPTABLE

SPEAKER CIRCUIT WIRING LIMITATIONS:

WIRE LENGTH LIMITATIONS:

THE MAXIMUM ALLOWABLE WIRE LENGTH IS THE FARTHEST DISTANCE THAT A SPEAKER CIRCUIT CAN EXTEND FROM THE AMPLIFIER TO THE LAST SPEAKER WITHOUT LOSING 0.5 DB OF SIGNAL. THE FOLLOWING ARE MAXIMUM DISTANCE BASED ON APPROXIMATE WATTAGE OF THE SPEAKER CIRCUIT. CIRCUIT LENGTHS ARE FURTHER BASED ON ORIGINATION OF A CIRCUIT FROM EITHER THE AMPLIFIER OR FROM THE C-1 MODULE.

ALLOWABLE LENGTH AT 25 WATTS, WITH 0.5 DB LOSS

- 16AWG - 20 WATTS - 231'
- 15AWG - 30 WATTS - 154'
- 16AWG - 40 WATTS - 116'

ALLOWABLE LENGTH AT 70 WATTS, WITH 0.5 DB LOSS

- 16AWG - 20 WATTS - 1815'
- 16AWG - 30 WATTS - 1210'
- 16AWG - 40 WATTS - 907'

NAC CIRCUIT (HORN, STROBE) WIRING LIMITATIONS:

FOR 24VDC SYSTEMS, MINIMUM DEVICE OPERATING VOLTAGE IS 16VDC. VOLTAGE DROP CALCULATIONS ARE BASED ON 16VDC AND POWER SUPPLY DE-RATED AND ON DESIGN TEMPERATURE. VOLTAGE DROP PER THE PRESCRIBED PERIOD OF STANDBY AND ALARM RING TIME. THE VOLTAGE DROP WILL LIMIT THE CIRCUITS CAPACITY IN ALMOST ALL CASES AND CURRENT CANNOT BE USED AS ONLY CIRCUIT WIRE LENGTH LIMITATION. ALTERATIONS TO CIRCUIT LENGTH FROM THOSE CALCULATED MAY CAUSE CIRCUITS TO BE OUT OF THE TOLERANCES GRANTED BY THE FIRE ALARM CODE. CHANGES TO DEVICE LOCATION OR CIRCUIT LENGTH SHALL BE COMMUNICATED TO THE CONVERTING TEAM.

NAC CIRCUIT WIRING AND ROUTING MUST NOT EXCEED WHAT IS SHOWN ON THE DESIGN DRAWINGS AND VOLTAGE DROP TEST IS PART OF MOST FIRE FINALS AND IS REQUIRED BY NFPA. A FAILED FIRE FINAL MAY REQUIRE REWIRING OF THE FAILED CIRCUITS.

WIRE RESISTANCE RATINGS USED FOR CALCULATIONS:

- 18AWG - 13 OHMS PER 1000'
- 16AWG - 8 OHMS PER 1000'
- 14AWG - 5.2 OHMS PER 1000'

EXAMPLE: 1.0 AMP CIRCUIT LOAD USING #14 WIRE = 409 FEET MAXIMUM.

CLASS B, STYLE 4 WIRING

CLASS A, STYLE 6 WIRING

SEPARATION OF CLASS A CIRCUITS - INSTALLATION EXCEPTIONS:

CLASS A OUTGOING AND RETURN CONDUCTORS, EXITING AND RETURNING TO THE CONTROL PANEL, ARE TO BE ROUTED SEPARATELY. THE MINIMUM RECOMMENDED SEPARATION IS 1 FT. VERTICALLY AND 4 FT. HORIZONTALLY. THE FOLLOWING EXCEPTIONS STILL DO NOT ELIMINATE THE 2ND PAIR OF WIRES. THEY ALLOW YOU TO USE A SINGLE RACEWAY AND ELIMINATE THE SEPARATION FOR THESE CONDITIONS:

1. WHEN MAXIMUM CABLE ENCLOSURE, OR RACEWAY IS LESS THAN 10 FEET. NO LIMIT TO NUMBER OF DEVICES.
2. UNLIMITED CONDUIT OR RACEWAY DROP TO AN INDIVIDUAL DEVICE.
3. UNLIMITED CONDUIT OR RACEWAY DROP TO A ROOM NOT EXCEEDING 1000 SQ. FT. NO LIMIT TO THE NUMBER OF DEVICES.

AS-BUILT / RECORD DRAWING REQUIREMENTS:

THE FOLLOWING INFORMATION SHOULD BE RECORDED ON A SEPARATE SET OF DRAWINGS FOR EACH PROJECT:

1. ANY CHANGES IN THE LOCATION OF ANY ASSOCIATED FIRE ALARM OR INTERFACE EQUIPMENT, CONTROL PANELS, ANNUNCIATORS, DETECTORS, CONTROL RELAYS, INPUT AND OUTPUT MODULES, TERMINAL CABINETS, ETC.
2. ANY CHANGES TO CIRCUIT WIRING, THIS INCLUDES DELETION OR ADDITIONAL WIRING RUNS, ANY RE-ROUTING OF CIRCUIT WIRING, ANY ADDITIONAL OR DELETIONS OF THE NUMBER, LOCATION, AND ORDER OF DEVICE WIRING ON A CIRCUIT.
3. ADDRESSES AND/OR LABELS FOR ALL ADDRESSABLE DEVICES.
4. CANCELLED LISTING OF DEVICES.
5. WATTAGE TAP SETTINGS OF ALL SPEAKER NOTIFICATION DEVICES.

ANY CHANGES SHALL BE DISCUSSED WITH CONVERGENT PROJECT MANAGER TO ENSURE SYSTEM AND CODE PARAMETERS ARE MET. CONVERGENT SHALL NOT BE HELD ACCOUNTABLE FOR CHANGES MADE WITHOUT APPROVAL.

THIS INFORMATION SHALL BE NEAT AND LEGIBLE WHEN PRESENTED TO THE TECHNICIAN AT THE CONCLUSION OF THE PROJECT. PLEASE NOTE CONTACT INFORMATION ON DRAWINGS FOR INDIVIDUALS WITH FAMILIARITY OF INSTALLATION IN THE EVENT QUESTIONS ARISE DURING THE CLOSEOUT PROCESS.

