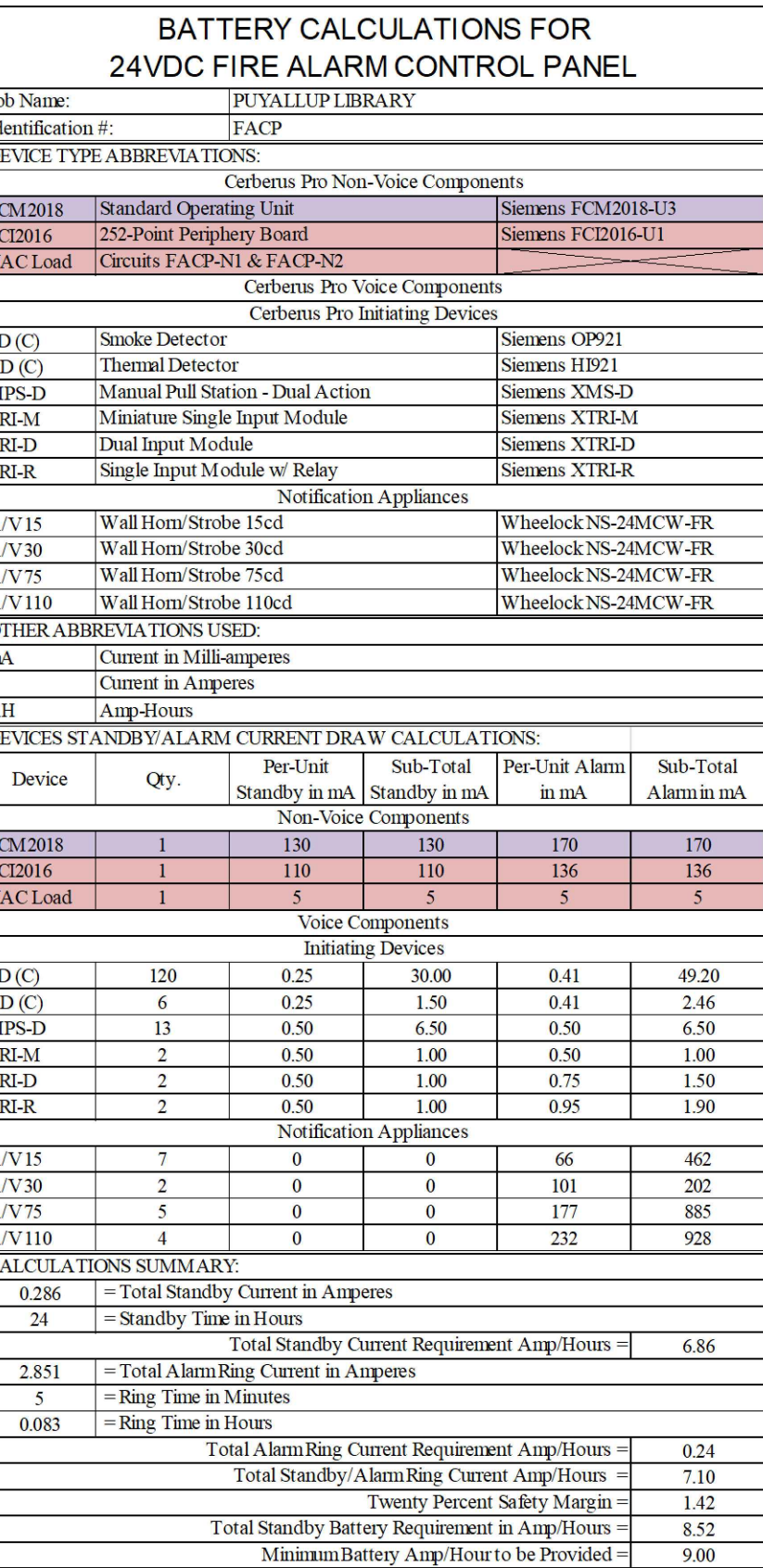
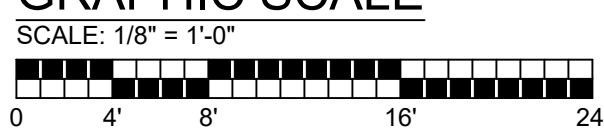


- THE LIBRARY IS DOING A SMALL CONSTRUCTION PROJECT. ADDING/ADJUSTING DETECTION AND NOTIFICATION DEVICES IN THE AREAS OF CONSTRUCTION TO MEET CODE.
- MOVING 2 HORN/STROBES
- INSTALLING 1 NEW HORN/STROBE
- UPDATING CANDELA SETTING ON 1 EXISTING HORN/STROBE
- INSTALLING 1 NEW SMOKE DETECTOR
- CALCS AND VOLTAGE DROP TO BE VERIFIED IN THE FIELD.
- DEVICES SHOWN OUTSIDE AREA OF WORK ARE APPROXIMATE AND FROM AN OLD "NOT-TO-SCALE" DRAWING



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

GRAPHIC SCALE



| <div style="display: flex; justify-content: space-between; align-items: center;"> FIRE ALARM LEGEND </div> | | | | | | | |
|--|-------------------------------------|--------------|-------------|----------|--------|---------------|----------|
| SYMBOL | EQUIPMENT | MANUFACTURER | PART NUMBER | BACKBOX | RING | MT. HEIGHT | NEW QTY. |
| | FIRE ALARM CONTROL PANEL (EXISTING) | SIEMENS | FC922 | EXISTING | N/A | EXISTING | -- |
| | SMOKE DETECTOR | SIEMENS | OP921/DB-11 | 4/SQ. | 1-GANG | CEILING | 1 |
| | HORN/STROBE | WHEELLOCK | NS-24MCW-FR | 4/SQ. | 1-GANG | 80" TO BOTTOM | 1 |

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.

