

REVISION	DESCRIPTION	DATE
0	ISSUED FOR REVIEW & APPROVAL	4/19/2016
1	REVISED PER FULL SPRINKLER SYSTEM	8/4/2016

CUNNINGHAM
Security Systems

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32 THOMAS STREET APARTMENTS
32 THOMAS STREET
PORTLAND, MAINE 04102

DETAILS, LEGEND, NOTES, RISER DIAGRAM

DRAWN	JPB	UNICAD JOB #16190
CHECKED	WAYNE B. HAWES	NICET # 90496
DATE	4/19/2016	
REVISION	1	
SCALE	AS NOTED	

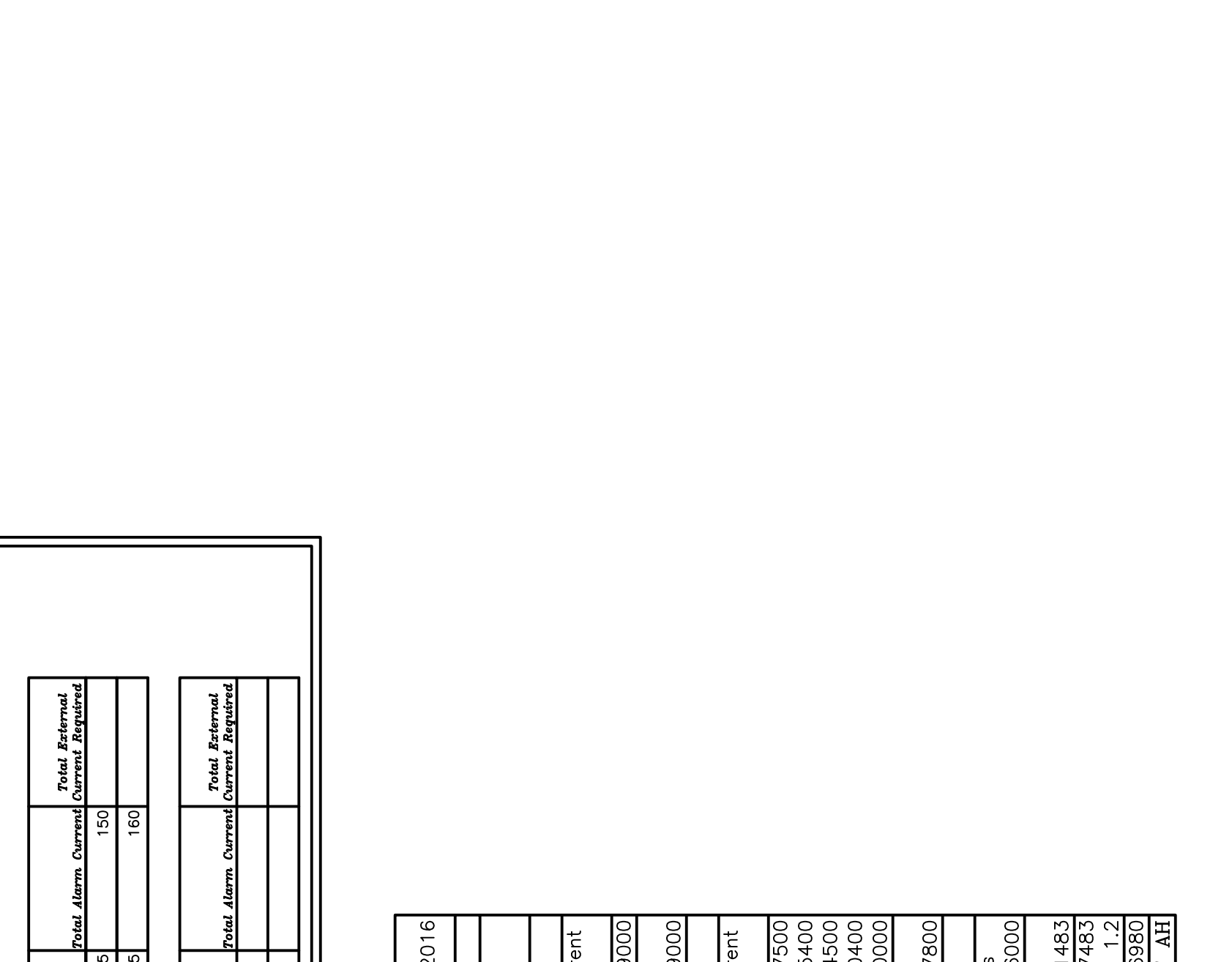
