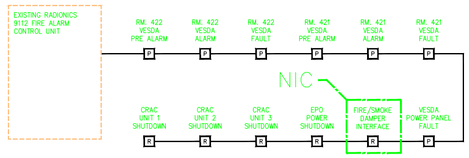
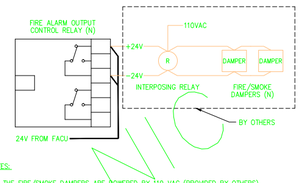


NOTE:

THIS RISER DIAGRAM IDENTIFIES DEVICES ASSOCIATED WITH THE MODIFICATIONS, ONLY. DEVICES, APPLIANCES, AND OTHER EQUIPMENT ASSOCIATED WITH THE EXISTING FIRE ALARM SYSTEM ARE NOT SHOWN.

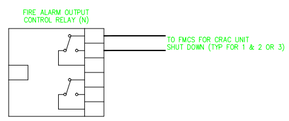
1 JGI Building 400 – Riser Diagram
SCALE: None



NOTES:

1. THE FIRE/SMOKE DAMPERS ARE POWERED BY 110 VAC (PROVIDED BY OTHERS) USING AN INTERPOSING RELAY SUCH THAT THE FIRE ALARM CONTROL UNIT (RELAY) POWERS THE FIRE/SMOKE DAMPERS (N) OPEN. UPON THE APPROPRIATE FIRE ALARM SIGNAL, THE FIRE ALARM CONTROL UNIT (RELAY) SHALL CAUSE FOR THE CLOSURE ALL OF THE APPROPRIATE FIRE/SMOKE DAMPERS.
2. THE SUBCONTRACTOR SHALL PROVIDE AND INSTALL THE NEW FIRE ALARM OUTPUT CONTROL RELAY AND MAKE ANY AND ALL NECESSARY CONNECTIONS FOR THE FIRE ALARM SYSTEM SIGNALING LINE CIRCUIT. THE SUBCONTRACTOR SHALL ALSO PROVIDE AND INSTALL ALL NECESSARY CONDUIT RACEWAY SYSTEMS FOR THE FIRE ALARM SIGNALING LINE CIRCUIT.

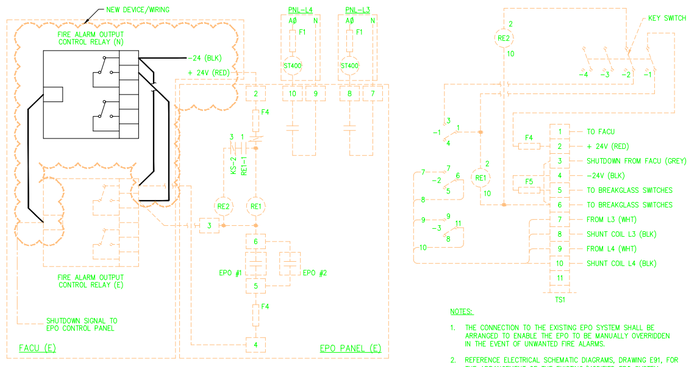
2 Damper Relay Wiring
SCALE: None



NOTE:

UPON A FIRE ALARM SIGNAL FROM THE VESDA DETECTOR THE FIRE ALARM CONTROL UNIT SHALL SEND A SIGNAL TO THE FMCS FOR A 90 SECOND SHUT DOWN OF THE APPROPRIATE CRAC UNIT. IF THE VESDA DETECTOR DOES NOT RESPOND WITH A "FIRE ALARM" SIGNAL WITHIN THE PRESCRIBED 90 SECONDS, THE FMCS SHALL CAUSE FOR THE RESTART OF THE APPROPRIATE CRAC UNIT.

