	Facility Info	ormation					Standby a	nd Alarm Times	E	Battery Contig \PFactor
Honeywell Security	Location:		CK ROWHOUS	E - 106 PAR	K STREET	] '		Standby (hours):	24	10%
Battery & Power Budget Calculator	Account #:					] .	Alarm Dur	ation (minutes):	5	10%
2003 Honeywell International Inc. All Rights Reserved	Model:			Vist	a-128FBP					•
	Engineer:					l		Recommended		
	Date:			4	/25/2013	J		Battery (AH)	70.0	
							Recom	mended Battery C	apacity OK for 4	8-Hr Recha
			SELEC	CTED PANE	L MAXIMU	M OUTPU	T RATING	'S		
PANEL:	Polling\	Standby	Alarm	Panel	Panel	Bell #1	Bell #2	Maximum Panel	Maximum Panel	Max. Batte
Vista-128FBP	\PLoop (mA)	Auxiliary Power (mA)	Auxiliary Power (mA)	$Standby \ (mA)$	Alarm (mA)	Output (mA)	Output (If Used: mA)	Standby Output	Alarm Output	Supported By Panel
	128	1000	1700	300	470	1700	1700	1300	2800	34
								Total Standby	Total Alarm	
Calculated Current Draw	45.7	155	260	Calculated	l Bell Draw	0	0	201		
Power Budget	82.3	845.0	1440.0	Poll Po	wer Budget	1700.0	1700.0	Standby Budget 1099.3		
Fower Bauget	Current OK	Current OK	Current OK	Dett Fo	wer Baayet	Current OK	1700.0	Current OK	Current OK	
			Fastama al	Dall Danner	Dam'd (and 4 ).	0.0		Fort III Dogg	er Reg'd (mA):	C
	I	Heavy manual	Externat	Bell Power I	xeq a (ma):	0.0	Total	Ext. UL Fow	er neg u (ma).	
KEYPADS	Enter Quantity	How many powered by 4297?	Standby (aux	Alarm Current (Aux)		Total Polling	Total Standby Current	Ext. OL Fow  Total Alarm Current	Total External	
KEYPADS 6160CR2		powered	Standby (aux pwr)	Alarm Current (Aux)	Polling Loop	Total Polling	Standby		Total External Current Required	
		powered by 4297?	Standby (aux pwr)	Alarm Current (Aux)	Polling Loop	Total Polling	Standby Current 45	Total Alarm Current	Total External Current Required	
		powered by 4297?	Standby (aux pwr)	Alarm Current (Aux)	Polling Loop	Total Polling	Standby Current 45 Total Standby	Total Alarm Current	Total External Current Required Total External	
6160CR2	Quantity 1 Enter	powered by 4297?  O  How many powered	Standby (aux pwr) 45 Standby (aux	Alarm Current (Aux) 150  Alarm Current (Aux)	Polling Loop	Total Polling Loop Total Polling	Standby Current 45 Total Standby	Total Alarm Current 150 Total Alarm Current	Total External Current Required Total External Current Required	
6160CR2  AUXILIARY POWERED DEVICES	Quantity 1 Enter	powered by 4297?	Standby (aux pwr) 45 Standby (aux pwr)	Alarm Current (Aux) 150  Alarm Current (Aux) 100	Polling Loop	Total Polling Loop Total Polling	Standby Current 45 Total Standby Current	Total Alarm Current 150  Total Alarm Current 110	Total External Current Required Total External Current Required	
AUXILIARY POWERED DEVICES PS24 24 VOLT POWER SUPPLY MODULE	Quantity 1 Enter	powered by 4297?  O  How many powered by 4297?	Standby (aux pwr)  45  Standby (aux pwr)  50	Alarm Current (Aux) 150  Alarm Current (Aux) 100	Polling Loop	Total Polling Loop Total Polling	Standby Current 45 Total Standby Current	Total Alarm Current 150  Total Alarm Current 110	Total External Current Required Total External Current Required	
AUXILIARY POWERED DEVICES PS24 24 VOLT POWER SUPPLY MODULE 5881EN RECEIVER	Enter Quantity  1  Enter Quantity  1  Enter	powered by 4297?  O  How many powered by 4297?  O  How many powered	Standby (aux pwr) 45 Standby (aux pwr) 50 60 Standby (aux	Alarm Current (Aux) 150  Alarm Current (Aux) 100 0	Polling Loop	Total Polling Loop  Total Polling Loop  Total Polling	Standby Current 45  Total Standby Current 50 60  Total Standby	Total Alarm Current 150  Total Alarm Current 110 0	Total External Current Required  Total External Current Required	
AUXILIARY POWERED DEVICES PS24 24 VOLT POWER SUPPLY MODULE	Enter Quantity  1  1  1  1  1	powered by 4297?  O  How many powered by 4297?  O  How many	Standby (aux pwr)  45  Standby (aux pwr)  50  60	Alarm Current (Aux) 150  Alarm Current (Aux) 100	Polling Loop	Total Polling Loop  Total Polling Loop  Total Polling Loop	Standby Current 45  Total Standby Current 50 60  Total Standby	Total Alarm Current 150  Total Alarm Current 110	Total External Current Required  Total External Current Required	

							Standby/A	larm Durations	E	Battery Contige \PFactor
						,		tandby (hours):	24	10%
								ation (minutes):	5	10%
	Required Capacity (AH):							1.145		
								Recommended Battery (AH):		
								mended Battery C	apacity OK for 4	8-Hr Rechar
			- i	ER SUPPL			JM CAPAC	ITIES		
	Panel 12V Standby (mA)	Panel 121 Alarm (mA)	V Output A Standby (mA)	Output A Alarm (mA)	Output B Standby (mA)	Output B Alarm (mA)	PS24 PC Board (mA)	Maximum Panel Standby Output	Maximum Panel Alarm Output	Max. Batter Capacity
	40	7	76 57	0 1700	570	1700	40	610		34.
Calculated Current Dra	,,		0.0	0 1024	0	0	40	Total Standby 40	<b>Total Alarm</b> 1064	
Calculated Current Draw 0.0		.0	7.0	0 102+		0	40	Standby Budget		
Power Budge	500.7	775.	7 570.	.0 676.0	570.0	1700.0		570.0		
Power Budge 24V NOTIFICATION APPLIANCES	Enter Quantity	Which PS24 Output?	7 570.  Device Standby Load (mA)	Device Alarm Load (mA)	570.0	1700.0 Subtotal A	Subtotal A Alarm			3
24V NOTIFICATION APPLIANCES	Enter	Which P524	Device Standby	Device Alarm	570.0	Subtotal A		570.0	3116.0	3
24V NOTIFICATION APPLIANCES HORN STROBES (15CD)	Enter	Which P524	Device Standby	Device Alarm Load (mA)	570.0	Subtotal A	Alarm	570.0	3116.0	3
24V NOTIFICATION APPLIANCES HORN STROBES (15CD) HORN STROBES (30CD)	Enter	Which P524	Device Standby Load (mA)	Device Alarm Load (mA)	570.0	Subtotal A	Alarm 474	Subtotal B Standby	3116.0	3
	Enter	Which P524	Device Standby Load (mA)	Device Alarm Load (mA) 79	570.0	Subtotal A	474 214	Subtotal B Standby	3116.0	3

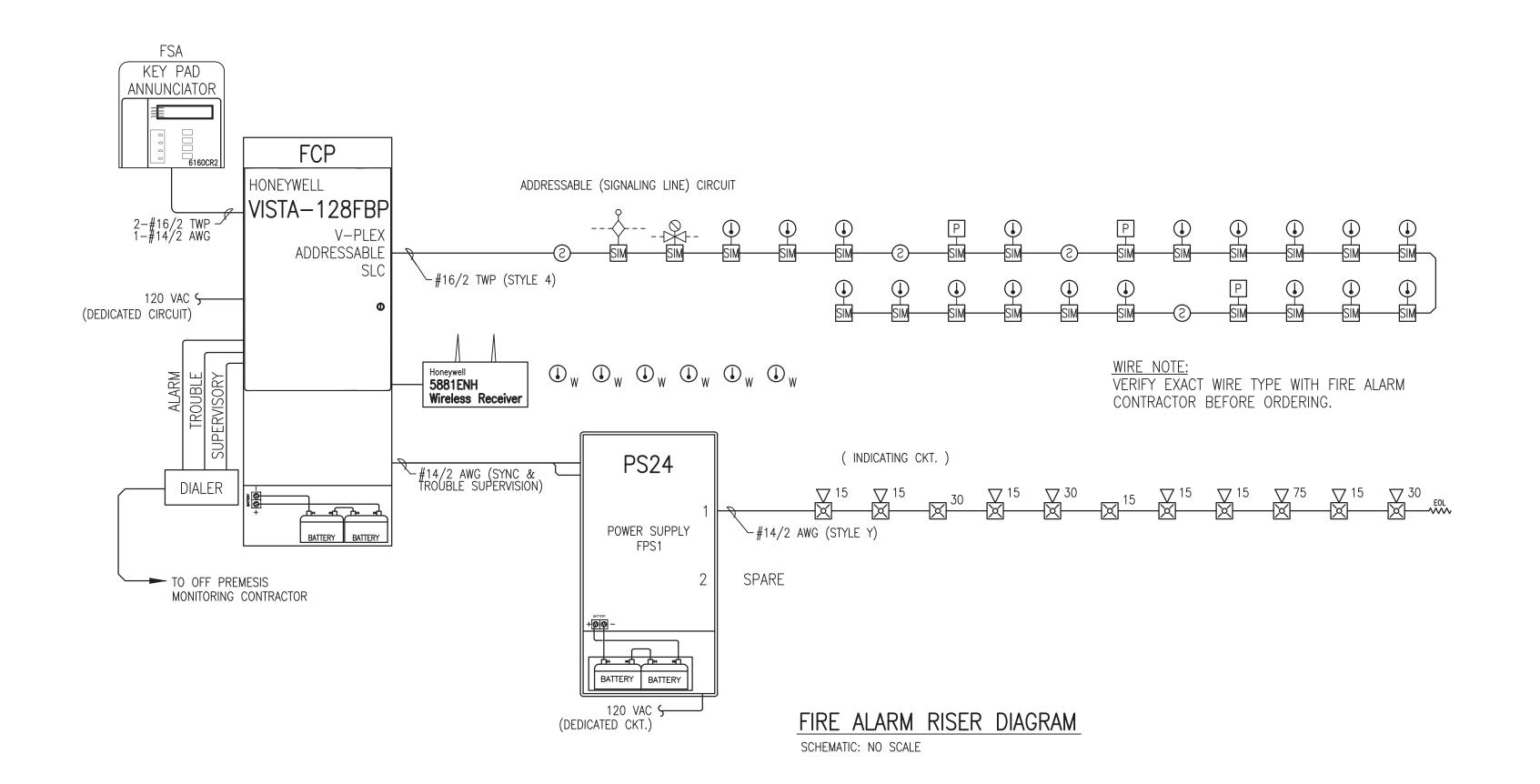
Project Name Circuit Number	FITZPATRICK ROWHOUSE-106 PARK STREET FPS1-1								
Nominal System Voltage Minimum Device Voltage Distance from source to 1st device Wire Gauge for balance of circuit	[	20.4 volts Wire 16 volts Gauge 5							
Max Output Current Total Circuit Current	1.7 amps 1.024 amps								
Circuit is within limits		Distance							
	Device	previous	Voltage at	Drop from	Percent				
_	Current	device	Device	source	Drop				
Device 1	0.079		20.37	0.03	0%				
Device 2	0.079	37	20.15	0.25	1%				
Device 3	0.094	13	20.08	0.32	2%				
Device 4	0.079	6	20.06	0.34	2%				
Device 5	0.107	20	19.97	0.43	2%				
Device 6	0.066	11	19.93	0.47	2%				
Device 7	0.079	24	19.86	0.54	3%				
Device 8	0.079	18	19.81	0.59	3%				
Device 0									
Device 9	0.176	7	19.79	0.61	3%				

19.76

0.64 3%

NAC Circuit Voltage Drop Calculation

Device 11



## GENERAL NOTES:

- 1. THESE DRAWINGS ARE DIAGRAMMATIC. REFER TO THE ARCHITECTURAL DRAWINGS FOR EXACT DIMENSIONS.
- 2. INSTALLATION SHALL COMPLY WITH NEC, NFPA 72 AND ALL OTHER APPLICABLE CODES AS REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
- 3. 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.
- 4. FIRE RATINGS SHALL BE MAINTAINED FOR ALL PENETRATIONS THROUGH FIRE—RATED CONSTRUCTION.
- 5. POWER FOR ALL FIRE ALARM PANELS AND FIRE ALARM POWER SUPPLIES MUST BE PROVIDED BY A DEDICATED AC BRANCH CIRCUIT.
- 6. 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.
- 7. 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.
- 8. WHEN UTILIZING SHIELDED CABLE TIE SHIELDS THROUGH AND INSULATE AT EACH JUNCTION BOX. INSULATE AND TAPE BACK AT END.
- 9. ALL FIRE ALARM CABLING SHALL BE ACCEPTABLE TO THE FIRE ALARM EQUIPMENT MANUFACTURER FOR THE INTENDED PURPOSE.
- 10. SMOKE DETECTORS SHALL NOT BE INSTALLED UNTIL AFTER CONSTRUCTION CLEAN-UP IS COMPLETED AND FINAL.
- 11. 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.
- 12. PROVIDE SYNCHRONIZATION OF ALL VISUAL NOTIFICATION APPLIANCE CIRCUITS. PROVIDE ALL REQUIRED SYNC MODULES. PROVIDE A MULTI-SYNC MODE SLAVE CONNECTION BETWEEN ALL SYNC MODULES.
- 13. VERIFY ALL FIELD SELECTABLE AUDIBILITY SETTINGS OF NOTIFICATION APPLIANCES WITH FIRE ALARM CONTRACTOR.
- 14. 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.
- 15. PROVIDE OFF-SITE MONITORING AS REQUIRED BY THE INTERNATIONAL FIRE CODE, SECTION 907.15 AND THE LOCAL AUTHORITY HAVING JURISDICTION.
- 16. 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.

FIRE ALARM SYMBOL LEGEND  NOTE: ALL SYMBOLS MAY NOT BE USED ON THIS PROJECT							
SYMBOL	DESCRIPTION		MOUNTING				
FCP	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				
(3)	SMOKE DETECTOR		CEILING				
② R	120V SMOKE DETECTOR		CEILING				
© R	120V CARBON MONOXIDE DETECTOR		CEILING				
S=-	DUCT SMOKE DETECTOR		BY OTHERS				
<b>(</b>	HEAT DETECTOR		CEILING				
SIM	SERIAL INTERFACE MODULE		FIELD VERIFY				
СМ	ADDRESSABLE CONTROL MODULE		FIELD VERIFY				
ММ	ADDRESSABLE MONITOR MODULE		FIELD VERIFY				
Р	MANUAL PULL STATION		WALL @ 48"				
R	CONTROL RELAY (MULTI-VOLTAGE)		FIELD VERIFY				
RM	ADDRESSABLE RELAY MODULE		FIELD VERIFY				
_&_	MAGNETIC DOOR HOLDER		FIELD VERIFY				
\$	WATER FLOW SWITCH		BY OTHERS				
	VALVE TAMPER SWITCH		BY OTHERS				
A	BELL		BY OTHERS				
Q	CEILING MOUNT STROBE		FIELD VERIFY				
lacktriangle	CEILING MOUNT HORN / STROBE		FIELD VERIFY				
Ø	CEILING MOUNT SPEAKER / STROBE		FIELD VERIFY				
$\square$	HORN / STROBE						
	SPEAKER / STROBE						
SP	SP SPEAKER						
$\boxtimes$	STROBE						
ABBREVIATION E G	DESCRIPTION  EXISTING WITH GUARD	SPEAKER — SS (1/2W) 7	STROBE 30				
P R S WP EOL EOLR	PENDENT MOUNT RESIDENTIAL (110V) SOUNDER BASE WEATHER PROOF END OF LINE RESISTOR END OF LINE RELAY	E ADDRESS (1) OR DO1 HOTES LOOP #) DETECTOR OR MODULE #)					
AWG	AMERICAN WIRE GAUGE	_1- <u>#16/2_TV</u>	VP WIRE TYPE ABBREVIATED				

TWISTED PAIR

FIRE POWER LIMITED PLENUM

FIRE POWER LIMITED RISER

TWSP

FPLR

OPERATIONS MATRIX  FIRE ALARM INPUT	FIRE ALARM OUTPUT	ACTIVATE ALARM INDICATOR	ACTIVATE AUDIBLE ALARM	ACTIVATE SUPERVISORY INDICATOR	ACTIVATE AUDIBLE SUPERVISORY SIGNAL	ACTIVATE TROUBLE INDICATOR	ACTIVATE AUDIBLE TROUBLE INDICATOR	TRANSMIT ALARM SIGNAL	TRANSMIT SUPERVISORY SIGNAL	TRANSMIT TROUBLE SIGNAL
SMOKE DETECTORS		•	•					•	<u> </u>	Ė
HEAT 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						•	•			•

shop drawings created by: 5794 W. 4600 So. Hooper, UT 84315 Office: 801.985.0410	UNICAD Inc.
www.unicad.net	Fire Alarm Design & Drafting Services

WIRE TYPE ABBREVIATED

CONDUCTOR COUNT

WIRE SIZE

# OF CABLES (IF OMITTED ONLY 1 CABLE NEEDED)

Security System

FITZPATRICK ROWHOUSE
106 PARK STREET
PORTLAND, MAINE 04101
FIRE ALARM PLAN

DRAWN

JPB
UNICAD JOB #13186

CHECKED

WAYNE B. HAWS
NICET IV 90496

DATE

2/25/2013

REVISION

0

SCALE

1/8"=1'-0"

FA-1