

CENTERIS DATA CENTER

FIRE ALARM SYSTEM ADDITION 1023 39TH AVE SE, PUYALLUP, WA 98374

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

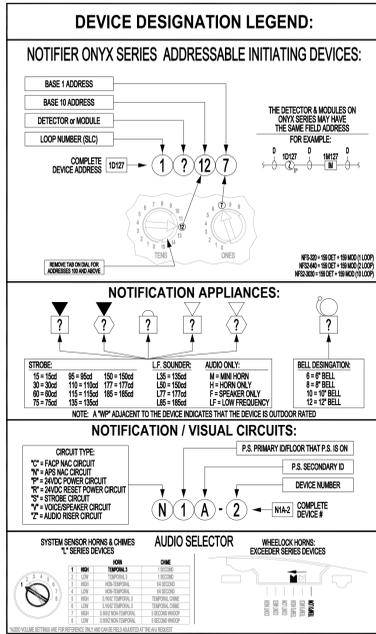
NOTES:
 1- DEVICE SUBSCRIPT: NW=NEW RR=REMOVE & RELOCATE EX=EXISTING TO REMAIN AC=ABOVE CEILING RB=RELAY BASE WP=WATERPROOF WG=WIRE GUARD ISO=ISO BASE
 2- CABLING SHOWN IS FOR CIRCUIT REFERENCE ONLY AND DOES NOT INTEND TO INDICATE THE EXACT PATHWAY.
 3- DEVICES SHOWN ON DRAWINGS IN GRAY SCALE ARE EXISTING 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.

SYMBOL	DESCRIPTION	THHN	FPL	FPLP	WET	COLOR CODING	CIRCUIT TYPE	NOTES
C	1 PAIR 14AWG FIRE RATED CABLE	YES	972	60993B	AQ226		AUDIBLE (NAC) CIRCUIT	

NOTES:
 * DIFFERENT COLORS/STRIPE 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. ABSOLUTELY NO SPLICES ARE ALLOWED.
 6- THIS IS A SPECIFIC CABLE. NO ALTERNATES ARE ALLOWED

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																
P.S. Type: FCPS-24S8																
Part #	Description	Standby	Alarm	Output #1	Output #2	Output #3	Output #4	Output #5	Output #6	Output #7	Aux Power	Total Qty				
		0.0910	0.1450	N/A1	N/A2	N/A3	N/A4	X-X	X-X	X-X	X-X		4			
PC2WL (30)	Ceiling Horn w/ Strobe set at 30cd	0.0000	0.0000	3	3							6				
Existing Circuit Load (Amps)																
# Devices per Circuit																
Total Standby Circuit Calculated Amps (3)																
Total Alarm Circuit Calculated Amps (1)																
Wire Gauge Used (avg)																
Circuit Length (ft)																
Estimated Voltage Drop (dc)																
Estimated EOL Voltage (dc)																
Calculated Voltage Drop %																
1) Current Draw Measurement based on: UL1971, 16-35V, DC, High db & Temporal Pattern																
2) Some Outdoor/WP Devices have the same 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. Mix Rating:		8,000		Total Amps Required:		5,028		% Used:		63%						
Hours Standby:	24	Total Standby Current:	0.0910	Total Hours Required for Standby (AH):	2.18											
Minutes Alarm:	5	Total Alarm Current:	5.1730	Total Hours Required for Alarm (AH):	0.43											
Backup Generator?	Unknown	Spare Circuit Capacity:	20%	Minimum Battery Size Needed (AH):	2.62											
Voice Evacuation?	No	Spare Battery Capacity Required:	0.65	Spare Battery Capacity Required (AH):	0.65											
Military?	No	Spare Battery Load Factor:	25%	Actual Battery Size Required (AH):	3.27											
MAXIMUM CHARGER CAPACITY IS: 16AH												Total AH Rated Batteries Supplied =		7.0		



