

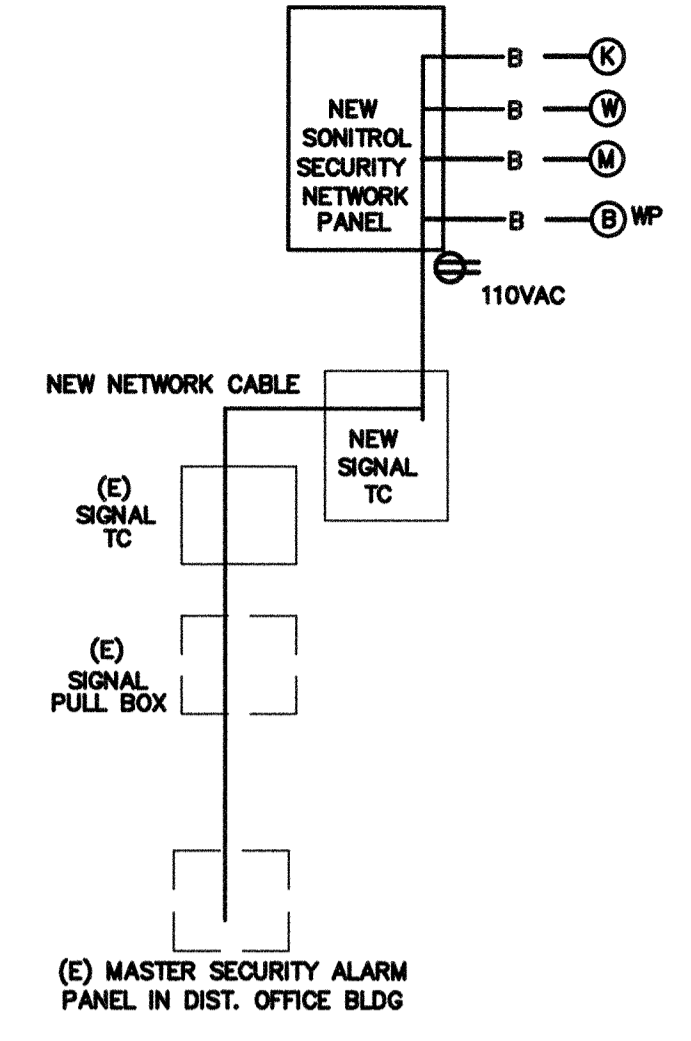
**FIBER OPTIC CABLE**  
 THREE MULTIMODE PAIRS (SIX STRANDS) AND THREE SINGLE-MODE PAIRS (SIX STRANDS)  
 OPTICAL CABLE COMPANY # DX 12/06SD-8W3SB/1UC-8SYM-1MD/900-OFNR OF EQUAL  
**CABLE TESTING**  
 ALL FIBER OPTIC CABLE MUST BE TESTED TO SUPPORT 1000BASE-FX FULL DUPLEX STANDARDS,  
 ALL CAT 6 CABLE MUST BE TESTED TO SUPPORT 100BASE-TX.  
 TEST RESULTS ARE TO BE PROVIDED TO SCHOOL TECHNOLOGICAL SERVICES FOR REVIEW AND APPROVAL.

**IDF SWITCH EQUIPMENT**  
 F/O CISCO WS-C2950G-24 W/ WS-C5484 GBIC  
 TP CISCO WS-C2950-24  
 CABINETS SOUTH WESTERN DATA PRODUCT SWE 4000-18DUBLK OR EQUAL  
 JACKS ALLEN TEL AT55-16 OR EQUAL  
 FACEPLATE ALLEN TEL AT30-2-09 OR EQUAL  
 PATCH PANEL ALLEN TEL ATPNL-24 OR EQUAL

