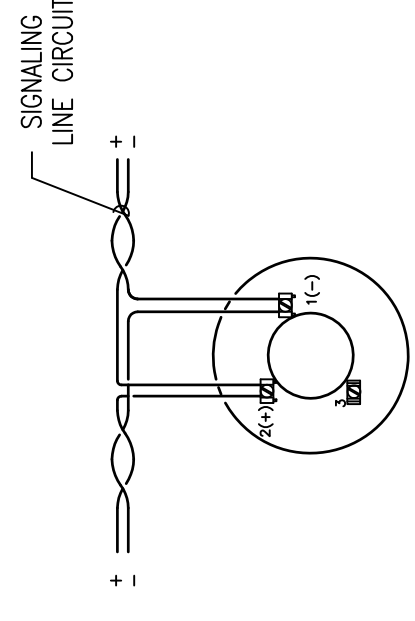
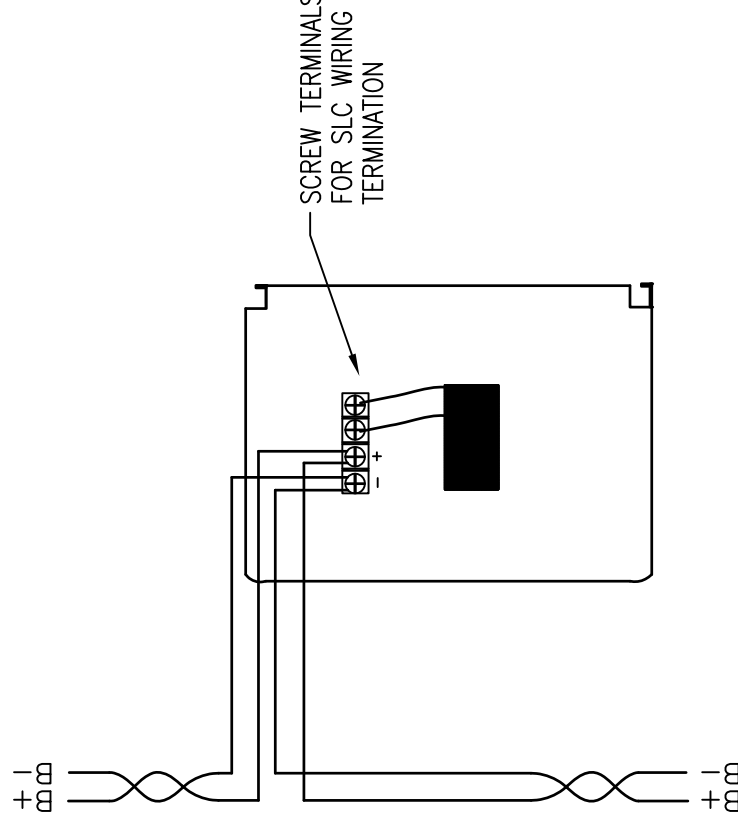


GENERAL NOTES:

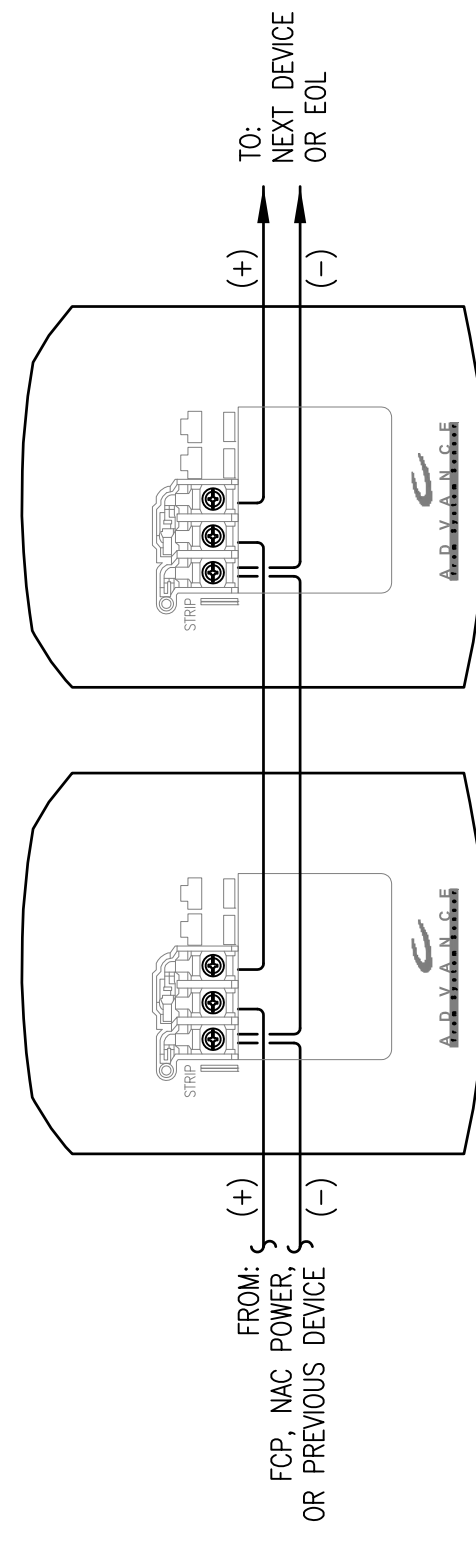
- THESE DRAWINGS ARE DIAGRAMMATIC. REFER TO THE ARCHITECTURAL DRAWINGS FOR EXACT DIMENSIONS.
- INSTALLATION SHALL COMPLY WITH NEC, NFPA 72 AND ALL OTHER APPLICABLE CODES AS REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
- WIRING DEPICTED ON THESE PLANS IS SCHEMATIC - ACTUAL WIRE LOCATIONS MAY DIFFER FROM THESE PLANS. WIRING SHALL BE PERFORMED AS ACTUAL BUILDING CONSTRUCTION CONDITIONS ALLOW AND TO MINIMIZE PENETRATIONS THROUGH AREA SEPARATION WALLS AND FIRE WALLS. THE USE OF A RACEWAY IS PERMITTED AS LONG AS NO 110V OR HIGHER VOLTAGE CABLES ARE IN THE SAME RACEWAY.
- FIRE RATINGS SHALL BE MAINTAINED FOR ALL PENETRATIONS THROUGH FIRE-RATED CONSTRUCTION.
- POWER FOR ALL FIRE ALARM PANELS AND FIRE ALARM POWER SUPPLIES MUST BE PROVIDED BY A DEDICATED AC BRANCH CIRCUIT.
- POWER-LIMITED AND NONPOWER-LIMITED CIRCUIT WIRING MUST REMAIN SEPARATED IN CABINET. ALL POWER-LIMITED CIRCUIT WIRING MUST REMAIN AT LEAST 0.25" AWAY FROM ANY NONPOWER-LIMITED CIRCUIT WIRING. FURTHERMORE, ALL POWER-LIMITED AND NONPOWER-LIMITED CIRCUIT WIRING MUST ENTER AND EXIT THE CABINET THROUGH DIFFERENT KNOCK OUTS AND/OR SEPARATE CONDUITS.
- WHEN UTILIZING CLASS "A" CIRCUITS, SEPARATE OUTGOING AND RETURN CONDUCTORS OF CLASS "A" CIRCUITS BY A MINIMUM OF 12" WHERE RUN VERTICALLY AND 48" WHERE RUN HORIZONTALLY.
- WHEN UTILIZING SHIELDED CABLE, TIE SHIELDS THROUGH AND INSULATE AT EACH JUNCTION BOX. INSULATE AND TAPE BACK AT END.
- ALL FIRE ALARM CABLING SHALL BE ACCEPTABLE TO THE FIRE ALARM EQUIPMENT MANUFACTURER FOR THE INTENDED PURPOSE.
- SMOKE DETECTORS SHALL NOT BE INSTALLED UNTIL AFTER CONSTRUCTION CLEAN-UP IS COMPLETED AND FINAL.
- LOCATE SMOKE DETECTORS A MINIMUM OF THREE (3) FEET FROM MECHANICAL DIFFUSERS. WALL-MOUNTED SMOKE DETECTORS SHALL BE LOCATED A MINIMUM OF 4" AND A MAXIMUM OF 12" FROM CEILING. CEILING-MOUNTED SMOKE DETECTORS SHALL BE MOUNTED ON CEILINGS AND NOT ON THE BOTTOMS OF BEAMS OR JOISTS.
- PROVIDE SYNCHRONIZATION OF ALL VISUAL NOTIFICATION APPLIANCE CIRCUITS. PROVIDE ALL REQUIRED SYNC MODULES. PROVIDE A MULTI-SYNC MODE SLAVE CONNECTION BETWEEN ALL SYNC MODULES.
- VERIFY ALL FIELD SELECTABLE AUDIBILITY SETTINGS OF NOTIFICATION APPLIANCES WITH FIRE ALARM CONTRACTOR.
- UPON COMPLETION OF THE FIRE ALARM SYSTEM INSTALLATION AND PROGRAMMING, THE INSTALLING CONTRACTOR SHALL PERFORM FINAL TESTING OF THE ENTIRE SYSTEM, PER ALL APPLICABLE CODES, AND SHALL COORDINATE AND PERFORM A FINAL FIRE ALARM SYSTEM INSPECTION.
- PROVIDE OFF-SITE MONITORING AS REQUIRED BY THE INTERNATIONAL FIRE CODE, SECTION 907.15 AND THE LOCAL AUTHORITY HAVING JURISDICTION.
- INSTALLING CONTRACTOR SHALL, PHYSICALLY, LABEL ALL INITIATING DEVICES AND NOTIFICATION APPLIANCE CIRCUIT END OF LINE (WHEN WIRING CLASS "B"), THESE LABELS SHALL BE IN PLACE PRIOR TO START-UP AND TESTING.