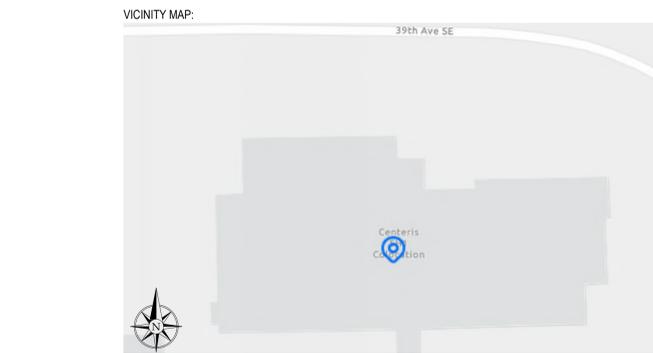
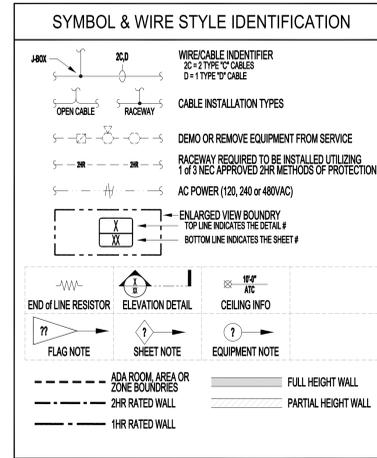
INSTALLATION & GENERAL WIRING NOTES:

GENERAL NOTES:
 1. INSTALLATION SHALL BE ACCOMPLISHED IN STRICT COMPLIANCE WITH NFPA, LOCAL AND STATE AHJ, NEC AND CONTRACT DRAWINGS.
 2. WIRE ROUTING IS DIAGRAMMATIC IN NATURE ONLY AND NOT INTENDED FOR ACTUAL CONDUIT ROUTING.
 2.1. WIRING SHOWN GOING "THRU" A DEVICE DOES NOT NEED TO TERMINATE AT THAT DEVICE IF DEVICE IS NOT ON THAT CIRCUIT.
 2.1.1. MEANING VOICE, STROBE/NA CIRCUITS DO NOT NEED TO PASS THRU SLC DEVICES & SLC CIRCUITS DO NOT NEED TO PASS THRU NOTIFICATION DEVICES. POWER CIRCUITS ONLY NEED TO GO FROM POWERED DEVICE TO POWERED DEVICE.
 3. ALL CONDUIT SIZING AND ROUTING BY ELECTRICAL CONTRACTOR PER NEC AND AHJ. VERIFY ALL LOCATIONS OF DEVICES WITH ELECTRICAL/ARCHITECTURAL PLANS. SCALE AND PLACE ALL DEVICES PER ELECTRICAL/ARCHITECTURAL PLANS.
 4. ALL CIRCUITS WILL BE PROPERLY TAGGED AND TESTED FOR OPENS, SHORTS, GROUNDS AND PROPER "END-OF-LINE" RESISTANCE. EACH CIRCUIT'S METER READINGS MUST BE DOCUMENTED AND PRESENTED TO RED HAWK FIRE PROTECTION FIELD TECHNICIAN UPON ARRIVAL, ONSITE FOR STARTUP & CHECKOUT.
 6. AS-BUILTS:
 6.1. A SET OF INSTALLATION AS-BUILT DRAWINGS SHOWING ACTUAL CONDUIT AND CONDUCTOR ROUTES SHALL BE KEPT BY PROJECT FOREMAN FOR USE BY RED HAWK FIRE PROTECTION FIELD TECHNICIAN.
 6.2. AS-BUILTS SHALL BE KEPT ORDERLY AND BE CLEARLY MARKED WITH DIFFERENT COLOR PENS FOR EACH CIRCUIT AND/OR CIRCUIT TYPE. AS-BUILTS MUST INDICATE CHANGES TO THE FINAL DEVICE INSTALLED LOCATIONS IF NOT INSTALLED AT LOCATION SHOWN ON DESIGN DOCUMENTS.
 6.3. AS-BUILT RED LINES NOT PROVIDING THIS INFORMATION WILL BE RETURNED TO THE INSTALLATION CONTRACTOR FOR CORRECTION. RED HAWK FIRE PROTECTION IS NOT RESPONSIBLE FOR THESE DELAYS.
 7. AGREEMENT AND CONFIRMATION OF ALL SIGNALING EVENTS MUST BE MADE WITH RED HAWK FIRE PROTECTION PROJECT MANAGER.
 8. ALL RED HAWK FIRE PROTECTION FIELD SERVICES MUST BE SCHEDULED WITH RED HAWK FIRE PROTECTION PROJECT MANAGER WITH A MINIMUM OF 14 WORKING DAYS ADVANCE NOTICE.
 9. DO NOT INSTALL LINE VOLTAGE IN SAME CONDUIT AS POWER LIMITED CABLES.