DATA NETWORK SPECIFICATIONS:

MAXIMUM ALLOWED VALUES BETWEEN ANY THREE NODES OF A NETWORK

- RESISTANCE: 90 OHMS
- CAPACITANCE: 0.3 MICROFARADS
- DISTANCE: 5,000 FEET

THE FOLLOWING TABLE LISTS THE MAXIMUM CUMULATIVE CAPACITANCE FOR THE DATA NETWORK GIVEN VARIOUS WIRE SIZES AND TRANSMISSION RATES. MAXIMUM CUMULATIVE CAPACITANCE IS THE TOTAL CAPACITANCE OF ALL INSTALLED COPPER WIRE USED IN THE DATA NETWORK.

<u>MAXIMUM CUMULATIVE CAPACITANCE IN MICROFARADS</u>	
18AWG - 1.4 @ 38.4K BAUD/2 @ 19.2K BAUD	
16AWG - 1.8 @ 38.4K BAUD/2.1 @ 19.2K BAUD	
14AWG - 2.1 @ 38.4K BAUD/2.4 @ 19.2K BAUD	

CABLE PROPERTIES

CABLE AND AUDIO NETWORKS IN AN EST3 SYSTEM DO NOT REQUIRE THE USE OF SHIELDED CABLE, AND NETWORKS DESIGNED WITH TWISTED-PAIR CAN BE ABOUT TWICE AS LONG AS THOSE DESIGNED WITH SHIELDED CABLE. THE MAXIMUM LENGTH OF A DATA NETWORK VARIES WITH THE PROPERTIES OF THE WIRE USED. WIRE MANUFACTURERS TYPICALLY PROVIDE SPECIFICATIONS FOR WIRE RESISTANCE AND CAPACITANCE.

PATHWAY SURVIVABILITY LEVELS

PATHWAY SURVIVABILITY MUST MEET THE REQUIREMENTS OF NFPA 72, SECTION 12.4 FOR THE CORRESPONDING LEVEL OF SURVIVABILITY REQUIRED BY NFPA 72, CHAPTER 24. THE FOLLOWING IS A CONDENSED DESCRIPTION OF THE SURVIVABILITY LEVELS.

PATHWAY SURVIVABILITY LEVEL 0. LEVEL 0 PATHWAY MAY NOT BE REQUIRED TO HAVE ANY PROVISIONS FOR PATHWAY SURVIVABILITY.

PATHWAY SURVIVABILITY LEVEL 1. PATHWAY INSTALLED IN FULLY SPRINKLED BUILDING MEETING THE REQUIREMENTS OF NFPA 13 WITH ANY INTERCONNECTING CONDUCTORS, CABLES OR OTHER PHYSICAL PATHWAYS INSTALLED IN METAL RACEWAYS.

PATHWAY SURVIVABILITY LEVEL 2. PATHWAY SURVIVABILITY LEVEL 2 SHALL CONSIST OF ONE OR MORE OF THE FOLLOWING:

- 2 HOUR FIRE-RATED CIRCUIT INTEGRITY (FCI) CABLE
- 2 HOUR FIRE-RATED CABLE SYSTEM (ELECTRICAL CIRCUIT PROTECTIVE SYSTEM(S))
- 2 HOUR FIRE RATED ENCLOSURE OR PROTECTED AREA
- 2 HOUR REPUTABLE ALTERNATIVES APPROVED BY THE AUTHORITY HAVING JURISDICTION

PATHWAY SURVIVABILITY LEVEL 2. SAME AS LEVEL 2 WITH ADDITION OF BEING IN A FULLY SPRINKLED BUILDING MEETING THE REQUIREMENTS OF NFPA 13.

CIRCUITS REQUIRING SURVIVABILITY BY NFPA 72

THE FOLLOWING CIRCUIT TYPES, WHEN USED ARE REQUIRED TO BE SURVIVABLE AS DESCRIBED HEREIN REFER TO NFPA 72, CHAPTER 24 FOR ADDITIONAL INFORMATION REGARDING CIRCUIT TYPES. THIS IS NOT A COMPLETE LIST AND IS MEANT TO SUPPLEMENT ANY NOTES PROVIDED ELSEWHERE IN OUR DRAWING PACKAGES. PLEASE CONTACT CONVENTION ENGINEERING DEPARTMENT WITH ANY QUESTIONS REGARDING THE APPLICATION OF SURVIVABILITY.

- IN-BUILDING FIRE EMERGENCY VOICE/ALARM COMMUNICATIONS SHALL BE SURVIVABLE BASED ON ONE OF TWO CATEGORIES (3.4.3.6.1)
 - FOR SYSTEMS EMPLOYING RELOCATION OR PARTIAL EVACUATION, A LEVEL 2 OR 3 PATHWAY SURVIVABILITY SHALL BE REQUIRED (3.4.3.6.1.1)
 - FOR SYSTEMS THAT DO NOT EMPLOY RELOCATION OR PARTIAL EVACUATION, A LEVEL 0, LEVEL 1, LEVEL 2 OR LEVEL 3 PATHWAY SURVIVABILITY SHALL BE REQUIRED (3.4.3.6.2.4)
- TWO-WAY IN-BUILDING WIRELESS EMERGENCY COMMUNICATIONS SYSTEMS SHALL HAVE A PATHWAY SURVIVABILITY OF LEVEL 2 OR LEVEL 3 (3.4.3.6.7). THIS APPLIES TO FIREMANS HANDS SYSTEMS, STAIRWELL RE-ENTRY INTERCOM AND ELEVATOR LOBBY TWO-WAY AS REQUIRED BY INTERNATIONAL BUILDING CODE (IBC), SECTIONS 403.4 AND 1009.8
- TWO-WAY RADIO COMMUNICATIONS ENHANCEMENT SYSTEMS (DAS) SHALL COMPLY WITH 2.4.3.6.8.1 THROUGH 2.4.3.6.8.4. DAS IS NOT A COMPONENT OF THE FIRE ALARM DESIGN AND IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY
- AREA OF REFUGE EMERGENCY COMMUNICATIONS SYSTEMS SHALL HAVE A PATHWAY SURVIVABILITY OF LEVEL 2 OR LEVEL 3 (3.4.3.6.9.1)
- CIRCUITS INTENDED TO TRANSMIT OR PREMISES SHALL HAVE A PATHWAY SURVIVABILITY OF LEVEL 0, LEVEL 1, LEVEL 2 OR LEVEL 3 (3.4.3.6.9.2)

FOR SMOKE CONTROL SPECIFIC SURVIVABILITY REQUIREMENTS, REFER TO THE SMOKE CONTROL SPECIFICATIONS. UPON REQUEST, CONVENTION WILL PROVIDE EQUIVALENT SUBSTITUTIONS FOR ANY SPECIFIED CABLE. ANY CABLE SUBSTITUTED MUST BE EQUAL TO OR BETTER PROPERTIES TO THE CABLE SPECIFIED IN OUR WIRE LEGEND.