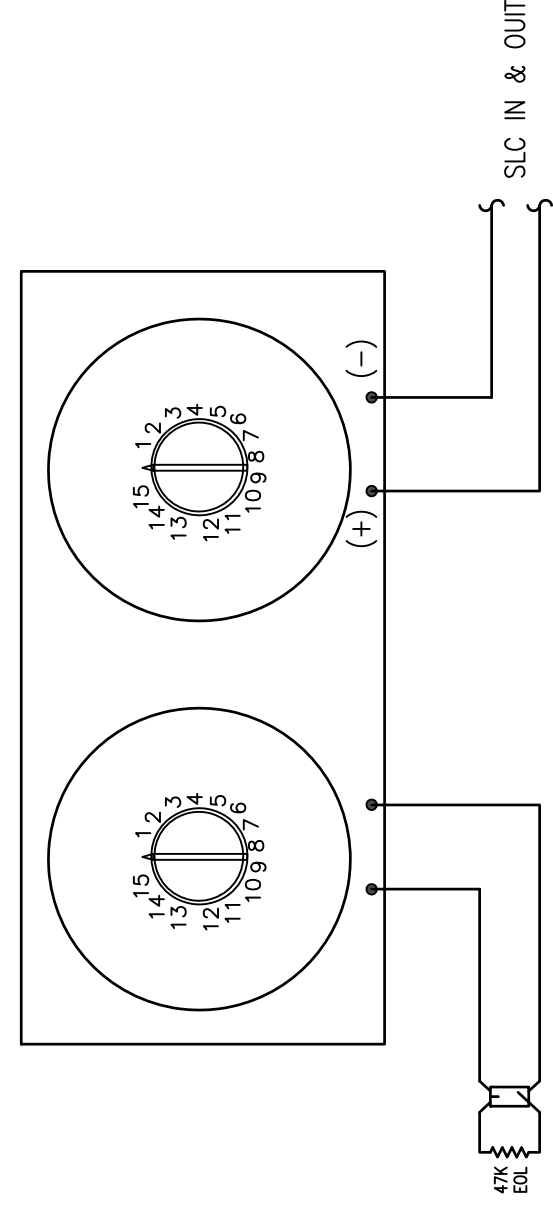
ADDRESSABLE SMOKE DETECTOR WIRING DETAIL
SCHEMATIC: NO SCALE



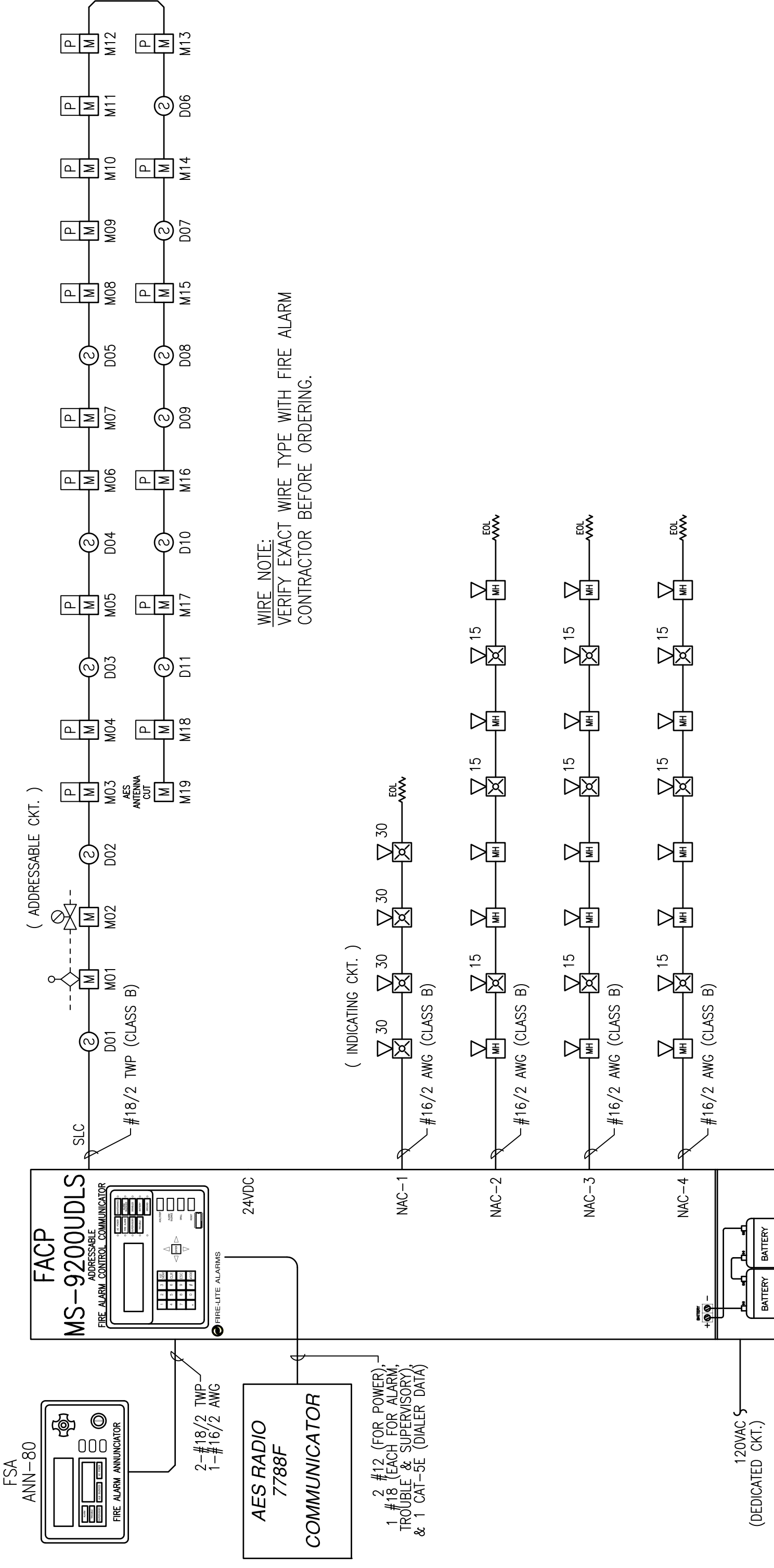
MANUAL PULL STATION WIRING DETAIL
SCHEMATIC: NO SCALE



TYPICAL 2 WIRE STROBE WIRING DETAIL
SCHEMATIC: NO SCALE



MINI MONITOR MODULE WIRING DETAIL
SCHEMATIC: NO SCALE



FIRE ALARM RISER DIAGRAM
SCHEMATIC: NO SCALE

FIRE ALARM SYMBOL LEGEND

SYMBOL	DESCRIPTION	MOUNTING
[FACP]	FIRE ALARM CONTROL PANEL	WALL-TOP @ 66"
[FPS]	FIRE ALARM POWER SUPPLY	FIELD VERIFY
[FSA]	FIRE SYSTEM ANNUNCIATOR	WALL-TOP @ 66"
[DOC]	DOCUMENT BOX	FIELD VERIFY
[SD]	SMOKE DETECTOR	CEILING
[WSD]	WIRELESS SMOKE DETECTOR	CEILING
[DSD]	DUCT SMOKE DETECTOR	BY OTHERS
[HED]	HEAT DETECTOR	CEILING
