

SCOPE OF WORK:

Installation of beam detectors in Upper Gym and Gym. The beam detectors will replace the recalled heat detectors in these locations. Install the new conventional beam detectors to existing open zone on existing Silent Knight 5208. Install a new power supply to power the new beam detectors.

Occupany: Group E.

EXCLUSIONS
ALL HIGH VOLTAGE WIRING AND CONNECTIONS. ANY CONDUIT, FIRE CAULKING, CORE DRILLING,EXTERIOR PATHWAY/RACEWAY. SYSTEM INTERCONNECTIONS NOT SPECIFICALLY ADDRESSED BY THIS DESIGN.

GENERAL NOTES:

01 - FIRE ALARM DESIGN TO BE PER NFPA 72 (2019) AND CITY OF PUYALLUP.

02 - SYSTEM TO BE INSTALLED AND TESTED IN ACCORDANCE WITH NFPA 72 (2019) AND AUTHORITY HAVING JURISDICTION.

03 - SYSTEM TO BE MONITORED BY APPROVED UL LISTED CENTRAL STATION (VERIFY PROPER SIGNALS).

04 - ALL MATERIAL AND EQUIPMENT TO BE NEW AND UL APPROVED.

05 - "FIRE ALARM PANEL" SIGN TO BE INSTALLED AT ENTRANCE OF ROOM CONTAINING THE FIRE ALARM PANEL AND BOOSTER PANEL(S) (BY OTHERS).

PANEL

06 - FIRE ALARM CONTROL PANEL (FACP) IS EXISTING AND LOCATED IN THE HALLWAY NEXT TO MECHANICAL ROOM 143. INSTALL NEW BOOSTER POWER SUPPLY (BPS) AT FACP TO POWER NEW BEAM DETECTORS. IF THE PANEL IS GOING TO BE MOUNTED ON AN EXTERIOR AND/OR DAMP WALL, THE PANEL SHALL BE SPACED OFF WITH FIRE RATED PLYWOOD OR APPROPRIATE STANDOFF (BY OTHERS). 3'-0" OF CLEARANCE SHALL BE MAINTAINED AROUND ALL FIRE ALARM PANELS.

07- THE FIRE ALARM PANEL SHALL UTILIZE AN EXISTING COMMUNICATIONS DEVICE.

DEVICES

08 - ALL PULL STATIONS SHALL BE MOUNTED AT 42" AFF TO THE CENTER OF THE BOX. DEVICE LOCATIONS TO BE VERIFIED UPON ARRIVAL ONSITE. THERE ARE NO NEW PULL STATIONS AS PART OF THIS INSTALLATION.

09 - ALL NOTIFICATION DEVICES TO BE SET TO TEMPORAL-3 SETTINGS AND MARKED WITH "FIRE" AND IN SYNC. ALL BATHROOMS TO HAVE A J-BOX INSTALLED FOR FUTURE LOCATION OF HEARING IMPAIRED NAC DEVICE AS REQUIRED BY NFPA 72: 907.5.2.3.3 . THERE ARE NO NEW NOTIFICATION DEVICES AS PART OF THIS INSTALLATION.

10- ALL WALL MOUNTED DEVICES SHALL BE MOUNTED A MINIMUM OF 80" AFF OR 8" BELOW CEILING (WHICHEVER IS LOWER), DEVICE LOCATIONS TO BE VERIFIED UPON ARRIVAL ONSITE.

11 - WHEN APPLICABLE, VERIFY EXISTENCE AND LOCATION OF WATER FLOW, HI/LO, TAMPER SWITCHES, PIV, AND/OR OS&Y VALVES. THESE DEVICES ARE TO BE MONITORED BY THE FACP. ALL DEVICES ARE EXISTING.

14- ANY EXTERIOR DEVICES TO HAVE APPLICABLE BLOCKING INSTALLED FOR FLUSH MOUNTING (BY OTHERS). ALL DEVICES ARE EXISTING.

15- ALL WEATHERPROOF DEVICES TO HAVE LIQUIDTIGHT ¾" CONNECTIONS PROVIDED. ALL DEVICES ARE EXISTING.

16 - ALL HVAC UNITS OVER 2000CFM TO HAVE DUCT DETECTORS INSTALLED AND INTERCONNECTED TO FACP AND SHUTDOWN. ANY ADDITIONAL DUCT DETECTORS NOT SHOWN ON PLANS WILL BE A CHANGE ORDER. HVAC UNITS OVER 10,000CFM SHALL HAVE TWO (2) DUCT DETECTORS INSTALLED. ONE ON THE SUPPLY AND ONE ON THE RETURN SIDE AND A CONTROL RELAY FOR HVAC SHUTDOWN UPON DUCT DETECTOR OR GLOBAL ALARM. THERE ARE NO HVAC UNITS PRESENT.

PUYALLUP HIGH SCHOOL
GYM/POOL BUILDING
105 7TH STREET SW
PUYALLUP, WA 98371
FIRE ALARM SYSTEM

| SYMBOL | MODEL NUMBER | DESCRIPTION | MANUFACTURE | BACK BOX | QTY |
|-------------------------------|--------------|--|---------------|---------------------|-----|
| <div>EX</div> <div>FACP</div> | 5208 | FIRE ALARM CONTROL PANEL –EXISTING | SILENT KNIGHT | EXISTING | 1 |
| <div>BPS</div> | PSN106 | BOOSTER POWER SUPPLY | POTTER | RED HAWK TO PROVIDE | 1 |
| <div>BT</div> | OSI–R–SS | BEAM SMOKE DETECTOR IMAGER/TRANSMITTER | SYSTEM SENSOR | – | 8 |
| <div>BR</div> | OSI–R–SS | BEAM SMOKE DETECTOR REFLECTOR | SYSTEM SENSOR | – | 8 |

WIRING

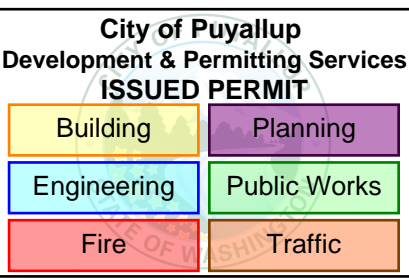
17 - ALL AUDIBLE/VISUAL DEVICES AND DETECTION CIRCUITS TO BE RISER OR PLENUM WIRE WHERE REQUIRED BY NEC. ALL AUDIBLE/VISUAL DEVICES CIRCUITS AND INITIATING ZONES TO HAVE AN END OF LINE RESISTOR. FOR CIRCUIT INTEGRITY SUPERVISION PER NFPA

18 - ALL FIRE ALARM WIRES TO BE IDENTIFIED AND APPROPRIATELY MARKED WIRING BELOW 7'-0" TO BE INSTALLED IN CONDUIT (EMT ½" TRADE TYP) OR ADEQUATELY PROTECTED.

