FILE PATH: G:\Medical Center of Aurora\1501 S Potomac - Aurora South\South Tower - Node 1\22-Cat Lab Expansion - 2016 - 991184502\01-3rd Floor PEDS Renovation - Phase 1\Cath Lab Peds Reno\Working Drawings\FA-000.dwg
LAST SAVED BY: CMADDEN
LAST PRINTED: 2/2/2017 9:14:02 AM
30" x 42" - Arch E1 Size

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TMCA CATH LAB - 3RD FLOOR PEDS RENO
MEDICAL CENTER OF AURORA
FIRE ALARM SYSTEM

DRAWING INDEX

Sheet Number	Sheet Title
General Information (FA-000 Series)	
FA-000	COVER SHEET
Floorplans (FA-100 Series)	
FA-101	3RD FLOOR CENTRAL TOWER A - DEVICE PLACEMENT PLAN
Risers (FA-200 Series)	
FA-201	PARTIAL RISER DIAGRAM
Calculations (FA-600 Series)	
FA-601	CALCULATIONS
Typical Details (FA-700 Series)	
FA-701	TYPICAL DETAILS

CITY OF AURORA CODE 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
- 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 I 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 DIVISION DOES NOT GRANT APPROVAL FOR ANY VIOLATIONS OF ADOPTED FIRE CODE. CODE VIOLATIONS UNCOVERED DURING FIELD INSPECTIONS MUST BE CORRECTED.
- PER THE 2009 IFC AND THE 2011 NEC THE INSTALLER MUST REQUEST A ROUGH WIRING INSPECTION ON 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 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 I 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 DETECTORS ALARM INDICATOR IS NOT READILY VISIBLE TO RESPONDING PERSONNEL SHALL BE PROVIDED WITH A REMOTE INDICATOR(S), REMOTE TEST STATION AND PERMENANT PLACARDING.
- ALL NEW OR EXISTING FIRE ALARM SYSTEMS MUST BE CONNECTED TO ANY EXTERIOR HORN AND STROBE DEVICE. IF THE BUILDING IS FIRE SPRINKLED, A GENERAL ALARM ACTIVATION AT THE FIRE ALARM CONTROL PANEL WILL ACTIVATE THE EXTERIOR HORN AND STROBE. SILENCING THE PANEL MUST ALLOW THE VISUAL DEVICE TO CONTINUE UNTIL THE PANEL IS RESET.
- FIRE ALARM SYSTEMS SHALL INCLUDE BOTH AUDIBLE AND VISUAL ALARMS. VISUAL ALARMS WILL BE REQUIRED IN ALL ACCESSIBLE PUBLIC AND COMMON-USE AREAS PER THE 2009 IFC AND THE 2003 ANSI A117.1 STANDARD.
- PROVIDE A PRIMARY AND SECONDARY POWER SUPPLY FOR THE FIRE ALARM SYSTEM PER THE 2009 IFC AND THE 2007 NFPA 72.
- THE FIRE ALARM INSTALLATION CONTRACTOR MUST COMPLETE THE NFPA 72 "RECORD OF COMPLETION" PRIOR TO SCHEDULING THE AHJ ACCEPTANCE TEST.
- FIELD INSPECTION CONSULTATION IS AVAILABLE UPON REQUEST. CALL 303-739-7420 TO REQUEST CONSULTATION.
- AUDIBLE ALARM SIGNALING DEVICES SHALL EXCEED THE PREVAILING SOUND LEVEL IN A ROOM OR SPACE BY 15 DBA. SOUND LEVELS FOR ALARM SIGNALS SHALL BE 120 DBA MAXIMUM. 2009 IFC SECTION 907.10.2.

MONITORING SERVICE

CENTRAL STATION MONITORING SERVICE:

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

NICET CERTIFICATION

NICET CERTIFICATION

TECHNICAL AREA 00303: LEVEL 3
CERTIFICATE #: 83242
VALID THROUGH: 10/01/17

STEVE SHARP — DATE: 1/23/17

GENERAL NOTES

1. THESE DRAWINGS DEPICT GENERAL LOCATIONS OF LIFE SAFETY EQUIPMENT & FIELD DEVICES. EXACT ROUTING OF CONDUITS IS TO BE DETERMINED IN THE FIELD BY THE INSTALLING CONTRACTOR TO SUIT CONDITIONS. ALL CHANGES SHALL BE CLEARLY INDICATED ON THE RECORD DRAWINGS.
2. SHOULD ANY CONDITIONS EXIST THAT DIFFER FROM WHAT IS INDICATED ON THESE DRAWINGS WHICH CAUSE MAJOR DEVIATIONS IN THE WORK SHOWN, THE CONTRACTOR SHALL CONTACT TYCO SIMPLEXGRINNELL IN A TIMELY MANNER SO AS NOT TO IMPAIR THE CONSTRUCTION SCHEDULE.
3. CONTRACTOR IS RESPONSIBLE FOR MAKING AND OBTAINING APPROVAL FOR ALL NECESSARY ADJUSTMENTS IN CIRCUITING AS REQUIRED TO ACCOMMODATE THE RELOCATION OF EQUIPMENT AND/OR DEVICES WHICH ARE AFFECTED BY ANY AUTHORIZED CHANGE. ALL CHANGES SHALL BE CLEARLY INDICATED ON THE RECORD DRAWINGS.
4. A STAMPED SET OF APPROVED FIRE ALARM DRAWINGS SHALL BE AT THE JOB SITE AND SHALL BE USED FOR INSTALLATION.
5. THE POWER CIRCUIT TO THE FACP AND TO THE FIRE ALARM POWER SUPPLIES SHALL BE ON A DEDICATED 120V, 20A BRANCH CIRCUIT BREAKER, AND SHALL HAVE A RED MARKING, LOCK-ON PROVISION AND SHALL BE IDENTIFIED AS "FIRE ALARM CIRCUIT CONTROL." THE LOCATION OF THE CIRCUIT DISCONNECT MEANS (CIRCUIT BREAKER) SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.
6. UPDATE THE AS-BUILT DRAWING SET DAILY WITH JOB PROGRESS. RETURN THE AS-BUILT DRAWING SET TO TYCO SIMPLEXGRINNELL NO LATER THAN 7 DAYS AFTER FINAL TEST.
7. THE CONTRACTOR WILL MAINTAIN ALL AREAS OF THE BUILDING IN A NEAT AND WORKMANLIKE MANNER.
8. DO NOT APPLY POWER EXCEPT IN THE PRESENCE OF A FACTORY TRAINED TYCO 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 APPLICABLE ELECTRICAL CODES. REFER TO 'APPLICABLE CODES & STANDARDS' FOR SPECIFIC CODE REFERENCES.
12. ALL WIRING SHALL BE INSTALLED ACCORDING TO APPLICABLE ELECTRICAL CODES.
13. FIRE ALARM CIRCUITS SHALL BE IDENTIFIED IN ACCORDANCE WITH APPLICABLE ELECTRICAL CODES. MARK ALL FIRE ALARM WIRES IN ACCORDANCE WITH APPLICABLE ELECTRICAL CODE SECTIONS FOR POWER LIMITED AND NON-POWER LIMITED WIRE.
14 FIRE ALARM CABLE INSTALLED IN DUCTS, PLENUM, AND OTHER SPACES USED FOR ENVIRONMENTAL AIR SHALL BE TYPE FPLP.
15. FIRE ALARM CABLE INSTALLED IN THE VERTICAL RUNS AND PENETRATING MORE THAN ONE FLOOR OR CABLES INSTALLED IN VERTICAL RUNS IN SHAFTS SHALL BE TYPE FPLR.
16. FIRE ALARM CABLE INSTALLED IN UNDERGROUND CONDUIT OR OTHER WET LOCATIONS SHALL BE UL LISTED FOR WET LOCATIONS.
17. FIRE ALARM CIRCUITS EXTENDING BEYOND ONE BUILDING AND RUN OUTDOORS SHALL BE INSTALLED IN ACCORDANCE APPLICABLE ELECTRICAL CODES, 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 MAXIMUM CONDUIT FILL RATIO AS PER APPLICABLE ELECTRICAL CODES REQUIREMENTS.
23. EXISTING CONDUITS MAY BE USED BY THE INSTALLATION CONTRACTOR AS DEEMED NECESSARY; HOWEVER, ANY EXISTING CONDUIT WILL BE USED ONLY IF CONDUITS MEET CURRENT STANDARDS AND CODES. TYCO SIMPLEXGRINNELL MAKES NO STATEMENTS WRITTEN OR VERBAL AS TO THE CONDITION OF EXISTING CONDUITS.

LEGENDS

FIRE ALARM SYMBOL LEGEND

SYMBOL	DESCRIPTION	BRAND	MODEL	BOX CODE	WIRE TYPE
NAC#	4009 NAC EXTENDER PANEL, BEIGE, 120 VAC	SIMPLEX	4009-9001	MFG	
F	DOUBLE ACTION MANUAL PUSH/PULL STATION	SIMPLEX	4099-9006	4G 1E	M
S WG	PHOTOELECTRIC SMOKE SENSOR WITH STANDARD BASE WG = SECURITY VANDAL GUARD, SIMPLEX 4098-9846	SIMPLEX	4098-9714 HEAD 4098-9792 BASE	4A 4K	M
	HEAT SENSOR - ROR - NON ADDRESSABLE 135° WITH RELAY BASE 2-WIRE	SIMPLEX	4098-9613 HEAD 4098-9788 BASE	4A 1B	Z R
AIM	INDIVIDUAL ADDRESSABLE MODULE	SIMPLEX	4090-9001	1F	M Z
AOM P	RELAY IAM	SIMPLEX	4090-9002	4H	M R
R	ENCAPSULATED RELAY PAM-1, SPDT W/ LED, APOLLO AMERICA INC PAM-1	SIMPLEX	2088-9021	1D	R
	EXISTING CHIME/STROBE, WALL MOUNT	SIMPLEX	EXISTING		V
	MULTI-CANDELA CHIME/STROBE, WALL MOUNT, RED, FIRE, CLEAR LENS	SIMPLEX	4906-9133	4A 1B	V
STI	STROBE, WALL MOUNT, RED, FIRE, CLEAR LENS STI = STOPPER DOME, STI-1219	SIMPLEX	4906-9101	1A 4A	V

CODE	BOX SPECIFICATIONS	CODE	BOX SPECIFICATIONS
4A	4" SQ. BOX 1 1/2" DEEP	1F	SINGLE GANG BOX 2 1/2" DEEP W/COVER
4B	4" SQ. BOX 1 1/2" DEEP W/ COVER	1G	SINGLE GANG BOX 2 3/4" DEEP
4C	4" SQ. BOX 1 1/2" DEEP W/ 1 1/2" EXT. RING	1H	SINGLE GANG BOX 3 1/2" DEEP
4D	4" SQ. BOX 2 1/8" DEEP	2A	DOUBLE GANG BOX 2" DEEP
4E	4" SQ. BOX 2 1/8" DEEP W/ COVER	2B	TWO GANG BOX 2 1/2" DEEP
4F	4" SQ. BOX 2 1/8" DEEP W/ 1 1/2" EXT. RING	2C	TWO GANG BOX 2 3/4" DEEP
4G	4" SQ. BOX 2 1/8" DEEP W/ SINGLE GANG COVER	HB	HANDY BOX 1 1/2" DEEP
4H	4" SQ. BOX 2 1/8" DEEP W/ TWO GANG COVER	6A	6 SINGLE GANG BOXES 3 1/2" DEEP
4J	4" SQ. BOX 2 1/2" DEEP	6B	6 GANG BOX
4K	4" OCT. BOX 1 1/2" DEEP	6C	6 GANG BOX 2 1/2" DEEP
4L	4" OCT. BOX 1 1/2" DEEP W/ 1 1/2" EXT. RING	6D	6 GANG BOX 3 1/2" DEEP
4M	4 11/16" SQ. BOX 2 1/8" DEEP	FBO	FURNISHED BY OTHERS
4N	4 11/16" SQ. BOX 1 1/2" DEEP W/ 1 1/2" EXT. RING	MFG	SUPPLIED BY MANUFACTURER
4P	4 11/16" SQ. BOX 2 1/8" DEEP W/ 1 1/2" EXT. RING	MDW	MOUNTS TO DUCTWORK
1A	SINGLE GANG BOX 1 1/2" DEEP	MBD	MOUNTS IN BOX BEHIND DETECTOR
1B	SINGLE GANG BOX 2" DEEP	WM	WALL MOUNT
1C	SINGLE GANG BOX 2 1/8" DEEP	DT	DESK TOP MOUNT
1D	SINGLE GANG BOX 2 1/8" DEEP W/COVER	NR	NO BACKBOX REQUIRED
1E	SINGLE GANG BOX 2 1/2" DEEP	TRM	3.5" WIDE SNAP TRACK W/MOUNTING SCREWS

FOR ADDITIONAL BACK BOX OPTIONS, REFER TO THE XX-700 SERIES DRAWINGS OR PRODUCT DATA SHEETS AND INSTALLATION INSTRUCTIONS.

