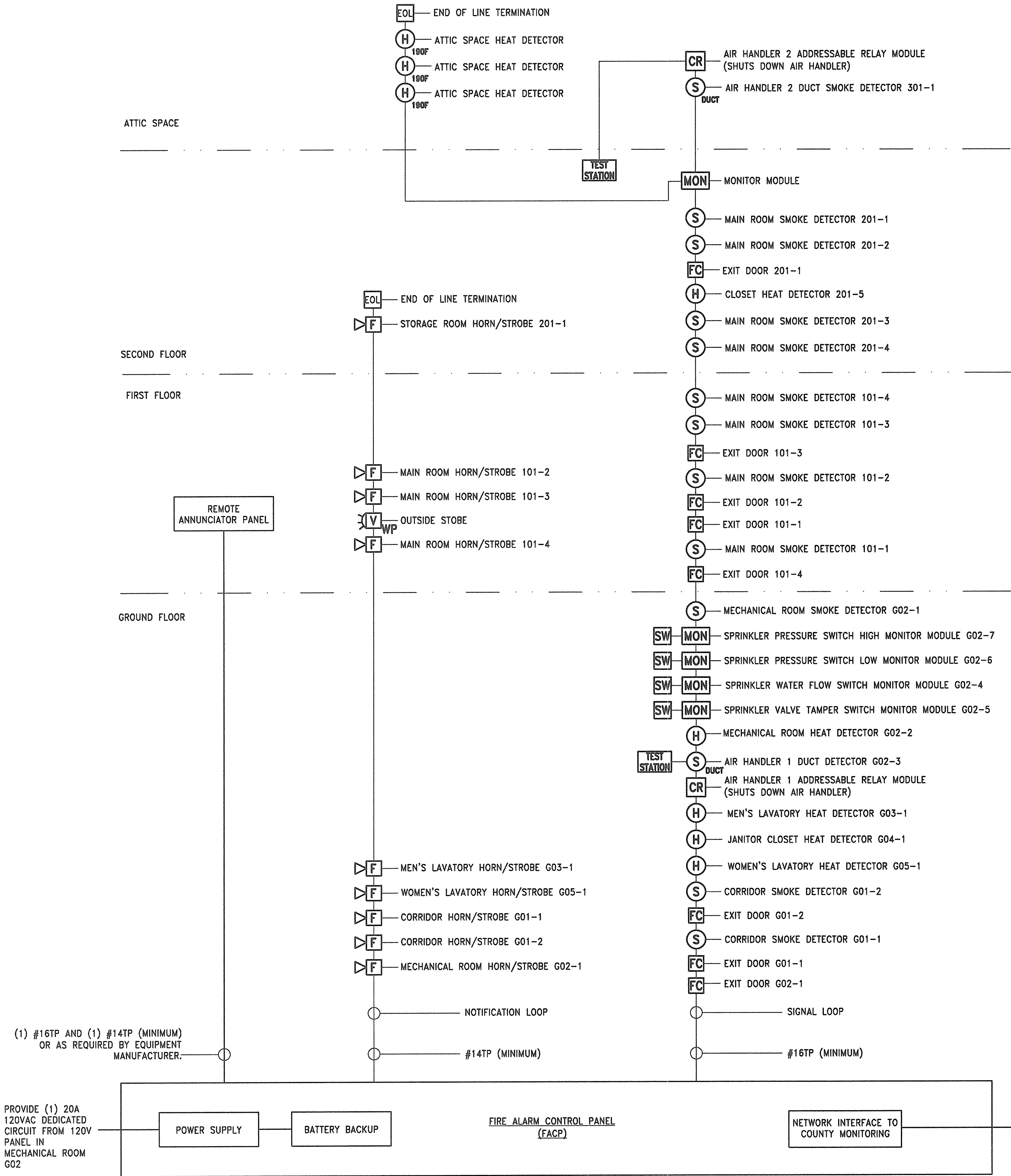


4/11/2013 10:03 AM C:\Users\jms00017001\Drawings\DWG_5_Fire-103_Church_Store_Building.dwg



