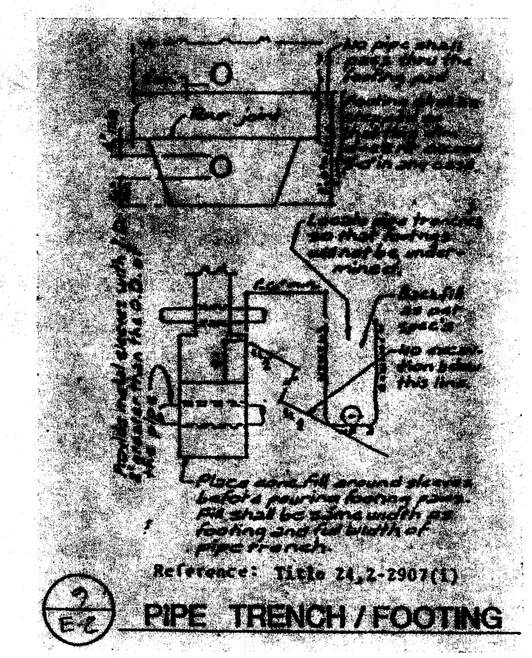
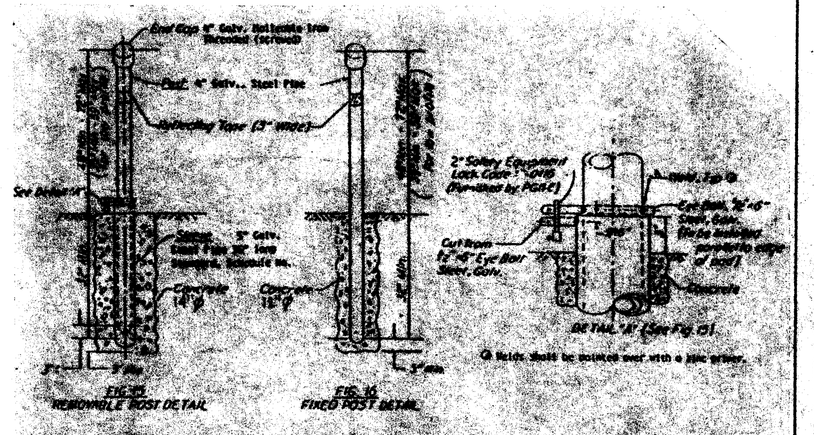
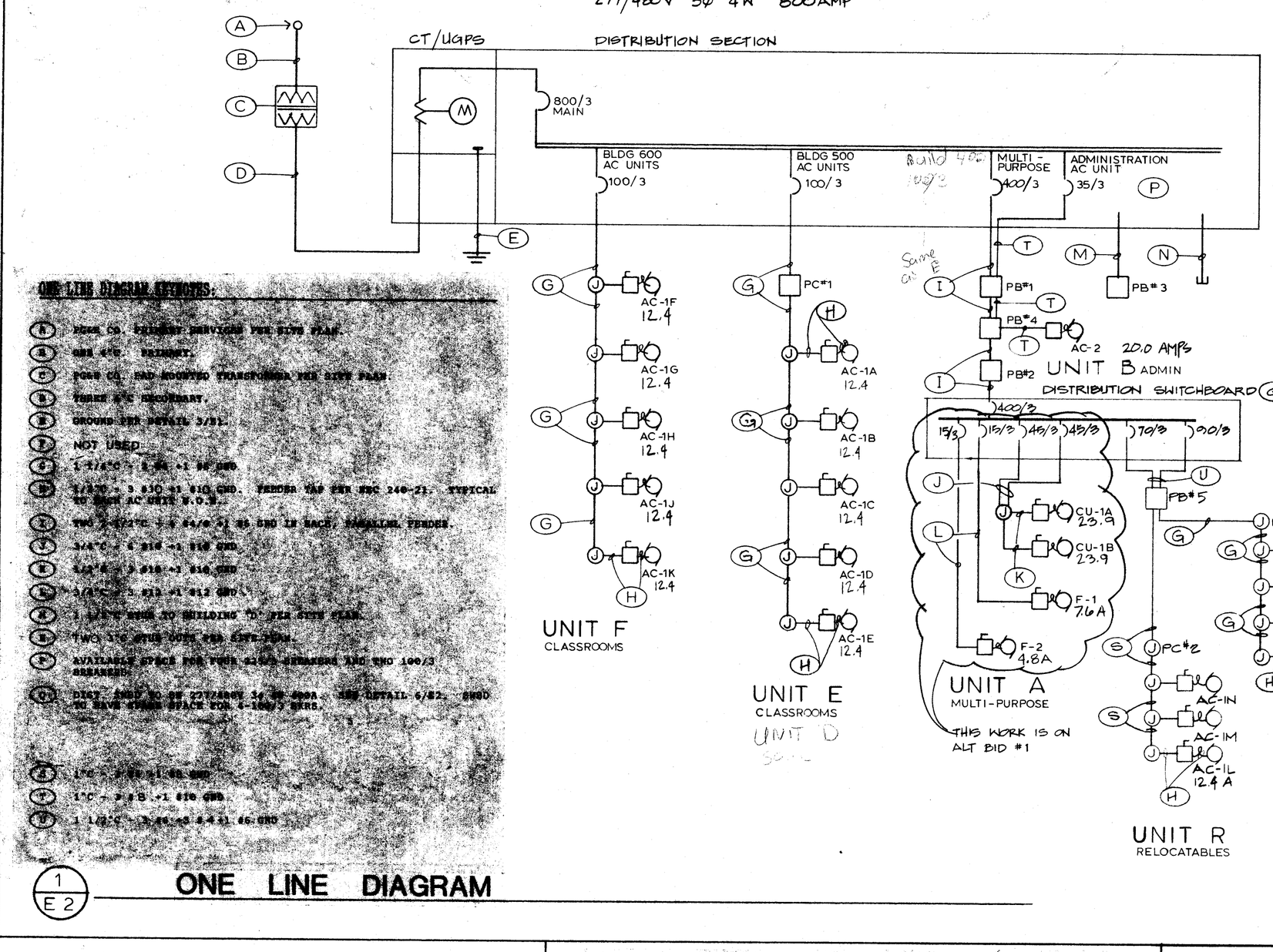


