City of Aurora
Building Codes Division
15151 E Alameda Pkwy
Aurora, CO 80012
(303) 739-7420

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THE MEDICAL CENTER OF AURORA

FIRE ALARM SYSTEM SHOP DRAWINGS

BUILDING CLASSIFICATIONS AND CODES

OCCUPANCY GROUP: I-1,2 USE: HOSPITAL
STORIES: 6 STORIES
SQUARE FOOTAGE: 13,876 SQ. FT. IN SCOPE
SPRINKLERED: YES

APPLICABLE CODES

2006 I.B.C. 2006 I.F.C.
2005 N.E.C. 2002 NFPA 72

SYSTEM WIRING TYPES

INITIATING DEVICE CKT: CLASS B, STYLE B (HARDWIRED)
NOTIFICATION APPLIANCE CKT: CLASS B, STYLE Y (HARDWIRED)
SIGNALLING LINE CKT: CLASS B, STYLE 4 (ADDRESSABLE)
NETWORK: CLASS A, STYLE 7 (ADDRESSABLE)

SYSTEM TYPE

SUPERVISING STATION TYPE: CENTRAL STATION
AUDIBLE NOTIFICATION: TEMPORAL
VISUAL NOTIFICATION: PUBLIC

DESIGN STATEMENT:

THIS PROJECT'S DESIGN IS FROM THE ENGINEERED PLANS AND SPECIFICATIONS PREPARED BY: CCRD PARTNERS

ARCHITECURAL PLANS DATED: 07/15/09
MECHANICAL PLANS DATED: 07/15/09
ELECTRICAL PLANS DATED: 07/15/09
SPECIFICATIONS DATED:
ADDENDUM'S DATED:

SCOPE OF WORK

Medical Center of Aurora-4th Flr East and West Wings

This project involves the installation of new ~~initiating and notification~~ in 4th Floor East and West Wings. New initiating devices for West Wing will tie into existing Magnet 4 devices. New initiating devices for East Wing will tie into existing Magnet 8 devices. ~~A new 4009 NAC panel will be installed in West end of 4th floor West Wing for new chime/strobe and strobe only devices.~~

Actual Graphic Maps will be provided by hospital 'Graphic Map Upgrade Project'.

Add Addressable Smoke Detectors on East Wing Corridor. See RSN 498757

CENTRAL STATION MONITORING SERVICE:

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

PROJECT:
THE MEDICAL CENTER OF AURORA
4TH FLOOR EAST AND WEST WINGS
1501 SOUTH POTOMAC STREET
AURORA, CO 80012

ARCHITECT:
HEERY INTERNATIONAL INC.
820 16TH STREET MALL, SUITE 200
DENVER, COLORADO 80202
720-946-0276

GENERAL CONTRACTOR:
HOWELL CONSTRUCTION
550 LIPAN STREET
DENVER, COLORADO 80204
303-899-4787

FIRE ALARM DESIGN ENGINEER:
SIMPLEXGRINNELL
6240 SMITH ROAD
DENVER, CO 80216
303.355.0500

ENGINEER OF RECORD:
CCRD PARTNERS
8301 E. PRENTICE AVENUE, SUITE 200
GREENWOOD VILLAGE, COLORADO 80111
303-694-4755

ELECTRICAL CONTRACTOR:
DESIGN ELECTRICAL CONTRACTORS
7193 SOUTH DILLON COURT
GREENWOOD VILLAGE, COLORADO 80112

SIMPLEXGRINNELL DRAWING INFORMATION

SIMPLEXGRINNELL PROJECT NUMBER: 945770701
SIMPLEXGRINNELL CAD FILE: G:\ELEC\MEDICAL CENTER OF AURORA

NICET CERTIFICATION

TECHNICAL AREA 00303: LEVEL IV
CERTIFICATE #: 109355
VALID THROUGH: 09/01/12

THE DESIGN FOR MEDICAL CENTER OF AURORA – 4TH FLOOR EAST AND WEST WINGS WAS PROVIDED BY CCRD PARTNERS. THIS DRAWING SET WAS PREPARED UNDER THE SUPERVISION OF A NICET IV PROFESSIONAL. THE DRAWINGS WERE REVIEWED FOR THE INFORMATION CONTAINED UNDER THE SCOPE OF WORK. ALL EQUIPMENT HAS BEEN VERIFIED TO BE COMPATIBLE AND WILL OPERATE AS REQUIRED PER NFPA GUIDELINES.

JAMES COOLEY — DATE 2/16/10

NICET CERTIFIED

SHEET INDEX

FIRE ALARM DRAWING INDEX:

FA0.01 *	COVER SHEET
FA1.01 *	GENERAL INFORMATION
FA1.02 *	GENERAL INFORMATION
FA1.03	GENERAL INFORMATION
FA2.01 *	TYPICAL WIRING
FA2.02 *	PARTIAL ONE-LINE RISER DIAGRAM
FA3.01	BASEMENT
FA3.02	FIRST FLOOR AREA "A"
FA3.03	FIRST FLOOR AREA "B"
FA3.04	FIRST FLOOR AREA "C"
FA3.05	FIRST FLOOR AREA "D"
FA3.06	FIRST FLOOR AREA "E"
FA3.07	SECOND FLOOR AREA "A"
FA3.08	SECOND FLOOR AREA "B"
FA3.09	THIRD FLOOR AREA "A"
FA3.10a *	FOURTH FLOOR AREA "A"
FA3.10b *	FOURTH FLOOR AREA "B"
FA4.01 *	4009 NAC3 EXTENDER PANEL DETAIL
FA5.01 *	PERIPHERAL WIRING DETAILS
FA5.02 *	PERIPHERAL WIRING DETAILS
FA6.01 *	GRAPHIC MAP

REQUIRED INFORMATION LOCATED ON SHEET:

FA0.01	SCOPE OF WORK
FA0.01	APPLICABLE CODES
FA1.01	LEGEND
FA1.01	SEQUENCE OF OPERATION
FA1.02	DEVICE ADDRESSES
FA1.02	BATTERY CALCULATIONS
FA1.02	VOLTAGE DROP CALCULATIONS
FA2.02	ONE-LINE RISER DIAGRAM
FA4.01	PANEL DETAIL WIRING
FA5.01-5.02	PERIPHERAL DETAIL WIRING
FA6.01	GRAPHIC MAP

* SHEETS INCLUDED IN THIS SUBMITTAL.

FIRE DEPT./BLDG DEPT. PLAN REVIEW #:

AURORA BUILDING CODES DIVISION
15151 EAST ALAMEDA PARKWAY, 2ND FLOOR PERMIT CENTER
AURORA, COLORADO 80012
(303) 739-7420

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 2006 IFC AND THE 2008 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 2006 IFC AND THE 2003 ANSI A117.1 STANDARD.
- PROVIDE A PRIMARY AND SECONDARY POWER SUPPLY FOR THE FIRE ALARM SYSTEM PER THE 2006 IFC, SECTION 907.5 AND THE 2002 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. 2
- 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. IFC SECTION 907.10.2.

tyco / Fire & Security / SimplexGrinnell
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http://www.SimplexGrinnell.com

Project Manager: Mike Lamitola
Design Manager: James Cooley
Project Coordinator: Barb Hufford

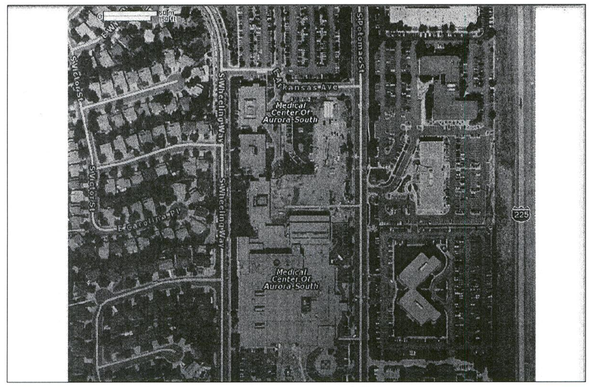
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CITY OF AURORA
BUILDING DIVISION
APPROVED AS NOTED JMP
DATE 3/1/10
NFPA 72 ('02)

NFPA MEMBER 09/10

City of Aurora Plan Review
Project Fire Alarm Mod
Address 1501 S. Potomac 4th Floor
Contractor
RSN 522326
Permit Number 10 455176
Plan Location Scanned
TYPE I FR SPR USE I-2 SF 30464

Code violations found during inspection are required to be corrected. Plan/Permit issuance does not grant approval of a code violation. 2006 IBC 105.4.



SITE MAP NORTH

24" x 36"

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tyco / Fire & Security / SimplexGrinnell
6240 SMITH ROAD
DENVER, COLORADO 80216
SALES: (303) 355-0500
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FAX: (303) 355-0615

NO.	DATE	REVISION DESCRIPTION
A	09/23/03	COMMENTS PER A.H.J. (SKB)
B	02/16/10	ADDITIONS AND REVISIONS (SKB)

FIRE ALARM SYSTEM FOR:
MEDICAL CENTER OF AURORA

MCOA 4TH FLOOR
1501 SOUTH POTOMAC
AURORA, COLORADO 80012

DRAWN BY: SKB	DATE: 08/20/09
DESIGNED BY: JWC	DATE: 08/20/09
APPROVED BY: JWC	DATE: 08/27/09
PROJECT #: 945770701	
SCALE: N.T.S.	
SHEET TITLE: COVER SHEET	
SHEET NUMBER: FA0.01	

GENERAL NOTES

1. THE FIRE ALARM CONTRACTOR WILL PROVIDE 48 HOUR NOTICE TO THE OWNER AND TESTING AGENCY FOR ALL TESTING REQUIRED. THE AUTHORITY HAVING JURISDICTION SHALL BE NOTIFIED OF THE DATE AND TIME OF THE FINAL FIRE ALARM TESTING, AND SHALL ASSIST/WITNESS SUCH TESTING WHEN ABLE.
2. THE FIRE ALARM CONTRACTOR SHALL PROVIDE A COMPLETED AND SIGNED "RECORD OF COMPLETION" TO THE INSPECTOR OF RECORD AFTER COMPLETION OF OPERATIONAL ACCEPTANCE TESTS.
3. A STAMPED SET OF APPROVED FIRE ALARM DRAWINGS SHALL BE AT THE JOB SITE AND SHALL BE USED FOR INSTALLATION.
4. 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.
5. 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.
6. IF AN EXISTING FIRE ALARM SYSTEM EXISTS, IT 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 THE EXISTING FA SYSTEM DEMOLITION WORK. THE LOCAL FIRE AUTHORITY AND CENTRAL MONITORING STATION SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF EXISTING FA SYSTEM SHUTDOWN.
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 NEC SECTION 760-10. MARK ALL FIRE ALARM WIRES IN ACCORDANCE NEC SECTION 760-31g AND 760-42.
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 PENETRATE 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 OUTDOOR SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 70 ARTICLES 760-7, 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 CONDUIT FILL RATIO AS PER NEC REQUIREMENTS.
23. FIRE ALARM SYSTEM INSTALLER SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR WHEN DETERMINING INSTALLATION OF SMOKE DETECTORS OR SENSORS.
24. DO NOT MOUNT SMOKE/HEAT SENSORS CLOSER THAN 3 FEET FROM ANY SUPPLY/RETURN DIFFUSER OR FLUORESCENT BAFFLES.
25. ALL FIRE ALARM POINTS ARE TO BE ON THE NEW FIRE ALARM PANEL.THE NEW FIRE ALARM PANEL WILL BE THE MAIN FIRE ALARM PANEL.

WIRING INSTRUCTIONS

A. Install wiring according to the following:
   1. NECA 1.
   2. TIA/EIA 568-A
   3. Cables, raceways and support pathways including but not limited to j-hooks and cable tray, which are used for fire alarm circuits, and equipment control wiring associated with the fire alarm system, shall not contain any other wire or cable.

B. Wiring Method for vertical risers penetrating floor slabs: Install wiring in metal raceway according to Specification Division 26 Section "Raceways and Boxes for Electrical Systems".

C. Wiring Method for circuits concealed in Walls, Partitions, and Inaccessible Ceilings: Install wiring in metal raceway according to Specification Division 26 Section "Raceways and Boxes for Electrical Systems".

D. Wiring Method for surface mounted and other exposed circuits, including in Crawlspaces: Install wiring in metal raceway according to Specification Division 26 Section "Raceways and Boxes for Electrical Systems".

E. Wiring Method for circuits concealed in accessible ceilings, install plenum-rated fire alarm cables supported on j-hooks.
   1. For wall mounted devices: Install recessed device backboxes with conduit extended to above accessible ceiling according to Specification Division 26 Section "Raceways and Boxes for Electrical Systems.

F. Wiring Method:
   1. Cables and raceways used for fire alarm circuits, and equipment control wiring associated with the fire alarm system, may not contain any other wire or cable.
   2. Fire-Rated Cables: Use of 2-hour fire-rated fire alarm cables, NFPA70 Types MI and CI, is permitted.
   3. Signaling Line Circuits: Non-Power-limited fire alarm cables shall not be installed in the same conduit or raceway as signaling line circuits.

G. Wiring within Enclosures: Separate power-limited and non-power-limited conductors. Install conductors parallel with or at right angles to sides and back of enclosure. Bundle, lace and train conductors to terminal points with no excess. Connect conductors that are terminated, spliced or interrupted in any enclosure associated with the fire alarm system to terminal blocks. Mark each terminal according to the system's wiring diagrams. Make all connections with approved crimp-on terminal spade lugs, pressure-type terminal blocks or plug connectors.

SYMBOL KEY

SYMBOL	DESCRIPTION	MODEL#	BACKBOX
NAC#	NAC EXTENDER PANEL # DESIGNATES THE NAC PANEL NUMBER W / 10AH BATTERY SET	SIMPLEX 4009-9201 SIMPLEX 2081-9274	16-1/4"W x 13-1/2"H x 4-3/16"D
ANN#	SERIAL LCD ANNUNCIATOR	SIMPLEX 4603-9101	6 SINGLE GANG BOXES 3 1/2" DEEP
F	MANUAL PULL STATION STOPPER II W/HORN	SIMPLEX 4099-9003 STI-1130	SINGLE GANG BOX 2 1/2" DEEP
?	SMOKE PHOTO SENSOR / BASE	SIMPLEX 4098-9714 SIMPLEX 4098-9792 BASE	4" OCTAGONAL BOX 1 1/2" DEEP
RTS ? R	DUCT SMOKE SENSOR W/PHOTOELECTRIC SENSOR HEAD, DUCT AND REMOTE TEST STATION W/ LED AND KEY SWITCH	SIMPLEX 4098-9751 SIMPLEX 4098-9714 SIMPLEX 2098-9806	MOUNT TO DUCTWORK SINGLE GANG BOX 2 1/2" DEEP
RTS ? R	DUCT SMOKE SENSOR W/ REMOTE TEST STATION AND ENCAPSULATED PAM SD RELAY MODULE	SIMPLEX 4098-9756 SIMPLEX 2098-9806 SIMPLEX 4098-9843	MOUNT TO DUCTWORK
(FSD)	FIRE SMOKE DAMPER	BY OTHERS	MONITOR AND CONTROL WITH RELAY IAM 4090-9118
DH	DOOR HOLDER	SIMPLEX 2088-9609	SINGLE GANG BOX 2" DEEP
DH EX	DOOR HOLDER	EXISTING	SINGLE GANG BOX 2" DEEP
#	CHIME/STROBE # =CANDELA RATING	WHEELOCK CH70-24MCW-FR	4" SQUARE BOX 1 1/2" DEEP W/ 1 1/2" EXTENSION RING
#	WALL MOUNT MULTI-CANDELA V/O WHITE # =CANDELA RATING	WHEELOCK RSS-24MCW-FR	4" SQUARE BOX 1 1/2" DEEP W/ 1 1/2" EXTENSION RING
10K	END-OF-LINE RESISTOR (EOL)	BY OTHERS	SEE CHART SHEET FA-604
	SMOKE PHOTO SENSOR / BASE	EXISTING	4" OCTAGONAL OUTLET BOX
T	THERMAL SENSOR IN TRUEALARM BASE	EXISTING	4" OCTAGONAL OUTLET BOX
	MANUAL PULL STATION	EXISTING	(2) 3x2x2-3/4 SWITCH BOXES WITH 2099-9813 TRIM
S	PHOTO SENSOR IN TRUEALARM DUCT HOUSTING WITH SAMPLING TUBES	EXISTING	DIRECTLY TO DUCTWORK
RTS	REMOTE TEST SWITCH	EXISTING	SINGLE GANG OUTLET BOX
	REMOTE LED ON PLATE	EXISTING	SINGLE GANG OUTLET BOX
	24VDC WALL MOUNTED DOOR HOLDERS	EXISTING	SINGLE GANG BOX
R	RELAY INDIVIDUAL ADDRESSABLE MODULE	SIMPLEX 4090-9002	SINGLE GANG OUTLET BOX
CZ	CONTROL ZAM	SIMPLEX 2190-9163	4-11/16" SQUARE, 2-1/8 DEEP BOX WITH 1-1/2" DEEP EXTENSION RING
SZ	SIGNAL ZAM	SIMPLEX 2190-9161	4-11/16" SQUARE, 2-1/8 DEEP BOX WITH 1-1/2" DEEP EXTENSION RING
	CHIME WITH 15 CANDELLA STROBE UNIT	EXISTING	4" SQUARE BOX 1-1/2" DEEP
	15 CANDELLA STROBE UNIT	SIMPLEX 4904-9137	SINGLE GANG BOX 1-1/2" DEEP
TS	TAMPER SWITCH	EXISTING	EXISTING
FS	FLOWSWITCH	EXISTING	EXISTING
EOLR	END-OF-LINE RESISTOR (EOLR)	EXISTING	IN BACKBOX OF LAST DEVICE
J	J-BOX	EXISTING	EXISTING

SHEET NOTES

THE INFORMATION OR SYMBOLS SHOWN IN BOLD LINETYPE ARE NEW OR RELOCATED.
THE INFORMATION OR SYMBOLS SHOWN IN LIGHT LINETYPE ARE EXISTING.