FIRE ALARM WIRE LIST

	CIRCUIT DESCRIPTION	CONSTRUCTION	GAUGE	CIRCUIT PROPERTIES	ACCEPTABLE CABLE TYPES: FPLR	THHN / TFFN	FPLP	OUTDOOR
V	VISUAL SIGNAL	2 COND. SOLID	14 AWG		X	X	X	
B	RUI+ COMMUNICATION	UTP SOLID	18 AWG	60pf/ft. MAX CAPACITANCE; 3 twists/ft. RECOMMENDED	X		X	
D	DOOR HOLDER	TP SOLID	14 AWG		X	X	X	
K	REMOTE TEST SWITCH/LED	(2) 2 COND. SOLID	14 AWG		X	X	X	
M	IDNET	UTP SOLID	18 AWG		X		X	
P	POWER	2 COND. SOLID	14 AWG		X	X	X	
R	RELAY	2 COND. SOLID	14 AWG		X	X	X	
Z	ZONE (IDC)	2 COND. SOLID	16 AWG		X	X	X	

CONDUIT SIZE	MAX CONDUCTOR AREA	CONDUIT SIZE	MAX CONDUCTOR AREA	NOTES
1/2" 3/4" 1"	0.12 SQ INCH * 0.21 SQ INCH * 0.34 SQ INCH *	1-1/4" 1-1/2" 2"	0.60 SQ INCH * 0.82 SQ INCH * 1.34 SQ INCH *	*40% FILL PER N.E.C. SUBSCRIPT "u": UNSHIELDED CABLES MIXED WITH SHIELDED CABLES OF SAME CIRCUIT DESIGNATION.

**OUTDOOR AERIAL CABLE REQUIRES MESSENGER

ITEMS SUCH AS CAPACITANCE BETWEEN CONDUCTORS AND WIRE GAUGE CAN BE CRUCIAL TO THE CIRCUIT DESIGN OF THIS SYSTEM INSTALLATION. THE INSTALLING CONTRACTOR IS RESPONSIBLE FOR SELECTING AND INSTALLING CABLE MANUFACTURER AND MODEL THAT MEETS OR EXCEEDS THE ABOVE REQUIREMENTS. RECOMMENDED CABLE MANUFACTURERS AND MODEL NUMBERS ARE AVAILABLE UPON REQUEST.

Only highlighted or clouded revisions are approved on this review. All previous comments apply.

Revising Permit # 2016-1214781-LT

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: John J Van Essen
Date: Feb 08, 2017
2015 INTERNATIONAL CODES & 2014 NEC

RSN: 1183061
Permit #2017-1245603-LT

PROJECT DIRECTORY

Site
MEDICAL CENTER OF AURORA
1501 S. POTOMAC ST.
AURORA, CO 80012

Tyco SimplexGrinnell District - 419
14200 E. EXPOSITION AVE
AURORA, CO 80012
PHONE: 303-355-0500
FAX: 303-355-0615
SERVICE: 303-355-0500

Engineer Of Record
PATH 21 ARCHITECTURE
2245 CURTIS ST. STE. 100
DENVER, CO 80205

Installer
MC2 ELECTRICAL
88 LIPAN ST.
DENVER, CO 80223

General Contractor

Owner
MEDICAL CENTER OF AURORA
1501 S. POTOMAC ST.
AURORA, CO 80012

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SCOPE OF WORK

MODIFY EXISTING FIRE ALARM SYSTEM:

PROJECT CONSISTS OF RENOVATION OF 3RD FLOOR PEDIATRIC UNIT CARRYING A MIX OF COSMETIC AND FULL RENOVATION. PROJECT CONSISTS OF APPROXIMATELY 4500 SF. SIMPLEXGRINNELL WILL PROVIDE NEW DEVICES, RELOCATE AND DEMO EXISTING DEVICES AS SHOWN ON THE DRAWINGS.

ALL NEW WIRING TO BE CLASS B.

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

APPLICABLE CODES & STANDARDS

JURISDICTIONS WITHIN THE STATE MAY HAVE AMENDMENTS TO THE STATE ADOPTED CODE. CHECK WITH THE LOCAL JURISDICTION AUTHORITY FOR MORE DETAILS.
CITY OF AURORA:
2015 INTERNATIONAL BUILDING CODE (IBC)
2015 INTERNATIONAL EXISTING BUILDING CODE
2014 NATIONAL ELECTRICAL CODE (NEC)
2015 INTERNATIONAL MECHANICAL CODE
2015 INTERNATIONAL PLUMBING CODE
2015 INTERNATIONAL FIRE CODE
2015 INTERNATIONAL FUEL AND GAS CODE
2015 INTERNATIONAL ENERGY CONSERVATION CODE
2009 ICC/ANSI A117.1 ACCESSIBLE USABLE BUILDINGS AND FACILITIES
STATE OF COLORADO:
2012 NFPA 101 - LIFE SAFETY CODE
2009 CO DEPARTMENT OF HEALTH AND ENVIRONMENT - HOSPITAL LICENSING RULES
FEDERAL:
2010 AMERICANS WITH DISABILITIES ACT GUIDELINES

OCCUPANCY TYPE(S):
2015 IBC - GROUP I-2 (SECTION 308)
CMS - 2012 NFPA 101 - NEW HEALTHCARE OCCUPANCY (CHAPTER 18)
STATE OF COLORADO - 2012 NFPA 101 - NEW HEALTHCARE OCCUPANCY CHAPTER 18
PRINCIPAL OCCUPANCY TYPE: HEALTHCARE

SPRINKLER PROTECTION:
EXISTING: SBC - TYPE 1A, UNRESTRAINED, FULLY SPRINKLERED
NEW: 2015 IBC - TYPE 1A, FULLY SPRINKLERED

ABBREVIATIONS LEGEND

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

DEVICE TAG LEGEND

1:T2:A2:1-1(E1:1)

PANEL DESIGNATOR:
- FA: = FACP (NON-NETWORK)
- #: = NODE NUMBER
- T#: = TRANSPONDER NUMBER
- #:T# = NODE:TRANSPONDER NUMBER
- N#: = NAC EXTENDER NUMBER

CIRCUIT DESIGNATOR:
- A#:# = EPS NUMBER:EPS CHANNEL NUMBER
- D# = DOOR HOLDER CIRCUIT NUMBER
- F# = FIRE PHONE CIRCUIT
- H# = AUDIBLE (HORN) CIRCUIT NUMBER
- M# = IDNET LOOP NUMBER
- P# = POWER CIRCUIT NUMBER
- S# = SPEAKER CIRCUIT NUMBER
- V# = VISUAL CIRCUIT NUMBER
- Z# = ZONE NUMBER

DEVICE NUMBER

BRANCH / ISOLATED LOOP DESIGNATOR:
- (L#) = IDNET ISOLATED LOOP NUMBER
- (#) = IDNAC BRANCH NUMBER
- (E#:#) = ENHANCED POWER REPEATER NUMBER:BRANCH NUMBER

SYSTEM SEQUENCE OF OPERATIONS

SYSTEM OUTPUTS:

CONTROL UNIT ANNUNCIATION / NOTIFICATION / FIRE SAFETY CONTROL / NEW SURGERY RENOVATIONS

- A — ACTUATE COMMON ALARM SIGNAL INDICATOR AT NODE 1 FACP
- B — ACTUATE AUDIBLE ALARM SIGNAL AT NODE 1 FACP
- C — ACTUATE COMMON SUPERVISORY SIGNAL INDICATOR AT NODE 1 FACP
- D — ACTUATE AUDIBLE SUPERVISORY SIGNAL AT NODE 1 FACP
- E — ACTUATE COMMON TROUBLE SIGNAL INDICATOR AT NODE 1 FACP
- F — ACTUATE AUDIBLE TROUBLE SIGNAL AT NODE 1 FACP
- G — ACTUATE APPROPRIATE LOCATION INDICATOR AT NODE 1 FACP
- H — ACTUATE ALL AUDIBLE EVACUATION SIGNALS (3)
- I — ACTUATE ALL VISIBLE EVACUATION SIGNALS (3)
- J — ACTUATE SPRINKLER RISER BELL
- K — ACTUATE EXTERIOR GENERAL ALARM HORN/STROBE
- L — DISPLAY CHANGE OF STATUS
- M — TRANSMIT ALARM SIGNAL TO SUPERVISING STATION
- N — TRANSMIT SUPV. SIGNAL TO SUPERVISING STATION
- O — TRANSMIT TROUBLE SIGNAL TO SUPERVISING STATION
- P — RELEASE MAGNETICALLY HELD SMOKE DOORS & AUTO DOORS
- Q — RELEASE ELEVATOR FIRE DOORS
- R — ELEVATOR SHUNT TRIP
- S — MAIN FLOOR ELEVATOR RECALL
- T — ALTERNATE FLOOR ELEVATOR RECALL
- U — ELEVATOR HAT FLASH
- V — SHUT DOWN ASSOCIATED FAN
- W — CLOSE ASSOCIATED FIRE/SMOKE DAMPER
- X — REMOTELY DISPLAY ACTIVE STATUS
- Y — ACTUATE ASSOCIATED OR 9 EMERG VISUAL N1:T3:A1:2-9 (1)
- Z — ACTUATE ASSOCIATED OR 10 EMERG VISUAL N1:T3:A1:2-10 (1)
- AA — ACTUATE ASSOCIATED OR 8 EMERG VISUAL N1:T3:A1:1-16 (1)
- AB — ACTUATE ASSOCIATED OR 7 EMERG VISUAL N1:T3:A1:1-19 (1)
- AC — ACTUATE ASSOCIATED OR 6 EMERG VISUAL N1:T3:A1:3-2 (1)
- AD — ACTUATE ASSOCIATED OR 5 EMERG VISUAL N1:T3:A1:3-3 (1)
- AE — ACTUATE ASSOCIATED OR 1 EMERG VISUAL N1:T4:A2:2-4 (1)
- AF — ACTUATE ASSOCIATED OR 2 EMERG VISUAL N1:T4:A2:2-3 (1)
- AG — ACTUATE ASSOCIATED OR 3 EMERG VISUAL N1:T4:A2:2-2 (1)
- AH — RELEASE NEW AUTOMATIC DOOR CONTROLS
- AI — RELEASE NEW OR CORRIDOR ACCESS CONTROL
- AJ — SEND ALARM SIGNAL TO DDC (2)
- AK — SEND OR ALARM TO DDC TO INITIATE OR PRESSURIZATION
- AL — SEND EXH FSD SIGNAL TO DDC
- AM — SEND SUPPLY DUCTWORK SIGNAL TO DDC
- AN — SEND RETURN DUCTWORK SIGNAL TO DDC
- AO — SEND OUTSIDE AIR SIGNAL TO DDC

#	SYSTEM INPUTS	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	#	REMARKS
1	SMOKE SENSOR/DETECTOR	•	•					•	•	•		•	•	•			•						•	•	•										•	•							1	
2	MANUAL PULL STATION	•	•					•	•	•		•	•	•			•								•										•	•							2	
3	HEAT SENSOR/DETECTOR	•	•					•	•	•		•	•	•			•								•										•	•							3	
4	DUCT SENSOR/DETECTOR			•	•			•					•		•								•	•	•																		4	
5	MAIN FLR. ELEV. LOBBY SMOKE DETECTOR	•	•					•	•	•		•	•	•			•	•			•				•										•	•							5	
6	ELEVATOR LOBBY SMOKE DETECTORS (EXC. MAIN FLR.)	•	•					•	•	•		•	•	•			•	•		•					•										•	•							6	
7	ELEVATOR MECH. ROOM HEAT DETECTOR	•	•					•	•	•		•	•	•			•	•	•						•										•	•							7	
8	ELEVATOR MECH. ROOM SMOKE DETECTOR	•	•					•	•	•		•	•	•			•	•		•		•			•										•	•							8	
9	ELEVATOR SHAFT HEAT DETECTOR	•	•					•	•	•		•	•	•			•		•						•										•	•							9	
10	WATERFLOW SWITCH	•	•					•	•	•	•	•	•	•			•								•										•	•							10	
11	TAMPER SWITCH			•	•			•				•	•		•										•																		11	
12	POST INDICATOR VALVE SWITCH			•	•			•				•	•		•										•																		12	
13	FIRE ALARM AC POWER FAILURE					•	•					•	•			•	•	•							•																		13	
14	FIRE ALARM SYSTEM LOW BATTERY					•	•					•	•			•									•																		14	
15	OPEN CIRCUIT OR GROUND FAULT					•	•					•	•			•									•																		15	
16	CLASS B NOTIFICATION CIRCUIT (NAC) – SHORT					•	•					•	•			•									•																		16	
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18	SMOKE SENSOR/DETECTOR M10-42,43	•	•					•	•	•		•	•	•			•								•	•	•								•	•	•						18	
19	OR 9 SMOKE SENSOR/DETECTOR M10-52, 53	•	•					•	•	•		•	•	•			•								•	•	•								•	•	•	•					19	
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22	OR 8 SMOKE SENSOR/DETECTOR M10-84,85	•	•					•	•	•		•	•	•			•								•			•	•						•	•	•	•					22	
23	OR 7 SMOKE SENSOR/DETECTOR M10-89,89	•	•					•	•	•		•	•	•			•								•			•	•						•	•	•	•					23	
24	SMOKE SENSOR/DETECTOR M11-62,63	•	•					•	•	•		•	•	•			•								•					•	•				•	•	•						24	
25	OR 5 SMOKE SENSOR/DETECTOR M10-113,114	•	•					•	•	•		•	•	•			•								•					•	•				•	•	•	•					25	
26	OR 6 SMOKE SENSOR/DETECTOR M10-118,119	•	•					•	•	•		•	•	•			•								•					•	•				•	•	•	•					26	
27	SMOKE SENSOR/DETECTOR M11-63,64,65	•	•					•	•	•		•	•	•			•								•							•	•	•	•	•	•						27	
28	OR 1 SMOKE SENSOR/DETECTOR M1:11-45,46		•					•	•	•		•	•	•			•								•							•	•	•	•	•	•	•					28	
29	OR 2 SMOKE SENSOR/DETECTOR M11-48,49		•					•	•	•		•	•	•			•								•							•	•	•	•	•	•	•					29	
30	OR 3 SMOKE SENSOR/DETECTOR M11-51,52		•					•	•	•		•	•	•			•								•							•	•	•	•	•	•	•					30	
31	DUCT SENSOR/DETECTOR AT EXH FSD			•	•			•					•		•										•														•				31	
32	DUCT SENSOR/DETECTOR AT SUP FSD			•	•			•					•		•										•															•			32	
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34	DUCT SENSOR/DETECTOR AT FAN SUPPLY			•	•			•					•		•										•															•			34	
35	DUCT SENSOR/DETECTOR AT FAN RETURN			•	•			•					•		•										•																•		35	
36	DUCT SENSOR/DETECTOR AT FAN OUTSIDE AIR			•	•			•					•		•										•																	•	36	
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO		

NOTES:
1. OPERATING ROOM VISUALS WILL ACTIVATE ONLY ON OPERATING ROOM OR ENTRANCE CORRIDOR ALARM. TO PREVENT ACCIDENTS OPERATING ROOMS WILL BE NOTIFIED OF A GENERAL ALARM CONDITION IN PERSON.
2. OPERATING ROOM SMOKE CONTROL WILL RECEIVE SIGNAL FROM FIRE ALARM CONTROL PANEL.
3. BUILDING IS GENERAL ALARM WITH EXCEPTION OF THE OPERATING ROOM

* NO CHANGES TO EXISTING SEQUENCE OF OPERATIONS PER CURRENT SCOPE OF WORK.