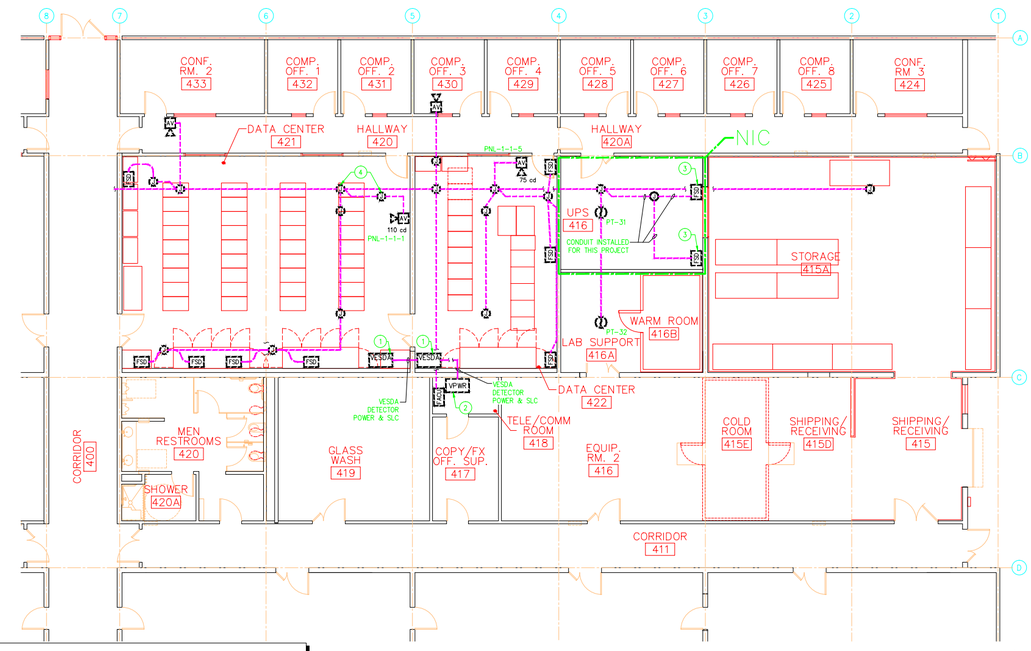
3 CRAC Unit Relay Wiring
SCALE: None



NOTES:

1. THE CONNECTION TO THE EXISTING EPO SYSTEM SHALL BE ARRANGED TO ENABLE THE EPO TO BE MANUALLY OVERRIDDEN IN THE EVENT OF UNWANTED FIRE ALARMS.
2. REFERENCE ELECTRICAL SCHEMATIC DIAGRAMS, DRAWING E91, FOR THE ARRANGEMENT OF THE EXISTING/MODIFIED EPO SYSTEM.

4 JGI Building 400 – EPO Interface
SCALE: None



SPECIAL NOTE:

PROVIDE A RED PHENOLIC SIGN WITH WHITE LETTERS, MINIMUM 1-INCH HIGH AT EACH VESDA DETECTOR TO STATE:

CAUTION – AREA PROTECTED BY HIGH SENSITIVE AIR SAMPLING SMOKE DETECTION. OPERATION OF THE PRE-ALARM RESULTS IN CRAC UNIT SHUT DOWN FOR 90 SECONDS. OPERATION OF THE DETECTOR FIRE ALARM RESULTS IN OPERATION OF THE EPO SYSTEM. THE EPO SYSTEM OPERATION MAY BE OVERRIDDEN USING THE KEY SWITCH IF NO FIRE CONDITIONS ARE PRESENT DURING THE PRE-ALARM OR FIRE ALARM."

