




CENTERIS DATA CENTER

FIRE ALARM SYSTEM ADDITION

1023 39TH AVE SE, PUYALLUP, WA 98374

| SYMBOL LEGEND | | | | | |
|---|-----|--|---|---------------|-------------|
| SYMBOL | QTY | DESCRIPTION | MOUNTING REQUIREMENTS | SUPPLIER | PART NUMBER |
|  | - | EXISTING CEILING HORN w/ STROBE: WHITE | EXISTING | SYSTEM SENSOR | PC2WL |
|  | 4 | WALL HORN w/ STROBE: WHITE SEE DEVICE DESIGNATION FOR STROBE cd SETTING | 4 SQUARE DEEP, MOUNTED AT 80" TO BOTTOM | SYSTEM SENSOR | P2WLED |
|  | 2 | WALL STROBE: WHITE SEE DEVICE DESIGNATION FOR STROBE cd SETTING | 4 SQUARE DEEP, MOUNTED AT 80" TO BOTTOM | SYSTEM SENSOR | SWLED |
| NOTES: 1- DEVICE SUBSCRIPT: NW=NEW RR=REMOVE & RELOCATE EX=EXISTING TO REMAIN AC=ABOVE CEILING RB=RELAY BASE WP=WATERPROOF WG=WIRE GUARD ISO=ISO BASE 2- CABLING SHOWN IS FOR CIRCUIT REFERENCE ONLY AND DOES NOT INTENDED TO INDICATE THE EXACT PATHWAY. 3- DEVICES SHOWN ON DRAWINGS IN GRAY SCALE ARE EXISTING DEVICES AND MAY NOT BE INCLUDED IN THIS SYMBOL LEGEND UNLESS NOTED. 4- HORN/STROBE (IF APPLICABLE) DECIBEL SETTING TO BE DETERMINED ON SITE, UNLESS OTHERWISE NOTED ON THE DRAWINGS, CAN BE FIELD ADJUSTED AT REQUEST OF AHJ. 5- ALL DEVICES WITH A WP SUBSCRIPT WILL REQUIRE THE USE OF A OUTDOOR OR WP BACKBOX. 6- ALL SPEAKERS (IF APPLICABLE) TO BE TAPPED AT 1/4 WATT UNLESS OTHERWISE SPECIFIED ON THE FAS PLANS. | | | | | |

| WIRE LEGEND | | | | | | | |
|---|-------------------------------|------|-----|--------|-------|--------------|-----------------------|
| SYMBOL | DESCRIPTION | THHN | FPL | FPLP | WET | COLOR CODING | CIRCUIT TYPE |
| C | 1 PAIR 14AWG FIRE RATED CABLE | YES | 972 | 60993B | AQ226 | | AUDIBLE (NAC) CIRCUIT |
| NOTES: ** DIFFERENT COLORS/STRIPES COMBINATIONS TO BE USED FOR DIFFERENT CIRCUIT TYPES. LABEL ALL CIRCUITS ACCORDINGLY 1- WIRE MANUFACTURER IS FOR REFERENCE PURPOSE ONLY. WHEN USING OTHER MANUFACTURE, ENSURE PROPER CROSS REFERENCE 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. 4- THE "Y" FIBER OPTIC CABLE LISTED IS A BELDEN CABLE PART NUMBER AS WEST PENN NO LONGER SUPPORTS FIBER OPTIC CABLE 5- THIS CABLE MUST BE INSTALLED IN A CONTINUOUS PATH POINT-TO-POINT. ABSOLUTLEY NO SPLICES ARE ALLOWED. 6- THIS IS A SPECIFIC CABLE. NO ALTERNATES ARE ALLOWED | | | | | | | |

| FLAGNOTES | |
|-----------|--|
| NOTE # | DESCRIPTION |
| 46 | LOOP/EXTEND NAC CIRCUIT TO ADDED DEVICE AND RETURN TO ORIGIN EXISTING NAC DEVICE |
| 67 | RELOCATE EXISTING CIRCUIT EOL TO THIS DEVICE |

