		A ACTUATE ALARM LED	B ACTUATE TROUBLE LED	C ACTUATE SUPERVISORY LED	D ACTUATE SOUNDER ON LOCAL PANEL	E ACTUATE SOUNDER ON LOCAL & REMOTE ANNUNCIATOR	F DISPLAY ALARM & LOCATION ON REMOTE ANNUNCIATORS	G ACTUATE BUILDING NOTIFICATION APPLIANCES	H ACTUATE BUILDING NOTIFICATION APPLIANCES PRIMARY RECIPIENT	I ACTUATE ELEVATOR ALARM RECALL	J ACTUATE ELEVATOR ALARM RECALL & FLASH HOIST WAY LIGHT	K ACTUATE ELEVATOR ALARM RECALL	L ACTUATE DOOR SHUTDOWN	M TRANSMIT ALARM TO LOCAL FIRE DEPARTMENT	N TRANSMIT SUPERVISORY SIGNAL TO LOCAL FIRE DEPARTMENT	O TRANSMIT TROUBLE SIGNAL TO LOCAL FIRE DEPARTMENT	P TRANSMIT ALARM SIGNAL TO LOCAL FIRE DEPARTMENT	
1	MANUAL STATIONS	X			X	X	X							X			X	1
2	SMOKE DETECTORS	X			X	X	X							X			X	2
3	SMOKE DETECTORS - GROUND FLOOR ELEVATOR LOBBY	X			X	X	X	X						X			X	3
4	SMOKE DETECTORS - 1ST FLOOR ELEVATOR LOBBY	X			X	X	X		X					X			X	4
5	SMOKE DETECTORS - 2ND FLOOR ELEVATOR LOBBY	X			X	X	X	X						X			X	5
6	SMOKE DETECTORS - GROUND FLOOR ELEVATOR ROOM	X			X	X	X	X			X			X			X	6
7	SMOKE DETECTORS - GROUND FLOOR ELEVATOR PIT	X			X	X	X	X						X			X	7
8	DUCT DETECTORS - GROUND FLOOR STORAGE	X			X	X	X					X		X			X	8
9	DUCT DETECTORS - 1ST FLOOR MEZZANINE	X			X	X	X					X		X			X	9
10	HEAT DETECTORS	X			X	X	X							X			X	10
11	HEAT DETECTORS - GROUND FLOOR ELEVATOR ROOM	X			X	X	X			X				X			X	11
12	HEAT DETECTORS - GROUND FLOOR ELEVATOR PIT	X			X	X	X			X				X			X	12
13	CARBON MONOXIDE DETECTORS			X	X	X	X									X		13
14	SPRINKLER WATER FLOW SWITCHES	X			X	X	X	X						X			X	14
15	SPRINKLER TAMPER SWITCHES			X	X	X	X									X		15
16	SPRINKLER LOW AIR			X	X	X	X									X		16
17	FIRE EXTINGUISHER FAULT			X	X	X	X									X		17
18	ANSUL HOOD SUPPRESSION	X			X	X	X	X						X			X	18
19	OPEN CIRCUIT		X		X	X	X								X			19
20	SHORT CIRCUIT		X		X	X	X								X			20
21	GROUND FAULT		X		X	X	X								X			21
22	LOSS OF AC POWER		X		X	X	X								X			22
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	

FIRE ALARM I/O MATIRX
SCALE: N.T.S.