19 - PER NEC, NO AC VOLTAGE WIRING OF ANY KIND CAN BE RUN IN SAME CONDUIT OR RISER AS LOW VOLTAGE FIRE ALARM SYSTEM WIRE.

20- ALL NEW FA BOXES TO BE PAINTED RED ND LABELED "FA J-BOX, LOW VOLTAGE."

21 - OTHER TRADES: ELECTRICAL, HVAC, ACCESS CONTROL, ETC ARE RESPONSIBLE FOR PROVIDING POWER FOR ANY ASSOCIATED EQUIPMENT SHUTDOWNS AND FOR WIRING CONNECTIONS TO THEIR RESPECTIVE EQUIPMENT. FA SYSTEM/CONTRACTOR TO PROVIDE DRY RELAY CONTACT POINT ONLY.



City of Puyallup
Fire
REVIEWED
FOR
COMPLIANCE

DDrake
11/19/2025
9:12:08 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.

COORDINATION ITEMS

- ELECTRICAL CONTRACTOR TO PROVIDE 120VAC 20AM MAXIMUM DEDICATED CIRCUIT FOR FIRE ALARM PANEL AND EQUIPMENT. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL APPROPRIATE SURGE SUPPRESSION AND BREAKER LOCK FOR EQUIPMENT AS PER CODE.
- ELECTRICAL CONTRACTOR SHALL INSTALL A RECEPTACLE ADJACENT TO THE FACP (COORDINATE LOCATION) FOR PLUG IN CELLULAR TRANSFORMER TO BE POWERED FROM. RED HAWK WILL PROVIDE ENCLOSURE TO BE INSTALLED. ELECTRICAL CONTRACTOR TO MAKE ALL 120V CONNECTIONS.
- RED HAWK FIRE PROTECTION TO PULL ALL FIRE ALARM SYSTEM LOW VOLTAGE CABLING, TRIM FIRE ALARM DEVICES AND PANEL, PROGRAM AND TEST FIRE ALARM SYSTEM DEVICES. SEPARATE LOW VOLTAGE ELECTRICAL PERMIT TO BE PULLED BY RED HAWK FIRE PROTECTION. WORK WILL BE COMPLETED OVER SEVERAL SCHEDULED VISITS. COORDINATE ROUGH-IN, COVER AND FINAL INSPECTIONS WITH RED HAWK FIRE PROTECTION TO AVOID RESCHEDULING AND/OR RE-INSPECTION COSTS ASSOCIATED WITH CHANGED OR DELAYED TIMELINES.
- REQUIRE ELECTRICAL, SPRINKLER, AND HVAC TO BE COMPLETED PRIOR TO PROGRAMMING AND PRE-TESTING. REQUIRES BUILDING FINISHES (PAINT, MUD, FLOORING, ETC.) TO BE COMPLETED PRIOR TO FINAL ACCEPTANCE TESTING WITH AHJ.

FIRE ALARM SYSTEMS SEQUENCE OF OPERATIONS

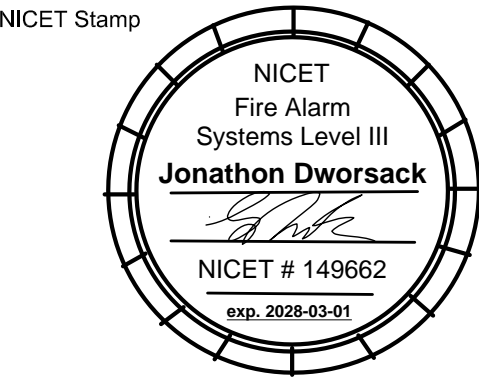
| SYSTEM INPUT | | | | | | | | | |
|---------------|---------------------------------------|---------------|-------------|------------------|----------------------|--|----------------------|--|--|
| SYSTEM OUTPUT | X = REQUIRED RESPONSE O = OVERRIDE | CIRCUIT FAULT | LOW BATTERY | AC POWER FAILURE | GROUND CIRCUIT FAULT | | SMOKE/HEAT DETECTORS | | |
| | ALARM @ FCP | | | | | | X | | |
| | TROUBLE @ FCP | X | X | X | X | | | | |
| | SUPV. @ FCP | | | | | | | | |
| | ACTIVATE FIRE NOTIFICATION DEVICE | | | | | | X | | |
| | TRANSMIT ALARM TO MONITORING | | | | | | X | | |
| | TRANSMIT TROUBLE TO MONITORING | X | X | X | X | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

SET STROBE CANDELA OUTPUT AS SHOWN ON PLANS.

