

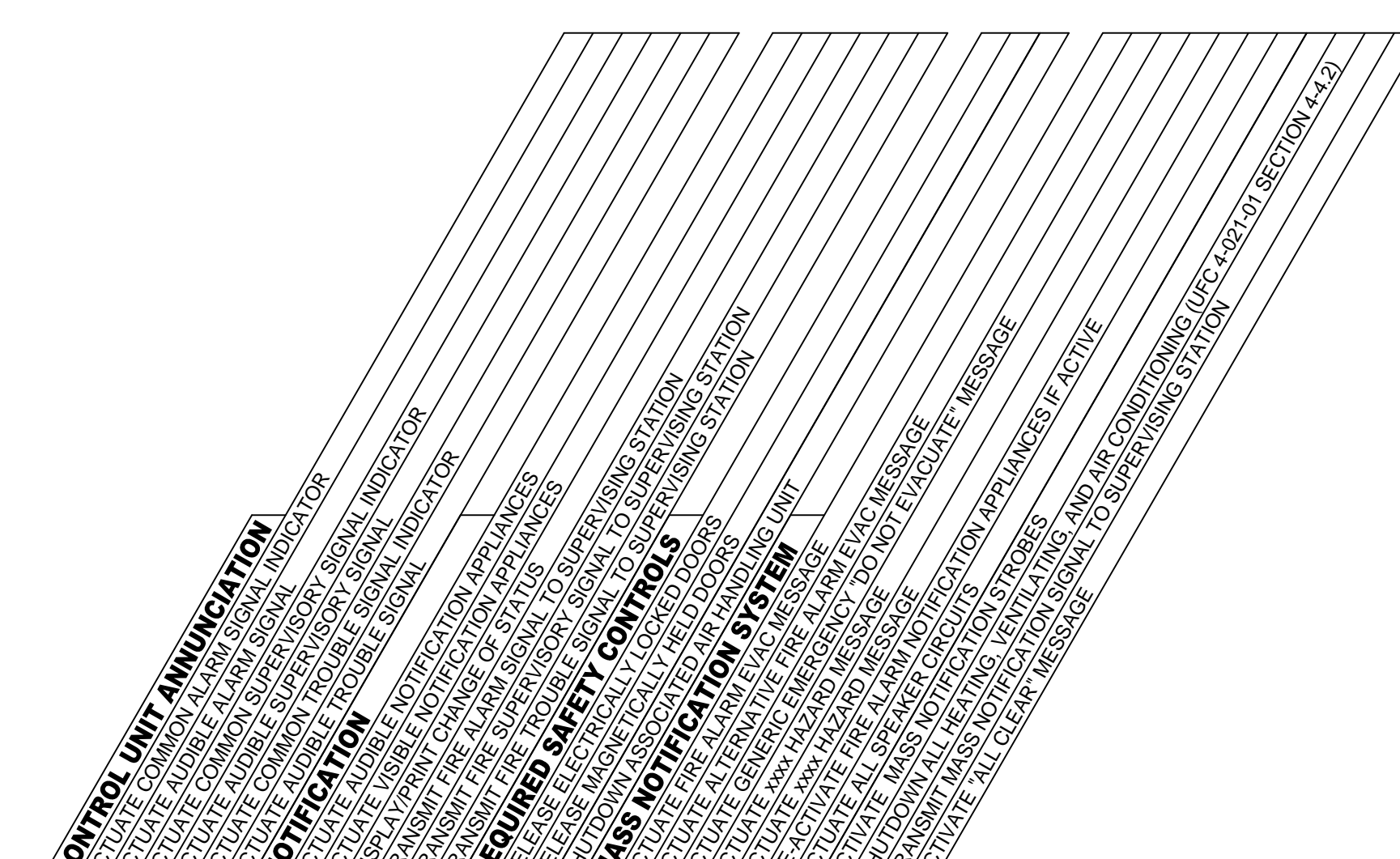
# SUM LARGE CORP.

