City of Aurora Building Division
Counter Permit intake by: WHP
Date: Jun 23, 2017
RSN: 3217639
Permit: 2017-1316026-CT
2015 INTERNATIONAL CODES & 2014 NEC Scope of permit to be field verified.

MEDICAL CENTER OF AURORA
1ST FLOOR EMERGENCY DEPT. FIRE ALARM SYSTEM

SITE

MEDICAL CENTER OF AURORA
1501 S POTOMAC STREET
AURORA, COLORADO 80012

INSTALLER

MC2 ELECTRICAL
88 LIPAN ST
DENVER, CO 80223
PHONE: 303-453-0284

Sheet List Table	
Sheet Number	Sheet Title
General Information (FA-000 Series)	
FA-001	COVER SHEET
FA-002	GENERAL INFORMATION
Floorplans (FA-100 Series)	
FA-101	3RD FLR CENTER TWR-DEVICE PLACEMENT PLAN
Risers (FA-200 Series)	
FA-201	3RD FLR CENTER TWR-PARTIAL RISER DIAGRAM
Calculations (FA-600 Series)	
FA-601	CALCULATIONS AND SCHEDULES
Wiring Details (FA-700 Series)	
FA-701	WIRING TYPICALS

AURORA FIRE DEPARTMENT GENERAL NOTES

- FIRE ALARM SYSTEMS CANNOT BE COMBINED WITH BURGLAR ALARM SYSTEMS.
- THE INSTALLER IS REQUIRED TO COORDINATE WITH THE MECHANICAL CONTRACTOR TO DETERMINE INSTALLATION OF SMOKE DETECTORS OR SENSORS (i.e., NOT CLOSER THAN 3 FEET FROM ANY SUPPLY/RETURN DIFFUSER AND THAT ADDITIONAL DETECTION MAY BE REQUIRED DUE TO THE RELOCATION OR SPACING ADJUSTMENT OF DETECTORS, AS A RESULT).
- FIRE ALARM DEVICES MUST BE PLACED IN PROTECTED AREAS WITH AMBIENT TEMPERATURE RANGING FROM 32 DEGREES TO 120 DEGREES F.
- DO NOT PLACE SMOKE DETECTORS WITHIN 3 FEET OF AIR SUPPLY REGISTERS AND DIFFUSERS.
- FIRE ALARM SYSTEM SHALL BE MONITORED BY A CLASS 1 CENTRAL STATION.
- FIRE ALARM CONTROL PANEL WILL BE PLACED IN THE LOCATION SPECIFIED WITHIN THE PLAN SUBMITTAL UNLESS APPROVED BY THE LIFE SAFETY FIELD INSPECTOR.
- CITY OF AURORA BUILDING CODES DIVISION DOES NOT GRANT APPROVAL FOR ANY VIOLATIONS OF ADOPTED FIRE CODE. CODE VIOLATIONS UNCOVERED DURING FIELD INSPECTIONS MUST BE CORRECTED.
- PER THE 2009 IFC AND THE 2011 NEC THE INSTALLER MUST REQUEST A ROUGH WIRING INSPECTION IN THE FIRE ALARM SYSTEM PRIOR TO REQUESTING A FIRE ALARM FINAL INSPECTION.
- THE CONTRACTOR SHALL CONDUCT A "PRE-TEST" OF THE PROJECT AREA PRIOR TO SCHEDULING AN ACCEPTANCE TEST WITH THE BUILDING CODES DIVISION.
- REMOTE ALARM INDICATORS SHALL BE PROVIDED FOR ANY AUTOMATIC FIRE ALARM DETECTOR LOCATED IN A CONCEALED LOCATION WITH A NORMALLY LOCKED DOOR.
- AT THE TIME OF FINAL FIRE ALARM INSPECTION, THE SYSTEM MUST BE SUPERVISED/MONITORED BY A CLASS 1 CENTRAL MONITORING AGENCY.
- THE INSTALLING CONTRACTOR (OR DESIGNEE) MUST PROVIDE ALL NECESSARY TESTING EQUIPMENT AND PERFORM ALL TESTING REQUIRED BY THE LIFE SAFETY FIELD INSPECTOR.
- IN-DUCT SMOKE DETECTORS INSTALLED IN CONCEALED LOCATIONS OR, WHERE THE DETECTOR'S ALARM INDICATOR IS NOT READILY VISIBLE TO RESPONDING PERSONNEL SHALL BE PROVIDED WITH A REMOTE INDICATOR(S), REMOTE TEST STATION AND PLACARDING.
- ALL NEW OR EXISTING FIRE ALARM SYSTEMS MUST BE CONNECTED ANY EXTERIOR HORN AND STROBE APPLIANCE. IF THE BUILDING IS FIRE SPRINKLED, A GENERAL ALARM ACTIVATION AT THE FIRE ALARM CONTROL PANEL WILL ACTIVATE THE EXTERIOR HORN AND STROBE. SILENCING THE PANEL MUST ALLOW THE VISUAL DEVICE TO CONTINUE UNTIL THE PANEL IS RESET.
- FIRE ALARM SYSTEMS SHALL INCLUDE BOTH AUDIBLE AND VISUAL ALARMS. VISUAL ALARMS WILL BE REQUIRED IN ALL ACCESSIBLE PUBLIC AND COMMON-USE AREAS PER THE 2009 IFC AND THE 2003 ANSI A117.1 STANDARD.
- PROVIDE A PRIMARY AND SECONDARY POWER SUPPLY FOR THE FIRE ALARM SYSTEM PER THE 2009 IFC, SECTION 907.5 AND THE 2007 NFPA 72.
- FIELD INSPECTION CONSULTATION IS AVAILABLE UPON REQUEST. CALL 303-739-7420 TO REQUEST CONSULTATION.
- THE FIRE ALARM CONTRACTOR MUST COMPLETE THE NFPA72 "RECORD OF COMPLETION" PRIOR TO SCHEDULING THE AHJ ACCEPTANCE TEST.
- AUDIBLE ALARM SIGNALING DEVICES SHALL EXCEED THE PREVAILING SOUND LEVEL IN A ROOM OR SPACE BY 15 DBA. SOUND LEVELS FOR ALARM SIGNALS SHALL BE 120 DBA MAXIMUM. 2009 IFC SECTION 907.10.2.

tyco SimplexGrinnell
Safer. Smarter. Tyco.™

PROJECT MANAGER
GREGORY MIKEVICH
303-888-5535
GMIKEVICH@SIMPLEXGRINNELL.COM

14200 E. EXPOSITION AVE
AURORA, CO 80012

PHONE: 303-355-0500
SERVICE: 303-355-0500
FAX: 303-355-0615

CENTRAL STATION MONITORING SERVICE:

SIMPLEXGRINNELL
50 TECHNOLOGY DRIVE
WESTMINSTER, MA 01441
1 (888) 746-7539

NICET CERTIFICATION

TECHNICAL AREA 00303: LEVEL 3
CERTIFICATE #: 93727
VALID THROUGH: 03/01/18

NANCY S. WILTSIE — 06/16/17 DATE

tyco SimplexGrinnell
Safer. Smarter. Tyco.™
DISTRICT - 419
14200 E. EXPOSITION AVE
AURORA, COLORADO 80012
SERVICE: 303-355-0500
PHONE: 303-355-0500
FAX: 303-355-0615

MEDICAL CENTER OF AURORA
1ST FLOOR EMERGENCY DEPT.
MEDICAL CENTER OF AURORA
1501 S POTOMAC STREET
AURORA, COLORADO 80012

Revisions shown with A symbol

ISSUE LOG: MARK	DATE	CAD	CHK	DESCRIPTION

FOR PERMIT

DRAWN BY:	NSW
CHECKED BY:	NSW
ISSUE DATE:	6/15/17
JOB #:	
PROJECT #:	419:999462101
SIMPLEXGRINNELL ©	2017
SYSTEM:	FIRE ALARM SYSTEM
SHEET:	COVER SHEET

FA-001

IMPORTANT NOTICE TO USERS: By accepting or using this drawing and/or the information contained herein, the user agrees to the following terms and conditions: The enclosed information is the property of Tyco and/or its licensors or contractual suppliers. Any use, reuse, copying, modification or alteration of the information contained herein without the express written consent of Tyco is prohibited. Tyco disclaims all liability for the use or reuse of altered files by the user or any third party and such use will be a user's sole risk. User shall, to the fullest extent permitted by law, defend, indemnify, and hold SimplexGrinnell harmless from any and all claims for loss, damage or injury arising directly or indirectly therefrom.

FILE PATH: g:\medical center of aurora\1501 s potomac - aurora south\south tower - node 1123-zone conversion - 2017 -999462101\fire 1st floor em dept\Fire\FA-001.dwg
LAST SAVED BY: NWILTSIE
LAST PRINTED: 6/15/2017 3:20:45 PM
24" x 36" - Arch D Size

RSN: *1217639*
Permit #: *2017-1316026-CT*

GENERAL NOTES

1. THESE DRAWINGS DEPICT GENERAL LOCATIONS OF LIFE SAFETY EQUIPMENT & FIELD DEVICES. EXACT ROUTING OF CONDUITS TO BE DETERMINED IN THE FIELD BY THE INSTALLING CONTRACTOR TO SUIT CONDITIONS. ALL CHANGES SHALL BE CLEARLY INDICATED ON THE RECORD DRAWINGS.
2. SHOULD ANY CONDITIONS EXIST THAT DIFFER FROM WHAT IS INDICATED ON THESE DRAWINGS WHICH CAUSE MAJOR DEVIATIONS IN THE WORK SHOWN, THE CONTRACTOR SHALL CONTACT SIMPLEXGRINNELL IN A TIMELY MANNER SO AS NOT TO IMPAIR THE CONSTRUCTION SCHEDULE.
3. CONTRACTOR IS RESPONSIBLE FOR MAKING AND OBTAINING APPROVAL FOR ALL NECESSARY ADJUSTMENTS IN CIRCUITING AS REQUIRED TO ACCOMMODATE THE RELOCATION OF EQUIPMENT AND/OR DEVICES WHICH ARE AFFECTED BY ANY AUTHORIZED CHANGE. ALL CHANGES SHALL BE CLEARLY INDICATED ON THE RECORD DRAWINGS.
4. A STAMPED SET OF APPROVED FIRE ALARM DRAWINGS SHALL BE AT THE JOB SITE AND SHALL BE USED FOR INSTALLATION.
5. THE POWER CIRCUIT TO THE FACP AND TO THE FIRE ALARM POWER SUPPLIES SHALL BE ON A DEDICATED 120V, 20A BRANCH CIRCUIT BREAKER, AND SHALL HAVE A RED MARKING, LOCK-ON PROVISION AND SHALL BE IDENTIFIED AS "FIRE ALARM CIRCUIT CONTROL." THE LOCATION OF THE CIRCUIT DISCONNECT MEANS (CIRCUIT BREAKER) SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.
6. UPDATE THE AS-BUILT DRAWING SET DAILY WITH JOB PROGRESS. RETURN THE AS-BUILT DRAWING SET TO SIMPLEXGRINNELL NO LATER THAN 7 DAYS AFTER FINAL TEST.
7. THE CONTRACTOR WILL MAINTAIN ALL AREAS OF THE BUILDING IN A NEAT AND WORKMAN LIKE MANNER.
8. DO NOT APPLY POWER EXCEPT IN THE PRESENCE OF A FACTORY TRAINED SIMPLEXGRINNELL TECHNICAL REPRESENTATIVE.
9. ANY SMOKE DETECTOR HEAD INSTALLED BEFORE THE BUILDING IS CLEANED AND ACCEPTED SHALL BE COVERED TO PROTECT FROM DUST. ANY FALSE ALARMS DUE TO DIRT CONTAMINATED HEADS SHALL BE THE RESPONSIBILITY OF THE FIRE ALARM INSTALLER.
10. THE FIRE ALARM INSTALLER WILL MAINTAIN THE FIRE RESISTANCE INTEGRITY OF ALL WALL, CEILING, AND ROOF ASSEMBLIES ANY TIME THAT WORK IS NOT ACTIVELY BEING PERFORMED.
11. INSTALLATION OF DEVICES SHALL BE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. POWER LIMITED AND NON-POWER LIMITED FIELD WIRING MUST BE INSTALLED WITHIN THE FACP ENCLOSURE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND NEC.
12. ALL WIRING SHALL BE INSTALLED ACCORDING TO NFPA 70 (NEC).
13. FIRE ALARM CIRCUITS SHALL BE IDENTIFIED IN ACCORDANCE WITH APPROPRIATE SECTION OF NEC 760. MARK ALL FIRE ALARM WIRES IN ACCORDANCE WITH NEC 760 SECTIONS FOR POWER LIMITED AND NON-POWER LIMITED WIRE.
14 FIRE ALARM CABLE INSTALLED IN DUCTS, PLENUM, AND OTHER SPACES USED FOR ENVIRONMENTAL AIR SHALL BE TYPE FPLP.
15. FIRE ALARM CABLE INSTALLED IN THE VERTICAL RUNS AND PENETRATING MORE THAN ONE FLOOR OR CABLES INSTALLED IN VERTICAL RUNS IN SHAFTS SHALL BE TYPE FPLR.
16. FIRE ALARM CABLE INSTALLED IN UNDERGROUND CONDUIT OR OTHER WET LOCATIONS SHALL BE UL LISTED FOR WET LOCATIONS.
17. FIRE ALARM CIRCUITS EXTENDING BEYOND ONE BUILDING AND RUN OUTDOORS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 70 ARTICLES 760, 770, 725 AND 800 WHERE APPLICABLE.
18. ALL WIRING, INCLUDING SHIELDS MUST BE DRY AND FREE OF SHORTS AND GROUNDS.
19. ALL SHIELDED WIRE MUST HAVE SHIELD CONTINUITY AT FULL LENGTH OF THE WIRE.
20. ONLY SYSTEM WIRING CAN BE RUN IN THE SAME CONDUIT.
21. 120VAC IS NOT PERMITTED IN THE SAME CONDUIT WITH LOW VOLTAGE WIRING.
22. MAINTAIN 40 PERCENT MAXIMUM CONDUIT FILL RATIO AS PER NEC REQUIREMENTS.
23. EXISTING CONDUITS MAY BE USED BY THE INSTALLATION CONTRACTOR AS DEEMED NECESSARY, HOWEVER, ANY EXISTING CONDUIT WILL BE USED ONLY IF CONDUITS MEET CURRENT STANDARDS AND CODES. SIMPLEXGRINNELL MAKES NO STATEMENTS WRITTEN OR VERBAL AS TO THE CONDITION OF EXISTING CONDUITS.

