

## FIRE ALARM SYMBOLS LIST

### SIGNAL INITIATING DEVICE & ACTIVATION SWITCH

**XX** MANUAL STATION - PULL STATION/FIRE ALARM BOX, 'XX' DENOTES TYPE:  
 CO2 = CARBON DIOXIDE  
 DC = DRY CHEMICAL  
 HL = HALON  
 F = FIRE ALARM  
 FO = FOAM  
 WC = WET CHEMICAL  
 CA = CLEAN AGENT  
 WM = WATER MIST  
 DL = DELUGE FIRE SPRINKLER  
 PRE = PREACTION

**XX** HEAT DETECTOR/SENSOR, 'XX' DENOTES TYPE:  
 R/F = COMBINATION RATE OF RISE/FIXED TEMPERATURE  
 R/C = RATE COMPENSATION  
 F = FIXED TEMPERATURE  
 R = RATE OF RISE ONLY

**XX** SMOKE DETECTOR/SENSOR, 'XX' DENOTES TYPE:  
 AS = AIR SAMPLING  
 P = PHOTOELECTRIC  
 I = IONIZATION  
 R = RELAY BASE  
 SS = SINGLE STATION  
 SB = SOLIDIFIER BASE  
 ID = IN DUCT

**XX** SMOKE DETECTION/SENSOR FOR DUCT

**XX** GAS DETECTOR/SENSOR, 'XX' DENOTES TYPE:  
 CO = CARBON MONOXIDE  
 CO2 = CARBON DIOXIDE  
 HCL = HYDROGEN CHLORIDE  
 CH4 = METHANE

**MF** FLOW DETECTOR/SWITCH

**PS** PRESSURE DETECTOR/SWITCH

### NOTIFICATION APPLIANCE

**CS** SPEAKER ONLY  
 C = CEILING MOUNT

**CD** VISIBLE ONLY (STROBE) - WALL MOUNT  
 CD = CANDELA RATING/SETTING

**CD** VISIBLE ONLY (STROBE) - CEILING MOUNT  
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**CD** COMBINATION SPEAKER/VISIBLE  
 CD = CANDELA RATING/SETTING  
 C = CEILING MOUNT

**RI** REMOTE INDICATOR - WALL MOUNT

**RTS** REMOTE ALARM INDICATING AND TEST SWITCH

**RI** REMOTE INDICATOR - CEILING MOUNT

### RELATED EQUIPMENT

**DH** DOOR HOLDER

**DCL** DOOR CLOSER

### CONTROL UNITS (PANELS)

**FACP** FIRE ALARM CONTROL PANEL

**FAP** FIRE ALARM ANNUNCIATOR

**NAC** NOTIFICATION CIRCUIT POWER BOOSTER PANEL

**FATC** FIRE ALARM TERMINAL CABINET

**BATT** BATTERY CABINET

**EVAC** VOICE EVACUATION CONTROL UNIT

### DEMOLITION LEGEND

(NOT ALL ABBREVIATIONS ARE NECESSARILY USED ON THIS PROJECT)

(E) EXISTING TO REMAIN  
 (ER) EXISTING TO BE REMOVED  
 (ERR) EXISTING TO BE REMOVED & RELOCATED  
 (N) NEW  
 (RE) RELOCATED EXISTING  
 (RRO) EXISTING TO BE REMOVED AND RETURN TO OWNER