## Fire Alarm System Submittals

### FIRE ALARM SYSTEM INPUT/OUTPUT MATRIX

● PERFORM OPERATION/REPORT DEVICE STATUS

SYSTEM - INPUTS	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1 MANUAL PULL STATION																										
2 SMOKE DETECTOR																										
3 WATERFLOW SWITCH																										
4 DUCT DETECTOR																										
5 VALVE TAMPER SWITCH (INCLUDING PIV)																										
6 FIRE ALARM CONTROL PANEL AC POWER FAILURE																										
7 FIRE ALARM CONTROL PANEL LOW BATTERY																										
8 OPEN CIRCUIT																										
9 GROUND FAULT																										
10 NOTIFICATION APPLIANCE CIRCUIT SHORTED																										
11 ALL OTHER TROUBLES																										
12 LOC MICROPHONE KEYED-ALL CALL																										
13 CONTROL UNIT MICROPHONE KEYED																										
14 MASS NOTIFICATION SYSTEM SWITCH INPUT 1																										
15 MASS NOTIFICATION SYSTEM SWITCH INPUT 2																										
16 MASS NOTIFICATION SYSTEM SWITCH INPUT 3																										
17 MASS NOTIFICATION SYSTEM SWITCH INPUT 4																										
18 MASS NOTIFICATION SYSTEM SWITCH INPUT 5																										
19 MASS NOTIFICATION SYSTEM SWITCH INPUT 6																										
20 MASS NOTIFICATION SYSTEM SWITCH INPUT 7-16 SPARES																										
21 HVAC EMERGENCY SHUT DOWN SWITCH																										



#### SCOPE OF WORK:

Install a complete and working fire / mass notification system to include area as shown on these drawings and as per contract and specifications.

#### REFERENCES:

- NFPA 72-2007 Edition
- NFPA 101-2006 Edition
- UFC 3-600-01 July 2009 Edition
- UFC 4-021-01 April 2008 Edition
- ETL 01-1-1 January 2004 Edition

#### CONTROL PANEL TERMINATIONS:

Electrical Contractor is advised not to complete terminations at the fire alarm control panel. Terminations will be completed by a qualified technician.

#### GENERAL NOTES:

- Fire Alarm is a fully automatic system.
- All Equipment shall be UL listed.
- All wiring shall be in accordance with N.E.C.
- All junction boxes shall be sized in accordance with N.E.C.
- Detectors shall not be located in direct air flow, not closer than 3 feet from an air supply diffuser or fan blade tip.
- All 120VAC power requirements for the fire alarm system shall be installed by an electrical contractor and meet all requirements of the AHJ.
- Smoke detector and Heat sensor testing shall be accomplished per NFPA 72 and as per manufacturer's instructions.
- All wiring, initiating devices and annunciator panel shall be supervised to the principal point of annunciation. The Fire Alarm Control Panel to supervise the annunciator panel, all initiating and indicating device circuits.
- The alarm system shall have audibility of not less than 15db above ambient noise levels. Testing shall be accomplished with a db meter.
- All conduits are 3/4" unless otherwise noted.
- All the devices in the alarm system shall be compatible and installed per manufacturer's specifications.
- System shall be furnished and installed by a Factory Trained Authorized Distributor of Manufacturer.
- Fire Alarm System installer shall be licensed in accordance with the State of Oklahoma and local AHJ.

#### JOB SPECIFIC NOTES:

- Initiating Device Circuits shall be Class A.
- Notification Appliance Circuits shall be Class A.
- Speaker circuits shall be Class A.
- All existing fire protection equipment to be removed. Return existing panel to the owner.

#### Drawing Index

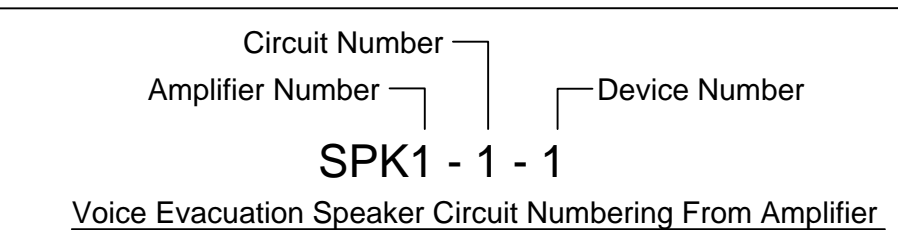
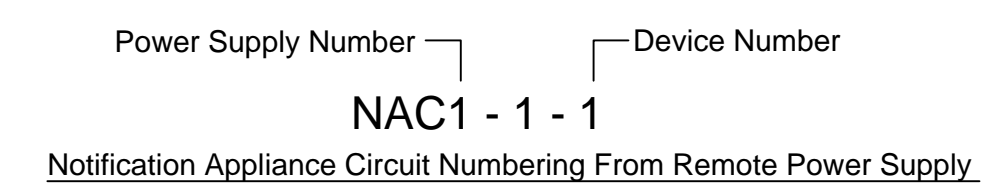
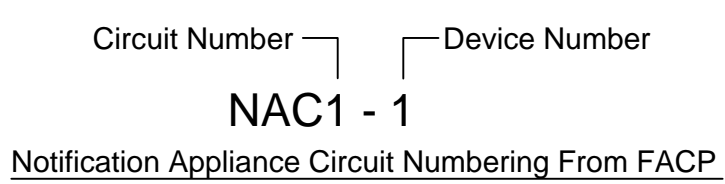
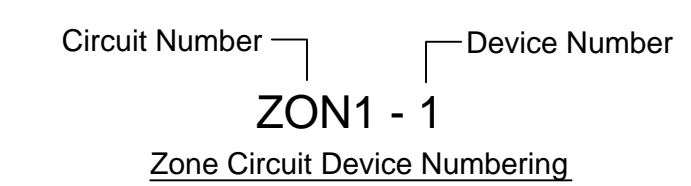
Sheet	Description
FA-100	COVER SHEET
FA-101	1st FLOOR
FA-200	RISER DIAGRAM
FA-300	WIRING DIAGRAMS
FA-301	WIRING DIAGRAMS