SEQUENCE OF OPERATION

CAUSE	EFFECT: ALARM: ALARM AT FACP	ALARM AT ANNUNCIATOR	ACTIVATE DOOR RELEASING	ACTIVATE AUDIBLES	SPRINKLER RISER BELL	TROUBLE: TROUBLE AT FACP	TROUBLE AT ANNUNCIATOR	TROUBLE AT OFF SITE REPORTING	SUPERVISORY: SUPERVISORY AT FACP	SUPERVISORY AT ANNUNCIATOR	SUPERVISORY AT OFF SITE REPORTING	FAN: FAN SHUT DOWN	DAMPER SHUT	RELEASE CORRIDOR FIRE DOORS	RELEASE ELEVATOR FIRE DOORS	ELEVATOR SHUT DOWN	ALTERNATE FLOOR ELEVATOR	ELEVATOR TO FLOOR	DEACTIVATE AUDIBLES	SYSTEM DOWN	OUTDOOR POINTS/STROBE	REMARKS
SMOKE DETECTOR	•	•	•	•	•						•	•	•								•	
MANUAL PULL STATION	•	•	•	•	•						•										•	
HEAT DETECTOR	•	•	•	•	•						•										•	
DUCT DETECTOR	•	•	•	•	•						•	•	•								•	
MAIN FLR. ELEV. LOBBY SMOKE DETECTOR	•	•	•	•	•						•	•	•		•		•				•	
ELEVATOR LOBBY SMOKE DETECTORS (EXC. MAIN FLR.)	•	•	•	•	•						•	•	•		•		•				•	
ELEVATOR MECH. ROOM SMOKE DETECTOR	•	•	•	•	•						•										•	
ELEVATOR SHAFT HEAT DETECTOR	•	•	•	•	•																•	
ELEVATOR MECH. ROOM HEAT DETECTOR	•	•	•	•	•																•	
WATERFLOW SWITCH	•	•	•	•	•	•						•									•	
TAMPER SWITCH									•	•	•											
POST INDICATOR VALVE SWITCH									•	•	•											
SYSTEM RESET																						
SIGNAL SILENCE																						
AC POWER FAILURE						•	•	•				•		•								
FIRE ALARM WIRING:																						
SIGNALING LINE CIRCUIT (SLC) - CLASS B/STYLE 4:																						
SINGLE OPEN						•	•	•														
SINGLE GROUND						•	•	•														
WIRE-TO-WIRE SHORT						•	•	•														
INITIATING DEVICE CIRCUIT (IDC) - CLASS B/STYLE B:																						
SINGLE OPEN						•	•	•														
SINGLE GROUND						•	•	•														
WIRE-TO-WIRE SHORT	•	•	•	•	•																	
NOTIFICATION APPLIANCE CIRCUIT (NAC) - CLASS B/STYLE Y:																						
SINGLE OPEN						•	•	•														
SINGLE GROUND						•	•	•														
WIRE-TO-WIRE SHORT						•	•	•														

NOTE: DOES NOT CHANGE FROM ORIGINAL SEQUENCE.

DEVICE ADDRESSING LEGEND

NODE DESIGNATOR (REQUIRED ON NETWORK PROJECTS) — ADDRESSABLE CARD (IDNET OR MAPNET) — DEVICE ADDRESS

N1:M2-1

ADDRESSABLE INITIATING DEVICES NUMBERING

4009 NAC PANEL (IF APPLICABLE) — NOTIFICATION APPLIANCE CIRCUIT — DEVICE DESIGNATOR

NODE DESIGNATOR (REQUIRED ON NETWORK PROJECTS)

N2:NAC1:V2-1

NOTIFICATION DEVICE

SPEAKER CIRCUIT — DEVICE DESIGNATOR

NODE DESIGNATOR (REQUIRED ON NETWORK PROJECTS)

N2:S2-1

SPEAKER DEVICE

ABBREVIATIONS LEGEND

(AC)	= ABOVE CEILING	HT	= HEIGHT
(C)	= CEILING MOUNTED	HVAC	= HEATING, VENTILATION, & AIR CONDITIONING
(E)	= EXISTING	MAX	= MAXIMUM
(N)	= NEW	MIN	= MINIMUM
(RC)	= EXISTING TO REMOVE AND COVER	N/A	= NOT APPLICABLE
(RD)	= EXISTING DEVICE TO BE RELOCATED	NAC	= NOTIFICATION APPLIANCE CIRCUIT
(RL)	= RELOCATED DEVICE	NDU	= NETWORK DISPLAY UNIT
(RR)	= REMOVE EXISTING AND REPLACE W/NEW	NEC	= NATIONAL ELECTRICAL CODE
(WP)	= WEATHERPROOF	NFPA	= NATIONAL FIRE PROTECTION ASSOCIATION
AFF	= ABOVE FINISHED FLOOR	NIC	= NOT IN CONTRACT
AHJ	= AUTHORITY HAVING JURISDICTION	NPU	= NETWORK PROCESSOR UNIT
ALM	= ALARM	NTS	= NOT TO SCALE
ANN	= ANNUNCIATOR	SCC	= STATUS COMMAND CENTER
BMS	= BUILDING MANAGEMENT SYSTEM	SLC	= SIGNALING LINE CIRCUIT
CD	= (EX. 15CD) CANDELA	SMK	= SMOKE
DET	= DETECTOR	SPRV	= SUPERVISORY
DGP	= DATA GATHERING PANEL	TAC	= TRUEALERT ADDRESSABLE CONTROLLER
EOL	= END OF LINE	TRBL	= TROUBLE
EP	= EXPLOSION PROOF	TYP	= TYPICAL
EPO	= EMERGENCY POWER OFF	UON	= UNLESS OTHERWISE NOTED
FACP	= FIRE ALARM CONTROL PANEL	VCC	= VOICE COMMAND CENTER
FATC	= FIRE ALARM TERMINAL CABINET	VT	= VALVE TAMPER
FBO	= FURNISHED BY OTHERS	WF	= WATER FLOW
FCC	= FIRE COMMAND CENTER	W	= (EX. 1/2W) WATT
FSD	= FIRE SMOKE DAMPER	W/	= WITH
GCC	= GRAPHIC COMMAND CENTER		

WIRE SCHEDULE

FIRE ALARM WIRE LIST (POWER LIMITED)

A	NETWORK COMMUNICATION - 1 PAIR 18 AWG TWISTED OVERALL SHIELD - CI CABLE VENDOR: LIFELINE CICFPL-2C/18OS	
C	COMMUNICATION FOR ANNUNCIATOR AND NETWORK - 1 PAIR 18 AWG TWISTED OVERALL SHIELD NON-PLENUM RATED: FPL ANIXTER SG1802519-03 AREA=0.0320 SQ. INCH	PLENUM RATED: FPLP ANIXTER SG1802521-03 AREA=0.0177 SQ. INCH
D	DOOR HOLDER CIRCUIT - 2 CONDUCTOR 14 AWG SOLID NON-PLENUM RATED: FPLR CONDUIT ONLY: THHN ANIXTER SG1402N10-03 (2) #14 AWG (PINK/BROWN) AREA=0.0340 SQ. INCH AREA=0.0097 SQ. INCH (EACH)	PLENUM RATED: FPLP ANIXTER SG1402N21-03 AREA=0.0308 SQ. INCH
L	REMOTE LED CIRCUIT - 2 CONDUCTOR 18 AWG SOLID NON-PLENUM RATED: FPLR CONDUIT ONLY: TFFN ANIXTER SG1802N10-03 (2) #18 AWG (WHITE/ORANGE) AREA=0.0177 SQ. INCH AREA=0.0055 SQ. INCH (EACH)	PLENUM RATED: FPLP ANIXTER SG1802N21-03 AREA=0.0167 SQ. INCH
M	MAPNET/IDNET CIRCUIT - 1 PAIR 18 AWG TWISTED OVERALL SHIELD NON-PLENUM RATED: FPL ANIXTER SG1802519-03 AREA=0.0320 SQ. INCH	PLENUM RATED: FPLP ANIXTER SG1802521-03 AREA=0.0177 SQ. INCH
N	CHIME/SIGNAL CIRCUIT - 2 CONDUCTOR 14 AWG SOLID NON-PLENUM RATED: FPLR CONDUIT ONLY: THHN ANIXTER SG1402N10-03 (2) #14 AWG (RED/BLACK) AREA=0.0340 SQ. INCH AREA=0.0097 SQ. INCH (EACH) ********** REFER TO SIGNAL CIRCUIT DISTANCE CHART **********	PLENUM RATED: FPLP ANIXTER SG1402N21-03 AREA=0.0308 SQ. INCH
P	MAPNET/IDNET POWER CIRCUIT - 2 CONDUCTOR 14 AWG SOLID NON-PLENUM RATED: FPLR CONDUIT ONLY: THHN ANIXTER SG1402N10-03 (2) #14 AWG (YELLOW/BLUE) AREA=0.0340 SQ. INCH AREA=0.0097 SQ. INCH (EACH)	PLENUM RATED: FPLP ANIXTER SG1402N21-03 AREA=0.0308 SQ. INCH
S	SPEAKER CIRCUIT - 1 PAIR 18 AWG TWISTED OVERALL SHIELD NON-PLENUM RATED: FPL ANIXTER SG1802519-03 AREA=0.0320 SQ. INCH ********** REFER TO PANEL INSTALLATION MANUAL **********	PLENUM RATED: FPLP ANIXTER SG1802521-03 AREA=0.0177 SQ. INCH
T	TELEPHONE CIRCUITS - 1 PAIR 18 AWG TWISTED OVERALL SHIELD NON-PLENUM RATED: FPL ANIXTER SG1802519-03 AREA=0.0320 SQ. INCH	PLENUM RATED: FPLP ANIXTER SG1802521-03 AREA=0.0177 SQ. INCH
V	VISUAL/SIGNAL CIRCUIT - 2 CONDUCTOR 14 AWG SOLID NON-PLENUM RATED: FPLR CONDUIT ONLY: THHN ANIXTER SG1402N10-03 (2) #14 AWG (RED/BLACK) AREA=0.0340 SQ. INCH AREA=0.0097 SQ. INCH (EACH) ********** REFER TO SIGNAL CIRCUIT DISTANCE CHART **********	PLENUM RATED: FPLP ANIXTER SG1402N21-03 AREA=0.0308 SQ. INCH

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 2005 N.E.C.

CONTACT YOUR LOCAL SIMPLEXGRINNELL OFFICE FOR ANY CABLE SUBSTITUTIONS

10 455176

CITY OF AURORA
BUILDING DIVISION
APPROVED AS NOTED JMD
DATE 3/1/10
NFPA 72 (102)

NICET CERTIFICATION

TECHNICAL AREA 00303: LEVEL IV
CERTIFICATE #: 109355
VALID THROUGH: 09/01/12

JAMES COOLEY — DATE 2/16/10

NICET CERTIFIED

24" x 36"

SimplexGrinnell / tyco / Fire & Security

6240 SMITH ROAD
DENVER, COLORADO 80216
SALES: (303) 355-0500
SERVICE: (303) 355-0500
FAX: (303) 355-0615

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NO.	DATE	REVISION DESCRIPTION
A	09/23/03	COMMENTS PER A.H.J. (SKB)
B	02/16/10	ADDITIONS AND REVISIONS (SKB)

FIRE ALARM SYSTEM FOR:
MEDICAL CENTER OF AURORA

MCOA 4TH FLOOR

1501 SOUTH POTOMAC
AURORA, COLORADO 80012

DRAWN BY: SKB	DATE: 08/20/09
DESIGNED BY: JWC	DATE: 08/20/09
APPROVED BY: JWC	DATE: 08/27/09
PROJECT #: 945770701	
SCALE: N.T.S.	
SHEET TITLE: GENERAL INFORMATION	
SHEET NUMBER: FA1.01	

The Medical Center of Aurora – Magnet Channel 4

Magnet Number	Device Type	Room Number (Max 40 Characters)	
1:M4-1	IAM	ELEVATOR MACHINE ROOM 1-0702	M4-1
1:M4-2	IAM	ELEVATOR #6 MACHINE ROOM	M4-2
1:M4-3	IAM	HOOD SUPPRESSION ROOM 1-0118	M4-3
1:M4-4	RZAM	1ST FLR MDF LIEBERT UNIT CONTROL	M4-4
1:M4-5	RZAM	1ST FLR MDF LIEBERT UNIT CONTROL	M4-5
1:M4-6	RZAM	SURGERY ROLLUP DOOR 1-0700	M4-6
1:M4-7	RZAM	ELEVATOR 1,2,4 RECALL	M4-7
1:M4-8	RZAM	ELEVATOR 1,2,4 RECALL	M4-8
1:M4-9	RZAM	ELEVATOR 1,2,4 WON DOOR 2ND FLOOR	M4-9
1:M4-10	RZAM	ELEVATOR 1,2,4 WON DOOR 3RD FLOOR	M4-10
1:M4-11	RZAM	ELEVATOR 1,2,4 WON DOOR 4TH FLOOR	M4-11
1:M4-12	RZAM	ELEVATOR 1,2,4 WON DOOR 5TH FLOOR	M4-12
1:M4-13	RZAM	ELEVATOR #6 RECALL	M4-13
1:M4-14	RZAM	ELEVATOR #6 RECALL	M4-14
1:M4-15	RZAM	ELEVATOR 1,2,4 SHUNT TRIP	M4-15
1:M4-16	RZAM	ELEVATOR #6 SHUNT TRIP	M4-16
1:M4-17	RZAM	GIFT SHOP FIRE DOORS 1-0316	M4-17
1:M4-18	RZAM	KITCHEN FIRE DOORS 1-0118	M4-18
1:M4-19	RZAM	ELEVATOR #3 SHUNT TRIP	M4-19
1:M4-20	RZAM	SMOKE DAMPER AHU 97-6 1-0618	M4-20
1:M4-21	IAM	FLR 1 CENTRAL TWR HALON IN I.T.	M4-21
1:M4-22	IAM	FLR 1 CENTRAL TWR HALON IN I.T.	M4-22
1:M4-23	SPARE		
1:M4-24	SPARE		
1:M4-25	HEAT	KITCHEN 1-0118	M4-25
1:M4-26	HEAT	ELEVATOR #1 PIT	M4-26
1:M4-27	HEAT	ELEVATOR #2 PIT	M4-27
1:M4-28	HEAT	ELEVATOR #4 PIT	M4-28
1:M4-29	HEAT	ELEVATOR 1,2,4 MACHINE ROOM 1-0702	M4-29
1:M4-30	HEAT	ELEVATOR 1,2,4 TOP OF SHAFT	M4-30
1:M4-31	HEAT	ELEVATOR #1 PIT	M4-31
1:M4-32	SMOKE	ELEVATOR MACHINE ROOM 1-0702	M4-32
1:M4-33	SMOKE	SERVICE ELEVATOR LOBBY 1-0703	M4-33
1:M4-34	SMOKE	SERVICE ELEVATOR LOBBY 1-0703	M4-34
1:M4-35	SMOKE	ELEVATOR LOBBY 1,2,4 1-0301	M4-35
1:M4-36	SMOKE	ELEVATOR 1,2,4 2ND FLOOR LOBBY	M4-36
1:M4-37	SMOKE	ELEVATOR 1,2,4 2ND FLOOR LOBBY	M4-37
1:M4-38	SMOKE	ELEVATOR 1,2,4 3RD FLOOR LOBBY	M4-38
1:M4-39	SMOKE	ELEVATOR 1,2,4 3RD FLOOR LOBBY	M4-39
1:M4-40	SMOKE	ELEVATOR 1,2,4 4TH FLOOR LOBBY	M4-40
1:M4-41	SMOKE	ELEVATOR 1,2,4 4TH FLOOR LOBBY	M4-41
1:M4-42	SMOKE	ELEVATOR 1,2,4 5TH FLOOR LOBBY	M4-42
1:M4-43	SMOKE	ELEVATOR 1,2,4 5TH FLOOR LOBBY	M4-43
1:M4-44	SMOKE	FLR 2 CENTRAL TWR A LOBBY WAITING	M4-44
1:M4-45	SMOKE	EXIT ACCESS CORRIDOR 1-0300	M4-45
1:M4-46	SMOKE	EXIT ACCESS CORRIDOR 1-0300	M4-46
1:M4-47	SMOKE	EXIT ACCESS CORRIDOR 1-0302	M4-47
1:M4-48	SMOKE	ELEVATOR #1,2,4 LOBBY 1-0301	M4-48
1:M4-49	SMOKE	ELEVATOR #1,2,4 LOBBY 1-0301	M4-49
1:M4-50	SMOKE	CORRIDOR 1-0430	M4-50
1:M4-51	RZAM	FLR 4 DOORHOLDER RELAY	M4-51
1:M4-52	SMOKE	CORRIDOR 1-0430	M4-52
1:M4-53	SMOKE	SERVICE ELEV. LOBBY 1,2,& 4 1-0703	M4-53
1:M4-54	SMOKE	ELEVATOR #6 MACHINE ROOM	M4-54
1:M4-55	HEAT	ELEVATOR #6 MACHINE ROOM	M4-55
1:M4-56	HEAT	ELEVATOR #6 PIT	M4-56
1:M4-57	HEAT	ELEVATOR #6 TOP OF SHAFT	M4-57
1:M4-58	SMOKE	ELEVATOR #6 LOBBY 1ST FLOOR	M4-58
1:M4-59	SMOKE	ELEVATOR #6 LOBBY 2ND FLOOR	M4-59
1:M4-60	SMOKE	ELEVATOR #6 LOBBY 3RD FLOOR	M4-60
1:M4-61	SMOKE	ELEVATOR #6 LOBBY 4TH FLOOR	M4-61
1:M4-62	SMOKE	ELEVATOR #6 LOBBY 5TH FLOOR	M4-62
1:M4-63	SMOKE	MEDICAL LIBRARY 1-0414	M4-63
1:M4-64	SMOKE	CORRIDOR 1-0429	M4-64
1:M4-65	SMOKE	CORRIDOR 1-0429	M4-65
1:M4-66	SMOKE	CORRIDOR 1-0417	M4-66
1:M4-67	SMOKE	CORRIDOR 1-0417	M4-67
1:M4-68	SMOKE	CORRIDOR 1-0417	M4-68
1:M4-69	SMOKE	WAITING 1-0900	M4-69
1:M4-70	SMOKE	CORRIDOR 1-0417	M4-70
1:M4-71	SMOKE	CORRIDOR 1-0430	M4-71
1:M4-72	SMOKE	CORRIDOR 1-0430	M4-72
1:M4-73	SMOKE	CORRIDOR 1-0415	M4-73
1:M4-74	SMOKE	CORRIDOR 1-0415	M4-74
1:M4-75	SMOKE	TELEPHONE EQUIPMENT ROOM 1-0311	M4-75
1:M4-76	SMOKE	PASSAGE 1-0309	M4-76
1:M4-77	SMOKE	PASSAGE 1-0308	M4-77
1:M4-78	SMOKE	CORRIDOR 1-0109	M4-78
1:M4-79	SMOKE	CORRIDOR 1-0302	M4-79
1:M4-80	SMOKE	CORRIDOR 1-0302	M4-80
1:M4-81	SMOKE	CORRIDOR 1-0302	M4-81
1:M4-82	SMOKE	CORRIDOR 1-0302	M4-82
1:M4-83	SMOKE	CORRIDOR 1-0400	M4-83
1:M4-84	SMOKE	CORRIDOR 1-0430	M4-84
1:M4-85	SMOKE	PASSAGE 1-1903	M4-85
1:M4-86	SMOKE	CORRIDOR 1-0606	M4-86
1:M4-87	SMOKE	CORRIDOR 1-0400	M4-87
1:M4-88	SMOKE	SLEEP ROOM 1-0409	M4-88
1:M4-89	SMOKE	SLEEP ROOM 1-0411	M4-89
1:M4-90	SMOKE	FACP ROOM 1-0602	M4-90
1:M4-91	SMOKE	ELEVATOR 1,2,4 TOP OF SHAFT	M4-91
1:M4-92	SMOKE	ELEVATOR 1,2,4 TOP OF SHAFT	M4-92
1:M4-93	SMOKE	ELEVATOR #6 TOP OF SHAFT	M4-93
1:M4-94	RZAM	FAN SHUTDOWN FOR AHU #' 1-605	M4-94
1:M4-95	DUCT	SUPPLY AHU 97-6 1-0618	M4-95
1:M4-96	DUCT	RETURN AHU 97-6 1-0618	M4-96
1:M4-97	DUCT	RETURN AHU 97-6 1-0618	M4-97
1:M4-98	SMOKE	CORRIDOR 1-0606	M4-98
1:M4-99	SMOKE	CORRIDOR 1-0606	M4-99
1:M4-100	DUCT	FLR 1 CTRL TWR MECH RM/COPY CTR	
1:M4-101	DUCT	FLR 1 CTRL TWR MECH RM/COPY CTR	
1:M4-102	SBZAM	FLR 1 CTRL TWR MECH RM/COPY CTR	
1:M4-103	SBZAM	FLR 1 CTRL TWR MECH RM/COPY CTR	
1:M4-104	**PULL**	**FLR 4 NURSE STATION B**	
1:M4-105	DUCT	AHU 1C KITCHEN SUPPLY	M4-105
1:M4-106	DUCT	AHU 1C KITCHEN RETURN	M4-106
1:M4-107	DUCT	AHU 1A SURGERY SUPPLY	M4-107
1:M4-108	DUCT	AHU 1A SURGERY RETURN	M4-108
1:M4-109	**SMOKE**	**FLR 4 SOILED UTILITY/HOLDING**	
1:M4-110	SBZAM	AHU 1C FAN SHUTDOWN CONTROL	M4-110
1:M4-111	SBZAM	AHU 1A FAN SHUTDOWN CONTROL	M4-111
1:M4-112	**SMOKE**	**FLR 4 CLEAN STORAGE**	
1:M4-113	SBZAM	HV-1 FAN SHUTDOWN CONTROL	M4-113
1:M4-114	DUCT	HV-2 KITCHEN MAKE-UP SUPPLY	M4-114
1:M4-115	DUCT	HV-2 KITCHEN MAKE-UP RETURN	M4-115
1:M4-116	SBZAM	HV-2 KITCHEN MAKE-UP SHUTDOWN	M4-116
1:M4-117	**PULL**	**FLR 4 NURSE STATION**	
1:M4-118	RZAM	FLR 2 ELEVATOR #2 SMK CURTAIN	
1:M4-119	RZAM	FLR 3 ELEVATOR #2 SMK CURTAIN	
1:M4-120	RZAM	FLR 4 ELEVATOR #2 SMK CURTAIN	
1:M4-121	RZAM	FLR 2 ELEVATOR #4 SMK CURTAIN	
1:M4-122	RZAM	FLR 3 ELEVATOR #4 SMK CURTAIN	
1:M4-123	RZAM	FLR 4 ELEVATOR #4 SMK CURTAIN	
1:M4-124	SMOKE	FLR 4 ELECTRICAL RM AT ROOM 422	
1:M4-125	**DUCT**	**FLR 4 DUCT IN CONSULT FSD**	
1:M4-126	**DUCT**	**FLR 4 DUCT IN CONSULT FSD**	
1:M4-127	**DUCT**	**FLR 4 DUCT @ FAMILY WAITING**	

