

- APPROXIMATE LOCATION OF EXISTING ADDRESSABLE FIRE ALARM CONTROL PANEL & VOICE EVACUATION PANEL TO REMAIN IN SERVICE PROVIDE CONNECTION TO NEW FIRE ALARM DEVICES PER PLAIS, UPDATE NEW FIRE ZONE MAP, PROGRAM NEW DEVICES INFORMATION, MEASURE ACTUAL LOAD CURRENT AND VOLTAGE DROP FOR EACH NAC SIGNAL CIRCUITS, AND FACP STANDBY CURRENT AND ALARM CURRENT. SEND THE REPORT TO OWNER AND ENGINEER FOR REVIEW, AND PLASTIC LAMINATED ONE COPY INSIDE FACP CABINET DOOR.
- APPROXIMATE LOCATION OF EXISTING 600A MAIN SWITCHBOARD. PROVIDE NEW BREAKERS, FEEDERS AND POWER CONNECTION FOR NEW RELOCATABLE CLASSROOM BUILDINGS PER PLANS. SEE SINGLE LINE DIAGRAM.
- APPROXIMATE LOCATION OF EXISTING PA/IC/TELEPHONE EQUIPMENT IN ADMIN OFFICE, PROVIDE NEW CABLE AND CONNECTION FOR NEW SIGNAL DEVICES PER PLANS.
- APPROXIMATE LOCATION OF EXISTING COMPUTER MDF SERVER EQUIPMENT IN ADMIN OFFICE. PROVIDE NEW CABLE AND CONNECTION FOR NEW SIGNAL
- APPROXIMATE LOCATION OF EXISTING MASTER INTRUSION ALARM EQUIPMENT IN ADMIN OFFICE. PROVIDE NEW CABLE AND CONNECTION FOR NEW SIGNAL DEVICES PER PLANS.
- (E) SIGNAL AND FA PULL BOXES, EXTEND NEW U.G CONDUITS AND WIRING TO NEW BUILDINGS PER PLANS, SEE RISER DIAGRAMS,
- FURNISH AND INSTALL NEW UNDERGROUND POWER CONDUITS AND FEEDERS PER PLANS, SEE SINGLE LINE DIAGRAM.
- FURNISH AND INSTALL NEW UNDERGROUND FA AND SIGNAL CONDUITSPER PLANS. SEE RISER DIAGRAMS.

LEGEND

DISTRIBUTION PANEL TERMINAL CABINET

JUNCTION BOX DUPLEX OUTLET ON CIRCUIT NO. 3

CONDUIT RUN IN CEILING AND IN WALL MOTOR DISCONNECT FUSED SWITCH

GROUND FAULT INTERRUPTER

CONDUIT RACEWAY

ONLY, FIELD VERIFY AS REQUIRED.

REMOVE (E) ELECTRICAL DEVICE AND ASSOCIATE WIRING

INDICATE EXISTING FIRE ALARM OUTDOOR HORN. FOR REFERENCE

CODE RULES AND REGULATIONS

ALL WORK AND MATERIAL SHALL BE IN FULL ACCORDANCE WITH THE LATEST RULES AND REGULATIONS OF THE STATE FIRE MARSHAL, THE CALIFORNIA ELECTRICAL CODE; THE SAFETY ORDERS OF THE DIVISION OF INDUSTRIAL SAFETY AND OTHER APPLICABLE STATE LAWS OR REGULATIONS. NOTHING IN THESE PLANS OR SPECIFICATIONS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

DIVISION OF THE STATE ARCHITECT APPLICABLE CODES AND STANDARDS: 2013 CALIFORNIA ELECTRIC CODE (CEC). 2013 CALIFORNIA FIRE CODE (CFC).

2013 TITLE 19 (CCR), PUBLIC SAFETY, STATE FIRE MARSHAL 2013 NFPA 72 (CALIFORNIA AMENDED)-NATIONAL FIRE ALARM CODES POLICY #95-03, FIRE AND LIFE SAFETY, DIVISION OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES.

MEP COMPONENT ANCHORAGE NOTES

ALL MECHANICAL, PLIMEING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DISA APPROVED CONSTRUCTION DOCUMENTS. WHERE NO DETAILS IS INDICATED, THE POLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE PORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2013 CBC, SECTIONS 1618A.1.18 THROUGH

- 1818A. 1.28 AND ASCE 7-10 CHAPTER 13, 28 AND 30. 1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
- TEMPORARY OR MOMBLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY
 SERVICES SUCH AS ELECTRICITY, ONS OR WITER.
 MOMBLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAN 8 HOURS AND HEAVER THAN 400 POUNDS ARE
 REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.
- THE ATTACHMENT OF THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT NEED NOT BE DETAILED ON THE PLANS. THESE COMPONENTS SHALL HAVE FLEGBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTHORIC, PIPING, AND CONDUIT.
- A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF IMASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.

 B. COMPONENTS WEIGHTING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRIVINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD AND THE DSA DISTRICT STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VENIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

PIPING DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7—10 SECTION 12.8.8, 13.6.5.6 AND 2013 CBC, SECTION 1610A.1.23, 1610A.1.24, 1610A.1.25 AND 1610A.1.28.

THE BRACING AND ATTACHMENTS TO THE STRUCTURE SHALL BE DETAILED ON THE APPROVED DRAWINGS OR THEY SHALL COMMY WITH On of the OSHPD pre-approvals (OPM #) as modified to satisfy anchorage reduirements of aci 318, appendix d. COPIES OF THE MANUAL SHALL BE AMALABLE ON THE JOBSTE PRIOR TO THE START OF HANGING AND BRACING OF THE PIPE , DUCTNIONK, AND ELECTRICAL DISTRIBUTION SYSTEMS.

CONSULTING ENGINEERS JOHN CHONG ENGINEERING 2017 E DECATUR AVE, FRESNO CA 95720 jcengineer@aol.com