RED HAWK
FIRE PROTECTION, LLC

Ever Vigilant

801 VALLEY AVE NW, SUITE D
PUYALLUP, WA 98371
PHONE: (253) 840-9900 FAX (800) 591-4382
WA CL# REDHANF901GP



Approvals Required

OWNER / ARCHITECT

Revisions

Contract With

PUYALLUP SCHOOL DISTRICT

323 12TH STREET NW
PUYALLUP WA 98371
EMAIL: KLINKLE@PUYALLUPSD.ORG
PHONE: 253-435-6660

Contract Name

PUYALLUP HIGH SCHOOL GYM/POOL

105 7TH STREET SW
PUYALLUP WA 98371

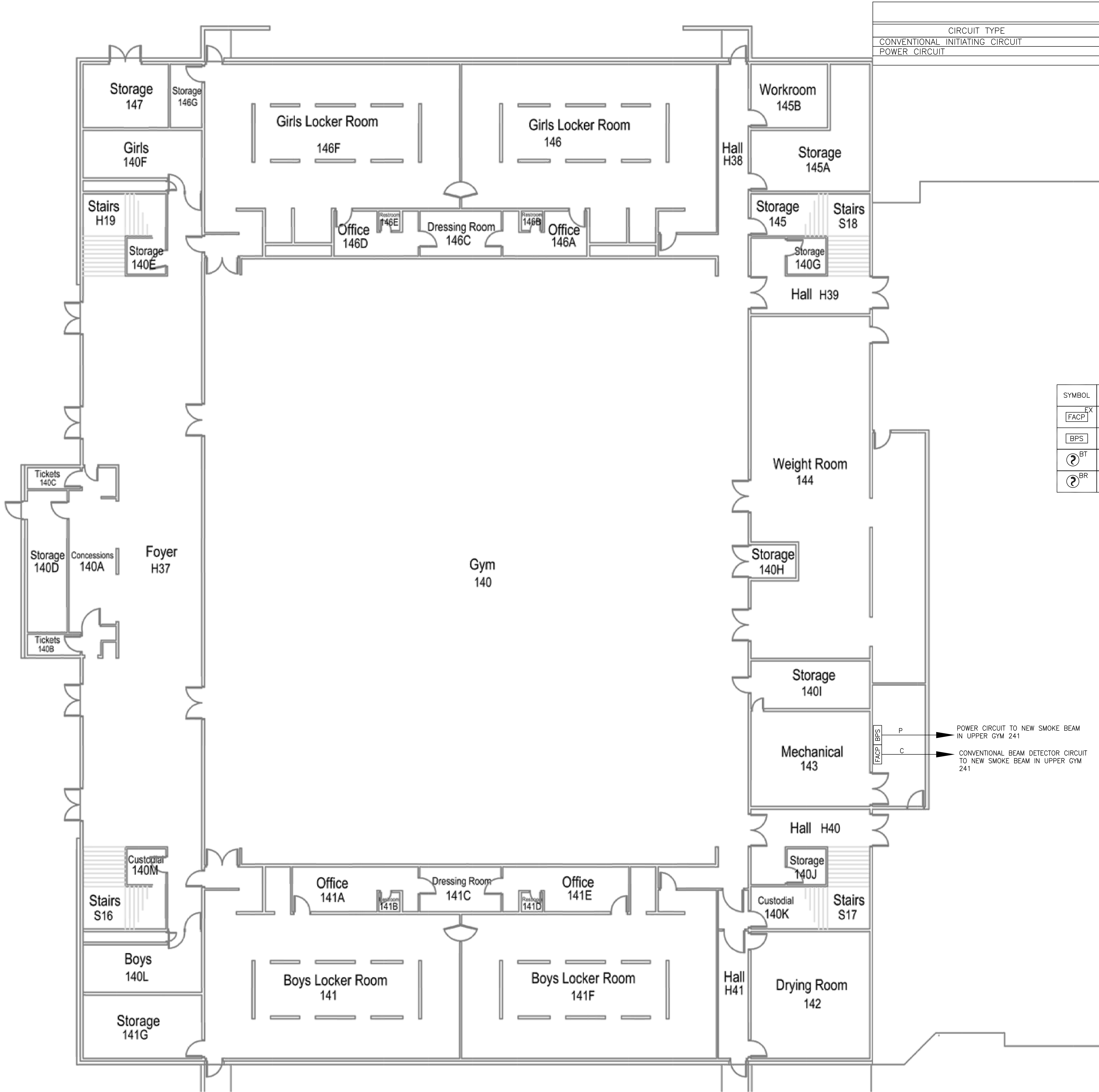
Drawing Title

FIRE ALARM
DRAWING - COVER
SHEET

Key Plan

Date: NOVEMBER 11, 2025
Job Number: 10772
Designer: LINDSEY LESLIE
Building Permit: -

Drawing Number



| CABLE/CONDUCTOR LIST | | | | | |
|---------------------------------|------------|-----|-------|-------|-------|
| CIRCUIT TYPE | CABLE TYPE | NO. | GAUGE | COLOR | NOTES |
| CONVENTIONAL INITIATING CIRCUIT | 16/2 FPLP | C | 16/2 | RED | |
| POWER CIRCUIT | 16/2 FPLP | P | 16/2 | RED | |

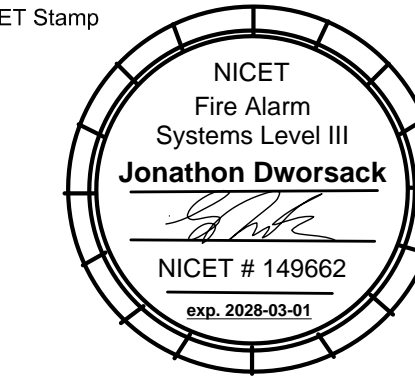
FLAG NOTES:
1 MOUNT SMOKE BEAM IMAGER TO WALL. SHOWN ON DRAWINGS OFFSET OF WALL FOR EASE IN SEEING THEM ON THE PRINT. ALL SMOKE BEAMS SHOULD BE WIRED TO THE EXISTING SILENT KNIGHT 5208 - THEY SHALL BE CONNECTED TO THE OPEN AVAILABLE ZONE.

2 MOUNT SMOKE BEAM REFLECTOR TO WALL. SHOWN ON DRAWINGS OFFSET OF WALL FOR EASE IN SEEING THEM ON THE PRINT.

3 REMOVE HEAT DETECTORS THAT ARE RECALLED FROM GYM AND UPPER GYMS

| SYMBOL | MODEL NUMBER | DESCRIPTION | MANUFACTURE | BACK BOX | QTY |
|------------|--------------|--|---------------|---------------------|-----|
| EX FACP | 5208 | FIRE ALARM CONTROL PANEL -EXISTING | SILENT KNIGHT | EXISTING | 1 |
| BPS | PSN106 | BOOSTER POWER SUPPLY | POTTER | RED HAWK TO PROVIDE | 1 |
| BT | OSI-R-SS | BEAM SMOKE DETECTOR IMAGER/TRANSMITTER | SYSTEM SENSOR | - | 8 |
| BR | OSI-R-SS | BEAM SMOKE DETECTOR REFLECTOR | SYSTEM SENSOR | - | 8 |

P POWER CIRCUIT TO NEW SMOKE BEAM IN UPPER GYM 241
C CONVENTIONAL BEAM DETECTOR CIRCUIT TO NEW SMOKE BEAM IN UPPER GYM 241



Approvals Required
OWNER / ARCHITECT
Revisions

Contract With
PUYALLUP SCHOOL DISTRICT

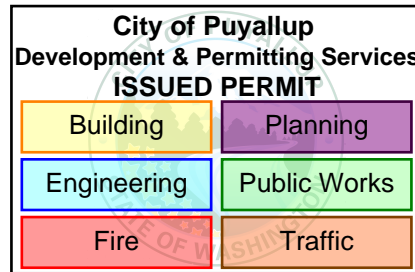
323 12TH STREET NW
PUYALLUP WA 98371
EMAIL: KLINKLE@PUYALLUPSD.ORG
PHONE: 253-435-6660

Contract Name
PUYALLUP HIGH SCHOOL GYM/POOL

105 7TH STREET SW
PUYALLUP WA 98371

Drawing Title
FIRE ALARM DRAWING - PARTIAL FIRST FLOOR

Key Plan



Date: NOVEMBER 11, 2025
Job Number: 10772
Designer: LINDSEY LESLIE
Building Permit: -

Drawing Number

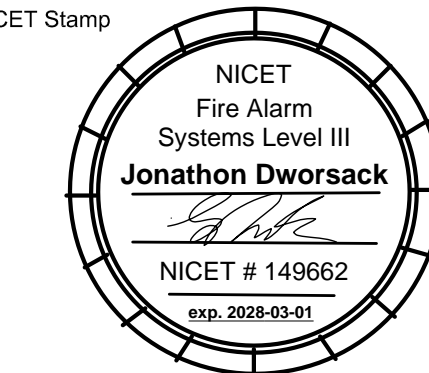
Puyallup High School 30-03-200 Base Floor Plan

CABLE/CONDUCTOR LIST

| CIRCUIT TYPE | CABLE TYPE | NO. | GAUGE | COLOR | NOTES |
|---------------------------------|------------|-----|-------|-------|-------|
| CONVENTIONAL INITIATING CIRCUIT | 16/2 FPLP | C | 16/2 | RED | |
| POWER CIRCUIT | 16/2 FPLP | P | 16/2 | RED | |