The Medical Center of Aurora – Magnet Channel 5

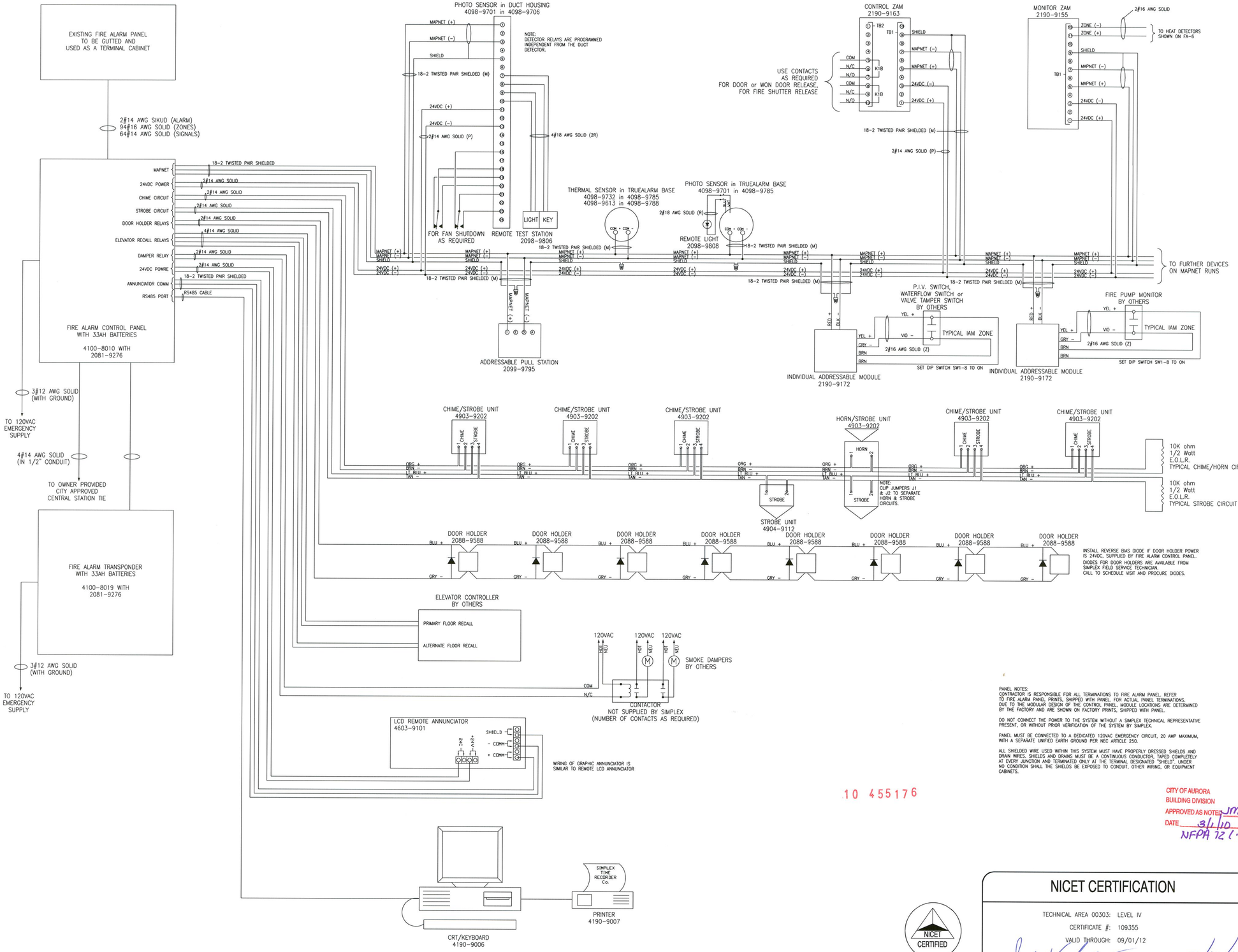
Magnet Number	Device Type	Room Number (Max 40 Characters)	
1:M5-1	PULL	MECH.ROOM 1ST FLOOR 1-1133	M5-1
1:M5-2	PULL	MECH.ROOM 1ST FLOOR 1-1133	M5-2
1:M5-3	SMOKE	1ST FLOOR CORRIDOR BY PLANT OP.	M5-3
1:M5-4	PULL	1ST FLOOR CORRIDOR 1-0816	M5-4
1:M5-5	PULL	NURSE STATION 1-0737	M5-5
1:M5-6	PULL	NURSE STATION 1-0738	M5-6
1:M5-7	RZAM	AHU 97-5 1-0929	M5-7
1:M5-8	RZAM	SMOKE DAMPER AHU 97-7	M5-8
1:M5-9	RZAM	SMOKE DAMPER AHU 97-3	M5-9
1:M5-10	RZAM	DAY SURGERY AUTO DOORS	M5-10
1:M5-11	SPARE		
1:M5-12	RZAM	ELEVATOR #3 PRIMARY RECALL	M5-12
1:M5-13	RZAM	ELEVATOR #3 ALTERNATE RECALL	M5-13
1:M5-14	IAM	ELEVATOR #3 1-1108	M5-14
1:M5-15	SPARE		
1:M5-16	SPARE		
1:M5-17	DUCT	AHU 97-5 SUPPLY 1-0929	M5-17
1:M5-18	DUCT	AHU 97-5 RETURN 1-0928	M5-18
1:M5-19	DUCT	AHU 97-7 SUPPLY 1ST FLOOR 1-1133	M5-19
1:M5-20	DUCT	AHU 97-7 RETURN 1ST FLOOR 1-1133	M5-20
1:M5-21	DUCT	AHU 97-3 SUPPLY 1ST FLOOR 1-1133	M5-21
1:M5-22	DUCT	AHU 97-3 RETURN 1ST FLOOR 1-1133	M5-22
1:M5-23	SMOKE	MECH ROOM 1-0929	M5-23
1:M5-24	HEAT	MECHANICAL ROOM 1ST FLOOR 1-1133	M5-24
1:M5-25	HEAT	MECHANICAL ROOM 1ST FLOOR 1-1133	M5-25
1:M5-26	HEAT	MECHANICAL ROOM 1ST FLOOR 1-1133	M5-26
1:M5-27	HEAT	ELEVATOR #3 MACHINE ROOM	M5-27
1:M5-28	HEAT	BOTTOM ELEVATOR #3	M5-28
1:M5-29	HEAT	TOP OF SHAFT ELEVATOR #3	M5-29
1:M5-30	IAM	SPARE 2PT I/O MONITOR	
1:M5-31	RZAM	EAST CORR EMERGENCY EXIT RELAY	
1:M5-32	SMOKE	2ND FLOOR ELEVATOR #3 LOBBY	M5-32
1:M5-33	SPARE		
1:M5-34	SMOKE	3RD FLOOR ELEVATOR #3 LOBBY	M5-34
1:M5-35	SPARE		
1:M5-36	SMOKE	4TH FLOOR ELEVATOR #3 LOBBY	M5-36
1:M5-37	SPARE		
1:M5-38	SMOKE	5TH FLOOR ELEVATOR #3 LOBBY	M5-38
1:M5-39	SMOKE	ELEVATOR #3 TOP OF SHAFT	M5-39
1:M5-40	SMOKE	ELEVATOR #3 MACHINE ROOM	M5-40
1:M5-41	SMOKE	ELEVATOR #3 LOBBY 1-1108	M5-41
1:M5-42	SMOKE	CASHIER 1ST FLOOR 1-0909	M5-42
1:M5-43	SMOKE	CORRIDOR 1ST FLOOR 1-0920	M5-43
1:M5-44	SMOKE	PASSAGE 1ST FLOOR 1-0918	M5-44
1:M5-45	SMOKE	PASSAGE 1ST FLOOR 1-0902	M5-45
1:M5-46	SMOKE	RECEPTION 1ST FLOOR 1-0920	M5-46
1:M5-47	SMOKE	CASHIER 1ST FLOOR 1-0919	M5-47
1:M5-48	SMOKE	CORRIDOR 1ST FLOOR 1-0920	M5-48
1:M5-49	SMOKE	PASSAGE 1ST FLOOR 1-0918	M5-49
1:M5-50	SMOKE	PASSAGE 1ST FLOOR 1-0927	M5-50
1:M5-51	SMOKE	1ST FLOOR CORRIDOR 1-0900	M5-51
1:M5-52	SMOKE	ADMIT CORRIDOR 1-0816	M5-52
1:M5-53	SMOKE	CORRIDOR 1-0903	M5-53
1:M5-54	SMOKE	CORRIDOR 1-0901	M5-54
1:M5-55	SMOKE	CORRIDOR 1-0901	M5-55
1:M5-56	SMOKE	CORRIDOR 1-0743	M5-56
1:M5-57	SMOKE	CORRIDOR 1-0743	M5-57
1:M5-58	SMOKE	CORRIDOR 1-0743	M5-58
1:M5-59	SMOKE	CORRIDOR 1-0744	M5-59
1:M5-60	SMOKE	CORRIDOR 1-0744	M5-60
1:M5-61	SMOKE	DOCTOR'S LOUNGE 1-1129	M5-61
1:M5-62	SMOKE	SURGERY PREP 1-1103	M5-62
1:M5-63	SMOKE	PREP NURSE STATION 1-1104	M5-63
1:M5-64	SMOKE	SURGERY PREP HOLDING 1-1100	M5-64
1:M5-65	SMOKE	PASSAGE 1-1124	M5-65
1:M5-66	SMOKE	PASSAGE 1-1123	M5-66
1:M5-67	SMOKE	PASSAGE 1-1147	M5-67
1:M5-68	SMOKE	WORK STATION 1-1118	M5-68
1:M5-69	SMOKE	CORRIDOR 1ST FLOOR 1-0901	M5-69
1:M5-70	SMOKE	CORRIDOR 1ST FLOOR 1-1132	M5-70
1:M5-71	SMOKE	CORRIDOR 1ST FLOOR 1-1132	M5-71
1:M5-72	SMOKE	CORRIDOR 1ST FLOOR 1-1132	M5-72
1:M5-73	SMOKE	CORRIDOR 1ST FLOOR 1-0816	M5-73
1:M5-74	SMOKE	CORRIDOR 1ST FLOOR 1-0816	M5-74
1:M5-75	SMOKE	PASSAGE 1ST FLOOR 1-0803	M5-75
1:M5-76	SMOKE	MICROBIOLOGY 1ST FLR 1-0810	M5-76
1:M5-77	**SMOKE**	**FLR 4 CTRL TWR A HALL BY 402**	
1:M5-78	IAM	FLR 1 CENTRAL TWR CATH LAB HALL	
1:M5-79	SMOKE	M1-79 CORRIDOR 1-0800	M5-79
1:M5-80	SMOKE	M1-80 CORRIDOR 1-0800	M5-80
1:M5-81	SMOKE	M1-81 CORRIDOR 1-0800	M5-81
1:M5-82	SMOKE	M1-82 CORRIDOR 1-0800	M5-82
1:M5-83	SMOKE	M1-83 EXIT ACCESS CORR 1-0705	M5-79
1:M5-84	SMOKE	EXIT ACCESS CORRIDOR 1-0705	M5-84
1:M5-85	SMOKE	PASSAGE 1-0707	M5-85
1:M5-86	SMOKE	PASSAGE 1-0708	M5-86
1:M5-87	SMOKE	PASSAGE 1-0708	M5-87
1:M5-88	SMOKE	CORRIDOR 1-0744	M5-88
1:M5-89	SMOKE	PASSAGE 1-0709	M5-89
1:M5-90	SMOKE	PASSAGE 1-0718	M5-90
1:M5-91	SMOKE	PASSAGE 1-0718	M5-91
1:M5-92	SMOKE	PASSAGE 1-0709	M5-92
1:M5-93	SMOKE	SECRETARY RECEPTION 1-1008	M5-93
1:M5-94	SMOKE	PASSAGE 1-1013	M5-94
1:M5-95	SMOKE	PASSAGE 1-0735	M5-95
1:M5-96	SMOKE	PASSAGE 1-0736	M5-96
1:M5-97	SMOKE	PASSAGE 1-0736	M5-97
1:M5-98	**SMOKE**	**FLR 4 CTRL TWR A HALL BY 434**	
1:M5-99	SMOKE	1ST FLR STORAGE 1127	M5-99
1:M5-100	SMOKE	1ST FLR STORAGE 1127	M5-100
1:M5-101	**SMOKE**	**FLR 4 CTRL TWR A HALL BY 401**	
1:M5-102	IAM	FLR 1 SPARE 2PT I/O	
1:M5-103	RZAM	FLR 1 CTRL TWR N HALL FIRE DOOR	
1:M5-104	**SMOKE**	**FLR 4 CTRL TWR A HALL BY 432**	
1:M5-105	**SMOKE**	**FLR 4 CTRL TWR A HALL BY 431**	
1:M5-106	**SMOKE**	**FLR 4 CTRL TWR A HALL BY 429**	
1:M5-107	**SMOKE**	**FLR 4 CTRL TWR A HALL BY 427**	
1:M5-108	**SMOKE**	**FLR 4 CTRL TWR A HALL BY 422**	
1:M5-109	SMOKE	SURGERY FAMILY WAITING 1-0700	M5-109
1:M5-110	SMOKE	SURGERY FAMILY WAITING 1-0700	M5-110
1:M5-111	SMOKE	WAITING 1-1000	M5-111
1:M5-112	SMOKE	CORRIDOR 1-0214	M5-112
1:M5-113	SMOKE	WAITING 1-1000	M5-113
1:M5-114	SMOKE	CONFERENCE 1-1000	M5-114
1:M5-115	RZAM	WAITING ROOM DAMPER CONTROL	M5-115
1:M5-116	**SMOKE**	**FLR 4 CTRL TWR A IT RM BY 422**	
1:M5-117	**SMOKE**	**FLR 4 CTRL TWR A HALL BY 421**	
1:M5-118	**SMOKE**	**FLR 4 CTRL TWR A HALL BY 418**	
1:M5-119	**SMOKE**	**FLR 4 CTRL TWR A HALL BY 415**	
1:M5-120	**SMOKE**	**FLR 4 CTRL TWR A HALL BY 412**	
1:M5-121	**SMOKE**	**FLR 4 CTRL TWR A HALL BY 411**	
1:M5-122	**SMOKE**	**FLR 4 CTRL TWR A HALL BY 408**	
1:M5-123	**SMOKE**	**FLR 4 CTRL TWR A HALL BY 404**	
1:M5-124	**SMOKE**	**FLR 4 CTRL TWR A HALL BY 406**	
1:M5-125	SPARE		
1:M5-126	SPARE		
1:M5-127	SPARE		