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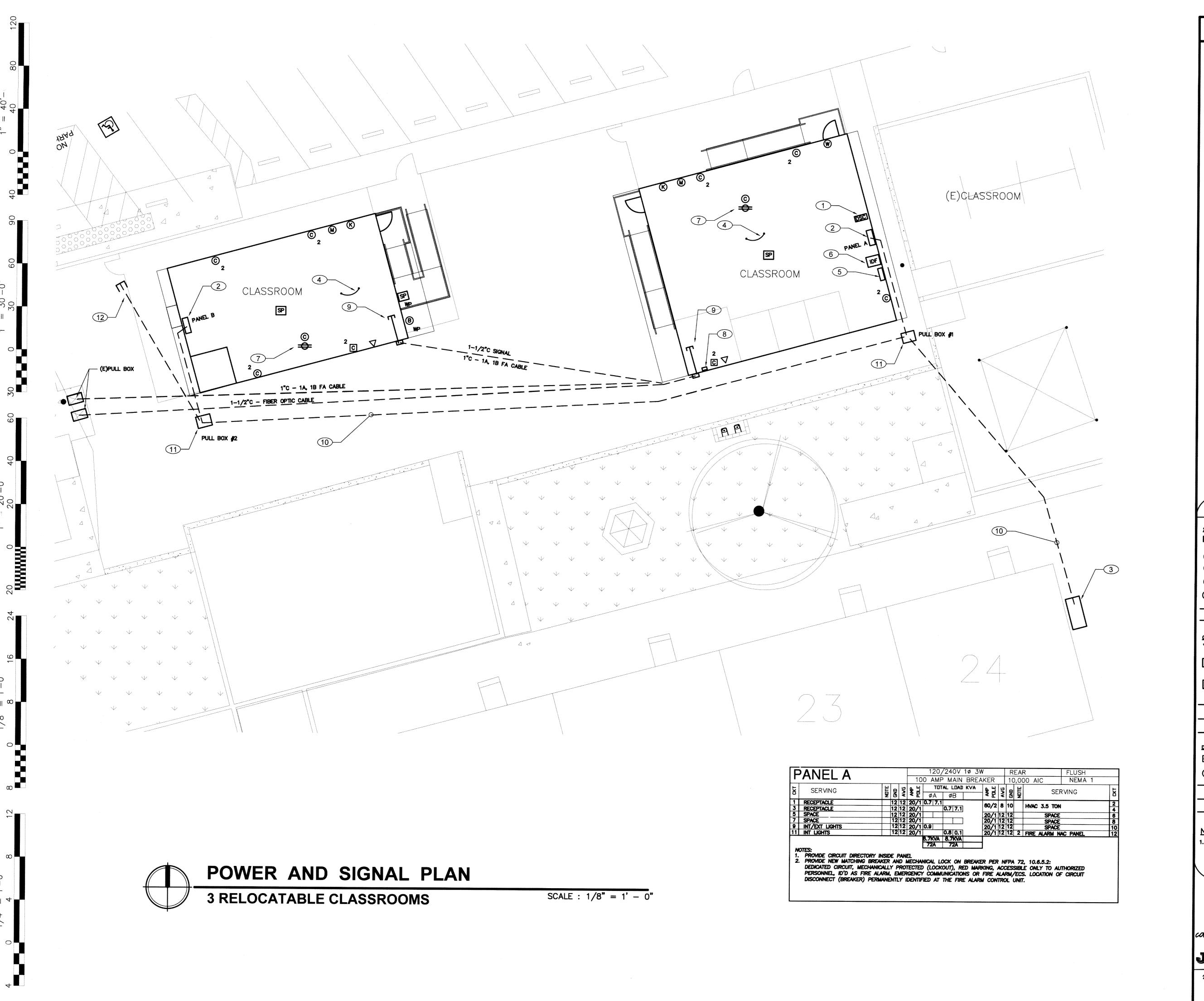
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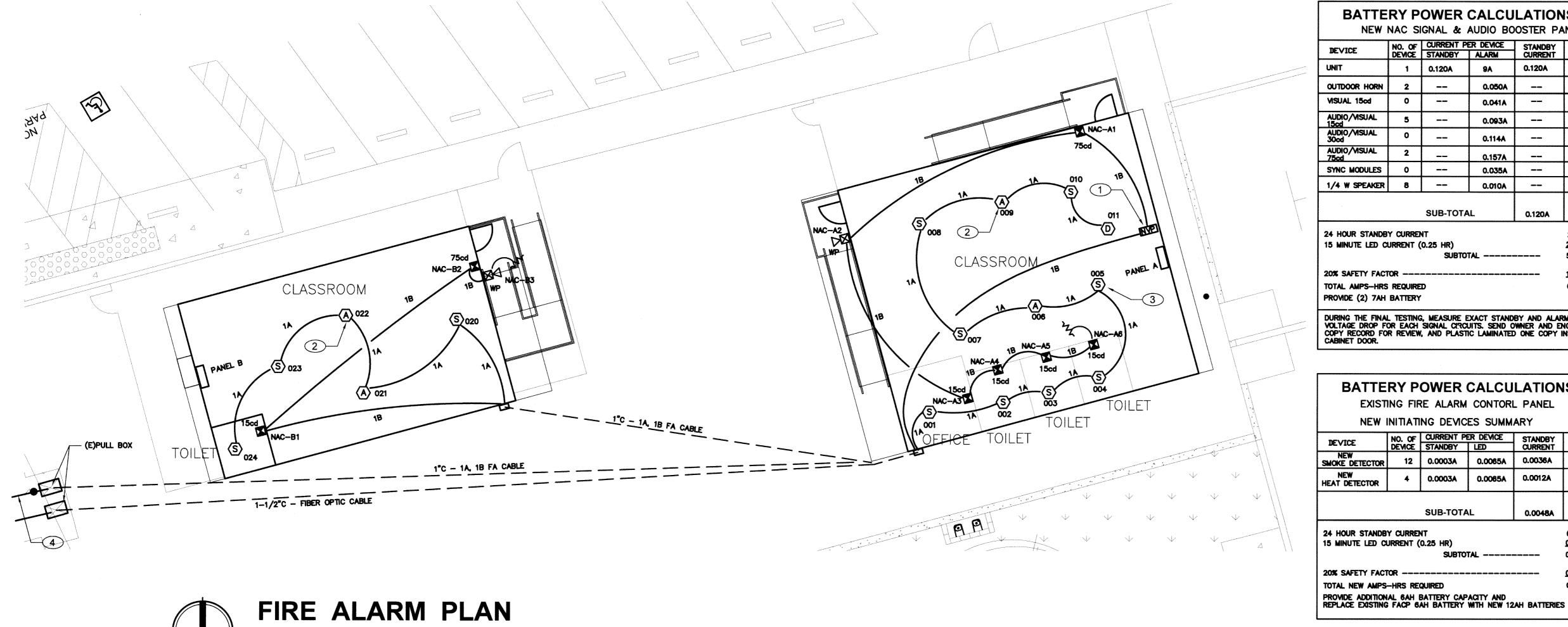
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SHEET NOTES Ownership of Documents This document, the ideas and designs incorporated herein, as an instrument of Professional Service is the property of FURNISH AND INSTALL NEW FIRE ALARM SIGNAL AND VOICE VAC BOOSTER PANEL. PROVIDE 110V POWER CONNECTION FROM PANEL A CIRCUIT #A-CDA. FILED VERIFY EXACT LOCATION. SEE FA DRAWING E-3 RISER Integrated Designs by SOMAM Inc. and is not to be used, in whole or in part for any other project without written authorization © COPYRIGHT 2013 PROVIDE POWER CONNECTION FOR RELOCATABLE BUILDING PRE-WRED PANEL. SEE SINGLE LINE DIAGRAM ON DRAWING E-4. EXISTING 600A MAIN SWTICHBOARD, PROVIDE NEW MATCHING BREAKERS AND FEEDER FOR NEW PRE-WIRED PANEL POWER CONNECTION. SEE SINGLE LINE DIAGRAM. PROVIDE \$6 COPPER GROUNDING CONDUCTOR AND BOND TO EACH SECTION STRUCTURAL STEEL BEAM, FIELD VERIFY EXACT LOCATION WITH GENERAL CONTRACTOR PRIOR TO INSTALLATION. NEW SECURITY ALARM PANEL AND SYSTEM, PROVIDE 110V POWER CONNECTION AND INTERCONNECTION TO (E) MASTER EQUIPMENT IN ADMIN OFFICE, FIELD VERIFY EXACT LOCATION AND REQUIREMENT WITH OWNER PRIOR TO INSTALLATION. SEE RISER DIAGRAM. NEW IDF AND CABINET SURFACE MOUNTED BELOW CEILING, PROVIDE 110V POWER CONNECTION, DATA SWITCH, FO CABLE AND DATA CABLE PATCH PANEL FOR NEW DATA OUTLET CONNECTION, PROVIDE FO CABLE TO (E) MDF IN ADMIN OFFICE FOR INTERCONNECTION, FIELD VERIFY EXACT LOCATION AND REQUIREMENT WITH OWNER PRIOR TO INSTALLATION, SEE DATA AND POWER OUTLET AT CEILING FOR SMART BOARD, FIELD VERIFY EXACT LOCATION AND REQUIREMENT WITH OWNER PRIOR TO INSTALLATION, SEE RISER DIAGRAM. PROVIDE 50 PAIR PUNCH DOWN BLOCK AND SURFACE MOUNTED BELOW CEILING FOR INTERCOM / TELEPHONE WIRING TERMINATION. NEW 24"x24"x4" NEMA3R SIGNAL TC SURFACE MOUNTED ON EXTERIOR WALL PROVIDE (2) 2°C STUB INTO BUILDING ATTIC CAVITY. SEE SIGNAL RISER DIAGRAM. SAW CUT AND PATCH EXISTING CONCRETE FLOOR TO INSTALL NEW POWER UNDERGROUND AND FEEDER PER PLANS. SEE SINGLE LINE DIAGRAM. NEW 12"x24" PULL BOX WITH EXTENSION, FIELD VERIFY LOCATION, SEE RISER DIAGRAMS. 1°C STUB OUT FOR FUTURE SIGN. FIELD VERIFY LOCATION WITH OWNER AND GENERAL CONTRACTOR PRIOR TO INSTALLATION. CHOOL FREMONT ELEMENTARY S 2 RELOCATABLE CLASSI BAKERSFIELD CITY SCHOOL DIS 607 TEXAS STREET, BAKERSFIEL SIGNAL AND COMM. LEGEND SECURITY ALARM SYSTEM DSC DIGITAL SECURITY ALARM CONTROL PANEL MODEL SONITROL (64ZONE). INTERFACE WITH EXISTING BUILDING MASTER SECRITY ALARM PANEL AS REQUIRED. LCD KEYPAD - MATCH EXISTING EQUIPMENT AS REQUIRED. DUAL TECHNOLOGY CEILING MOUNT DETECTOR. MATCH EXISTING EQUIPMENT AS REQUIRED. EXTERIOR BELL (SIREN) - DSC/JSD15W WITH WEATHERPROOF BACKBOX AND TAMPER SWITCH. DOOR CONTACT SWITCH. RECESS ABOVE DOOR JAMB AT OPEN SIDE. -B1 - OUTDOOR SECURITY ALARM CABLE. WEST PENN #AQC224 COMMUNICATION (TELEPHONE /INTERCOM) SYSTEM HANDSET/IP PHONE - FIELD VERIFY MODEL NO. AND MATCH EXISTING MASTER EQUIPMENT AS REQUIRED. CEILING SPEAKER — RAULAND (JUSO221 W/ACC1000 BAFFLE. PROVIDE BACKBOX AND CEILING SUPPORT AS REQUIRED Agency Approval Stamp: OUTDOOR SPEAKER — ATLAS #APF15 HORN W/XFMR AND LOWELL (#C884 FOR SURFACE, #P875X FOR RECESS) BACK BOX W/SQLK GRILL OUTDOOR TELE/IC CABLE. 22AWG SOLD COPPER 12 PAIR SHIELDED AND 12 PAIR UNSHIELDED CABLE. DATA COMMUNICATION SYSTEM DATA OUTLET - LEVITON CAT 5E (DUAL RECEPTACLE RED IN COLOR FOR ADMINISTRATIVE) DATA OUTLET - LEVITON CAT 5E (DUAL RECEPTACLE BLUE IN COLOR FOR INSTRUCTIONAL) FIBER OPTIC CABLE VIA INNER DUCT WITH J-HOOK IN ATTIC AND 2°C FOR OUTDOOR. SEE RISER DIAGRAM FOR MODEL NO. . ALL SIGNAL CONDUCTORS CANNOT SPLICE INSIDE PULL BOX. CONDUCTOR MUST BE CONTINUE RUN BETWEEN SIGNAL DEVICES BACK BOX OR ABOVE GROUND TERMINAL CABINET. IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP03 116973 AC____FLS_SET_SS_TET_ DATE____APR 1 8 2016 5176 E 14419 2017 E DECATUR AVE, PRESNO CA 95720 (559) 925-9900 · FAX 297-9401 jcengineer@aoi.com