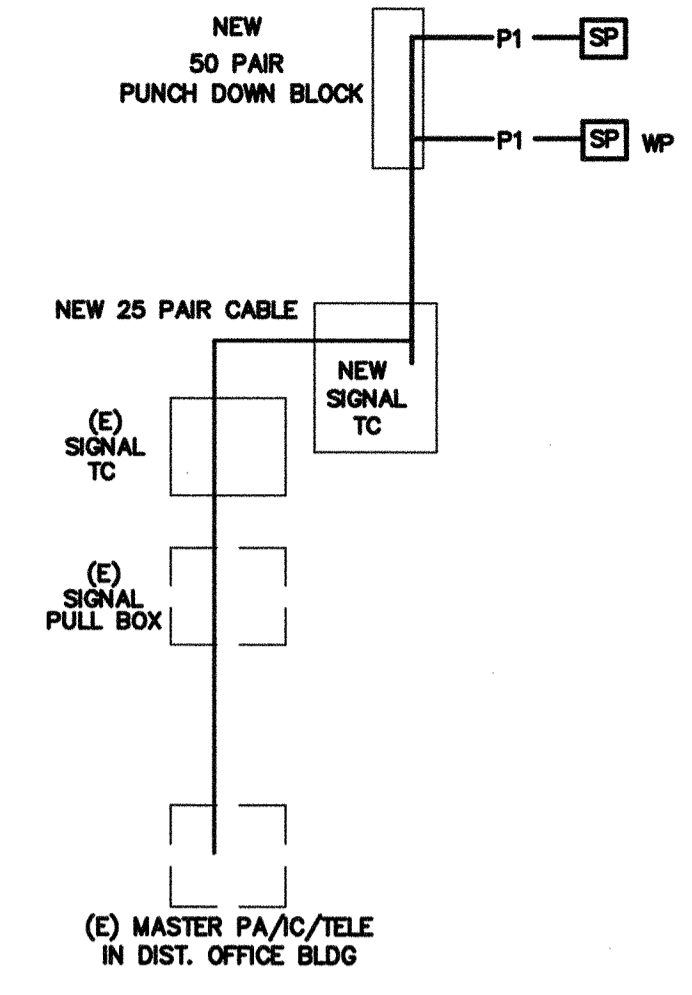
**LABELING IDENTIFICATION**  
 ALL INSTALLED EQUIPMENT, CABLES, TERMINATIONS, ETC. WILL BE PERMANENTLY AND UNIQUELY MARKED. CABLES  
 WILL BE MARKED USING A CONVENTION THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION. LAN TERMINATIONS WILL  
 SIMILARLY BE MARKED TO UNIQUELY IDENTIFY THEM WHILE PROVIDING 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  
 INSTALLATION.  
 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.

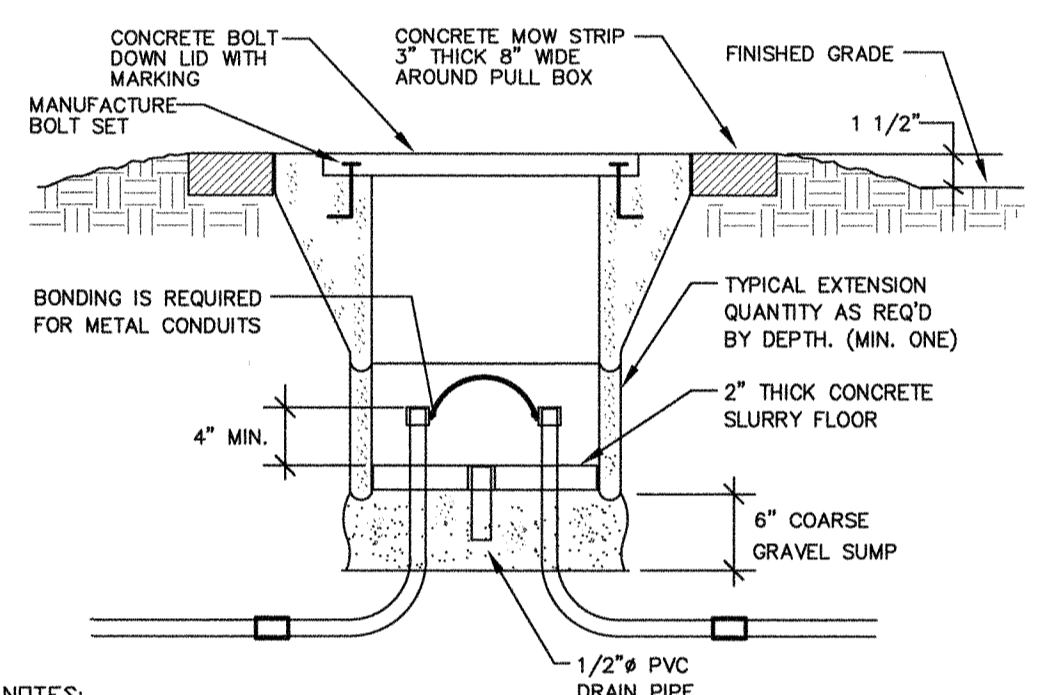
7 DATA COMMUNICATION SYSTEM RISER DIAGRAM N.T.S