WIRE SCHEDULE

FIRE ALARM WIRE LIST

	CIRCUIT DESCRIPTION	RISER RATED: FPLR	SINGLE CONDUCTOR(THHN,TFFN)	PLENUM RATED: FPLP
B	RUI/N2 COMMUNICATION 1 PAIR 18 AWG TWISTED OVERALL SHIELD	SG ANIX./PAIGE 740215 AREA=0.0196 SQ. INCH ANIXTER PART NUMBER T740215		SG ANIX./PAIGE 740214L AREA=0.0196 SQ. INCH ANIXTER PART NUMBER FAMC-1802C-1-2S-03B5
H	AUDIBLE CIRCUIT - 2 CONDUCTOR 14 AWG SOLID	SG ANIX./PAIGE 454718ARE AREA=0.0380 SQ. INCH ANIXTER PART NUMBER FA-1402C-1-1N-03-BX	(2) #14 AWG AREA=0.0097 SQ. INCH (EACH)	SG ANIX./PAIGE 454719ARE AREA=0.0333 SQ. INCH ANIXTER PART NUMBER FA-1402C-1-2N-03
K	REMOTE TEST SWITCH/ LED CIRCUIT - (2) 2 CONDUCTOR 14 AWG SOLID	SG ANIX./PAIGE 454718ARE AREA=0.0380 SQ. INCH ANIXTER PART NUMBER FA-1402C-1-1N-03-BX	(4) #14 AWG AREA=0.0097 SQ. INCH (EACH)	SG ANIX./PAIGE 454719ARE AREA=0.0333 SQ. INCH ANIXTER PART NUMBER FA-1402C-1-2N-03
M	MAPNET/IDNET CIRCUIT 1 PAIR 18 AWG TWISTED OVERALL SHIELD	SG ANIX./PAIGE 740215 AREA=0.0196 SQ. INCH ANIXTER PART NUMBER T740215		SG ANIX./PAIGE 740214L AREA=0.0196 SQ. INCH ANIXTER PART NUMBER FAMC-1802C-1-2S-03B5
P	POWER CIRCUIT 2 CONDUCTOR 14 AWG SOLID (SUBSCRIPT "r" IF RESETTABLE)	SG ANIX./PAIGE 454718ARE AREA=0.0380 SQ. INCH ANIXTER PART NUMBER FA-1402C-1-1N-03-BX	(2) #14 AWG AREA=0.0097 SQ. INCH (EACH)	SG ANIX./PAIGE 454719ARE AREA=0.0333 SQ. INCH ANIXTER PART NUMBER FA-1402C-1-2N-03
R	RELAY CIRCUIT 2 CONDUCTOR 14 AWG SOLID	SG ANIX./PAIGE 454718ARE AREA=0.0380 SQ. INCH ANIXTER PART NUMBER FA-1402C-1-1N-03-BX	(2) #14 AWG AREA=0.0097 SQ. INCH (EACH)	SG ANIX./PAIGE 454719ARE AREA=0.0333 SQ. INCH ANIXTER PART NUMBER FA-1402C-1-2N-03
V	VISUAL/SIGNAL CIRCUIT 2 CONDUCTOR 14 AWG SOLID	SG ANIX./PAIGE 454718ARE AREA=0.0380 SQ. INCH ANIXTER PART NUMBER FA-1402C-1-1N-03-BX	(2) #14 AWG AREA=0.0097 SQ. INCH (EACH)	SG ANIX./PAIGE 454719ARE AREA=0.0333 SQ. INCH ANIXTER PART NUMBER FA-1402C-1-2N-03
Z	ZONE CIRCUIT 2 CONDUCTOR 16 AWG SOLID	SG ANIX./PAIGE 454731ARE AREA=0.0272 SQ. INCH ANIXTER PART NUMBER FA-1602C-1-1N-03-BX	(2) #16 AWG AREA=0.0072 SQ. INCH (EACH)	SG ANIX./PAIGE 454740ARE AREA=0.0209 SQ. INCH ANIXTER PART NUMBER FA-1602C-1-2N-03

CONDUIT SIZE	CONDUCTOR AREA	CONDUIT SIZE	CONDUCTOR AREA
1/2"	0.12 SQ INCH *	1-1/4"	0.60 SQ INCH *
3/4"	0.21 SQ INCH *	1-1/2"	0.82 SQ INCH *
1"	0.34 SQ INCH *	2"	1.34 SQ INCH *

* 40% FILL PER N.E.C.

THE CABLES SPECIFIED HERE ARE FOR REFERENCE OF REQUIRED ELECTRICAL CHARACTERISTICS AS WELL AS CODE REQUIREMENTS. ALTERNATE SUPPLIERS MAY BE SUBSTITUTED PROVIDING EQUIVALENT CHARACTERISTICS ARE MAINTAINED. ITEMS SUCH AS CAPACITANCE BETWEEN CONDUCTORS AND WIRE GAUGE CAN BE CRUCIAL TO THE CIRCUIT DESIGN OF THIS SYSTEM INSTALLATION.
REFERENCE https://www.anixter.com/customer/tycofs FOR SG ANIXTER CABLE DATA

SYSTEM DESCRIPTION / SCOPE OF WORK

OCCUPANCY TYPE: I-2 INSTITUTIONAL GROUP

SPRINKLER PROTECTION: BUILDING IS FULLY SPRINKLED

CONSTRUCTION TYPE: EXISTING TYPE 1-A

SQUARE FOOTAGE: TOTAL IS APPROX 450396 SQ. FT.
IN SCOPE OF WORK IS 1476 SQ. FT.

MODIFY EXISTING FIRE ALARM SYSTEM: PROVIDE NEW DEVICES, RELOCATE AND DEMO EXISTING DEVICES AS SHOWN ON DRAWINGS.

AN AREA OF THE EXISTING THIRD FLOOR CENTER TOWER WILL BE RE-PURPOSED. NEW ADDRESSABLE SMOKE DETECTORS WILL BE ADDED TO FIVE ROOMS AND WILL BE CONNECTED TO THE EXISTING SLC ON THE FLOOR. THERE WILL BE NO CHANGES TO THE EXISTING SEQUENCE OF OPERATIONS.

ALL NEW WIRING IS TO BE STYLE Z FOR NOTIFICATION APPLIANCE CIRCUITS, STYLE B FOR INITIATING DEVICE CIRCUITS, AND STYLE 4 FOR SIGNALING LINE CIRCUITS.

THE EXISTING FIRE ALARM SYSTEM SHALL NOT BE DISCONNECTED OR TAKEN OUT OF SERVICE WITHOUT WRITTEN PERMISSION FROM THE OWNER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE OWNER THE TIMING OF ANY EXISTING FIRE ALARM SYSTEM DEMOLITION WORK.

FIRE ALARM APPLICABLE CODES & STANDARDS

INTERNATIONAL FIRE CODE (IFC), 2015 EDITION

INTERNATIONAL BUILDING CODE (IBC), 2015 EDITION

LIFE SAFETY CODE (NFPA 101), 2015 EDITION

NATIONAL ELECTRIC CODE (NFPA 70), 2014 EDITION

ICC/ANSI A117.1 ACCESSIBLE USABLE BUILDINGS & FACILITIES, 2003 EDITION

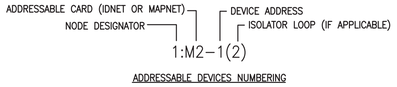
ABBREVIATIONS LEGEND

AC = ABOVE CEILING
C = CEILING MOUNTED
E = EXISTING TO REMAIN
RC = EXISTING TO REMOVE AND COVER
RD = EXISTING DEVICE TO BE RELOCATED
RL = RELOCATED DEVICE
RR = REMOVE EXISTING AND REPLACE W/NEW

WP = WEATHERPROOF
XP = EXPLOSION PROOF
H = HIGH HUMIDITY
AFF = ABOVE FINISHED FLOOR
AHJ = AUTHORITY HAVING JURISDICTION
ALM = ALARM
ANN = ANNUNCIATOR
BMS = BUILDING MANAGEMENT SYSTEM
CBC = CALIFORNIA BUILDING CODE
CD = (eg. 15CD) CANDELA
CSFM = CALIFORNIA STATE FIRE MARSHAL
DET = DETECTOR
DGP = DATA GATHERING PANEL
EOL = END OF LINE
EPO = EMERGENCY POWER OFF
FACP = FIRE ALARM CONTROL PANEL
FATC = FIRE ALARM TERMINAL CABINET
FBO = FURNISHED BY OTHERS
FCC = FIRE COMMAND CENTER
FAA = FIRE ALARM ANNUNCIATOR
FTR = FIRE ALARM TRANSPONDER
FSD = FIRE SMOKE DAMPER

HT = HEIGHT
HVAC = HEATING, VENTILATION, & AIR CONDITIONING
IMS = INFORMATION MANAGEMENT SYSTEM
MAX = MAXIMUM
MIN = MINIMUM
N/A = NOT APPLICABLE
NAC = NOTIFICATION APPLIANCE CIRCUIT EXTENDER
NDU = NETWORK DISPLAY UNIT
NEC = NATIONAL ELECTRICAL CODE
NFPA = NATIONAL FIRE PROTECTION ASSOCIATION
NIC = NOT IN CONTRACT
NPU = NETWORK PROCESSING UNIT
NTS = NOT TO SCALE
PAP = PRE-ACTION PANEL
SCC = STATUS COMMAND CENTER
SLC = SIGNALING LINE CIRCUIT
SMK = SMOKE
SUPV = SUPERVISORY
TAC = TRUEALERT ADDRESSABLE CONTROLLER
TRBL = TROUBLE
TS = TAMPER SWITCH
TYP = TYPICAL
UON = UNLESS OTHERWISE NOTED
VCC = VOICE COMMAND CENTER
VT = VALVE TAMPER
WF = WATER FLOW
W = (eg. 1/2W) WATT
W/ = WITH
W/O = WITH OUT

DEVICE ADDRESSING LEGEND



SYMBOL KEY

FIRE ALARM SYMBOLS LEGEND

SYMBOL	DESCRIPTION	MODEL#	COMMONLY USED BACKBOX, REFER TO DATA SHEET FOR OTHER OPTIONS
XPDR	EXISTING FIRE ALARM TRANSPONDER PANEL W / VARIOUS BATTERY SETS	SIMPLEX 4100-9600 REFER TO BATTERY CHARTS	EXISTING
F	EXISTING MANUAL PULL STATION	SIMPLEX 2099-9795	EXISTING
2	SMOKE SENSOR / BASE L = BASE W/REMOTE LED OUTPUT	SIMPLEX 4098-9714 SIMPLEX 4098-9792 BASE SIMPLEX 4098-9789 BASE	4" OCTAGONAL BOX 1 1/2" DEEP 4" OCTAGONAL BOX 1 1/2" DEEP
	EXISTING REMOTE ALARM INDICATOR	SIMPLEX 2098-9808	EXISTING
	EXISTING HEAT SENSOR / BASE	SIMPLEX 4098-9733 SIMPLEX 4098-9792 BASE	EXISTING
2	EXISTING DUCT SMOKE SENSOR	SIMPLEX 4098-9706	EXISTING
	EXISTING REMOTE TEST STATION W/ LED AND KEY SWITCH	SIMPLEX 2098-9806	EXISTING
ACM P	EXISTING CONTROL ZAM	SIMPLEX 2190-9163	EXISTING
AM	EXISTING INDIVIDUAL ADDRESSABLE MODULE	SIMPLEX 2190-9172	EXISTING
	EXISTING WALL MOUNT MULTI-CANDELA CHIME/STROBE, RED 15 CANDELA	SIMPLEX 4903-9292 (WHEELOCK CH70-2415W-FR)	EXISTING
	EXISTING WALL MOUNT MULTI-CANDELA STROBE ONLY RED 15 CANDELA	SIMPLEX 4904-9137	EXISTING
	EXISTING DOOR HOLDER	SUPPLIED BY OTHERS	EXISTING
WF	EXISTING WATERFLOW SWITCH	SUPPLIED BY OTHERS	EXISTING
VS	EXISTING TAMPER SWITCH	SUPPLIED BY OTHERS	EXISTING

SEQUENCE OF OPERATION

	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	AA	AB	AC	AD	AE	AF	REMARKS
	SYSTEM OUTPUTS	CONTROL UNIT ANNUNCIATION										NOTIFICATION													FIRE SAFETY CONTROL									
		ACTUATE COMMON ALARM SIGNAL INDICATOR	ACTUATE AUDIBLE ALARM SIGNAL	ACTUATE COMMON SUPERVISORY SIGNAL INDICATOR	ACTUATE AUDIBLE SUPERVISORY SIGNAL	ACTUATE COMMON TROUBLE SIGNAL INDICATOR	ACTUATE AUDIBLE TROUBLE SIGNAL	ACTUATE APPROPRIATE LOCATION INDICATOR	ACTUATE ALL AUDIBLE EVACUATION SIGNALS	ACTUATE ALL VISIBLE EVACUATION SIGNALS		DISPLAY CHANGE OF STATUS	TRANSMIT ALARM SIGNAL TO SUPERVISING STATION	TRANSMIT SUPV. SIGNAL TO SUPERVISING STATION	TRANSMIT TROUBLE SIGNAL TO SUPERVISING STATION		RELEASE MAGNETICALLY HELD SMOKE DOORS	RELEASE ELEVATOR FIRE DOORS	ELEVATOR SHUNT TRIP	MAIN FLOOR ELEVATOR RECALL	ALTERNATE FLOOR ELEVATOR RECALL	ELEVATOR HAT FLASH			FAN SHUT DOWN	DAMPER SHUT DOWN	REMOTELY DISPLAY ACTIVE STATUS					
1	SMOKE SENSOR/DETECTOR	•	•					•	•	•		•	•				•													•	•		•	1
2	MANUAL PULL STATION	•	•					•	•	•		•	•																				•	2
3	HEAT SENSOR/DETECTOR	•	•					•	•	•		•	•																	•	•		•	3
4	DUCT SENSOR/DETECTOR			•	•			•				•		•																•	•		•	4
5	MAIN FLR. ELEV. LOBBY SMOKE DETECTOR	•	•					•	•	•		•	•				•		•		•									•	•		•	5
6	ELEVATOR LOBBY SMOKE DETECTORS (EXC. MAIN FLR.)	•	•					•	•	•		•	•				•		•	•										•	•		•	6
7	ELEVATOR MECH. ROOM HEAT DETECTOR	•	•					•	•	•		•	•					•			•												•	7
8	ELEVATOR MECH. ROOM SMOKE DETECTOR	•	•					•	•	•		•	•				•			•			•							•	•		•	8
9	ELEVATOR SHAFT HEAT DETECTOR	•	•					•	•	•		•	•					•			•												•	9
10	ELEVATOR SHAFT SMOKE DETECTOR	•	•					•	•	•		•	•				•			•			•							•	•		•	10
11	ELEVATOR POWER MONITOR			•	•			•				•		•																			•	11
12	WATERFLOW SWITCH	•	•					•	•	•		•	•				•																•	12
13	TAMPER SWITCH			•	•			•				•		•																			•	13
14	FIRE ALARM AC POWER FAILURE					•	•					•			•		•		•														•	14
15	FIRE ALARM SYSTEM LOW BATTERY					•	•					•			•																		•	15
16	OPEN CIRCUIT OR GROUND FAULT					•	•					•			•																		•	16
17	CLASS B NOTIFICATION CIRCUIT (NAC) - SHORT					•	•					•			•																		•	17
18																																		18
19																																		19
20																																		20
		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	AA	AB	AC	AD	AE	AF	

THE EXISTING SEQUENCE OF OPERATION WILL NOT CHANGE.

GENERAL NOTES:
1. THE INFORMATION OR SYMBOLS SHOWN IN BOLD LINETYPE IS NEW.
2. THE INFORMATION OR SYMBOLS SHOWN IN LIGHT LINETYPE IS EXISTING.

NICET CERTIFICATION

TECHNICAL AREA 00303: LEVEL 3
CERTIFICATE #: 93727
VALID THROUGH: 03/01/18

NANCY S. WILTSIE — 06/16/17 DATE

tyco SimplexGrinnell
Safer. Smarter. Tyco.™
DISTRICT - 419
14280 E. EXPOSITION AVE
AURORA, COLORADO 80012
PHONE: 303-355-0500
FAX: 303-355-0515
SERVICE: 303-355-0500

MEDICAL CENTER OF AURORA 1ST FLOOR EMER. DEPT.