The Medical Center of Aurora – Magnet Channel 8

Magnet Number	Device Type	Room Number (Max 40 Characters)	
1:M8-1	PULL	4TH FLOOR STAIRWELL CORRIDOR 4-0237	M8-1
1:M8-2	PULL	4TH FLOOR NURSE STATION 4-0247	M8-2
1:M8-3	**PULL**	**4TH FLOOR NURSE STATION 4-0203**	**M8-3**
1:M8-4	IAM	4TH FLOOR TOWER STAIRWELL	M8-4
1:M8-5	IAM	4TH FLOOR TOWER STAIRWELL	M8-5
1:M8-6	SBZAM	FLR 4 CENTRAL TOWER CHIME NAC7	
1:M8-7	SBZAM	FLR 4 CENTRAL TOWER STROBE NAC7	
1:M8-8	**PULL**	**FLR 4 NURSE STATION D**	
1:M8-9	DUCT	4TH FLOOR RTAH 97-17 4-0220 SUPPLY	M8-9
1:M8-10	DUCT	4TH FLOOR RTAH 97-13 4-0217 SUPPLY	M8-10
1:M8-11	DUCT	4TH FLOOR RTAH 97-12 4-0263 RETURN	M8-11
1:M8-12	DUCT	4TH FLOOR RTAH 97-13 4-0203 SUPPLY	M8-12
1:M8-13	SPARE		
1:M8-14	SMOKE	4TH FLR TOWER TOP OF STAIRWELL	M8-14
1:M8-15	SMOKE	4TH FLR PED #6 4-0255	M8-15
1:M8-16	SMOKE	4TH FLR PED #7 4-0256	M8-16
1:M8-17	SMOKE	4TH FLR PED #8 4-0257	M8-17
1:M8-18	SMOKE	4TH FLR PED #9 4-0258	M8-18
1:M8-19	SMOKE	4TH FLOOR PED #10 4-0259	M8-19
1:M8-20	SMOKE	4TH FLR PED #11 4-0260	M8-20
1:M8-21	SMOKE	4TH FLOOR PAT #1 4-0202	M8-21
1:M8-22	SMOKE	4TH FLOOR PAT #2 4-0206	M8-22
1:M8-23	SMOKE	4TH FLOOR HC ISO PAT #3 4-0207	M8-23
1:M8-24	SMOKE	4TH FLOOR FAMILY WAITING 4-0229	M8-24
1:M8-25	SMOKE	4TH FLOOR PAT #4 4-0208	M8-25
1:M8-26	SMOKE	4TH FLOOR PAT #5 4-0209	M8-26
1:M8-27	SMOKE	4TH FLOOR PAT #6 4-0210	M8-27
1:M8-28	SMOKE	4TH FLOOR PAT #7 4-0211	M8-28
1:M8-29	SMOKE	4TH FLOOR PAT #8 4-0212	M8-29
1:M8-30	SMOKE	4TH FLOOR SEMI PVT PAT #9 4-0240	M8-30
1:M8-31	SMOKE	4TH FLOOR SEMI PVT PAT #10 4-0239	M8-31
1:M8-32	SMOKE	4TH FLOOR SEMI PVT PAT #11 4-0236	M8-32
1:M8-33	SMOKE	4TH FLOOR SEMI PVT PAT #12 4-0235	M8-33
1:M8-34	SMOKE	4TH FLOOR SEMI PVT PAT #13 4-0234	M8-34
1:M8-35	SMOKE	4TH FLOOR PED #1 4-0250	M8-35
1:M8-36	SMOKE	4TH FLOOR PED #2 4-0251	M8-36
1:M8-37	SMOKE	4TH FLOOR PED #3 4-0252	M8-37
1:M8-38	SMOKE	4TH FLOOR PED #4 4-0253	M8-38
1:M8-39	SMOKE	4TH FLOOR PED #5 4-0254	M8-39
1:M8-40	SMOKE	4TH FLOOR PLAT ROOM 4-0261	M8-40
1:M8-41	SMOKE	4TH FLOOR CORRIDOR TOWER 4-0237	M8-41
1:M8-42	SMOKE	4TH FLOOR CORRIDOR TOWER 4-0237	M8-42
1:M8-43	SMOKE	4TH FLOOR CORRIDOR TOWER 4-0237	M8-43
1:M8-44	SMOKE	4TH FLOOR CORRIDOR TOWER 4-0237	M8-44
1:M8-45	SMOKE	4TH FLOOR CORRIDOR TOWER 4-0205	M8-45
1:M8-46	SMOKE	4TH FLOOR CORRIDOR TOWER 4-0205	M8-46
1:M8-47	SMOKE	4TH FLOOR CORRIDOR TOWER 4-0215	M8-47
1:M8-48	SMOKE	4TH FLOOR CORRIDOR TOWER 4-0215	M8-48
1:M8-49	SMOKE	4TH FLOOR CORRIDOR TOWER 4-0215	M8-49
1:M8-50	SMOKE	4TH FLOOR CORRIDOR TOWER 4-0221	M8-50
1:M8-51	SMOKE	4TH FLOOR CORRIDOR TOWER 4-0221	M8-51
1:M8-52	SMOKE	4TH FLOOR CORRIDOR TOWER 4-0221	M8-52
1:M8-53	SMOKE	4TH FLOOR CORRIDOR TOWER 4-0238	M8-53
1:M8-54	SMOKE	4TH FLOOR CORRIDOR TOWER 4-0238	M8-54
1:M8-55	SMOKE	4TH FLOOR WORK AREA TOWER 4-0233	M8-55
1:M8-56	SMOKE	4TH FLOOR CORRIDOR TOWER 4-0247	M8-56
1:M8-57	SMOKE	4TH FLOOR CORRIDOR TOWER 4-0120	M8-57
1:M8-58	SPARE		
1:M8-59	SPARE		
1:M8-60	**SMOKE**	**FLR 4 EAST ORTHO STORAGE**	
1:M8-61	**SMOKE**	**FLR 4 SOILED UTILITY**	
1:M8-62	**SMOKE**	**FLR 4 EAST CLEAN STORAGE**	
1:M8-63 through 1:M8-127	SPARE		

Medical Center of Aurora South Campus – 4100 FACP

Module	Qty	Description	Standby Current	Total Standby	Alarm Current	Total Alarm
Panel Equipment						
4100-8010	1	MINIPLEX CONTROL PANEL	0.000000	0.000000	0.000000	0.000000
4100-7003	1	MASTER CONTROLLER	0.292000	0.292000	0.292000	0.292000
4100-0304	1	STYLE 7 REMOTE UNIT INTERFACE	0.085000	0.085000	0.085000	0.085000
4100-0153	1	DIGITAL ALARM COMM TRANSMITTER	0.035000	0.035000	0.050000	0.050000
4100-5004	7	8 ZONE STYLE B	0.075000	0.525000	0.195000	1.365000
4100-3003	1	8 PT AUX RELAY MODULE 3 AMP	0.075000	0.075000	0.280000	0.280000
4100-0110	5	MAPNET II ADDRESSABLE MODULE	0.270000	1.350000	0.290000	1.450000
4100-4321	8	6 CIRCUIT CLASS B (STYLE Y)	0.025000	0.200000	0.070000	0.560000
4100-7402	1	64/64 LED/SW CONTROLLER MODULE	0.067000	0.067000	0.067000	0.067000
4100-7404	1	32 POINT SWITCH INPUT MODULE	0.000000	0.000000	0.000000	0.000000
			Total Panel Stby	2.579000	Total Panel Alarm	4.149000
Peripheral Devices						
2190-9177	37	MAPNET SUPERVISED IAM	0.000000	0.000000	0.000000	0.000000
2099-9795	28	MAPNET SINGLE ACTION PULL STATION *	0.000000	0.000000	0.000000	0.000000
4098-9701	411	TRUEALARM PHOTO SMOKE SENSOR	0.000000	0.000000	0.000000	0.000000
4098-9785	411	TRUEALARM SENSOR BASE W/ LED OUTPUT *	0.000000	0.000000	0.000000	0.000000
4603-9101	9	SERIAL LCD ANNUNCIATOR	0.270000	2.430000	0.170000	1.530000
4098-9706	33	TRUEALARM DUCT SMOKE SENSOR HOUSING W/ RELAY *2	0.000280	0.009240	0.029000	0.957000
4903-9219	10	HORN/STROBE 24V 15cd	0.000000	0.000000	0.133000	1.330000
4903-9292	98	CH70-24-15R-FR 15CD CHIME STROBE	0.000000	0.000000	0.070000	6.860000
4904-9137	126	15CD VISIBLE ONLY RED	0.000000	0.000000	0.082000	10.332000
2190-9163	43	MAPNET UNSUPERVISED CONTROL ZAM *	0.010000	0.430000	0.040000	1.720000
4098-9613	24	HEAT DETECTOR RATE OF RISE/FIXED 135	0.000080	0.001920	0.000000	0.000000
4098-9788	24	2 WIRE DETECTOR BASE 1	0.000000	0.000000	0.000000	0.000000
2190-9155	1	MAPNET CLASS B MONITOR ZAM *2	0.020000	0.020000	0.090000	0.090000
1st Floor-Area "D"-Interventional Remodel						
4098-9714	4	TRUEALARM PHOTO SMOKE SENSOR	0.000000	0.000000	0.000000	0.000000
4098-9792	2	TRUEALARM SENSOR BASE *	0.000000	0.000000	0.000000	0.000000
4098-9789	2	TRUEALARM SENSOR BASE W/ LED OUTPUT *	0.000000	0.000000	0.000000	0.000000
2098-9808	2	REMOTE ALARM INDICATOR	0.000000	0.000000	0.000000	0.000000
4098-9756	1	TRUEALARM DUCT SMOKE SENSOR W/ RELAY OUTPUT	0.002400	0.002400	0.015000	0.015000
2098-9806	1	REMOTE TEST STATION W/ LED AND KEY SWITCH	0.000000	0.000000	0.000000	0.000000
4098-9843	1	ENCAPSULATED RELAY PAM-SD	0.002400	0.002400	0.015000	0.015000
CH70-24MCW-FR	2	WHEELOCK, CHIME STROBE, MULTI-CANDELA SELECTABLE, 15cd, 24VDC, RED	0.000000	0.000000	0.082000	0.164000
CH70-24MCW-FR	1	WHEELOCK, CHIME STROBE, MULTI-CANDELA SELECTABLE, 75cd, 24VDC, RED	0.000000	0.000000	0.212000	0.212000
1st Floor-Private Room Expansion (9254864011)						
4098-9714	5	TRUEALARM PHOTO SMOKE SENSOR	0.000000	0.000000	0.000000	0.000000
4098-9792	5	TRUEALARM SENSOR BASE *	0.000000	0.000000	0.000000	0.000000
4009-9201	1	4009 IDNET NAC EXTENDER, 120 VAC	0.000000	0.000000



PANEL NOTES:
CONTRACTOR IS RESPONSIBLE FOR ALL TERMINATIONS TO FIRE ALARM PANEL. REFER TO FIRE ALARM PANEL PRINTS, SHIPPED WITH PANEL, FOR ACTUAL PANEL TERMINATIONS. DUE TO THE MODULAR DESIGN OF THE CONTROL PANEL, MODULE LOCATIONS ARE DETERMINED BY THE FACTORY AND ARE SHOWN ON FACTORY PRINTS, SHIPPED WITH PANEL.

DO NOT CONNECT THE POWER TO THE SYSTEM WITHOUT A SIMPLEX TECHNICAL REPRESENTATIVE PRESENT, OR WITHOUT PRIOR VERIFICATION OF THE SYSTEM BY SIMPLEX.

PANEL MUST BE CONNECTED TO A DEDICATED 120VAC EMERGENCY CIRCUIT, 20 AMP MAXIMUM, WITH A SEPARATE UNIFIED EARTH GROUND PER NEC ARTICLE 250.

ALL SHIELDED WIRE USED WITHIN THIS SYSTEM MUST HAVE PROPERLY DRESSED SHIELDS AND DRAIN WIRES. SHIELDS AND DRAINS MUST BE A CONTINUOUS CONDUCTOR, TAPED COMPLETELY AT EVERY JUNCTION AND TERMINATED ONLY AT THE TERMINAL DESIGNATED "SHIELD". UNDER NO CONDITION SHALL THE SHIELDS BE EXPOSED TO CONDUIT, OTHER WIRING, OR EQUIPMENT CABINETS.

10 455176

CITY OF AURORA
BUILDING DIVISION
APPROVED AS NOTED JMP
DATE 3/1/10
NFPA 72 ('02)

NICET CERTIFICATION

TECHNICAL AREA 00303: LEVEL IV
CERTIFICATE #: 109355
VALID THROUGH: 09/01/12

JAMES COOLEY — DATE 2/16/10

NICET CERTIFIED

24" x 36"

tyco / Fire & Security / SimplexGrinnell
6240 SMITH ROAD
DENVER, COLORADO 80216
SALES: (303) 355-0500
SERVICE: (303) 355-0500
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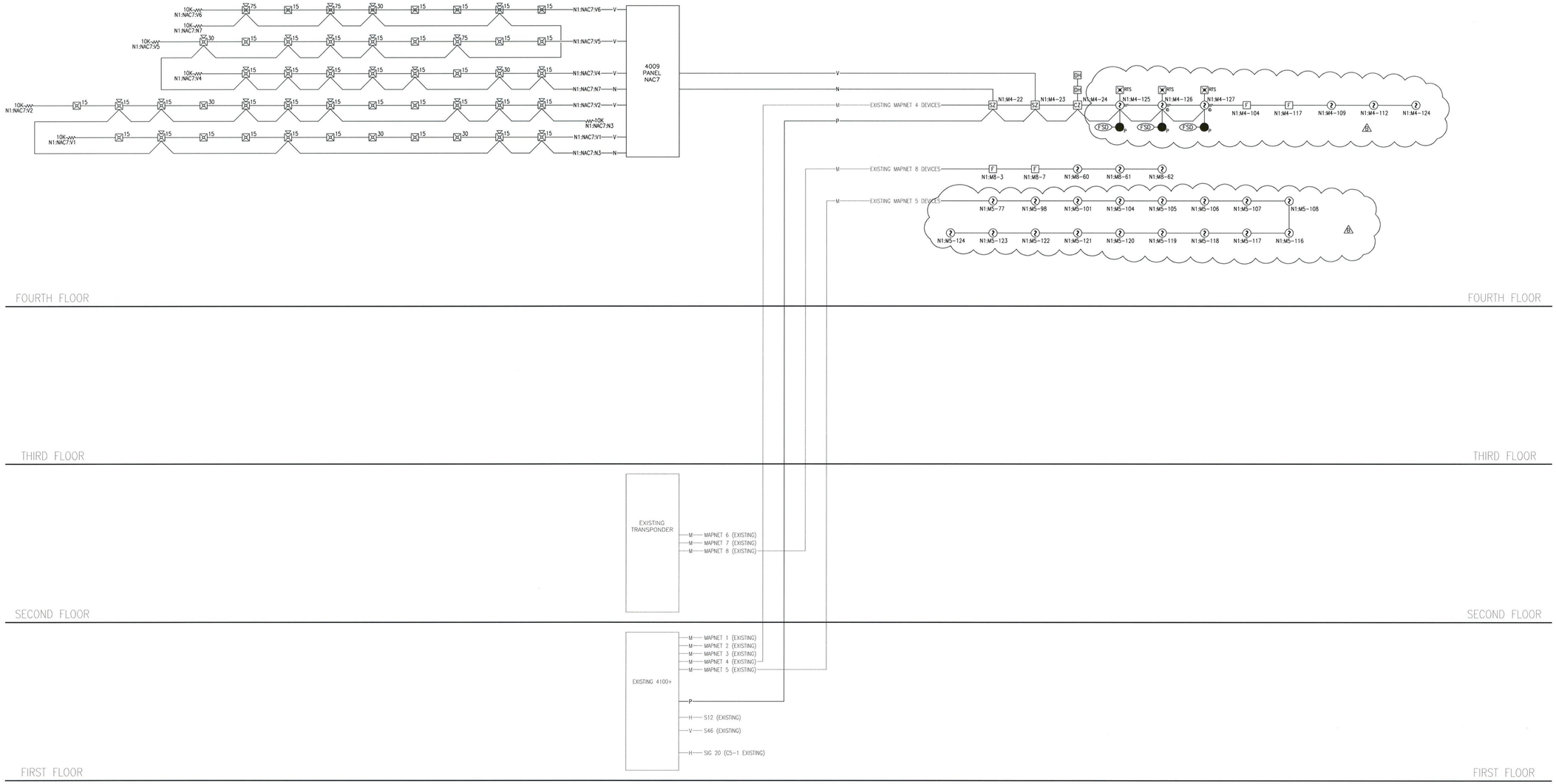
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NO.	DATE	REVISION DESCRIPTION
A	09/23/03	COMMENTS PER A.H.J. (SKB)
B	02/16/10	ADDITIONS AND REVISIONS (SKB)

FIRE ALARM SYSTEM FOR:
MEDICAL CENTER OF AURORA

MCOA 4TH FLOOR
1501 SOUTH POTOMAC
AURORA, COLORADO 80012

DRAWN BY: SKB	DATE: 08/20/09
DESIGNED BY: JWC	DATE: 08/20/09
APPROVED BY: JWC	DATE: 08/27/09
PROJECT #: 945770701	
SCALE: N.T.S.	
SHEET TITLE: TYPICAL WIRING	
SHEET NUMBER: FA2.01	



PARTIAL ONE LINE DIAGRAM

4TH FLOOR EAST AND WEST WING

10 455176

CITY OF AURORA
BUILDING DIVISION
APPROVED AS NOTED JMP
DATE 3/1/10
NFPA 72 ('02)

SHEET NOTES

THE INFORMATION OR SYMBOLS SHOWN IN BOLD LINETYPE ARE NEW OR RELOCATED.
THE INFORMATION OR SYMBOLS SHOWN IN LIGHT LINETYPE ARE EXISTING.