FLAG NOTES:
1 MOUNT SMOKE BEAM IMAGER TO WALL. SHOWN ON DRAWINGS OFFSET OF WALL FOR EASE IN SEEING THEM ON THE PRINT. ALL SMOKE BEAMS SHOULD BE WIRED TO THE EXISTING SILENT KNIGHT 5208 - THEY SHALL BE CONNECTED TO THE OPEN AVAILABLE ZONE.
2 MOUNT SMOKE BEAM REFLECTOR TO WALL. SHOWN ON DRAWINGS OFFSET OF WALL FOR EASE IN SEEING THEM ON THE PRINT.
3 REMOVE HEAT DETECTORS THAT ARE RECALLED FROM GYM AND UPPER GYMS

| SYMBOL | MODEL NUMBER | DESCRIPTION | MANUFACTURE | BACK BOX | QTY |
|--------------|--------------|--|---------------|---------------------|-----|
| EX [FACP] | 5208 | FIRE ALARM CONTROL PANEL -EXISTING | SILENT KNIGHT | EXISTING | 1 |
| [BPS] | PSN106 | BOOSTER POWER SUPPLY | POTTER | RED HAWK TO PROVIDE | 1 |
| BT [?] | OSI-R-SS | BEAM SMOKE DETECTOR IMAGER/TRANSMITTER | SYSTEM SENSOR | - | 8 |
| BR [?] | OSI-R-SS | BEAM SMOKE DETECTOR REFLECTOR | SYSTEM SENSOR | - | 8 |



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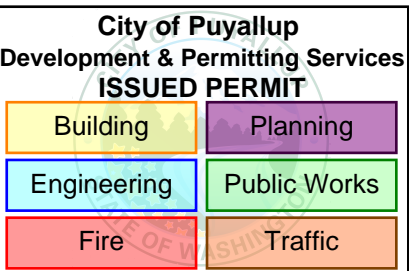
PUYALLUP HIGH SCHOOL GYM/POOL

105 7TH STREET SW
PUYALLUP WA 98371

Drawing Title

FIRE ALARM
DRAWING - 2ND FLOOR

Key Plan



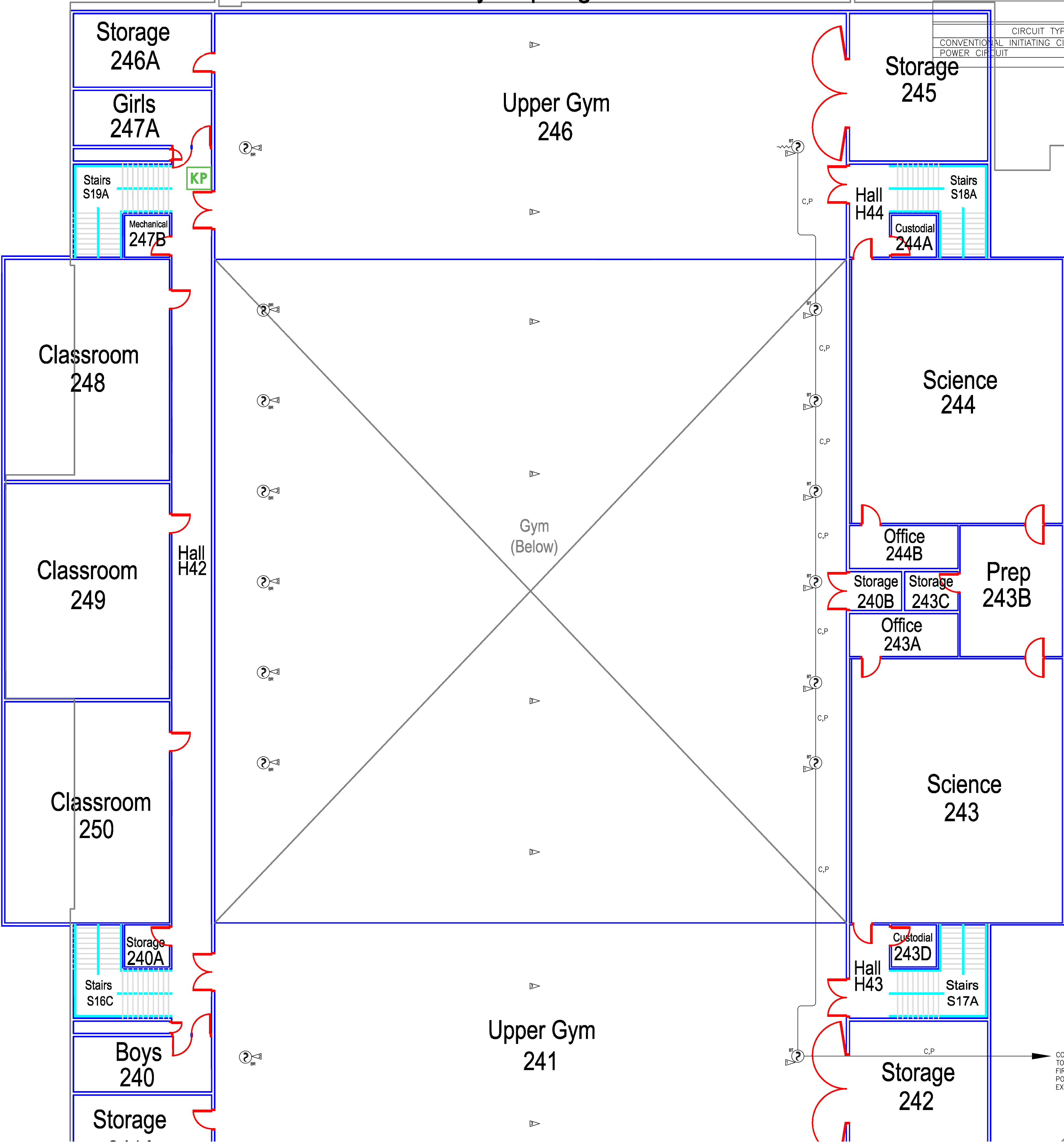
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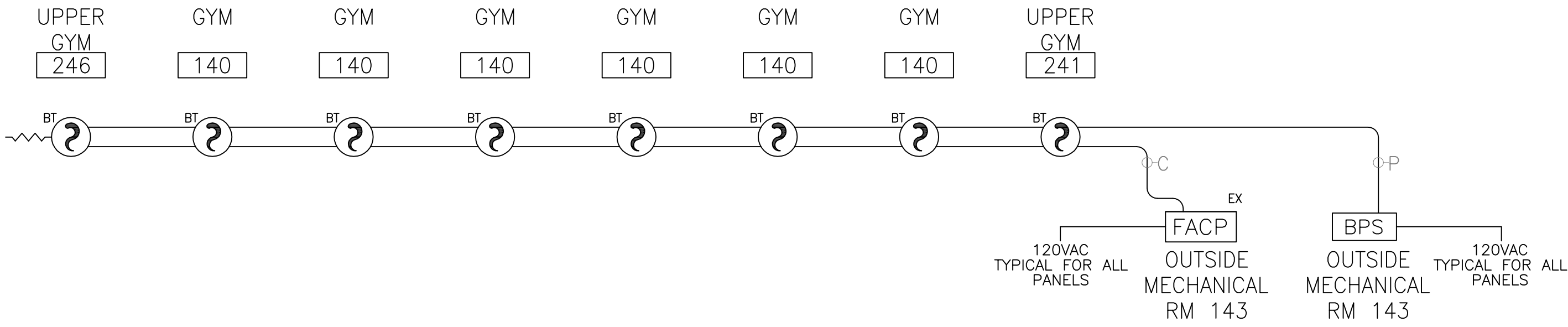
Designer: LINDSEY LESLIE