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TMCA CATH LAB - 3RD FLOOR PEDS RENO
MEDICAL CENTER OF AURORA
MEDICAL CENTER OF AURORA
1501 S. POTOMAC ST.
AURORA, CO 80012

Revisions shown with symbol

ISSUE LOG:

MARK	DATE	CAD	CHK	DESCRIPTION
1	12/14/16	CPM	SKS	PER AHJ REVIEW COMMENTS
2	1/23/17	CPM	SKS	PER CONTRACTOR REDLINE MARK-UPS 1/19/17

DRAWN BY:	R.V.
CHECKED BY:	S.S.
ISSUE DATE:	11/17/16
JOB #:	419:435597
PROJECT #:	419:991184502

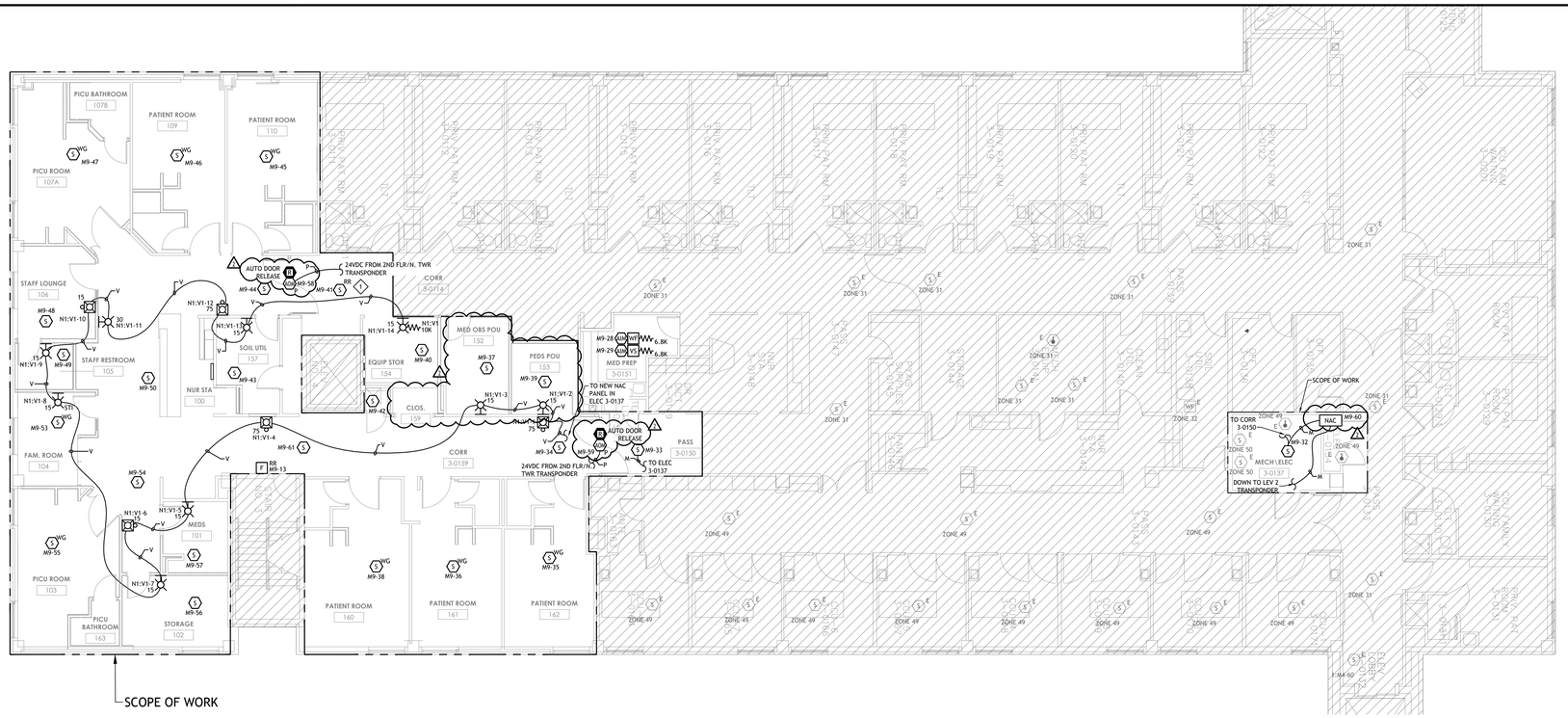
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SYSTEM:
FIRE ALARM SYSTEM

SHEET:
COVER SHEET

FA-000

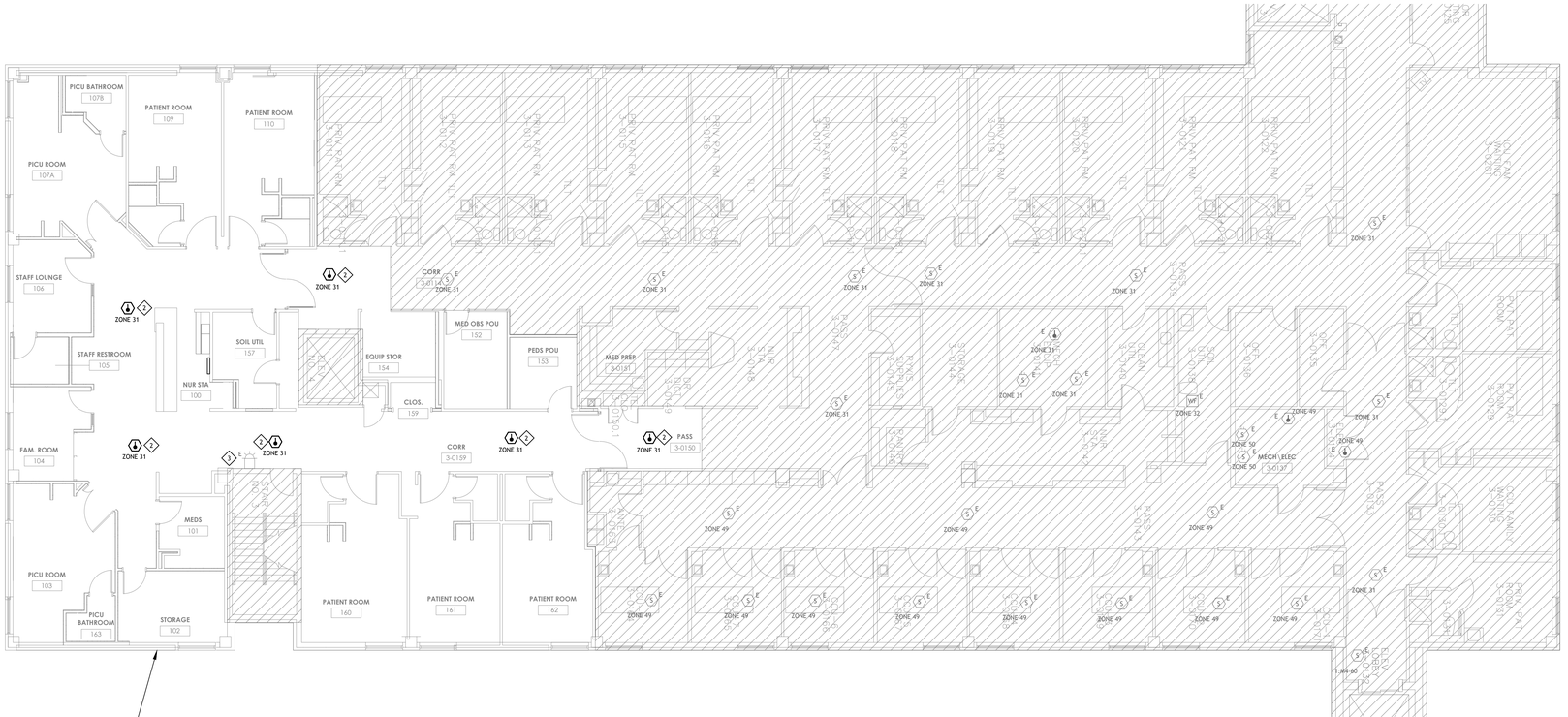
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3RD FLOOR CENTRAL TOWER A - DEVICE PLACEMENT PLAN

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

0 4 8 16 (IN FEET)



3RD FLOOR CENTRAL TOWER A INTERIM LIFE SAFETY - DEVICE PLACEMENT PLAN

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

0 4 8 16 (IN FEET)

GENERAL NOTES:

1. ALL CEILINGS ARE ASSUMED TO BE 10' A.F.F., SMOOTH CONSTRUCTION UNLESS NOTED OTHERWISE.
2. ALL NOTIFICATION APPLIANCE CANDELA INTENSITY PLUGS SHALL RETAIN THEIR FACTORY SETTING OF 'FACP' UNLESS OTHERWISE DIRECTED BY THE AUTHORITY HAVING JURISDICTION.
3. FINAL WIRE ROUTES TO BE PROVIDED ON RECORD DRAWINGS.

KEYNOTES:

1. **MOVE DEVICE TO NEW CIRCUIT FROM LEVEL 2 TRANSPONDER, M9.**
2. **REPLACE EXISTING SMOKES WITH TEMPORARY HEATS FOR INTERIM LIFE SAFETY. WHEN NEW DEVICES ARE OPERABLE AND CONSTRUCTION AREA IS COMPLETE DEMO INTERIM LIFE SAFETY HEAT DETECTORS AND WIRING. CUT BACK ZONE 31 WIRING TO EXISTING HEAT DETECTORS AND RELOCATE EOLR.**
3. **EXISTING CHIME/STROBE TO REMAIM FOR INTERIM LIFE SAFETY. WHEN NEW DEVICES ARE OPERABLE AND CONSTRUCTION AREA IS COMPLETE DEMO INTERIM LIFE SAFETY EXISTING CHIME/STROBE AND WIRING. CUT BACK WIRING TO EXISTING CHIME/STROBE AND RELOCATE EOLR.**

⚠ FIRE ALARM SYMBOL LEGEND

SYMBOL	DESCRIPTION	BRAND	MODEL	BOX CODE	WIRE TYPE
NAC#	4009 NAC EXTENDER PANEL, BEIGE, 120 VAC	SIMPLEX	4009-9001	MFG	
F	DOUBLE ACTION MANUAL PUSH/PULL STATION	SIMPLEX	4099-9006	4G 1E	M
S WG	PHOTOELECTRIC SMOKE SENSOR WITH STANDARD BASE WG = SECURITY VANDAL GUARD, SIMPLEX 4098-9846	SIMPLEX	4098-9714 HEAD 4098-9792 BASE	4A 4K	M
H	HEAT SENSOR - ROR - NON ADDRESSABLE 135° WITH RELAY BASE 2-WIRE	SIMPLEX	4098-9613 HEAD 4098-9788 BASE	4A 1B	Z R
AIM	INDIVIDUAL ADDRESSABLE MODULE	SIMPLEX	4090-9001	1F	M Z
AOM P	RELAY 1AM	SIMPLEX	4090-9002	4H	M R
M	ENCAPSULATED RELAY PAM-1, SPDT W/ LED, APOLLO AMERICA INC PAM-1	SIMPLEX	2088-9021	1D	R
	EXISTING CHIME/STROBE, WALL MOUNT	SIMPLEX	EXISTING		V
	MULTI-CANDELA CHIME/STROBE, WALL MOUNT, RED, FIRE, CLEAR LENS	SIMPLEX	4906-9133	4A 1B	V
STI	STROBE, WALL MOUNT, RED, FIRE, CLEAR LENS STI = STOPPER DOME, STI-1219	SIMPLEX	4906-9101	1A 4A	V