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NICET CERTIFICATION

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JAMES COOLEY — DATE 2/16/10

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MEDICAL CENTER OF AURORA

MCOA 4TH FLOOR

1501 SOUTH POTOMAC
AURORA, COLORADO 80012

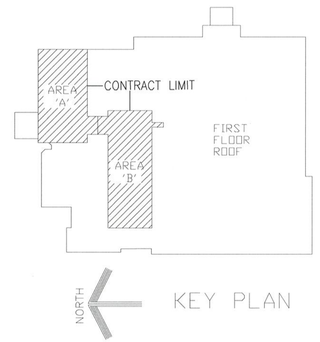
DRAWN BY: SKB	DATE: 08/20/09
DESIGNED BY: JWC	DATE: 08/20/09
APPROVED BY: JWC	DATE: 08/27/09
PROJECT #: 945770701	
SCALE: N.T.S.	
SHEET TITLE: PARTIAL ONE-LINE RISER DIAGRAM	
SHEET NUMBER: FA2.02	



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CITY OF AURORA
BUILDING DIVISION
APPROVED AS NOTED JMP
DATE 3/1/10
NFPA 72 (.02)



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TECHNICAL AREA 00303: LEVEL IV
CERTIFICATE #: 109355
VALID THROUGH: 09/01/12

JAMES COOLEY — DATE 2/16/10

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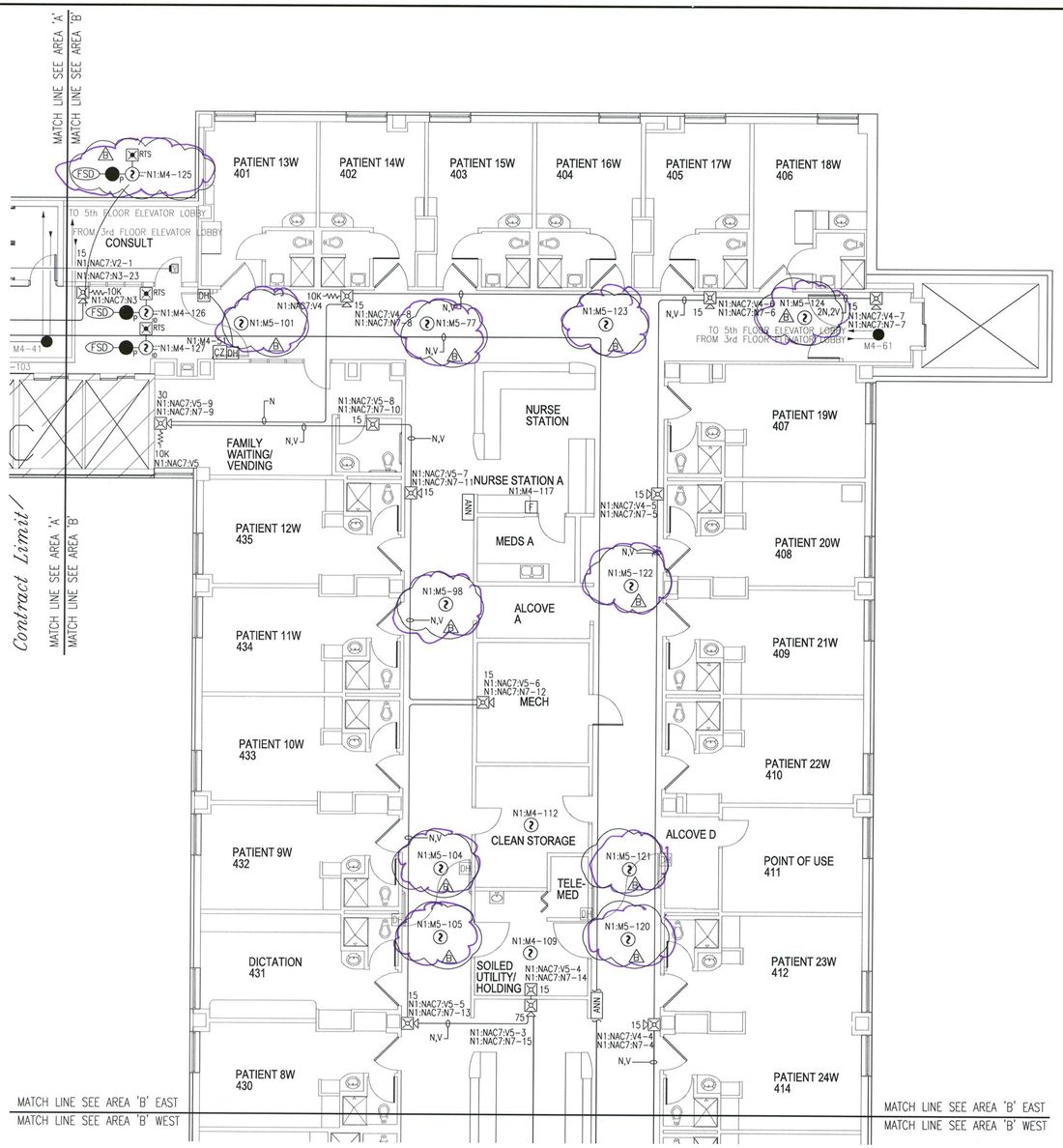
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MEDICAL CENTER OF AURORA

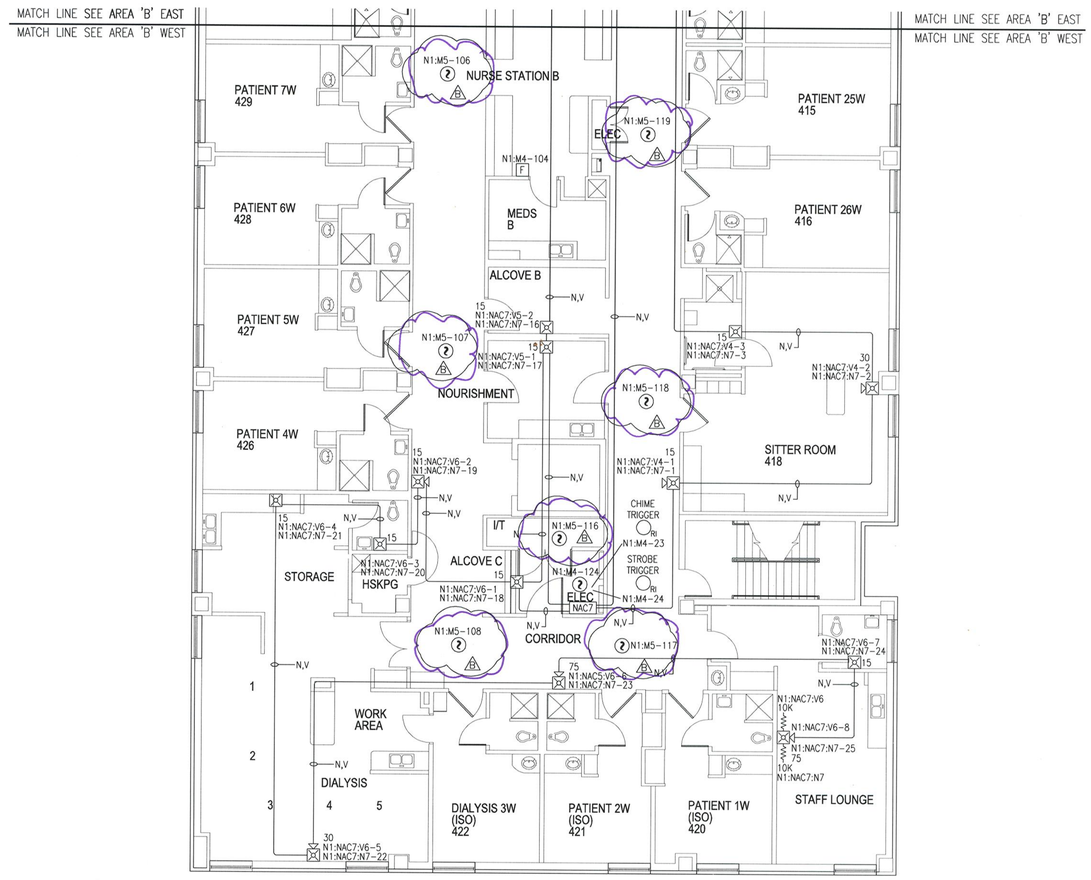
MCOA 4TH FLOOR

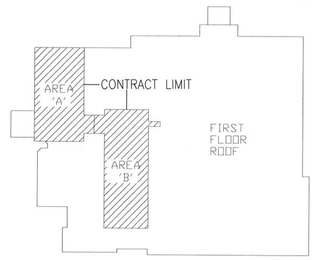
1501 SOUTH POTOMAC
AURORA, COLORADO 80012

DRAWN BY: SKB	DATE: 08/20/09
DESIGNED BY: JWC	DATE: 08/20/09
APPROVED BY: JWC	DATE: 08/27/09
PROJECT #: 945770701	
SCALE: 1/8"=1'-0"	
SHEET TITLE: FOURTH FLOOR AREA 'A'	
SHEET NUMBER: FA3.10a	

36" x 24"







= changes under this Permit

CITY OF AURORA
BUILDING DIVISION
APPROVED AS NOTED JMP
DATE 3/1/10
NFPA 72(102)

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SHEET NOTES

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THE INFORMATION OR SYMBOLS SHOWN IN LIGHT LINETYPE ARE EXISTING.

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TECHNICAL AREA 00303: LEVEL IV
CERTIFICATE #: 109355
VALID THROUGH: 09/01/12

JAMES COOLEY — DATE 2/14/10

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24" x 36"

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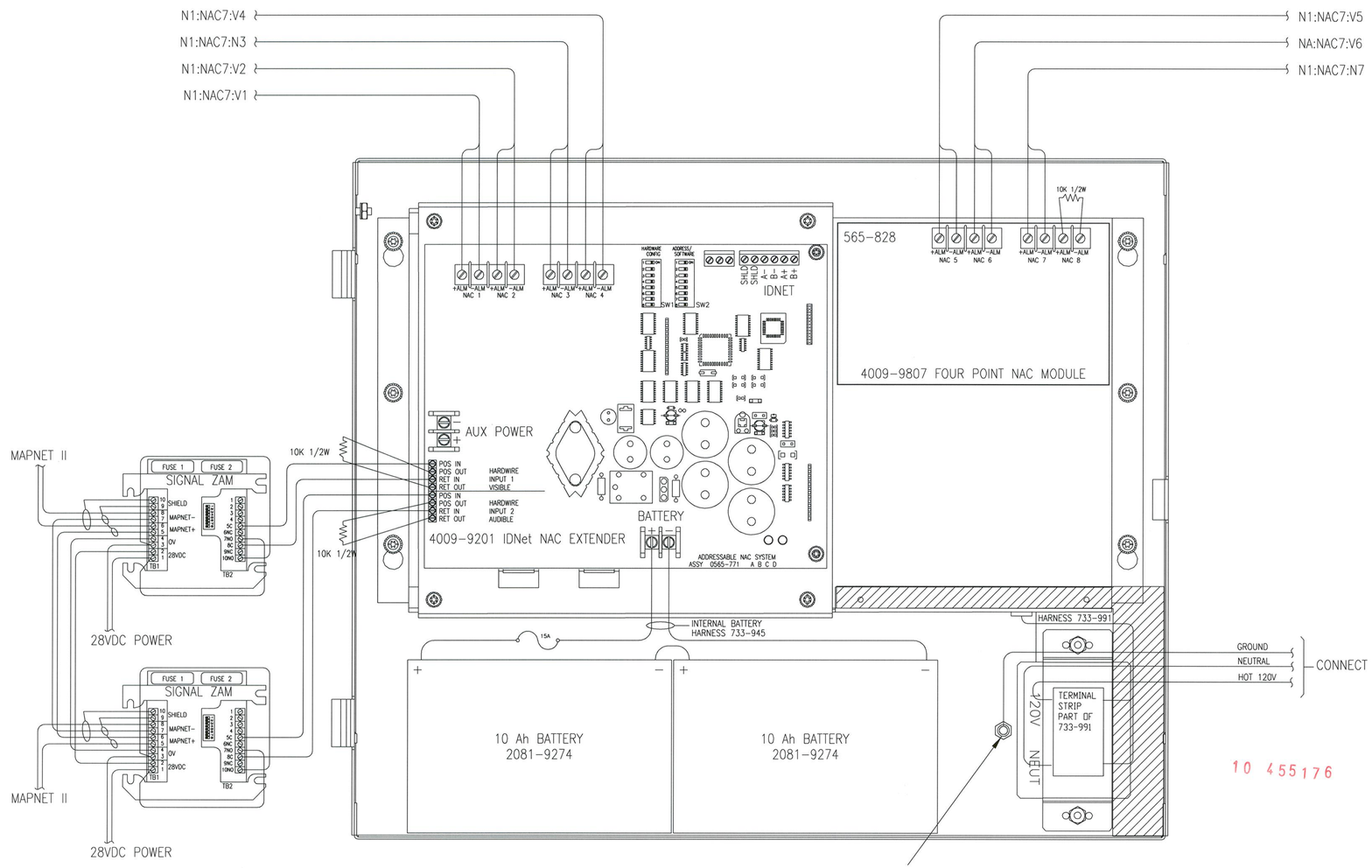
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NO.	DATE	REVISION DESCRIPTION
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B	02/16/10	ADDITIONS AND REVISIONS (SKB)

FIRE ALARM SYSTEM FOR:
MEDICAL CENTER OF AURORA

MCOA 4TH FLOOR
1501 SOUTH POTOMAC
AURORA, COLORADO 80012

DRAWN BY: SKB	DATE: 08/20/09
DESIGNED BY: JWC	DATE: 08/20/09
APPROVED BY: JWC	DATE: 08/27/09
PROJECT #: 945770701	
SCALE: 1/8"=1'-0"	
SHEET TITLE: FOURTH FLOOR AREA 'A' AND AREA 'B'	
SHEET NUMBER: FA3.10	



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CITY OF AURORA
BUILDING DIVISION
APPROVED AS NOTED JMD
DATE 3/1/10
NFPA 72 ('02)

NAC PANEL 7

NICET CERTIFICATION

TECHNICAL AREA 00303: LEVEL IV
CERTIFICATE #: 109355
VALID THROUGH: 09/01/12

JAMES COOLEY — DATE 2/16/10

NICET CERTIFIED

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DENVER, COLORADO 80216
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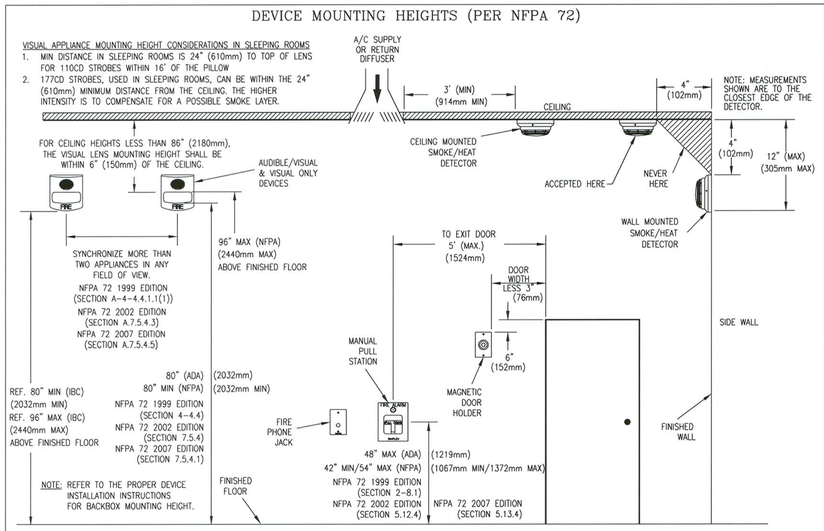
FIRE ALARM SYSTEM FOR:
MEDICAL CENTER OF AURORA

MCOA 4TH FLOOR
1501 SOUTH POTOMAC
AURORA, COLORADO 80012

DRAWN BY: SKB	DATE: 08/20/09
DESIGNED BY: JWC	DATE: 08/20/09
APPROVED BY: JWC	DATE: 08/27/09
PROJECT #: 945770701	
SCALE: N.T.S.	
SHEET TITLE: 4009 NAC7 EXTENDER PANEL DETAIL	
SHEET NUMBER: FA4.01	

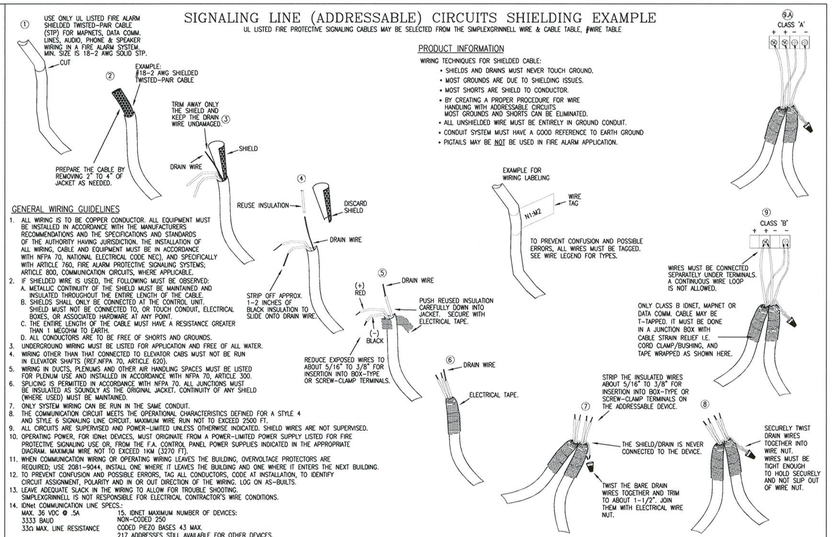
24" x 36"

DEVICE MOUNTING HEIGHTS (PER NFPA 72)



SIGNALING LINE (ADDRESSABLE) CIRCUITS SHIELDING EXAMPLE

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



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 1kW (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. SIMPLEXGRINNELL IS NOT RESPONSIBLE FOR ELECTRICAL CONTRACTOR'S WIRE CONDITIONS.
14. IDNet COMMUNICATION LINE SPECS.:
    MAX. 36 VDC @ .5A
    3333 BAUD
    33Ω MAX. LINE RESISTANCE
    15, IDNET MAXIMUM NUMBER OF DEVICES:
    NON-CODED 250
    CODED PIEZO BASES 43 MAX.
    217 ADDRESSES STILL AVAILABLE FOR OTHER DEVICES.

END-OF-LINE RESISTOR CODES



NOTE: REFER TO PANEL/MODULE AND DEVICE INSTALLATION INSTRUCTIONS FOR PROPER TERMINATIONS.