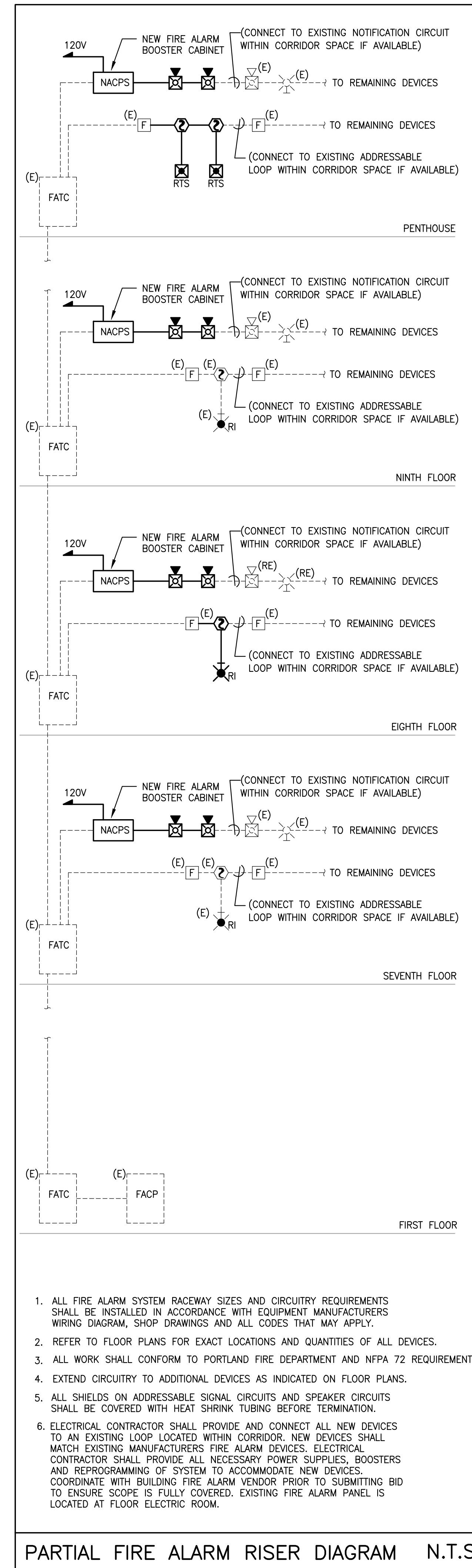
EXAMPLE  
 (E) (ER) (ERR) (N) (RE) (RRO)

