

designed NW/CH/MP/L
drawn MW
checked BFT
date 01/26/2012
scale AS NOTED
job no. 212004

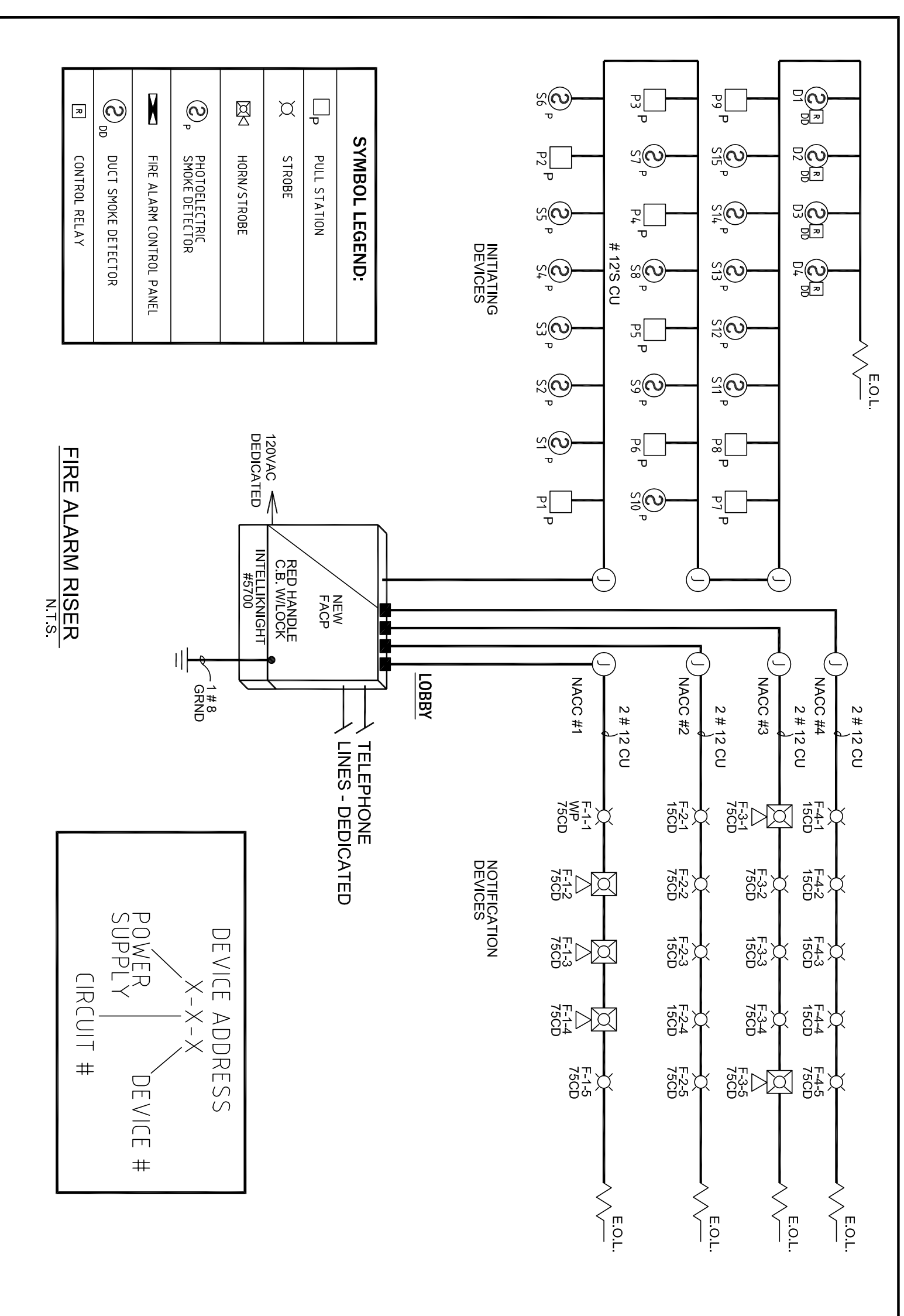
FACP BATTERY CALCULATIONS

DEVICE	NUMBER OF DEVICES	CURRENT PER DEVICE	TOTAL	ALARM CURRENT	TOTAL
CONTROL PANEL	1	0.002A	0.002A	0.325A	0.325A
CURRENT SUB-TOTAL			0.002A	0.325A	0.325A
A. INITIATING DEVICES					
PHOTO ELEC SMOKE DET	15	0.012A	0.18A	0.013A	.195A
SMOKE DUCT DET	4	0.021A	0.084A	0.055A	0.26A
PULL STATION	9	0.023A	0.207A	0.003A	0.0027A
CURRENT SUB-TOTAL			0.473A		0.4577A
B. NOTIFICATION DEVICES					
WALL STROBE 75CD	8	0.0A	0.0A	0.153A	1.224A
WALL STROBE 15CD	8	0.0A	0.0A	0.153A	1.224A
WALL HORN/STROBE 75CD	5	0.0A	0.0A	0.112A	0.56A
CURRENT SUB-TOTAL			0.0A		3.008A
CURRENT TOTAL			0.473A		3.7907A
STANDBY TIME		STANDBY CURRENT		STANDBY A.H.	
24 HOURS	X	0.473 AMPS	=	11.3 AMP HOURS	
ALARM TIME		ALARM CURRENT		ALARM A.H.	
0.0833 HOURS (5 MINUTES)	X	3.7907 AMPS	=	0.315 AMP HOURS	
STANDBY A.H.		ALARM A.H.		MINIMUM A.H. BATTERY	
11.3 A.H.	+	0.315 A.H.	=	11.6 X 1.2 = 13.92	

BATTERY PROVIDED = 14.0 AH
BATTERY CHARGING CAPACITY RANGES FROM 7.0 - 35.0 AH

NOTIFICATION APPLIANCE CIRCUIT CALCULATIONS

DEVICE	CIRCUIT #1	CIRCUIT #2	CIRCUIT #3	CIRCUIT #4
WALL STROBE (75CD)	2	2	2	2
WALL STROBE (15CD)	-	3	1	1
HORN/STROBE (75CD)	3	-	2	-
TOTAL DRAW AMPS FOR CIRCUIT #1	6.42	.765	.683	.765
TOTAL DRAW AMPS ALLOWED PER CIR.	2.0	2.0	2.0	2.0
AMPS REMAINING	1.358	1.235	1.317	1.235
TOTAL ALARM CURRENT REQUIRED = 3.0 AMPS				



FIRE ALARM RISER & CALCULATIONS

NOT TO SCALE

System Outputs:	Control Unit Alarm	Notification	Fire Safety	Supp
Actuate common alarm signal indicator				
Actuate audible alarm signal indicator				
Actuate common supervisory signal indicator				
Actuate audible supervisory signal indicator				
Actuate visual alarm signal indicator				
Actuate audible/visual alarm signal indicator				
Actuate visual alarm signal indicator				
Actuate audible/visual Common Trouble signal				
Display/print change of status				
Transmit fire alarm signal to supervising station				
Transmit supervisory signal to supervising station				
Transmit trouble signal to supervising station				
Shut-off A/E equipment				
Actuate exterior strobe at 1st response point				
Shut-off Hood Exhaust				

System Inputs:	A	B	C	D	E	F	G	H	I	J	K	L	M
1. Manual pull stations													
2. Fire alarm at power failure													
3. Fire alarm system low battery													
4. Open circuit													
5. Ground fault													
6. Notification appliance circuit short													
7. Smoke detector (General Areas)													
8. Voltage monitor													
9. Smoke Duct Detectors (A/C Unit)													
10. Annuil System (hood) NOT AVAILABLE													

NOTE: PERMISSION CHANGES TO THE SYSTEM COVERED BY THESE PLANS WITHOUT PRIOR APPROVAL OF THE ENGINEER WHO PREPARED THESE PLANS. WILL NULL AND VOID THESE PLANS AND THE REVISIONS ASSOCIATED WITH RETURNING THE SYSTEM TO ITS ORIGINAL DESIGN WILL BE THE RESPONSIBILITY OF THE COMPANY WHICH APPROVED THESE CHANGES.
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