AS A FIRE ALARM VENDOR, CONVERGENT TECHNOLOGIES HAS REVIEWED AND PROVIDED A DRAWING PACKAGE THAT REFLECTS THE REQUIRED INTERFACES TO THE FIRE ALARM SYSTEMS. CONVERGENT IS NOT THE DESIGNER OF RECORD FOR THE SMOKE CONTROL SYSTEM AND DEFERS TO THE REGISTERED FIRE PROTECTION ENGINEER FOR THIS SPECIFIC PROJECT AS IT RELATES TO THE SMOKE CONTROL SYSTEMS. CONVERGENT HAS PROVIDED THE FOLLOWING:

- ANY PROVIDED SMOKE CONTROL NARRATIVE(S) OR REPORTS HAVE BEEN INCORPORATED INTO OUR DESIGN APPROACH UNLESS INFORMED OTHERWISE.
- ADDITIONALLY, WE HAVE REVIEWED THE REQUIREMENTS OF 909.12 IN ITS ENTIRETY AND IT IS OUR OPINION THAT THE SYSTEMS MEET ALL OF THE NECESSARY ELEMENTS. THE INSTALLER OF THIS SYSTEM IS ALSO REQUIRED TO MEET THE APPLICABLE REQUIREMENTS.

WIRING ASSOCIATED WITH SMOKE CONTROL MUST MEET THE REQUIREMENTS OF THE AMENDED CODE FOR THIS PROJECT. THIS VARIES FROM JURISDICTION TO JURISDICTION. AS SUCH, THESE NOTES ARE INTENDED TO COVER THE GENERAL REQUIREMENTS OF THIS PROJECT. THE FOLLOWING ARE THE REQUIREMENTS LISTED BELOW. ALL WIRE REGARDLESS OF VOLTAGE SHALL BE FULLY ENCLOSED IN CONTINUOUS RACEWAY AS INDICATED IN, IBC, 909.12.2.

- ANY WIRE ASSOCIATED WITH THE CONTROL OF ANY ASPECT OF SMOKE CONTROL SHALL HAVE A FIRE RESISTANCE RATING OF NOT LESS THAN TWO HOURS. THIS INCLUDES THE ADDRESSABLE DATA (SLC) CIRCUITS USED TO CONNECT ADDRESSABLE RELAYS AND MONITOR MODULES.
- THE CONTROL PORTION OF ANY SMOKE CONTROL COMPONENT THAT FAILS TO MEET THE TWO HOUR FIRE RESISTANCE RATING SHALL BE SEPARATELY TWO HOUR RATED. ANY REQUIRED PROOFING PORTION OF THESE INTERFACES SHALL HAVE A FIRE RESISTANCE RATING OF NOT LESS THAN TWO HOURS.
- THE INITIATION PORTION OF SMOKE CONTROL GENERALLY ISN'T REQUIRED TO BE TWO HOUR RATED UNLESS SUPERCEDED BY PROJECT OR LOCAL REQUIREMENTS; HOWEVER CERTAIN JURISDICTIONS DO REQUIRE THESE INTERFACES TO BE SEPARATELY TWO HOUR RATED. REFER TO LOCAL AMENDMENTS FOR SPECIFIC REQUIREMENTS.

FOR WIRING METHODS, PLEASE REFER TO THE SURVIVABILITY WIRING SECTION OF OUR NOTES. LEVEL 2 AND LEVEL 3 WIRING GENERALLY MEETS THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE, CHAPTER 909.

SEQUENCE OF OPERATIONS		SEQUENCE OF OPERATIONS													
		ACTIVATION OF LOCAL ALARM SIGNAL AT FACP (LCD DISPLAY & AUDIBLE INDICATION)	ACTIVATION OF LOCAL SUPERVISORY SIGNAL AT FACP (LCD DISPLAY & AUDIBLE INDICATION)	ACTIVATION OF LOCAL TROUBLE SIGNAL AT FACP (LCD DISPLAY & AUDIBLE INDICATION)	ACTIVATION OF LOCAL ALARM SIGNAL AT ANNUNCIATOR (LCD DISPLAY & AUDIBLE INDICATION)	ACTIVATION OF LOCAL SUPERVISORY SIGNAL AT ANNUNCIATOR (LCD DISPLAY & AUDIBLE INDICATION)	ACTIVATION OF LOCAL TROUBLE SIGNAL AT ANNUNCIATOR (LCD DISPLAY & AUDIBLE INDICATION)	ACTIVATE ALARM OUTPUT TO BUILDING FACP	ACTIVATE SUPERVISORY OUTPUT TO BUILDING FACP	ACTIVATE TROUBLE OUTPUT TO BUILDING FACP	ACTIVATE AUDIBLE & VISIBLE DEVICES VIA INTERFACE WITH BUILDING FACP	SMOKE DETECTION SIGNAL TO BATTERY MANAGEMENT SYSTEM	GENERAL ALARM SIGNAL TO ACCESS/SECURITY SYSTEM	PRE-ACTION SOLENOID ACTIVATION	CLOSE ALL FIRE/SMOKE DAMPERS
SMOKE DETECTOR	X			X			X			X		X		X	
VESDA DETECTOR - URGENT FAULT			X			X			X						
VESDA DETECTOR - ACTION		X			X			X							
VESDA DETECTOR - ALERT		X			X			X							
VESDA DETECTOR - FIRE 1	X			X			X			X	X	X		X	
VESDA DETECTOR - FIRE 2	X			X			X			X	X	X	X	X	
MANUAL PULL STATION	X			X			X			X		X		X	
GENERAL TROUBLE CONDITION			X			X			X						
GENERAL SUPERVISORY CONDITION		X			X			X							
PRE-ACTION WATERFLOW/ALARM SWITCH	X			X			X			X		X		X	
PRE-ACTION TAMPER SWITCH		X			X			X							
PRE-ACTION LOW AIR SWITCH		X			X			X							
PRE-ACTION RELEASE CIRCUIT DISCONNECT SWITCH		X			X			X							
FACP - LOSS OF PRIMARY POWER			X			X			X						

EACH MAIN FIRE ALARM PANEL REQUIRES (1) 120VAC, 20AMP DEDICATED CIRCUIT.