BATTERY POWER CALCULATIONS NEW NAC SIGNAL & AUDIO BOOSTER PANEL

DEVICE	NO. OF	CURRENT PE	ER DEVICE	STANDBY	ALARM
DEAICE	DEVICE	STANDBY	ALARM	CURRENT	CURRENT
UNIT	1	0.120A	9A	0.120A	9A
OUTDOOR HORN	2		0.050A		0.100A
VISUAL 15cd	0	an an	0.041A		0.000A
AUDIO/MSUAL 15cd	5		0.093A		0.465A
AUDIO/VISUAL 30cd	0		0.114A		0.000A
AUDIO/MSUAL 75cd	2		0.157A	****	0.314A
SYNC MODULES	0	400 dan	0.035A		0.000A
1/4 W SPEAKER	8	0.010A			0.080A
	0.120A	9.959A			

24 HOUR STANDBY CURRENT 15 MINUTE LED CURRENT (0.25 HR) 2.490AH 5.370AH 20% SAFETY FACTOR ----1.074AH TOTAL AMPS-HRS REQUIRED 6.444AH PROVIDE (2) 7AH BATTERY

DURING THE FINAL TESTING, MEASURE EXACT STANDBY AND ALARM CURRENT, VOLTAGE DROP FOR EACH SIGNAL CIRCUITS. SEND OWNER AND ENGINEER ONE COPY RECORD FOR REVIEW, AND PLASTIC LAMINATED ONE COPY INSIDE