Building Permit: -

Drawing Number

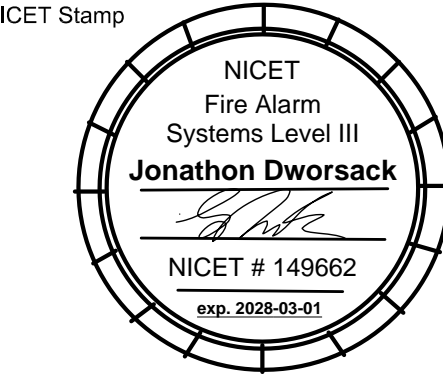


CONVENTIONAL BEAM DETECTOR CIRCUIT TO OPEN ZONE ON EXISTING 5208 FIRE ALARM PANEL POWER CIRCUIT TO NEW BPS PANEL AT EXISTING FACP



F1 FIRE ALARM RISER DIAGRAM
SCALE: NONE

| CABLE/CONDUCTOR LIST | | | | | |
|---------------------------------|------------|-----|-------|-------|-------|
| CIRCUIT TYPE | CABLE TYPE | NO. | GAUGE | COLOR | NOTES |
| CONVENTIONAL INITIATING CIRCUIT | 16/2 FPLP | C | 16/2 | RED | |
| POWER CIRCUIT | 16/2 FPLP | P | 16/2 | RED | |
| | | | | | |