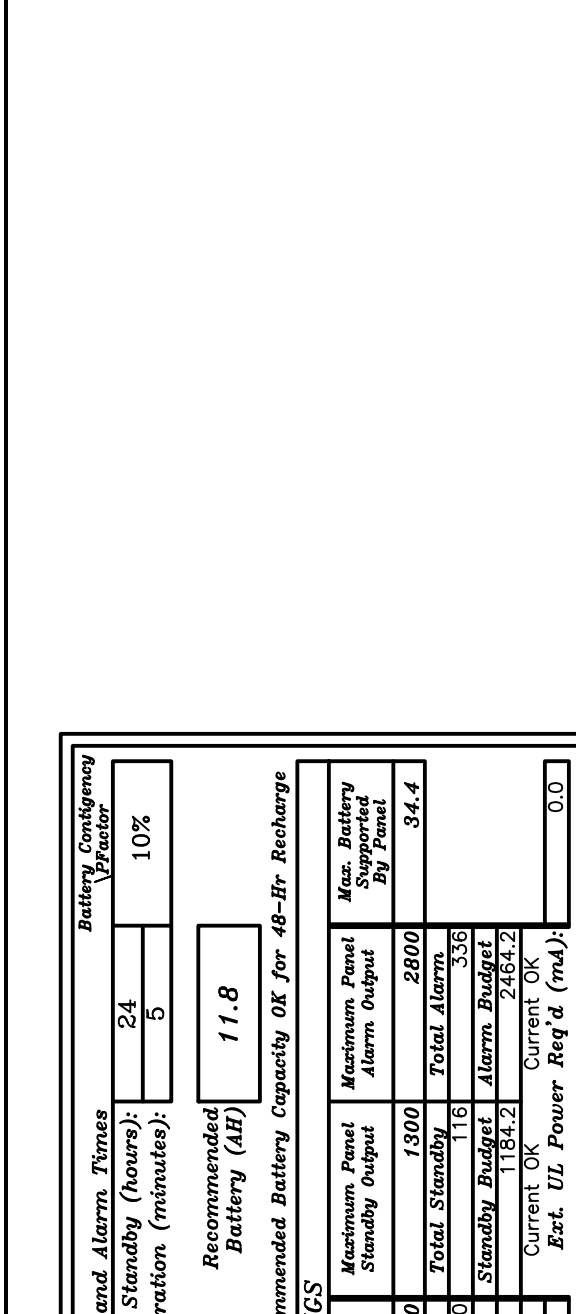
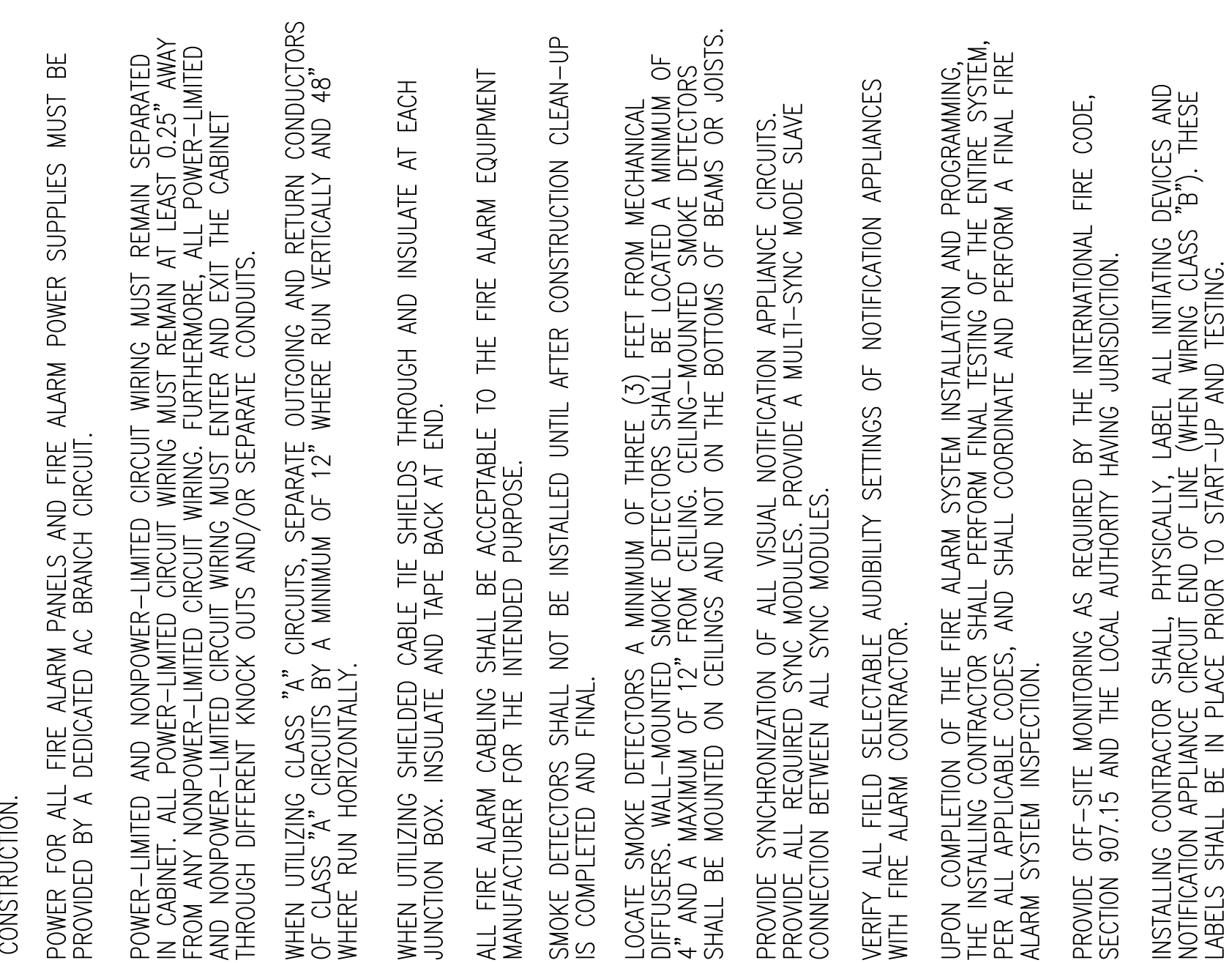
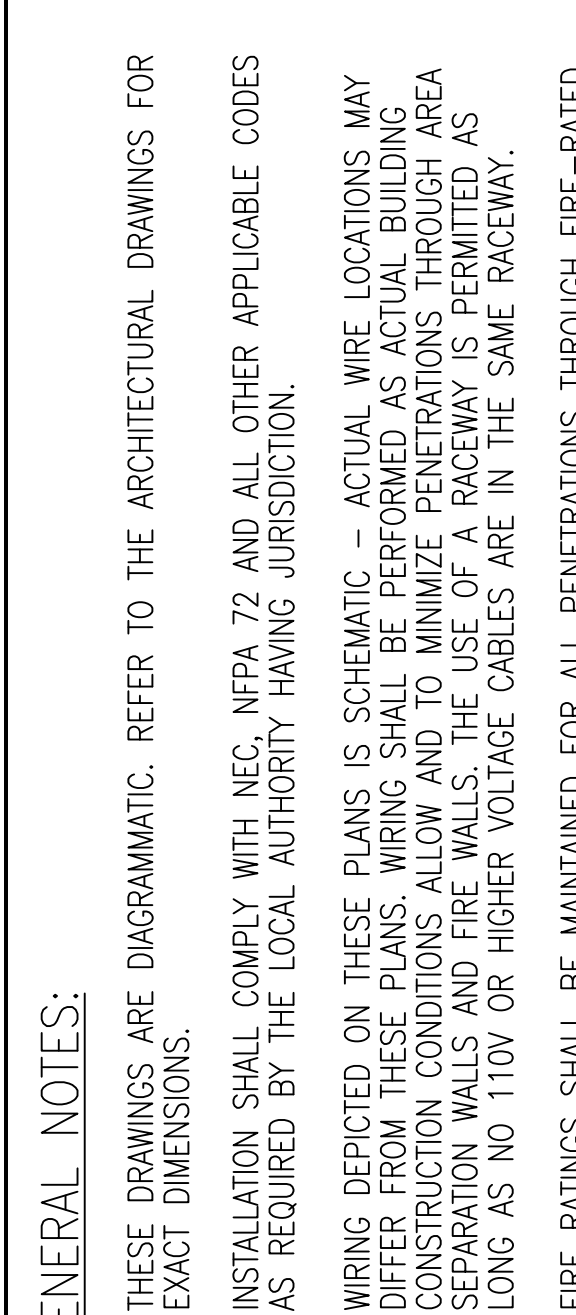
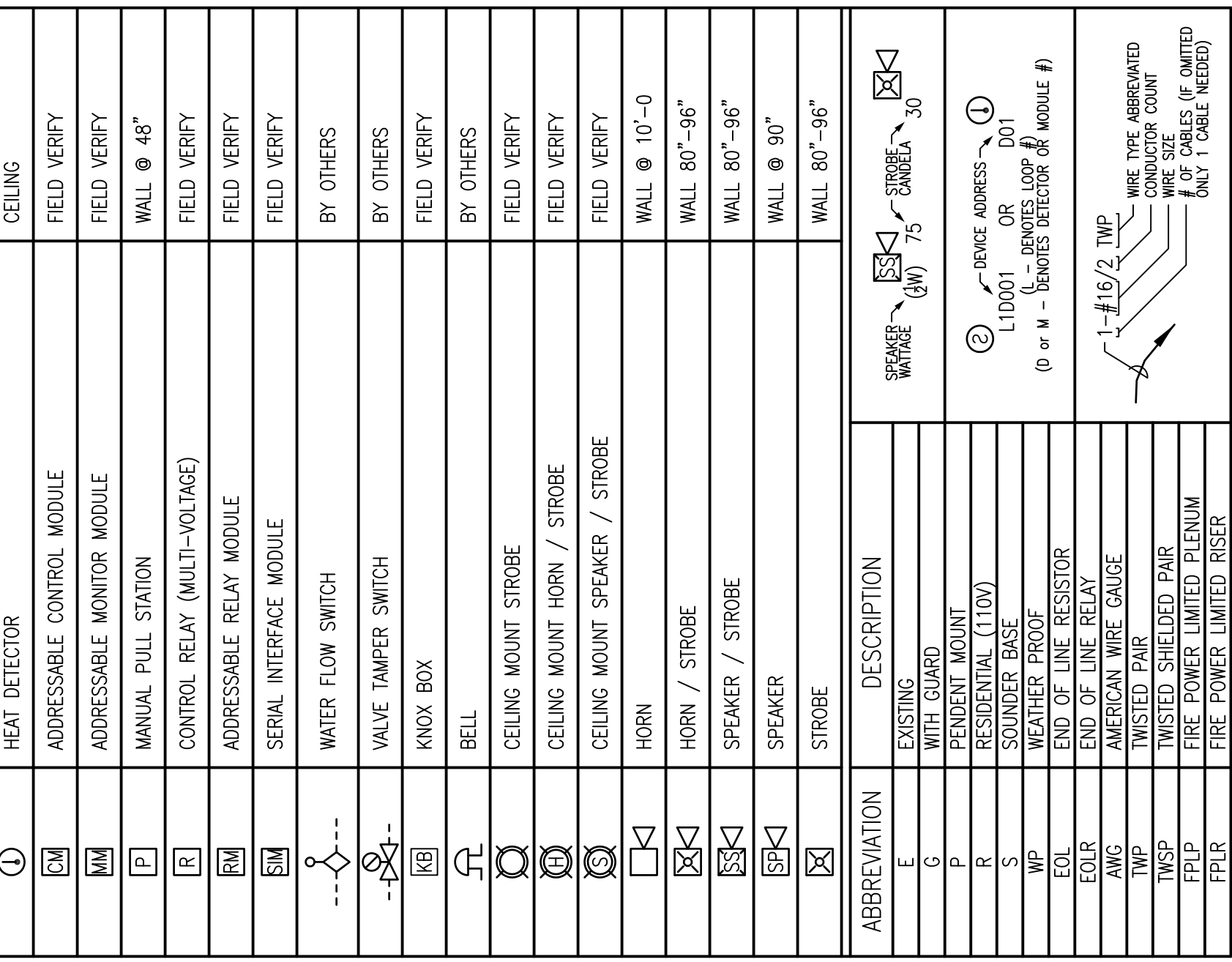
FIRE ALARM SYMBOL LEGEND
NOTE: ALL SYMBOLS MAY NOT BE USED ON THIS PROJECT