* USE WITH RETROFIT OR HIGH CURRENT MODULE

MODEL	REFERENCE NUMBER	OMHS	1ST BAND	2ND BAND	3RD BAND	4TH BAND	5TH BAND	WATTS	CIRCUIT TYPE	FIRE ALARM PANEL/MODULE
4081-9001	733-892	2.2K	RED	RED	RED	GOLD	N/A	1/2	ANNUNCIATOR (4300)	4004, 4010 (TROUBLE)
4081-9002	733-893	3.3K	ORANGE	ORANGE	RED	GOLD	N/A	1	N.O. INITIATING PULL, SMOKE, HEAT, WATERFLOW, TAMPER, ETC.	4004*, 4004R, 4005*, 4006, 4100, 4120, 4100U, ZAM'S
									24 PT. I/O SWITCH SUPV.	4605-7401, 4100 SERIES
4081-9003	733-896	4.7K	YELLOW	VIOLET	RED	GOLD	N/A	1/2	CURRENT LIMITED N.O. INITIATING	4090-9001 IDNET IAM (EOLR)
4081-9004	733-886	6.8K	BLUE	GREY	RED	GOLD	N/A	1/2	NOTIFICATION (DACT)	2080-9024
									N.O. INITIATING PULL, SMOKE, HEAT, WATERFLOW, TAMPER, ETC.	4004, 4005, 4090-9001 IDNET IAM 2190-9173 MAPNETII 2 PT I/O
										4-20MA ZAM (TROUBLE)
4081-9005	733-984	1.8K	BROWN	GREY	RED	GOLD	N/A	1/2	CURRENT LIMITED N.O. INITIATING (IN LINE)	4090-9001 IDNET IAM
4081-9006	733-890	560 Ω	GREEN	BLUE	BROWN	GOLD	N/A	1	N.C. INITIATING (EOLR)	4005*, 4090-9001 IDNET IAM 4100, 4100U
4081-9007	733-891	1.2K	BROWN	RED	RED	GOLD	N/A	1	N.C. INITIATING (EOLR)	4005
4081-9008	733-894	10K	BROWN	BLACK	ORANGE	GOLD	N/A	1/2	NOTIFICATION	4004, 4005, 4006, 4008, 4009, 4010, 4100, 4100U
4081-9009	733-912	20 Ω	RED	BLACK	BLACK	GOLD	N/A	1	TO MR-101 RELAY COIL	4005 8 POINT I/O
4081-9010	733-973	1K	BROWN	BLACK	RED	GOLD	N/A	1	N.C. INITIATING (ACROSS CONTACTS)	4005*, 4090-9001 IDNET IAM
									24 PT. I/O (ACROSS CONTACTS)	4605-7401, 4100 SERIES
									CURRENT LIMITED N.O. INITIATING (IN SERIES WITH CONTACT)	4090-9001 IDNET IAM
4081-9011	733-974	100 Ω	BROWN	BLACK	BROWN	GOLD	N/A	1/2	ANNUNCIATOR (N2)	4006, 4008, 4010
4081-9012	733-985	22K	RED	RED	ORANGE	GOLD	N/A	1/2	SPEAKER CIRCUIT	4003
4081-9013	734-086	4.99K	YELLOW	WHITE	WHITE	BROWN	BROWN	1/2		
4081-9014	734-092	2.4K	RED	YELLOW	RED	GOLD	N/A	1/2	N.C. INITIATING (SECURITY MONITORING EOLR)	4090-9001 IDNET IAM
4081-9015	734-093	1.5K	BROWN	GREEN	RED	GOLD	N/A	1/2	CURRENT LIMITED N.O. INITIATING (SECURITY MONITORING EOLR)	4090-9001 IDNET IAM
4081-9016	734-149	150K	BROWN	GREEN	YELLOW	GOLD	N/A	1/2		
4081-9017	734-171	3.9K	ORANGE	WHITE	RED	GOLD	N/A	1		
4081-9018	734-168	10K	BROWN	BLACK	ORANGE	GOLD	N/A	1	70VRMS CONSTANT SUPV. NACS	4100-1260
	378-090	8.2K	GRAY	RED	RED	GOLD	N/A	1/2	SECURITY MONITORING (EOLR)	4100, 4100U
	378-046	5.6K	GREEN	BLUE	RED	GOLD	N/A	1/2	N.O. SECURITY MON. (SERIES)	4100, 4100U
	378-069	12K	BROWN	RED	ORANGE	GOLD	N/A	1/2	N.C. SECURITY MON. (SHUNT)	4100, 4100U

4099-9003 IDNet DOUBLE ACTION PUSH STATION

PRODUCT INFORMATION

FEATURES:
- UL LISTED
- DOUBLE ACTION (PUSH/PULL), IDNET ADDRESSABLE
- PULL LEVEL PROTRUDES WHEN ALARMED
- TAMPER RESISTANT RESET KEY LOCK
- MOUNTING: SEMI-FLUSH, SURFACE
- OPERATING TEMPERATURE RANGE: 32 - 120° F
- OPERATING HUMIDITY RANGE: 0 - 93% RH
- ADAPTER PLATES 2099-9813 OR 2099-9814 CAN BE USE FOR RETROFIT APPLICATIONS
- 5" HIGH X 3 3/4" WIDE X 1" DEEP
- SCREW TERMINALS FOR 18 TO 14 AWG WIRE
- ADDRESSED BY MEANS OF AN 8 POSITION DIP SWITCH
- COMPATIBLE WITH IDNet/MAPNET

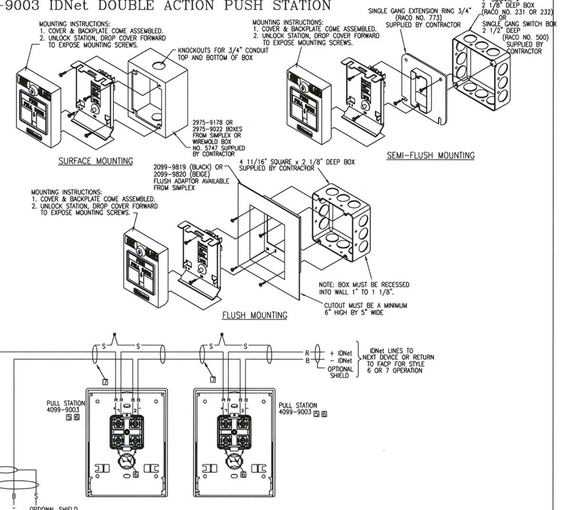
OPERATION:
ACTIVATION:
4099-9003 DOUBLE ACTION STATION REQUIRES A FIRM DOWNWARD PULL TO ACTIVATE THE ALARM SWITCH. COMPLETING THIS ACTION BREAKS AN INTERNAL PLASTIC BREAK-ROD THAT IS VISIBLE BELOW THE PULL LEVER (USE OF PLASTIC ROD IS OPTIONAL). THE PULL LEVEL LATCHES INTO THE ALARM POSITION AND REMAINS EXTENDED OUT OF THE HOUSING TO PROVIDE A VISIBLE INDICATION.
RESETTING:
4099-9003 DOUBLE ACTION STATION REQUIRES A KEY TO RESET THE ACTIVATION LEVER AND DEACTIVATE THE ALARM SWITCH. (IF OPTIONAL PLASTIC BREAK ROD WAS USED IT MUST BE REPLACED)

CONSTRUCTION:
STATION HOUSING AND PULL LEVER ARE CONSTRUCTED OF CHIP RESISTANT AND DIRT RESISTANT, HIGH IMPACT LEXAN. HOUSING IS RED WITH RAISED WHITE LETTERING AND PULL LEVER IS WHITE WITH RED RAISED LETTERING.
* LEXAN IS A REGISTERED TRADEMARK OF THE GENERAL ELECTRIC CO.

APPLICATION:
PULL STATIONS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 72 AND ADA GUIDE LINES.

INTRODUCTION:
THE 4099-9003 ADDRESSABLE PULL STATION PROVIDES TWO-STATE STATUS INFORMATION (NORMAL AND SHORT) TO THE IDNET COMPATIBLE FIRE ALARM CONTROL PANEL (FACP) VIA THE IDNET CHANNEL. THE IDNET CHANNEL PROVIDES THE COMMUNICATION LINK BETWEEN PULL STATION AND THE FACP AND POWERS THE ENTIRE CIRCUITRY.

WIRING:
1. ALL WIRING TO COMPLY WITH LOCAL CODE.
2. CONDUCTORS MUST TEST FREE OF ALL GROUNDS.
3. MAINTAIN CORRECT POLARITY
4. IDNET LINES ARE TO BE 18 AWG TWISTED SHIELDED PAIR
5. MAXIMUM LINE RUN FROM PANEL TO FARTHEST DEVICE NOT TO EXCEED 2500 FEET.
6. MAXIMUM TOTAL WIRE (INCLUDING ALL T-TAPS) FROM PANEL NOT TO EXCEED 10,000 FEET.
7. MAXIMUM QUANTITY OF DEVICES PER CIRCUIT: 250
8. TERMINALS 1 AND 2 FOR FIELD WIRING. TERMINALS 3 AND 4 ARE FACTORY WIRING
9. WIRE NUT, SPLICE, OR SOLDER THE SHIELD WIRES.
10. IF SHIELD IS PRESENT, IT SHOULD BE CONNECTED TO THE OUTGOING IDNET SHIELD TO PROVIDE A CONTINUOUS SHIELD OVER THE LENGTH OF THE IDNET CHANNEL. SHIELD SHOULD BE INSULATED FROM THE ELECTRICAL BOX.
11. SEE INSTALLATION INSTRUCTIONS 574-332



4098-9792 STANDARD SENSOR BASE

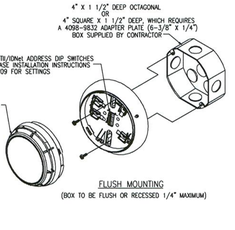
PRODUCT INFORMATION

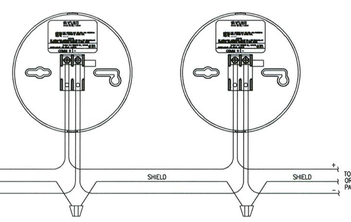
FEATURES:
- UL LISTED, FM APPROVED
- TRUEALARM ANALOG SENSING PROVIDES DIGITAL TRANSMISSION OF ANALOG SENSOR VALUES VIA MAPNET II, OR IDNet TWO WIRE COMMUNICATIONS
- FIRE ALARM CONTROL PANEL PROVIDES:
  - —INDIVIDUAL SENSITIVITY SELECTION FOR EACH SENSOR
  - —PEAK VALUE LOGGING ALLOWING ACCURATE ANALYSIS 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 127° 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, 4020, AND 4120 SERIES CONTROL PANELS.
- MAXIMUM QUANTITY OF DEVICES:
  - —127 FOR 4020, 4100, 4120
  - —250 FOR 4010, 4100U
- 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: 1 ADDRESS PER BASE
  VOLTAGE (MAPNET II/IDNet): 24-40VDC
  CURRENT: 900uA 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 WIRING TO BE #18 AWG TWISTED SHIELDED PAIR.
5. IF SHIELD IS USED, TWIST SHIELD WIRES TOGETHER AND CAP WITH WIRE NUT. SHIELD SHOULD BE INSULATED FROM ELECTRICAL BOX.
6. REFER TO INSTALLATION INSTRUCTIONS (574-707)
7. REFER TO APPLICATION MANUAL (574-709)





4098-9751 TRUEALARM IN-DUCT SENSOR HOUSING WITH RELAY OUTPUT

PRODUCT INFORMATION

FEATURES:
- UL LISTED TO STANDARD 268A
- MONITORS AIR DUCTS FOR THE PRESENCE OF SMOKE
- FOR USE WITH SIMPLEX MODEL 4098-9714 TRUEALARM PHOTOELECTRIC SMOKE SENSOR
- SMOKE SENSING IS OPTIMIZED WITH MINIMAL AIRFLOW RESTRICTION.
- RED ALARM LED INDICATOR IN HOUSING
  - VISIBLE THROUGH TRANSPARENT HOUSING COVER
  - PULSING INDICATES POWER-ON, STEADY ON INDICATES ALARM OR TROUBLE AS INDICATED AT THE FIRE ALARM CONTROL PANEL
- BASE MOUNTED ADDRESS SELECTION
  - —REMAINS WITH LOCATION
  - —ACCESSIBLE FROM FRONT (UNDER SENSOR)
- MAXIMUM QUANTITY OF DEVICES:
  - —127 FOR 4020, 4100, AND 4120
  - —250 FOR 4010
- RELAY OPERATION IS PROGRAMMABLE FROM FIRE ALARM CONTROL PANEL
- 24VDC POWER IS SUPPLIED BY FIRE ALARM SYSTEM
- COLOR : GRAY

SPECIFICATIONS:
- AIR VELOCITY: 35 TO 2000 FT./MIN.
- DATA COMMUNICATIONS: MAPNET II/IDNet
- MAPNET II/IDNet CURRENT: 1 mA
- UL LISTED TEMPERATURE RANGE: 32° F TO 100° F
- OPERATING TEMPERATURE RANGE: 32° F TO 122° F
- HUMIDITY RANGE:10 TO 93% RH
- WIRING CONNECTIONS: TERMINAL BLOCKS, #18 TO #14 AWG
- AUXILIARY RELAY VOLTAGE: 18 TO 32 VDC
- AUXILIARY RELAY STANDBY CURRENT: 240 uA @ 24 VDC
- AUXILIARY RELAY ALARM CURRENT: 30 mA @ 24 VDC
- AUXILIARY ALARM RELAY CONTACTS: FORM "C", 1A @ 24VDC, FOR TRANSIENT SUPPRESSED LOADS

APPLICATION:
- RECTANGULAR DUCTS FROM 6" SQUARE UP TO 36" SQUARE
- ROUND DUCTS, 6" TO 8" DIAMETER
- DUCTS FROM 37" TO 72" WIDE MAY BE MONITORED USING A SENSOR ON EACH SIDE.

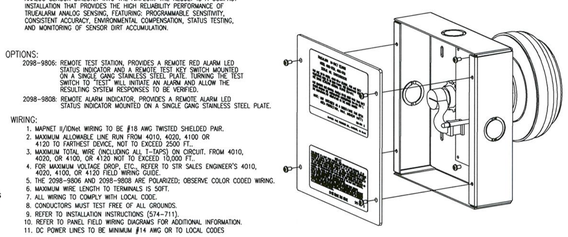
PREFERRED IN-DUCT SENSOR LOCATIONS:
1. A MINIMUM OF SIX DUCT WIDTHS DOWNSTREAM FROM BENDS OR INLETS TO AVOID AIR TURBULENCE.
2. ON THE DOWNSTREAM SIDE OF FILTERS TO DETECT FIRES IN THE FILTERS.
3. IN RETURN DUCTS, AHEAD OF MIXING AREAS.
4. UPSTREAM OF AIR HUMIDIFIER AND COOLING COILS.
5. WITH ACCESSIBILITY FOR TEST AND SERVICE.
6. FOR ADDITIONAL INFORMATION, REFER TO NFPA 90A, STANDARD FOR THE INSTALLATION OF AIR CONDITIONING AND VENTILATING SYSTEMS.

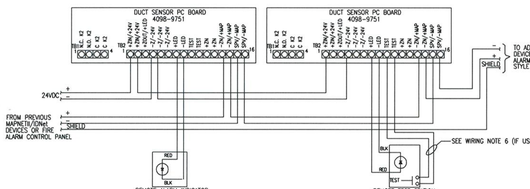
LOCATIONS TO AVOID:
1. WHERE DAMPERS CLOSED FOR COMFORT CONTROL WOULD INTERFERE WITH AIRFLOW.
2. NEXT TO OUTSIDE AIR INLETS (UNLESS THE INTENT IS TO MONITOR SMOKE ENTRY FROM THAT AREA).
3. IN RETURN AIR DAMPER BRANCH DUCTS AND MIXING AREAS WHERE AIRFLOW MAY BE RESTRICTED.

DESCRIPTION:
MODEL 4098-9751 PROVIDES A MINIMAL RESTRICTION IN-DUCT ASSEMBLY THAT MOUNTS A SIMPLEX 4098-9714 PHOTOELECTRIC TRUEALARM ANALOG SENSOR DIRECTLY INTO THE AIRFLOW. THE RESULT IS A COMPACT INSTALLATION THAT PROVIDES THE HIGH RELIABILITY PERFORMANCE OF TRUEALARM ANALOG SENSING, FEATURING: PROGRAMMABLE SENSITIVITY, CONSISTENT ACCURACY, ENVIRONMENTAL COMPENSATION, STATUS TESTING, AND MONITORING OF SENSOR DIRT ACCUMULATION.

OPTIONS:
2098-9806: REMOTE TEST STATION, PROVIDES A REMOTE RED ALARM LED STATUS INDICATOR AND A REMOTE TEST KEY SWITCH MOUNTED ON A SINGLE GANG STAINLESS STEEL PLATE. TURNING THE TEST SWITCH TO "TEST" WILL INITIATE AN ALARM AND ALLOW THE RESULTING SYSTEM RESPONSES TO BE VERIFIED.
2098-9808: REMOTE ALARM INDICATOR, PROVIDES A REMOTE ALARM LED STATUS INDICATOR MOUNTED ON A SINGLE GANG STAINLESS STEEL PLATE.

WIRING:
1. MAPNET II/IDNet WIRING TO BE #18 AWG TWISTED SHIELDED PAIR.
2. MAXIMUM ALLOWABLE LINE RUN FROM 4010, 4020, 4100 OR 4120 TO FARTHEST DEVICE, NOT TO EXCEED 2500 FT.
3. MAXIMUM TOTAL WIRE (INCLUDING ALL T-TAPS) ON CIRCUIT. FROM 4010, 4020, OR 4100, OR 4120 NOT TO EXCEED 10,000 FT.
4. FOR MAXIMUM VOLTAGE DROP, ETC., REFER TO STR SALES ENGINEER'S 4010, 4020, 4100, OR 4120 FIELD WIRING GUIDE.
5. THE 2098-9806 AND 2098-9808 ARE POLARIZED; OBSERVE COLOR CODED WIRING.
6. MAXIMUM WIRE LENGTH TO TERMINALS IS SOFT.
7. ALL WIRING TO COMPLY WITH LOCAL CODE.
8. CONDUCTORS MUST TEST FREE OF ALL GROUNDS.
9. REFER TO INSTALLATION INSTRUCTIONS (574-711).
10. REFER TO PANEL FIELD WIRING DIAGRAMS FOR ADDITIONAL INFORMATION.
11. DC POWER LINES TO BE MINIMUM #14 AWG OR TO LOCAL CODES





10 455176

CITY OF AURORA
BUILDING DIVISION
APPROVED AS NOTED JMP
DATE 3/1/10
NFPA 72 ('02)

NICET CERTIFICATION

TECHNICAL AREA 00303: LEVEL IV
CERTIFICATE #: 109355
VALID THROUGH: 09/01/12

JAMES COOLEY — DATE 2/16/10

NICET CERTIFIED

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6240 SMITH ROAD
DENVER, COLORADO 80216

SALES: (303) 355-0500
SERVICE: (303) 355-0500
FAX: (303) 355-0615

NO.	DATE	REVISION DESCRIPTION
A	09/23/03	COMMENTS PER A.H.J. (SKB)
B	02/16/10	ADDITIONS AND REVISIONS (SKB)

FIRE ALARM SYSTEM FOR:
MEDICAL CENTER OF AURORA

MCOA 4TH FLOOR

1501 SOUTH POTOMAC
AURORA, COLORADO 80012

DRAWN BY:	DATE:
SKB	08/20/09
DESIGNED BY:	DATE:
JWC	08/20/09
APPROVED BY:	DATE:
JWC	08/27/09
PROJECT #:	
945770701	
SCALE:	
N.T.S.	
SHEET TITLE:	
PERIPHERAL WIRING DETAILS	
SHEET NUMBER:	
FA5.01	

24" x 36"

2088-9609 MAGNETIC DOOR HOLDER

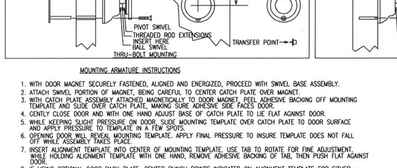
PRODUCT INFORMATION

FEATURES:
- UL LISTED
- CALIFORNIA STATE FIRE MARSHAL LISTING NUMBERS: 2088-9609 DOOR HOLDERS 7550-0026:232
- MOUNTING: WALL, SEMI-FLUSH
- FINISH: DOUBLE PLATED CHROME

SPECIFICATIONS:
- VOLTAGE RANGE: OPERATES WITH 24 VDC, 24 VAC, OR 120 VAC
- CURRENT: 15 mA

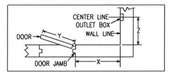
DESCRIPTION:
2088-9607 MAGNETIC DOOR HOLDERS HAVE A MINIMUM HOLDING FORCE OF 25 LBS. UNDER NORMAL CONDITIONS. WHEN A FLUSHMOUNTED IS MOUNTED ON A FIRE DOOR AND IS USED IN THE EVENT OF A FIRE, THE SIMPLEX FIRE ALARM CONTROL PANEL, OR AN APPROVED PERIPHERAL APPLIANCE, WILL AUTOMATICALLY INTERRUPT THE VOLTAGE TO THE DOOR HOLDER RELEASING THE DOOR TO PREVENT THE SPREAD OF SMOKE. DOORS MAY BE MANUALLY OPENED WHEN THE DOOR HOLDER IS ENERGIZED.