FIRE ALARM SPECIFIC NOTES:
 1. SMOKE DETECTORS SHALL NOT BE INSTALLED WITHIN 36" OF ANY AIR DIFFUSER.
 2. 2019 NFPA 72-17.7.1.12.3 REQUIRES THAT SMOKE DETECTORS SHALL NOT BE INSTALLED UNTIL AFTER FINAL CONSTRUCTION CLEAN-UP.
 2.1. ANY SMOKE DETECTORS THAT HAVE BEEN INSTALLED PRIOR TO CLEAN-UP MUST BE CLEANED OR REPLACED AND WILL BE INVOICED ON A TBM BASIS.
 3. WALL MOUNTED NOTIFICATION DEVICES BACKBOX BETWEEN A MINIMUM OF 80" AFF TO A MAXIMUM OF 96" AFF.
 3.1. DEVICES THAT ARE UNABLE TO BE MOUNTED WITHIN THAT RANGE MUST BE VERIFIED BY RED HAWK FIRE PROTECTION PRIOR TO INSTALLATION.
 3.2. SEE FLOOR PLANS FOR CANDELA RATINGS OF EACH DEVICE INSTALLED.
 4. ALL MANUAL PULL STATIONS ARE TO BE MOUNTED AT A HEIGHT NO GREATER THAN 48" TO TOP AND NO LOWER THAN 36" TO BOTTOM (PER ADA REQUIREMENTS).
 5. FIELD VERIFY ALL SPRINKLER MONITORING DEVICES WITH FIRE PROTECTION CONTRACTOR.
 6. FIELD VERIFY ALL HVAC, FAN CONTROL, FIRE/SMOKE DAMPERS AND DUCT DETECTORS LOCATIONS WITH MECHANICAL CONTRACTOR.
 7. FACP SHALL NOT BE ENERGIZED WITHOUT THE PRESENCE OF RED HAWK FIRE PROTECTION TECHNICIANS.
 8. NO TAPPING OF SIGNALING OR INITIATING ZONE CIRCUITS ARE ALLOWED. T-TAPPING OF STYLE 4 ADDRESSABLE CIRCUITS IS ALLOWED PROVIDING A SPLICE IS PROFESSIONALLY INSTALLED. POLARITY IS OBSERVED AND SHIELDS ARE CONTINUOUS AND FREE OF GROUNDS. SHIELDS MUST BE TERMINATED AT FACP ONLY. CABLE SHIELDS SHALL BE SPLICED TOGETHER AT EVERY JUNCTION BETWEEN THE FACP AND THE LAST DEVICE ON EACH CABLE RUN. SHIELDS AND OTHER FIRE ALARM CONDUCTORS (EXCEPT POWER GROUNDS) SHALL BE INSULATED AND COMPLETELY FREE FROM CONDUIT OR EARTH GROUNDS. SHIELDS WILL BE TIES TO GROUND ONLY AT THE FACP BY THE RED HAWK FIRE PROTECTION FIELD TECHNICIAN.
 9. THE SYSTEM SHALL BE MONITORED BY A U.L. LISTED MONITORING STATION BEFORE AHJ TEST.
 10. AS-BUILTS ARE REQUIRED AT TIME OF AHJ ACCEPTANCE. RED HAWK FIRE PROTECTION REQUIRED ELECTRICAL RED LINES WITHIN 2 WEEKS PRIOR TO AHJ TESTS.
 10.1. EACH CIRCUIT (SLC, NAC OR POWER) MUST BE CLEARLY IDENTIFIED WITH A DISTINCT COLOR.
 10.2. EACH NAC CIRCUIT MUST BE CLEARLY MARKED AS TO WHICH DEVICES ARE ON EACH CIRCUIT AND IN THE ORDER THE DEVICES ARE WIRED TO COMPLETE THE CIRCUIT.