MEDICAL CENTER OF AURORA
1501 S POTOMAC STREET
AURORA, COLORADO 80012

ISSUE LOG: MARK	DATE	CAD	CHK	DESCRIPTION
Revisions shown with Δ symbol				

FOR PERMIT

DRAWN BY:	NSW
CHECKED BY:	NSW
ISSUE DATE:	6/15/17
JOB #:	
PROJECT #:	419:999462101
SIMPLEXGRINNELL ©	2017

SYSTEM: FIRE ALARM SYSTEM

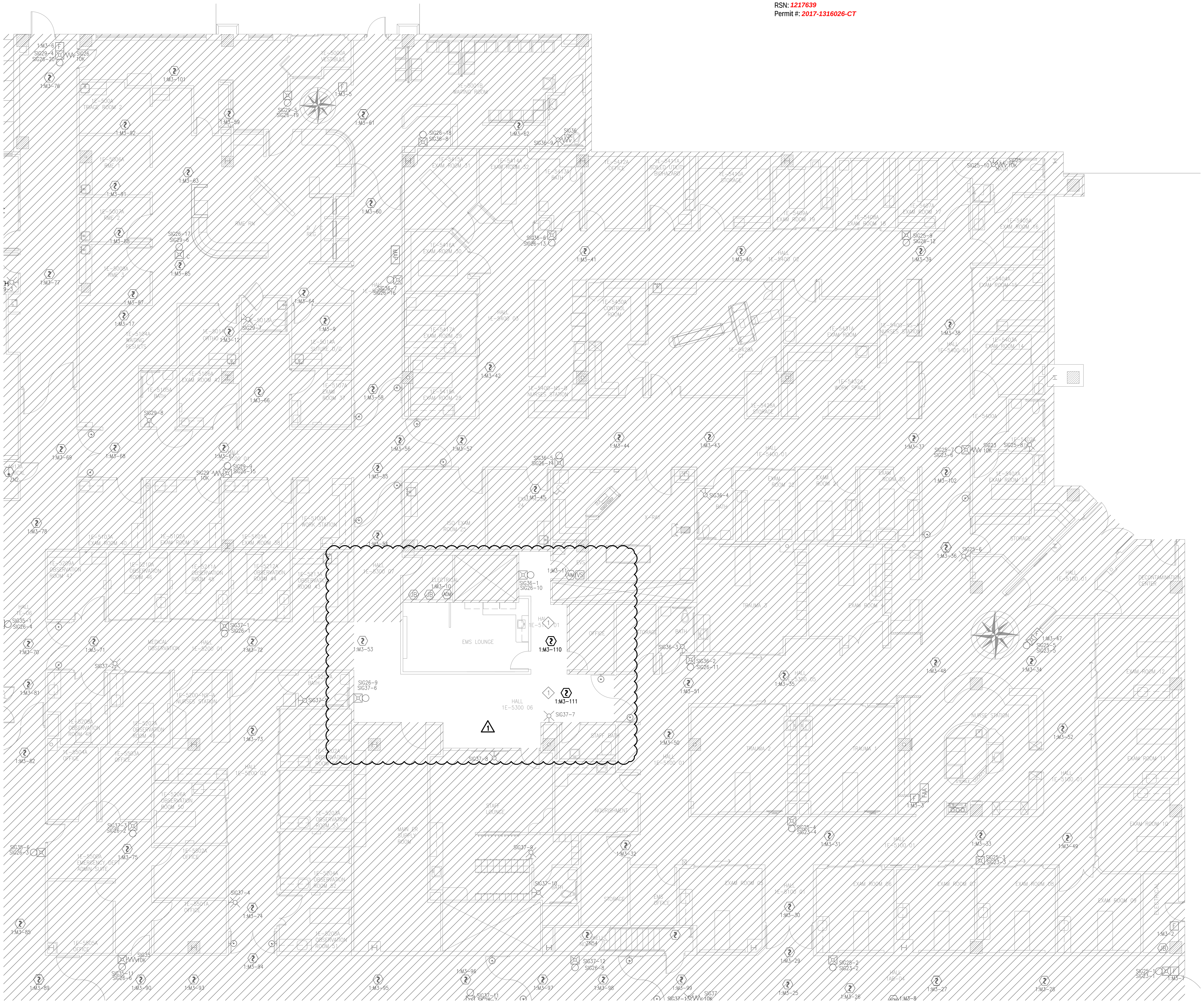
SHEET: GENERAL INFORMATION

FA-002

IMPORTANT NOTICE TO USER: By accepting or using this drawing and/or the information contained herein, the user agrees to the following terms and conditions: The attached information is the property of the designer and is subject to intellectual property protection. Any use, reuse, copying, modification or alteration of the information contained herein and/or the drawing without the prior written permission of the designer is strictly prohibited. Any such unauthorized use will be at the sole risk of the user. The information may not be sold or transferred to any third party, even on other projects or additions to the project for which it was prepared, or used for completion of this project by any third party. SimplexGrinnell disclaims all liability for the use or misuse of altered files by the user or any third party and such use will be a user's sole risk. User shall, to the fullest extent permitted by law, defend, indemnify, and hold SimplexGrinnell harmless from any and all claims for loss, damage or injury arising directly or indirectly therefrom.

FILE PATH: g:\medical center of aurora\1501 s potomac - aurora south\south tower - node 1\23-zone conversion - 2017 -999462101\fire 1st floor em dept\Fire\FA-001.dwg
LAST SAVED BY: NWILTSIE
LAST PRINTED: 6/15/2017 3:20:46 PM
24" x 36" - Arch D Size

RSN: *1217639*
Permit #: *2017-1316026-CT*



PLAN NORTH

1ST FLR SOUTH TWR–DEVICE PLACEMENT PLAN

SCALE: 1/8" = 1'-0"

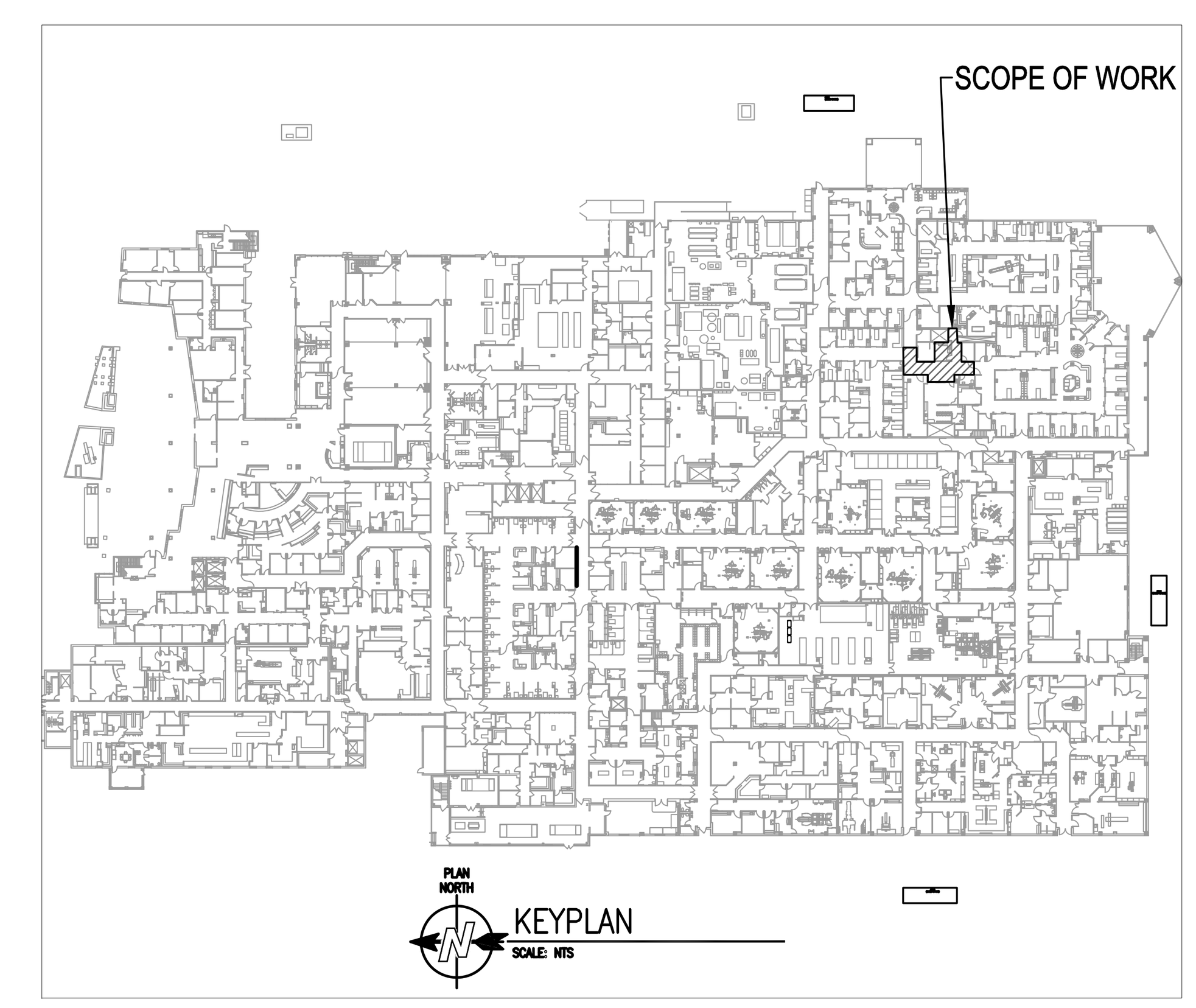
0 4 8 16 (IN FEET)

GENERAL NOTES:

1. THE INFORMATION OR SYMBOLS SHOWN IN BOLD LINETYPE IS NEW.
2. THE INFORMATION OR SYMBOLS SHOWN IN LIGHT LINETYPE IS EXISTING.

KEYNOTES:

(1) WIRE NEW SMOKE DETECTOR TO EXISTING SLC IN THE AREA.



NICET CERTIFICATION

TECHNICAL AREA 00303: LEVEL 3
CERTIFICATE #: 93727
VALID THROUGH: 03/01/18

NANCY S. WILTSIE — 09/14/17 DATE

tyco SimplexGrinnell
Safer. Smarter. Tyco.™
DISTRICT - 419
14200 E. EXPOSITION AVE
AURORA, CO 80012
SERVICE: 303-355-0500
PHONE: 303-355-0500
FAX: 303-355-0615

MEDICAL CENTER OF AURORA
1ST FLOOR EMERGENCY DEPT.

MEDICAL CENTER OF AURORA
1501 S POTOMAC STREET
AURORA, COLORADO 80012

ISSUE LOG: (Revisions shown with △ symbol)

MARK	DATE	CAD	CHK	DESCRIPTION
1	08/31/17	JMM	NSW	STRUCTURAL CHANGES\RECORD DRAWINGS

FOR PERMIT

DRAWN BY:	NSW
CHECKED BY:	NSW
ISSUE DATE:	6/15/17
JOB #:	
PROJECT #:	419:999462101

SIMPLEXGRINNELL © 2017

SYSTEM: FIRE ALARM SYSTEM

SHEET: 1ST FLR SOUTH TWR-DEVICE PLACEMENT PLAN

FA-101 KEYPLAN

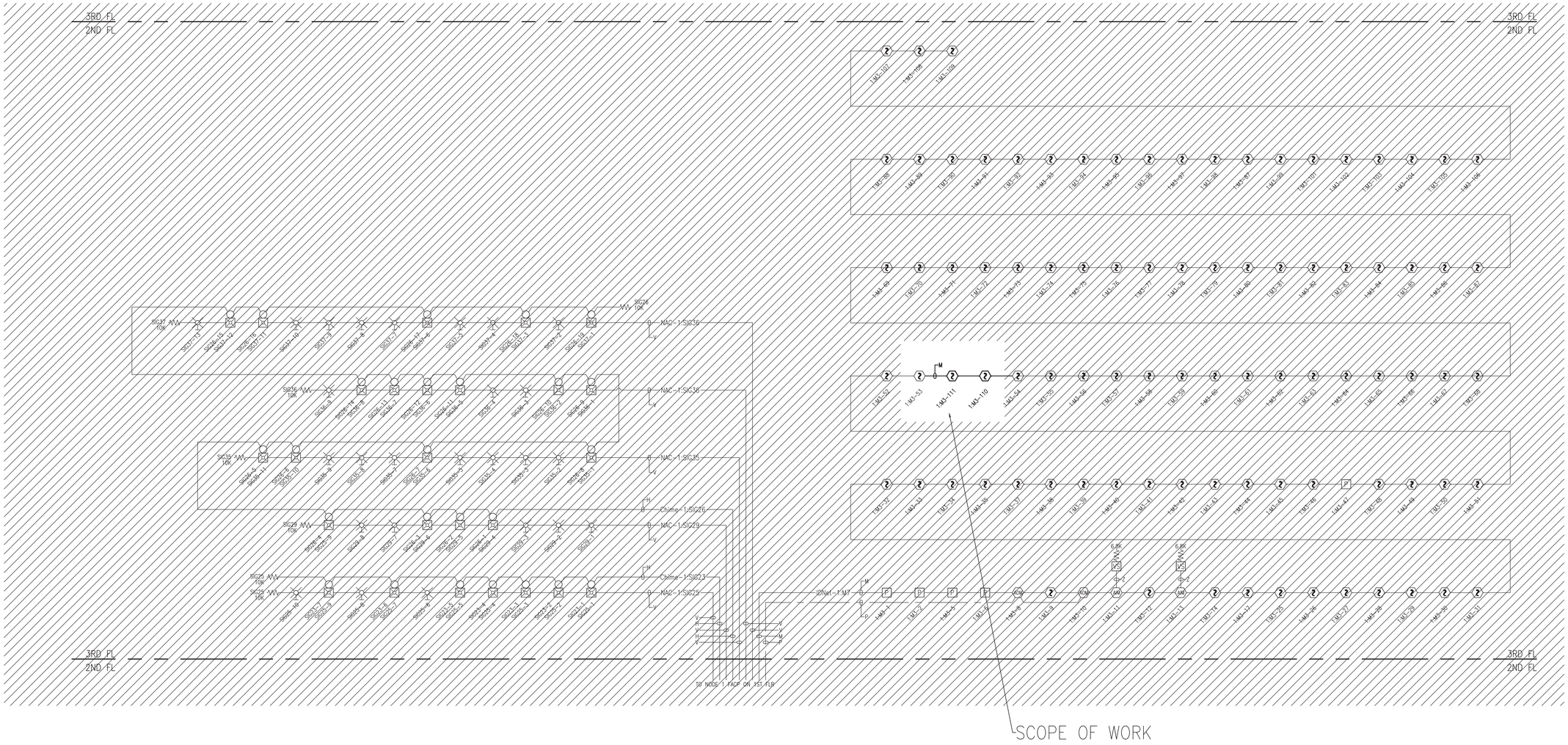
IMPORTANT NOTICE TO USER: By accepting or using this drawing and/or the information contained herein, the user agrees to the following terms and conditions: The electronic information in the drawing may be subject to intentional or unintentional alteration. Any use, reuse, copying modification or alteration of the information contained herein shall be at the sole risk of the user. This information may not be sold or transferred to any third party, used on other projects or additions to the project for which it was prepared, or used for completion of this project by any third party. SimplexGrinnell disclaims all liability for the use or reuse of altered files by the user or any third party and such use will be a user's sole risk. User shall, to the fullest extent permitted by law, defend, indemnify, and hold SimplexGrinnell harmless from any and all claims for loss, damage or injury arising directly or indirectly therefrom.

RSN: *1217639*
Permit #: *2017-1316026-CT*

GENERAL NOTES:
1. THE INFORMATION OR SYMBOLS SHOWN IN BOLD LINETYPE IS NEW.
2. THE INFORMATION OR SYMBOLS SHOWN IN LIGHT LINETYPE IS EXISTING.

RISER NOTES:

1. RISER IS A DIAGRAMMATICAL REPRESENTATION OF THE SYSTEM ARCHITECTURE. IT IS NOT INTENDED TO REPRESENT ACTUAL WIRE RUNS OR PANEL PENETRATIONS. REFER TO FLOOR PLANS AND PANEL DETAILS FOR CIRCUIT ROUTING INFORMATION.
2. ALL WIRING SHALL COMPLY WITH NFPA 70 ARTICLE 760 POWER LIMITED SYSTEMS. SEE FA -002 FOR WIRE SCHEDULE



PARTIAL RISER DIAGRAM – 3RD FLOOR

SCALE: NTS

NICET CERTIFICATION

TECHNICAL AREA 00303: LEVEL 3
CERTIFICATE #: 93727
VALID THROUGH: 03/01/18

NANCY S. WILTSIE — 06/16/17 DATE

tyco integrated fire & security
Safer. Smarter. Tyco.™
DISTRICT - 419
14200 E EXPOSITION AVE
AURORA, COLORADO 80012
SERVICE: 303-355-0500
PHONE: 303-355-0500
FAX: 303-355-0615

MEDICAL CENTER OF AURORA
1ST FLOOR EMERGENCY DEPT.

MEDICAL CENTER OF AURORA
1501 S POTOMAC STREET
AURORA, COLORADO 80012

ISSUE LOG:

MARK	DATE	CAD	CHK	DESCRIPTION
				Revisions shown with ▲ symbol

FOR PERMIT

DRAWN BY:	NSW
CHECKED BY:	NSW
ISSUE DATE:	6/15/17
JOB #:	
PROJECT #:	419:999462101
SIMPLEXGRINNELL ©	2017

SYSTEM: FIRE ALARM SYSTEM

SHEET: 1ST FLR SOUTH TWR-PARTIAL RISER DIAGRAM

FA-201

IMPORTANT NOTICE TO USERS: By accepting or using this drawing, you agree to the following terms and conditions. The electronic information in this drawing may be subject to unauthorized or unintentional alteration. Any use, reuse, copying, modification or alteration of the information contained herein shall be at the sole risk of the user. This information may not be sold or transferred to any third party, used on other projects or additions to the project for which it was prepared, or used for completion of this project by any third party. SimplexGrinnell disclaims all liability for the use or reuse of altered files by the user or any third party and such use is at user's sole risk. User shall, to the fullest extent permitted by law, defend, indemnify, and hold SimplexGrinnell harmless from any and all claims for loss, damage or injury arising directly or indirectly therefrom.