CODE BOX SPECIFICATIONS		CODE BOX SPECIFICATIONS	
4A	4" SQ. BOX 1 1/2" DEEP	1F	SINGLE GANG BOX 2 1/2" DEEP W/COVER
4B	4" SQ. BOX 1 1/2" DEEP W/ COVER	1G	SINGLE GANG BOX 2 3/4" DEEP
4C	4" SQ. BOX 1 1/2" DEEP W/ 1 1/2" EXT. RING	1H	SINGLE GANG BOX 3 1/2" DEEP
4D	4" SQ. BOX 2 1/8" DEEP	2A	DOUBLE GANG BOX 2" DEEP
4E	4" SQ. BOX 2 1/8" DEEP W/ COVER	2B	TWO GANG BOX 2 1/2" DEEP
4F	4" SQ. BOX 2 1/8" DEEP W/ 1 1/2" EXT. RING	2C	TWO GANG BOX 2 3/4" DEEP
4G	4" SQ. BOX 2 1/8" DEEP W/ SINGLE GANG COVER	HB	HANDY BOX 1 1/2" DEEP
4H	4" SQ. BOX 2 1/8" DEEP W/ TWO GANG COVER	6A	6 SINGLE GANG BOXES 3 1/2" DEEP
4J	4" SQ. BOX 2 1/2" DEEP	6B	6 GANG BOX
4K	4" OCT. BOX 1 1/2" DEEP	6C	6 GANG BOX 2 1/2" DEEP
4L	4" OCT. BOX 1 1/2" DEEP W/ 1 1/2" EXT. RING	6D	6 GANG BOX 3 1/2" DEEP
4M	4 11/16" SQ. BOX 2 1/8" DEEP	FBO	FURNISHED BY OTHERS
4N	4 11/16" SQ. BOX 1 1/2" DEEP W/ 1 1/2" EXT. RING	MFG	SUPPLIED BY MANUFACTURER
4P	4 11/16" SQ. BOX 2 1/8" DEEP W/ 1 1/2" EXT. RING	MDW	MOUNTS TO DUCTWORK
1A	SINGLE GANG BOX 1 1/2" DEEP	MBD	MOUNTS IN BOX BEHIND DETECTOR
1B	SINGLE GANG BOX 2" DEEP	WM	WALL MOUNT
1C	SINGLE GANG BOX 2 1/8" DEEP	DT	DESK TOP MOUNT
1D	SINGLE GANG BOX 2 1/8" DEEP W/COVER	NR	NO BACKBOX REQUIRED
1E	SINGLE GANG BOX 2 1/2" DEEP	TRM	3.5" WIDE SNAP TRACK W/MOUNTING SCREWS

FOR ADDITIONAL BACK BOX OPTIONS, REFER TO THE XX-700 SERIES DRAWINGS OR PRODUCT DATA SHEETS AND INSTALLATION INSTRUCTIONS.

FIRE ALARM WIRE LIST

	CIRCUIT DESCRIPTION	CONSTRUCTION	GAUGE	CIRCUIT PROPERTIES	ACCEPTABLE CABLE TYPES FPLR	THHN/ TFFN	FPLP	OUTDOOR
V	VISUAL SIGNAL	2 COND. SOLID	14 AWG		X	X	X	
B	RUI+ COMMUNICATION	UTP SOLID	18 AWG	60pF/ft. MAX CAPACITANCE; 3 twists/ft. RECOMMENDED	X		X	
D	DOOR HOLDER	TP SOLID	14 AWG		X	X	X	
K	REMOTE TEST SWITCH/LED	(2) 2 COND. SOLID	14 AWG		X	X	X	
M	IDNET	UTP SOLID	18 AWG		X		X	
P	POWER	2 COND. SOLID	14 AWG		X	X	X	
R	RELAY	2 COND. SOLID	14 AWG		X	X	X	
Z	ZONE (IDC)	2 COND. SOLID	16 AWG		X	X	X	

CONDUIT SIZE	MAX CONDUCTOR AREA	CONDUIT SIZE	MAX CONDUCTOR AREA	NOTES
1/2"	0.12 SQ INCH *	1-1/4"	0.60 SQ INCH *	*40% FILL PER N.E.C.
3/4"	0.21 SQ INCH *	1-1/2"	0.82 SQ INCH *	SUBSCRIPT "s": UNSHIELDED CABLES MIXED WITH SHIELDED
1"	0.34 SQ INCH *	2"	1.34 SQ INCH *	CABLES OF SAME CIRCUIT DESIGNATION.

**OUTDOOR AERIAL CABLE REQUIRES MESSENGER

ITEMS SUCH AS CAPACITANCE BETWEEN CONDUCTORS AND WIRE GAUGE CAN BE CRUCIAL TO THE CIRCUIT DESIGN OF THIS SYSTEM INSTALLATION. THE INSTALLING CONTRACTOR IS RESPONSIBLE FOR SELECTING AND INSTALLING CABLE MANUFACTURER AND MODEL THAT MEETS OR EXCEEDS THE ABOVE REQUIREMENTS. RECOMMENDED CABLE MANUFACTURERS AND MODEL NUMBERS ARE AVAILABLE UPON REQUEST.

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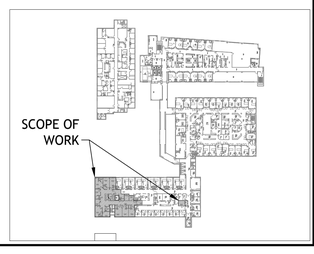
Revising Permit # 2016-1214781-LT

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: John J Van Essen
Date: Feb 08, 2017
2015 INTERNATIONAL CODES & 2014 NEC
RSN: 1183061
Permit #2017-1245603-LT

NICET CERTIFICATION

TECHNICAL AREA 00303: LEVEL 3
CERTIFICATE #: 83242
VALID THROUGH: 10/01/17

STEVE SHARP — 1/23/17 DATE



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MEDICAL CENTER OF AURORA

MEDICAL CENTER OF AURORA
1501 S. POTOMAC ST.
AURORA, CO 80012

Revisions shown with ⚠ symbol

ISSUE LOG: MARK	DATE	CAD	CHK	DESCRIPTION
1	10/31/16	JPM	SKS	PERMIT SUBMITTAL FOR COMMENTS
2	1/23/17	JPM	SKS	PER CONTRACTOR REQUIRE MARKUPS 1/19/17

DRAWN BY:	R.V.
CHECKED BY:	S.S.
ISSUE DATE:	11/17/16
JOB #:	419-435597
PROJECT #:	419-99118502

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SYSTEM: FIRE ALARM SYSTEM

SHEET: 3RD FLOOR CENTRAL TOWER A - DEVICE PLACEMENT PLAN

FA-101

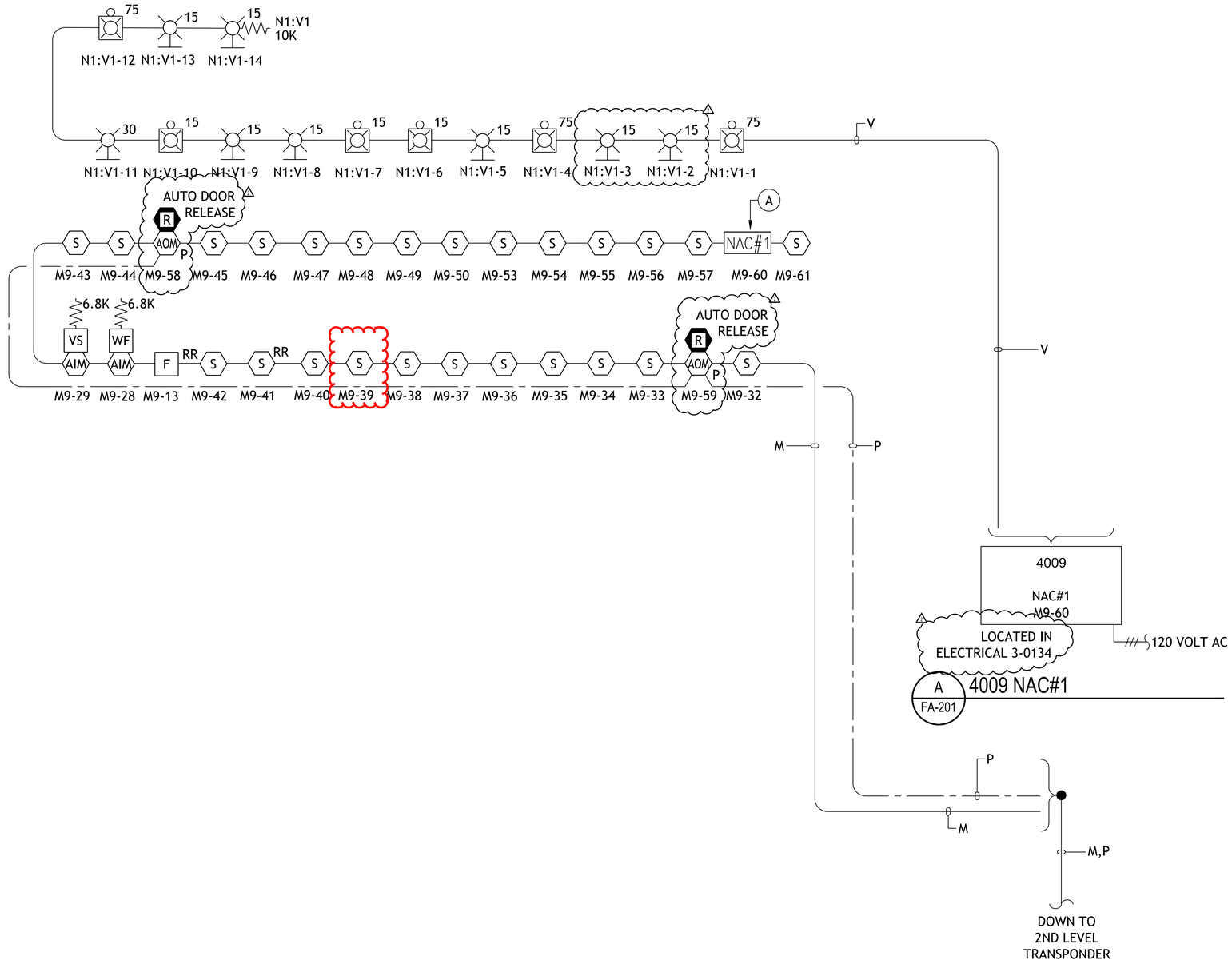
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LAST PRINTED: 1/2/2017 8:14:12 AM

LAST SAVED BY: CAMDEN

30" x 42" - Arch E1 Size



PARTIAL RISER DIAGRAM

SCALE: NTS

RISER NOTES:

1. RISER IS A DIAGRAMMATICAL REPRESENTATION OF THE SYSTEM ARCHITECTURE IN BUILDING CROSS SECTION. IT IS NOT INTENDED TO REPRESENT ACTUAL WIRE RUNS, PANEL CONFIGURATIONS OR PENETRATIONS. REFER TO FLOOR PLANS AND PANEL DETAILS FOR CIRCUIT ROUTING AND CONFIGURATION INFORMATION.
2. ALL WIRING SHALL COMPLY WITH APPLICABLE ELECTRICAL CODES. REFER TO APPLICABLE CODES & STANDARDS' ON SHEET FA-000 FOR SPECIFIC CODE REFERENCES.
3. DEVICES ARE TYPICAL. SEE FLOOR PLAN FOR QUANTITY & LOCATIONS.

⚠ FIRE ALARM SYMBOL LEGEND

SYMBOL	DESCRIPTION	BRAND	MODEL	BOX CODE	WIRE TYPE
NAC#	4009 NAC EXTENDER PANEL, BEIGE, 120 VAC	SIMPLEX	4009-9001	MFG	
F	DOUBLE ACTION MANUAL PUSH/PULL STATION	SIMPLEX	4099-9006	4G 1E	M
WG	PHOTOELECTRIC SMOKE SENSOR WITH STANDARD BASE WG = SECURITY VANDAL GUARD, SIMPLEX 4098-9846	SIMPLEX	4098-9714 HEAD 4098-9792 BASE	4A 4K	M
	HEAT SENSOR - ROR - NON ADDRESSABLE 135˚ WITH RELAY BASE 2-WIRE	SIMPLEX	4098-9613 HEAD 4098-9788 BASE	4A 1B	Z R
AIM	INDIVIDUAL ADDRESSABLE MODULE	SIMPLEX	4090-9001	1F	M Z
AOM P	RELAY IAM	SIMPLEX	4090-9002	4H	M R
R	ENCAPSULATED RELAY PAM-1, SPDT W/ LED, APOLLO AMERICA INC PAM-1	SIMPLEX	2088-9021	1D	R
	EXISTING CHIME/STROBE, WALL MOUNT	SIMPLEX	EXISTING		V
	MULTI-CANDELA CHIME/STROBE, WALL MOUNT, RED, FIRE, CLEAR LENS	SIMPLEX	4906-9133	4A 1B	V
STI	STROBE, WALL MOUNT, RED, FIRE, CLEAR LENS STI = STOPPER DOME, STI-1219	SIMPLEX	4906-9101	1A 4A	V