## ELECTRICAL GENERAL NOTES

- GENERAL NOTES, SYMBOL LIST AND DETAILS ARE APPLICABLE TO ALL ELECTRICAL DRAWINGS.
- ALL WORK IS NEW UNLESS OTHERWISE NOTED.
- DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK. FOLLOW DRAWINGS IN LAYING OUT WORK AND CHECK DRAWINGS OF OTHER TRADES TO VERIFY SPACE CONDITIONS. MAINTAIN HEADROOM AND SPACE CONDITIONS.
- SECURE ALL SUPPORTS TO BUILDING STRUCTURE UTILIZING TOGGLE BOLTS (HOLLOW MASONRY), EXPANSION SHELDIS OR INSERTS (CONCRETE AND BRICK), MACHINE SCREWS (METAL), BEAM CLAMPS (FRAMEWORK), WOOD SCREWS (WOOD) OR PAN THRU STRAPS (METAL DECK). NAILS, RAWL PLUGS AND WOOD PLUGS ARE NOT PERMITTED. WHERE REQUIRED BY STRUCTURE, PROVIDE THRU BOLTS AND FISH PLATES. SUPPORT HORIZONTAL RUNS OF METALLIC RACEWAYS NOT MORE THAN 10 FT APART. SUPPORT RACEWAY RISERS AT EACH FLOOR LEVEL. RUN EXPOSED RACEWAYS PARALLEL WITH OR AT RIGHT ANGLES TO WALLS.
- PASS RACEWAYS OVER WATER, STEAM OR OTHER PIPING WHEN PULL BOXES ARE NOT REQUIRED. NO RACEWAY WITHIN 3 INCHES OF STEAM OR HOT WATER PIPES OR APPLIANCES (EXCEPT PIPE CROSSINGS WHERE RACEWAY SHALL BE AT LEAST 1 INCH FROM PIPE COVERS).
- CUT CONDUIT ENDS SQUARE. REAM SMOOTH. PAINT MILE THREAD OF FIELD THREADED RACEWAYS WITH GRAPHITE BASE PIPE COMPOUND. DRAW UP TIGHT WITH RACEWAY COUPLING.
- HORIZONTAL OR CROSS RUNS IN PARTITIONS AND WALLS ARE NOT PERMITTED. DO NOT RUN CONDUIT IN PRECAST ROOF SLABS, IN 2 INCH SLABS OR IN TERRAZZO FLOOR FINISH.
- LEAVE WIRES WITH SUFFICIENT SLACK TO PERMIT MAKING FINAL CONNECTIONS. RACEWAYS OVER 10 FT LONG IN WHICH WIRING IS NOT INSTALLED: FURNISH FISH WIRE.
- SET BOXES SQUARE AND TRUE WITH BUILDING FINISH. ERECT WALL AND SWITCH OUTLETS IN ADVANCE OF FURRING AND FIREPROOFING. SECURE TO BUILDING STRUCTURE BY ADJUSTABLE STRAP IRONS.
- VERIFY LOCATIONS OF DEVICES IN FINISHED ROOMS WITH ARCHITECTURAL DRAWINGS OF INTERIOR DETAILS AND FINISH. IN CENTERING DEVICES AND LOCATING BOXES AND DEVICES; ALLOW FOR OVERHEAD PIPES, DUCTS AND MECHANICAL EQUIPMENT. VARIATIONS IN FIREPROOFING AND PLASTERING, WINDOW AND DOOR TRIM, PANELING, HUNG CEILINGS AND THE LIKE, CORRECT ANY INACCURACY RESULTING FROM FAILURE TO DO SO WITHOUT EXPENSE TO OWNER.
- COVERS OF JUNCTION AND PULLBOXES SHALL BE READILY ACCESSIBLE.
- PROVIDE PULLBOXES WHERE INDICATED, WHERE REQUIRED BY CODE AND WHERE NECESSARY TO FACILITATE PULLING OF WIRE. COORDINATE PULLBOX LOCATIONS WITH OTHER TRADES.
- EMPTY RACEWAY RUNS; PROVIDE PULLBOXES EVERY 100 FT AND AS INDICATED. COORDINATE LOCATIONS WITH OTHER TRADES.
- JUNCTION AND PULLBOXES: LOCATE GENERALLY NOT EXPOSED IN FINISHED SPACES. WHERE NECESSARY, REROUTE RACEWAYS OR MAKE OTHER ARRANGEMENTS FOR CONCEALMENT.
- SUPPORT PANEL, JUNCTION AND PULLBOXES INDEPENDENTLY TO BUILDING STRUCTURE WITH NO WEIGHT BEARING ON RACEWAYS.
- ALL ACCESS DOOR LOCATIONS SHALL BE REVIEWED BY ARCHITECT PRIOR TO INSTALLATION.
- PULL NO THERMOPLASTIC WIRES AT TEMPERATURES LOWER THAN 32°F (0°C). PROVIDE CABLE SUPPORTS FOR WIRE IN RISER CONDUITS AS REQUIRED BY CODE.
- PROVIDE SEPARATE RACEWAYS FOR CONDUCTORS OF NORMAL AND EMERGENCY CIRCUITS. COMMON BOXES: PROVIDE BARRIERS BETWEEN EMERGENCY AND NORMAL WIRING.
- HEIGHTS OF OUTLETS FROM FINISHED FLOOR TO CENTERLINE OF OUTLET:  
 MOTOR CONTROLLERS 5'-0"  
 GONGS AND HORNS 7'-6"  
 FIRE ALARM STATIONS 4'-0"  
 STROBE LIGHTS 6'-8" TO BOTTOM  
 EXCEPTIONS: AT JUNCTION OF DIFFERENT WALL FINISH MATERIALS, ON MOLDING OR BREAK IN WALL SURFACE, AS NOTED OR DIRECTED.  
 CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND CONFIRMING ALL MOUNTING HEIGHTS WITH ARCHITECT AND ARCHITECTURAL DRAWINGS.
- WIRE COLOR CODING: AS PER CODE. WHERE COLOR-CODED CABLE IS NOT AVAILABLE, CERTIFY IN WRITING AND REQUEST PERMISSION FOR OVERLAP COLOR TAPING OF CONDUCTORS (MINIMUM LENGTH 6") IN ACCESSIBLE LOCATIONS. COLOR CODING, ONCE SELECTED, MUST BE USED CONSISTENTLY FOR THE ENTIRE PROJECT.
- INSTALL NEW WORK AND CONNECT TO EXISTING WORK WITH MINIMUM INTERFERENCE TO EXISTING FACILITIES. TEMPORARY SHUTDOWNS: ONLY WITH WRITTEN CONSENT OF OWNER. MAINTAIN CONTINUOUS OPERATION OF EXISTING FACILITIES. ALARM AND EMERGENCY SYSTEMS ARE NOT TO BE INTERRUPTED.
- FIRESTOPPING SHALL BE INSTALLED WHENEVER WIRING OR RACEWAYS CROSS FIRE RATED CONSTRUCTION.