SYMBOL	DESCRIPTION	MOUNTING
FACE	FIRE ALARM CONTROL PANEL	WALL-TOP @ 66"
FPS	FIRE ALARM POWER SUPPLY	FIELD VERIFY
FSA	FIRE SYSTEM ANNUNCIATOR	WALL-TOP @ 66"
FSD	FIRE/SMOKE DAMPER	BY OTHERS
⊙	SMOKE DETECTOR	CEILING
⊙-	DUCT SMOKE DETECTOR	BY OTHERS
⊙	HEAT DETECTOR	CEILING
⊙M	ADDRESSABLE CONTROL MODULE	FIELD VERIFY
⊙M	ADDRESSABLE MONITOR MODULE	FIELD VERIFY
P	MANUAL PULL STATION	WALL @ 48"
⊙	CONTROL RELAY (MULTI-VOLTAGE)	FIELD VERIFY
⊙M	ADDRESSABLE RELAY MODULE	FIELD VERIFY
⊙M	SERIAL INTERFACE MODULE	FIELD VERIFY
⊙-	WATER FLOW SWITCH	BY OTHERS
⊙-	VALVE TAMPER SWITCH	BY OTHERS
⊙	KNOX BOX	FIELD VERIFY
⊙	BELL	FIELD VERIFY
⊙	CEILING MOUNT STROBE	FIELD VERIFY
⊙	CEILING MOUNT HORN / STROBE	FIELD VERIFY
⊙	CEILING MOUNT SPEAKER / STROBE	FIELD VERIFY
⊙	HORN / STROBE	WALL @ 10'-0"
⊙	SPEAKER / STROBE	WALL 80"-96"
⊙	SPEAKER	WALL 80"-96"
⊙	STROBE	WALL 80"-96"