BATTERY POWER CALCULATIONS

EXISTING FIRE ALARM CONTORL PANEL

NEW INITIATING DEVICES SUMMARY

DEL MAR	NO. OF	CURRENT P	ER DEVICE	STANDBY	LED		
DEVICE	DEVICE	STANDBY	LED	CURRENT	CURRENT		
NEW SMOKE DETECTOR	12	0.0003A	0.0065A	0.0036A	0.078A		
NEW HEAT DETECTOR	4	0.0003A	0.0065A	0.0012A	0.026A		

SUB-T	TOTAL	0.0048A	0.104A
24 HOUR STANDBY CURRENT			0.115AH
15 MINUTE LED CURRENT (0.25 HR	0.026AH		
S	0.141AH		
20% SAFETY FACTOR	0.028AH		
TOTAL NEW AMPS-HRS REQUIRED	0.1 69A H		

VOLTAGE DROP CALCULATION WORST CASE VOLTAGE DROP AT THE LAST DEVICE

VD = VOLTAGE DROP

- DISTANCE TO THE LOAD

CM = CIRCULAR MILLS (CROOS SECTION OF 12 AWG = 6530) V = VOLTAGE (24vdc)

STAIC MODU	TOTAL.	$VD = \frac{K * 1 * 2i}{CM}$											
E D		Signal CKT No.	AMPERES	APPROX LENGTH	RESISTIVITY DHM		AREA CM	VOLTS DROPPED	% VOLTS DROP				
0	0.579A	CKT. A	0.579A	500,	21.6	12	6530	0.383∨	1.6%				
0	0.300A	CKT. A	0.300A	250′	21.6	12	6530	0.248∨	1.0%				

PER CEC STANDARDS, ALL WIRING IS TO BE PULLED THROUGH EACH JUNCTION BOX AND CONNECTED DIRECTLY TO EACH FIRE DEVICE. DO NOT SPLICE THE WIRE. ALL BOXES TO BE SIZED PER CEC.) SMOKE DETECTORS SHALL NOT BE ANY CLOSER THAN 1' FROM FIRE SPRINKLERS OR 3' FROM ANY SUPPLY DIFFUSER. IN AREA OF CONSTRUCTION OR POSSIBLE DAMAGE/CONTAMINATION ON NEWLY INSTALLED FIRE ALARM DEVICES SHALL BE COVERED UNTIL THAT AREA IS READY TO BE TURNED OVER TO THE OWNER.

SHEET

BUILDINGS PER PLANS.

BOOSTER PANEL SURFACE MOUNT ON WALL PROVIDE 110V POWER

CONNECTION FROM PANEL A CIRCUIT #A-12. FILED VERIFY EXACT

Provide attic heat detector in each bay of structural.

CEILING SMOKE DETECTOR 5 FEET FROM NEW NAC SIGNAL EXPANDER

PULL BACK NEW FA CABLE TO EXISTING FACP VIA EXISTING CONDUITS RACEWAY PER PLANS.

F.A SYSTEM SCOPE OF WORK

EVACUATION SPEAKERS FOR THE NEW CLASSROOM

PROVIDE AUTOMATIC FIRE ALARM SYSTEM WITH VOICE

EXISTING FACP IS 24VDC ADDRESSABLE, AND CLASS B WIRING SYSTEM. AND WITH OFF SITE MONITORING

SERVICE VIA AUTO DUAL LINE DIALER AND TELEPHONE

DURING THE FINAL TESTING, MEASURE ALL FIRE ALARM CURRENTS, VOLTAGE DROP FOR EACH SIGNAL

CIRCUITS. SEND OWNER AND ENGINEER ONE COPY

COPY INSIDE FACP CABINET DOOR.

FIRE ALARM NOTES

APPLICABLE STANDARD 2013 NFPA 72

SYSTEM HAS BEEN APPROVED BY DSA.

SPACE WITHIN THE BUILDING.

PRESENCE OF A DSA PROJECT INSPECTOR.

RECORD FOR REVIEW, AND PLASTIC LAMINATED ONE

COMPLETE FIRE ALARM DRAWING SUBMITTAL IS PROVIDED.

INSTALLATION OF THE SYSTEMS SHALL NOT BE STARTED UNTIL DETAILED DESIGN DOCUMENTS AND SPECIFICATION, INCLUDING STATE

FIRE MARSHAL LISTING NUMBERS FOR EACH COMPONENT OF THE

SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN

A STAMPED SET OF APPROVED FIRE ALARM DESIGN DOCUMENTS SHALL BE ON THE JOB SITE AND USED FOR INSTALLATION.

DSA, ARCHITECT/ENGINEER AND OWNER SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO THE FINAL INSPECTION AND /OR

PENETRATIONS THROUGH RATED ASSEMBLIES, REQUIRING OPENING PROTECTION SHALL BE PROVIDED WITH A PENETRATION FIRE STOP SYSTEM AS IDENTIFIED IN CBC CHAPTER 7, UL OR OTHER LAB TESTING CRITERIA. APPROVED TYPE OF MATERIALS SHALL BE IDENTIFIED WITHIN THE SPECIFICATION WITHIN THE FIRE ALARM

WALL MOUNTED VISUAL NOTIFICATION DEVICES SHALL HAVE THEIR BOTTOMS MOUNTED AT 80" MINIMUM AND 96" MAXIMUM FROM

WALL MOUNTED AUDIBLE NOTIFICATION DEVICES SHALL HAVE THEIR TOPS MOUNTED AT 90" MINIMUM AND 100" MAXIMUM FROM FINISHED FLOOR AND NO CLOSER THEN 6" TO A HORIZONTAL

AUDIBLE DEVICES SHALL PROVIDE A SOUND PRESSURE LEVEL OF 15 DECIBELS (Dba) AVOVE THE AVERAGE AMBIENT SOUND LEVEL OR 5
Dba ABOVE THE MAXIMUM SOUND LEVEL HAVING A DURATION OF AT
LEASE 60 SECONDS, WHICHEVER IS GREATER, IN EVERY OCCUPIAVLE

AUDIBLE DEVICES SHALL BE SYNCHRONIZED TEMPORAL CODE 3

PERFORMANCE AND TO MINIMIZE FALSE ALARMS.

THE CONTRACTOR SHALL ADJUST/INSTALL ALL DEVICES TO MAXIMIZE

AND SHOULD NOT BE SLOWER THAN 1 FLASH EVERY SECOND. THE DEVICE SHALL HAVE A PULSING LIGHT SOURCE NOT LESS THAN 15

CANDELLA. VISUAL DEVICES WITHIN 55' FROM EACH OTHER SHALL BE SYNCHRONIZED.

UNDERGROUND AND EXTERIOR CONDUITS TO HAVE WATERTIGHT FITTINGS AND WIRE TO BE APPROVAL FOR WET LOCATIONS.