[CM]	CARBON MONOXIDE DETECTOR	CEILING
[AMM]	ADDRESSABLE CONTROL MODULE	FIELD VERIFY
[MM]	ADDRESSABLE MONITOR MODULE	FIELD VERIFY
[M]	ADDRESSABLE MINI MONITOR MODULE	FIELD VERIFY
[P]	MANUAL PULL STATION	WALL @ 48"
[CR]	CONTROL RELAY (MULTI-VOLTAGE)	FIELD VERIFY
[ARM]	ADDRESSABLE RELAY MODULE	FIELD VERIFY
[WG]	WIRELESS GATEWAY	FIELD VERIFY
[KB]	KNOX BOX	FIELD VERIFY
[MDH]	MAGNETIC DOOR HOLDER	FIELD VERIFY
[WFS]	WATER FLOW SWITCH	BY OTHERS
[VTS]	VALVE TAMPER SWITCH	BY OTHERS
[GVS]	GATE VALVE TAMPER SWITCH	BY OTHERS
[CMST]	CEILING MOUNT STROBE	FIELD VERIFY
[CMH]	CEILING MOUNT HORN / STROBE	FIELD VERIFY
[CMS]	CEILING MOUNT SPEAKER / STROBE	FIELD VERIFY
[H]	HORN	WALL @ 10'-0"
[S]	SPEAKER / STROBE	WALL 80"-96"
[ST]	STROBE	WALL 80"-96"