FILE PATH: g:\medical center of aurora\1501 s potomac - aurora south\south tower - node 1\23-zone conversion - 2017 -999462101\fire 1st floor em dept\Fire\FA-201.dwg
LAST SAVED BY: NWILTSIE
LAST PRINTED: 6/15/2017 3:21:49 PM
24" x 36" - Arch D Size

RSN: 1217639
Permit #: 2017-1316026-CT

MAPNET CHANNEL 1:M1				SWITCH SETTINGS								
Address	Device Type	Point Type	Location Description	1	2	3	4	5	6	7	8	9
1:M1-1	ADRPUL	PULL	1:M1-1 FLR 1 W – EXIT BY X-RAY WAITING	X							ON	
1:M1-2	ADRPUL	PULL	1:M1-2 FLR 1W – EXIT HALL BY NUCLEAR MED		X						ON	
1:M1-3	ADRPUL	PULL	1:M1-3 FLR 1W – EXIT BY INTERVENTIONAL	X	X						ON	
1:M1-4	ADRPUL	PULL	1:M1-4 FLR 1 CENTRAL TWR EXIT BY MRI			X					ON	
1:M1-5	RPHOTO	SDUCT	1:M1-5 X-RAY ROOF – AHU-97-9 DUCT D.	X		X					ON	
1:M1-6	RPHOTO	SDUCT	1:M1-6 X-RAY ROOF – AHU-97-9 DUCT D		X	X					ON	
1:M1-7	RPHOTO	SDUCT	1:M1-7 X-RAY ROOF – AHU-97-14 DUCT D	X	X	X					ON	
1:M1-8	RPHOTO	SDUCT	1:M1-8 X-RAY ROOF – AHU-97-14 DUCT D.				X				ON	
1:M1-9	RPHOTO	SDUCT	1:M1-9 X-RAY ROOF – AHU-97-15 DUCT D.	X			X				ON	
1:M1-10	RPHOTO	SDUCT	1:M1-10 X-RAY ROOF – AHU-15 DUCT DET.		X		X				ON	
1:M1-11	GENIAM	SO	1:M1-11 FLR 1 CENTRAL TWR X-RAY HALL	X	X		X				ON	
1:M1-12	RZAM	RELAY	1:M1-12 X-RAY ROOF – AHU-97-9 DOWN			X	X				ON	
1:M1-13	RZAM	RELAY	1:M1-13 X-RAY ROOF AHU 97-14 SHUTDOWN	X		X	X				ON	
1:M1-14	RZAM	RELAY	1:M1-14 X-RAY ROOF AHU 97-15 SHUTDOWN		X	X	X				ON	
1:M1-15	PHOTO	VSMOKE	1:M1-15 FLR 1W – HALL BY X-RAY WAITING	X	X	X	X				ON	
1:M1-16	PHOTO	VSMOKE	1:M1-16 FLR 1W – X-RAY – PET SCAN					X			ON	
1:M1-17	PHOTO	VSMOKE	1:M1-17 FLR 1W – X-RAY – PET SCAN	X				X			ON	
1:M1-18	PHOTO	VSMOKE	1:M1-18 FLR 1W – HALL BY X-RAY WAITING		X			X			ON	
1:M1-19	PHOTO	VSMOKE	1:M1-19 FLR 1W – HALL BY X-RAY WAITING	X	X			X			ON	
1:M1-20	PHOTO	VSMOKE	1:M1-20 FLR 1W – X-RAY WAITNG RM			X		X			ON	
1:M1-21	PHOTO	VSMOKE	1:M1-21 FLR 1W – HALL BY X-RAY WAITING	X		X		X			ON	
1:M1-22	PHOTO	VSMOKE	1:M1-22 FLR 1W – HALL BY X-RAY WAITING		X	X		X			ON	
1:M1-23	PHOTO	VSMOKE	1:M1-23 FLR 1W – BY PATHOLOGY STAIRS	X	X	X		X			ON	
1:M1-24	PHOTO	VSMOKE	1:M1-24 FLR 1W – HALL BY PATHOLOGY				X	X			ON	
1:M1-25	PHOTO	VSMOKE	1:M1-25 FLR 1W – HALL BY PATHOLOGY	X			X	X			ON	
1:M1-26	PHOTO	VSMOKE	1:M1-26 FLR 1W – HALL BY PATHOLOGY		X		X	X			ON	
1:M1-27			SPARE	X	X		X	X			ON	
1:M1-28			SPARE			X	X	X			ON	
1:M1-29			SPARE	X		X	X	X			ON	
1:M1-30			SPARE		X	X	X	X			ON	
1:M1-31			SPARE	X	X	X	X	X			ON	
1:M1-32			SPARE						X		ON	
1:M1-33			SPARE	X					X		ON	
1:M1-34			SPARE		X				X		ON	
1:M1-35			SPARE	X	X				X		ON	
1:M1-36	PHOTO	VSMOKE	1:M1-36 FLR 1W – PATHOLOGY LAB			X			X		ON	
1:M1-37	PHOTO	VSMOKE	1:M1-37 FLR 1W – ULTRASOUND SUITE	X		X			X		ON	
1:M1-38	PHOTO	VSMOKE	1:M1-38 FLR 1W – ULTRASOUND SUITE		X	X			X		ON	
1:M1-39	PHOTO	VSMOKE	1:M1-39 FLR 1W – HALL BY X-RAY WAITING	X	X	X			X		ON	
1:M1-40	PHOTO	VSMOKE	1:M1-40 FLR 1W – HALL BY X-RAY OFFICES				X		X		ON	
1:M1-41	PHOTO	VSMOKE	1:M1-41 FLR 1W – X-RAY WAITNG RM	X			X		X		ON	
1:M1-42	PHOTO	VSMOKE	1:M1-42 FLR 1W – X-RAY OFFICE SUITE		X		X		X		ON	
1:M1-43	PHOTO	VSMOKE	1:M1-43 FLR 1W – X-RAY OFFICE SUITE	X	X		X		X		ON	
1:M1-44	PHOTO	VSMOKE	1:M1-44 FLR 1W – X-RAY OFFICE SUITE			X	X		X		ON	
1:M1-45	PHOTO	VSMOKE	1:M1-45 FLR 1W – HALL BY X-RAY OFFICES	X		X	X		X		ON	
1:M1-46	PHOTO	VSMOKE	1:M1-46 FLR 1W – HALL BY X-RAY OFFICES		X	X	X		X		ON	
1:M1-47	PHOTO	VSMOKE	1:M1-47 FLR 1W – HALL BY NUCLEAR MED	X	X	X	X		X		ON	
1:M1-48	PHOTO	VSMOKE	1:M1-48 FLR 1W – HALL BY NUCLEAR MED					X	X		ON	
1:M1-49	PHOTO	VSMOKE	1:M1-49 FLR 1W – HALL BY NUCLEAR MED	X				X	X		ON	
1:M1-50	PHOTO	VSMOKE	1:M1-50 FLR 1W – NUCLEAR MEDICINE		X			X	X		ON	
1:M1-51	PHOTO	VSMOKE	1:M1-51 FLR 1W – NUCLEAR MEDICINE	X	X			X	X		ON	
1:M1-52	PHOTO	VSMOKE	1:M1-52 FLR 1W – NUCLEAR MED HOT LAB			X		X	X		ON	
1:M1-53	PHOTO	VSMOKE	1:M1-53 FLR 1W – HALL BY NUCLEAR MED	X		X		X	X		ON	
1:M1-54	PHOTO	VSMOKE	1:M1-54 FLR 1W – EXIT HALL BY X-RAY 4		X	X		X	X		ON	
1:M1-55	PHOTO	VSMOKE	1:M1-55 FLR 1W – EXIT HALL BY X-RAY 3	X	X	X		X	X		ON	
1:M1-56	PHOTO	VSMOKE	1:M1-56 FLR 1W – INTER-HALL BY X-RAY 3				X	X	X		ON	
1:M1-57	PHOTO	VSMOKE	1:M1-57 FLR 1W – INTER-HALL BY X-RAY 3	X			X	X	X		ON	
1:M1-58	PHOTO	VSMOKE	1:M1-58 FLR 1W – INTER-HALL BY X-RAY 3		X		X	X	X		ON	
1:M1-59	PHOTO	VSMOKE	1:M1-59 FLR 1W – INTER-HALL BY X-RAY 4	X	X		X	X	X		ON	
1:M1-60	PHOTO	VSMOKE	1:M1-60 FLR 1W – HALL BY CAT SCAN			X	X	X	X		ON	
1:M1-61	PHOTO	VSMOKE	1:M1-61 FLR 1W – HALL BY CAT SCAN	X		X	X	X	X		ON	
1:M1-62	PHOTO	VSMOKE	1:M1-62 FLR 1W – HALL BY CAT SCAN		X	X	X	X	X		ON	
1:M1-63	PHOTO	VSMOKE	1:M1-63 FLR 1W – CAT SCAN SUITE	X	X	X	X	X	X		ON	
1:M1-64	PHOTO	VSMOKE	1:M1-64 FLR 1W – HALL BY CAT SCAN							X	ON	
1:M1-65	PHOTO	VSMOKE	1:M1-65 FLR 1W – X-RAY RM 5 CHANGING	X						X	ON	
1:M1-66	PHOTO	VSMOKE	1:M1-66 FLR 1W – X-RAY TECH WORK AREA		X					X	ON	
1:M1-67	PHOTO	VSMOKE	1:M1-67 FLR 1W – X-RAY OFFICE BY RM 1	X	X					X	ON	
1:M1-68	PHOTO	VSMOKE	1:M1-68 FLR 1W – X-RAY RM 1 CHANGING			X				X	ON	
1:M1-69	PHOTO	VSMOKE	1:M1-69 FLR 1W – HALL BY X-RAY LOUNGE	X		X				X	ON	
1:M1-70	PHOTO	VSMOKE	1:M1-70 FLR 1W – HALL BY INTERVENTIONAL		X	X				X	ON	
1:M1-71	ADRPUL	PULL	1:M1-71 FL 1 CENTRL TWR MRI NRS STATION	X	X	X				X	ON	
1:M1-72	PHOTO	VSMOKE	1:M1-72 FLR 1 CENTRAL TWR HALL BY MRI				X			X	ON	
1:M1-73	RZAM	RELAY	1:M1-73 1ST FL ROLL UP DOOR	X			X			X	ON	
1:M1-74	PHOTO	VSMOKE	1:M1-74 FLR 1W – HALL BY INTERVENTIONAL		X		X			X	ON	
1:M1-75	PHOTO	VSMOKE	1:M1-75 FLR 1W – INTERVENTIONAL X-RAY	X	X		X			X	ON	
1:M1-76	PHOTO	VSMOKE	1:M1-76 FLR 1W – HALL BY INTERVENTIONAL			X	X			X	ON	
1:M1-77	PHOTO	VSMOKE	1:M1-77 FLR 1W – HALL BY INTERVENTIONAL	X		X	X			X	ON	
1:M1-78	PHOTO	VSMOKE	1:M1-78 FLR 1W – INTERVENTIONAL RM 3		X	X	X			X	ON	
1:M1-79	PHOTO	VSMOKE	1:M1-79 FLR 1 – INTERVENTIONAL EQUIP. RM	X	X	X	X			X	ON	
1:M1-80	PHOTO	VSMOKE	1:M1-80 FLR 1W – INTERVENTIONAL X-RAY					X		X	ON	
1:M1-81	PHOTO	VSMOKE	1:M1-81 FLR 1W – INTERVENTIONAL X-RAY	X				X		X	ON	
1:M1-82	PHOTO	VSMOKE	1:M1-82 FLR 1W – INTERVENTIONAL X-RAY		X			X		X	ON	
1:M1-83	PHOTO	VSMOKE	1:M1-83 FLR 1W – HALL BY MRI EQUIP. RM	X	X			X		X	ON	
1:M1-84	PHOTO	VSMOKE	1:M1-84 FLR 1W – HALL BY MRI EQUIP. RM			X		X		X	ON	
1:M1-85			SPARE	X		X		X		X	ON	
1:M1-86			SPARE		X	X		X		X	ON	
1:M1-87			SPARE	X	X	X		X		X	ON	
1:M1-88			SPARE				X	X		X	ON	
1:M1-89	PHOTO	VSMOKE	1:M1-89 FLR 1W – HALL BY MRI	X			X	X		X	ON	
1:M1-90	PHOTO	VSMOKE	1:M1-90 FLR 1W – HALL BY MRI		X		X	X		X	ON	
1:M1-91	PHOTO	VSMOKE	1:M1-91 FLR 1W – X-RAY – PET SCAN	X	X		X	X		X	ON	
1:M1-92			SPARE			X	X	X		X	ON	
1:M1-93	GENIAM	SO	1:M1-93 FLR 1W – BLOOD BANK TAMPER	X		X	X	X		X	ON	
1:M1-94	GENIAM	WATER	1:M1-94 FLR 1W – BLOOD BANK TAMPER		X	X	X	X		X	ON	
1:M1-95	MBZAM	HEAT	1:M1-95 FLR 1W – MRI SCANNER ROOM	X	X	X	X	X		X	ON	
1:M1-96	PHOTO	VSMOKE	1:M1-96 FLR 1W – MRI CONTROL RM						X	X	ON	
1:M1-97	PHOTO	VSMOKE	1:M1-97 FLR 1W – MRI SUITE	X					X	X	ON	
1:M1-98	PHOTO	VSMOKE	1:M1-98 FLR 1W – MRI EQUIPMENT RM		X				X	X	ON	
1:M1-99	PHOTO	VSMOKE	1:M1-99 FLR 1W – INTERVENTIONAL X-RAY	X	X				X	X	ON	
1:M1-100	PHOTO	VSMOKE	1:M1-100 FLR 1W – INTERVENTIONAL BAY 2			X			X	X	ON	
1:M1-101	PHOTO	VSMOKE	1:M1-101 FLR 1W – INTERVENTIONAL BAY 1	X		X			X	X	ON	
1:M1-102	PHOTO	VSMOKE	1:M1-102 FLR 1W – INTERVENTIONAL N.STAT.		X	X			X	X	ON	
1:M1-103	RPHOTO	SDUCT	1:M1-103 FLR 1W – HALL BY INTERVENTIONAL	X	X	X			X	X	ON	
1:M1-104			SPARE				X		X	X	ON	
1:M1-105			SPARE	X			X		X	X	ON	
1:M1-106			SPARE		X		X		X	X	ON	
1:M1-107	PHOTO	VSMOKE	1:M1-107 FLR 1 W – OR STORAGE	X	X		X		X	X	ON	
1:M1-108			SPARE			X	X		X	X	ON	
1:M1-109			SPARE	X		X	X		X	X	ON	
1:M1-110			SPARE		X	X	X		X	X	ON	
1:M1-111			SPARE	X	X	X	X		X	X	ON	
1:M1-112			SPARE					X	X	X	ON	
1:M1-113			SPARE	X				X	X	X	ON	
1:M1-114			SPARE		X			X	X	X	ON	
1:M1-115			SPARE	X	X			X	X	X	ON	
1:M1-116			SPARE			X		X	X	X	ON	
1:M1-117			SPARE	X		X		X	X	X	ON	
1:M1-118			SPARE		X	X		X	X	X	ON	
1:M1-119			SPARE	X	X	X		X	X	X	ON	
1:M1-120			SPARE				X	X	X	X	ON	
1:M1-121			SPARE	X			X	X	X	X	ON	
1:M1-122			SPARE		X		X	X	X	X	ON	
1:M1-123			SPARE	X	X		X	X	X	X	ON	
1:M1-124			SPARE			X	X	X	X	X	ON	
1:M1-125			SPARE	X		X	X	X	X	X	ON	
1:M1-126			SPARE		X	X	X	X	X	X	ON	
1:M1-127			SPARE	X	X	X	X	X	X	X	ON	

NOTE: THE LABELS SHOWN ABOVE WILL BE USED FOR PROGRAMMING PURPOSES.
THE LABELS ARE BASED UPON INFORMATION SHOWN ON THE ARCHITECTURAL DRAWINGS.