EACH NAC BOOSTER PANEL REQUIRES (1) 120VAC, 15AMP DEDICATED CIRCUIT.

IN BUILDINGS EMPLOYING EMERGENCY STANDBY POWER SYSTEMS, THE FIRE ALARM SHALL BE SUPPLIED WITH EMERGENCY POWER. THIS IS REQUIRED IN HIGH-RISE AND SMOKE CONTROL APPLICATIONS. ALL OTHER APPLICATIONS ARE SUBJECT TO LOCAL BUILDING AND ELECTRICAL CODES.

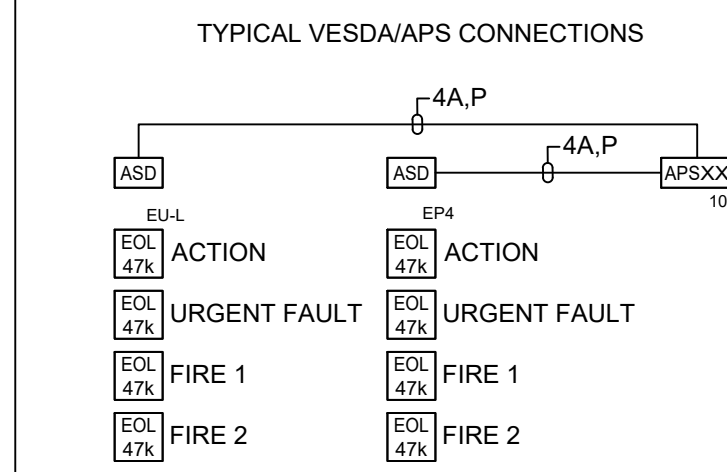
WHERE THE FIRE ALARM SYSTEM IS CONNECTED TO EMERGENCY POWER, THE FIRE ALARM SYSTEM MONITORS THE GENERATOR FOR RUNNING, FUEL LOW AND TROUBLE STATES.

FOR ADDITIONAL DETAILS, REFER TO NFPA 72, CHAPTER 10.

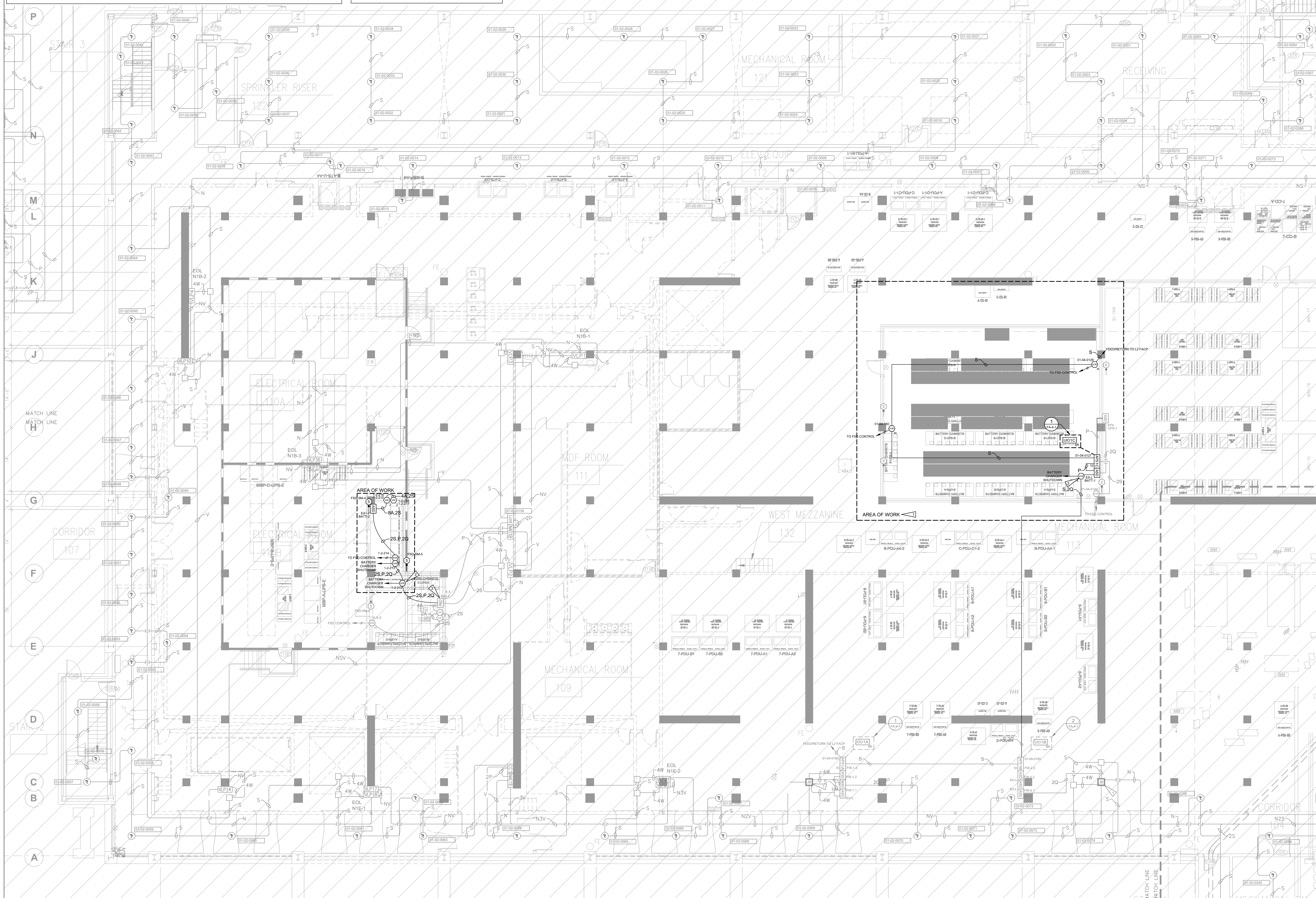
1. SLC IS CLASS-A. REDUNDANT PATHWAYS MUST BE ROUTED SEPARATELY AND BE SEPARATED BY 48" WHEN ROUTED HORIZONTALLY. 12" WHEN ROUTED VERTICALLY. REDUNDANT PATH MAY USE THE SAME CONDUIT/TRACEWAY UNDER THE FOLLOWING CONDITIONS:

- (A) FOR A DISTANCE NOT TO EXCEED 10 FT (3.0 M) WHERE THE OUTGOING AND RETURN CONDUITS ENTER OR EXIT THE RATING BARRIER.
- (B) SINGLE CONDUITS INSTALLED IN THE RACEWAY TO INDIVIDUAL DEVICES OR APPLIANCES.
- (C) IN A SINGLE ROOM NOT EXCEEDING 1000 FT IN AREA, A DROP INSTALLED IN THE RACEWAY TO MULTIPLE DEVICES OR APPLIANCES.

2. THIS BUILDING IS SERVED BY A SHIELD CORE PANEL, THAT HANDLES ALL NOTIFICATION, CENTRAL STATION MONITORING, AND ANY NON-TENANT SMOKE DETECTION SUCH AS ELEVATOR RECALL. DEVICES ON THE HOUSE SYSTEM ARE NOT SHOWN, AND ANY MODIFICATIONS TO THE NOTIFICATION SYSTEM TO SUPPORT THE ABOVE ROOMS ARE BY OTHERS, UNDER SEPARATE AGREEMENT.



- 1 REPLACE ALL FIRE ALARM DEVICES AND WIRE IN AREA AFFECTED BY FIRE, INSTALL REPLACEMENT EQUIPMENT IN EXISTING LOCATIONS, CONNECT TO EXISTING CIRCUITS.
- 2 NEW CONTROL RELAY FOR BATTERY CHARGER SHUTDOWN, TIE INTO EXISTING SLC
- 3 EXTEND SLC, AUX POWER AND VESDA NET FROM EXISTING VESDA DETECTOR TO NEW VESDA DETECTOR AND ASSOCIATED MONITOR MODULES.



E D R A W I N G I S N O T 3 0 " x 4 2 " I T I S A S C A L E D C O P Y

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Building	Planning
Engineering	Public Works
Fire	Traffic

[illegible]

DRAWN BY:	JACOB U.
PROJECT DESIGNER:	JACOB U.
PROJECT MANAGER:	CHARITY P.
JOB NUMBER:	US01-J0260181
SCALE:	AS SHOWN
DATE:	10/17/2025

CENTRIS - SOUTH HILL DATACENTER
FIRE REPAIR & NEW BATTERY RM
1023 39TH AVE SE
PUYALLUP, WA 98374

FIRE ALARM PLAN - LEVEL 1

DRAWING: FA-1-1

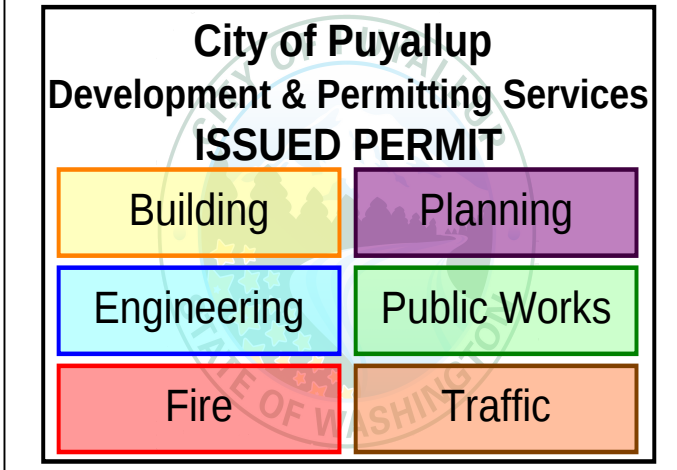
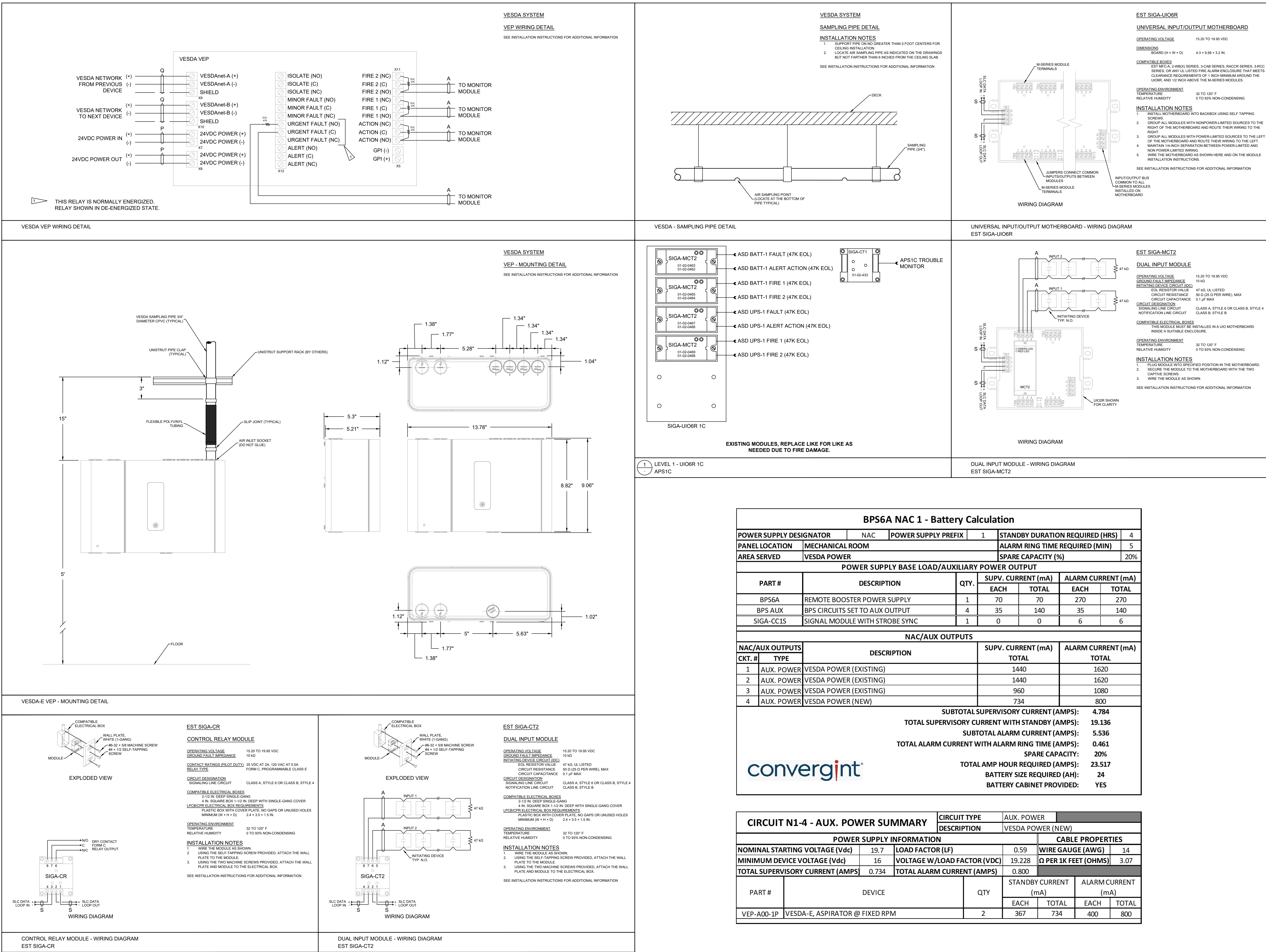
 **FIRE ALARM PLAN - LEVEL 1**