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Contract Name

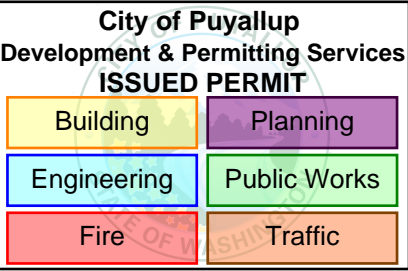
PUYALLUP HIGH SCHOOL GYM/POOL

105 7TH STREET SW
PUYALLUP WA 98371

Drawing Title

FIRE ALARM RISER DIAGRAM

Key Plan



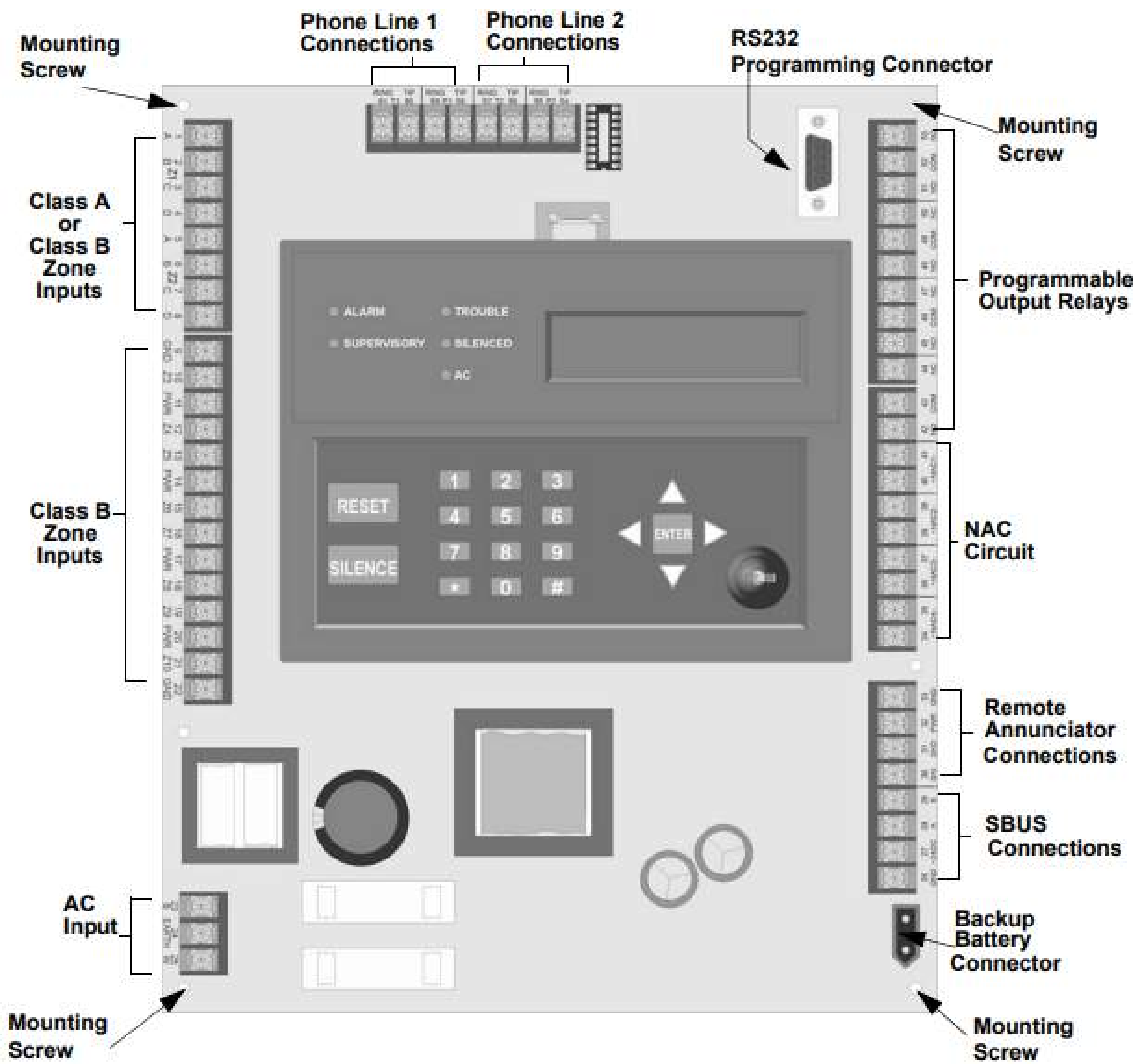
Date: NOVEMBER 11, 2025

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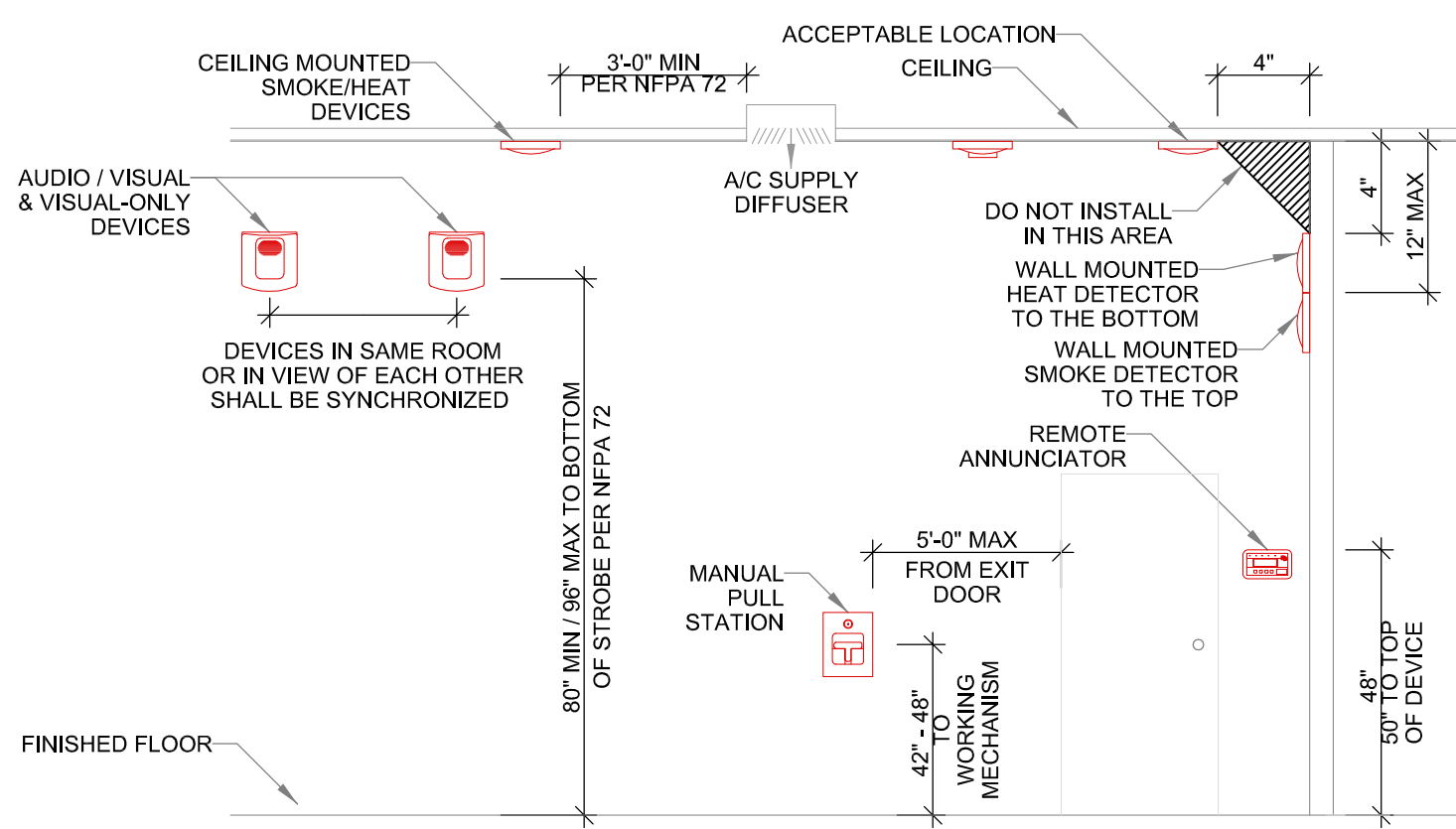
Designer: LINDSEY LESLIE