### ELECTRICAL DEMOLITION NOTES

- THE CONTRACTOR SHALL INCLUDE IN HIS BID ALL COSTS ASSOCIATED WITH REMOVALS AND RELOCATIONS OF ELECTRICAL WORK AS DESCRIBED IN THE SPECIFICATIONS WITH ALLOWANCES FOR EXPECTED OR UNFORESEEN DIFFICULTIES WHEN CONCEALED WORK HAS BEEN OPENED. NO CLAIMS FOR ADDITIONAL WORK ASSOCIATED WITH DEMOLITION WILL BE ACCEPTED, EXCEPT IN CERTAIN CASES CONSIDERED JUSTIFIABLE BY THE ARCHITECT.
- THE CONTRACTOR SHALL REMOVE AND/OR RELOCATE ALL EXISTING ELECTRICAL WORK WHICH INTERFERES WITH THE NEW ARCHITECTURAL AND ELECTRICAL LAYOUTS IN FULL COORDINATION WITH THE ARCHITECT'S DEMOLITION PLANS. ALL SYSTEMS WHICH ARE NO LONGER REQUIRED TO FUNCTION SHALL BE DE-ENERGIZED AND DISCONNECTED AT THE SOURCE OF POWER SUPPLY.
- THE CONTRACTOR SHALL PERFORM DEMOLITION AND REMOVAL WORK WITH MINIMUM INTERFERENCE WITH FUNCTIONING ELECTRICAL SYSTEMS. ALL AFFECTED SYSTEMS SHALL BE RECONNECTED AND RESTORED.
- DEMOLITION AND REMOVAL WORK SHALL BE PERFORMED IN A NEAT AND WORKMANLIKE MANNER. THE CONTRACTOR SHALL PATCH, REPAIR OR OTHERWISE RESTORE ANY DAMAGED INTERIOR OR EXTERIOR BUILDING SURFACE TO ITS ORIGINAL CONDITION.
- THE CONTRACTOR SHALL REMOVE ALL ELECTRICAL DEVICES, COMPLETE WITH ASSOCIATED WIRING, CONDUITS, ETC., FROM PARTITIONS THAT ARE TO BE REMOVED. WHERE THE REMOVAL OF THESE ITEMS DISRUPTS EXISTING WIRING THAT IS TO REMAIN, THE CONTRACTOR SHALL INSTALL JUNCTION BOXES AND OTHER DEVICES AND PROVIDE BYPASS CONNECTIONS NECESSARY TO MAKE CIRCUITS AFFECTED CONTINUOUS AND READY FOR OPERATION. OTHERWISE, WIRING SHALL BE REMOVED BACK TO THE NEAREST ELECTRICAL JUNCTION BOX THAT IS TO REMAIN OR TO PANELBOARD.
- ALL RACEWAYS WHICH BECOME EXPOSED DURING THE ALTERATION WORK SHALL BE REMOVED AND REROUTED CONCEALED BEHIND FINISHED SURFACES.
- ALL UNUSED BOXES OR CAPPED FLOOR BOXES SHALL BE PROVIDED WITH MATCHING BLANK COVERS.
- EXISTING PANEL DIRECTORIES AFFECTED BY THE ALTERATION WORK SHALL BE MODIFIED TO REFLECT THE BRANCH CIRCUIT WIRING CHANGES.
- PORTIONS OF FEEDER RUNS TO BE REMOVED OR ABANDONED AS A RESULT OF DEMOLITION WORK, BUT WHICH ARE REQUIRED TO REMAIN ENERGIZED, SHALL BE CUT AT CONVENIENT LOCATIONS, REROUTED AND RECONNECTED. NEW FEEDER EXTENSIONS SHALL MATCH EXISTING ONES IN ALL RESPECTS, CABLE TYPE, CONDUCTOR AMPACITY, CONDUIT SIZES, ETC.
- THE CONTRACTOR SHALL NOTIFY THE OWNER AT THE APPROPRIATE TIME OF THE PROJECTED DEMOLITION AND PHASING SCHEDULE SO THAT REMOVAL OR RELOCATION OF AFFECTED UTILITIES MAY BE CARRIED OUT IN COORDINATION WITH THE PROJECT REQUIREMENTS. THE CONTRACTOR SHALL FOLLOW CLOSELY THE ARCHITECT'S DEMOLITION AND PHASING SCHEDULE AND PROCEED IN THE SPECIFIED SEQUENCE.
- ALL EXISTING MATERIAL AND EQUIPMENT IN USABLE CONDITION, WHICH IS TO BE REMOVED UNDER THIS CONTRACT, SHALL REMAIN THE PROPERTY OF THE OWNER OR SHALL BE DISPOSED OF BY THE ELECTRICAL CONTRACTOR, AS DIRECTED BY THE OWNER.
- ARRANGE TO WORK CONTINUOUSLY, INCLUDING OVER TIME, IF REQUIRED, TO ASSURE THAT SYSTEMS WILL BE SHUT DOWN ONLY DURING THE TIME ACTUALLY REQUIRED TO MAKE THE NECESSARY CONNECTIONS TO THE EXISTING SYSTEMS.
- THE SHUTDOWN OF EXISTING BUILDING ELECTRICAL SERVICES SHALL BE COORDINATED WITH THE BUILDING OWNER. MAKE ARRANGEMENTS AT LEAST 5 BUSINESS DAYS PRIOR TO A SHUTDOWN.