CODE	BOX SPECIFICATIONS	CODE	BOX SPECIFICATIONS
4A	4" SQ. BOX 1 1/2" DEEP	1F	SINGLE GANG BOX 2 1/2" DEEP W/COVER
4B	4" SQ. BOX 1 1/2" DEEP W/ COVER	1G	SINGLE GANG BOX 2 3/4" DEEP
4C	4" SQ. BOX 1 1/2" DEEP W/ 1 1/2" EXT. RING	1H	SINGLE GANG BOX 3 1/2" DEEP
4D	4" SQ. BOX 2 1/8" DEEP	2A	DOUBLE GANG BOX 2" DEEP
4E	4" SQ. BOX 2 1/8" DEEP W/ COVER	2B	TWO GANG BOX 2 1/2" DEEP
4F	4" SQ. BOX 2 1/8" DEEP W/ 1 1/2" EXT. RING	2C	TWO GANG BOX 2 3/4" DEEP
4G	4" SQ. BOX 2 1/8" DEEP W/ SINGLE GANG COVER	HB	HANDY BOX 1 1/2" DEEP
4H	4" SQ. BOX 2 1/8" DEEP W/ TWO GANG COVER	6A	6 SINGLE GANG BOXES 3 1/2" DEEP
4J	4" SQ. BOX 2 1/2" DEEP	6B	6 GANG BOX
4K	4" OCT. BOX 1 1/2" DEEP	6C	6 GANG BOX 2 1/2" DEEP
4L	4" OCT. BOX 1 1/2" DEEP W/ 1 1/2" EXT. RING	6D	6 GANG BOX 3 1/2" DEEP
4M	4 11/16" SQ. BOX 2 1/8" DEEP	FBO	FURNISHED BY OTHERS
4N	4 11/16" SQ. BOX 1 1/2" DEEP W/ 1 1/2" EXT. RING	MFG	SUPPLIED BY MANUFACTURER
4P	4 11/16" SQ. BOX 2 1/8" DEEP W/ 1 1/2" EXT. RING	MDW	MOUNTS TO DUCTWORK
1A	SINGLE GANG BOX 1 1/2" DEEP	MBD	MOUNTS IN BOX BEHIND DETECTOR
1B	SINGLE GANG BOX 2" DEEP	WM	WALL MOUNT
1C	SINGLE GANG BOX 2 1/8" DEEP	DT	DESK TOP MOUNT
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FIRE ALARM WIRE LIST

	CIRCUIT DESCRIPTION	CONSTRUCTION	GAUGE	CIRCUIT PROPERTIES	ACCEPTABLE CABLE TYPES: FPLR	THHN / TFFN	FPLP	OUTDOOR
V	VISUAL SIGNAL	2 COND. SOLID	14 AWG		X	X	X	
B	RUI+ COMMUNICATION	UTP SOLID	18 AWG	60pf/ft. MAX CAPACITANCE; 3 twists/ft. RECOMMENDED	X		X	
D	DOOR HOLDER	TP SOLID	14 AWG		X	X	X	
K	REMOTE TEST SWITCH/LED	(2) 2 COND. SOLID	14 AWG		X	X	X	
M	IDNET	UTP SOLID	18 AWG		X		X	
P	POWER	2 COND. SOLID	14 AWG		X	X	X	
R	RELAY	2 COND. SOLID	14 AWG		X	X	X	
Z	ZONE (IDC)	2 COND. SOLID	16 AWG		X	X	X	

CONDUIT SIZE	MAX CONDUCTOR AREA	CONDUIT SIZE	MAX CONDUCTOR AREA	NOTES
1/2"	0.12 SQ INCH *	1-1/4"	0.60 SQ INCH *	*40% FILL PER N.E.C.
3/4"	0.21 SQ INCH *	1-1/2"	0.82 SQ INCH *	SUBSCRIPT 'u's: UNSHIELDED CABLES MIXED WITH SHIELDED
1"	0.34 SQ INCH *	2"	1.34 SQ INCH *	CABLES OF SAME CIRCUIT DESIGNATION.

**OUTDOOR AERIAL CABLE REQUIRES MESSENGER

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1501 S. POTOMAC ST.
AURORA, CO 80012

ISSUE LOG:

MARK	DATE	CHK	DESCRIPTION
1	1/23/17	SMS	REVISIONS PER COMMENTS
2			PER CONTRACTOR REQUIREMENTS

Revisions shown with ⚠ symbol

DRAWN BY:	R.V.
CHECKED BY:	S.S.
ISSUE DATE:	11/17/16
JOB #:	419-435597
PROJECT #:	419-99118450

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SYSTEM: FIRE ALARM SYSTEM

SHEET: PARTIAL RISER DIAGRAM

FA-201

FILE PATH: G:\Medical Center of Aurora\1501 S Potomac - Aurora South\South Tower - Node 1122 Cat Lab Expansion - 2016 - 99118450\2016 3rd Floor PEDS Renovation - Phase 1\Cath Lab Peds Reno\Working Dr.awings\FA-201 RISER DIAGRAM.dwg
LAST SAVED BY: CAMDEN
LAST PRINTED: 2/2/2017 9:14:15 AM
30" x 42" - Arch E1 Size

IDNET CHANNEL 1:M9		ADDRESSES IN USE: 84 (33.6%) | SPARE ADDRESSES: 166 (66.4%)		SWITCH SETTINGS								
Address	Device Type	Point Type	Location Description	1	2	3	4	5	6	7	8	9
1:M9-1	*PHOTO*	*SMOKE*	*1:M9-1 2ND FL P-PARTUM PATIENT RM 201*	X							ON	
1:M9-2	*PHOTO*	*SMOKE*	*1:M9-2 2ND FL P-PARTUM PATIENT RM 202*		X						ON	
1:M9-3	*PHOTO*	*SMOKE*	*1:M9-3 2ND FL P-PARTUM PATIENT RM 203*	X	X						ON	
1:M9-4	*PHOTO*	*SMOKE*	*1:M9-4 2ND FL P-PARTUM PATIENT RM 204*			X					ON	
1:M9-5	*PHOTO*	*SMOKE*	*1:M9-5 2ND FL P-PARTUM PATIENT RM 205*	X		X					ON	
1:M9-6	*PHOTO*	*SMOKE*	*1:M9-6 2ND FL P-PARTUM PATIENT RM 206*		X	X					ON	
1:M9-7	*PHOTO*	*SMOKE*	*1:M9-7 2ND FL P-PARTUM PATIENT RM 207*	X	X	X					ON	
1:M9-8	*PHOTO*	*SMOKE*	*1:M9-8 2ND FL P-PARTUM PATIENT RM 208*				X				ON	
1:M9-9	*PHOTO*	*SMOKE*	*1:M9-9 2ND FL P-PARTUM PATIENT RM 209*	X			X				ON	
1:M9-10	*PHOTO*	*SMOKE*	*1:M9-10 2ND FL P-PARTUM PATIENT RM 210*		X		X				ON	
1:M9-11	*PHOTO*	*SMOKE*	*1:M9-11 2ND FL P-PARTUM PATIENT RM 211*	X	X		X				ON	
1:M9-12	*PHOTO*	*SMOKE*	*1:M9-12 2ND FL P-PARTUM PATIENT RM 212*			X	X				ON	
1:M9-13	**ADRPUL**	**PULL**	**1:M9-13 3RD FL TWR A STAIR 3**	X		X	X				ON	
1:M9-14	*PHOTO*	*SMOKE*	*1:M9-14 2ND FL P-PARTUM PATIENT RM 214*		X	X	X				ON	
1:M9-15	*PHOTO*	*SMOKE*	*1:M9-15 2ND FL P-PARTUM PATIENT RM 215*	X	X	X	X				ON	
1:M9-16	*PHOTO*	*SMOKE*	*1:M9-16 2ND FL P-PARTUM PATIENT RM 216*					X			ON	
1:M9-17	*PHOTO*	*SMOKE*	*1:M9-17 2ND FL P-PARTUM PATIENT RM 217*	X				X			ON	
1:M9-18	*PHOTO*	*SMOKE*	*1:M9-18 2ND FL P-PARTUM PATIENT RM 218*		X			X			ON	
1:M9-19	*PHOTO*	*SMOKE*	*1:M9-19 2ND FL P-PARTUM PATIENT RM 219*	X	X			X			ON	
1:M9-20	*PHOTO*	*SMOKE*	*1:M9-20 2ND FL P-PARTUM PATIENT RM 220*			X		X			ON	
1:M9-21	*PHOTO*	*SMOKE*	*1:M9-21 2ND FL P-PARTUM PATIENT RM 221*	X		X		X			ON	
1:M9-22	*PHOTO*	*SMOKE*	*1:M9-22 2ND FL P-PARTUM PATIENT RM 222*		X	X		X			ON	
1:M9-23	*PHOTO*	*SMOKE*	*1:M9-23 2ND FL P-PARTUM PATIENT RM 223*	X	X	X		X			ON	
1:M9-24	*PHOTO*	*SMOKE*	*1:M9-24 2ND FL P-PARTUM PATIENT RM 224*				X	X			ON	
1:M9-25	*PHOTO*	*SMOKE*	*1:M9-25 2ND FL P-PARTUM PATIENT RM 225*	X			X	X			ON	
1:M9-26	*PHOTO*	*SMOKE*	*1:M9-26 2ND FL P-PARTUM PATIENT RM 226*		X		X	X			ON	
1:M9-27	*PHOTO*	*SMOKE*	*1:M9-27 2ND FL P-PARTUM WAITING RM 227*	X	X		X	X			ON	
1:M9-28	**IAM**	**WATER**	**1:M9-28 3RD FL PEDS WATERFLOW**			X	X	X			ON	
1:M9-29	**IAM**	**LATSUPV**	**1:M9-29 3RD FL PEDS TAMPER**	X		X	X	X			ON	
1:M9-30	**PHOTO**	**SMOKE**	**1:M9-30 2ND FL P-PARTUM ON-CALL RM 200**		X	X	X	X			ON	
1:M9-31	*PHOTO*	*SMOKE*	*1:M9-31 2ND FL P-PARTUM WAITING RM 234*	X	X	X	X	X			ON	
1:M9-32	**PHOTO**	**SMOKE**	**1:M9-32 3RD FL ELEC 3-0137**						X		ON	
1:M9-33	**PHOTO**	**SMOKE**	**1:M9-33 3RD FL PASS 3-0150**	X					X		ON	
1:M9-34	**PHOTO**	**SMOKE**	**1:M9-34 3RD FL PEDS CORR 3-0159**		X				X		ON	
1:M9-35	**PHOTO**	**SMOKE**	**1:M9-35 3RD FL PEDS PAT RM162**	X	X				X		ON	
1:M9-36	**PHOTO**	**SMOKE**	**1:M9-36 3RD FL PEDS PAT RM161**			X			X		ON	
1:M9-37	**PHOTO**	**SMOKE**	**1:M9-37 3RD FL PEDS SHARED CU 152**	X		X			X		ON	
1:M9-38	**PHOTO**	**SMOKE**	**1:M9-38 3RD FL PEDS PAT RM160**		X	X			X		ON	
1:M9-39	**PHOTO**	**SMOKE**	**1:M9-39 3RD FL PEDS CLOSET 159**	X	X	X			X		ON	
1:M9-40	**PHOTO**	**SMOKE**	**1:M9-40 3RD FL PEDS EQUIP RM154**				X		X		ON	
1:M9-41	**PHOTO**	**SMOKE**	**1:M9-41 3RD FL PEDS ELEV LOBBY**	X			X		X		ON	
1:M9-42	**PHOTO**	**SMOKE**	**1:M9-42 3RD FL PEDS CLOSET BY 159**		X		X		X		ON	
1:M9-43	**PHOTO**	**SMOKE**	**1:M9-43 3RD FL PEDS SOUL RM157**	X	X		X		X		ON	
1:M9-44	**PHOTO**	**SMOKE**	**1:M9-44 3RD FL PEDS CORR BY RM157**			X	X		X		ON	
1:M9-45	**PHOTO**	**SMOKE**	**1:M9-45 3RD FL PEDS PAT RM110**	X		X	X		X		ON	
1:M9-46	**PHOTO**	**SMOKE**	**1:M9-46 3RD FL PEDS PAT RM109**		X	X	X		X		ON	
1:M9-47	**PHOTO**	**SMOKE**	**1:M9-47 3RD FL PEDS PICU RM107A**	X	X	X	X		X		ON	
1:M9-48	**PHOTO**	**SMOKE**	**1:M9-48 3RD FL PEDS STAFF LOUNGE 106**					X	X		ON	
1:M9-49	**PHOTO**	**SMOKE**	**1:M9-49 3RD FL PEDS STAFF RR 105**	X				X	X		ON	
1:M9-50	**PHOTO**	**SMOKE**	**1:M9-50 3RD FL PEDS NURSE STATION 100**		X			X	X		ON	
1:M9-51	*PHOTO*	*SMOKE*	*1:M9-51 2ND FL P-PARTUM NORTH CORR*	X	X			X	X		ON	
1:M9-52	*PHOTO*	*SMOKE*	*1:M9-52 2ND FL P-PARTUM 2A-HALL-01*			X		X	X		ON	
1:M9-53	**PHOTO**	**SMOKE**	**1:M9-53 3RD FL PEDS FAM RM104**	X		X		X	X		ON	
1:M9-54	**PHOTO**	**SMOKE**	**1:M9-54 3RD FL PEDS CORR PICU RM103**		X	X		X	X		ON	
1:M9-55	**PHOTO**	**SMOKE**	**1:M9-55 3RD FL PEDS PICU RM103**	X	X	X		X	X		ON	
1:M9-56	**PHOTO**	**SMOKE**	**1:M9-56 3RD FL PEDS MEDS 101**				X	X	X		ON	
1:M9-57	**PHOTO**	**SMOKE**	**1:M9-57 3RD FL PEDS STRG 102**	X			X	X	X		ON	
1:M9-58	**RIAM**	**DHOLDER**	**1:M9-58 3RD FL PEDS ELEV LOBBY**		X		X	X	X		ON	
1:M9-59	**RIAM**	**DHOLDER**	**1:M9-59 3RD FL TEL CLOSET 3-0150.1**	X	X		X	X	X		ON	
1:M9-60	**NAC4PT**	**SIGNAL**	**1:M9-60 3RD FL PEDS ELEC 3-0137**			X	X	X	X		ON	
1:M9-61	**PHOTO**	**SMOKE**	**1:M9-61 3RD FL PEDS CORR 3-0159**	X		X	X	X	X		ON	
1:M9-62			*SPARE*		X	X	X	X			ON	
1:M9-63	*ADRPUL*	*PULL*	*1:M9-63 2ND FL P-PARTUM NURSE 248*	X	X	X	X	X	X		ON	
1:M9-64			*SPARE*						X		ON	
1:M9-65			*SPARE*	X					X		ON	
1:M9-66			*SPARE*		X				X		ON	
1:M9-67			*SPARE*	X	X				X		ON	
1:M9-68			*SPARE*			X			X		ON	
1:M9-69			*SPARE*	X		X			X		ON	
1:M9-70	*PHOTO*	*SMOKE*	*1:M9-70 2ND FL L&D NURSERY 254*		X	X			X		ON	
1:M9-71	*PHOTO*	*SMOKE*	*1:M9-71 2ND FL L&D NURSING STATION C*	X	X	X			X		ON	
1:M9-72	*PHOTO*	*SMOKE*	*1:M9-72 2ND FL L&D MEDICATION 258*				X		X		ON	
1:M9-73	*PHOTO*	*SMOKE*	*1:M9-73 2ND FL L&D BATH 258B*	X			X		X		ON	
1:M9-74	*PHOTO*	*SMOKE*	*1:M9-74 2ND FL L&D SUPPLY SCAN*		X		X		X		ON	
1:M9-75	*PHOTO*	*SMOKE*	*1:M9-75 2ND FL L&D ISOLATION ROOM 1*	X	X		X		X		ON	
1:M9-76	*PHOTO*	*SMOKE*	*1:M9-76 2ND FL L&D ISOLATION ROOM 2*			X	X		X		ON	
1:M9-77	*PHOTO*	*SMOKE*	*1:M9-77 2ND FL L&D SLEEP ROOM*	X		X	X		X		ON	
1:M9-78	*PHOTO*	*SMOKE*	*1:M9-78 2ND FL L&D NURSEY 257*		X	X	X		X		ON	
1:M9-79	*PHOTO*	*SMOKE*	*1:M9-79 2ND FL L&D DELIVERY WEST*	X	X	X	X		X		ON	
1:M9-80	*PHOTO*	*SMOKE*	*1:M9-80 2ND FL L&D SOILED UTILITY 269*					X	X		ON	
1:M9-81	*PHOTO*	*SMOKE*	*1:M9-81 2ND FL L&D GOWN-SCRUB AREA 256*	X				X	X		ON	
1:M9-82	*PHOTO*	*SMOKE*	*1:M9-82 2ND FL L&D NURSERY 255*		X			X	X		ON	
1:M9-83	*ADRPUL*	*SMOKE*	*1:M9-83 2ND FL P-PARTUM NURSE STATION*	X	X			X	X		ON	
1:M9-84	*ADRPUL*	*SMOKE*	*1:M9-84 2ND FL P-PARTUM MAIN ENTRY*			X		X	X		ON	
1:M9-85			*SPARE*	X		X		X	X		ON	
THRU												
1:M9-246			*SPARE*		X	X		X	X	X	ON	
1:M9-247	*IDNETTISO*	*ISO*	*1:M9-247 ND FL P-PARTUM*	X	X	X		X	X	X	ON	
1:M9-248	*IDNETTISO*	*ISO*	*1:M9-248 2ND FL P-PARTUM*				X	X	X	X	ON	
1:M9-249	*IDNETTISO*	*ISO*	*1:M9-249 2ND FL P-PARTUM*	X			X	X	X	X	ON	
1:M9-250	*IDNETTISO*	*ISO*	*1:M9-250 2ND FL P-PARTUM*		X		X	X	X	X	ON	