MAPNET CHANNEL 1:M3				SWITCH SETTINGS								
Address	Device Type	Point Type	Location Description	1	2	3	4	5	6	7	8	9
1:M3-1	ADRPUL	PULL	1:M3-1 FLR 1E – EXIT BY PHARMACY	X							ON	
1:M3-2	ADRPUL	PULL	1:M3-2 FLR 1E – E.D. DECK ELEC. RM		X						ON	
1:M3-3			SPARE	X	X						ON	
1:M3-4			SPARE			X					ON	
1:M3-5	ADRPUL	PULL	1:M3-5 FLR 1E – E.D. WAITING RM	X		X					ON	
1:M3-6	ADRPUL	PULL	1:M3-6 FLR 1E – EXIT BY E.D. WAITING RM		X	X					ON	
1:M3-7			SPARE	X	X	X					ON	
1:M3-8	RZAM	RELAY	1:M3-8 1ST FL ELEVATOR #5 WON DOOR				X				ON	
1:M3-9	PHOTO	VSMOKE	1:M3-9 FLR 1E – E.D. SUTURE D/C	X			X				ON	
1:M3-10	RZAM	RRELAY	1:M3-10 1ST FL CONTROL FOR AUTO DOORS		X		X				ON	
1:M3-11	GENIAM	SO	1:M3-11 FLR 1E-ER GLYCOL LOOP IN CEILING	X	X		X				ON	
1:M3-12	PHOTO	VSMOKE	1:M3-12 FLR 1E – E.D. ORTHOD/C			X	X				ON	
1:M3-13	GENIAM	SO	1:M3-13 BSMT ELEV 5 SHAFT TAMPER SWITCH	X		X	X				ON	
1:M3-14	PHOTO	VSMOKE	1:M3-14 FLR 1W – HALL BY MRI		X	X	X				ON	
1:M3-15			SPARE	X	X	X	X				ON	
1:M3-16			SPARE					X			ON	
1:M3-17	PHOTO	VSMOKE	1:M3-17 FLR 1E – WAITING RESULTS	X				X			ON	
1:M3-18			SPARE		X			X			ON	
1:M3-19			SPARE	X	X			X			ON	
1:M3-20			SPARE			X		X			ON	
1:M3-21			SPARE	X		X		X			ON	
1:M3-22			SPARE		X	X		X			ON	
1:M3-23			SPARE	X	X	X		X			ON	
1:M3-24			SPARE				X	X			ON	
1:M3-25	PHOTO	VSMOKE	1:M3-25 FLR 1E – HALL BY PHARMACY	X			X	X			ON	
1:M3-26	PHOTO	VSMOKE	1:M3-26 FLR 1E – EXIT HALL BY PHARMACY		X		X	X			ON	
1:M3-27	PHOTO	VSMOKE	1:M3-27 FLR 1E – EXIT HALL BY PHARMACY	X	X		X	X			ON	
1:M3-28	PHOTO	VSMOKE	1:M3-28 FLR 1E – EXIT HALL BY PHARMACY			X	X	X			ON	
1:M3-29	PHOTO	VSMOKE	1:M3-29 FLR 1E – EXIT HALL BY PHARMACY	X		X	X	X			ON	
1:M3-30	PHOTO	VSMOKE	1:M3-30 FLR 1E – E.D. – WEST ENTRANCE		X	X	X	X			ON	
1:M3-31	PHOTO	VSMOKE	1:M3-31 FLR 1E – E.D. – BY EXAM RM 6	X	X	X	X	X			ON	
1:M3-32	PHOTO	VSMOKE	1:M3-32 FLR 1E – E.D. – O/S FAM CON 5310						X		ON	
1:M3-33	PHOTO	VSMOKE	1:M3-33 FLR 1E – E.D. – BY EXAM RM7	X					X		ON	
1:M3-34	PHOTO	VSMOKE	1:M3-34 FLR 1E – E.D. BY NURSE STATION		X				X		ON	
1:M3-35	PHOTO	VSMOKE	1:M3-35 FLR 1E – E.D. BY TRAUMA 1-5324	X	X				X		ON	
1:M3-36			SPARE			X			X		ON	
1:M3-37	PHOTO	VSMOKE	1:M3-37 FLR 1E – E.D. HALL BY RM 20	X		X			X		ON	
1:M3-38	PHOTO	VSMOKE	1:M3-38 FLR 1E – E.D. HALL BY RM 15		X	X			X		ON	
1:M3-39	PHOTO	VSMOKE	1:M3-39 FLR 1E – E.D. HALL BY RM 17	X	X	X			X		ON	
1:M3-40	PHOTO	VSMOKE	1:M3-40 FLR 1E – E.D. HALL BY RM 19				X		X		ON	
1:M3-41	PHOTO	VSMOKE	1:M3-41 FLR 1E – E.D. HALL BY RM 32	X			X		X		ON	
1:M3-42	PHOTO	VSMOKE	1:M3-42 FLR 1E – E.D. HALL BY RM 28		X		X		X		ON	
1:M3-43	PHOTO	VSMOKE	1:M3-43 FLR 1E – E.D. HALL BY RM 24	X	X		X		X		ON	
1:M3-44	PHOTO	VSMOKE	1:M3-44 FLR 1E – E.D. HALL BY RM 25			X	X		X		ON	
1:M3-45	PHOTO	VSMOKE	1:M3-45 FLR 1E – E.D. HALL BY RM 25	X		X	X		X		ON	
1:M3-46	PHOTO	VSMOKE	1:M3-46 FLR 1E – E.D. ELEC RM 1E-5902A		X	X	X		X		ON	
1:M3-47	ADRPUL	PULL	1:M3-47 FLR 1E – E.D. EAST ENTRY	X	X	X	X		X		ON	
1:M3-48	PHOTO	VSMOKE	1:M3-48 FLR 1E – E.D. BY NURSE STATION					X	X		ON	
1:M3-49	PHOTO	VSMOKE	1:M3-49 FLR 1E – E.D. BY EXAM RM 10	X				X	X		ON	
1:M3-50	PHOTO	VSMOKE	1:M3-50 FLR 1E – E.D. BY ALCOVE 5329		X			X	X		ON	
1:M3-51	PHOTO	VSMOKE	1:M3-51 FLR 1E – E.D. BY TRAUMA 3-5321	X	X			X	X		ON	
1:M3-52	PHOTO	VSMOKE	1:M3-52 FLR 1E – E.D. BY EXAM RM 11			X		X	X		ON	
1:M3-53	PHOTO	VSMOKE	1:M3-53 FLR 1E – E.D. HALL BY RM 43	X		X		X	X		ON	
1:M3-54	PHOTO	VSMOKE	1:M3-54 FLR 1E – E.D. HALL BY RM 43		X	X		X	X		ON	
1:M3-55	PHOTO	VSMOKE	1:M3-55 FLR 1E – E.D. HALL BY RM 26	X	X	X		X	X		ON	
1:M3-56	PHOTO	VSMOKE	1:M3-56 FLR 1E – E.D. HALL BY RM 26				X	X	X		ON	
1:M3-57	PHOTO	VSMOKE	1:M3-57 FLR 1E – E.D. HALL BY RM 26	X			X	X	X		ON	
1:M3-58	PHOTO	VSMOKE	1:M3-58 FLR 1E – E.D. – BY TRIAGE DESK		X		X	X	X		ON	
1:M3-59	PHOTO	VSMOKE	1:M3-59 FLR 1E – E.D. – BY TRIAGE DESK	X	X		X	X	X		ON	
1:M3-60	PHOTO	VSMOKE	1:M3-60 FLR 1E – E.D. – BY TRIAGE DESK			X	X	X	X		ON	
1:M3-61	PHOTO	VSMOKE	1:M3-61 FLR 1E – E.D. WAITING RM	X		X	X	X	X		ON	
1:M3-62	PHOTO	VSMOKE	1:M3-62 FLR 1E – E.D. WAITING RM		X	X	X	X	X		ON	
1:M3-63	PHOTO	VSMOKE	1:M3-63 FLR 1E – E.D. WAITING RM	X	X	X	X	X	X		ON	
1:M3-64	PHOTO	VSMOKE	1:M3-64 FLR 1E – E.D. BY TRIAGE AREA							X	ON	
1:M3-65	PHOTO	VSMOKE	1:M3-65 FLR 1E – E.D. BY TRIAGE RM 2	X						X	ON	
1:M3-66	PHOTO	VSMOKE	1:M3-66 FLR 1E – E.D. HALL BY RM 37		X					X	ON	
1:M3-67	PHOTO	VSMOKE	1:M3-67 FLR 1E – E.D. HALL BY RM 38	X	X					X	ON	
1:M3-68	PHOTO	VSMOKE	1:M3-68 FLR 1E – E.D. HALL BY RM 40			X				X	ON	
1:M3-69	PHOTO	VSMOKE	1:M3-69 FLR 1E – HALL BY E.D. ON-CALL RM	X		X				X	ON	
1:M3-70	PHOTO	VSMOKE	1:M3-70 FLR 1E – HALL BY E.D. ON-CALL RM		X	X				X	ON	
1:M3-71	PHOTO	VSMOKE	1:M3-71 FLR 1E – E.D. HALL BY RM 48	X	X	X				X	ON	
1:M3-72	PHOTO	VSMOKE	1:M3-72 FLR 1E – E.D. HALL BY RM 44				X			X	ON	
1:M3-73	PHOTO	VSMOKE	1:M3-73 FLR 1E – E.D. HALL BY RM 54	X			X			X	ON	
1:M3-74	PHOTO	VSMOKE	1:M3-74 FLR 1E – E.D. HALL BY RM 51		X		X			X	ON	
1:M3-75	PHOTO	VSMOKE	1:M3-75 FLR 1E – E.D. ADMIN OFFICES	X	X		X			X	ON	
1:M3-76	PHOTO	VSMOKE	1:M3-76 FLR 1E – HALL BEHIND E.D.			X	X			X	ON	
1:M3-77	PHOTO	VSMOKE	1:M3-77 FLR 1E – HALL BY E.D. ON-CALL RM	X		X	X			X	ON	
1:M3-78	PHOTO	VSMOKE	1:M3-78 FLR 1E – HALL BY E.D. ON-CALL RM		X	X	X			X	ON	
1:M3-79	PHOTO	VSMOKE	1:M3-79 FLR 1E – E.D. SPECIALITY ON-CALL	X	X	X	X			X	ON	
1:M3-80	PHOTO	VSMOKE	1:M3-80 FLR 1E – HALL BY E.D. ON-CALL RM					X		X	ON	
1:M3-81	PHOTO	VSMOKE	1:M3-81 FLR 1E – HALL BY E.D. ON-CALL RM	X				X		X	ON	
1:M3-82	PHOTO	VSMOKE	1:M3-82 FLR 1E – HALL BY E.D. ON-CALL RM		X			X		X	ON	
1:M3-83	PHOTO	VSMOKE	1:M3-83 FLR 1E – IN THE E.D. ON-CALL RM	X	X			X		X	ON	
1:M3-84	PHOTO	VSMOKE	1:M3-84 FLR 1E – HALL BATH BY E.D. ADMIN			X		X		X	ON	
1:M3-85	PHOTO	VSMOKE	1:M3-85 FLR 1E – BACK HALL BY QUIET RM	X		X		X		X	ON	
1:M3-86	PHOTO	VSMOKE	1:M3-86 FLR 1E – HALL BY MEDICAL LIBRARY		X	X		X		X	ON	
1:M3-87	PHOTO	VSMOKE	1:M3-87 FLR 1E – E.D. RME 3	X	X	X		X		X	ON	
1:M3-88	PHOTO	VSMOKE	1:M3-88 FLR 1E – E.D. RME 2				X	X		X	ON	
1:M3-89	PHOTO	VSMOKE	1:M3-89 FLR 1E – HALL BY PACU	X			X	X		X	ON	
1:M3-90	PHOTO	VSMOKE	1:M3-90 FLR 1E – HALL BY PACU		X		X	X		X	ON	
1:M3-91	PHOTO	VSMOKE	1:M3-91 FLR 1E – E.D. RME 1	X	X		X	X		X	ON	
1:M3-92	PHOTO	VSMOKE	1:M3-92 FLR 1E – E.D. TRACE ROOM #2			X	X	X		X	ON	
1:M3-93	PHOTO	VSMOKE	1:M3-93 FLR 1E – HALL BY PACU	X		X	X	X		X	ON	
1:M3-94	PHOTO	VSMOKE	1:M3-94 FLR 1E – HALL BY PACU		X	X	X	X		X	ON	
1:M3-95	PHOTO	VSMOKE	1:M3-95 FLR 1E – HALL BY PACU	X	X	X	X	X		X	ON	
1:M3-96	PHOTO	VSMOKE	1:M3-96 FLR 1E – HALL BY PACU						X	X	ON	
1:M3-97	PHOTO	VSMOKE	1:M3-97 FLR 1E – HALL BY E.D. STAIRWELL	X					X	X	ON	
1:M3-98	PHOTO	VSMOKE	1:M3-98 FLR 1E – HALL BY E.D. STAIRWELL		X				X	X	ON	
1:M3-99	PHOTO	VSMOKE	1:M3-99 FLR 1E – HALL BY E.D. STAIRWELL	X	X				X	X	ON	
1:M3-100			SPARE			X			X	X	ON	
1:M3-101	PHOTO	VSMOKE	1:M3-101 FLR 1E – E.D. E. HALL BY TRIAGE	X		X			X	X	ON	
1:M3-102	PHOTO	VSMOKE	1:M3-102 FLR 1E – E.D. HALL BY RM 13		X	X			X	X	ON	
1:M3-103	PHOTO	VSMOKE	1:M3-103 FLR 1W – PHARMACY	X	X	X			X	X	ON	
1:M3-104	PHOTO	VSMOKE	1:M3-104 FLR 1W – PHARMACY				X		X	X	ON	
1:M3-105	PHOTO	VSMOKE	1:M3-105 FLR 1W – PHARMACY	X			X		X	X	ON	
1:M3-106	PHOTO	VSMOKE	1:M3-106 FLR 1W – PHARMACY ANTE ROOM		X		X		X	X	ON	
1:M3-107	PHOTO	VSMOKE	1:M3-107 FLR 1W – PHARMACY MEETING ROOM	X	X		X		X	X	ON	
1:M3-108	GENIAM	UTILITY	1:M3-108 FLR 1E – E.D. SPARE MON 2 PT IO			X	X		X	X	ON	
1:M3-109	RZAM	RRELAY	1:M3-109 FLR 1E – E.D. DOOR RELEASE	X		X	X		X	X	ON	
1:M3-110	PHOTO	VSMOKE	1:M3-110 FLR1E – E.D. HALL BY DICTATION		X	X	X		X	X	ON	
1:M3-111	PHOTO	VSMOKE	1:M3-111 FLR1E – E.D. HALL BY ST LOUNGE	X	X	X	X		X	X	ON	
1:M3-112			SPARE					X	X	X	ON	
1:M3-113			SPARE	X				X	X	X	ON	
1:M3-114			SPARE		X			X	X	X	ON	
1:M3-115			SPARE	X	X			X	X	X	ON	
1:M3-116			SPARE			X		X	X	X	ON	
1:M3-117			SPARE	X		X		X	X	X	ON	
1:M3-118			SPARE		X	X		X	X	X	ON	
1:M3-119			SPARE	X	X	X		X	X	X	ON	
1:M3-120			SPARE				X	X	X	X	ON	
1:M3-121			SPARE	X			X	X	X	X	ON	
1:M3-122			SPARE		X		X	X	X	X	ON	
1:M3-123			SPARE	X	X		X	X	X	X	ON	
1:M3-124			SPARE			X	X	X	X	X	ON	
1:M3-125			SPARE	X		X	X	X	X	X	ON	
1:M3-126			SPARE		X	X	X	X	X	X	ON	
1:M3-127			SPARE	X	X	X	X	X	X	X	ON	

NOTE: THE LABELS SHOWN ABOVE WILL BE USED FOR PROGRAMMING PURPOSES.
THE LABELS ARE BASED UPON INFORMATION SHOWN ON THE ARCHITECTURAL DRAWINGS.
ANY CHANGES TO THESE LABELS MUST BE NOTED ON THE SUBMITTAL REVIEW, PRIOR TO PROGRAMMING.
POINTS SHOWN IN ITALIC TEXT REFER TO EXISTING DEVICES.