WIRING:
- ALL WIRING TO COMPLY WITH LOCAL CODE.
- MAINTAIN CORRECT POLARITY
- CONDUCTORS MUST TEST FREE OF ALL GROUNDS.



MOUNTING ARMATURE INSTRUCTIONS

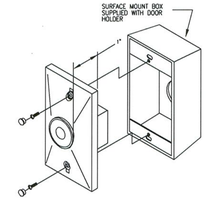
1. WITH DOOR MAGNET SECURELY FASTENED, ALIGNED AND ENERGIZED, PROCEED WITH SWIVEL BASE ASSEMBLY.
2. ATTACH SWIVEL PORTION OF MAGNET, BEING CAREFUL TO CENTER CATCH PLATE OVER MAGNET.
3. WITH CATCH PLATE ASSEMBLY ATTACHED MAGNETICALLY TO DOOR MAGNET, PEEL ADHESIVE BACKING OFF MOUNTING TEMPLATE AND SLIDE OVER CATCH PLATE, MAKING SURE ADHESIVE SIDE FACES DOOR.
4. GENTLY CLOSE DOOR AND WITH ONE HAND ADJUST BASE OF CATCH PLATE TO LIE FLAT AGAINST DOOR.
5. WHILE KEEPING SLIGHT PRESSURE ON DOOR, SLIDE MOUNTING TEMPLATE OVER CATCH PLATE TO DOOR SURFACE AND APPLY PRESSURE TO TEMPLATE IN A FEW SPOTS.
6. OPENING DOOR WILL REVEAL MOUNTING TEMPLATE. APPLY FINAL PRESSURE TO INSURE TEMPLATE DOES NOT FALL OFF WHILE ASSEMBLY TAKES PLACE.
7. INSERT ALIGNMENT TEMPLATE INTO CENTER OF MOUNTING TEMPLATE. USE TAB TO ROTATE FOR FINE ADJUSTMENT. WHILE HOLDING ALIGNMENT TEMPLATE WITH ONE HAND, REMOVE ADHESIVE BACKING OF TAB, THEN PUSH FLAT AGAINST DOOR.
8. IF USING OPTIONAL DOOR BACK PLATE, CENTER PUNCH POINTS INDICATED ON ALIGNMENT TEMPLATE FOR EITHER HORIZONTAL OR VERTICAL MOUNTING. FOR BEST RESULTS DRILL 1/8" PILOT HOLE FIRST, THEN FOLLOW WITH 5/16" DIA DRILL. DRILL STRAIGHT THROUGH DOOR.
9. IF MOUNTING CATCH PLATE ASSEMBLY DIRECTLY TO DOOR, DRILL 1/8" DIA PILOT HOLE APPROXIMATELY 1 TO 1 1/2" DEEP. BEING CAREFUL NOT TO GO THROUGH DOOR.
10. FOR EITHER STYLE OF MOUNTING (THRU DOOR/DIRECT) REMOVE ONLY ALIGNMENT TEMPLATE, THEN PLACE SWIVEL IN CENTER ALIGN HOLES, THEN INSERT SCREWS AND TIGHTEN ASSEMBLY FULLY. LASTLY, REMOVE MOUNTING TEMPLATE.



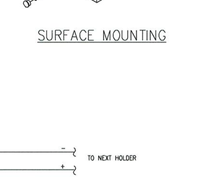
	Y = DIMENSION OF DOOR										
	28	30	32	34	36	38	40	42	44	46	48
X	Z = THE INTERSECTION OF X AND Y THE DIMENSION BETWEEN WALL AND OUTLET BOX)										
2	26	28	29-7/8	32	34	36	38	40	42	43-7/8	45-5/8
4	26	28	29-7/8	32	34	36	38	40	42	43-7/8	45-5/8
6	25-7/8	27-5/8	29-5/8	31-3/4	33-3/4	35-3/4	37-3/4	39-3/4	41-3/4	43-5/8	45-3/8
8	25-1/4	27-1/4	29-1/4	31-3/8	33-1/2	35-1/2	37-3/8	39-1/2	41-1/2	43-3/8	45-1/4
10	24-5/8	26-3/4	28-3/4	30-7/8	33	35	37	39-1/8	41-1/8	43	44-7/8
12	23-3/4	25-7/8	28	30-1/8	32-1/4	34-3/8	36-3/8	38-1/2	40-5/8	42-1/2	44-3/8
14	23-1/4	25	27-1/4	29-3/8	31-1/2	33-1/4	35-1/8	38	40	42	43-7/8
16	21-3/4	24	26-1/4	28-1/2	30-3/4	33	35-1/8	37-1/4	39-3/8	41-3/8	43-1/8
18	20	22-1/2	25	27-3/8	29-3/4	32	34-1/4	36-1/2	38-5/8	40-5/8	42-1/2
20	18-1/4	21	23-1/2	26	28-1/2	30-7/8	33-1/8	35-1/2	37-5/8	39-5/8	41-5/8
22		18-3/4	21-5/8	24-3/8	27	29-3/8	31-3/4	34-1/8	36-1/2	38-5/8	40-3/4
24				22-1/2	25-1/2	28-1/8	30-5/8	33-1/8	35-5/8	37-7/8	40
26						26-1/4	29	31-5/8	34-1/4	36-1/2	38-5/8
28								29-3/4	32-1/2	34-7/8	37-1/8
30								27-3/4	30-5/8	33	35-3/8
32										31-3/8	33-7/8

X = DIMENSION OF DOOR JAMB TO WALL

1. REFER TO DRAWING & CHART TO LOCATE OUTLET BOX.
2. INSTALL THE OUTLET BOX ON THE HORIZONTAL CENTER LINE 5" FROM TOP OF DOOR.



SURFACE MOUNTING



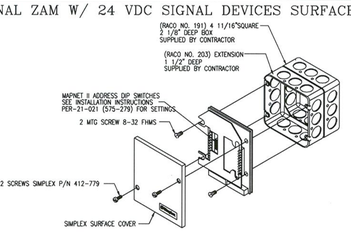
2190-9161 CLASS B SIGNAL ZAM W/ 24 VDC SIGNAL DEVICES SURFACE MOUNT

PRODUCT INFORMATION

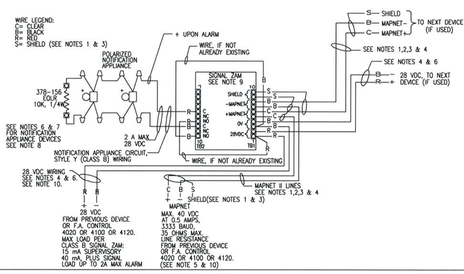
SPECIFICATIONS:
- DEVICE QTY: 127 MAPNET II DEVICES ON A SINGLE PAIR OF WIRES
- OPERATING TEMPERATURE RANGE: 32° F TO 120° F
- HUMIDITY RANGE: 85% NON-CONDENSING @ 86° F
- OUTPUT CAPACITY IS UP TO 2A @ 24 VDC
- SUPERVISORY DC CURRENT: 15 mA } MAX LOAD PER ZAM
- ALARM DC CURRENT: 40 mA

DESCRIPTION:
SIGNAL ZAMS ARE USED TO SUPERVISE AND OPERATE 24 VDC NOTIFICATION APPLIANCES, SPEAKERS, AND TELEPHONE CIRCUITS.

WIRE NOTES:
1. MAPNET II LINES ARE TO BE #18 AWG TWISTED SHIELDED PAIR (CONSULT YOUR LOCAL SIMPLEX BRANCH FOR EXCEPTIONS).
2. MAXIMUM ALLOWABLE LINE RUN FROM 4020 OR 4100 OR 4120 TO FARTHEST DEVICE, NOT TO EXCEED 2500 FEET.
3. MAXIMUM TOTAL WIRE (INCLUDING ALL T-TAPS) ON CIRCUIT, FROM 4020 OR 4100 OR 4120 NOT TO EXCEED 10,000 FEET.
4. FOR MAXIMUM VOLTAGE DROP,ETC.,REFER TO STR SALES ENGINEERING'S 4020 OR 4100 OR 4120 FIELD WIRING GUIDE.
5. MAX QTY OF DEVICES PER CIRCUIT: 127 IF 4020 OR 4100 OR 4120 SYSTEM.
6. MINIMUM NO. 14 AWG WIRE FOR 28 VDC WIRING, OR TO LOCAL CODE.
7. RIPPLE VOLTAGE ALLOWED: 100% / 120 Hz
8. NOTIFICATION APPLIANCE DEVICES RATED 21-30 VDC, STR MODEL NUMBERS: BELLS 2901-9311, -9332, OR -9333 CHIME 2902-9207 HORNS 2901-9838, -9839, -9840, OR -9841
9. SEE INSTALLATION INSTRUCTIONS 575-279
10. WHEN COMMUNICATION WIRING OR OPERATING WIRING LEAVES THE BUILDING, OVERVOLTAGE PROTECTORS ARE ARE REQUIRED.



SURFACE MOUNTING



MAPNET II ADDRESSABLE CONTROL ZAM 2190-9163

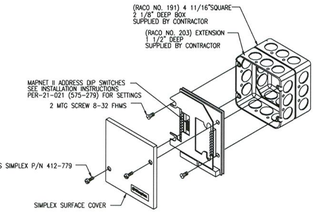
PRODUCT INFORMATION

FEATURES:
- UL LISTED
- FM APPROVED
- CALIFORNIA STATE FIRE MARSHAL LISTING NUMBERS: 2088-9163 CONTROL ZAM: 7300-0026:182
- ZONE ADAPTER MODULES (ZAMS) PROVIDE ADDRESSABILITY TO CONVENTIONAL CIRCUITS
- FOR USE WITH SIMPLEX MAPNET II COMMUNICATIONS
- NFPA: STYLE 4 OR 6 COMMUNICATIONS
- STYLE 4 WIRING MAY BE EITHER "T" TAPPED OR IN/OUT
- DIP SWITCH ADDRESS SELECTION, 8 SWITCHES
- MOUNTING: SURFACE

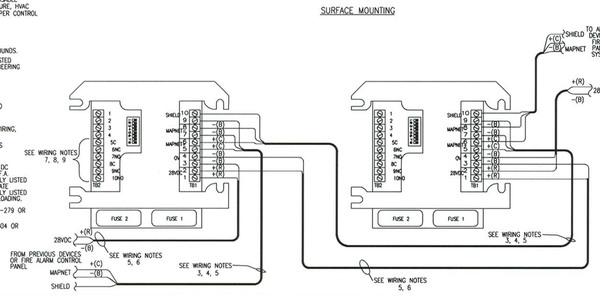
SPECIFICATIONS:
- DEVICE QTY: 127 MAPNET II DEVICES ON A SINGLE PAIR OF WIRES
- OPERATING TEMPERATURE RANGE: 32° F TO 120° F
- HUMIDITY RANGE: 85% NON-CONDENSING @ 86° F
- CONTROL ZAM RELAY CONTACTS ARE RATED AT: .5A @ 120 VAC OR 2A @ 28 VDC, RESISTIVE
- SUPERVISORY DC CURRENT: 10 mA } MAX LOAD PER ZAM
- ALARM DC CURRENT: 40 mA

DESCRIPTION:
CONTROL ZAMS ARE USED TO PROVIDE ADDRESSABLE CONTROL FUNCTIONS SUCH AS ELEVATOR CAPTURE, HVAC CONTROL, PRESSURIZATION FAN CONTROL, DAMPER CONTROL

WIRING:
1. ALL WIRING TO COMPLY WITH LOCAL CODE.
2. CONDUCTORS MUST TEST FREE OF ALL GROUNDS.
3. MAPNET II LINES ARE TO BE #18 AWG TWISTED SHIELDED PAIR (CONSULT STR SALES ENGINEERING FOR EXCEPTIONS).
4. MAXIMUM ALLOWABLE LINE RUN FROM 4020 OR 4100 OR 4120 TO FARTHEST DEVICE NOT TO EXCEED 2500 FEET.
5. FOR MAXIMUM VOLTAGE DROP,ETC.,REFER TO STR SALES ENGINEERING'S 4020 OR 4100 OR 4120 FIELD WIRING GUIDE.
6. MINIMUM NO. 14 AWG WIRE FOR 28 VDC WIRING, OR TO LOCAL CODE.
7. CONTRACTOR WIRING TO RELAY CONTACTS IS UNSUPERVISED. USE NO. 14 AWG, OR TO LOCAL CODE.
8. RELAY CONTACTS RATED 2A, 28 VDC. FOR DC LOADS, POWER MUST BE PROVIDED FROM F.A. CONTROL 4020, OR 4100 OR POWER SUPPLY LISTED FOR FIRE PROTECTIVE SIGNALING USE. DONATE CONTROL 4020 OR 4100 OR POWER SUPPLY LISTED CURRENT RATING BY 50% FOR INDUCTIVE LOADING.
9. REFER TO INSTALLATION INSTRUCTIONS 575-279 OR 575-592.
10. REFER TO FIELD WIRING DIAGRAMS 841-804 OR 841-996.



SURFACE MOUNTING



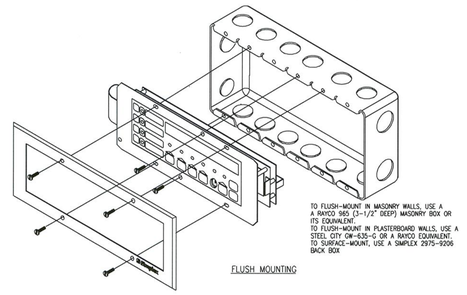
4603-9101 REMOTE ANNUNCIATOR

PRODUCT INFORMATION

FEATURES:
- UL LISTED
- FM APPROVED
- FLUSH MOUNT ON STANDARD ELECTRICAL BOXES

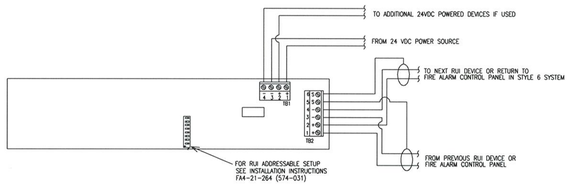
SPECIFICATIONS:
- VOLTAGE: 24VDC NOMINAL
- CURRENT: ALARM 170mA SUPERVISORY 30mA
- OPERATING TEMPERATURE: 32° F TO 120° F
- HUMIDITY RANGE: 10% TO 93% RH FROM 32° F TO 104° F
- STANDARD TRIM: BEIGE (SUPPLIED WITH BOTH SLOTTED AND TAMPERPROOF SCREWS)

OPTIONS
- BRUSHED ALUMINUM TRIM: 4603-9111
- SURFACE BOX: 2975-9206
- DIMENSIONS 11 31/32"L X 4 5/8" W X 2 3/4"D
- FINISH: LIGHT BROWN ENAMEL



FLUSH MOUNTING

NOTES:
1. ALL WIRING TO BE No. 18 AWG OR TO LOCAL CODE.
2. ALL WIRING SUPERVISED
3. WIRE TO BE 18 AWG TWISTED SHIELDED PAIR RECOMMENDED CONSULT SALES ENGINEERING FOR EXCEPTIONS. 2500 FT ONE WAY MAX COMMUNICATION LINE POWER 28 VDC MAX 130 mA MAX 1200 OR 9600 BAUD
4. WHEN WIRING LEAVES THE BUILDING, OVER VOLTAGE PROTECTORS ARE REQUIRED. USE 2081-9044 ONE IS INSTALLED WHERE IT LEAVE THE BUILDING AND ONE WHERE IT ENTERS THE NEXT BUILDING. TWO 2081-9044 (MAX)

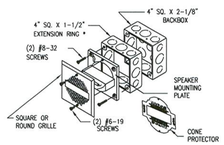


WHEELOCK CHIME STROBE
MODELS CH70-24MCW-FR & CH70-24MCW-FW

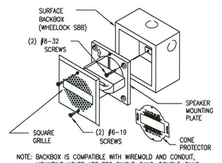
SPECIFICATIONS

VOLTAGE	STROBE @ 15CD AVERAGE CURRENT	STROBE @ 30CD AVERAGE CURRENT	STROBE @ 75CD AVERAGE CURRENT	STROBE @ 110CD AVERAGE CURRENT
16V DC	.060	.092	.165	.220
18V DC	.053	.082	.147	.195
24V DC	.041	.063	.109	.140

VOLTAGE	ANECHOIC PEAK dBA @ 10 FEET	dBA @ 10 FT REVERBERANT	RATED CHIME AVERAGE CURRENT
16V DC	80	52	.022
18V DC	80	58	.022
24V DC	83	58	.022

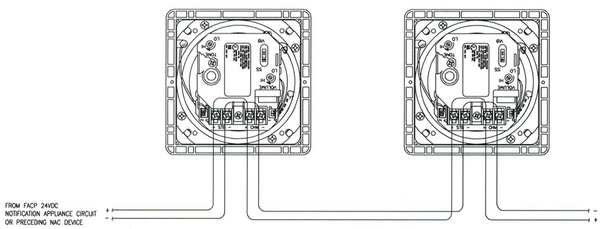


FLUSH MOUNTING



NOTE: BACKBOX IS COMPATIBLE WITH WIREMOLD AND CONDUIT, MOUNTING HOLES ARE FOR SINGLE-GANG, DOUBLE-GANG, 4" SQ. 3-1/2" & 4" OCTAGON OR ROUND BACKBOXES.