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

TMCA CENTRAL TOWER A XPR 2 - LEV 2 4100u XPDR VOLTAGE DROPS

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

												PID	4906-9101	4906-9104	4906-9104	RSS-24MCW-FR	CH70-24MCW-FR	CH70-24-R
												Candela	15cd	15cd	75cd	15cd	15cd	
												Device Type	MC V/O	MC CEIL V/O	MC CEIL V/O	MC V/O	MC A/V	CHIME
												Supv. Current	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
												Alarm Current	0.0600	0.0750	0.2330	0.0600	0.0600	0.0220
												Alarm Current @ 23 Volts	0.0600	0.0750	0.2330	0.0600	0.0600	0.0220
NOTIFICATION CIRCUIT DESCRIPTION	Power Supply	Panel Circuit	Plan Ckt.	Dist. (D) Feet	Wire Gauge	Wire Res. / Ft. (R)	Total Alarm (A)	V. Drop (A*2D*R)	Volt @ End	% Volt Drop	Min Device Voltage	Max Distance						
2ND FLR PORT PARTUM STROBES	*RPS-2*	*SIG3*	*SIG81*	*440*	*14ga*	*0.0031*	**0.780**	*2.107*	*17.393*	*10.81%*	*16vdc*	*731 Ft.*				*3*	*10*	
2ND FLR C-SECTION SCRUB STROBES	*RPS-2*	*SIG4*	*SIG82*	*500*	*14ga*	*0.0031*	**0.660**	*2.026*	*17.474*	*10.39%*	*16vdc*	*864 Ft.*				*5*	*6*	
2ND FLR POST PARTUM CHIMES	*RPS-2*	*SIG5*	*SIG83*	*750*	*14ga*	*0.0031*	**0.352**	*1.621*	*17.879*	*8.31%*	*16vdc*	*1619 Ft.*						*16*
2ND FLR NICU STROBES	*XPS-1*	*SIG6*	*SIG87*	*550*	*14ga*	*0.0031*	**0.660**	*2.229*	*17.271*	*11.43%*	*16vdc*	*864 Ft.*				*3*	*8*	
2ND FLR NICU CHIMES	*XPS-1*	*SIG7*	*SIG88*	*550*	*14ga*	*0.0031*	**0.176**	*0.594*	*18.906*	*3.05%*	*16vdc*	*3239 Ft.*						*8*
2ND FLR POST PARTUM CHIMES/STR OLD	*XPS-1*	*SIG8*	*SIG89*	*200*	*14ga*	*0.0031*	**0.661**	*0.812*	*18.688*	*4.16%*	*16vdc*	*862 Ft.*	*2*	*1*	*2*			

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

TMCA CENTRAL TOWER A XPR 2 - LEV 2 4100u XPDR

Module	Qty	Description		Standby Current	Total Standby	Alarm Current	Total Alarm
Panel Equipment							
4100-9600	*1*	*BASIC TRANSPONDER*	"	*0.0870*	*0.0870*	*0.0870*	*0.0870*
4100-5125	*1*	*REMOTE POWER SUPPLY W/CHARGER - 120VAC*		*0.1500*	*0.1500*	*0.1850*	*0.1850*
4100-5101	*1*	*EXPANSION PWR SUPPLY (XPS) - 120VAC 60HZ*		*0.0500*	*0.0500*	*0.0500*	*0.0500*
4100-0620	*1*	*TRANSPONDER INTERFACE MODULE*		*0.0870*	*0.0870*	*0.0870*	*0.0870*
4100-3107	*1*	*IDNET+ MODULE, UP TO 250 POINTS*	"	*0.0750*	*0.0750*	*0.1150*	*0.1150*
		Panel Totals			**0.4490**		**0.5240**
IDNet Addressable Devices (SLC)							
4099-9004	**4**	ADDRESSABLE SINGLE ACTION MANUAL STATION	*	Constant current draw of .8mA standby and 1mA alarm per address used. Devices requiring additional current are accounted for in the section labeled "Miscellaneous Peripheral Devices Requiring Additional System Power".			
4090-9001	**2**	IDNET SUPERVISED IAM	*				
4090-9002	**2**	IDNET RELAY IAM	*				
4090-9116	*4*	*INTELLIGENT IDNET ISOLATOR MODULE*	"				
4098-9714	**68**	TRUEALARM PHOTO SMOKE SENSOR					
4009-9201	**1**	4009 IDNET NAC EXTENDER, 120 VAC	*				
4098-9792	**68**	TRUEALARM SENSOR BASE	*				
Notification Appliances							
4906-9101	*2*	*V/O MC NON-ADDRESS, RED, WALL*	*15*	*0.0000*	*0.0000*	*0.0600*	*0.1200*
4906-9104	*1*	*V/O MC NON-ADDRESS, WHT, CEILING*	*15*	*0.0000*	*0.0000*	*0.0750*	*0.0750*
4906-9104	*2*	*V/O MC NON-ADDRESS, WHT, CEILING*	*75*	*0.0000*	*0.0000*	*0.2330*	*0.4660*
CH70-24-R	*24*	*CHIME, 24 VDC, SQUARE, RED*			*0.0000*	*0.0220*	*0.5280*
CH70-24MCW-FR	*24*	*MULTI CD CHIME STROBE, WALL MNT, RED*	*15*	*0.0000*	*0.0000*	*0.0600*	*1.4400*
RSS-24MCW-FR	*11*	*MULTI CD STROBE, WALL MNT, RED*	*15*	*0.0000*	*0.0000*	*0.0600*	*0.6600*
		Peripheral Totals			**0.0000**		**3.2890**
		RUI Totals	**0**		**0.0000**		**0.0000**
		Address Totals	**344 Addresses**		**0.2752**		**0.3440**
		System Totals*:		**Standby**	**0.7242**	**Alarm**	**4.1570**

*** Device Address current draw included below (See Additional Current Draws):**

Battery Set #1 (Cabinet/Charger #1)				Standby Current	Standby Total	Alarm Current	Alarm Total
Select ALL Power Supplies on this battery set:							
XPS-1					0.2990		1.8360
				Sub Total	**0.2990**		**1.8360**
Additional Current Draws:							
MAPNET/IDNet Device Address Communication Current	344	x 0.000800	= 0.2752	x 0.001000	= 0.3440		
				Sub Total	**0.5742**		**2.1800**
Spare addressable point capacity	**0%**	0	x 0.0008	= 0.0000	x 0.001	= 0.0000	
				Total	**0.5742**		**2.1800**
Standby Time =	24	Hrs	x 0.5742	= 13.7808	Standby Ah		
Alarm Time =	5	Min	0.08333 x 2.18	= 0.1817	Alarm Ah		
				13.9625			
Additional Spare Battery Capacity =	**0%**		+	0.0000			
				13.9625			
Battery Discharge Factor =	**20%**		+	2.7925			
Minimum Battery Required	**2081-9275 18AH (2x)**			**16.7550**			
Battery Supplied	**2081-9275 18AH (2x)**						

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

Battery Set #2 (Cabinet/Charger #2)				Standby Current	Standby Total	Alarm Current	Alarm Total
Select ALL Power Supplies on this battery set:							
RPS-2					0.1500		1.9770
				Sub Total	**0.1500**		**1.9770**
Additional Current Draws:							
MAPNET/IDNet Device Address Communication Current	0	x 0.000800	= 0.0000	x 0.001000	= 0.0000		
				Sub Total	**0.1500**		**1.9770**
Spare addressable point capacity	**0%**	0	x 0.0008	= 0.0000	x 0.001	= 0.0000	
				Total	**0.1500**		**1.9770**
Standby Time =	24	Hrs	x 0.1500	= 3.6000	Standby Ah		
Alarm Time =	5	Min	0.08333 x 1.977	= 0.1648	Alarm Ah		
				3.7648			
Additional Spare Battery Capacity =	**0%**		+	0.0000			
				3.7648			
Battery Discharge Factor =	**20%**		+	0.7530			
Minimum Battery Required	**2081-9272 6.2AH (2x)**			**4.5177**			
Battery Supplied	**2081-9272 6.2AH (2x)**						

TMCA 3RD FLR PEDS NAC ELEC 3-0137 4009 NAC

Module	Qty	Description		Standby Current	Total Standby	Alarm Current	Total Alarm
Panel Equipment							
4009-9201	1	4009 IDNET NAC EXTENDER, 120 VAC		0.0850	0.0850	0.1850	0.1850
		Panel Totals			0.0850		0.1850
Notification Appliances							
4906-9101	7	V/O MC NON-ADDRESS, RED, WALL	15	0.0000	0.0000	0.0600	0.4200
4906-9101	1	V/O MC NON-ADDRESS, RED, WALL	30	0.0000	0.0000	0.0940	0.0940
4906-9133	3	TRUEALERT ELECTRONIC CHIME/STROBE, RED, WALL	15	0.0000	0.0000	0.0700	0.2100
4906-9133	3	TRUEALERT ELECTRONIC CHIME/STROBE, RED, WALL	75	0.0000	0.0000	0.2000	0.6000
		Peripheral Totals			0.0000		1.3240
		Added Current for EPS Conversion of 24 to 29 Volt IDNac Devices			0.0000		0.0000
		RUI Totals	0		0.0000		0.0000
		Address Totals	0 Addresses		0.0000		0.0000
		System Totals*:		Standby	0.0850	Alarm	1.5090

Battery Set #1 (Cabinet/Charger #1)				Standby Current	Standby Total	Alarm Current	Alarm Total
Select ALL Power Supplies on this battery set:							
4009					0.0850		1.5090
				Sub Total	0.0850		1.5090
				Total	0.0850		1.5090
Standby Time =	24	Hrs	x 0.0850	= 2.0400	Standby Ah		
Alarm Time =	5	Min	0.08333 x 1.509	= 0.1258	Alarm Ah		
				2.1658			
Additional Spare Battery Capacity =	**0%**		+	0.0000			
				2.1658			
Battery Discharge Factor =	**20%**		+	0.4332			
Minimum Battery Required	**2081-9272 6.2AH (2x)**			2.5989			
Battery Supplied	**2081-9274 10AH (2x)**						

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

VOLTAGE DROP SUMMARY

Plan Circuit	Description		Load	% Drop
N1:V1	3RD FLR PEDIATRICS	SIG1	1.324A	10.99%
N1:V2	SPARE	SIG2	0.000A	0.00%
N1:V3	SPARE	SIG3	0.000A	0.00%
N1:V4	SPARE	SIG4	0.000A	0.00%
			1.324A	Total

POINTS SHOWN IN ITALIC TEXT REFER TO EXISTING DEVICES.

