

BOILER PLANT FIRE ALARM SEQUENCE OF OPERATION																
INPUTS	OUTPUTS															
	FIRE ALARM PANEL INDICATION					NOTIFICATION				SAFETY CONTROL / INTERLOCKS						
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1. MANUAL PULL STATION	•	•					•	•				•			•	
2. SMOKE DETECTOR	•	•					•	•				•			•	
3. WATERFLOW	•	•					•	•				•			•	
4. TAMPER SWITCH			•	•									•			
5. DUCT SMOKE DETECTOR			•	•												•
<b>TROUBLE CONDITIONS</b>																
6. GROUND FAULT					•	•									•	
7. NOTIFICATION APPLIANCE SHORT CIRCUIT					•	•									•	
8. OPEN CIRCUIT					•	•									•	
9. LOW BATTERY					•	•									•	
10. AC POWER FAILURE					•	•									•	
11. TELEPHONE LINE FAULT					•	•									•	
12. REMOTE POWER SUPPLY TROUBLE CONDITION					•	•									•	
<b>NOTIFICATION FUNCTIONS</b>																
13. SILENCE FEATURE ON FIRE ALARM PANEL									•							
14. MICROPHONE CONTROL INITIATED AT FIRE COMMAND CENTER																•

**FIRE ALARM NOTES**

APPLICABLE TO ALL FIRE ALARM SHEETS:

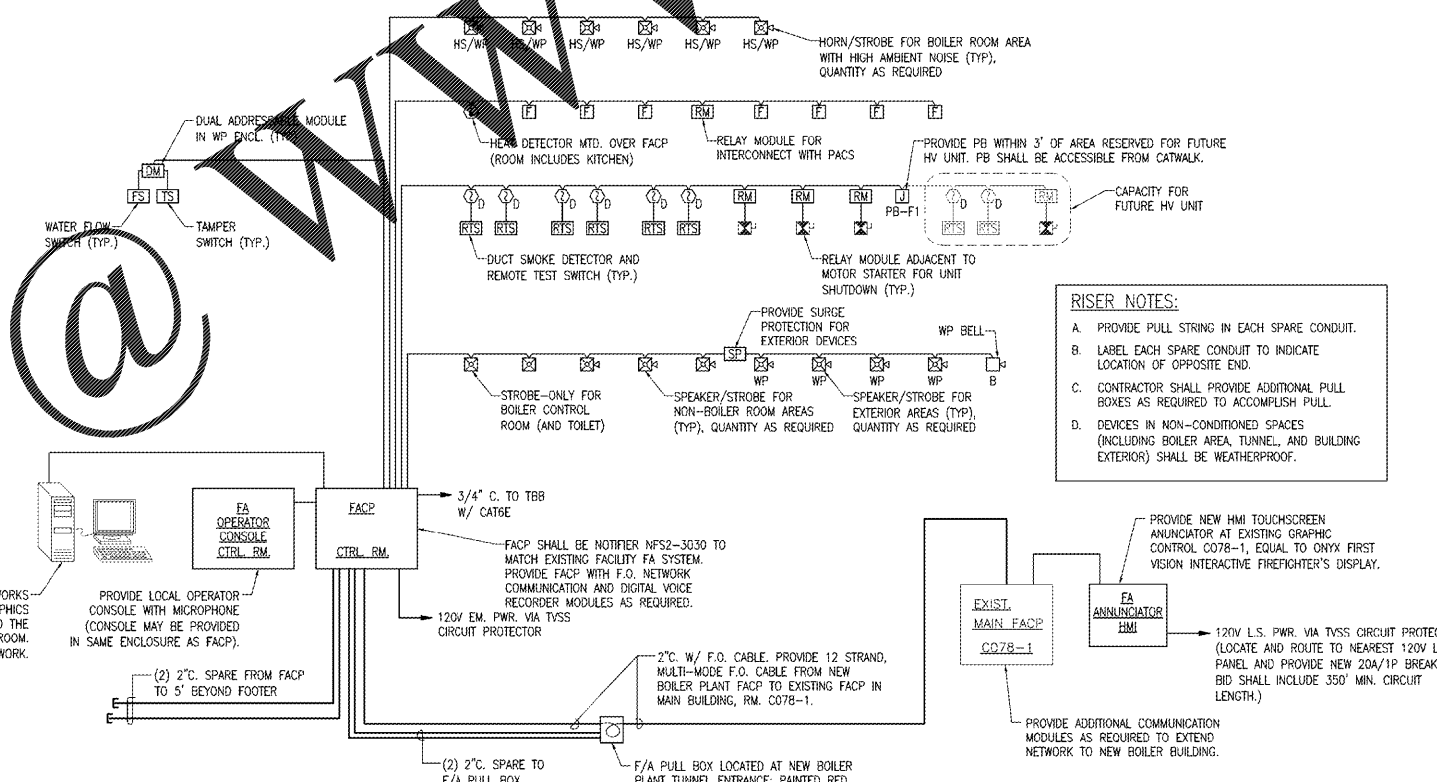
- ALL WORK SHALL COMPLY WITH NEC, NFPA, AND ALL APPLICABLE FEDERAL CODES.
- CONDUIT FILL NOT TO EXCEED 40 PERCENT OF THE INTERIOR CROSS SECTIONAL AREA. CONTRACTOR SHALL PROVIDE CALCULATIONS OR REFERENCE TO THE APPLICABLE CONDUIT AND TUBING FILL TABLE IN NFPA 70 ANNEX C.
- CONDUIT SHALL BE 3/4" MIN.
- WP BOXES SHALL NOT BE ENTERED THROUGH THE TOP - NO EXCEPTIONS WILL BE ACCEPTED.
- THE HOSPITAL'S EXISTING FIRE ALARM SYSTEM MUST REMAIN FULLY FUNCTIONAL THROUGHOUT NEW CONSTRUCTION.
- FIRE ALARM SYSTEM SHALL HAVE BI-LINGUAL VOICE EVACUATION NOTIFICATION, IN ENGLISH AND SPANISH.
- IT IS ANTICIPATED THAT ANY CRITICAL WORK (SHUTDOWNS, ETC.), AFFECTING OTHER AREAS, WILL BE DONE DURING OFF HOURS (NIGHTS, WEEK-ENDS, HOLIDAYS, ETC.) AND INTERESTED CONTRACTORS SHOULD PLAN ACCORDINGLY. A TWO (2) WEEK ADVANCE NOTIFICATION IS REQUIRED. INTENSIVE PLANNING IS REQUIRED TO ALLOW SCHEDULED WORK TO BE ACCOMPLISHED DURING SCHEDULED SHUTDOWN PERIODS.
- ALL CONDUITS SHALL BE CLEAN AND FREE OF DEBRIS PRIOR TO INSTALLING NEW CONDUCTORS.

**SYMBOLS**

POWER	FIRE ALARM
☐ PANELBOARD, SURFACE MOUNTED	☐ FACP FIRE ALARM CONTROL PANEL
☐ DISCONNECT SWITCH	☐ ANN ANNUCIATOR
☒ COMBINATION MOTOR STARTER	☐ RM RELAY MODULE
☐ TVSS DEDICATED RECEPTACLE WITH INTEGRAL SURGE PROTECTION CAPABILITY	☐ RTS REMOTE TEST SWITCH
☐ JUNCTION BOX	☐ M ADDRESSABLE MONITORING MODULE
	☐ DM ADDRESSABLE DUAL MONITORING MODULE
	☐ IM ISOLATION MODULE
	☐ FS FLOW SWITCH
	☐ TS TAMPER SWITCH
	☐ SMOKE DETECTOR, CEILING MTD., UNO
	☐ DUCT SMOKE DETECTOR
	☐ HEAD DETECTOR, CEILING MTD., UNO
	☐ FIRE ALARM BELL, WALL MTD. +48", UNO
	☐ SURGE PROTECTION
	☐ FIRE ALARM BELL, WALL MTD. +96", UNO
	☐ FIRE ALARM HORN, WALL MTD. +96", UNO
	☐ COMBINATION SPEAKER/STROBE, WALL MTD. +96", UNO
	☐ COMBINATION HORN/STROBE, WALL MTD. +96", UNO
	☐ FIRE ALARM STROBE ONLY, WALL MTD. +96", UNO

**ABBREVIATIONS**

A	AMPERE
AFC	AVAILABLE FAULT CURRENT
AFF	ABOVE FINISHED FLOOR
BKR	BREAKER
BR	BRANCH
CKT	CIRCUIT
CLG	CEILING
COORD	COORDINATE
CTRL	CONTROL
DISC	DISCONNECT
ELEV	ELEVATOR
ENCL	ENCLOSURE
ETR	EXTENDING TO REMAIN
EXIST	EXISTING
FACP	FIRE ALARM CONTROL PANEL
FIR	FUTURE
GFI	GROUND FAULT INTERRUPT
HMI	HUMAN MACHINE INTERFACE
JB	JUNCTION BOX
LED	LIGHT EMITTING DIODE
LS	LIFE SAFETY
MTD	MOUNTED
NEC	NATIONAL ELECTRICAL CODE
NTS	NOT TO SCALE
OEM	ORIGINAL EQUIPMENT MANUFACTURER
PACS	PHYSICAL ACCESS AND CONTROL SYSTEM
PH	PHASE
PNL	PANEL
PRI	PRIMARY
SEC	SECONDARY
SS	STAINLESS STEEL
SW	SWITCH
TPH	TWISTED PAIR HORIZONTAL
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TYP	TYPICAL
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
UTP	UNSHIELDED TWISTED PAIR
V	VOLT
VA	VOLT-AMPERES
VAC	VOLTS ALTERNATING CURRENT
W	WIRE OR WATT (PER CONTEXT)
WP	WEATHERPROOF
XFMR	TRANSFORMER



**FIRE ALARM RISER**  
SCALE: N.T.S.

FINAL DESIGN  
APPROVED FOR CONSTRUCTION

Order Plans

<b>CONSULTANTS:</b>  	<b>ENGINEER-IN-CHARGE:</b> P.E. NO. 73817  <b>ARCHITECT/ENGINEERS:</b> <b>AKEA INC.</b> 3603 NW 98th Street, Suite B Gainesville, FL 32606 Phone: (352) 474-6124 Fax: (352) 553-4437 ODA: FL #26693 AKEA Project No. 083-14	<b>Drawing Title:</b> FIRE ALARM LEGEND, ABBREVIATIONS, NOTES, RISER, AND SEQUENCE OF OPERATION <b>Approved:</b> Project Director	<b>Project Title:</b> REPLACE BOILERS - FCA D, ENERGY AT THE MALCOM RANDALL VAMC <b>Location:</b> GAINESVILLE, FLORIDA <b>Date:</b> MARCH 9, 2016 <b>Checked:</b> CJF <b>Drawn:</b> KLL	<b>Project Number:</b> 573-14-600 <b>Building Number:</b>  <b>Drawing Number:</b> <b>FA001</b> 126 OF 127	<b>Office of Construction and Facilities Management</b> 
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