SURFACE MOUNTING



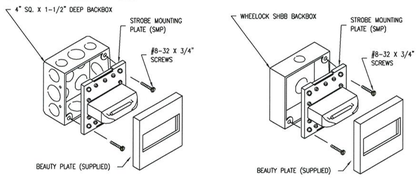
WHEELOCK MULTI-CANDELA STROBE
RSS-24MCW-FW & RSS-24MCW-FR

SPECIFICATIONS INFORMATION

MODEL NUMBER	INPUT VOLTAGE VDC	REGULATED VOLTAGE RANGE VDC/FWR	STROBE CANDELA	HOUSING COLOR
RSS-24MCW-FR	24	16.0-33.0	15, 30, 75, 110	RED
RSS-24MCW-FW				WHITE

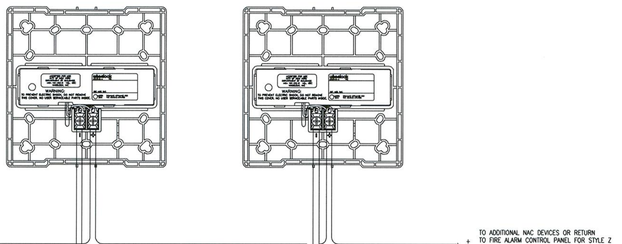
AVERAGE CURRENT

AVERAGE CURRENT RATINGS (AMPS)				
VOLTAGE	15cd	30cd	75cd	110cd
16.0 VDC	.060	.092	.165	.220
18.0 VDC	.053	.082	.147	.196
24.0 VDC	.041	.063	.109	.140



FLUSH MOUNTING

SURFACE MOUNTING



10 455176

CITY OF AURORA
BUILDING DIVISION
APPROVED AS NOTED JMP
DATE 3/4/10
NFPA 72 (10.2)

NICET CERTIFICATION

TECHNICAL AREA 00303: LEVEL IV
CERTIFICATE #: 109355
VALID THROUGH: 09/01/12

JAMES COOLEY — DATE 2/16/10

NICET CERTIFIED

tyco / SimplexGrinnell — Fire & Security

6240 SMITH ROAD
DENVER, COLORADO 80216
SALES: (303) 355-0500
SERVICE: (303) 355-0500
FAX: (303) 355-0615

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NO.	DATE	REVISION DESCRIPTION
A	09/23/03	COMMENTS PER A.H.J. (SKB)
B	02/16/10	ADDITIONS AND REVISIONS (SKB)

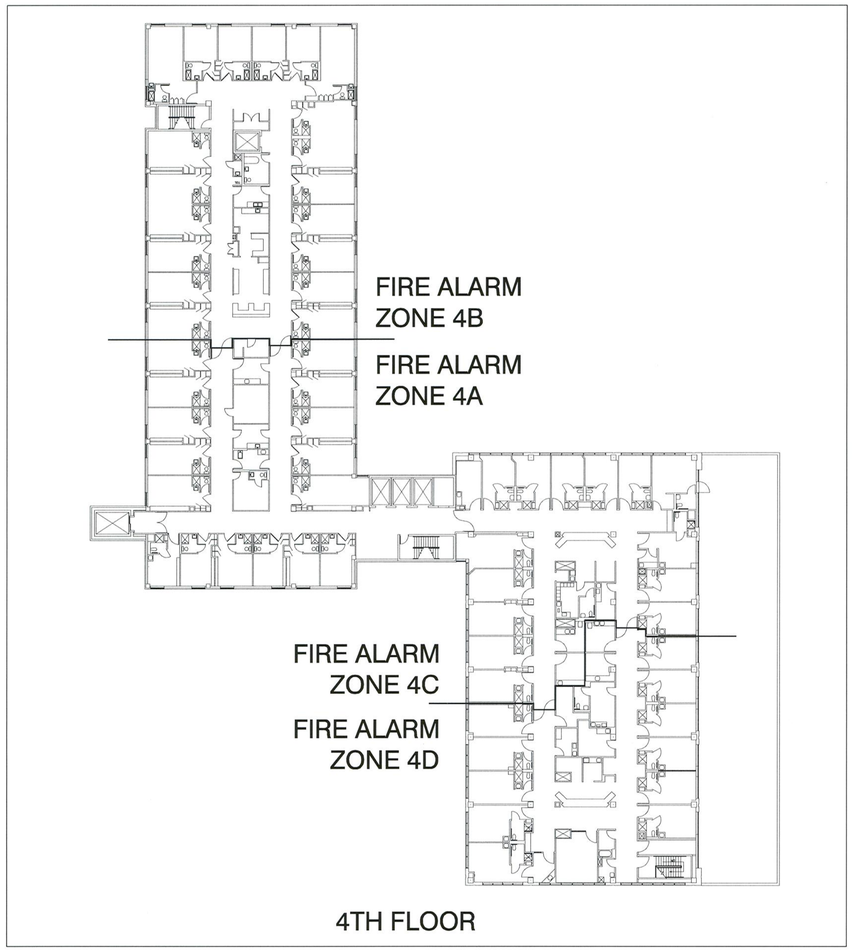
FIRE ALARM SYSTEM FOR:
MEDICAL CENTER OF AURORA

MCOA 4TH FLOOR

1501 SOUTH POTOMAC
AURORA, COLORADO 80012

DRAWN BY: SKB	DATE: 08/20/09
DESIGNED BY: JWC	DATE: 08/20/09
APPROVED BY: JWC	DATE: 08/27/09
PROJECT #: 945770701	
SCALE: N.T.S.	
SHEET TITLE: PERIPHERAL WIRING DETAILS	
SHEET NUMBER: FA5.02	

24" x 36"



4TH FLOOR

NOTE: ACTUAL GRAPHIC MAPS WILL BE PROVIDED BY HOPSPITAL 'GRAPHIC MAP UPGRADE PROJECT'.

10 455176

CITY OF AURORA
BUILDING DIVISION
APPROVED AS NOTED JMD
DATE 3/1/10
NFPA 72 ('02)

NICET CERTIFIED

NICET CERTIFICATION

TECHNICAL AREA 00303: LEVEL IV
CERTIFICATE #: 109355
VALID THROUGH: 09/01/12

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tyco / Fire & Security / SimplexGrinnell

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FIRE ALARM SYSTEM FOR:
MEDICAL CENTER OF AURORA

MCOA 4TH FLOOR
1501 SOUTH POTOMAC
AURORA, COLORADO 80012

DRAWN BY: SKB	DATE: 08/20/09
DESIGNED BY: JWC	DATE: 08/20/09
APPROVED BY: JWC	DATE: 08/27/09
PROJECT #: 945770701	
SCALE: N.T.S.	
SHEET TITLE: GRAPHIC MAP	
SHEET NUMBER: FA6.01	

Simplex 10 455176

TrueAlarm® Analog Sensing

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

TrueAlarm Analog Sensors – Photoelectric, Ionization, and Heat; Compatible Bases and Accessories

Features

TrueAlarm® analog sensing provides digital transmission of analog sensor values via MAPNET II® or IDNet™, two-wire communications**

Fire alarm control panel provides:

- Individual sensitivity selection for each sensor
- Sensitivity monitoring that satisfies NFPA 72® sensitivity testing requirements
- Peak value logging allowing accurate analysis for sensitivity selection
- Automatic, once per minute individual sensor calibration check that verifies sensor integrity
- Automatic environmental compensation
- Display of sensitivity directly in percent per foot
- Multi-stage alarm operation
- Ability to display and print detailed sensor information in plain English language

Photoelectric smoke sensors:

- Seven levels of sensitivity from 0.2% to 3.7%

Heat sensors:

- Fixed temperature sensing
- Rate-of-rise temperature sensing
- Utility temperature sensing

Ionization smoke sensors:

- Three levels of sensitivity; 0.5%, 0.9% and 1.3%

For use with Simplex®:

- 4010, 4020, 4100, 4100U, and 4120 Series control panels
- Universal Transponders and 2120 TrueAlarm CDTs equipped for MAPNET II operation

Magnetic test feature

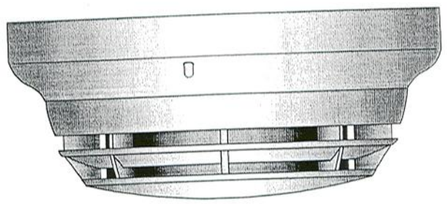
Functional and architecturally styled chamber enclosure:

- Louvered design enhances smoke capture by directing flow to chamber
- Entrance areas are minimally visible when ceiling mounted

Optional accessories include remote LED alarm indicator and output relays

UL listed to Standard 268

* Refer to page 4 for ULC listing status. 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. It is subject to re-examination, revision, and possible cancellation. 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 Safety Products Westminster.



4098-9714 TrueAlarm Photoelectric Sensor Mounted in Base

Description

Digital Communication of Analog Sensing. TrueAlarm analog sensors provide an analog measurement that is 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 that a sensor is in alarm, or that it 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.

** TrueAlarm analog sensors are protected by one or more of the following U.S. Patents: 5,155,468; 5,173,683; 5,400,014; 5,543,777; 5,710,541; D383,407; D388,352; D392,573. MAPNET II and IDNet addressable communications designs are protected by U.S. Patent No. 4,796,025.

For Reference Only

tyco Fire & Security

SimplexGrinnell

SimplexGrinnell LP
6240 Smith Road
Denver, CO
80216

Main: 303-355-0500
Fax: 303-355-0615
Direct: 303-262-5719
E-Mail: mlamitola@simplexgrinnell.com

November 19, 2009

City of Aurora Life Safety Dept.
Attn: Mike Dean
15151 East Alameda Parkway
Aurora, CO 80112

Re: Medical Center of Aurora - Fire Alarm Smoke Detector Replacement
1501 S. Potomac
Aurora, CO 80112

Dear Mr. Dean,

SimplexGrinnell has prepared this letter in order to obtain a permit for the replacement of hard wired smoke detectors on the Medical Center of Aurora's South Tower, 4th floor. There are currently 21 smoke detectors that are on a hard wired zone that need to be replaced with addressable smoke detectors. SimplexGrinnell will be programming the addresses for devices to be installed by Design Electric. Due to the fact that this is a one for one replacement of devices, there will be no change to the battery calculations and therefore the capacity of the current amperage load on the panel will not be effected. The addresses will be added to the newest set of graphic maps (provided by MCOA per separate permit). The estimated valuation of this work is $5,000.00. Please let me know if you have any questions.

Respectfully,

10 455176

Mike Lamitola, PMP
Project Manager
SimplexGrinnell-Denver District 419
Office: 303.355.0500
Mobile:303.961.2556
mlamitola@simplexgrinnell.com

10 455176

TrueAlarm Sensor Bases and Accessories

Sensor Base Features

Base mounted address selection:

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

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

Magnetically operated functional test

Mounts on standard outlet box

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 (unsupervised)

4098-9791, Sensor base with supervised relay driver output (not compatible with 2120 CDT):

- Relay operation is programmable and can be manually operated from control panel
- Use with remote mount 2098-9737 relay
- Also includes wired connections for remote LED alarm indicator **or** 4098-9822 relay

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)

4098-9822, LED Annunciation Relay:

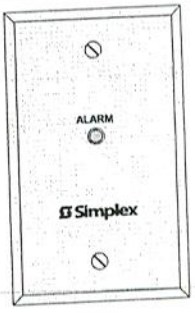
- Activates when base LED is on steady, indicating local alarm or trouble
- DPDT contacts for resistive/suppressed loads, power limited rating of 2 A @ 28 VDC; non-power limited rating of 1/2 A @ 120 VAC, (requires external 24 VDC coil power)

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, ionization, or heat sensors. Each sensor's output is digitized and transmitted to the system fire alarm control panel every four seconds.

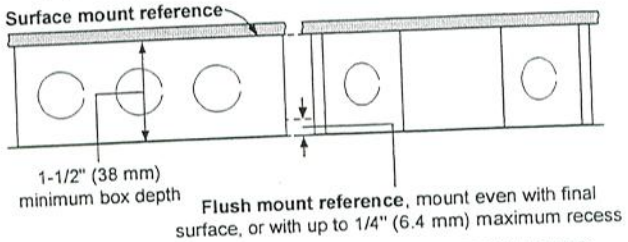
Since TrueAlarm sensors use the same base, different sensor types can be easily interchanged to meet specific location requirements. This feature also allows intentional sensor substitution during building construction. When conditions are temporarily dusty, instead of covering the smoke sensors (causing 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)

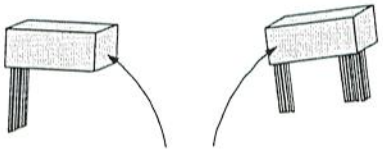
Without relay: 4" octagonal or 4" square, 1-1/2" deep; single gang, 2" deep

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



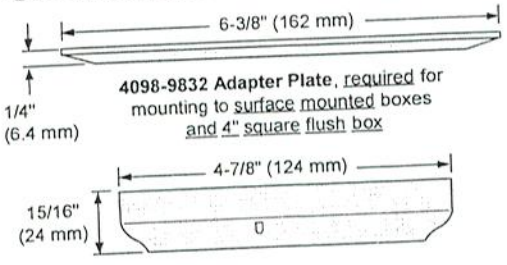
2098-9737 Relay (mounts in base electrical box or remotely)

4098-9822 Relay (mounts in base electrical box)



Relay Size: 2-1/2" X 1-1/2" X 1" (3.75 cubic inches)
(64 mm X 38 mm X 25.4 mm)

NOTE: Review total wire count, wire size, and accessories being wired to determine required box volume.



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

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TrueAlarm 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
- Spacing distance between heat sensors:

Fixed Temp. Setting	UL Spacing	FM Spacing, Either Fixed Temperature Setting
135° F (57.2° C)	60 ft (18.3 m)	15 ft x 15 ft (4.6 m) fixed temperature only; 30 ft x 30 ft (9.2 m) fixed temperature with rate-of-rise
155° F (68° C)	40 ft (12.2 m)	

Smoke Sensors:

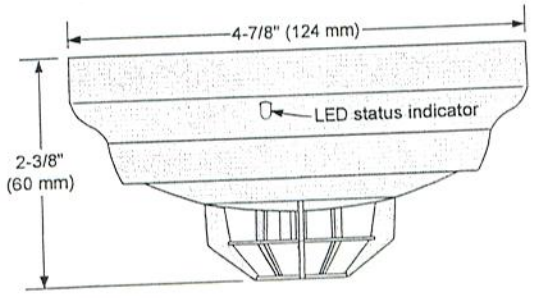
- Photoelectric or ionization technology sensing
- 360° smoke entry for optimum response

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.)



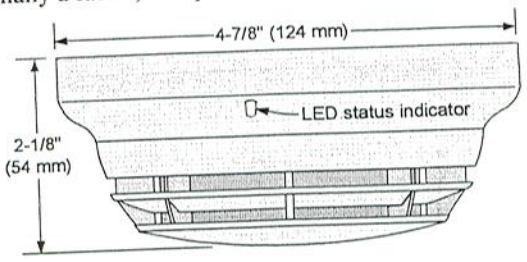
4098-9733 Heat Sensor with Base

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.

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. Sensitivity is selected and monitored at the fire alarm control panel.

The sensor head design provides 360° smoke entry for optimum response to smoke from any direction. A built-in screen keeps insects from entering the smoke chamber. Due to its photoelectric operation, air velocity is not normally a factor, except for impact on area smoke flow.

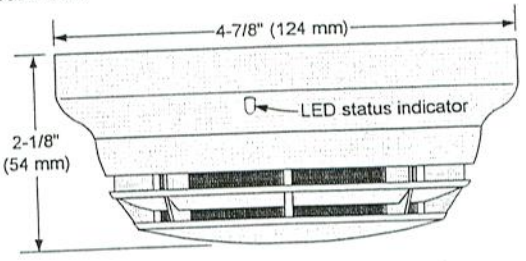


4098-9714 Photoelectric Sensor with Base

4098-9717 Ionization Sensor

TrueAlarm Ionization sensors use a single radioactive source with an outer sampling ionization chamber and an inner reference ionization chamber to provide stable operation under fluctuations in environmental conditions such as temperature and humidity. Smoke and invisible combustion gases can freely penetrate the outer chamber. With both chambers ionized by a small radioactive source [Am 241 (Americium)], a very small current flows in the circuit. The presence of particles of combustion will cause a change in the voltage ratio between chambers. This difference is measured by the electronics in the sensor base and digitally transmitted back to the control panel for processing.

Three levels of sensitivity are available for each ionization sensor: 0.5, 0.9, and 1.3% per foot of smoke obscuration.



4098-9717 Ionization Sensor with Base

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 Code*®. On smooth ceilings, smoke sensor spacing of 30 ft (9.1 m) may be used as a guide. For detailed application information, refer to *4098 Detectors, Sensors, and Bases Application Manual* (574-709).

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TrueAlarm Analog Sensing Product Selection Chart

TrueAlarm Sensor Bases*

Model	Description	Compatibility	Mounting Requirements
4098-9792 (C)	Standard Sensor Base, no options	Sensors 4098-9714, -9733, & -9717	4" octagonal or 4" square box, 1-1/2" min. depth; or single gang box, 2" min. depth
4098-9789 (C)	Sensor Base with connections for Remote LED Alarm Indicator **or** Unsupervised Relay	Sensors 4098-9714, -9733, & -9717 2098-9808 remote LED alarm indicator **or** 4098-9822 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.
4098-9791 (C)	Sensor Base with connections for **Supervised** Remote Relay **and** connections for Remote Alarm Indicator **or** Unsupervised Relay	Sensors 4098-9714, -9733, & -9717 2098-9737 remote relay (supervised) 2098-9808 remote alarm indicator **or** 4098-9822 relay (unsupervised)	

TrueAlarm Sensors

Model	Description	Compatibility	Mounting Requirements
4098-9714 (C)	Photoelectric Smoke Sensor	Bases 4098-9792, 4098-9789, and 4098-9791	Refer to base requirements
4098-9717 (C)	Ionization Smoke Sensor		
4098-9733 (C)	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
2098-9808	Remote Red LED Alarm Indicator on single gang stainless steel plate	Bases 4098-9789 and 4098-9791	Single gang box, 1-1/2" minimum depth
4098-9822 (C)	Relay, tracks base LED status (unsupervised, mounts only in base electrical box)		4" octagonal box, 2-1/8" deep with 1-1/2" extension ring
4098-9832	Adapter Plate	Bases 4098-9792, -9789, & -9791	**Required** for surface or semi-flush mounted 4" square box and for surface mounted 4" octagonal box

* Refer to data sheet S4098-0028 for Sounder Base information. Refer to Installation Instructions 574-707 and Application Manual 574-709 for additional information. ULC listed model numbers are designated by (C) and require a "C" suffix such as 4098-9792C.

Specifications

General Operating Specifications		
Communications and Sensor Supervisory Power		MAPNET II or IDNet, auto-select, 24-40 VDC w/data, 400 µA typical, 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 Temperature Range		32° to 100° F (0° to 38° C)
Operating Temperature Range	with 4098-9717 or 4098 -9733	32° to 122° F (0° to 50° C)
	with 4098-9714	15° to 122° F (-9° to 50° C)
Humidity Range		10 to 95% RH
Smoke Sensor Ambient Ratings	4098-9714, Photoelectric Sensor	Air velocity = 0-2000 ft/min (0-610 m/min)
	4098-9717, Ionization Sensor	Air velocity = 0-400 ft/min (0-122 m/min); Altitude is up to 8000 ft (2.4 km)
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
4098-9822 Unsupervised Relay, Requirements for Bases 4098-9789 and 4098-9791 (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

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