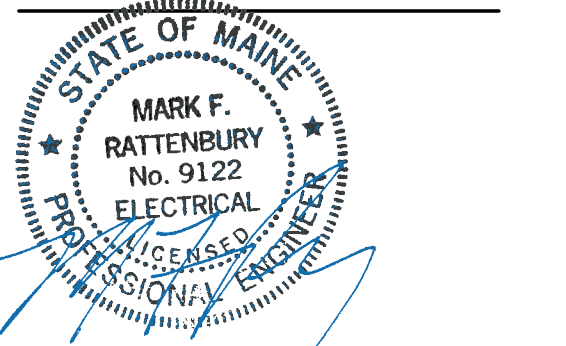
- PARTIAL FIRE ALARM RISER DIAGRAM NOTES:**
- PROVIDE ALL EQUIPMENT, PROGRAMMING & WIRING REQUIRED FOR A COMPLETE CODE COMPLIANT SYSTEM.
  - PROVIDE ALL FILING, PERMIT & FIRE DEPARTMENT INSPECTION FEES.
  - ALL NOTIFICATION AND SIGNAL LINE CIRCUITS SHALL BE SUITABLE FOR NFPA CLASS WIRING CURRENTLY INSTALLED WITHOUT T-TAPPING OF CIRCUITS. ALL DEVICE CIRCUITS SHALL BE WIRED PER FACILITIES MANUAL REQUIREMENTS.
  - NEW FIRE ALARM EQUIPMENT SHALL MATCH EXISTING MANUFACTURER.
  - ALL 120V CIRCUITS FOR THE FIRE ALARM SYSTEM SHALL BE DEDICATED EMERGENCY CIRCUITS. PROVIDE LOCKABLE CIRCUIT BREAKERS FOR ALL FIRE ALARM CIRCUITS.
  - COORDINATE WITH FLOOR PLANS FOR EXACT NUMBER OF FIRE ALARM DEVICES.
  - COORDINATE WITH THE PORTLAND FIRE DEPARTMENT FOR THE EXACT SEQUENCE OF OPERATIONS.
  - PROVIDE APPROPRIATE NFPA CLASS WIRING FOR ALL WIRING BETWEEN RELOCATED DEVICES, EXISTING DEVICES, AND MAIN FIRE CONTROL PANEL. RETURN CIRCUIT SHALL BE IN A SEPARATE CONDUIT.
  - ALL FIRE ALARM WIRING SHALL BE INSTALLED IN CONDUIT. PROVIDE CONDUIT CONCEALED IN WALLS UP TO ACCESSIBLE CEILING WITH INSULATING BUSHING FOR ALL WALL MOUNTED FIRE ALARM DEVICES.
  - SEE ADDITIONAL FIRE ALARM SPECIFICATIONS AND REQUIREMENTS ON DRAWING FA00-10
  - FURNISH AND INSTALL ALL EQUIPMENT REQUIRED FOR THE FIRE ALARM SYSTEM TO BE INTERCONNECTED WITH THE FOLLOWING SYSTEMS:
    - THE SECURITY SYSTEM TO UNLOCK ALL DOORS IN THE EGRESS PATH UPON AN ALARM SIGNAL.
    - THE LIGHTING CONTROL AND DIMMING SYSTEMS TO BRING LIGHTING TO FULL ILLUMINATION UPON AN ALARM SIGNAL.
    - THE SOUND SYSTEMS TO BE MUTED UPON AN ALARM SIGNAL.
  - SYNCHRONIZE ALL STROBES AT END OF CONSTRUCTION. REPLACE EXISTING SPEAKER/STROBE OR STROBE AS NEEDED.

ELECTRICAL DRAWING INDEX	
DRAWING NO.	DRAWING TITLE
FA00-01	FIRE ALARM COVER SHEET
FA00-10	FIRE ALARM SCHEDULES
FA01-01	RICHARDS 7 - FIRE ALARM PLAN - WEST
FA01-02	RICHARDS 8 - FIRE ALARM PLAN - WEST
FA01-03	RICHARDS 8 - FIRE ALARM PLAN - EAST
FA01-04	RICHARDS 9 - FIRE ALARM PLAN - WEST
FA01-05	RICHARDS 9 - FIRE ALARM PLAN - EAST
FA01-06	RICHARDS ROOF - FIRE ALARM PLAN - EAST

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 MaineHealth

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06.24.2016  
**ISSUE CHART**

NO.	ISSUE	DATE
	Job Number	B160089-000
	Checked	MFR
	Approved	

**TITLE**  
**FIRE ALARM COVER SHEET**

**SHEET NUMBER**  
**FA00-01**