5 SECURITY ALARM SYSTEM RISER DIAGRAM N.T.S

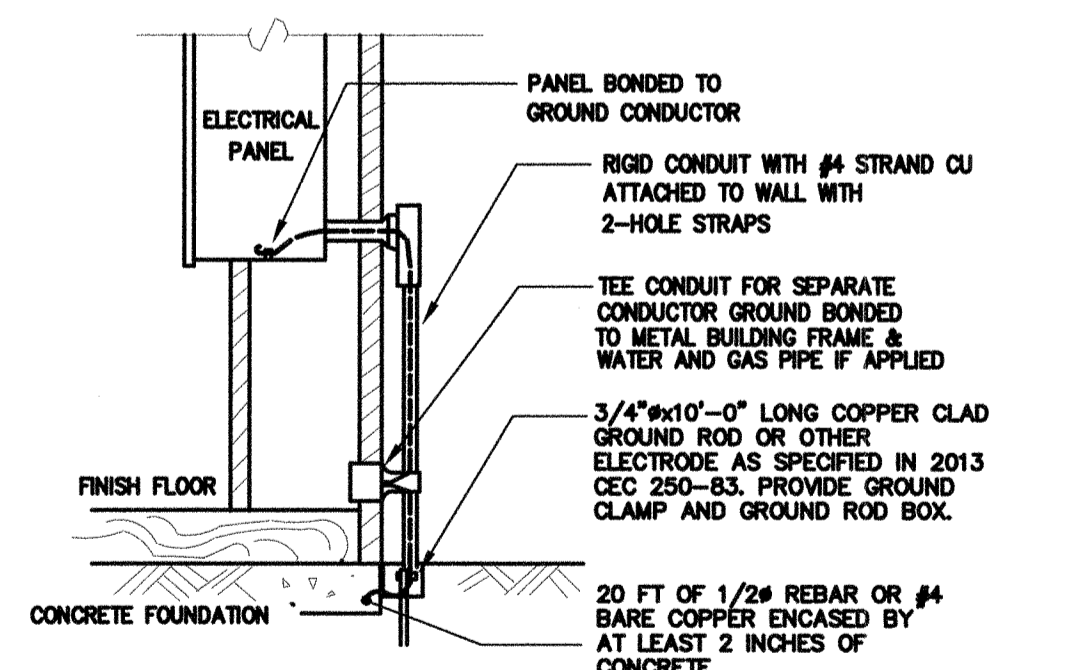


2 PA/IC/TELE SYSTEM RISER DIAGRAM N.T.S



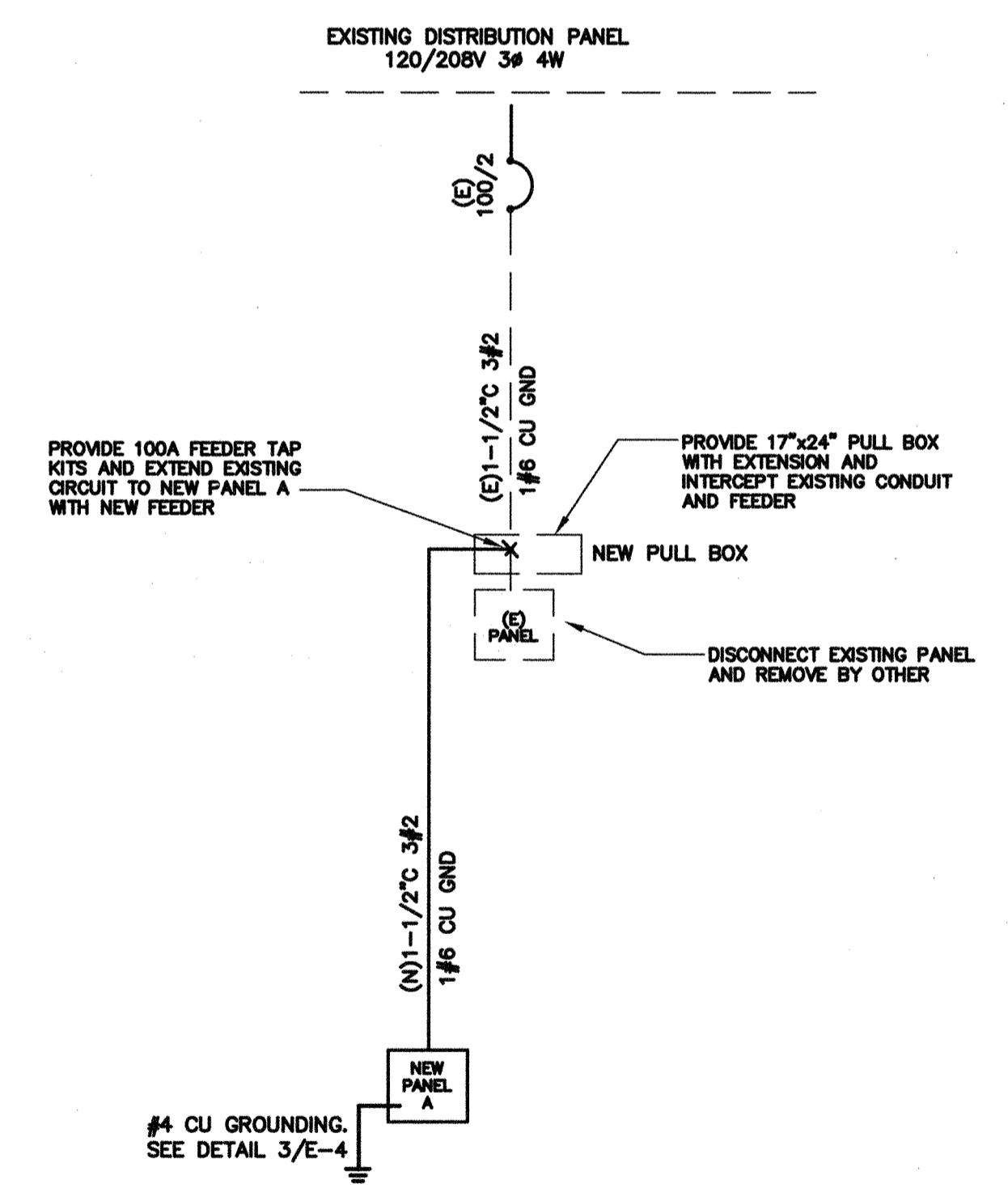
**NOTES:**  
 WHERE PULL BOX IS LOCATED WITHIN 30" OF A FOUNDATION OR SIDE  
 WALK, PULL BOX SHALL BE SET FLUSH WITH THE ADJACENT SURFACE, MOW  
 STRIP CONCRETE SHALL BE POURED FLUSH WITH FOUNDATION OR SIDE WALK.

