

CENTERIS DATA CENTER L3

FAS SYSTEM MODIFICATION

1023 39TH AVENUE SOUTH EAST, PUYALLUP, WA 98374

SYMBOL LEGEND					
SYMBOL	QTY	DESCRIPTION	MOUNTING REQUIREMENTS	SUPPLIER	PART NUMBER
	10	INTELLIGENT PHOTO SMOKE DETECTOR	4 SQUARE DEEP w/ 3" ROUND RING	NOTIFIER	FSP-951 w/ B300-6
	-	INTELLIGENT PHOTO SMOKE DETECTOR - EXISTING	EXISTING	BY OTHERS	FSP-951 w/ B300-6
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- CABLES 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 DECIBLE 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.					

WIRE LEGEND						
SYMBOL	DESCRIPTION	THHN	FPL	FPLP	WET	COLOR CODING
D	1 PAIR 16AWG FIRE RATED CABLE	YES	971	60991B	AQ225	
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 MANUFACTURER, 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						

FLAGNOTES	
NOTE #	DESCRIPTION
36	DEVICE ADDRESS ARE TO BE ASSIGNED BY FA CONTRACTOR & SET BY ELECTRICIAN FIELD TECHNICIAN ONCE ON-SITE
45	ROUTE SLC CABLE FROM NEAREST ADDRESSABLE DEVICE OR FACP

FACP Battery Load & Back-up Calculation										FACP	
Control Panel:			FACP								
Location:			ON-SITE								
FACP Type:			AMPS-24 (Panel PS)								
Line #	Qty	Part #	Description	Each Standby	Each Alarm	Total Standby	Total Alarm				
1	1	CRPU-30000	Fire Alarm Control Panel: 10 SLC Loops, 3180 SLC Devices (CPU Only)	0.3400	0.3400	0.3400	0.3400				
2	2	LCM-320	SLC Loop Control Module	0.1300	0.1300	0.2600	0.2600				
3	2	LEM-320	SLC Loop Expander Control Module	0.1000	0.1000	0.2000	0.2000				
4	267	FSP-951	Intelligent Photoelectric Smoke Detector: White	0.0002	0.0045	0.0534	1.2015				
5	1	FSI-851	Intelligent Ionization Smoke Detector: White	0.0003	0.0065	0.0003	0.0065				
6	3	FST-951	Intelligent Heat Detector - 135° Fixed Temp: White	0.0002	0.0045	0.0006	0.0135				
7	271	B300-6	Intelligent Detector Base: White	0.0000	0.0000	0.0000	0.0000				
8	10	OSI-90	Beam Detector Imager: 80deg Field of View, 20-111ft or 39-223ft (Low & High Power)	0.0070	0.0070	0.0700	0.0700				
9	87	DNR	Dust Detector Housing	0.0000	0.0000	0.0000	0.0000				
10	87	FSP-951R	Intelligent Photoelectric Smoke Detector for DNR Dust Smoke Housing	0.0003	0.0065	0.0261	0.5655				
11	44	NBS-12LX	Addressable Manual Pull Station	0.0004	0.0050	0.0165	0.2200				
12	16	FMM-1	Addressable Monitor Module	0.0004	0.0050	0.0064	0.0800				
13	1	FMM-101	Addressable Mini Monitor Module	0.0004	0.0004	0.0004	0.0004				
14	33	FDM-1	Addressable Dual Monitor Module	0.0002	0.0064	0.0079	0.2112				
15	102	FDM-1	Addressable Control Module (NAC)	0.0004	0.0065	0.0398	0.6630				
16	32	FRLM-1	Addressable Relay Module	0.0002	0.0065	0.0074	0.2080				
17	2	XP10-M	XP Module - 10 Class A/B Inputs	0.0035	0.0050	0.0070	0.1100				
				Total Current Draw		1.0357	4.1496				
BATTERY LOAD CALC for FACP:											
FACP Max P.S. Rating:				5.000	Total Amps Required:		4.150	% Used: 83%			
Hours Standby				24	Total Standby Current:		1.0357	Total Amp Hours Required (Ah): 24.9			
Minutes Alarm				5	Total Alarm Current:		4.1496	Total Amp Minutes Required (Ah): 0.3			
Backup Generator?				Unknown	Minimum Battery Size Needed (Ah):		25.2	Spare Battery Capacity Required: 6.3			
Voice Evacuation?				No	Spare Circuit Capacity:		25%	Spare Battery Capacity Required (Ah): 31.5			
Military?				No	Spare Battery Load Factor:		25%				
MAXIMUM CHARGER CAPACITY IS: 200 AH											
Total AH Rated Batteries Supplied: 35.0											



SCOPE OF WORK & DESIGN BASIS	
LEVEL 3: FIRE ALARM SYSTEM MODIFICATION. 2 BEAM DETECTOR SET-UPS TO BE REMOVED BECAUSE NEW HAWK UNITS BLOCK SENSORS. SPOT SMOKE DETECTORS TO BE ADDED IN THESE AREAS TO ENSURE COMPLETE COVERAGE. EXISTING SEQUENCE OF OPERATIONS TO REMAIN IN PLACE AND UNCHANGED. AREAS OF WORK SHOWN IN THESE DRAWINGS ARE ONLY AREAS WITHIN RED HAWK'S SCOPE. DEVICE LOCATIONS SHOWN ON DRAWINGS ARE GENERAL AND MAY NOT BE THE EXACT INSTALL LOCATION IN REGARDS TO THE UNIT. LOCATIONS WILL BE VERIFIED ON-SITE.	