ALL FIRE ALARM WIRING SHALL BE FLP OR FPLP (FIRE POWER LIMITED OR FIRE POWER LIMITED PLENUM) AS REQUIRED FOR APPLICATION. WIRING IN CONDUIT ABOVE GROUND MAY BE THHN

ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE CODE OR RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF

COMPLETION OF THE INSTALLATION OF THE SYSTEMS, A

DSA AND THE ARCHITECT/ENGINEER OF THE PROJECT.

LOCATE HEAT DETECTOR IN ATTIC AND SURFACE MOUNT ON THE BOTTOM OF RAFTER. DETECTOR COVERAGE WILL BE DERATED 50% ACROSS THE RAFTER. FIELD VERIFY LOCATION WITH GENERAL CONTRACTOR AND

ALL FIRE ALARM CIRCUITS SHALL BE IN CONDUIT, SURFACE RACEWAY OR OPEN RUN ABOVE CEILINGS, UNDER FLOORS AND IN WALLS IN A NEAT AND PROTECTED MANOR AS INDICATED ON DESIGN DOCUMENTS. EXPOSED CIRCUITS ARE ONLY PERMITTED WHEN NOTED AS EXPOSED ON DESIGN DOCUMENTS.

FIRE ALARM PANEL, REMOTES, AND COMPONENTS SHALL BE SECURED TO MOUNTING SURFACES PER MANUFACTURERS SPECIFICATIONS. NO SINGLE DEVICE SHALL EXCEED THE WEIGHT OF 20 LBS. WITHOUT SPECIAL MOUNTING DETAILS. 20) A DEDICATED BRANCH CIRCUIT SHALL BE PROVIDED FOR FIRE ALARM EQUIPMENT. THIS CIRCUIT SHALL BE ENERGIZED FROM THE COMMON USE AREA PANEL AND SHALL HAVE NO OTHER OUTLETS.
THE BREAKER SHALL HAVE A RED LOCKING DEVICE TO BLOCK THE
HANDLE IN THE "ON" POSITION. THE CROSS OF SHALL BE

LABELED AT FIRE PANEL/EXTENDERS. THE INSTALLING CONTRACTOR SHALL PROVIDE A RECORD OF COMPLETION PER NFPA 72, FIGURE 10.18.2.1.1. 2) CONTROL PANELS, REMOTE ANNUNCIATORS SHALL BE INSTALLED

LABELED "FIRE ALARM CIRCUIT CONTROL". CIRCUIT ID TO BE

WITH THEIR BOTTOMS MOUNTED AT 48" THE INSTALLING CONTRACTOR SHALL PROVIDE SYSTEM PROGRAMMING FOR SUPERVISORY MONITORING PER CBC SECTION 901.6.2. 24) SUPERVISORY MONITORING SHALL BE TESTED AND VERIFIED AS

SENDING CORRECT SIGNALS IN CONJUNCTION WITH FINAL OWNER SHALL BE RESPONSIBLE FOR ESTABLISHING A FIRE SYSTEM MONITORING CONTRACT OR PROVISIONS.

F.A. MONITORING NOTES

THE AUTOMATIC FIRE ALARM SYSTEMS SHALL TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION AS REQUIRED BY NFPA 72 AND AMENDED EITHER UUFX OR UUJS BY UNDERWRITERS OF FACTORY MUTUAL RESEARCH APPROVAL STANDARD 3011. SUPERVISION OF SYSTEM AND LEASED TELEPHONE LINES SHALL BY ARRANGED BY

E 14419

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DIV. OF THE STATE ARCHITECT

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DATE APR 1 8 2016

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TABLE CLASSROOMS
ELD CITY SCHOOL DISTRICT
STREET RAKERSFIELD CA

FREMONT EL 2 RELOCAT/ BAKERSFIEL

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Agency Approval Stamp:

FIRE ALARM SEQUENCE OF OPERATIONS MANUAL PULL STATION SMOKE DETECTORS: ALL (EXCEPT LISTED BELOW PRIMARY FLOOR LOBBY ALL OTHER LOBBIES ELEVATOR MACHINE ROOM x x x x x ELEVATOR SHAFT

BEEN SUBMITTED AND AFPROVED BY DIVISION OF THE STATE ARCHITECT. ANY SUBSTITUTION OF THE FIRE ALARM SYSTEM SHALL BE RESUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL PA ARE INCURRED DUE TO

THE AUTOMATIC FIRE A ROOMS AND AREAS AN INITIATING DEVICE ALER THE ALARM, SUPERVISO AN APPROVED SUPERV SMOKE DETECTORS AR NON-ACCESSIBLE AREAS EXPRESS TERMS OF PR 2013 C.F.C. SECTION

TWIST SHEILD SPEAKER CABLE. MIN. 3/4" CONDUIT INSTALLATION. WEST PENN #AQ227 OR EQUAL. CSFM# 7161-0859:0101 COMPLETE AUTOMATIC FIRE

SOURCE OF POWER HAS BEEN INVESTIGATED AND

CONTRACTOR TO MONITOR EXISTING FIRE ALARM

SYSTEM IF IT IS INTERUPTED OR DISCONNECTED

DESCRIPTION

SITE INSPECTOR IS TO WINESS AND VERIFY GROUNDING TEST

FA CABLE SCHEDULE

IS ADEQUATE FOR THE ADDITIONAL LOAD

TYPE

SIGNAL CIRCUIT LOAD SUMMARY

THE FIRE ALARM SYSTEM SHOWN ON THESE PLANS HAS

1006.2.4.2.2.1.1 AND 1006.2.4.2.2.1.5)

INITIALING CIRCUIT CABLE 2#16 AWG SOLID COPPER PVC JACKET POWER LIMITED FPLR CABLE, FOR INDOOR AND OUTDOOR VIA MIN. 3/4" CONDUIT INSTALLATION. WEST PENN #D990 OR EQUAL. CSFM# 7161-0859:0101 NAC SIGNAL CIRCUIT CABLE 2#12 AWG SOLID COPPER PVC JACKET POWER LIMITED FPLR CABLE, AND 2#22 HEAT DETECTORS: ALL (EXCEPT LISTED BELOW) ELEVATOR MACHINE ROOM ELEVATOR SHAFT DUCT DETECTOR FIRE SPRINKLER WATERFLOW SWITCH **ALARM PLAN SUBMITTAL** FIRE SPRINKLER TAMPER SWITCH POST INDICATOR VALVE SIGNALING LINE CIRCUIT (SLC)-WIRE-TO-WIRE SHORT