MEDICAL CENTER OF AURORA SOUTH TOWER NODE 1 FACP 4100es FACP

Module	Qty	Description		Standby Current	Total Standby	Alarm Current	Total Alarm
Panel Equipment							
4100-7150	1	MASTER CONTROLLER UPGRADE W/ 2X40 DISPLAY (4100 BA		0.1630	0.1630	0.2100	0.2100
4100-0304	1	STYLE 7 REMOTE UNIT INTERFACE		0.0850	0.0850	0.0850	0.0850
4100-0153	1	DIGITAL ALARM COMM TRANSMITTER		0.0350	0.0350	0.0500	0.0500
4100-5005	9	ZONE MODULE, 8 IDC, CLASS B		0.0750	0.6750	0.1950	1.7550
4100-3003	1	8 PT AUX RELAY MODULE 3 AMP		0.0250	0.0250	0.2800	0.2800
4100-0110	5	MAPNET II ADDRESSABLE MODULE	*	0.2700	1.3500	0.2900	1.4500
4100-4321	8	6 CIRCUIT CLASS B (STYLE Y)		0.0250	0.2000	0.0700	0.5600
4100-7402	1	64/64 LED/SW CONTROLLER MODULE		0.0670	0.0670	0.2850	0.2850
4100-7404	1	32 POINT SWITCH INPUT MODULE		0.0000	0.0000	0.0000	0.0000
4100-6078	1	NETWORK IF CARD, MODULAR		0.0460	0.0460	0.0460	0.0460
4100-6056	2	NETWORK MEDIA CARD WIRED		0.0550	0.1100	0.0550	0.1100
4100-9111	1	4100 CONFIG. DOMESTIC 120V	*	0.3730	0.3730	0.4700	0.4700
4100-6005	1	MASTER CONTROLLER POWER SUPPLY		0.0000	0.0000	0.0000	0.0000
4100-0108	1	EXPANSION 120V 8AMP POWER SUPPLY		0.0000	0.0000	0.0000	0.0000
		Panel Totals			3.1290		5.3010
IDNet Addressable Devices (SLC)							
4099-9004	1	ADDRESSABLE SINGLE ACTION MANUAL STATION	*	Constant current draw of .8mA standby and 1mA alarm per address used. Devices requiring additional current are accounted for in the section labeled "Miscellaneous Peripheral Devices Requiring Additional System Power".			
4098-9714	6	TRUEALARM PHOTO SMOKE SENSOR					
4098-9792	6	TRUEALARM SENSOR BASE	*				
Mapnet Addressable Devices (SLC)							
2190-9155	1	MAPNET CLASS B MONITOR ZAM	*				
2190-9161	6	MAPNET CLASS B SIGNAL ZAM	*				
2190-9163	46	MAPNET UNSUPERVISED CONTROL ZAM	*				
2190-9172	42	MAPNET SUPERVISED IAM	*				
2099-9795	19	MAPNET SINGLE ACTION PULL STATION	*				
4190-9050	0	4-20MA ZAM SURFACE	*				
4098-9714	319	TRUEALARM PHOTO SMOKE SENSOR					
4098-9733	22	TRUEALARM HEAT SENSOR					
4098-9756	30	TRUEALARM DUCT SMOKE SENSOR W/ RELAY OUTPUT	*				
4098-9789	306	TRUEALARM SENSOR BASE W/ LED OUTPUT	*				
4098-9792	35	TRUEALARM SENSOR BASE	*				
Miscellaneous Peripheral Devices That Require (Additional) System Power							
4098-9843	30	ENCAPSULATED RELAY PAM-SD		0.0000	0.0000	0.0150	0.4500
4098-9756	30	TRUEALARM DUCT SMOKE SENSOR W/ RELAY OUTPUT		0.0030	0.0900	0.0150	0.4500
4603-9101	11	SERIAL LCD ANNUNCIATOR		0.0650	0.7150	0.1400	1.5400
2098-9808	320	REMOTE ALARM INDICATOR		0.0000	0.0000	0.0000	0.0000
Notification Appliances			Setting				
4903-9219	10	HORN/STROBE NON-SYNC, RED	15	0.0000	0.0000	0.1330	1.3300
4903-9292	98	CH70-2415W-FR 15CD CHIME/STROBE	15	0.0000	0.0000	0.0900	8.8200
4904-9137	125	15CD VISIBLE ONLY RED	15	0.0000	0.0000	0.0900	11.2500
CH70-24MCW-FR	2	MULTI CD CHIME STROBE, WALL MNT, RED	15	0.0000	0.0000	0.0600	0.1200
CH70	26	CHIME ONLY	CHIME	0.0000	0.0000	0.0220	0.5720
RSS-24MCW-FR	1	MULTI CD STROBE, WALL MNT, RED	15	0.0000	0.0000	0.0600	0.0600
		Peripheral Totals			0.8050		24.5920
		RUI Totals	11		0.0385		0.0385
		Address Totals	521 Addresses		0.8794		0.8808
		System Totals*:		Standby	4.8519	Alarm	30.8123

* Device Address current draw included below (See Additional Current Draws):
1. 2-wire detector alarm current is included in the alarm current of the Initiating Device Circuit.

Battery Set #1 (Cabinet/Charger #1)			Standby Current	Standby Total	Alarm Current	Alarm Total
Select ALL Power Supplies on this battery set:						
SPS-1				1.7570		9.6860
PS-2				0.0000		8.6020
PS-3				0.0000		11.6050
			Sub Total	1.7570		29.8930
Additional Current Draws:						
RUI Connected Peripheral Devices		11	x 0.0035	= 0.0385	x 0.0035	= 0.0385
MAPNET/IDNet Device Address Communication Current		521	x 0.001688	= 0.8794	x 0.001691	= 0.8808
			Sub Total	2.6749		30.8123
Spare addressable point capacity	20%	105	x 0.001688	= 0.1772	x 0.001691	= 0.1775
			Total	2.8521		30.9898

Standby Time = 4 Hrs x 2.8521 = 11.4085 Standby Ah
Alarm Time = 15 Min 0.25 x 30.9898 = 7.7475 Alarm Ah
19.1560
Additional Spare Battery Capacity = 20% + 3.8312
22.9872
Battery Discharge Factor = 20% + 4.5974
Minimum Battery Required 2081-9276 33AH (2x) 27.5846
Battery Supplied 2081-9296 50AH (2x) (EXISTING)

* System Totals represent total system current requirements. Those currents may be distributed between multiple battery sets or power supplies as shown above.

MEDICAL CENTER OF AURORA SOUTH TOWER NODE 1 FACP 4100es FACP VOLTAGE DROPS

WIRE RESISTANCE BASED ON TABLE 8 FROM NATIONAL ELECTRICAL CODE (UNCOATED SOLID COPPER WIRE) @ 75 Celsius

NOTIFICATION CIRCUIT DESCRIPTION	Power Supply	Panel Circuit	Plan Ckt.	Dist. (D) Feet	Wire Gauge	Wire Res. / Ft. (R)	Total Alarm (A)	V. Drop (A*2D*R)	Volt @ End	% Volt Drop	Min Device Voltage	Max Distance	4903-9219	4903-9292	4904-9137	CH70-24MCW-FR	RSS-24MCW-FR	CH70	Circuit Capacity (Amps)	Minimum Voltage @ NAC Output Terminals	Spare Circuit / Branch Capacity	Device Quantity Per Circuit/Branch
												Setting	15cd	15cd	15cd	15cd	15cd	CHIME				
												Device Type	A/V	C/V	V/O	MC A/V	MC V/O	C/O				
												Supv. Current	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				
												Alarm Current	0.1330	0.0900	0.0900	0.0600	0.0600	0.0220				
												Alarm Current @ 23 Volts	0.1330	0.0900	0.0900	0.0600	0.0600	0.0220				
N1:SIG23 CHIMES C3	PS-2	SIG23	SIG23	633	14ga	0.0031	0.154	0.599	18.901	3.07%	16vdc	3702 Ft.						7	3.A	19.5	82.9%	7
N1:SIG25 STROBES S3-2	PS-3	SIG25	SIG25	633	14ga	0.0031	0.900	3.498	16.002	17.94%	16vdc	633 Ft.		7	3				3.A	19.5	0.0%	10
N1:SIG26 CHIME C2-1	PS-2	SIG26	SIG26	1296	14ga	0.0031	0.418	3.326	16.174	17.06%	16vdc	1364 Ft.						19	3.A	19.5	5.0%	19
N1:SIG29 4009 SP6-2	PS-3	SIG29	SIG29	475	14ga	0.0031	0.810	2.362	17.138	12.11%	16vdc	704 Ft.		4	5				3.A	19.5	32.5%	9
N1:SIG35 STROBE S2-3	PS-3	SIG35	SIG35	390	14ga	0.0031	0.990	2.371	17.129	12.16%	16vdc	576 Ft.		4	7				3.A	19.5	32.3%	11
N1:SIG36 STROBE S2-1	PS-3	SIG36	SIG36	518	14ga	0.0031	0.810	2.576	16.924	13.21%	16vdc	704 Ft.		6	3				3.A	19.5	26.4%	9
N1:SIG37 STROBE S2-2	PS-3	SIG37	SIG37	487	14ga	0.0031	1.170	3.499	16.001	17.94%	16vdc	487 Ft.		5	8				3.A	19.5	0.0%	13

NOTE:
LUMP SUM METHOD WAS USED TO CALCULATE ALLOWABLE VOLTAGE DROP. THIS METHOD ALLOWS FOR A SMALL MARGIN OF SAFETY, TAKING INTO CONSIDERATION THAT THE ACTUAL INSTALLED CIRCUIT ROUTING MAY DIFFER FROM WHAT IS SHOWN ON THE SHOP DRAWINGS. IF THE ACTUAL CIRCUIT LENGTH IS GOING TO EXCEED THE MAXIMUM ALLOWABLE CIRCUIT LENGTH, CONTACT YOUR LOCAL SIMPLEXGRINNELL DISTRICT OFFICE.

GENERAL NOTES:
1. THE INFORMATION OR SYMBOLS SHOWN IN BOLD LINETYPE IS NEW.
2. THE INFORMATION OR SYMBOLS SHOWN IN LIGHT LINETYPE IS EXISTING.

NICET CERTIFICATION

TECHNICAL AREA 00303: LEVEL 3
CERTIFICATE #: 93727
VALID THROUGH: 03/01/18

Nancy S Wiltsie
NANCY S. WILTSIE
06/16/17
DATE

tyco SimplexGrinnell
Safer. Smarter. Tyco.™
DISTRICT - 419
14200 E. EXPOSITION AVE
AURORA, CO 80012
SERVICE: 303-355-0500
PHONE: 303-355-0500
FAX: 303-355-0615

MEDICAL CENTER OF AURORA
1ST FLOOR EMERGENCY DEPT.

MEDICAL CENTER OF AURORA
1501 S POTOMAC STREET
AURORA, COLORADO 80012

Revisions shown with △ symbol

ISSUE LOG: MARK	DATE	CAD	CHK	DESCRIPTION

FOR PERMIT

DRAWN BY:	NSW
CHECKED BY:	NSW
ISSUE DATE:	6/15/17
JOB #:	
PROJECT #:	419:999462101

SIMPLEXGRINNELL © 2017

SYSTEM: FIRE ALARM SYSTEM

SHEET: CALCULATIONS AND SCHEDULES

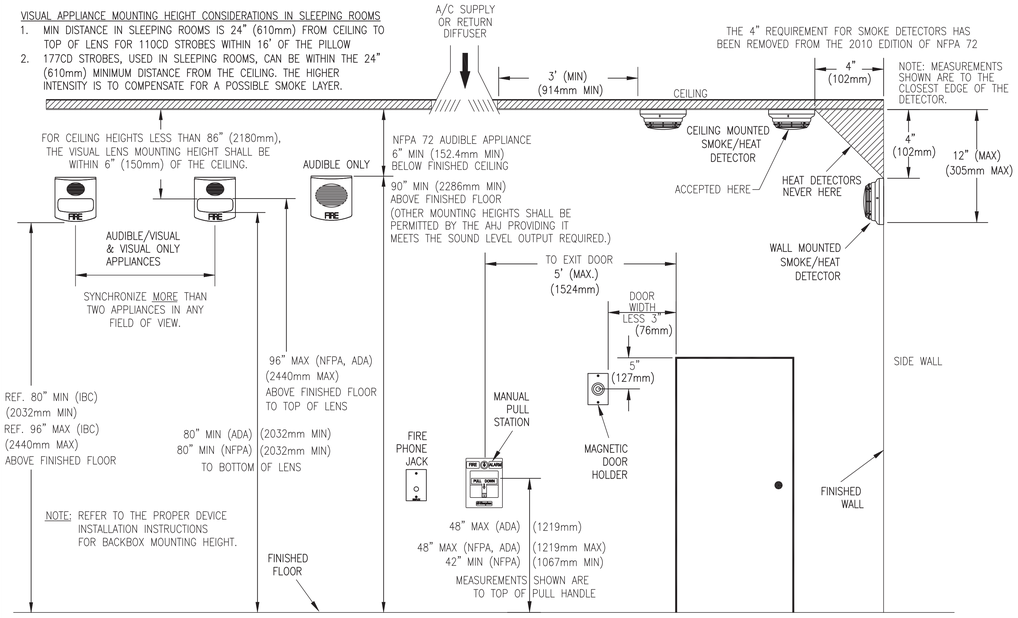
FA-601

IMPORTANT NOTICE TO USER: By accepting or using this drawing and/or the information contained herein, the user agrees to the following terms and conditions: The electronic information in the drawing may be subject to intentional or unintentional alteration. Any use, reuse, copying modification or alteration of the information contained herein shall be at the sole risk of the user. This information may not be sold or transferred to any third party, used on other projects or additions to the project for which it was prepared, or used for completion of this project by any third party. SimplexGrinnell disclaims all liability for the use or reuse of altered files by the user or any third party and such use will be a user's sole risk. User shall, to the fullest extent permitted by law, defend, indemnify, and hold SimplexGrinnell harmless from any and all claims for loss, damage or injury arising directly or indirectly therefrom.

FILE PATH: g:\medical center of aurora\1501 s potomac - aurora south\south tower - node 1\23-zone conversion - 2017 -999462101\fire 1st floor em dept\Fire\FA-601.dwg
LAST SAVED BY: NWILTSIE
LAST PRINTED: 6/15/2017 3:22:16 PM
24" x 36" - Arch D Size

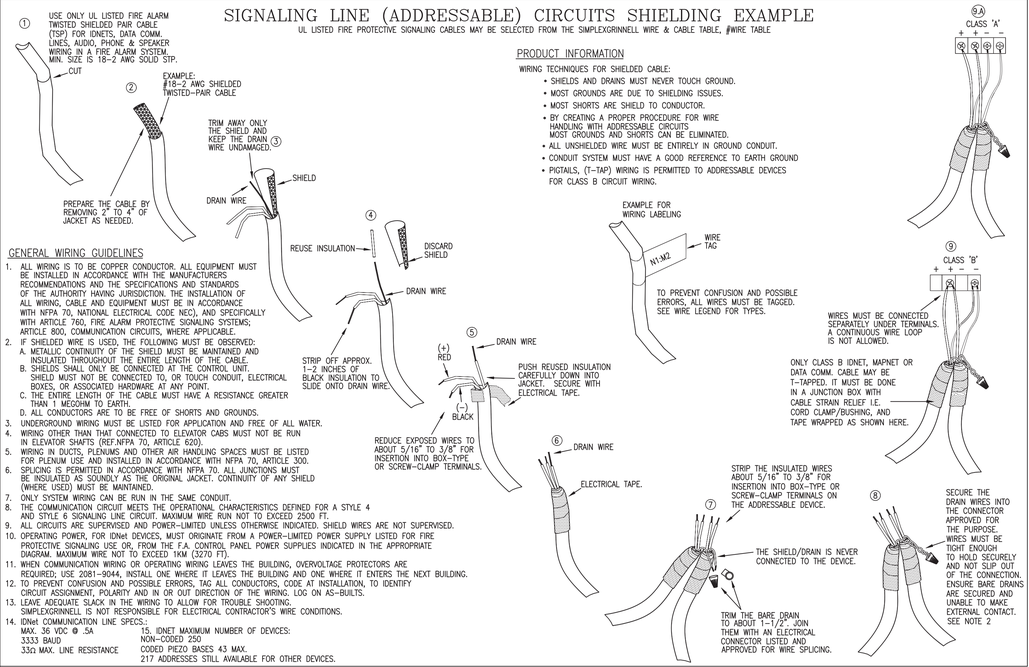
RSN: 1217639
Permit #: 2017-1316026-CT

DEVICE MOUNTING HEIGHT REFERENCE (PER NFPA 72)



SIGNALING LINE (ADDRESSABLE) CIRCUITS SHIELDING EXAMPLE

UL LISTED FIRE PROTECTIVE SIGNALING CABLES MAY BE SELECTED FROM THE SIMPLEXGRINNELL WIRE & CABLE TABLE, #WIRE TABLE



PRODUCT INFORMATION

WIRING TECHNIQUES FOR SHIELDED CABLE:
- SHIELDS AND DRAINS MUST NEVER TOUCH GROUND.
- MOST GROUNDS ARE DUE TO SHIELDING ISSUES.
- MOST SHORTS ARE SHIELD TO CONDUCTOR.
- BY CREATING A PROPER PROCEDURE FOR WIRE HANDLING WITH ADDRESSABLE CIRCUITS MOST GROUNDS AND SHORTS CAN BE ELIMINATED.
- ALL UNSHIELDED WIRE MUST BE ENTIRELY IN GROUND CONDUIT.
- CONDUIT SYSTEM MUST HAVE A GOOD REFERENCE TO EARTH GROUND
- PIGTAILS, (T-TAP) WIRING IS PERMITTED TO ADDRESSABLE DEVICES FOR CLASS B CIRCUIT WIRING.