N1:V1 — Distributed Load Voltage Drop

Allowable % Drop: 17.9% | Wire Gauge: 14ga | Starting Voltage: 19.5vdc | Circuit Capacity: 2.A
Wire Res. Per Ft. 0.0031 @ 75° Celsius | Min. Device Voltage: 16.vdc | % Voltage Drop 10.99%

Device #	PID	Candela	Distance (Feet)	Normal Operation: Device Current	Voltage Drop	Voltage At Device
N1:V1-1	4906-9133	75cd	117	0.200	0.951	18.55
N1:V1-2	4906-9101	15cd	10	0.060	1.020	18.48
N1:V1-3	4906-9101	15cd	18	0.060	1.138	18.36
N1:V1-4	4906-9133	75cd	39	0.200	1.378	18.12
N1:V1-5	4906-9101	15cd	32	0.060	1.536	17.96
N1:V1-6	4906-9133	15cd	22	0.070	1.637	17.86
N1:V1-7	4906-9133	15cd	22	0.070	1.728	17.77
N1:V1-8	4906-9101	15cd	49	0.060	1.909	17.59
N1:V1-9	4906-9101	15cd	18	0.060	1.970	17.53
N1:V1-10	4906-9133	15cd	22	0.070	2.035	17.47
N1:V1-11	4906-9101	30cd	12	0.094	2.065	17.43
N1:V1-12	4906-9133	75cd	28	0.200	2.120	17.38
N1:V1-13	4906-9101	15cd	14	0.060	2.131	17.37
N1:V1-14	4906-9101	15cd	31	0.060	2.142	17.36
		Totals:	434 Ft.	1.324A		

N1:V2 — Distributed Load Voltage Drop

Allowable % Drop: 17.9% | Wire Gauge: 14ga | Starting Voltage: 19.5vdc | Ckt Capacity: 2.A
Wire Res. Per Ft. 0.0031 @ 75° Celsius | Min. Device Voltage: 16.vdc | % Voltage Drop 0.00%

Device #	PID	Candela	Distance (Feet)	Normal Operation: Device Current	Voltage Drop	Voltage At Device
N1:V2-1				0.000	0.000	19.50
		Totals:	0 Ft.	0.000A		

N1:V3 — Distributed Load Voltage Drop

Allowable % Drop: 17.9% | Wire Gauge: 14ga | Starting Voltage: 19.5vdc | Ckt Capacity: 2.A
Wire Res. Per Ft. 0.0031 @ 75° Celsius | Min. Device Voltage: 16.vdc | % Voltage Drop 0.00%

Device #	PID	Candela	Distance (Feet)	Normal Operation: Device Current	Voltage Drop	Voltage At Device
N1:V3-1				0.000	0.000	19.50
		Totals:	0 Ft.	0.000A		

N1:V4 — Distributed Load Voltage Drop

Allowable % Drop: 17.9% | Wire Gauge: 14ga | Starting Voltage: 19.5vdc | Ckt Capacity: 2.A
Wire Res. Per Ft. 0.0031 @ 75° Celsius | Min. Device Voltage: 16.vdc | % Voltage Drop 0.00%

Device #	PID	Candela	Distance (Feet)	Normal Operation: Device Current	Voltage Drop	Voltage At Device
N1:V4-1				0.000	0.000	19.50
		Totals:	0 Ft.	0.000A		

Only highlighted or clouded revisions are approved on this review. All previous comments apply.

Revising Permit # 2016-1214781-LT

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *John J Van Essen*
Date: ***Feb 08, 2017***
2015 INTERNATIONAL CODES & 2014 NEC
RSN: *1183061*
Permit #*2017-1245603-LT*

NICET CERTIFICATION
TECHNICAL AREA 00303: LEVEL 3
CERTIFICATE #: 83242
VALID THROUGH: 10/01/17
STEVE SHARP — 1/23/17 DATE

tyco SimplexGrinnell
Safer. Smarter. Tyco.™
DISTRICT 1-418
10065 E HARVARD AVE
AURORA, CO 80012
SERVICE: 303-355-5500
PHONE: 303-355-9000
FAX: 303-355-8415

TMCA CATH LAB - 3RD FLOOR PEDS RENO
MEDICAL CENTER OF AURORA

MEDICAL CENTER OF AURORA
1501 S. POTOMAC ST.
AURORA, CO 80012

Revisions shown with ▲ symbol

ISSUE LOG

MARK	DATE	DESCRIPTION	CHK
1	10/26/16	PER COMMENTS	DM
2	1/23/17	PER CONTRACTOR REDLINE MARK-UPS 1/19/17	DPM

TYCO SIMPLEXGRINNELL © 2017

DRAWN BY: R.V.
CHECKED BY: S.S.
ISSUE DATE: 11/17/16
JOB #: 419:435597
PROJECT #: 419:991184502
SYSTEM: FIRE ALARM SYSTEM
SHEET: 4009 NAC - CALCULATIONS

FA-601

IMPORTANT NOTICE TO USER: By accepting or using this drawing and/or the information contained hereon, the user agrees to the following terms and conditions: The electronic information in the drawing may be subject to intentional or unintentional alteration. Any use, movie, copying, modification or alteration of the information contained herein shall be at the sole risk of the user. This information may not be sold or transferred to any third party, used on other projects or additions to the project for which it was prepared, or used for completion of this project by any third party. SimplexGrinnell disclaims all liability for the use or movie of any such information by any third party and such use shall be at the sole risk of the user.

FILE PATH: G:\Medical Center of Aurora\1501 S Potomac - Aurora South\South Tower - Node 1\22-Cat Lab Expansion - 2016 - 991184502\01-3rd Floor PEDS Renovation - Phase 1\Cath Lab Peds Reno\Working Dr awings\FA-601 CALCULATIONS.dwg
LAST SAVED BY: CMORDEN
LAST PRINTED: 2/22/2017 9:14:17 AM
30" x 42" - Arch E1 Size

END OF LINE RESISTOR CODES



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

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

* USE WITH RETROFIT OR HIGH CURRENT MODULE

INITIATING DEVICE DIP SWITCH SETTINGS

SIMPLEX IDNet



DIP SWITCHES 5 THRU 8

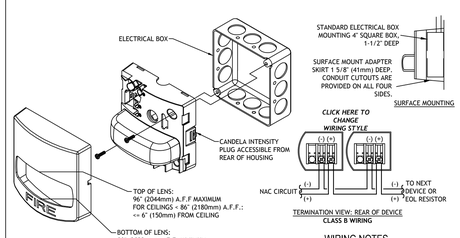
DIP SWITCHES 1 THRU 4

	0	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240
0	1	17	33	49	65	81	97	113	129	145	161	177	193	209	225	241
1	2	18	34	50	66	82	98	114	130	146	162	178	194	210	226	242
2	3	19	35	51	67	83	99	115	131	147	163	179	195	211	227	243
3	4	20	36	52	68	84	100	116	132	148	164	180	196	212	228	244
4	5	21	37	53	69	85	101	117	133	149	165	181	197	213	229	245
5	6	22	38	54	70	86	102	118	134	150	166	182	198	214	230	246
6	7	23	39	55	71	87	103	119	135	151	167	183	199	215	231	247
7	8	24	40	56	72	88	104	120	136	152	168	184	200	216	232	248
8	9	25	41	57	73	89	105	121	137	153	169	185	201	217	233	249
9	10	26	42	58	74	90	106	122	138	154	170	186	202	218	234	250
10	11	27	43	59	75	91	107	123	139	155	171	187	203	219	235	251
11	12	28	44	60	76	92	108	124	140	156	172	188	204	220	236	252
12	13	29	45	61	77	93	109	125	141	157	173	189	205	221	237	253
13	14	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254
14	15	31	47	63	79	95	111	127	143	159	175	191	207	223	239	255
15																

NOTE:
THE 4098-9771, -9794, -9795, -9798 SOUNDER BASES HAVE A 9-POSITION DIP SWITCH. THE FIRST EIGHT DIP SWITCHES SET THE SOUNDER BASE ADDRESS. DIP SWITCH POSITION 9 IS SET TO OFF OR ON DEPENDING UPON THE SOUNDER BASE POWER SOURCE. WHEN THE SOUNDER BASE IS CONNECTED TO A 24 VDC POWER SOURCE, DIP SWITCH POSITION 9 IS SET TO "OFF" AND THE 24 VDC POWER IS SUPERVISED BY THE SOUNDER BASE. WHEN THE SOUNDER BASE IS POWERED BY THE PANEL'S NOTIFICATION APPLIANCE CIRCUIT (NAC), DIP SWITCH POSITION 9 IS SET TO "ON" AND THE POWER IS SUPERVISED BY THE NAC AND NOT THE SOUNDER BASE. THE 4098-9770 AND -9797 BASES HAVE THE SAME LAYOUT, BUT DOESN'T OFFER SOUNDER FUNCTIONALITY. THEY USE AN 8-WAY DIP SWITCH ONLY.

TrueAlert NON-ADDRESSABLE APPLIANCES

SIMPLEX 4906 SERIES WALL MOUNTED VISUAL



MOUNTING OPTION "B"

TERMINATION VIEW: REAR OF DEVICE
CLASS B WIRING

WIRING NOTES

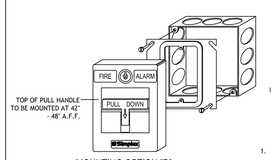
1. MAINTAIN CORRECT POLARITY ON TERMINAL CONNECTIONS.
2. ALWAYS CUT CONDUCTORS AND SECURE UNDER TERMINALS. NEVER LOOP WIRES UNDER TERMINALS.
3. ANY WIRE SPLICES TO BE MADE BY LISTED AND AHJ APPROVED METHODS.

MOUNTING OPTIONS		
OPTION[1]	DESCRIPTION	NOTE
A	SINGLE GANG BOX, 1-1/2" (64mm) DEEP	BY OTHERS. WHEN SURFACE MOUNTING USE 4905-9937 (RED) OR 4906-9940 (WHITE) SKIRT
B	4" (102mm) SQUARE BOX, 1-1/2" (38mm) DEEP, MINIMUM	
D	2 GANG BOX, 1-1/2" (38mm) DEEP	
C	SIMPLEX 2975-9145, 7-7/8"H x 5-1/8"W x 2-3/4"D (127mm x 98mm x 56mm) REQUIRES 4905-9931 PLATE	ORDERED SEPARATELY

1. FOR ADDITIONAL MOUNTING OPTIONS, DOWNLOAD DATA SHEET 4906-0002 FROM HTTP://WWW.SIMPLEX-FIRE.COM

ADDRESSABLE PULL STATIONS

SIMPLEX 4009 SERIES

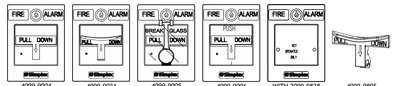


MOUNTING OPTION "B"

TERMINATION VIEW: DEVICE REAR
CLASS B WIRING

WIRING NOTES

1. MAINTAIN CORRECT POLARITY ON TERMINAL CONNECTIONS.
2. ALWAYS CUT CONDUCTORS AND SECURE UNDER TERMINALS. NEVER LOOP WIRES UNDER TERMINALS.
3. ANY WIRE SPLICES TO BE MADE BY LISTED AND AHJ APPROVED METHODS.

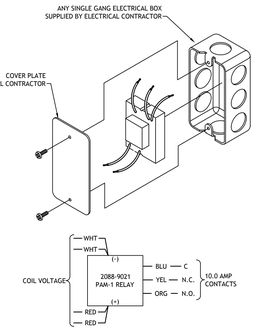


MOUNTING OPTIONS		
OPTION[1]	BACK BOX SPECIFICATION	NOTES
A	SINGLE GANG BOX, 2-1/2" (64mm) DEEP	BY OTHERS
B	4" (102mm) SQUARE BOX, 2-1/8" DEEP (MIN) W/ SINGLE GANG COVER PLATE 3/4" (19mm) EXTENSION	BY OTHERS
C	5H x 3-7/8"W x 2-3/16"D (127mm x 98mm x 56mm)	SIMPLEX 2975-9022, ORDERED SEPARATELY
D	5-3/4"H x 3-7/8"W x 2-3/16"D (132mm x 102mm x 56mm)	SIMPLEX 2975-9178, ORDERED SEPARATELY

FOR ADDITIONAL MOUNTING OPTIONS, DOWNLOAD DATA SHEET 4098-0005 FROM HTTP://WWW.SIMPLEX-FIRE.COM

MULTI-VOLTAGE RELAY

SIMPLEX 2088-9021 / APOLLO AMERICA PAM-1



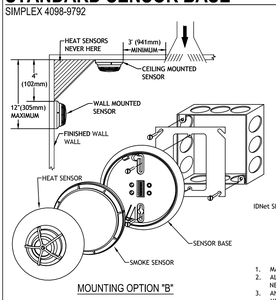
WIRING NOTES

1. MAINTAIN CORRECT POLARITY ON CONNECTIONS.
2. ANY WIRE SPLICES TO BE MADE BY LISTED AND AHJ APPROVED METHODS. CLASS B APPLICATIONS ONLY.