0 4' 8' 16'



SCALE: 1/8"=1'-0"

IF DRAWING IS NOT 30" x 42" IT IS A SCALED COPY



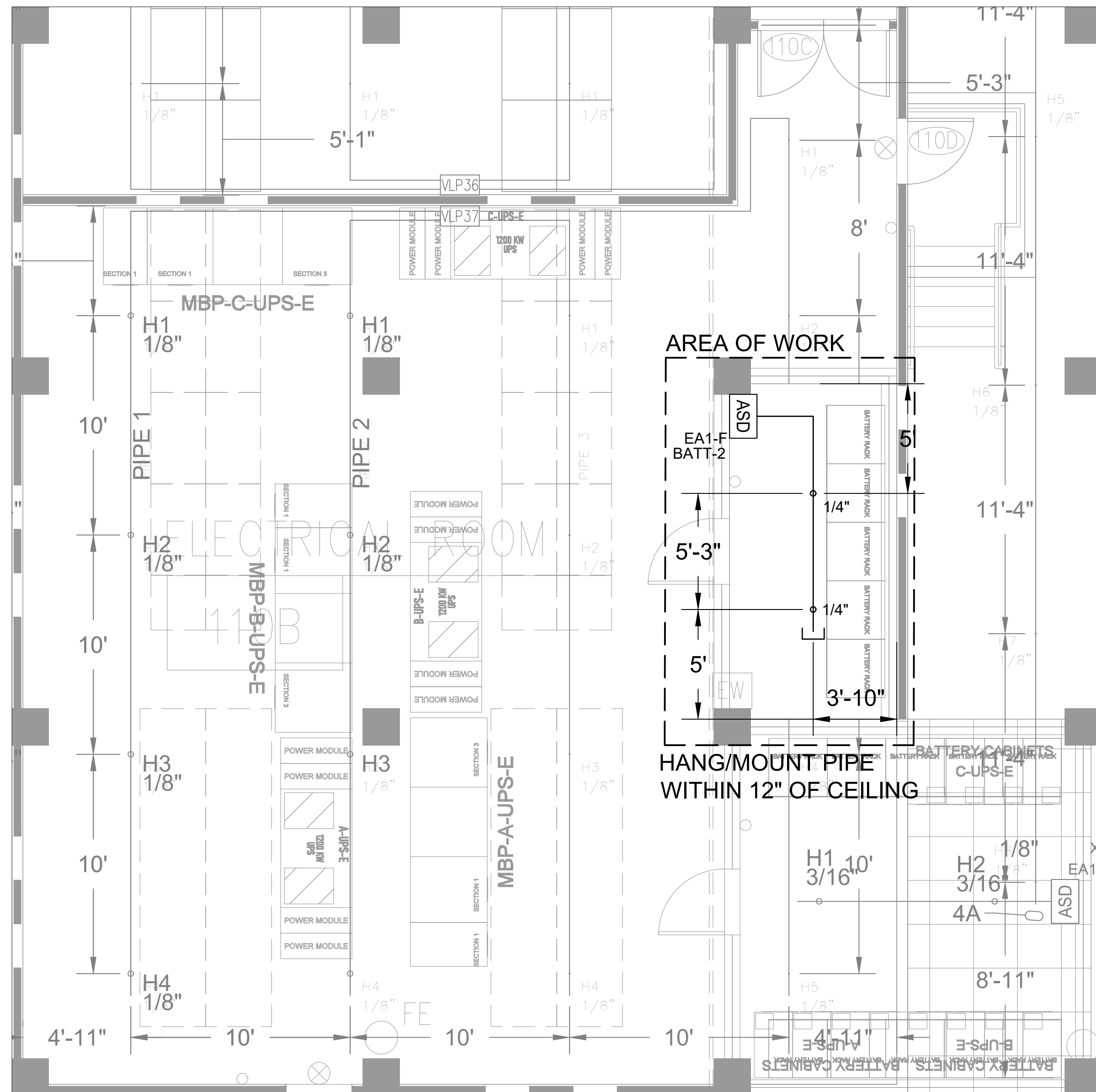
REV	JOB - DESCRIPTION	DATE	BY
-	ISSUED FOR PERMIT	10/21/2025	JU