0 0 0 0.300A

AY ANY ADDITIONAL FEES THAT	SINGLE GROUND			X	X			2	X					***************************************			
TO THIS SUBSTITUTION.	INITIATING DEVICE CIRCUIT (IDC)—	Т		-					-	nation of the last			in the second se		manandiransvana	and an artist of	*
	WRE-TO-WRE SHORT	X	X			T		X	T	X	Π			-	T	X	Ī
ALARM SYSTEM SHALL COVER ALL	SINGLE OPEN	Τ		X	X	\top	T	7	X	T	Π			T	T		Ī
ND UPON ACTIVATION OF AN	SINGLE GROUND	T		X	X		1	1	X	T	Т		П	T	1		Ī
RT ALL OCCUPANTS AND TRANSMIT CORY, AND TROUBLE SIGNALS TO	NOTIFICATION APPLIANCE CIRCUIT (NAC)-	T		•							-						•
VISING STATION. (EXCEPTION:	WIRE-TO-WIRE SHORT	T		X	X	T	Т	***************************************		T	П			\top	T		Ī
RE NOT REQUIRED IN	SINGLE OPEN	T		X	X	T	T	Ī		T			П	T	T	П	
AS AS DEFINED IN EMERGENCY	SINGLE GROUND	T	Г	X	X	T	T	T	T	T	Т	П	П	T	T		
PROPOSED S.F.M. AMENDMENTS TO	LOSS OF 120VAC POWER	T		X	X	T	T	T	X	1			П	十	T	\sqcap	
210 (C.F.C. SECTIONS	SIGNAL SILENCE	T			П	T	T	T	T	T		П	П	T	T	П	
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NOTE: SOME SEQUENCE OF OPERATIONS SHOWN MAY NOT APPLY

3 RELOCATABLE CLASSROOMS

SCALE: 1/8" = 1' - 0"

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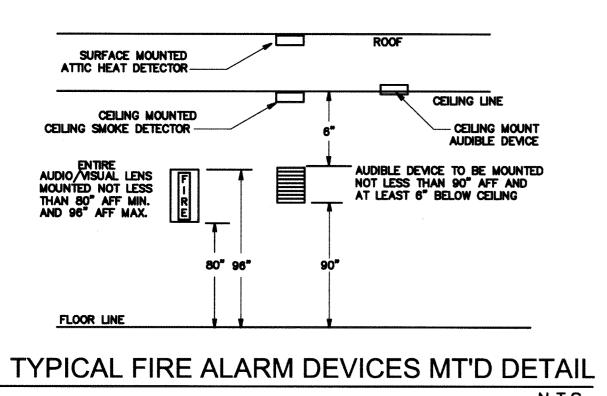
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AUDIO AMPLIFIER

#FNV-MP

FIRE ALARM SYMBOLS AND SCHEDULE

ITEM	DESCRIPTION	MODEL NUMBER	CSFM NUMBER	MOUNT	BACK BOX
FACP	EXISTING FACP (FOR REFERENCE ONLY)	HOCHIKI FIRENET 4127	7165-0410: 0159	+60*	EQUIPMENT CABINET
VEP	VOICE EVACUATION PANEL	HOCHIKI #EVAX 50	6911-0410: 0176	+60*	EQUIPMENT CABINET
NVP	NAC SIGNAL & VOICE VAC BOOSTER PANEL SIGNAL EXPENDER	WHEELOCK #SPB 80/4	6911-0785: 0157	+60*	EQUIPMENT CABINET
X	SPEAKER STROBE 15cd 30cd 75cd 110cd TEMPORAL CODE 3	HOCHIKI #HSSPKWLP	7320-0410: 0195	+80*	4"SQ X 2 1/2"D
₩P	TEMPORAL CODE 3 MITH WEATHER PROOF BOX	Notifier SPKNINDBO	7320-1653	+80*	4"SQ X 2 1/2"D
S	ADDRESSABLE CEILING SMOKE DETECTOR WITH BASE	HOCHIKI #ALK-V #YBN-NSA-4	7272-0410: 0173 7300-0410: 0132	CEILING	4"SQ X 2 1/2"D
A	ATTIC HEAT DETECTOR 190'F TEMP WITH BASE AND MONITOR MODULE	HOCHIKI #DFE 190°/HSC-XXXL #FRCME-4	7270-0410: 0119 7300-0410: 0150	ATTIC	4"SQ X 2 1/2"D
0	DUCT SMOKE DETECTOR WITH HOUSING AND MONITOR MODULE	SYSTEM SENSOR #D4120 #FRCME-4	3242-1653: 0207 7300-0410: 0150	HVAC DUCT	4"SQ X 2 1/2"D
*	END OF LINE RESISTOR	N/A	N/A	LAST DEVICE	4"SQ X 2 1/2"D



DIALER LIC. #814621 PH # (661)322-8408 (1)B CABLE FOR BATTERY WITH (2) 12AH NEW BATTERIES. NEW (1)A DATA CABLE FOR SIGNAL CIRCUIT ADDITIONAL BAH CAPACITY INITIATING CIRCUIT CAN HANDLE THE NEW ADDITIONAL NEW LOADS BOOSTER PANEL " **APPROX**

022

110VAC

OFF SITE CERTIFIED MONITORING SERVICE

A2Z TECHNOLOGIES, INC \leftarrow

PER CBC 901.6.2

DEDICATED

AUTO

1. RISER DIAGRAM IS DIAGRAMMATIC. SEE FIRE ALARM FLOOR PLAN AND FIELD VERIFY EXACT ROUTING

2. ALL INTERIOR FIRE ALARM CONDUCTORS ARE INSTALLED IN EMT CONDUIT AND CONCEAL ABOVE CEILING OR INSIDE WALL WITH 3/4"C.

3. FIRE ALARM CONDUCTOR CANNOT SPLICE INSIDE PULL BOX. CONDUCTOR MUST BE CONTINUE RUN BETWEEN FIRE ALARM DEVICES BACK BOX OR TERMINAL CABINET.

FIRE ALARM RISER DIAGRAM

N.T.S

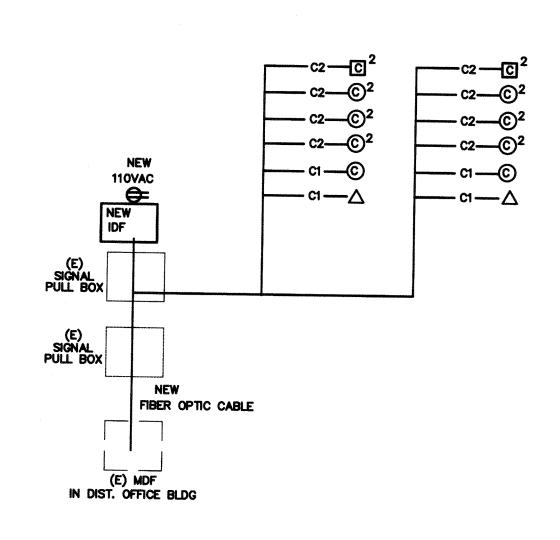
NAC-B2

NAC-B3

X X X

OHN CHONG PINGINEERING 2027 E DECATUR AVE, FRESNO CA 95720 (955) 925-9966 · FAX 297-9401

jcengineer@aol.com



FIBER OPTIC CABLE
THREE MULTIMODE PAIRS (SIX STRANDS) AND THREE SINGLE-MODE PAIRS (SIX STRANDS) OPTICAL CABLE COMPANY # DX 12/065D-6W3SB/1UC-6SYMC-YMD/900-OFNR OF EQUAL

5ENP4P24-BL-BER-PV OR EQUAL CABLE TESTING

ALL FIBER OPTIC CABLE MUST BE TESTED TO SUPPORT 1000BASE—FX FULL DUPLEX STANDARDS,
ALL CAT 5E CABLE MUST BE TESTED TO SUPPORT 100BASE—TX.
TEST RESULTS ARE TO BE PROVIDED TO SCHOOL TECHNOLOGICAL SERVICES FOR REVIEW AND APPROVAL.