2 / E-2 PIPE TRENCH / FOOTING



6 / E-2 BARRIER POSTS



1 / E 2 ONE LINE DIAGRAM

CODE, RULES AND REGULATIONS

ALL WORK AND MATERIALS SHALL COMPLY WITH THE LATEST REGULATIONS OF THE STATE FIRE MARSHAL, CALIFORNIA CODE OF REGULATIONS, SERVING UTILITY COMPANIES AND OTHER APPLICABLE STATE AND LOCAL ORDINANCES. NOTHING IN THESE PLANS OR SPECIFICATIONS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES. WHERE WORK OF A HIGHER DEGREE IS INDICATED IN THE PLANS OR SPECIFICATIONS THIS REQUIREMENT SHALL GOVERN.

UTILITY Co. REQUIREMENTS

VERIFY AND COMPLY WITH ALL UTILITY COMPANY REQUIREMENTS BEFORE BIDDING JOB AND BEFORE CONSTRUCTION:

POWER Co.
PG&E JOHN GILL Ph. 398-5972

PHONE Co.
___ Ph. ___

SEISMIC ANCHORAGE REQUIREMENTS

ALL MECHANICAL AND ELECTRICAL EQUIPMENT SHALL BE BRACED OR ANCHORED TO RESIST A HORIZONTAL FORCE ACTING IN ANY DIRECTION USING THE FOLLOWING CRITERIA.

FIXED EQUIPMENT ON GRADE 20% OF OPERATING WEIGHT
FIXED EQUIPMENT ON STRUCTURE 30% OF OPERATING WEIGHT

FOR FLEXIBLY MOUNTED EQUIPMENT, USE 4 X THE ABOVE VALUES SIMULTANEOUS VERTICAL FORCE - USE 1/3 X HORIZONTAL FORCE

WHERE ANCHORAGE DETAILS ARE NOT SHOWN ON THE DRAWINGS, THE FIELD INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER AND THE FIELD REPRESENTATIVE OF THE OFFICE OF THE STATE ARCHITECT.

USE OF POWDER DRIVEN CONCRETE FASTENERS

Use of Powder Driven Concrete Fasteners for tension loads is limited to support of minor loads (like suspended ceilings, duct work, conduit).