4 PULL BOX AT OPEN YARD DETAIL N.T.S



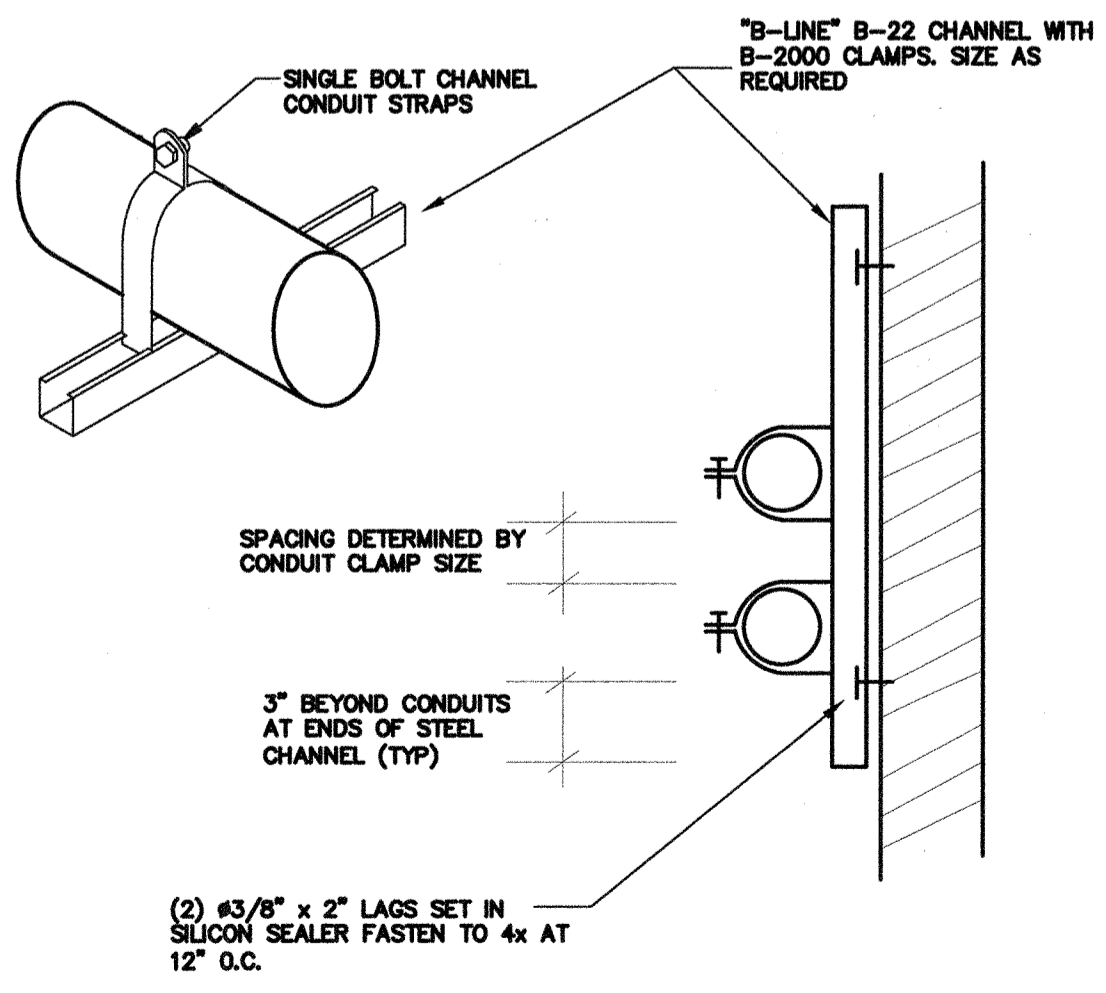
**NOTES:**  
 1. SIZE OF CONDUCTORS SHALL COMPLY WITH 2013 CEC TABLE 250-66.  
 2. BOND SEPARATE CONDUCTORS FROM GROUND ROD TO ELECTRICAL PANEL AND TO  
 METAL BUILDING FRAME PER 2013 CEC 250-50, IN ADDITION TO THE DETAIL SHOWN  
 ABOVE BOND THE ELECTRICAL GROUND TO METAL WATER PIPE EMBEDDED AT LEAST  
 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 EXCEEDS 25 OHMS, INSTALL  
 ADDITIONAL GROUND RODS WITH CONDUCTORS AS SHOWN SEPARATED AT LEAST  
 6'-0" UNTIL RESISTANCE IS REDUCED TO 25 OHMS OR LESS (2013 CEC 250-84).  
 5. FIELD INSPECTOR SHALL WITNESS GROUNDING TEST.