IDE SWITCH EQUIPMENT CISCO WS-C2950G-24 W/ WS-C5484 GBIC

CISCO WS-C2950-24
SOUTH WESTERN DATA PRODUCT SWE 4000-18UDBLK OR EQUAL
ALLEN TEL AT35-16 OR EQUAL
ALLEN TEL AT30-2-09 OR EQUAL
ALLEN TEL ATPNL-24 OR EQUAL

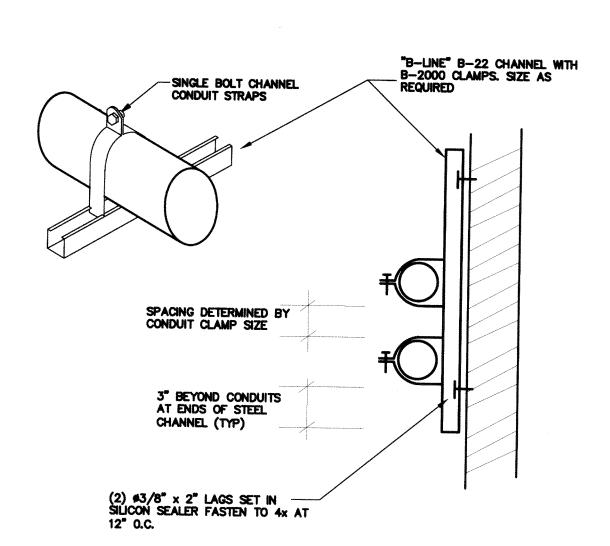
LABELING IDIENTICATION ALL INSTALLED EQUIPMENT, CABLES, TERMINATIONS, ETC. WILL BE PERMANENTLY AND UNIQUELY MARKED. CABLES WILL BE MARKED USING A CONVENTION THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION. LAN TERMINATIONS WILL SIMILARLY BE MARKED TO UNIQUELY IDENTIFY THEM WHILE PROVIDING THE SOURCE AND DESTINATION OF CABLE. IDENTIFICATIONS MUST BE SUCH THAT THEY WILL NOT RUB OFF, FALL OFF, OR EASILY BREAK AWAY. DATA COMMUNICATION SYSTEM NOTES

- 1. CONTRACTOR TO PROVIDE ALL EQUIPMENT, PATCH CABLE AND ACCESSORY FOR A FULLY FUNCTIONAL SYSTEM. 2. NEW DATA JACK WIRING CONFIGURATION MUST BE MATCHED EXISTING SYSTEM. FIELD VERIFY PRIOR TO
- 3. ADMINISTRATIVE NODE TO BE RED IN COLOR WITH THE INSTRUCTIONAL NODE TO BE BLUE IN COLOR, NODE LOCATION MUST BE 12" WITHIN POWER RECEPTACLE AND FIELD VERIFY EXACT LOCATION WITH OWNER PROJECT COORDINATOR OR TECHNOLOGICAL SERVICES PERSONNEL PRIOR TO INSTALLATION.
- 4. ALL EQUIPMENT DOCUMENTATION AND WARRANTY INFORMATION WILL BE PROVIDED TO OWNER TECHNOLOGICAL SERVICES. WARRANTY CARDS WILL BE PROVIDED TO VUSD TECHNOLOGICAL SERVICES FOR FILING WITH MANUFACTURERS UPON COMPLETION OF INSTALLATION.