DRAWN BY:	JACOB LU
PROJECT DESIGNER:	JACOB LU
PROJECT MANAGER:	CHARITY P.
JOB NUMBER:	1001-20250191
SCALE:	AS SHOWN
DATE:	10/17/2025

CENTRIS - SOUTH HILL DATACENTER
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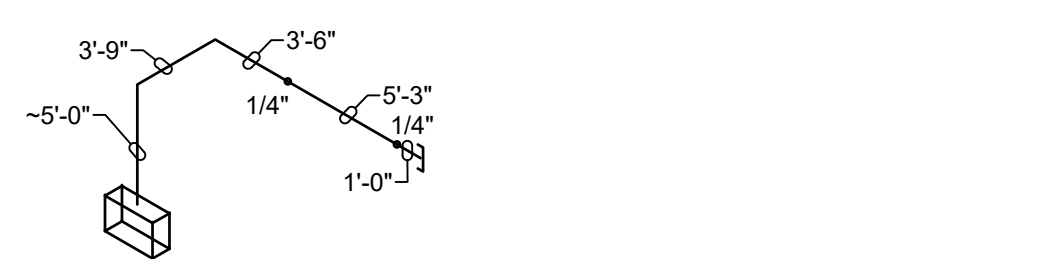
DEVICE DETAILS &
CALCULATIONS
FIRE ALARM SYSTEM

1. DIMENSIONS PROVIDED ON PLANS ARE PRECISE TO $\pm 1/8"$.
2. DEVIATIONS FROM PLANS DUE TO FIELD CONDITIONS MUST BE REDLINED AND RETURNED TO CONTRACTOR FOR CORRECTION. VARIATIONS GREATER THAN 1/8" OR THE ADDITION OF ELBOWS SHOULD BE REPORTED BACK TO CONVEGNT PRIOR TO COMPLETION OF INSTALLATION FOR RE-CALCULATION.
3. SUPPORT PIPE ON NO GREATER THAN 5 FOOT CENTERS FOR CEILING INSTALLATION.
4. GLUE PIPE WITH THE APPROPRIATE ADHESIVE ON THE OUTSIDE OF THE PIPE. DO NOT ALLOW ANY ADHESIVE INSIDE PIPE.
5. DO NOT GLUE PIPE INTO THE VESDA DETECTOR MANIFOLD.
6. REMOVE ALL DUST AND SHAVINGS FROM INSIDE PIPE AND SAMPLING HOLES PRIOR TO INSTALLATION.
7. VERIFY HOLE LOCATION AND SIZE ACCORDING TO VESDA CALCULATIONS BEFORE DRILLING.
8. ORIENT DRILL PERPENDICULAR TO PIPE TO ENSURE HOLES ARE DRILLED STRAIGHT AND NOT AT AN ANGLE.
9. INSTALL LABELS AT EACH SAMPLING HOLE.
10. INSTALL PIPE LABELS EVERY 20' AND AT EVERY CHANGE OF DIRECTION PER NFPA 72.
11. NOTIFY CONVEGNT OF ANY FIELD RELATED OBSTRUCTIONS WHICH COULD EFFECT PIPE PLACEMENT OR ABILITY FOR SOMEONE TO THE REACH SAMPLING HOLES.
12. NOTIFY CONVEGNT PRIOR TO MAKING ANY FIELD CHANGES TO THE PIPE NETWORK. **CHANGES IN PIPING MAY RESULT IN CHANGES TO THE SAMPLING HOLE SIZES. DO NOT DRILL HOLES, OR ONLY DRILL 6" PLOT HOLES ONLY, IF PIPING CHANGES ARE REQUIRED PRIOR TO RE-CALCULATING.**
13. MAINTAIN RED-LINE SET OF INSTALLATIONS DRAWINGS SHOWING ANY MODIFICATIONS TO THE PIPE NETWORK AND DELIVER TO CONVEGNT PRIOR TO FINAL TESTING.
14. ALL VESDA PIPING SHALL BE 3/4" CPVC, UNLESS OTHERWISE NOTED.
15. REFERENCE VESDA PIPING CALCULATIONS FOR PROGRAM SETTINGS REQUIRED TO CONFIGURE THE DETECTOR.