POINT TO BE ANNUNCIATED AS:

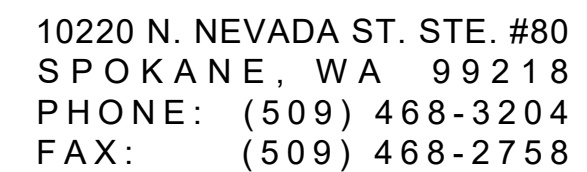
| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SMOKE DETECTOR | X | | X | | | X | X | | |
| HEAT DETECTOR | X | | X | | | X | X | | |
| ELEVATOR ROOM SMOKE DETECTOR | X | | X | X | X | X | X | | |
| ELEVATOR TOP OF SHAFT DETECTOR | X | | X | X | X | X | X | | |
| ELEVATOR LOBBY SMOKE DETECTORS (SEE NOTE 2) | X | | X | X | | X | X | | |
| MANUAL PULL STATION | X | | X | | | X | X | | |
| WET/DRY SPRINKLER SYSTEM WATER FLOW | X | | X | | | X | X | | |
| TAMPER/PRESSURE SWITCHES | | X | | | | | | | X |
| PIV/BACKFLOW PREVENTION TAMPER | | X | | | | | | | X |
| RTU DUCT SMOKE DETECTORS (SEE NOTE 4) | | X | | | | X | | X | |
| TROUBLE (SEE NOTE 1) | | | X | | | | | | X |

NOTE 1: TROUBLE CONDITIONS INCL: WIRING SHORT, OPEN CIRCUIT, GROUND FAULT, LOW BATTERY, BATTERY FAILURE, AC LOSS, MISSING DEVICE, EQUIPMENT MALFUNCTION, EQUIPMENT FAILURE.

NOTE 2: PROVIDE ELEVATOR PHASE 1 DESIGNATED LEVEL AND ALTERNATE LEVEL RECALL, AND SHUNT TRIP FUNCTION IN COMPLIANCE WITH ASME A17.1 ELEVATOR CODE.

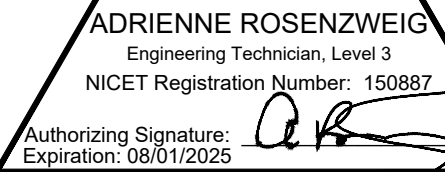
NOTE 4: COORDINATE WITH MECHANICAL CONTRACTOR TO DETERMINE LOCATIONS AND REQUIREMENTS.

| FIRE ALARM CONTROL PANEL | | | | | | |
|---|----------------------------|-------------------------|----------------------------|--|--|--------------------------|
| VOLTAGE DROP WORKSHEET FOR | | | | | | |
| NOTIFICATION APPLIANCE CIRCUITS | | | | | | |
| Job Name: PUYALLUP LIBRARY | | | | | | |
| Formula: R=V/I | * =Color - R-Red, W-White | | | | | |
| Notification Appliances | | | | | | Qty. |
| Device: | Wall Horn/Strobe 15cd | W | Wheelock NS-24MCW-FR | Current Each: | 0.066 | A 7 |
| Device: | Wall Horn/Strobe 30cd | W | Wheelock NS-24MCW-FR | Current Each: | 0.101 | A 2 |
| Device: | Wall Horn/Strobe 75cd | W | Wheelock NS-24MCW-FR | Current Each: | 0.177 | A 4 |
| Device: | Wall Horn/Strobe 110cd | W | Wheelock NS-24MCW-FR | Current Each: | 0.232 | A 4 |
| Wire: | 12awg Solid (NAC Circuits) | | 1.93ohms per 1000' per NEC | | | |
| Wire: | 14awg Solid (NAC Circuits) | | 3.07ohms per 1000' per NEC | | | |
| Wire: | 16awg (ADA Circuits) | | 4.89ohms per 1000' per NEC | | | |
| Resistance per Notification Circuit | | | | | | |
| Circuit # | Length*2 | Wire Resistance | Nominal Voltage | Current on Circuit | Resistance from Device | Total Resist. on Circuit |
| FACP-N3 | 920 | 2.824 | 20.40 | 1.284 | 0.063 | 2.887 |
| FACP-N4 | 1128 | 3.463 | 20.40 | 1.193 | 0.058 | 3.521 |
| Vdrop=1*R | | | | Assumptions: Voltage is 24VDC | | |
| | | | | Entire Load Is Applied at End of Circuit | | |
| Voltage Drop per Notification Appliance Circuit | | | | | | |
| Circuit # | Current on Circuit | Total Resist on Circuit | Voltage Loss | Final Voltage | Circuit Within Voltage Operating Range 16-33 VDC | Wire Gauge |
| FACP-N3 | 1.284 | 2.887 | 3.71 | 16.69 | Yes | 14awg |
| FACP-N4 | 1.193 | 3.521 | 4.20 | 16.20 | Yes | 14awg |



ENGINEERING SOLUTIONS FOR:
F I R E A L A R M
N U R S E C A L L
S E C U R I T Y * C C T V
S O U N D S Y S T E M S
A C C E S S C O N T R O L

PUYALLUP LIBRARY
FIRE ALARM SYSTEM
324 S MERIDIAN
PUYALLUP, WA 98371

[illegible]

Project No.
39912733

Checked By:
WFS

Designed By:
AAR

Date: 04/08/2025

Scale:
 $1/8" = 1'-0"$

2ND FLOOR DEVICE LAYOUT - FIRE ALARM PLAN

Sheet No.

FA2.1