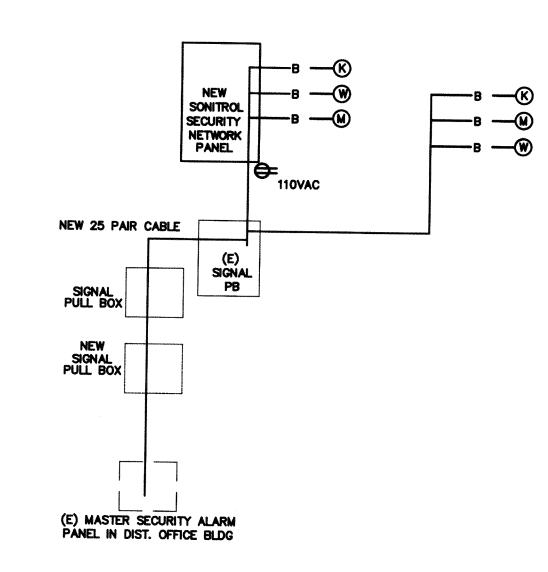
DATA COMMUNICATION SYSTEM RISER DIAGRAM

N.T.S

N.T.S

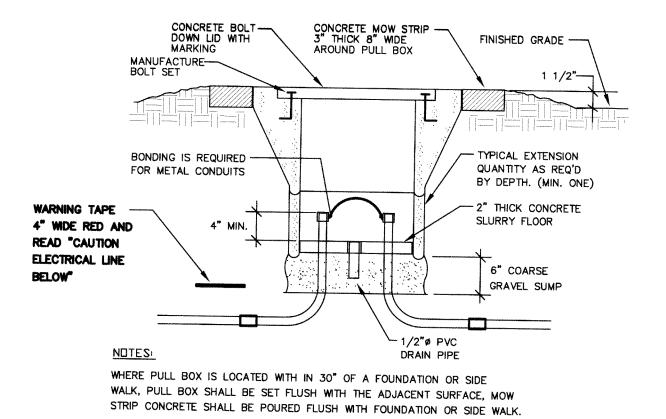


CONDUIT SUPPORT DETAIL



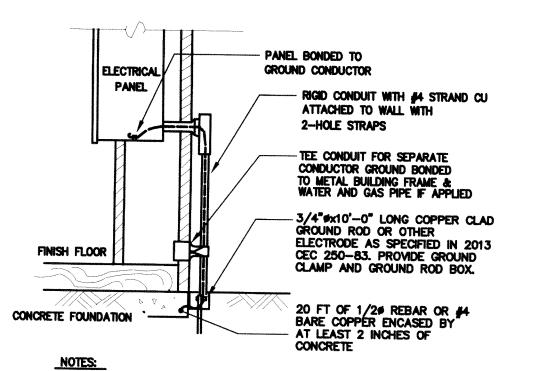
SECURITY ALARM SYSTEM RISER DIAGRAM

N.T.Ş



4 PULL BOX AT OPEN YARD DETAIL

N.T.S

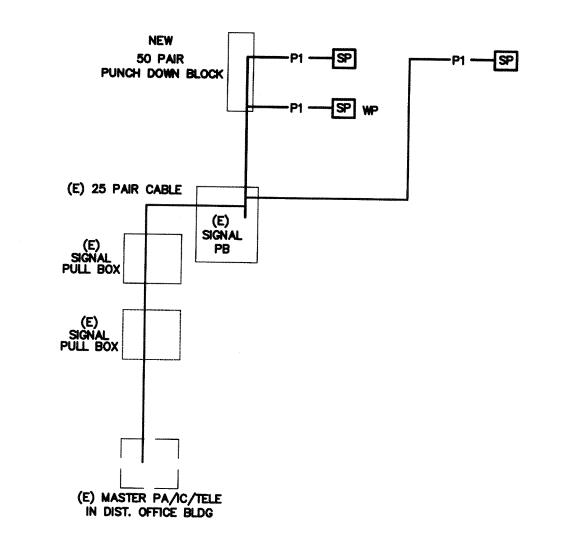


- 1. SIZE OF CONDUCTORS SHALL COMPLY WITH 2013 CEC TABLE 250-66. 2. BOND SEPARATE CONDUCTORS FROM GROUND ROD TO ELECTRICAL PANEL AND TO METAL BUILDING FRAME PER 2013 CEC 250-50. IN ADDITION TO THE DETAIL SHOWN ABOVE BOND THE ELECTRICAL GROUND TO METAL WATER PIPE EMBEDDED AT LEAST
- 10 FT. IN SOIL IF AVAILABLE (CEC 250-50, 250-82).
 3. ALL MADE OF METAL FRAME BUILDINGS SHALL BE ELECTRICALLY BONDED TOGETHER, BOND TO HAND RAIL AND WATER PIPE IF APPLIED. (BOLTING ONLY IS NOT
- ACCEPTABLE BONDING).
 4. CHECK RESISTANCE TO GROUND. IF RESISTANCE EXCEED 25 OHMS, INSTALL ADDITIONAL GROUND RODS WITH CONDUCTORS AS SHOWN SEPARATED AT LEAST

N.T.S

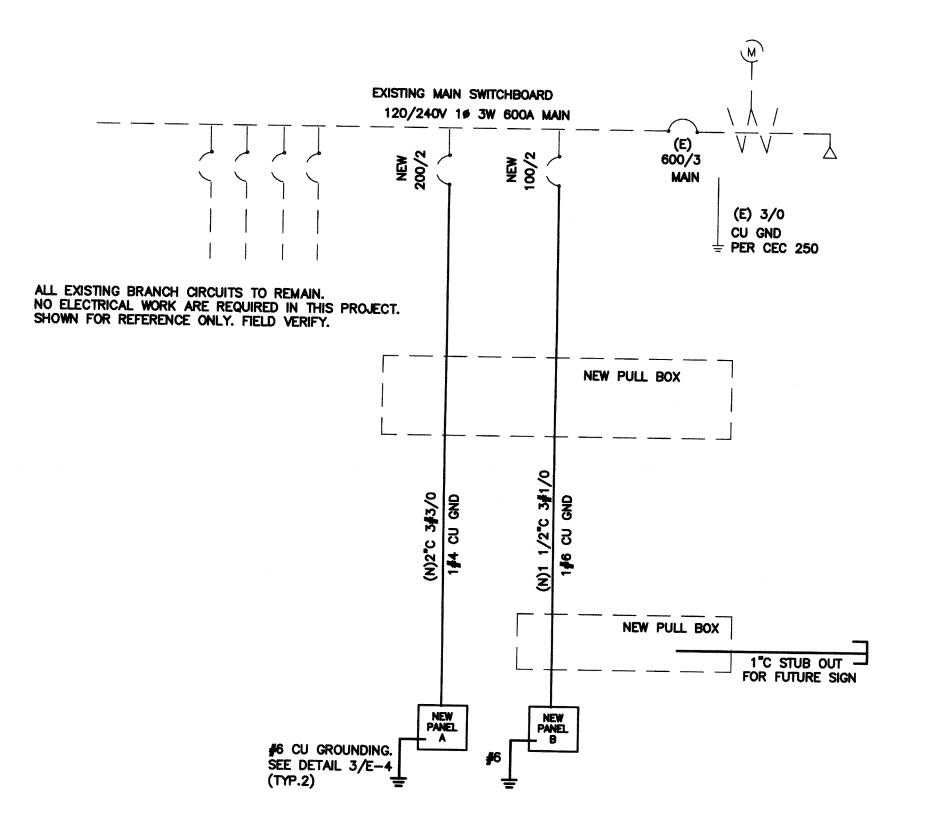
6'-0" UNTIL RESISTANCE IS REDUCED TO 25 OHMS OR LESS (2013 CEC 250-84). 5. FIELD INSPECTOR SHALL WITNESS GROUNDING TEST.

GROUNDING DETAIL



PA/IC/TELE SYSTEM RISER DIAGRAM

N.T.S



NOTES:

- PROVIDE NEW MATCHING BREAKERS, FEEDERS AND PANELS PER PLANS. 2. ALL NEW CONDUCTOR SHALL BE 75℃ THWN-2 COPPER IN CONDUIT. (AMPACITY FOR CONDUCTOR SELECTION MUST BE DETERMINED/DERATED BY THE ALLOWED TERMINATION RATINGS MARKED/APPROVED ON EACH DEVICES, MOTOR, APPLIANCE, XFMR O.C.P.C. PANEL, ETC. CONDUCTORS INSTALLED IN U.G OR WET LOCATIONS SHALL BE MARKER 'W'. PER 2013 CEC 110-14(C)(1).)

 3. ALL WIRING OVER 100 VOLT SHALL BE INSTALLED IN RACEWAY CONDUIT, EMT ABOVE GRADE, PVC SCH. 40 BELOW GRAD AND STEEL
- CONDUIT ON EXPOSE SURFACE BELOW 8' AFF. FOR PHYSICAL PROTECTION.

 STEEL BACK BOX SHALL BE PROVIDE FOR ALL NEW ELECTRICAL DEVICES SUCH AS SWITCH, OUTLET AND CONDUCTOR SPLICE.

 ELECTRICAL CONTRACTOR IS RESPONSIBLE TO VERIFY THE EXISTING SWITCHBOARD AND PANELS ARE INSTALL PER ONE LINE

 DIAGRAM PRIOR TO WORKING, AND REPORT TO ENGINEERS IF ANY DISCREPANCY ARE FOUND.

SINGLE LINE DIAGRAM

N.T.S



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