CHURCH STORE BUILDING
FIRE ALARM SYSTEM RISER DIAGRAM

FIRE ALARM SYSTEM RISER NOTES:

- THIS RISER DIAGRAM IS BASED ON A SIEMENS BUILDING TECHNOLOGIES XLS FIREFINDER FIRE ALARM CONTROL PANEL OR APPROVED EQUAL. IT IS A REPRESENTATION OF THE INTENDED SYSTEM FOR THIS PROJECT. SEE THE FLOOR PLANS FOR EXACT QUANTITIES AND LOCATIONS OF FIELD EQUIPMENT. SEE THE PROJECT SPECIFICATIONS FOR PERFORMANCE AND COMPLIANCE REQUIREMENTS.
- PROVIDE AUXILIARY FIRE ALARM SIGNAL PANEL(S) W/ BATTERY BACKUP AS REQUIRED TO SUPPORT NOTIFICATION APPLIANCE LOADS.
- ALL WIRING REQUIREMENTS SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS.
- ALL INSTALLED COMPONENTS TO FULLY COMPLY WITH APPLICABLE NFPA 72 REQUIREMENTS, LOCAL AND STATE CODES.
- PROVIDE END OF LINE RESISTORS AS NECESSARY.
- PROVIDE ADDRESSABLE MONITORING AND CONTROL MODULES AS RECOMMENDED BY FIRE ALARM SYSTEM SUPPLIER.
- ALL ADDRESSABLE SLC'S SHALL BE NFPA 72 CLASS B, STYLE 4.
- ALL NOTIFICATION NAC'S SHALL BE NFPA 72 CLASS B, STYLE Y.
- STROBE CANDELAS MUST BE SIZED PER NFPA 72 REQUIREMENTS.
- AUDIBLE NOTIFICATION DEVICES SHALL PROVIDE SOUND LEVEL AT LEAST 15dB ABOVE AMBIENT NOISE LEVELS.
- ALL PANEL BATTERY BACKUP SHALL BE SIZED AT 150% OF 24HR STANDBY & 5 MINUTES OF ALARM.
- A COMPLETE SET OF FIRE ALARM PRODUCT CUTSHEETS, FIRE ALARM SHOP DRAWINGS, AND BATTERY/ VOLTAGE/ LOAD CALCULATIONS MUST BE SUBMITTED AND APPROVED PRIOR TO INSTALLATION.
- CONTRACTOR SHALL ENGAGE THE SERVICES OF THE COUNTY FIRE ALARM VENDOR FOR PROGRAMMING AND CONNECTION TO THE COUNTY WIDE NETWORK.

CLASS B
STYLE Y

PERFORMANCE OF
INITIATING LINE LOOP

ABNORMAL CONDITION	5	6
SINGLE OPEN	X	
SINGLE GROUND	X	X
WIRE-TO-WIRE SHORT	X	X

CLASS B
STYLE 4

PERFORMANCE OF
INDICATING ALARM CIRCUIT

ABNORMAL CONDITION	ALARM	TROUBLE
A. SINGLE OPEN	X	
B. SINGLE GROUND	X	R
C. WIRE-TO-WIRE SHORT	X	
D. WIRE-TO-WIRE SHORT & OPEN	X	
E. WIRE-TO-WIRE SHORT & GROUND	X	
F. OPEN & GROUND	X	
G. LOSS OF CARRIER(IF USED)/ CHANNEL INTERFACE	X	