5 JGI Building 400 – Fire Alarm Modifications Partial Plan
SCALE: 1/8"=1'-0"

0 8 FT 16 FT 24 FT
SCALE: 1/8"=1'-0" UNO

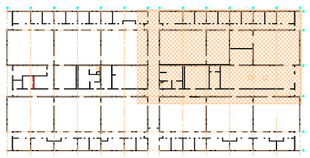
SHEET NOTES

1. VESDA DETECTOR PROVIDE ALL NECESSARY AND APPROPRIATE FIRE ALARM SIGNALING LINE CIRCUITS FOR MONITORING.
2. VESDA DETECTOR POWER SUPPLY. AC POWER PROVIDED BY OTHERS. POWER SUPPLY CONNECTION TO EACH VESDA DETECTOR BY OTHERS.
3. VESDA LASER COMPACT DETECTOR. MOUNT DETECTOR SO BOTTOM OF DETECTOR IS 8'-3" AFF.
4. NEW COMBINATION FIRE SMOKE DAMPER PROVIDED AND INSTALLED BY OTHERS AS PART OF THIS PROJECT (NEW FIRE ALARM SYSTEM CONTROL POINTS). ALL OTHER DAMPERS SHOWN ARE CURRENTLY CONTROLLED BY THE FIRE ALARM SYSTEM.
5. REPLACE WIRE NUT CONNECTIONS IN AND OUTSIDE OF EXISTING JUNCTION BOX WITH CONNECTIONS MADE ON TERMINAL STRIPS IN APPROVED ENCLOSURE.

VESDA ALARM FUNCTIONS:

EVENT	IMMEDIATE EVENT AT FACU	FIRE SIGNAL TO REMOTE STATION	TROUBLE SIGNAL TO REMOTE STATION	SUPERVISORY SIGNAL TO REMOTE STATION	SHUT DOWN CRAC UNITS 1 & 2 (NO2 SHUT DOWN)	SHUT DOWN CRAC UNITS 1 & 3 (NO3 SHUT DOWN)	SHUT DOWN EPO SYSTEM	UPDATE COMPUTER ROOM EPO SYSTEM	UPDATE COMPUTER ROOM FIRE/SMOKE DAMPERS	CLOSE RESPECTIVE FIRE/SMOKE DAMPERS	UPDATE INTERPOSING APPLIANCES
PRE ALARM CONDITION RM 421	●			●	●						
ALARM CONDITION RM 421	●	●						●	●	●	
PRE ALARM CONDITION RM 422	●			●		●					
ALARM CONDITION RM 422	●	●						●	●	●	
VESDA DETECTOR FAULT	●		●								
VESDA POWER SUPPLY FAULT	●		●								

THIS FUNCTION CHART IDENTIFIES FUNCTIONS ASSOCIATED WITH THE NEW VESDA DETECTORS, ONLY. FUNCTIONS ASSOCIATED WITH THE EXISTING FIRE ALARM SYSTEM ARE NOT SHOWN.



KEY PLAN

HYT Corporation
Fire Protection Engineers and Consultants
3498 Clayton Road - Suite 101 Concord, California 94519
Phone: (925) 681-2731 FAX: (925) 681-2733
CONSULTING FIRM

Eichleay Engineers Inc. of California
1390 Willow Pass Road, Suite 600, Concord, Ca. 94520
(925) 689-7000 •FAX (925) 689-7006
EEI JOB NO: 30782
CONSULTING A/E FIRM (PRIME)

PROFESSIONAL SEAL (IF REVISION, APPLIES ONLY TO REVISED WORK)

RECORD DRAWING
7/27/06

REVISION NUMBER	DRAWN BY	CHECKED BY	APPR'D BY	DATE	REMARKS
C	HYT	HYT		1/31/05	ISSUE PER COMMENTS

ISSUE (PROGRESS, ESTIMATE, BID, CONSTRUCTION, CONFORMED, REVISION, AS-BUILT)

JGI–BUILDING NO. 400
DATA CENTER EXPANSION
FIRE ALARM PARTIAL PLAN–ZONE2

UNIVERSITY OF CALIFORNIA
LAWRENCE BERKELEY NATIONAL LABORATORY
FACILITIES DEPARTMENT

DRAWN BY	DWH
DATE	10/15/2004
CHECKED BY	
APPROVED BY	
CAD FILE PATH	00018747
SCALE	1/8" = 1'-0"
DRAWING NO.	4B400E072C
SHEET	FA22
PROJECT NO.	WJ9178
	1 OF 1