#### Fire Alarm Symbols Legend

Symbol	Quantity	Description	Model Number
[FACP]	1	Fire Alarm Control Panel & Transceiver	Monaco M2
	2	Batteries	Gamewell-FCI BAT-12180
[EVAC]	1	Mass Notification System	Gamewell-FCI E3
	2	Batteries	Gamewell-FCI BAT-12550
[FACU]	2	NAC Power Supply	Honeywell HPF24S8
	4	Batteries	GW-FCI BAT-1270 (2) & BAT-12120 (2)
[LOC]	2	Local Operators Console	Gamewell-FCI ASM-16 & INCC-MIC
[SS]	2	Surge Suppressor	Ditek DTK-1LVLPV
[S]	1	Photoelectric Smoke/Thermal Sensor	Monaco 723-340-01
[P]	9	Manual Pull Station	Gamewell-FCI MS-7
[WFS]	1	Sprinkler Waterflow Switch	Provided By Others
[VTS]	2	Sprinkler Valve Tamper Switch	Provided By Others
[PVS]	1	Post Indicator Valve Tamper Switch	Provided By Others
[DSD]	6	Duct Smoke Detector w/ Remote Station	Gamewell-FCI D4120 & RTS-451KEY
[ISPR]	3 & 7	Wall Speaker (Indoor & Outdoor)	Gamewell-FCI SPR & SPRK
[IS]	35	Wall Strobe w/ Candela (Clear)	Gamewell-FCI SW
[IS#]	2	Wall Strobe, (Clear) Weatherproof	Gamewell-FCI SWK
[ISM]	2	Wall Strobe, (Amber) Weatherproof	Gamewell-FCI SWK-P/LENS-A/DECAL-R
[ISM]	35	Wall Strobe w/ Candela (Amber)	Gamewell-FCI SW-ALERT
[IS#c]	55	Ceiling Speaker	Gamewell-FCI SPCR
[IS#H]	1	Horn-Type Wall Speaker	Gamewell-FCI STH-15SR

#### PLAN ABBREVIATIONS / DEFINITIONS

ZON	CONVENTIONAL ZONE CIRUIT
NAC	NOTIFICATION APPLIANCE CIRCUIT - HORN, SPEAKER AND STROBE OUTPUT
EOL	END OF LINE RESISTOR
WP	WEATHERPROOF
M	MASS NOTIFICATION
(87)	66/70 / 74 TYPICAL ROOM SPL (in db) FOLLOWED BY CIS SCORES FOR AREA



#### WIRE DESIGNATION

SYMBOL	CIRCUIT TYPE	CIRCUIT DESCRIPTION	>MINIMUM SIZE< AND TYPE OF WIRING
A	ZON	CONVENTIONAL CIRCUIT	16-2 FPLP, Red with Orange Stripe, Non-Shielded
B	LOC	LOCAL OPERATORS CONSOLE	16-2 FPLP, Red with Yellow Stripe, Non-Shielded
C	NAC	NOTIFICATION APPLIANCE CIRCUIT	14-2 FPLP, Red with White Stripe, Non-Shielded
D	SPK	VOICE EVACUATION SPEAKER CIRCUIT	16-2 FPLP, Red with Green Stripe, Shielded
E	PWR	24VDC POWER CIRCUIT	14-2 FPLP, Red with Black Stripe, Non-Shielded
K	PWR	TEST/RESET SWITCH	18-4 FPLP, Red with No Stripe, Non-Shielded

#### Device Back Box and Conduit Schedule

Symbol	Back Box Requirement
[FACP]	Supplied by and installed by Stampco
[LOC]	Supplied by and installed by Stampco
[MNS]	Supplied by and installed by Stampco
[FACU]	Supplied by and installed by Stampco
[S]	Octagon with ceiling tile t-bar support where required
[P]	4-Square with single gang mud ring
[S]	Supplied & Installed by Stampco
[IS]	4-Square, 2 1/8" deep
[IS#]	4-Square with single gang mud ring
[IS#c]	4-Square, 2 1/8" deep with ceiling tile t-bar support
[WFS]	Covered 4-Square with flex
[VTS]	Covered 4-Square with flex
[PVS]	Covered 4-Square with flex

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343 INDUSTRIAL BLVD.  
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Date: 9/12/2011

Scale: NO SCALE

Drawn By: JQP

Page Description: COVER SHEET

SHEET NUMBER: FA-100