| NAC Circuit Load, Voltage Drop & Battery Load Calculations | | | | | | | | | | | | | | APS-1 (EXISTING) | | | |
|---|--|------------------------------------|--|--|--------|----------------------|-----------|-----------|-----------|--|-----------|-----------|-----------|-------------------------------------|---|-----|--|
| APS Name: APS-1 (EXISTING) | | Location: ELECTRICAL ROOM | | Standby: | Alarm: | Circuit Identifiers: | | | | | | | | | | | |
| P.S. Type: FCP5-24S8 | | | | 0.0910 | 0.1450 | Output #1 | Output #2 | Output #3 | Output #4 | Output #5 | Output #6 | Output #7 | Aux Power | | | | |
| Description: | | | | | | NAC Sync | NAC Sync | NAC Sync | NAC Sync | Not Used | Not Used | Not Used | | | | | |
| Part #: | | | | | | N1A1 | N1A2 | N1A3 | N1A4 | X-X | X-X | X-X | X-X | | | | |
| P2WLED (75) | | Wall Horn w/ Strobe set at 75cd | | 0.0000 | 0.0870 | 2 | 2 | | | | | | | Total Qty | 4 | | |
| SWLED (75) | | Wall Strobe set at 75cd | | 0.0000 | 0.0700 | 1 | 1 | | | | | | | | 2 | | |
| Existing Devices on Circuit: | | | | | | | | | | | | | | | | | |
| PC2WL (30) | | Ceiling Horn w/ Strobe set at 30cd | | 0.0000 | 0.0900 | 3 | 3 | | | | | | | | 6 | | |
| | | | | Existing Circuit Load (Amps) | | | | | | | | | | | | | |
| | | | | # Devices per Circuit | | | | | | | | | | | | | |
| | | | | Total Standby Circuit Calculated Amps (3): | | | | | | | | | | | | | |
| | | | | Total Alarm Circuit Calculated Amps (1): | | | | | | | | | | | | | |
| | | | | Wre Gauge Used (avg): | | | | | | | | | | | | | |
| | | | | Circuit Length (ft): | | | | | | | | | | | | | |
| | | | | Estimated Voltage Drop (4%): | | | | | | | | | | | | | |
| | | | | Estimated CGL Voltage (4%): | | | | | | | | | | | | | |
| | | | | Calculated Voltage Drop %: | | | | | | | | | | | | | |
| 1) Current Draw Measurement based on: UL1971, 16-33V, DC, High db & Temporal Pattern | | | | | | | | | | | | | | | | | |
| 2) Some Outdoor/WP Devices have a more Measured Current Draw as the Indoor Devices and may not listed separately above. | | | | | | | | | | | | | | | | | |
| 3) When the APS is configured for "Doors", Output #4 shutdown on loss of AC Power. Therefore no "Standby" Current Draw is shown | | | | | | | | | | | | | | | | | |
| BATTERY LOAD CALC for APS-1 (EXISTING): | | | | | | NAC P.S. Max Rating: | | 0.000 | | Total Amps Required: | | 5.028 | | % Used: | | 63% | |
| Hours Standby: | | 24 | | Total Standby Current: | | 0.0910 | | | | Total Hours Required for Standby (AH): | | 0.18 | | | | | |
| Minutes Alarm: | | 5 | | Total Alarm Current: | | 5.1730 | | | | Total Hours Required for Alarm (AH): | | 2.43 | | | | | |
| Backup Generator? Unknown | | | | Spare Circuit Capacity: | | 20% | | | | Minimum Battery Size Needed (AH): | | 2.62 | | | | | |
| Voice Evacuation? No | | | | Spare Battery Load Factor: | | 25% | | | | Spare Battery Capacity Required: | | 0.65 | | | | | |
| Military? No | | | | | | | | | | Actual Battery Size Required (AH): | | 3.27 | | | | | |
| MAXIMUM CHARGER CAPACITY IS: 184H | | | | | | | | | | | | | | Total AH Rated Batteries Supplied = | | 7.0 | |