RESERVED FOR CITY STAMP

REVISION	DESCRIPTION	DATE
0	ISSUED FOR REVIEW & APPROVAL	11/10/2016



SEACOAST SECURITY
 4 Summer Street • Freeport, Maine 04032
 Office: (207) 706-3369 • Fax: (207) 865-0852

15 UNIT APARTMENT BUILDING
48 WILMOT STREET
PORTLAND, MAINE 04101
BATTERY CALC, DETAILS, LEGEND, MATRIX, NOTES

DRAWN	JPB	UNICAD JOB #16883
CHECKED	WAYNE B. HANS	NCET # 90496
DATE	11/10/2016	
REVISION	0	
SCALE	NONE	

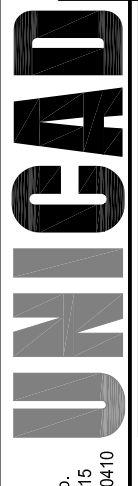
FA-1

APPLICABLE CODES:

MAINE UNIFORM ENERGY & BUILDING CODE
 PORTLAND CITY CODE, CHAPTER 10, FIRE PREVENTION & PROTECTION
 NFPA 1, FIRE CODE, & NFPA 101, LIFE SAFETY CODE

FACP Battery Calculation		11/9/2016	
PROJECT NAME: 48 WILMOT ST APARTMENTS		24 Hours	
Required Standby Time: 5 Minutes		3 Minutes	
Device Type	Number of Devices	Current (Amps)	Total Current (Amps)
FACP - MS9200UDLS MAIN CIRCUIT BOARD	1	0.0000	0.0000
XRM-24B	1	0.0000	0.0000
ANN-80 REMOTE ANNUNCIATOR	1	0.0100	0.0100
SD355 SMOKE DETECTOR	1	0.0030	0.0030
MMF-301 MINI-MOD. W/BG12LX PULL STATION	1	0.00038	0.00038
MMF-301 MINI MONITOR MODULES	1	0.00038	0.00038
TOTAL STANDBY LOAD			0.16105
Device Type	Number of Devices	Current (Amps)	Total Current (Amps)
FACP - MS9200UDLS MAIN CIRCUIT BOARD	1	0.27500	0.27500
XRM-24B	1	0.00000	0.00000
ANN-80 REMOTE ANNUNCIATOR	1	0.04000	0.04000
MAX ALARM DRAW - ALL ADDRESS DEVICES	1	0.40000	0.40000
NAC-1 (See Voltage Drop Calculations)	1	0.42800	0.42800
NAC-2 (See Voltage Drop Calculations)	1	0.32200	0.32200
NAC-3 (See Voltage Drop Calculations)	1	0.32200	0.32200
NAC-4 (See Voltage Drop Calculations)	1	0.32200	0.32200
TOTAL ALARM LOAD			2.10900
Battery Requirements			
Standby Load	0.16105	X	Required Standby Time in Hours = 3.86520
Alarm Load	2.10900	X	Required Alarm Time in Hours = 1.7575
Current (Amps)	0.08533	X	Derating Factor = 1.2
Total Ampere Hours (before derating factor)		X	TOTAL AMPERE HOURS REQUIRED = 4.84914
			BATTERIES TO BE PROVIDED (2 - 12V) = 7 AH

OPERATIONS MATRIX	ACTIVATE ALARM	ACTIVATE SUPERVISORY INDICATOR	ACTIVATE TROUBLE INDICATOR	ACTIVATE ALARM INDICATOR	ACTIVATE SUPERVISORY SIGNAL	ACTIVATE TROUBLE SIGNAL	ACTIVATE ALARM SIGNAL	ACTIVATE SUPERVISORY SIGNAL	TRANSMIT TROUBLE SIGNAL
FIRE ALARM INPUT	●								
SMOKE DETECTORS	●								
PULL STATIONS	●								
WATERFLOW SWITCHES		●							
VALVE TAMPER SWITCHES		●							
FIRE ALARM AC POWER FAIL		●							
FIRE ALARM LOW BATTERY		●							
OPEN CIRCUIT		●							
GROUND FAULT		●							
NAC SHORT CIRCUIT		●							
LOSS OF AC TO BUILDING		●							



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