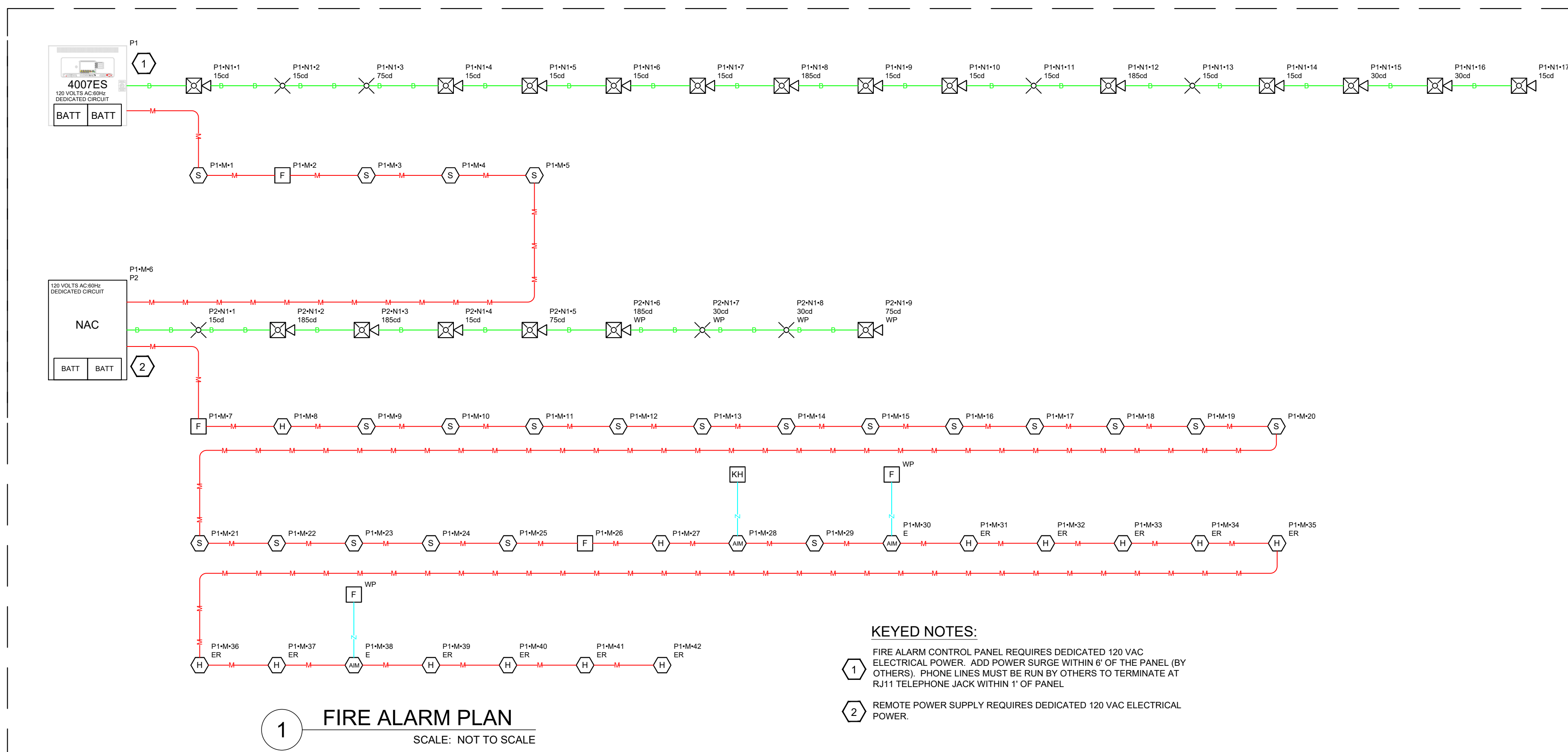


DESIGN INFORMATION	
BUILDING/FIRE CODE	IFC 2015
OCCUPANCY GROUP	R-2
SYSTEM TYPE	ANALOG ADDRESSABLE
SPRINKLER PROTECTION	NO
FIRE ALARM CONTRACTOR INFORMATION	
YOUR COMPANY NAME	TEXAS FIRE SERVICES
YOUR COMPANY ADDRESS	
YOUR COMPANY PHONE	
YOUR COMPANY LICENSE #	

ISSUE DATE:	
CONTRACT NO.:	
TASK ORDER NO.:	
PROJECT NUMBER:	
DATE:	
REVISION:	
FILE NAME:	

DESIGN BY:	
DRAWN BY:	
SBMT BY:	
PLOT SCALE:	1/8" = 1'-0"
CUSTOMER NAME:	
CUSTOMER ADDRESS:	
CUSTOMER CITY, STATE, ZIP:	
CUSTOMER PHONE:	
AHJ:	

FIRE ALARM SYSTEM FOR:
EAGLE PASS FIRE STATION 2
2420 SECOND STREET
EAGLE PASS, TEXAS 78862



KEYED NOTES:
1 FIRE ALARM CONTROL PANEL REQUIRES DEDICATED 120 VAC ELECTRICAL POWER. ADD POWER SURGE WITHIN 6' OF THE PANEL BY OTHERS. PHONE LINES MUST BE RUN BY OTHERS TO TERMINATE AT RJ11 TELEPHONE JACK WITHIN 1' OF PANEL.
2 REMOTE POWER SUPPLY REQUIRES DEDICATED 120 VAC ELECTRICAL POWER.

PANEL COMPONENTS		QTY	PART NO.	DESCRIPTION	CURRENT DRAW (A)	TOTAL (A)	SECONDARY ALARM CURRENT (AMPS)	TOTAL	
A007-9201 MOTHERBOARD		1	A007-9201	MAIN MOTHERBOARD	0.18	0.18	0.185	0.185	
P1-N1	⊗	9	A48MTV-APPLW W/A8AOC-WWFIRE	Audible/Visible Notification Appliances, Multi-Tone Horn/Strobe with 520 Hz Output White 150cd	0	0	0.108	0.972	
	⊗	2	A48MTV-APPLW W/A8AOC-WWFIRE	Audible/Visible Notification Appliances, Multi-Tone Horn/Strobe with 520 Hz Output White 300cd	0	0	0.125	0.25	
	⊗	2	A48MTV-APPLW W/A8AOC-WWFIRE	Audible/Visible Notification Appliances, Multi-Tone Horn/Strobe with 520 Hz Output White 150cd	0	0	0.257	0.514	
	⊗	3	A49VOC-CWF	Visible Notification Appliances, Ceiling Mount Multi-Candela Strobe, White, Fire 75cd	0.0008	0.0024	0.055	0.165	
	⊗	1	A49VOC-CWF	Visible Notification Appliances, Ceiling Mount Multi-Candela Strobe, White, Fire 75cd	0.0008	0.0008	0.153	0.153	
P1-M	⊗	1	A009-9601	4009 IDNAC Main Control Board	0.07	0.07	0.096	0.096	
	⊗	1	A4290-9001	IDNet Addressable Supervised Module IAM	0.0008	0.0008	0.001	0.001	
	⊗	2	A4290-9001	Supervised IAM, encapsulated with wire leads	0.0008	0.0016	0.001	0.002	
	⊗	2	A4298-9714 w/A4298-9792	TrueAlarm Photoelectric Smoke Detector w/TrueAlarm Sensor Standard Base	0.0008	0.0176	0.001	0.022	
	⊗	2	A4298-9733 w/A4298-9792	TrueAlarm Heat Detector w/TrueAlarm Sensor Standard Base	0.0008	0.0016	0.001	0.002	
	⊗	11	A4298-9732 w/A4298-9792E	TrueAlarm Heat Detector w/TrueAlarm Sensor Standard Base - Environmental rated	0.0008	0.0088	0.001	0.011	
	⊗	3	A4299-9006	Addressable Manual Pull Station Double Action, Push operation	0.0008	0.0024	0.001	0.003	
	TOTAL STANDBY (A)					0.286	0.286	0.286	2.376
	REQUIRED STANDBY TIME = 24 HOURS								6.86
	SECONDARY STANDBY LOAD (A)						24		6.86
	SECONDARY ALARM LOAD (A)						0.08		0.2
STANDBY AND ALARM SUBTOTAL (AMP HOURS)								7.06	
DERATING FACTOR								1.2	
SECONDARY LOAD REQUIREMENTS (AMP HOURS)								8.47	

PROVIDE (3) 12V 10AH BATTERIES @ 24VDC

PANEL COMPONENTS		QTY	PART NO.	DESCRIPTION	CURRENT DRAW (A)	TOTAL (A)	SECONDARY ALARM CURRENT (AMPS)	TOTAL
A009-9601 Main Board		1	A009-9601	System Batteries, Sealed Lead-Acid, 6.2 Ah	0.085	0	0	0
P2-N1	⊗	1	A48AV-APPLW-O W/A48AVC-WWALT-O	Audible/Visible Weatherproof Notification Appliances, Wall Mount Multi-Candela Horn/Strobe, White, Alert 75cd	0	0	0.238	0.238
	⊗	1	A48AV-APPLW-O W/A48AVC-WWALT-O	Audible/Visible Weatherproof Notification Appliances, Wall Mount Multi-Candela Horn/Strobe, White, Alert 185cd	0	0	0.274	0.274
	⊗	1	A48MTV-APPLW W/A8AOC-WWFIRE	Audible/Visible Notification Appliances, Multi-Tone Horn/Strobe with 520 Hz Output White 150cd	0	0	0.108	0.108
	⊗	1	A48MTV-APPLW W/A8AOC-WWFIRE	Audible/Visible Notification Appliances, Multi-Tone Horn/Strobe with 520 Hz Output White 185cd	0	0	0.158	0.158
	⊗	2	A48MTV-APPLW W/A8AOC-WWFIRE	Audible/Visible Notification Appliances, Multi-Tone Horn/Strobe with 520 Hz Output White 150cd	0	0	0.257	0.514
P2-M	⊗	1	A49VOC-CWF	Visible Notification Appliances, Ceiling Mount Multi-Candela Strobe, White, Fire 75cd	0.0008	0.0008	0.055	0.055
	⊗	2	A49VOC-CWF	Visible Notification Appliances, Ceiling Mount Multi-Candela Strobe, White, WEATHERPROOF 300cd	0.0008	0.0016	0.063	0.166
TOTAL STANDBY (A)					0.0874	24	0.083	2.1
REQUIRED STANDBY TIME = 24 HOURS								6.86
SECONDARY STANDBY LOAD (A)						24		6.86
SECONDARY ALARM LOAD (A)						0.08		0.2
STANDBY AND ALARM SUBTOTAL (AMP HOURS)								7.06
DERATING FACTOR								1.2
SECONDARY LOAD REQUIREMENTS (AMP HOURS)								8.47

PROVIDE (2) 12V 6AH BATTERIES @ 24VDC

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	29	Max. Voltage Drop:	3.87
Min. Operational Voltage:	15	End Of Line Voltage:	25.33
Max. Circuit Current (A):	3	Voltage Drop Percent:	12.65 %
Wire Resistance (Ω/FT):	3.07	Total Circuit Current (A):	2.054
Total Circuit Length (FT):	291	Spare Current (A) Percent:	0.846
Total Circuit Resistance (Ω):	1.197	Total Current (A) Percent:	31.53 %

Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
⊗	A49VOC-CWF	Visible Notification Appliances, Ceiling Mount Multi-Candela Strobe, White, Fire 75cd	3	0.055	0.165
⊗	A48MTV-APPLW W/A8AOC-WWFIRE	Audible/Visible Notification Appliances, Multi-Tone Horn/Strobe with 520 Hz Output White 150cd	9	0.108	0.972
⊗	A48MTV-APPLW W/A8AOC-WWFIRE	Audible/Visible Notification Appliances, Multi-Tone Horn/Strobe with 520 Hz Output White 300cd	2	0.125	0.25
⊗	A49VOC-CWF	Visible Notification Appliances, Ceiling Mount Multi-Candela Strobe, White, Fire 75cd	1	0.153	0.153
⊗	A48MTV-APPLW W/A8AOC-WWFIRE	Audible/Visible Notification Appliances, Multi-Tone Horn/Strobe with 520 Hz Output White 150cd	2	0.257	0.514

Calculation Methods:
Total Resistance (Ω) = Wire Resistance (Ω/FT) x 2 x Total Circuit Length (FT)
Total Voltage Drop = Total Resistance (Ω) x Total Circuit Current (A)

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	3.88
Min. Operational Voltage:	16	End Of Line Voltage:	17.32
Max. Circuit Current (A):	3	Voltage Drop Percent:	15.58 %
Wire Resistance (Ω/FT):	3.07	Total Circuit Current (A):	1.813
Total Circuit Length (FT):	331	Spare Current (A) Percent:	1.487
Total Circuit Resistance (Ω):	2.033	Total Current (A) Percent:	49.87 %

Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
⊗	A49VOC-CWF	Visible Notification Appliances, Ceiling Mount Multi-Candela Strobe, White, Fire 150cd	1	0.055	0.055
⊗	A49VOC-CWF	Visible Notification Appliances, Ceiling Mount Multi-Candela Strobe, White, Fire 150cd	2	0.083	0.166
⊗	A48MTV-APPLW W/A8AOC-WWFIRE	Audible/Visible Notification Appliances, Multi-Tone Horn/Strobe with 520 Hz Output White 150cd	1	0.108	0.108
⊗	A48MTV-APPLW W/A8AOC-WWFIRE	Audible/Visible Notification Appliances, Multi-Tone Horn/Strobe with 520 Hz Output White 75cd	1	0.158	0.158
⊗	A48AV-APPLW-O W/A48AVC-WWALT-O	Audible/Visible Weatherproof Notification Appliances, Wall Mount Multi-Candela Horn/Strobe, White, Alert 75cd	1	0.238	0.238
⊗	A48MTV-APPLW W/A8AOC-WWFIRE	Audible/Visible Notification Appliances, Multi-Tone Horn/Strobe with 520 Hz Output White 185cd	2	0.257	0.514
⊗	A48AV-APPLW-O W/A48AVC-WWALT-O	Audible/Visible Weatherproof Notification Appliances, Wall Mount Multi-Candela Horn/Strobe, White, Alert 185cd	1	0.274	0.274

Calculation Methods:
Total Resistance (Ω) = Wire Resistance (Ω/FT) x 2 x Total Circuit Length (FT)
Total Voltage Drop = Total Resistance (Ω) x Total Circuit Current (A)