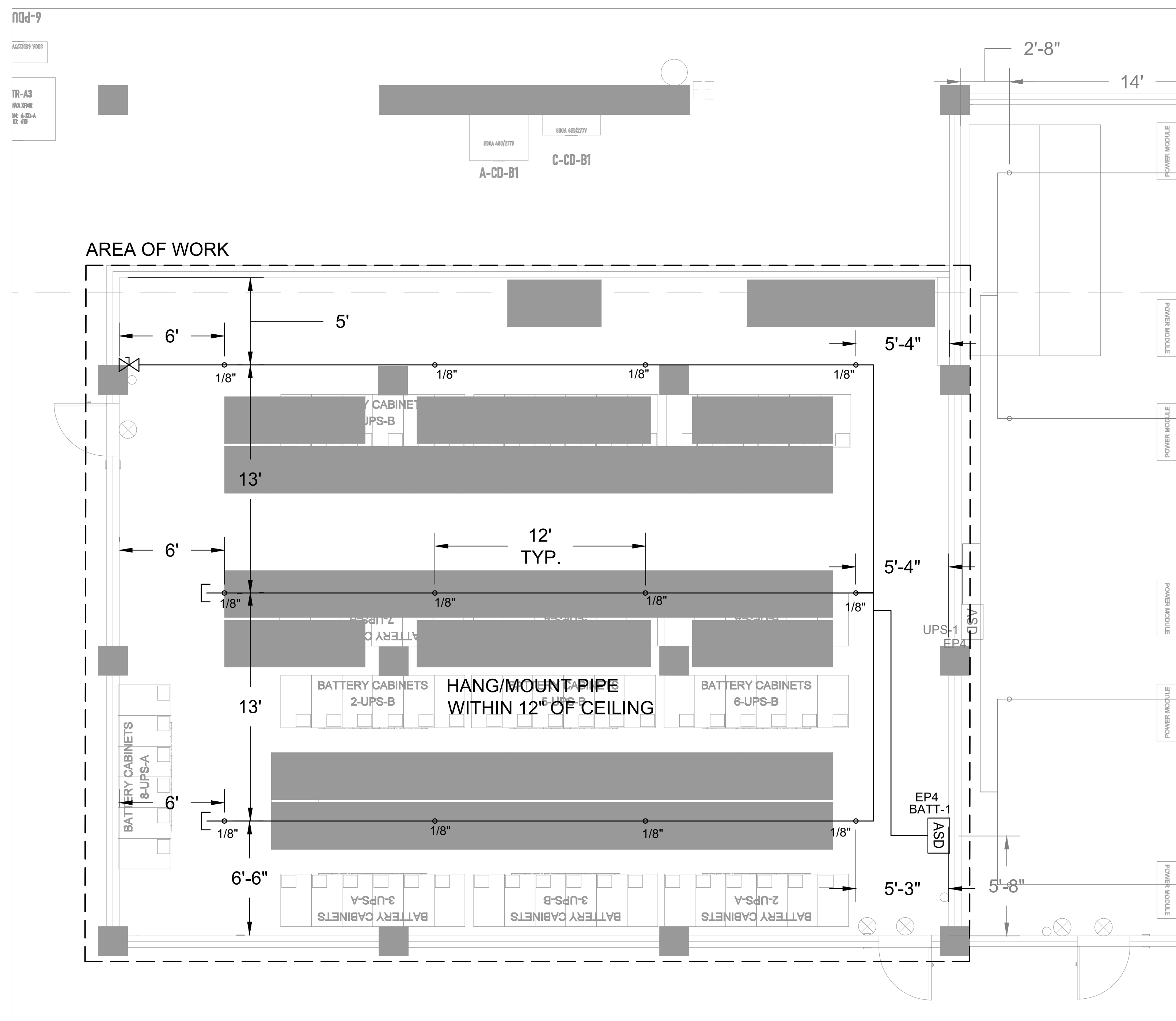


0 2' 4' 8'

SCALE: 1/4"=1'-0"

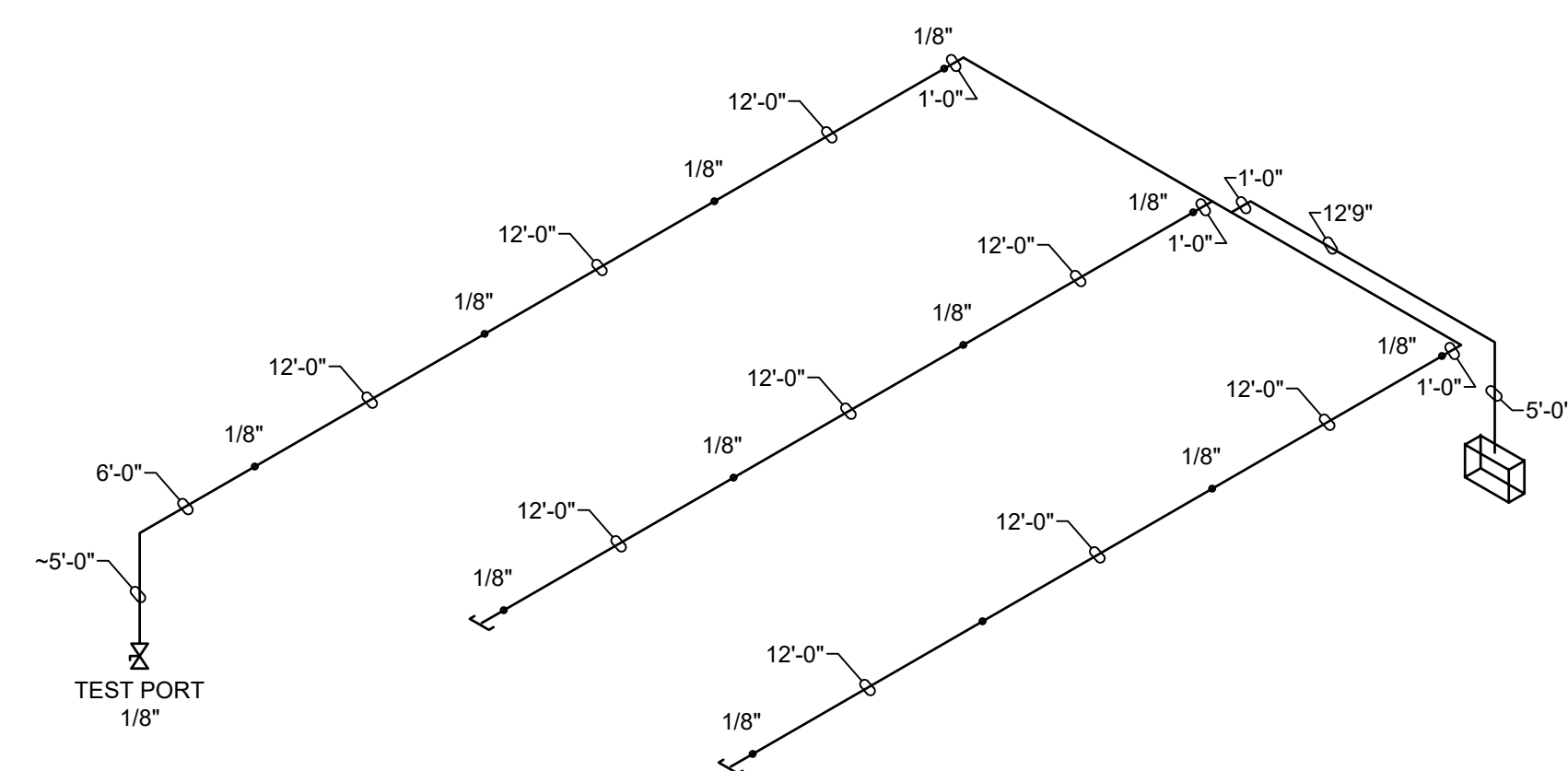


SCALE: NTS



0 2' 4' 8'

SCALE: 1/4"=1'-0"



SCALE: NTS