3 GROUNDING DETAIL N.T.S



**NOTES:**  
 1. PROVIDE NEW MATCHING BREAKERS, FEEDERS AND PANELS PER PLANS.  
 2. ALL NEW CONDUCTOR SHALL BE 75°C 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  
 4. STEEL BACK BOX SHALL BE PROVIDED FOR ALL NEW ELECTRICAL DEVICES SUCH AS SWITCH, OUTLET AND CONDUCTOR SPLICE.  
 5. 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.

1 SINGLE LINE DIAGRAM N.T.S



6 CONDUIT SUPPORT DETAIL N.T.S

Ownership of Documents  
 This document, the ideas and designs incorporated herein, as an instrument of Professional Service is the property of 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

**integrated designs** by SOMAM, Inc.  
 ARCHITECTURE - ENGINEERING - INTERIOR DESIGN - CONSTRUCTION MANAGEMENT  
 1301 E. DeSatur Ave., Fresno, California 93710  
 Phone (559) 438-0881 Fax (559) 438-0882 E-Mail: design@somam.com  
 www.integrateddesigns.com

Rev. No.	Date	Description

Project Name: **MT. VERNON ELEMENTARY SCHOOL**  
**1 RELOCATABLE CLASSROOM**  
 BAKERSFIELD CITY SCHOOL DISTRICT  
 2161 POTOMAC AVE., BAKERSFIELD, CA

Issue Date: 00/00/14  
 Date: 05/28/14  
 Designer: J. CHONG  
 DR: J. CHONG  
 FC: C.A.M.

Agency Approval Stamp:  
 FILE # 15-6  
 IDENTIFICATION STAMP  
 DIV. OF THE STATE ARCHITECT  
 OFFICE OF REGULATION SERVICES  
 05-17024  
 AC: J.F.L.S.S./K  
 DATE: 06/01/2014  
 TRACKING #: DSA TRACKING NO

Job No.: **5211**  
 Sheet No.: **E-4**

CONSULTING ENGINEERS  
**JOHN CHONG ENGINEERING**  
 2017 E. DEATUR AVE. FRESNO CA 93710  
 (559) 215-2266 • FAX 257-3401  
 jchong1neer@aol.com

REGISTERED PROFESSIONAL ENGINEER  
 JOHN S. CHONG  
 E 14419  
 Exp. 6/30/2016  
 ELECTRICAL  
 STATE OF CALIFORNIA