Building Permit: -

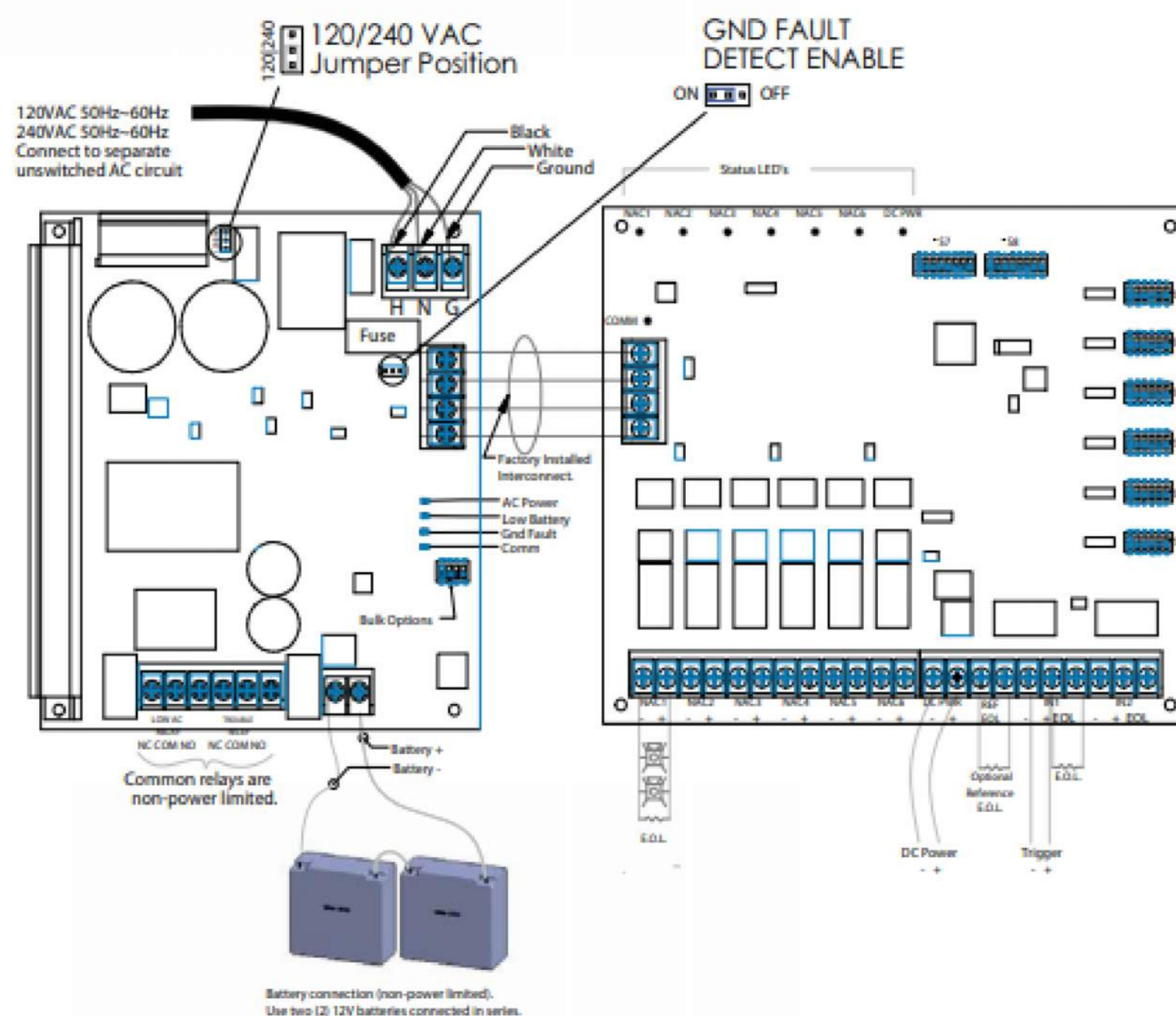
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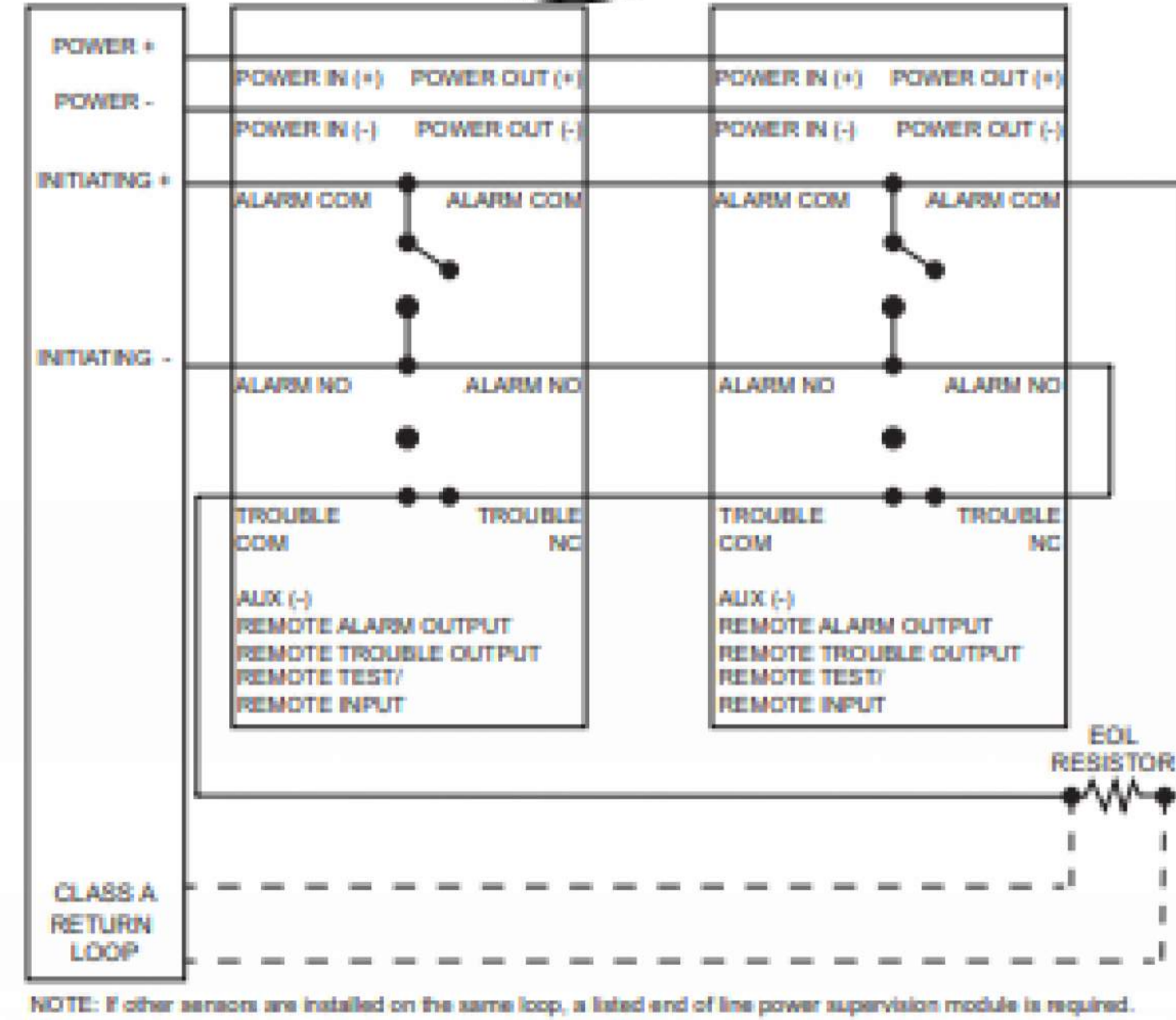
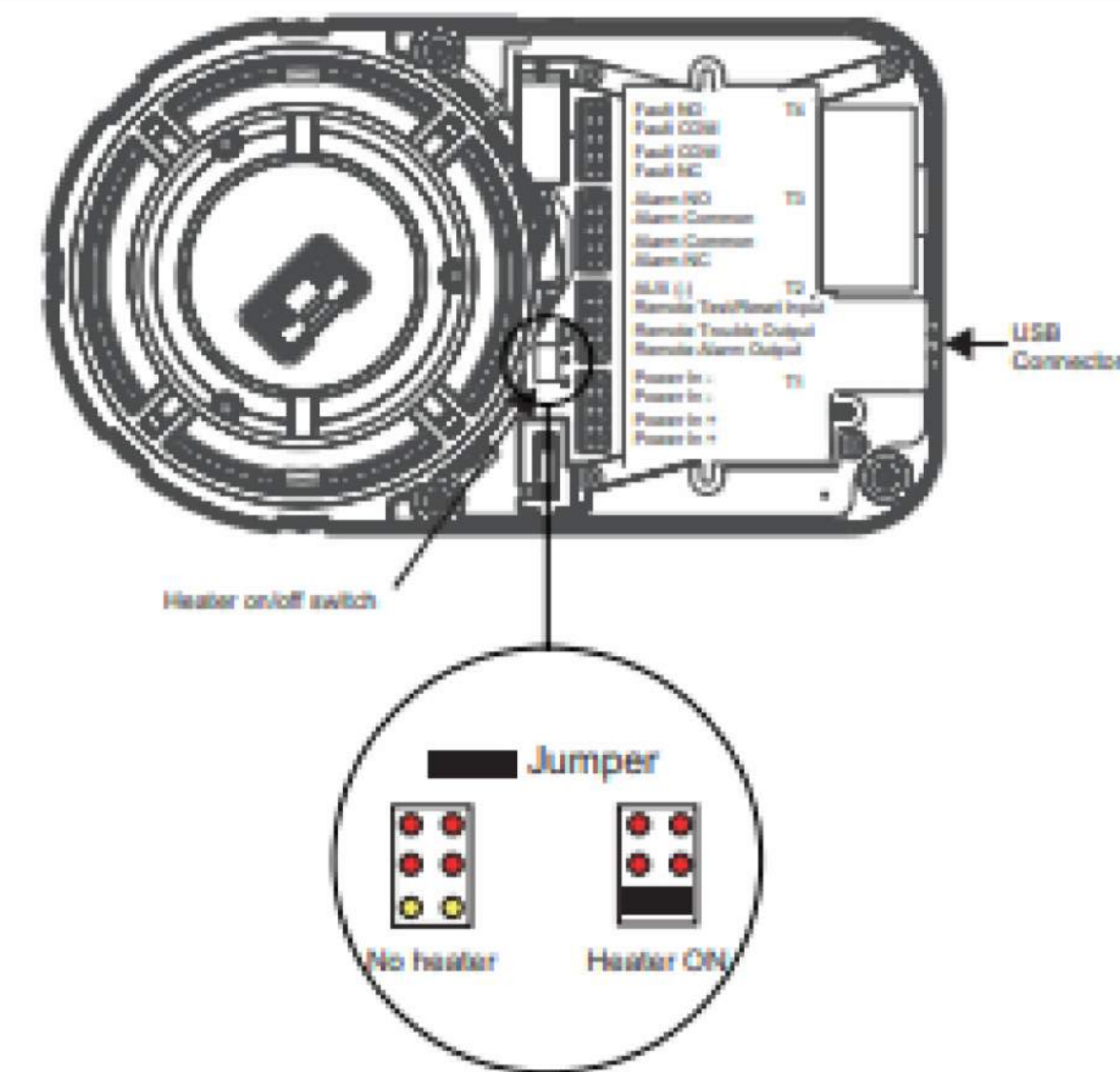
F1 SK5208 FIRE ALARM PANEL WIRING DETAIL (EXISTING)
SCALE: NONE