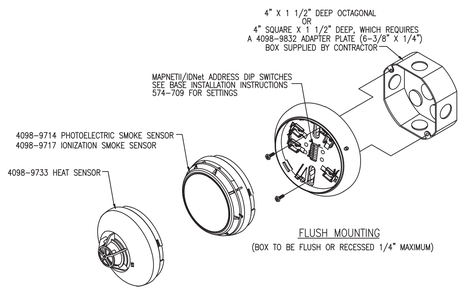
GENERAL WIRING GUIDELINES

1. ALL WIRING IS TO BE COPPER CONDUCTOR. ALL EQUIPMENT MUST BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS AND THE SPECIFICATIONS AND STANDARDS OF THE AUTHORITY HAVING JURISDICTION. THE INSTALLATION OF ALL WIRING, CABLE AND EQUIPMENT MUST BE IN ACCORDANCE WITH NFPA 70, NATIONAL ELECTRICAL CODE NEC), AND SPECIFICALLY WITH ARTICLE 760, FIRE ALARM PROTECTIVE SIGNALING SYSTEMS; ARTICLE 800, COMMUNICATION CIRCUITS, WHERE APPLICABLE.
2. IF SHIELDED WIRE IS USED, THE FOLLOWING MUST BE OBSERVED:
   A. METALLIC CONTINUITY OF THE SHIELD MUST BE MAINTAINED AND INSULATED THROUGHOUT THE ENTIRE LENGTH OF THE CABLE.
   B. SHIELDS SHALL ONLY BE CONNECTED AT THE CONTROL UNIT. SHIELD MUST NOT BE CONNECTED TO, OR TOUCH CONDUIT, ELECTRICAL BOXES, OR ASSOCIATED HARDWARE AT ANY POINT.
   C. THE ENTIRE LENGTH OF THE CABLE MUST HAVE A RESISTANCE GREATER THAN 1 MEGOHM TO EARTH.
   D. ALL CONDUCTORS ARE TO BE FREE OF SHORTS AND GROUNDS.
3. UNDERGROUND WIRING MUST BE LISTED FOR APPLICATION AND FREE OF ALL WATER.
4. WIRING OTHER THAN THAT CONNECTED TO ELEVATOR CABS MUST NOT BE RUN IN ELEVATOR SHAFTS (REF.NFPA 70, ARTICLE 620).
5. WIRING IN DUCTS, PLENUMS AND OTHER AIR HANDLING SPACES MUST BE LISTED FOR PLENUM USE AND INSTALLED IN ACCORDANCE WITH NFPA 70, ARTICLE 300.
6. SPLICING IS PERMITTED IN ACCORDANCE WITH NFPA 70. ALL JUNCTIONS MUST BE INSULATED AS SOUNDLY AS THE ORIGINAL JACKET. CONTINUITY OF ANY SHIELD (WHERE USED) MUST BE MAINTAINED.
7. ONLY SYSTEM WIRING CAN BE RUN IN THE SAME CONDUIT.
8. THE COMMUNICATION CIRCUIT MEETS THE OPERATIONAL CHARACTERISTICS DEFINED FOR A STYLE 4 AND STYLE 6 SIGNALING LINE CIRCUIT. MAXIMUM WIRE RUN NOT TO EXCEED 2500 FT.
9. ALL CIRCUITS ARE SUPERVISED AND POWER-LIMITED UNLESS OTHERWISE INDICATED. SHIELD WIRES ARE NOT SUPERVISED.
10. OPERATING POWER, FOR IDNet DEVICES, MUST ORIGINATE FROM A POWER-LIMITED POWER SUPPLY LISTED FOR FIRE PROTECTIVE SIGNALING USE OR, FROM THE F.A. CONTROL PANEL POWER SUPPLIES INDICATED IN THE APPROPRIATE DIAGRAM. MAXIMUM WIRE NOT TO EXCEED 1KM (3270 FT).
11. WHEN COMMUNICATION WIRING OR OPERATING WIRING LEAVES THE BUILDING, OVERVOLTAGE PROTECTORS ARE REQUIRED; USE 2081-9044, INSTALL ONE WHERE IT LEAVES THE BUILDING AND ONE WHERE IT ENTERS THE NEXT BUILDING.
12. TO PREVENT CONFUSION AND POSSIBLE ERRORS, TAG ALL CONDUCTORS, CODE AT INSTALLATION, TO IDENTIFY CIRCUIT ASSIGNMENT, POLARITY AND IN OR OUT DIRECTION OF THE WIRING. LOG ON AS-BUILTS.
13. LEAVE ADEQUATE SLACK IN THE WIRING TO ALLOW FOR TROUBLE SHOOTING.
14. SIMPLEXGRINNELL IS NOT RESPONSIBLE FOR ELECTRICAL CONTRACTOR'S WIRE CONDITIONS.
15. IDNet COMMUNICATION LINE SPECS.:
    MAX. 36 VDC @ .5A
    3333 BAUD
    33Ω MAX. LINE RESISTANCE
    IDNET MAXIMUM NUMBER OF DEVICES: NON-CODED 250
    CODED PIEZO BASES 43 MAX.
    217 ADDRESSES STILL AVAILABLE FOR OTHER DEVICES.

4098-9792 STANDARD SENSOR BASE

PRODUCT INFORMATION

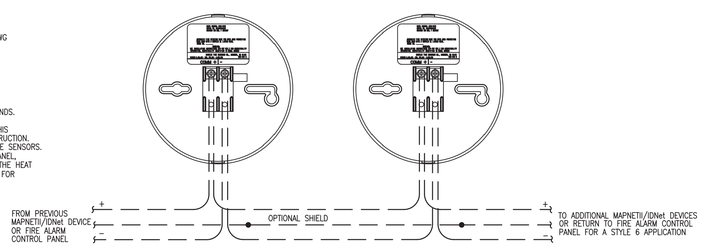
FEATURES:
- UL LISTED, FM APPROVED
- TRUEALARM ANALOG SENSING PROVIDES DIGITAL TRANSMISSION OF ANALOG SENSOR VALUES VIA MAPNET II, OR IDNet SLC TWO WIRE COMMUNICATIONS
- FIRE ALARM CONTROL PANEL PROVIDES:
  - INDIVIDUAL SENSITIVITY SELECTION FOR EACH SENSOR
  - PEAK VALUE LOGGING ALLOWING ACCURATE ANALYSIS FOR SENSITIVITY SELECTION
  - AUTOMATIC ENVIRONMENTAL COMPENSATION
  - DISPLAY OF SENSITIVITY IN PERCENT PER FOOT
  - MULTISTAGE ALARM OPERATION
  - ABILITY TO DISPLAY AND PRINT DETAILED SENSOR INFORMATION IN PLAIN ENGLISH LANGUAGE
- PHOTOELECTRIC SMOKE SENSOR 4098-9714: SEVEN LEVELS OF SENSITIVITY FROM 0.2% TO 3.7%
- IONIZATION SMOKE SENSOR 4098-9717: FOUR LEVELS OF SENSITIVITY FROM 0.5% TO 1.7%.
- HEAT SENSOR 4098-9733:
  - RATE-OF-RISE TEMPERATURE DETECTION IS SELECTABLE AT THE CONTROL PANEL FOR EITHER 15°F OR 20°F PER MINUTE
  - FIXED TEMPERATURE SENSING IS INDEPENDENT OF RATE-OF-RISE AND PROGRAMMABLE TO OPERATE AT 135°F OR 155°F
  - TRUEALARM HEAT SENSORS CAN BE PROGRAMMED AS A UTILITY DEVICE TO MONITOR FOR TEMPERATURE EXTREMES IN THE RANGE FROM 32° F TO 120° F.
- UL STANDARD SPACING:
  - 60 FT SPACING FOR 135° F
  - 40 FT SPACING FOR 155° F
- INTEGRAL RED LED FOR POWER-ON (PULSING), OR ALARM OR TROUBLE (STEADY ON)
- BASE MOUNTED ADDRESS SELECTION:
  - ACCESSIBLE FROM FRONT (DIP SWITCH UNDER SENSOR)
  - ADDRESS REMAINS WITH ITS PROGRAMMED LOCATION
- FOR USE WITH SIMPLEX 4010, 4100, 4020, AND 4120 SERIES CONTROL PANELS.
- MAXIMUM QUANTITY OF DEVICES:
  - 127 FOR 4020, 4100, 4120
  - 250 FOR 4010, 4100
- MOUNTING: CEILING OR WALL
- COLOR : FROST WHITE
- BASE DIMENSIONS: 15/16" X 4-7/8"



SPECIFICATIONS:
- UL LISTED TEMPERATURE RANGE: 32°F TO 100°F
- OPERATING TEMPERATURE RANGE: 32°F TO 120°F
- HUMIDITY RANGE: 10% TO 95% RH
- PHOTOELECTRIC SENSOR AIR VELOCITY RANGE: 0-2000 FT/MIN
- IONIZATION SENSOR AIR VELOCITY RANGE: 0-300 FT/MIN
- WIRING CONNECTIONS: SCREW TERMINALS FOR IN/OUT WIRING, #18 TO #14 AWG
- COMMUNICATIONS MAPNET II/IDNet SLC: 1 ADDRESS PER BASE
  VOLTAGE: (MAPNET II/IDNet SLC): 24-40VDC
  CURRENT: 400uA TYPICAL

DESCRIPTION:
TRUEALARM SENSOR BASES CONTAIN INTEGRAL ADDRESSABLE ELECTRONICS THAT CONSTANTLY MONITOR THE STATUS OF THE DETACHABLE PHOTOELECTRIC, IONIZATION, OR HEAT SENSORS. EACH SENSOR'S OUTPUT IS DIGITIZED AND TRANSMITTED TO THE SYSTEM FIRE ALARM CONTROL PANEL EVERY FOUR SECONDS. SINCE TRUEALARM SENSORS USE THE SAME BASE, DIFFERENT SENSOR TYPES CAN BE EASILY INTERCHANGED TO MEET SPECIFIC LOCATION REQUIREMENTS. THIS FEATURE ALLOWS INTENTIONAL SENSOR SUBSTITUTION DURING BUILDING CONSTRUCTION. WHEN CONDITIONS ARE TEMPORARILY DUSTY, INSTEAD OF COVERING THE SMOKE SENSORS. HEAT SENSORS MAY BE INSTALLED WITHOUT REPROGRAMMING THE CONTROL PANEL, ALTHOUGH THE CONTROL PANEL WILL INDICATE AN INCORRECT SENSOR TYPE. THE HEAT SENSOR WILL OPERATE AS A DEFAULT SENSITIVITY PROVIDING HEAT DETECTION FOR BUILDING PROTECTION AT THAT LOCATION.

WIRING:
1. ALL WIRING TO COMPLY WITH LOCAL CODE.
2. CONDUCTORS MUST TEST FREE OF ALL GROUNDS.
3. MAINTAIN CORRECT POLARITY
4. MAPNET II/IDNet SLC WIRING TO BE #18 AWG TWISTED SHIELDED PAIR
5. IF SHIELD IS PRESENT, CONNECT TO THE OUTGOING IDNet SLC SHIELD TO PROVIDE A CONTINUOUS SHIELD OVER THE LENGTH OF THE IDNet SLC CHANNEL. METHOD OF SPLICE DETERMINED BY AHJ.
6. REFER TO INSTALLATION INSTRUCTIONS (574-707)
7. REFER TO APPLICATION MANUAL (574-709)



NICET CERTIFICATION

TECHNICAL AREA 00303: LEVEL 3
CERTIFICATE #: 93727
VALID THROUGH: 03/01/18

NANCY S. WILTSIE — 06/16/17 DATE

tyco SimplexGrinnell
Safer. Smarter. Tyco.™
DISTRICT - 419
14200 E. EXPOSITION AVE
AURORA, COLORADO 80012
PHONE: 303-355-3500
FAX: 303-355-3515
SERVICE: 303-355-3500

MEDICAL CENTER OF AURORA 1ST FLOOR EMERGENCY DEPT.

MEDICAL CENTER OF AURORA
1501 S POTOMAC STREET
AURORA, COLORADO 80012

ISSUE LOG

MARK	DATE	CAD	CHK	DESCRIPTION

Revisions shown with Δ symbol

FOR PERMIT

DRAWN BY:	NSW
CHECKED BY:	NSW
ISSUE DATE:	6/15/17
JOB #:	
PROJECT #:	419:999462101
SIMPLEXGRINNELL ©	2017

SYSTEM: FIRE ALARM SYSTEM

SHEET: WIRING TYPICALS

FA-701

IMPORTANT NOTICE TO USERS: By accepting or using this drawing, you agree to the following terms and conditions: The attached drawing(s) is the property of tyco fire & security/simplexgrinnell and is not to be used in whole or in part for any other project without written authorization from tyco fire & security/simplexgrinnell. Any use, reuse, copying, modification or alteration of the information contained herein shall be at the user's sole risk and without any liability to tyco fire & security/simplexgrinnell. User shall, to the fullest extent permitted by law, defend, indemnify and hold tyco fire & security/simplexgrinnell harmless from any and all claims for loss, damage or injury arising directly or indirectly therefrom, by the user or any third party and such use will be a waiver of any and all claims against tyco fire & security/simplexgrinnell.

FILE PATH: g:\medical center of aurora\1501 s potomac - aurora south\south tower - node 1\23-zone conversion - 2017_999462101\fire 1st floor em dept\FireFA-701.dwg
LAST SAVED BY: NWILTSIE
LAST PRINTED: 6/15/2017 3:22:23 PM
24" x 36" - Arch D Size

RSN: ***1217639***
Permit #: ***2017-1316026-CT***

SIMPLEXGRINNELL
14200 E. Exposition Avenue
Aurora, Colorado 80012

www.simplexgrinnell.com

Tele: (303) 355-0500
Fax: (303) 355-0615

Fire Alarm
Product Data Submittal for:

MEDICAL CENTER OF AURORA
1501 S POTOMAC STREET
AURORA, CO 80012

Prepared for:

MC2 ELECTRIC
88 LIPAN ST
DENVER, CO 80223

RSN: *1217639*
Permit #: *2017-1316026-CT*

14200 E. Exposition Avenue
Aurora, Colorado 80012
Sales: (303) 355-0500
Service: (303) 355-0500
Fax: (303) 355-0615

PROJECT:	MEDICAL CENTER OF AURORA 1ST FLOOR EM DEPT-ZONE CONVERSION
PREPARED FOR:	MC2 ELECTRIC

TYPE:	***DESCRIPTION:***
4098-9714	TRUEALARM PHOTO SMOKE SENSOR
4098-9792	TRUEALARM SENSOR BASE

RSN: *1217639*
Permit #: *2017-1316026-CT*

TrueAlarm Analog Sensing

*UL, ULC, CSFM Listed; FM Approved; MEA (NYC) Acceptance**

TrueAlarm Analog Sensors – Photoelectric and Heat; Standard Bases and Accessories

Features

TrueAlarm analog sensing provides:

- Digital transmission of analog sensor values via IDNet or MAPNET II two-wire communications

For use with the following Simplex® products:

- 4100ES, 4100U, 4010ES, and 4010 Series control panels; and 4008 Series control panels with reduced feature set (refer to data sheet S4008-0001 for details)
- 4020, 4100, and 4120 Series control panels, Universal Transponders, and 2120 TrueAlarm CDTs equipped for MAPNET II operation

Fire alarm control panel provides:

- Peak value logging allowing accurate analysis of each sensor for individual sensitivity selection
- Sensitivity monitoring satisfying NFPA 72 sensitivity testing requirements; automatic individual sensor calibration check verifies sensor integrity
- Automatic environmental compensation, multi-stage alarm operation, and display of sensitivity directly in percent per foot
- Ability to display and print detailed sensor information in plain English language

Photoelectric smoke sensors provide:

- Seven levels of sensitivity from 0.2% to 3.7% (refer to additional information on page 3)

Heat sensors provide:

- Fixed temperature sensing
- Rate-of-rise temperature sensing
- Utility temperature sensing
- Listed to UL 521 and ULC-S530

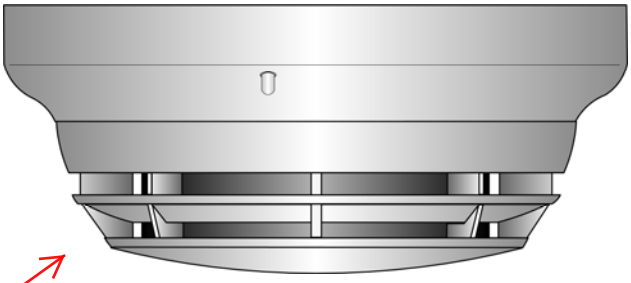
General features:

- Listed to UL 268 and ULC-S529
- Louvered smoke sensor design enhances smoke capture by directing flow to chamber; entrance areas are minimally visible when ceiling mounted
- Designed for EMI compatibility
- Magnetic test feature is provided
- Different bases are available to support a supervised or unsupervised output relay, and/or a remote LED alarm indicator

Additional base reference:

- For isolator bases, refer to data sheet S4098-0025
- For sounder bases, refer to data sheet S4098-0028
- For photo/heat sensors, refer to data sheet S4098-0024 (single address) and S4098-0033 (dual address)

* These products have been approved by the California State Fire Marshal (CSFM) pursuant to Section 13144.1 of the California Health and Safety Code. See CSFM Listings 7272-0026:218, 7271-0026:231, 7270-0026:216, and 7300-0026:217 for allowable values and/or conditions concerning material presented in this document. Accepted for use – City of New York Department of Buildings – MEA35-93E. Additional listings may be applicable, contact your local Simplex product supplier for the latest status. Listings and approvals under Simplex Time Recorder Co. are the property of Tyco Fire Protection Products.