GENERAL NOTES

- INSTALLATION PRACTICES SHALL COMPLY WITH NFPA 72, THE NATIONAL ELECTRIC CODE & CENTRAL MAINE POWER FIRE ALARM SPECIFICATION
- ALL EXPOSED WIRING SHALL BE IN EMT PAINTED RED. CONCEALED WIRING ABOVE SUSPENDED CEILINGS SHALL BE FIRE ALARM MC. ALL FITTINGS AND JUNCTION COVERS SHALL BE PAINTED RED.
- WIRES SHALL BE CHECKED FOR FAULT CONDITIONS (OPEN, SHORT, GROUND FAULT) BEFORE CONNECTING TO FIRE ALARM CONTROL EQUIPMENT. CONNECTIONS TO FIRE ALARM CONTROL EQUIPMENT SHALL BE HANDLED BY EASTERN FIRE.
- WHERE USING SHIELDED CABLE DRAIN SHALL BE CONNECTED AS ONE CONTINUOUS PATHWAY PROTECTED WITHIN DEVICE SPLICES WITH ELECTRICAL TAPE OR AN APPROVED ALTERNATE METHOID AND ONLY CONNECTED THROUGH FINAL TERMINATIONS AT ORIGINATING CONTROL EQUIPMENT SUCH AS FACP OR REMOTE POWER EXTENDER.
- ALL WIRING IS TO BE NEW. KEEP EXISTING FIRE ALARM SYSTEM OPERATIONAL UNTIL NEW SYSTEM IS COMPLETE AND FUNCTIONALLY TESTED.
- EN GAUGE FIRE EXTINGUISHER MONITORING DEVICES MEASURE FOR OBSTRUCTIONS IN FRONT OF EXTINGUISHER. LOCATE HARDWARE AND SENSOR IN AREAS FREE OF OBSTRUCTIONS. CONSULT EASTERN FIRE IF LOCATIONS REFLECTED ON FLOOR PLANS PRESENT FORESEEABLE OBSTRUCTIONS.
- HEAT DETECTORS IN AREAS EXPOSED TO THE ENVIRONMENT SHALL BE PROGRAMMED FOR FIXED TEMP 155° F ONLY. DETECTORS LOCATED IN CONTROLLED TEMPERATURE AREAS SHALL BE PROGRAMMED FOR RATE OF RISE DETECTION

KEYED NOTES

1. LOCATE CARBON MONOXIDE DETECTOR AT 6' ABOVE FF. AREA SMOKE OR HEAT DETECTION IS LOCATED AT THE CEILING LEVEL. DISABLE SMOKE SENSOR AND PROGRAM CARBON MONOXIDE SENSOR AS SUPERVISORY SIGNAL TO MAIN FACP.
2. ISOLATOR MODULES TO BE INSTALLED IN SINGLE FIRE ALARM TERMINAL CABINET WITH SUFFICIENT SPACE TO ACCOUNT FOR MODULES AND WIRING.

SYMBOL LEGEND

ITEM NO.	SYMBOL	QTY. TOTAL	DESCRIPTION
1		235	STANDARD BASE (SIGA-SB)
2		10	SMOKE-CO COMBINATION DETECTOR (SIGA-PCD)
3		39	HEAT DETECTOR (SIGA-HRD)
4	I	10	LINE ISOLATOR (SIGA-IM)
5	DM	3	DUAL MONITOR MODULE (SIGA-CT2)
6	M	4	MONITOR MODULE (SIGA-CT1)
7	P	16	PULL STATION (SIGA-278)
8	RM	4	INPUT/OUTPUT MODULE (SIGA-CRH)
9	?	186	SMOKE-HEAT COMBINATION DETECTOR (SIGA-PHD)
10		7	DUCT DETECTOR (SIGA-SD)
11	TM	6	TEST SWITCH (SD-TRK)
12	XX	41	HORN/STROBE (G1RF-HDVM)
13	XX	24	HORN/STROBE (GCFR-HDVM)
14	XX	28	STROBE (G1RF-VM)
15	XX	6	STROBE (GCFR-VM)
16	ANN	1	ANNUNCIATOR (RLCD-CR)
17	FACP	1	FIRE ALARM CONTROL PANEL (IO1000R)
18	PAD	3	PAD PANEL (EBPS10A)

SIGA-CRH HIGH POWER RELAY
BASIC WIRING DIAGRAM
N.T.S.

SIGA-SD DUCT DETECTOR
BASIC WIRING DIAGRAM
N.T.S.

NO MORE THAN ONE REMOTE TEST STATION OR LED INDICATOR CAN BE CONNECTED TO THE DETECTOR AT THE SAME TIME. WIRING IS UNSUPERVISED. MAXIMUM WIRE RESISTANCE IS 10 OHMS PER WIRE.

SIGA-IM ISOLATION MODULE
MOUNTING DIAGRAM
N.T.S.