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 DERIVED 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.



APPLICABLE CODES:

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

FPS1 Battery Calculation 4/18/2016

PROJECT NAME: 32 THOMAS ST APTS
Required Standby Time: 24 Hours
Required Alarm Time: 5 Minutes

Device Type	Number	Current (Amps)	Total Current (Amps)
FPS1 - ALTRONIX AL802ULADA MAINBOARD	1	0.09000	0.09000
TOTAL STANDBY LOAD			
Number of Devices	1	0.09000	0.09000
Current (Amps)	0.17500		0.17500
FPS1-1 (See Voltage Drop Calculations)	1	1.45400	1.45400
FPS1-2 (See Voltage Drop Calculations)	1	1.04500	1.04500
FPS1-3 (See Voltage Drop Calculations)	1	1.10400	1.10400
FPS1-4 (See Voltage Drop Calculations)	1	0.00000	0.00000
TOTAL ALARM LOAD			
Number of Devices	4	0.09000	0.36000
Current (Amps)	0.83400		0.83400
FPS1-1 (See Voltage Drop Calculations)	1	0.31483	0.31483
FPS1-2 (See Voltage Drop Calculations)	1	0.24743	0.24743
FPS1-3 (See Voltage Drop Calculations)	1	0.27174	0.27174
FPS1-4 (See Voltage Drop Calculations)	1	0.00000	0.00000
BATTERIES TO BE PROVIDED (2 - 12V)			
Standby Load (Amps)	0.09000	Required Standby Time in Hours	24.00000
Alarm Load (Amps)	0.83400	Required Alarm Time in Hours	2.16000
Current (Amps)	0.92400		0.92400
Rating Factor	0.83400		0.83400
Derating Factor	0.83400		0.83400
TOTAL AMPERE HOURS REQUIRED			2.96980
BATTERIES TO BE PROVIDED (2 - 12V)			7.481

SELECTED PANEL MAXIMUM OUTPUT RATINGS

Panel	Standby Power (Watt)	Power Alarm (Watt)	Peak Alarm (Watt)	Max. Battery Standby Output (Watt)	Max. Battery Alarm Output (Watt)
Vista-128FBP	128	1700	470	1300	2800
6160 (DISPLAY)	253	30	330	2800	38.4
6160C22 (ANNUNCIATOR)	102.2	910.0	1350.0	2800	38.4

RECOMMENDED BATTERY CAPACITY OR FOR 48-Hr. Recharge

Panel	Standby Power (Watt)	Power Alarm (Watt)	Peak Alarm (Watt)	Max. Battery Standby Output (Watt)	Max. Battery Alarm Output (Watt)
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6160C22 (ANNUNCIATOR)	102.2	910.0	1350.0	2800	38.4

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