4098-9714 TrueAlarm Photoelectric Sensor Mounted in Base

Description

Digital Communication of Analog Sensing. TrueAlarm analog sensors provide an analog measurement digitally communicated to the host control panel using Simplex addressable communications. At the control panel, the data is analyzed and an average value is determined and stored. An alarm or other abnormal condition is determined by comparing the sensor's present value against its average value and time.

Intelligent Data Evaluation. Monitoring each sensor's average value provides a continuously shifting reference point. This software filtering process compensates for environmental factors (dust, dirt, etc.) and component aging, providing an accurate reference for evaluating new activity. With this filtering, there is a significant reduction in the probability of false or nuisance alarms caused by shifts in sensitivity, either up or down.

Control Panel Selection. Peak activity per sensor is stored to assist in evaluating specific locations. The alarm set point for each TrueAlarm sensor is determined at the host control panel, selectable as more or less sensitive as the individual application requires.

Timed/Multi-Stage Selection. Sensor alarm set points can be programmed for timed automatic sensitivity selection (such as more sensitive at night, less sensitive during day). Control panel programming can also provide multi-stage operation per sensor. For example, a 0.2% level may cause a warning to prompt investigation while a 2.5% level may initiate an alarm.

Sensor Alarm and Trouble LED Indication. Each sensor base's LED pulses to indicate communications with the panel. If the control panel determines a sensor is in alarm, or is dirty or has some other type of trouble, the details are annunciated at the control panel and that sensor base's LED will be turned on steadily. During a system alarm, the control panel will control the LEDs such that an LED indicating a trouble will return to pulsing to help identify the alarmed sensors.

RSN: *1217639*
Permit #: *2017-1316026-CT*

True*Alarm* Sensor Bases and Accessories

Sensor Base Features

Base mounted address selection:

- Address remains with its programmed location
- Accessible from front (DIP switch under sensor)

General features:

- Automatic identification provides default sensitivity when substituting sensor types
- Integral red LED for power-on (pulsing), or alarm or trouble (steady on)
- Locking anti-tamper design mounts on standard outlet box
- Magnetically operated functional test

Sensor Bases

4098-9792, Standard Sensor Base

4098-9789, Sensor Base with wired connections for:

- 2098-9808 Remote LED alarm indicator **or** 4098-9822 relay (relay is unsupervised and requires separate 24 VDC)

Supervised Relay Bases (not compatible with 2120 CDT)**:**

- **4098-9791, 4-Wire Sensor Base,** use with remote or locally mounted 2098-9737 relay, requires separate 24 VDC
- **4098-9780, 2-Wire Sensor Base**, use with remote or locally mounted 4098-9860 relay, no separate power required
- Supervised relay operation is programmable and can be manually operated from control panel
- Includes wired connections for remote LED alarm indicator **or** 4098-9822 relay (relay is unsupervised and requires separate 24 VDC)

Sensor Base Options

2098-9737, Remote or local mount supervised relay:

- DPDT contacts for resistive/suppressed loads, power limited rating of 3 A @ 28 VDC; non-power limited rating of 3 A @ 120 VAC (requires external 24 VDC coil power)

4098-9860, Remote or local mount supervised relay:

- SPDT dry contacts, power limited rating of 2 A @ 30 VDC, resistive; non-power limited rating of 0.5 A @ 125 VAC, resistive

4098-9822, LED Annunciation Relay:

- Activates when base LED is on steady, indicating local alarm or trouble
- DPDT contacts for resistive/suppressed loads, power limited rating of 2 A @ 28 VDC; non-power limited rating of 1/2 A @ 120 VAC, (requires external 24 VDC coil power)

4098-9832, Adapter plate:

- Required for surface or semi-flush mounting to 4” square electrical box and for surface mounting to 4” octagonal box
- Can be used for cosmetic retrofitting to existing 6-3/8” diameter base product

2098-9808, Remote red LED Alarm Indicator:

- Mounts on single gang box (shown in illustration to right)



Description

TrueAlarm sensor bases contain integral addressable electronics that constantly monitor the status of the detachable photoelectric or heat sensors. Each sensor’s output is digitized and transmitted to the system fire alarm control panel every four seconds.

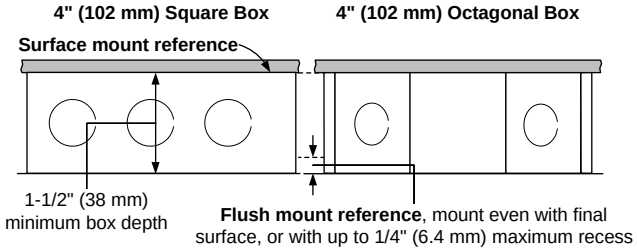
Since TrueAlarm sensors use the same base, different sensor types can be easily interchanged to meet specific location requirements. This feature also allows intentional sensor substitution during building construction. When conditions are temporarily dusty, instead of covering the smoke sensors (causing them to be disabled), heat sensors may be installed without reprogramming the control panel. Although the control panel will indicate an incorrect sensor type, the heat sensor will operate at a default sensitivity providing heat detection for building protection at that location.

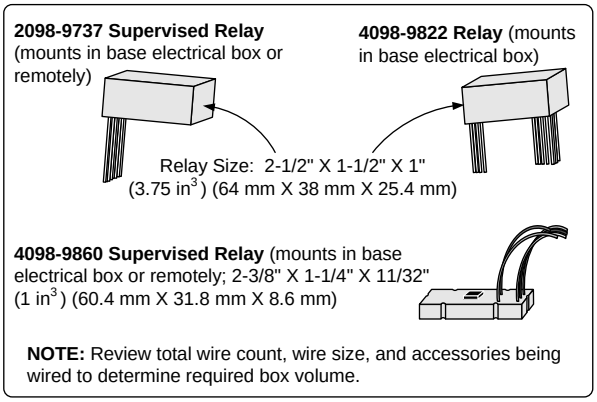
Mounting Reference

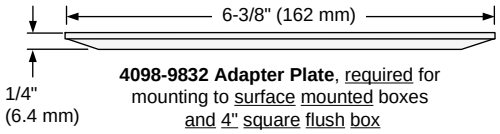
Electrical Box Requirements: (boxes are by others)

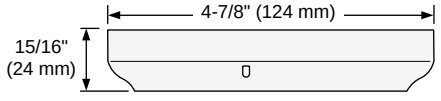
Without relay in the box: 4" octagonal or 4" square, 1-1/2" deep; single gang, 2" deep

With relay in the box : 4" octagonal or 4" square, 1-1/2" deep, with 1-1/2" extension ring









TrueAlarm Bases
4098-9780, 4098-9789, 4098-9791, & 4098-9792

True*Alarm* Sensors

Features

Sealed against rear air flow entry

Interchangeable mounting

EMI/RFI shielded electronics

Heat sensors:

- Selectable rate compensated, fixed temperature sensing with or without rate-of-rise operation
- Rated spacing distance between sensors:

Fixed Temp. Setting	UL & ULC Spacing	FM Spacing, Either Fixed Temperature Setting
135° F (57.2° C)	60 ft x 60 ft (18.3 m)	20 ft x 20 ft (6.1 m) for fixed temperature only; **RTI = Quick**
155° F (68° C)	40 ft x 40 ft (12.2 m)	50 ft x 50 ft (15.2 m) for fixed temperature with either rate-of-rise selection; **RTI = Ultra Fast**

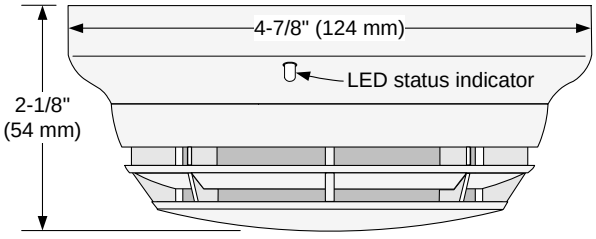
Smoke Sensors:

- Photoelectric technology sensing
- 360° smoke entry for optimum response
- Built-in insect screens

4098-9714 Photoelectric Sensor

TrueAlarm photoelectric sensors use a stable, pulsed infrared LED light source and a silicon photodiode receiver to provide consistent and accurate low power smoke sensing. Seven levels of sensitivity are available for each individual sensor, ranging from 0.2% to 3.7% per foot of smoke obscuration. Sensitivities of 0.2%, 0.5%, and 1% are for special applications in clean areas. Standard sensitivities are 1.5%, 2.0%, 2.5%, 3.0%, and 3.7%. Application type and sensitivity are selected and then monitored at the fire alarm control panel.*

The sensor head design provides 360° smoke entry for optimum response to smoke from any direction. Due to its photoelectric operation, air velocity is not normally a factor, except for impact on area smoke flow.



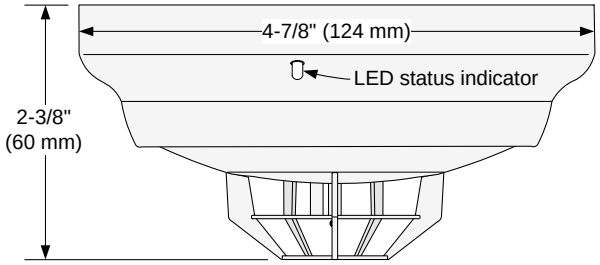
4098-9714 Photoelectric Sensor with Base

4098-9733 Heat Sensor

TrueAlarm heat sensors are self-restoring and provide rate compensated, fixed temperature sensing, selectable with or without rate-of-rise temperature sensing. Due to its small thermal mass, the sensor accurately and quickly measures the local temperature for analysis at the fire alarm control panel.

Rate-of-rise temperature detection is selectable at the control panel for either 15° F (8.3° C) or 20° F (11.1° C) per minute. Fixed temperature sensing is independent of rate-of-rise sensing and programmable to operate at 135° F (57.2° C) or 155° F (68° C). In a slow developing fire, the temperature may not increase rapidly enough to operate the rate-of-rise feature. However, an alarm will be initiated when the temperature reaches its rated fixed temperature setting.

TrueAlarm heat sensors can be programmed as a utility device to monitor for temperature extremes in the range from 32° F to 155° F (0° C to 68° C). This feature can provide freeze warnings or alert to HVAC system problems. *Refer to specific panels for availability.*



4098-9733 Heat Sensor with Base

WARNING: In most fires, hazardous levels of smoke and toxic gas can build up before a heat detection device would initiate an alarm. In cases where Life Safety is a factor, the use of smoke detection is highly recommended.

Application Reference

Sensor locations should be determined only after careful consideration of the physical layout and contents of the area to be protected. Refer to NFPA 72, the *National Fire Alarm and Signaling Code*. On smooth ceilings, smoke sensor spacing of 30 ft (9.1 m) may be used as a guide.*

***** For detailed application information including sensitivity selection, refer to Installation Instructions 574-709.

RSN: ***1217639***
Permit #: ***2017-1316026-CT***

TrueAlarm Analog Sensing Product Selection Chart

TrueAlarm Sensor Bases (for use with Sensors 4098-9714 and 4098-9733)

(Refer to Application Manual 574-709 and Installation Instructions 574-707 for additional information)

Model	Description	Compatibility	Mounting Requirements
4098-9792	Standard Sensor Base	No options	4" octagonal or 4" square box, 1-1/2" min. depth; or single gang box, 2" min. depth
4098-9789	Sensor Base with connections for Remote LED Alarm Indicator **or** Unsupervised Relay	2098-9808 Remote Alarm Indicator **or** 4098-9822 Unsupervised Relay	4" octagonal or 4" square box **Note:** Box depth requirements depend on total wire count and wire size, refer to accessories list below for reference. ** **NOTE:** 4098-9791 and 4098-9780 are NOT compatible with the 2120 CDT
4098-9791**	4-Wire Sensor Supervised Relay Base with connections for LED Indicator **or** Unsupervised Relay	2098-9737 Supervised Remote Relay 2098-9808 Remote Alarm Indicator **or** 4098-9822 Unsupervised Relay	
4098-9780**	2-Wire Sensor Supervised Relay Base with connections for LED Indicator **or** Unsupervised Relay	4098-9860 Supervised Remote Relay 2098-9808 Remote Alarm Indicator **or** 4098-9822 Unsupervised Relay	

TrueAlarm Sensors

Model	Description	Compatibility	Mounting Requirements
4098-9714	Photoelectric Smoke Sensor	Bases 4098-9792, 4098-9789, 4098-9791, and 4098-9780	Refer to base requirements
4098-9733	Heat Sensor		

TrueAlarm Sensor/Base Accessories

Model	Description	Compatibility	Mounting Requirements
2098-9737	Supervised Relay, mounts remote or in base electrical box	For use with 4098-9791 base	**Remote Mounting** requires 4" octagonal or 4" square box, 1-1/2" minimum depth **Base Mounting** requires 4" octagonal box, 2-1/8" deep with 1-1/2" extension ring
4098-9860	Supervised Relay, mounts remote or in base electrical box	For use with 4098-9780 base	
2098-9808	Remote Red LED Alarm Indicator on single gang stainless steel plate	Bases 4098-9789, 4098-9791, and 4098-9780	Single gang box, 1-1/2" minimum depth
4098-9822	Unsupervised Relay, tracks base LED status; Note: Mounts only in base electrical box	Bases 4098-9789, 4098-9791, and 4098-9780	4" octagonal box, 2-1/8" deep with 1-1/2" extension ring
4098-9832	Adapter Plate	Bases 4098-9792, 4098-9789, 4098-9791, and 4098-9780	**Required** for surface or semi-flush mounted 4" square box and for surface mounted 4" octagonal box

Specifications

General Operating Specifications		
Communications and Sensor Supervisory Power		IDNet or MAPNET II communications, auto-selected, 1 address per base
Communications Connections		Screw terminals for in/out wiring, 18 to 14 AWG (0.82 mm^2 to 2.08 mm^2)
Remote LED Alarm Indicator Current		1 mA typical, no impact to alarm current
Remote LED Alarm Indicator and Relay Connections		Color coded wire leads, 18 AWG (0.82 mm^2)
UL Listed Operating Temperature Range		32° to 100° F (0° to 38° C)
Operating Temperature Range	with 4098-9733 Heat Sensor	32° to 122° F (0° to 50° C)
	with 4098-9714 Smoke Sensor	15° to 122° F (-9° to 50° C)
Storage Temperature Range		0° F to 140° F (-18° C to 60° C)
Humidity Range		10 to 95% RH
4098-9714 Smoke Sensor Air Velocity Rating		0-4000 ft/min (0-1220 m/min)
Housing Color		Frost White
4098-9791 Base With Supervised Remote Relay 2098-9737 (see page 2 for contact ratings)		
Externally Supplied Relay Coil Voltage		18-32 VDC (nominal 24 VDC)
Supervisory Current		270 μA, from 24 VDC supply
Alarm Current with 2098-9737 Relay		28 mA, from 24 VDC supply
4098-9780 Base With Supervised Remote Relay 4098-9860 (see page 2 for contact ratings)		
Power		Supplied from communications
4098-9822 Unsupervised Relay, Requirements for Bases 4098-9789. 4098-9791, and 4098-9780 (see page 2 for contact ratings)		
Externally Supplied Relay Coil Voltage		18-32 VDC (nominal 24 VDC)
Supervisory Current		Supplied from communications
Alarm Current		13 mA from separate 24 VDC supply

TYCO, SIMPLEX, and the product names listed in this material are marks and/or registered marks. Unauthorized use is strictly prohibited. NFPA 72 and National Fire Alarm and Signaling Code are trademarks of the National Fire Protection Association (NFPA).

© 2014 Tyco Fire Protection Products. All rights reserved. All specifications and other information shown were current as of document revision date and are subject to change without notice.