SCOPE OF WORK & DESIGN BASIS

LEVEL 2
 NEW DEVICES ADDED TO EXISTING CIRCUIT TO ENSURE TOTAL COVERAGE AFTER FLOOR PLAN CHANGE. EXISTING NOTIFIER FCPS24-S8 TO BE UTILIZED. NEW DEVICES ADDED TO EXISTING END OF CIRCUIT(S). EOL(S) TO BE RELOCATED TO NEW END OF CIRCUIT(S). EXISTING SEQUENCE OF OPERATIONS TO REMAIN IN PLACE AND UNCHANGED. AREAS OF WORK SHOWN IN THESE DRAWINGS ARE ONLY AREAS WITHIN RED HAWK FIRE PROTECTION'S SCOPE.



PROJECT CONTACT INFORMATION:

CUSTOMER:
 NAME: BURKE ELECTRIC
 ADDRESS: 12605 44TH PL S
 TUKWILA, WA 98178
 CONTACT: PETE KELLY
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 FAX: 425-818-3313
 EMAIL: pkelly@burkeelectric.com

FIRE ALARM / LIFE SAFETY PROVIDER:
 NAME: RED HAWK FIRE PROTECTION
 ADDRESS: 917 134TH ST SW SUITE B-3
 EVERETT, WA 98204
 PHONE: 425-818-3313
 FAX: 425-818-3313
 SALES/SMAN: JEREMY MUNSON JeremyM@redhawkfp.com EXT:
 PM: JAMES PAN JamesP@redhawkfp.com EXT:
 DESIGNER: SEAN FODOR SeanF@redhawkfp.com EXT:



NICET Stamp
NICET CERTIFICATION
 THESE FIRE ALARM DRAWINGS HAVE BEEN REVIEWED BY:
 MIKE SERESUN
 FIRE PROTECTION ENGINEERING TECHNOLOGY
 FIRE ALARM SYSTEMS - LEVEL III
 NICET CERTIFICATION # 1016688
 CERTIFICATION EXPIRES - 11/01/2027

Approvals Required

Revisions

ISSUE	DATE	BY	DESCRIPTION
1	04/17/2025	SDF	PERMIT SUBMITTAL SET

Contract With:
BURKE ELECTRIC
 12605 44TH PL S
 TUKWILA, WA 98178

Contract Name:
CENTERIS DATA CENTER

1023 39TH AVE SE
 PUYALLUP, WA 98374

FIRE ALARM SYSTEM ADDITION

Sheet Title:
PROJECT INFO, CALCULATIONS & FAS LAYOUT

Key Plan

Date: 04/17/2025
 Job Number: 390070
 Designer: SEAN D. FODOR
 Building Permit:

Sheet Number

FA-1.00
SHEET 1 OF 1

City of Puyallup Fire REVIEWED FOR COMPLIANCE
 DDrake
 05/12/2025
 8:19:39 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.

City of Puyallup Development & Permitting Services ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

1 LEVEL 2 FIRE ALARM LAYOUT
 SCALE: 1/8" = 1'-0"