SYSTEM OUTPUTS

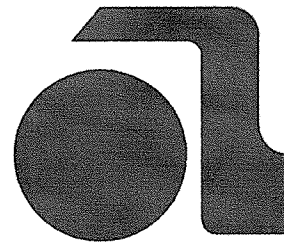
SYSTEM INPUTS

SYSTEM INPUTS		CONTROL PANEL ANNUNCIATION											NOTIFICATION				MISC.
		<div>ACTIVATE COMMON ALARM SIGNAL INDICATOR</div> <div>ACTIVATE AUDIBLE ALARM SIGNAL</div> <div>ACTIVATE COMMON SUPERVISORY SIGNAL INDICATOR</div> <div>ACTIVATE COMMON SUPERVISORY SIGNAL</div> <div>ACTIVATE COMMON TROUBLE SIGNAL INDICATOR</div> <div>ACTIVATE COMMON TROUBLE SIGNAL</div> <div>ACTIVATE ZONE ALARM SIGNAL INDICATOR</div> <div>ACTIVATE ZONE TROUBLE SIGNAL</div> <div>DISPLAY/PRINT CHANGE OF STATUS</div> <div>TRANSMIT FIRE SIGNAL TO NETWORK COMMAND CENTER</div> <div>TRANSMIT SUPERVISORY SIGNAL TO NETWORK COMMAND CENTER</div> <div>ACTIVATE TROUBLE SIGNAL TO NETWORK COMMAND CENTER</div> <div>ACTIVATE AHU-1 SHUT DOWN</div> <div>ACTIVATE AHU-2 SHUT DOWN</div> <div>ACTIVATE EXTERIOR STROBE AT FIRE DEPT. RESPONSE POINT</div>															
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
1	ANY MANUAL PULL BOX	●	●				●	●	●	●					●	1	
2	ANY HEAT DETECTOR	●	●				●	●	●	●					●	2	
3	ANY SMOKE DETECTOR	●	●				●	●	●	●			●	●	●	3	
4	DUCT SMOKE DETECTOR AHU-1 MECHANICAL ROOM	●	●				●	●	●	●			●	●	●	4	
5	DUCT SMOKE DETECTOR AHU-2 ATTIC	●	●				●	●	●	●			●	●	●	5	
6	SPRINKLER SYSTEM ACTIVE (PSA)	●	●				●	●	●	●					●	6	
7	SPRINKLER SYSTEM WATER FLOW	●	●				●	●	●	●					●	7	
8	SPRINKLER VALVE TAMPER SWITCH			●	●						●					8	
9	FIRE PANEL AC POWER LOSS					●	●					●				9	
10	LOW BATTERY VOLTAGE					●	●					●				10	
11	OPEN CIRCUIT					●	●					●				11	
12	GROUND FAULT					●	●					●				12	
13	NOTIFICATION APPLIANCE SHORT					●	●					●				13	
14	COMMUNICATION NETWORK FAILURE					●	●					●				14	
15	SPRINKLER SYSTEM HIGH PRESSURE			●	●						●					15	
16	SPRINKLER SYSTEM LOW PRESSURE			●	●						●					16	

FIRE ALARM INPUT/OUTPUT MATRIX

APPROVED:
Richard A. Alaimo
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 13195

REVISIONS	DATE	BY



ALAIMO GROUP
Consulting Engineers
NJDC 24GA27988400

200 HIGH STREET
2 MARKET STREET
MOUNT HOLLY, N.J.
PATERSON, N.J.

**NEW FIRE ALARM SYSTEM AT
CHURCH STORE BUILDING**

**FIRE ALARM SYSTEM
RISER DIAGRAM**

SCALE: NONE

CLIENT:
COUNTY OF UNION

PROJECT LOCATION:
**TOWNSHIP OF BERKELEY HEIGHTS
UNION COUNTY
NEW JERSEY**

RAA PROJECT NO.:
A-0530-0017-001
PROJECT NO.:
2010-024

DATE:
APR. 2013
DESIGNED BY:
SDR/PMF
DRAWN BY:
SDR/MAC
CHECKED BY:
SDR/MAC
DATE:
4/11/2013

SHEET
FA-103

FILE NO.: