

THE DRAWING AND DESIGN HEREIN SHALL NOT BE DUPLICATED, USED OR DISCLOSED TO OTHERS FOR PROCUREMENT OR OTHER PURPOSES (EXCEPT AS OTHERWISE AUTHORIZED BY CONTRACT) WITHOUT WRITTEN PERMISSION OF SIEMENS INDUSTRY. ALL OTHER REPRODUCTIONS SHALL BEAR THIS NOTICE.

REVISIONS

No.	Revision	By	Date	Appr.

DESIGN ENGINEER:
PROJECT: 2007-0731
CONTACT: **Intermountain**
ENGINEERING
717 Market Street
Suite 500
San Francisco, CA 94103
TEL: 415.489.7240
FAX: 415.489.7269
www.intermountainengineering.com

ISA STAMP:
FILE NO. 41-C-1
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
01 - 110074
DATE: _____

CONTRACTOR'S NAME & ADDRESS:
InterMountain
ELECTRIC COMPANY
947 Washington Street
San Carlos CA 94070
Tel 650.591.7118 Fax 650.591.7123
contact@im-electric.com

PRODUCT MANUFACTURER:
SIEMENS
Industry
SAN FRANCISCO BRANCH
25821 Industrial Boulevard, Suite 300
Hayward, California 94545-2991
Tel (510) 783-6000 Fax (510) 293-2100
California State C10 License No. 758796
U.L. Certificate ID No. 324787-001

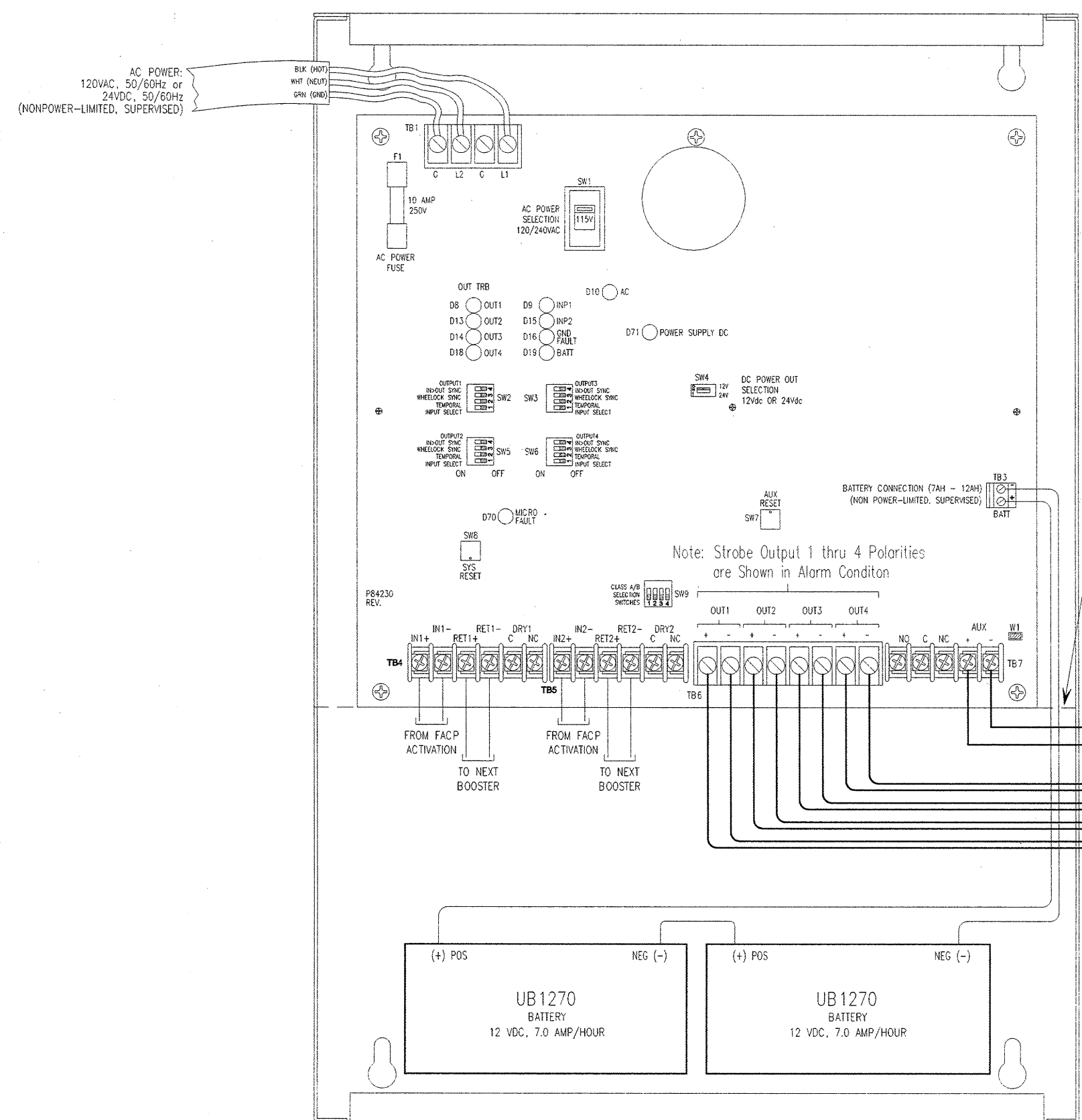
JOB NAME & LOCATION (STREET ADDRESS)
FIRE ALARM
FOR
SAN MATEO COUNTY COMMUNITY COLLEGE DISTRICT

CAÑADA COLLEGE
BUILDINGS 5 AND 6
MODERNIZATION

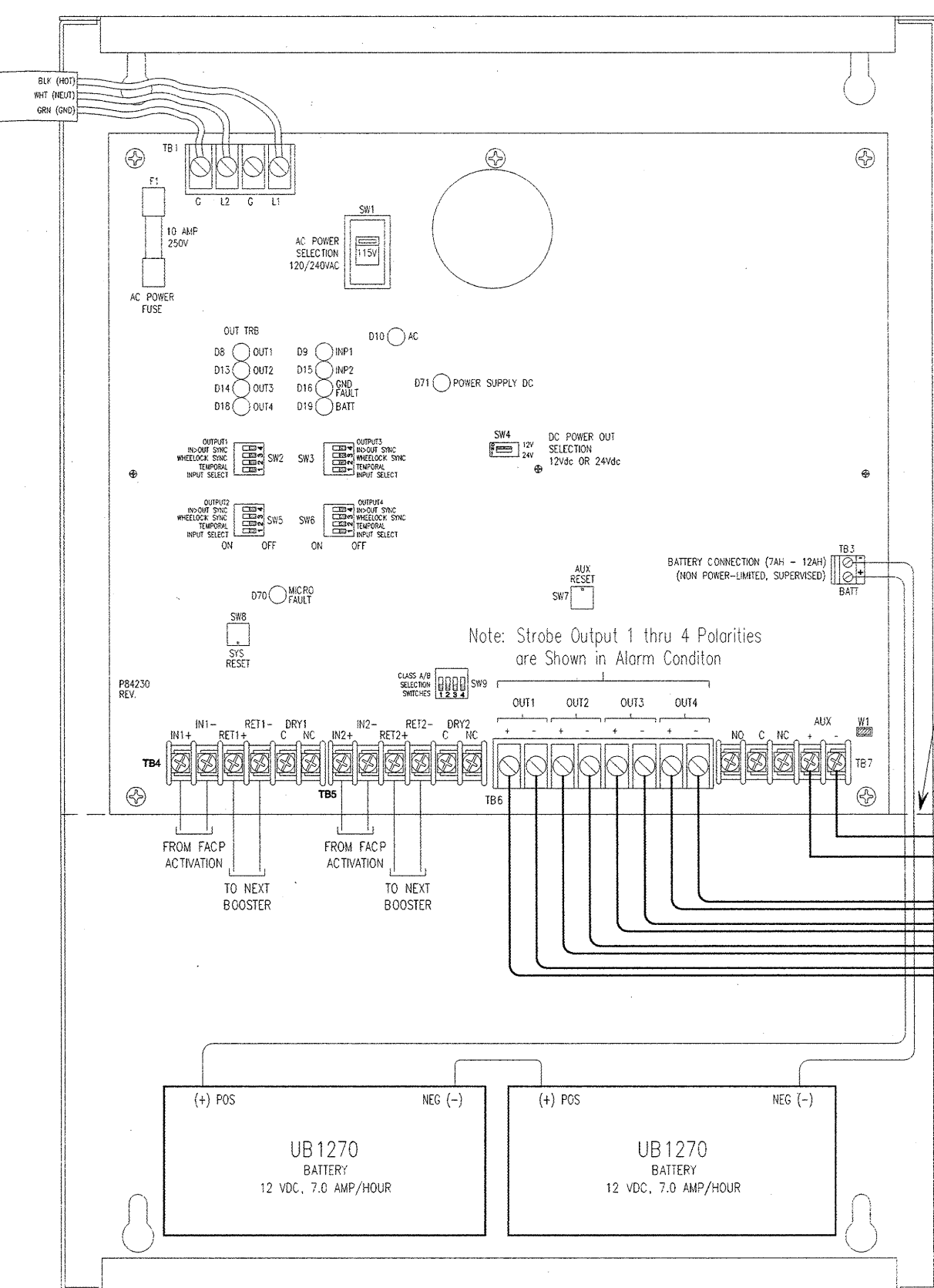
4200 FARM HILL BOULEVARD
REDWOOD CITY, CA 94061

SHEET CONTENTS:
COVER/ DRAWING
INDEX/ EQUIPMENT LIST
INSTALLATION TYPE
 NEW INSTALLATION
 DESIGN/BUILD
 PER CONTRACT DOCUMENT
 EXISTING BASE JOB # _____
 OTHERS _____

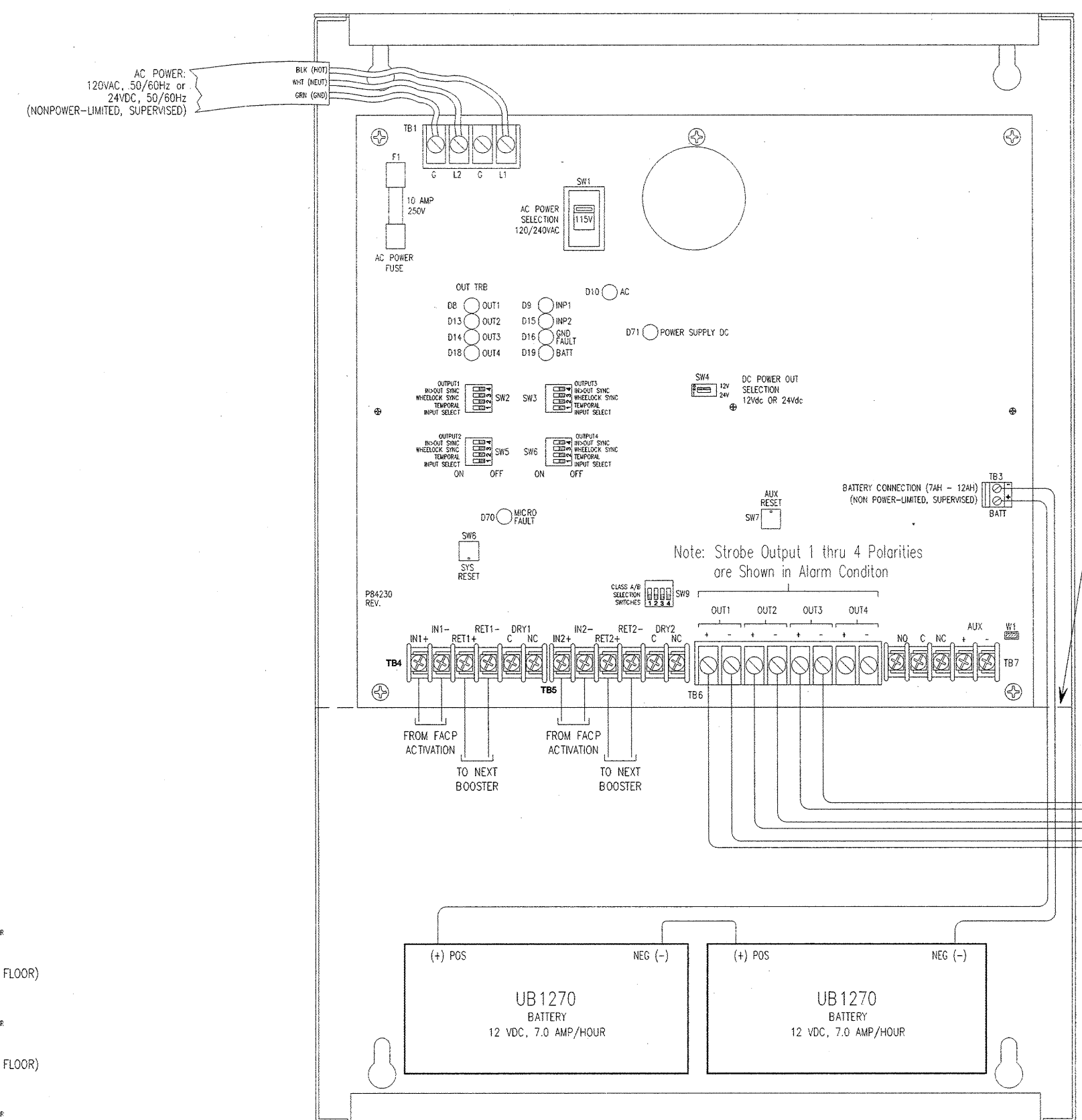
SYSTEM SALES REP.: Kelly Rogers
PROJECT MANAGER: Jesse Mangosing
DRAWN BY: Ronald Babiera
JOB NUMBER: 440P-070529.DWG
SCALE: N/A
DATE DRAWN: April 07, 2010 PLOT DATE: May 11, 2010
SHEET: **FA-03** JOB NUMBER: 440P-070529
NET NUMBER: 5249672



WHEELOCK POWER BOOSTER #1 (PS-24-8MC)
(FOR BUILDING 5 & 6 DEVICES)



WHEELOCK POWER BOOSTER #2 (PS-24-8MC)
(FOR BUILDING 5 DEVICES)



WHEELOCK POWER BOOSTER #3 (PS-24-8MC)
(FOR BUILDING 8 DEVICES)

NOTIFICATION CIRCUIT - NA1
VOLTAGE DROP CALCULATIONS

BASED ON POINT-TO-POINT OHM CALCULATIONS. ACCEPTABLE LIMIT IS 1.5% - 24 MAWD
OHM - 180 FEET BETWEEN THE FIRST AND SECOND - 180 FEET BETWEEN 2

TYPE #	TO	LINEAL FEET	RESISTANCE	LOAD	VOLTAGE DROP	ACTUAL
AV	AV	0.074	0.107	0.107	0.184	0.184
AV	AV	0.244	0.080	0.080	0.092	0.092
VO	VO	0.165	0.220	0.220	0.000	0.000
ND	ND	0.000	0.300	0.300	0.420	0.420

Percent Loss: 0.22%

NOTIFICATION CIRCUIT - NA3
VOLTAGE DROP CALCULATIONS

BASED ON POINT-TO-POINT OHM CALCULATIONS. ACCEPTABLE LIMIT IS 1.5% - 24 MAWD
OHM - 180 FEET BETWEEN THE FIRST AND SECOND - 180 FEET BETWEEN 2

TYPE #	TO	LINEAL FEET	RESISTANCE	LOAD	VOLTAGE DROP	ACTUAL
AV	AV	0.074	0.107	0.107	0.184	0.184
AV	AV	0.244	0.080	0.080	0.092	0.092
VO	VO	0.165	0.220	0.220	0.000	0.000
ND	ND	0.000	0.300	0.300	0.420	0.420

Percent Loss: 0.22%

NOTIFICATION CIRCUIT - NA5
VOLTAGE DROP CALCULATIONS

BASED ON POINT-TO-POINT OHM CALCULATIONS. ACCEPTABLE LIMIT IS 1.5% - 24 MAWD
OHM - 180 FEET BETWEEN THE FIRST AND SECOND - 180 FEET BETWEEN 2

TYPE #	TO	LINEAL FEET	RESISTANCE	LOAD	VOLTAGE DROP	ACTUAL
AV	AV	0.074	0.107	0.107	0.184	0.184
AV	AV	0.244	0.080	0.080	0.092	0.092
VO	VO	0.165	0.220	0.220	0.000	0.000
ND	ND	0.000	0.300	0.300	0.420	0.420

Percent Loss: 0.22%

NOTIFICATION CIRCUIT - NA7
VOLTAGE DROP CALCULATIONS

BASED ON POINT-TO-POINT OHM CALCULATIONS. ACCEPTABLE LIMIT IS 1.5% - 24 MAWD
OHM - 180 FEET BETWEEN THE FIRST AND SECOND - 180 FEET BETWEEN 2

TYPE #	TO	LINEAL FEET	RESISTANCE	LOAD	VOLTAGE DROP	ACTUAL
AV	AV	0.074	0.107	0.107	0.184	0.184
AV	AV	0.244	0.080	0.080	0.092	0.092
VO	VO	0.165	0.220	0.220	0.000	0.000
ND	ND	0.000	0.300	0.300	0.420	0.420

Percent Loss: 1.72%

NOTIFICATION CIRCUIT - NA2
VOLTAGE DROP CALCULATIONS

BASED ON POINT-TO-POINT OHM CALCULATIONS. ACCEPTABLE LIMIT IS 1.5% - 24 MAWD
OHM - 180 FEET BETWEEN THE FIRST AND SECOND - 180 FEET BETWEEN 2

TYPE #	TO	LINEAL FEET	RESISTANCE	LOAD	VOLTAGE DROP	ACTUAL
AV	AV	0.074	0.107	0.107	0.184	0.184
AV	AV	0.244	0.080	0.080	0.092	0.092
VO	VO	0.165	0.220	0.220	0.000	0.000
ND	ND	0.000	0.300	0.300	0.420	0.420

Percent Loss: 0.22%

NOTIFICATION CIRCUIT - NA4
VOLTAGE DROP CALCULATIONS

BASED ON POINT-TO-POINT OHM CALCULATIONS. ACCEPTABLE LIMIT IS 1.5% - 24 MAWD
OHM - 180 FEET BETWEEN THE FIRST AND SECOND - 180 FEET BETWEEN 2

TYPE #	TO	LINEAL FEET	RESISTANCE	LOAD	VOLTAGE DROP	ACTUAL
AV	AV	0.074	0.107	0.107	0.184	0.184
AV	AV	0.244	0.080	0.080	0.092	0.092
VO	VO	0.165	0.220	0.220	0.000	0.000
ND	ND	0.000	0.300	0.300	0.420	0.420

Percent Loss: 0.22%

NOTIFICATION CIRCUIT - NA6
VOLTAGE DROP CALCULATIONS

BASED ON POINT-TO-POINT OHM CALCULATIONS. ACCEPTABLE LIMIT IS 1.5% - 24 MAWD
OHM - 180 FEET BETWEEN THE FIRST AND SECOND - 180 FEET BETWEEN 2

TYPE #	TO	LINEAL FEET	RESISTANCE	LOAD	VOLTAGE DROP	ACTUAL
AV	AV	0.074	0.107	0.107	0.184	0.184
AV	AV	0.244	0.080	0.080	0.092	0.092
VO	VO	0.165	0.220	0.220	0.000	0.000
ND	ND	0.000	0.300	0.300	0.420	0.420

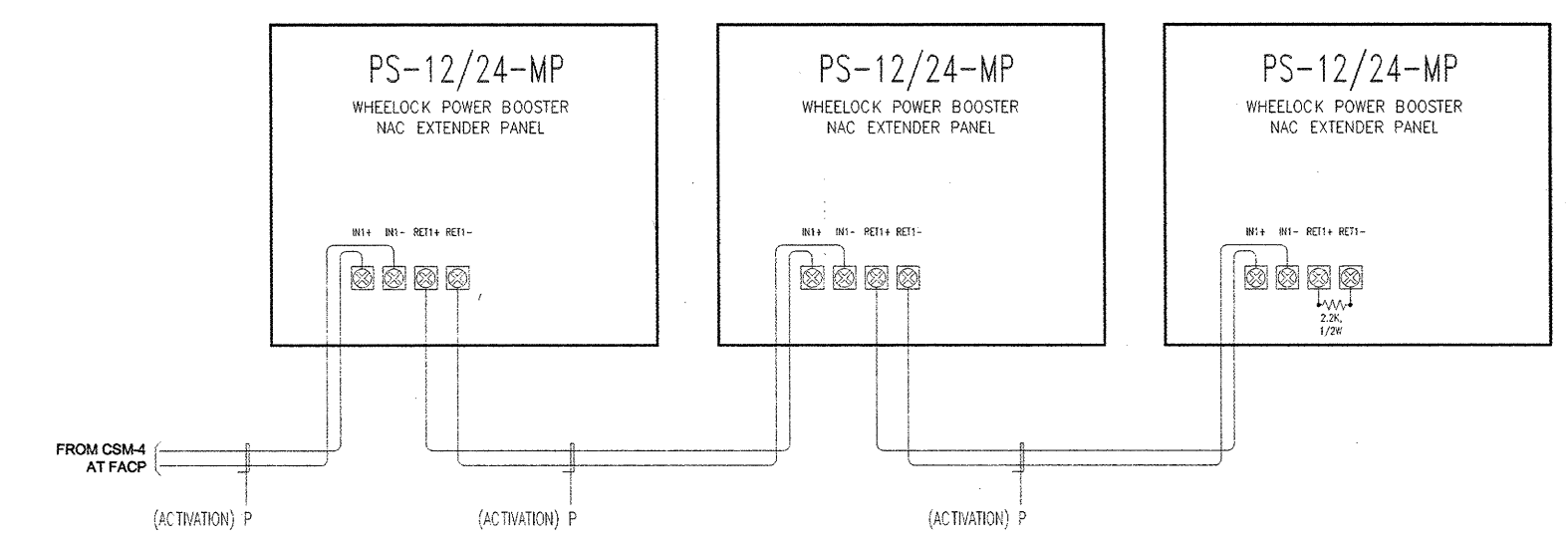
Percent Loss: 0.22%

NOTIFICATION CIRCUIT - NA8
VOLTAGE DROP CALCULATIONS

BASED ON POINT-TO-POINT OHM CALCULATIONS. ACCEPTABLE LIMIT IS 1.5% - 24 MAWD
OHM - 180 FEET BETWEEN THE FIRST AND SECOND - 180 FEET BETWEEN 2

TYPE #	TO	LINEAL FEET	RESISTANCE	LOAD	VOLTAGE DROP	ACTUAL
AV	AV	0.074	0.107	0.107	0.184	0.184
AV	AV	0.244	0.080	0.080	0.092	0.092
VO	VO	0.165	0.220	0.220	0.000	0.000
ND	ND	0.000	0.300	0.300	0.420	0.420

Percent Loss: 7.82%



WIRING DIAGRAM - MULTIPLE WHEELOCK PANEL
ACTIVATION DETAIL

PS-24-8MC BATTERY CALCULATION SHEET

STANDBY BATTERY CALCULATION	STANDBY ALARM
PS-24-8MC	0.080
PS-24-8MC	0.000
STANDBY AL - STANDBY A X 24 =	1.820
ALARM AL - ALARM A X 0.025% =	0.080
TOTAL AL - ALARM AL + STANDBY AL =	2.600
BACKUP BATTERY = TOTAL AL X 1.1 =	2.860

PAD CALCULATIONS
NO SCALE

P. DRAWING IS SMALLER THAN 30" X 42" IT IS A REDUCED COPY