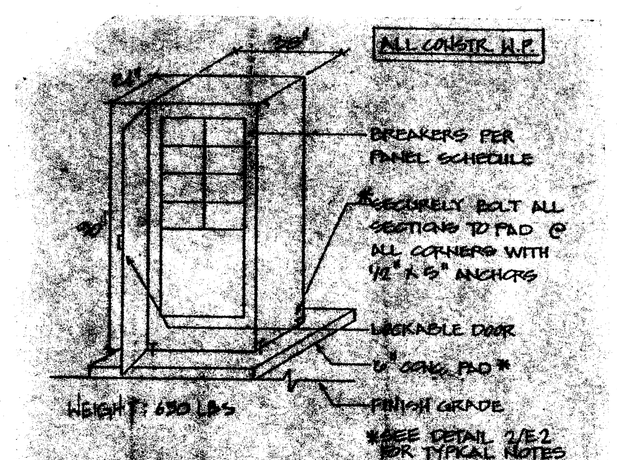
Allowable Loads - In general, loads should be limited to less than 100 pounds. However, greater loads may be permitted for special cases when approved by the checking engineer or field engineer.

TESTING - The operator, tool, and fastener shall be pre-qualified by the project inspector. He shall observe the testing of the first 10 fastener installations. A test "pull-out" load of not less than twice the design load, or 100 pounds, whichever is greater, shall be applied to the pin in such a manner as not to remove the spalling tendency of the concrete surrounding the pin. Thereafter, random test under the project inspector's supervision shall be made of approximately 1 in 10 pins, except that when the design load exceeds 100 pounds, one half of the pins shall be tested. Should failure occur on any pin tested, all installations must be tested and unfair pins replaced.

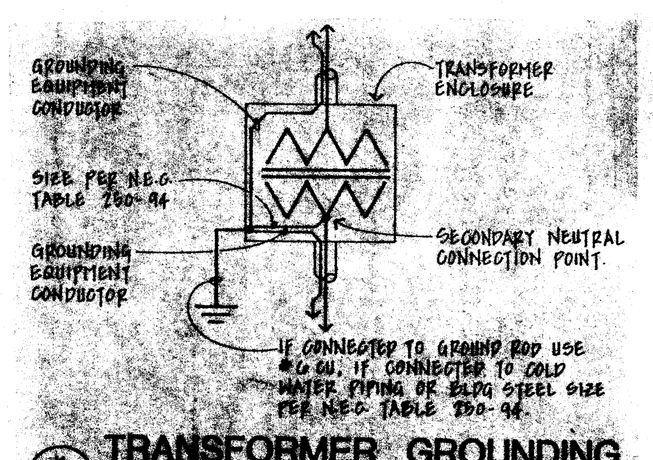
PROOF LOAD TESTS FOR EXPANSION TYPE ANCHOR BOLTS
(Bolts must have I.C.B.O. approval)

All concrete anchor bolts of the expansion type (loaded in either pullout or shear) shall have 20 percent of the bolts (alternate bolts in any group arrangement) proof tested in tension to twice the allowable tension load. If there are any failures, the immediately adjacent bolts must then also be tested.

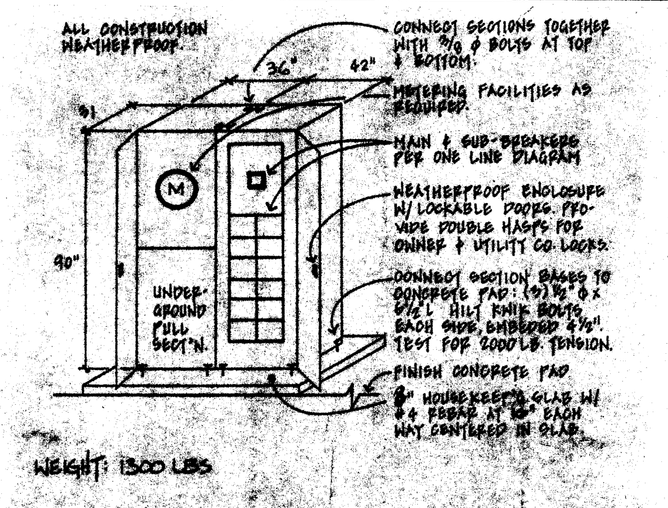
TYPE OF MATERIALS	TYPE OF TEST	BOLT DIAMETER 3/8"	1/2"	5/8"	3/4"
Hard Rock Concrete	Direct Pull-Tension, lbs.	1300	2600	2900	4300
	Torque Wrench-Torque, ft. lbs.	22	50	130	150
Lt. Wt. Concrete	Direct Pull-Tension, lbs.	975	1400	1950	2550
	Torque Wrench-Torque, ft. lbs.	20	35	75	90