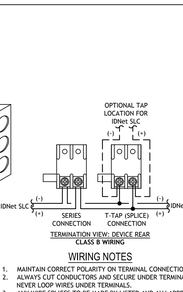
FOR ADDITIONAL DETAILS SEE DATA SHEET 2088-0010 ON HTTP://WWW.SIMPLEX-FIRE.COM.

STANDARD SENSOR BASE

SIMPLEX 4098-9792



MOUNTING OPTION "B"



TERMINATION VIEW: DEVICE REAR
CLASS B WIRING

WIRING NOTES

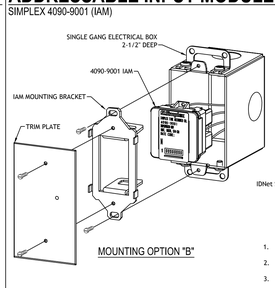
1. MAINTAIN CORRECT POLARITY ON TERMINAL CONNECTIONS.
2. ALWAYS CUT CONDUCTORS AND SECURE UNDER TERMINALS. NEVER LOOP WIRES UNDER TERMINALS.
3. ANY WIRE SPLICES TO BE MADE BY LISTED AND AHJ APPROVED METHODS.

MOUNTING OPTIONS		
OPTION[1]	DESCRIPTION	NOTE
A	SINGLE GANG BOX, 2-1/2" (64mm) DEEP	BY OTHERS
B	4" (102mm) SQUARE BOX, 1-1/2" (38mm) DEEP MINIMUM W/ SINGLE ADAPTER BRACKET	BY OTHERS
C	4" (102mm) OCTAGONAL BOX, 1-1/2" (38mm) DEEP, MINIMUM	BY OTHERS
D	ADAPTER PLATE KIT (FOR 4" SQUARE/OCTAGONAL SURFACE MOUNTED ELECTRICAL BOX)	SIMPLEX 4098-9832 ORDERED SEPARATELY

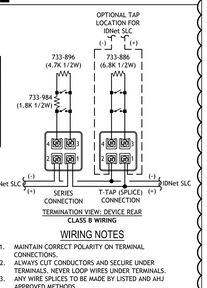
1. FOR ADDITIONAL MOUNTING OPTIONS, DOWNLOAD DATA SHEET 4098-0019 FROM HTTP://WWW.SIMPLEX-FIRE.COM

ADDRESSABLE INPUT MODULE

SIMPLEX 4090-9001 (IAM)



MOUNTING OPTION "B"



TERMINATION VIEW: DEVICE REAR
CLASS B WIRING

WIRING NOTES

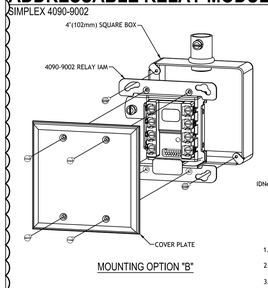
1. MAINTAIN CORRECT POLARITY ON TERMINAL CONNECTIONS.
2. ALWAYS CUT CONDUCTORS AND SECURE UNDER TERMINALS. NEVER LOOP WIRES UNDER TERMINALS.
3. ANY WIRE SPLICES TO BE MADE BY LISTED AND AHJ APPROVED METHODS.

MOUNTING OPTIONS		
OPTION[1]	DESCRIPTION	NOTE
A	SINGLE GANG BOX, 2-1/2" (64mm) DEEP WITH SINGLE GANG COVER PLATE	BY OTHERS
B	SINGLE GANG BOX, 2-1/2" (64mm) DEEP WITH SIMPLEX 4090-9810 IAM MOUNTING BRACKET AND SIMPLEX 4090-9806 TRIM PLATE FOR SEMI-FLUSH MOUNTED BOX	BOX BY OTHERS, PLATES ORDERED SEPARATELY
C	SINGLE GANG BOX, 2-1/2" (64mm) DEEP WITH SIMPLEX 4090-9810 IAM MOUNTING BRACKET AND SIMPLEX 4090-9807 TRIM PLATE FOR SURFACE MOUNTED BOX	BOX BY OTHERS, PLATES ORDERED SEPARATELY

1. FOR ADDITIONAL MOUNTING OPTIONS, DOWNLOAD DATA SHEET 4090-0001 FROM HTTP://WWW.SIMPLEX-FIRE.COM
2. OR EQUIVALENT EQUIPMENT

ADDRESSABLE RELAY MODULE

SIMPLEX 4090-9002



MOUNTING OPTION "B"

TERMINATION VIEW
CLASS B WIRING

WIRING NOTES

1. MAINTAIN CORRECT POLARITY ON TERMINAL CONNECTIONS.
2. ALWAYS CUT CONDUCTORS AND SECURE UNDER TERMINALS. NEVER LOOP WIRES UNDER TERMINALS.
3. ANY WIRE SPLICES TO BE MADE BY LISTED AND AHJ APPROVED METHODS.

MOUNTING OPTIONS		
OPTION	DESCRIPTION	NOTE
A	4" (102mm) SQUARE BOX, 2-1/8" MINIMUM DEPTH WITH DOUBLE GANG COVER PLATE.	BY OTHERS
B	4" (102mm) SQUARE BOX, 2-1/8" MINIMUM DEPTH WITH SIMPLEX 4090-9801 TRIM PLATE FOR SEMI-FLUSH MOUNTED BOX	BOX BY OTHERS, PLATES ORDERED SEPARATELY
C	4" (102mm) SQUARE BOX, 2-1/8" MINIMUM DEPTH WITH SIMPLEX 4090-9802 TRIM PLATE FOR SURFACE MOUNTED BOX	BOX BY OTHERS, PLATES ORDERED SEPARATELY

1. FOR ADDITIONAL MOUNTING OPTIONS, DOWNLOAD DATA SHEET 4090-0002 FROM HTTP://WWW.SIMPLEX-FIRE.COM

TrueAlert™ NON-ADDRESSABLE MULTI-CANDELA AUDIBLE/VISIBLE NOTIFICATION APPLIANCE

(ELECTRONIC CHIME W/STROBE)

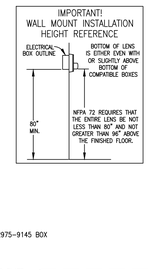
PRODUCT INFORMATION

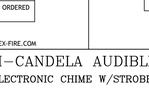
FEATURES:

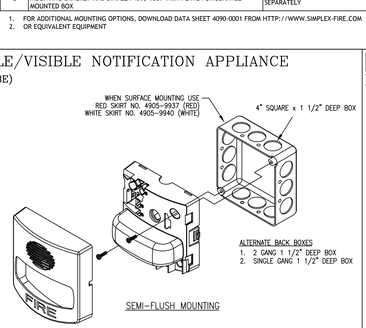
- VISIBLE NOTIFICATION LISTED TO UL 1971
- AUDIBLE NOTIFICATION LISTED TO UL 464 FOR PRIVATE OPERATING MODE
- CLASS B (STYLE Y) OPERATION REQUIRES CONNECTION TO A COMPATIBLE SMARTSYNC NAC OR TO SMARTSYNC CONTROL MODULE (SCM) 4905-9938
- CLASS A (STYLE Z) OPERATION WHEN CONNECTED TO THE 4905-9938 SCM OR 4100U SERIES FIRE ALARM CONTROL PANEL NAC'S

SPECIFICATIONS:

- HOUSING DIMENSIONS (INCLUDING LENS) : 5 1/8"H X 5" W X 2 3/4"D
- TEMPERATURE RANGE: 32° F TO 122° F (0° TO 50° C)
- HUMIDITY RANGE: 10% TO 93% NON-CONDENSING AT 100° F (38° C)
- TERMINAL BLOCKS FOR 18 AWG TO 12 AWG; TWO WIRES PER TERMINAL FOR IN/OUT WIRING.







SEMI-FLUSH MOUNTING

CHIME

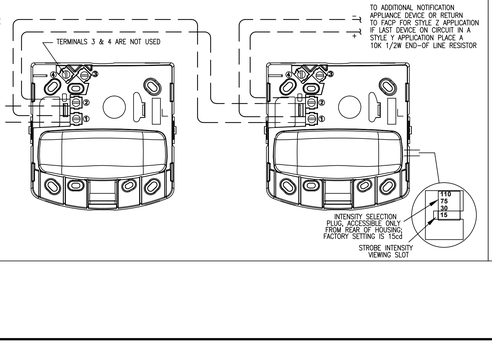
- SOUND OUTPUT CHARACTERISTICS:
  TONE IS ADJUSTABLE FROM 750 HZ TO 1300 HZ; FACTORY SETTING IS 800 HZ
- CHIME SOUND OUTPUT RATINGS @ 10 FT. (3m)
  SOUND OUTPUT IS ADJUSTABLE FROM 34 DBA TO 63 DBA; FACTORY SETTING IS 63 DBA

STROBE

- RATED VOLTAGE RANGE: UL: REGULATED 24VDC PER UL 1971
  ULC: 20VDC TO 30VDC PER ULC S526-M878
- FLASH RATE: 1Hz
- SYNCHRONIZED MODE NAC LOADING: MAXIMUM OF 35 SYNCHRONIZED STROBES PER NAC CIRCUIT.

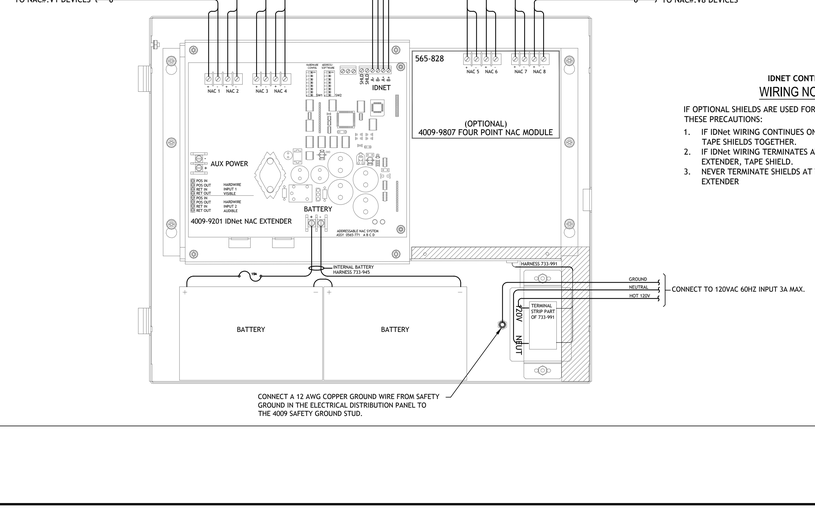
*CURRENT DRAWS REFLECT STROBE FLASHING AND CHIME ON.

MODEL NUMBER	HOUSING COLOR	LETTERING COLOR	STROBE RATING	RMS CURRENT @ 16 VDC	16 VDC	24 VDC	24 VDC
4906-9133	RED	WHITE	15cd	70 mA	62 mA	47 mA	
			30cd	105 mA	93 mA	70 mA	
			75cd	200 mA	178 mA	133 mA	
			110cd	265 mA	236 mA	177 mA	
4906-9134	WHITE	RED	15cd	70 mA	62 mA	47 mA	
			30cd	105 mA	93 mA	70 mA	
			75cd	200 mA	178 mA	133 mA	
			110cd	265 mA	236 mA	177 mA	



NAC EXTENDER PANEL WIRING

SIMPLEX 4009 SERIES



IDNET CONTROL

WIRING NOTES

IF OPTIONAL SHIELDS ARE USED FOR IDNet WIRING, FOLLOW THESE PRECAUTIONS:

1. IF IDNet WIRING CONTINUES ON TO ANOTHER DEVICE, TAPE SHIELDS TOGETHER.
2. IF IDNet WIRING TERMINATES AT THE 4009 IDNet NAC EXTENDER, TAPE SHIELD.
3. NEVER TERMINATE SHIELDS AT THE 4009 IDNet NAC EXTENDER

Only highlighted or clouded revisions are approved on this review. All previous comments apply.

Revising Permit # 2016-1214781-LT

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: John J Van Eissen
Date: Feb 08, 2017
2015 INTERNATIONAL CODES & 2014 NEC

RSN: 1183061
Permit #2017-1245603-LT

NICET CERTIFICATION

TECHNICAL AREA 00303: LEVEL 3
CERTIFICATE #: 83242
VALID THROUGH: 10/01/17

STEVE SHARP — 1/23/17 DATE

tyco SimplexGrinnell
Safer. Smarter. Tyco.™
DISTRICT 1-418
10065 E. HARVARD AVE
AURORA, CO 80012
SERVICE: 303-355-5500
PHONE: 303-355-9500
FAX: 303-355-9415

TMCA CATH LAB - 3RD FLOOR PEDS RENO
MEDICAL CENTER OF AURORA
MEDICAL CENTER OF AURORA
1501 S. POTOMAC ST.
AURORA, CO 80012

ISSUE LOGS			
MARK	DATE	CAD	DESCRIPTION
1	12/23/16	CPM	PERMIT COMMENTS
2	1/23/17	CPM	PER CONTRACTOR REDLINE MARK-UPS 1/19/17

Revisions shown with Δ symbol

DRAWN BY:	R.V.
CHECKED BY:	S.S.
ISSUE DATE:	11/14/16
JOB #:	419:435597
PROJECT #:	419:991184502

TYCO SIMPLEXGRINNELL © 2017

SYSTEM: FIRE ALARM SYSTEM

SHEET: TYPICAL DETAILS

FA-701

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FILE PATH: G:\Medical Center of Aurora\1501 S Potomac - Aurora South\South Tower - Node 1122-Cat Lab Expansion - 2016 - 991184502\01-3rd Floor PEDS Renovation - Phase 1\Cath Lab Peds Reno\Working Drawings\FA-701 TYPICAL DETAILS.dwg
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