SIGA-IM ISOLATION MODULE
WIRING DIAGRAM
N.T.S.

SIGA-CC1 MODULE
WIRING DIAGRAM
N.T.S.

SINGLE INPUT SIGNAL
MODULE WIRING DIAGRAM
N.T.S.

SIGA-CT2
MOUNTING DETAIL
N.T.S.

DUAL INPUT MODULE
WIRING DIAGRAM
N.T.S.

GENESIS CEILING HORN/STROBE
MOUNTING DIAGRAM
N.T.S.

MANUAL PULL STATION SINGLE
MOUNTING DIAGRAM
N.T.S.

MANUAL PULL STATION SINGLE
STAGE WIRING DIAGRAM
N.T.S.

SIGA-CT1
MOUNTING DETAIL
N.T.S.

SINGLE INPUT MODULE
WIRING DIAGRAM
N.T.S.

SIGNATURE SERIES DETECTOR
MOUNTING DIAGRAM
N.T.S.

NOTE: SIGNAL POLARITY IS SHOWN IN ALARM

Notes

When using a single horn and strobe NAC circuit, attach the NAC circuit to the bottom two terminals of the Genesis Signal Master and install a jumper on the top two terminals. The horns can not be silenced without turning off the strobes.

GENESIS HORN/STROBE
BASIC WIRING DIAGRAM
N.T.S.

STANDARD DETECTOR
BASE WIRING DIAGRAM
N.T.S.

SIGA-CR
MOUNTING DETAIL
N.T.S.

CONTROL RELAY MODULE
WIRING DIAGRAM
N.T.S.

FIRE ALARM DEVICE DETAILS
SCALE: N.T.S.

FACP BATTERY CALCULATIONS

STANDBY 0.372643A x 24 HOURS = 8.943432 AH
ALARM 7.021095 A x .083 HOURS = + .5850913 AH
9.5285233 AH
DERATING FACTOR x 125%
11.910654 AH

BATTERIES FURNISHED 18 AH

POWER EXTENDER 1 BATTERY CALCULATIONS

STANDBY 0.07 A x 24 HOURS = 1.68 AH
ALARM 5.682 A x .25 HOURS = + 1.4205 AH
3.1005 AH
DERATING FACTOR x 125%
3.876 AH

BATTERY REQUIRED 7 AH

POWER EXTENDER 2 BATTERY CALCULATIONS

STANDBY 0.07 A x 24 HOURS = 1.68 AH
ALARM 5.78 A x .25 HOURS = + 1.445 AH
3.125 AH
DERATING FACTOR x 125%
3.906 AH

BATTERY REQUIRED 7 AH

POWER EXTENDER 3 BATTERY CALCULATIONS

STANDBY 0.07 A x 24 HOURS = 1.68 AH
ALARM 5.118 A x .25 HOURS = + 1.2795 AH
2.9595 AH
DERATING FACTOR x 125%
3.699 AH

BATTERY REQUIRED 7 AH

DEVICE ELEVATION DETAIL
NOT TO SCALE

SCALE: 1' 2' 4' 8' 16'

N

DATE	REVISIONS
9/13/16	PRELIMINARY DESIGN DRAWINGS - NOT FOR
	CONSTRUCTION
9/20/16	REVISED PER OWNER COMMENTS - FACP
	& HEAT DETECTOR CHANGES
2/2/17	REVISED TO SHOW CHANGED DEVICES

REQUIRED APPROVALS: OWNER; STATE FIRE MARSHAL; LOCAL FIRE DEPARTMENT

DRAWN BY CRM
CHECKED BY BWB
CONTRACTOR LICENSE #

CMP – PORTLAND SERVICE CENTER
CANCO RD
PORTLAND, ME

CONTRACT WITH: AVANGRID

EASTERN FIRE SERVICES, INC.
AUBURN/LEWISTON INDUSTRIAL AIRPARK, AUBURN, MAINE 04210

FIRE ALARM SYSTEM
DETAILS & CALCS
DWG. NO. FA-6
JOB NUMBER 3511
SCALE AS SHOWN
DATE 2/2/2017

Approved for Code Compliance
Fire Prevention Office
Date: 03/16/17