F3 DEVICE MOUNTING GUIDE



F4 BPS WIRING DIAGRAM
SCALE: NONE



F2 BEAM DETECTOR WIRING DIAGRAM
SCALE: NONE



PSN-106
Battery & Voltage Drop
Calculations

Project Name: PHS GYM POOL
Standby Hours: 24
Alarm Mins: 5
Efficiency Factor: 20%
Installed By: RED HAWK FIRE PROTECTION
Designed By: RED HAWK FIRE PROTECTION
Date: 11/11/2025
NAC Source Voltage: 20.4

Model #: PSN-106
Max Panel Current (amps): 10
Panel ID:
Location: AT FACP
User assumes all responsibility to ensure the quantities and current draw values in this worksheet are accurate prior to submittal.

| Qty | Panel Part # | Description | Standby (amps) | | Alarm (amps) | |
|-----|--------------|--------------------|----------------|-------|--------------|-------|
| | | | Each | Total | Each | Total |
| 1 | PSN-106 | NAC Power Expander | 0.075 | 0.075 | 0.075 | 0.075 |
| | | | Panel Standby: | 0.075 | Panel Alarm: | 0.075 |

| NAC Circuits (See NAC Configuration below) | | | Standby (amps) | | Alarm (amps) | |
|--|-----------|------------------|----------------|--------------|--------------|---------|
| NAC Ckt | Use | Description | Class | Total | Total | Total |
| | | | | | | |
| 1 | Aux Power | SMOKE BEAM POWER | Class B | 0.00000 | | 0.00000 |
| 2 | | | Class B | 0.00000 | | 0.00000 |
| 3 | | | Class B | 0.00000 | | 0.00000 |
| 4 | | | Class B | 0.00000 | | 0.00000 |
| 5 | | | Class B | 0.00000 | | 0.00000 |
| 6 | | | Class B | 0.00000 | | 0.00000 |
| AUX | Aux Power | SMOKE BEAM POWER | | 0.08800 | | 0.12000 |
| | | | | NAC Standby: | NAC Alarm: | 0.12000 |

| Battery Calculation Summary | | | Standby (amps) | | Alarm (amps) | |
|-----------------------------|--|--|---|----------|--------------|---------|
| | | | Panel Current: | 0.07500 | | 0.07500 |
| | | | NAC Circuit Current: | 0.08800 | | 0.12000 |
| | | | Total Standby: | 0.163000 | Total Alarm: | 0.19500 |
| | | | Standby Hours: | 24 | Alarm Mins: | 5 |
| | | | AH Required: | 3.92 | AH Required: | 0.02 |
| | | | Total Combined Standby & Alarm AmpHours Required: | | | 3.94 |
| | | | Efficiency Factor: | | | 20% |
| | | | Required Battery AmpHours: | | | 4.73 |
| | | | Battery AmpHours Provided: | | | 8 |

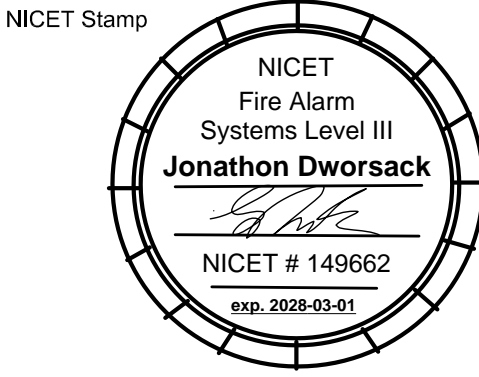
AUX Power
MAX Circuit Current (amps): 3
Source Voltage Used (VDC): 20.4
Usage: Aux Power
Description: SMOKE BEAM POWER

| Wire Type | Ohms/1000ft | Length 1-Way | Actual Ohms | Max Load (amps) | Volts @ Last Device | Min Volts Req'd |
|--------------|-------------|--------------|-------------|-----------------|---------------------|-----------------|
| #16 Stranded | 5.29 | | 0.000 | 0.120 | 20.40 | 16 |

| Qty | Circuit Devices | | Standby (amps) | | Alarm (amps) | |
|-----|-----------------|-------------|----------------|----------|--------------|----------|
| | Lookup Type | Description | Each | Total | Each | Total |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| 8 | OSI-R-SS | SMOKE BEAM | 0.011000 | 0.088000 | 0.015000 | 0.120000 |
| | | | | | | |
| | | | | | | |
| | | | Total Standby: | 0.08800 | Total Alarm: | 0.12000 |

F1 SITE VIEW
SCALE: NONE

F2 BPS BATTERY CALCULATIONS
SCALE: NONE



Approvals Required

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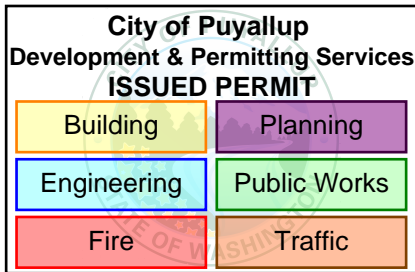
PUYALLUP HIGH SCHOOL GYM/POOL

105 7TH STREET SW
PUYALLUP WA 98371

Drawing Title

DETAILS

Key Plan



Date: NOVEMBER 11, 2025
Job Number: 10772
Designer: LINDSEY LESLIE
Building Permit: -

Drawing Number