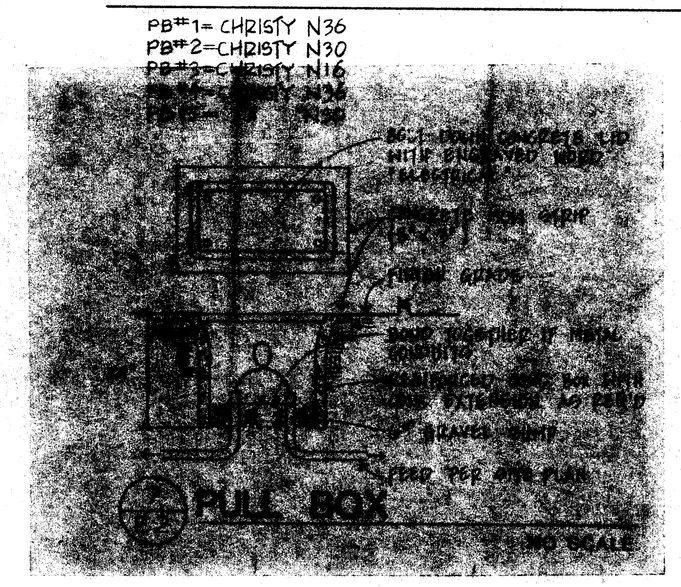
6 / E-2 DISTRIBUTION SWITCHBOARD
NO SCALE



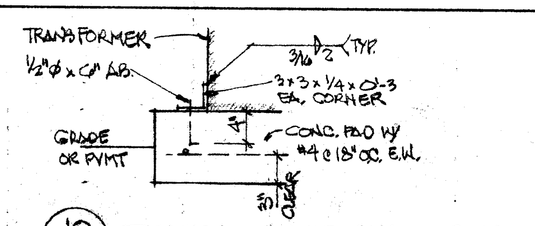
4 / E2 TRANSFORMER GROUNDING & BONDING DETAIL
NO SCALE



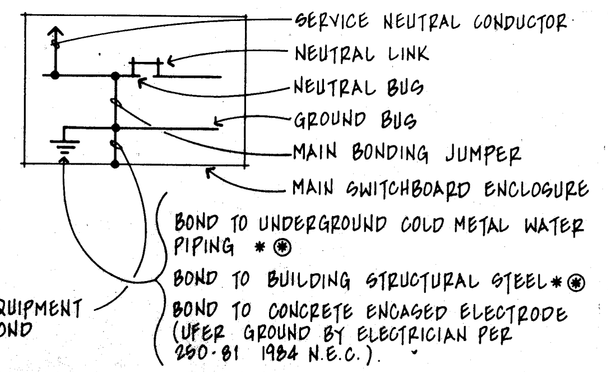
2 / E 2 MAIN SWITCHBOARD "MSB"
NOTE: METER/CT'S TO BE ON RIGHT HAND SIDE.
N.T.S.



PULL BOX
NO SCALE



10 / E2 TRANSFORMER ANCHORING
1" = 1'-0



* IF AVAILABLE ON THE PREMISES
⊛ BOND PER 250-81 1984 N.E.C., SIZE OF COPPER CONDUCTOR PER TABLE 250-94 1984 N.E.C.

3 / E 2 GROUND'G ELECTRODE SYS.
NO SCALE

ELECTRICAL SYMBOLS

ALL DIMENSIONS TO CENTER OF BOX, U.O.N.

	CONDUIT RUN IN ATTIC SPACE OR BELOW ROOF DECK COVER/ROOF - SIZE AS NOTED
	CONDUIT RUN UNDERGROUND - SIZE AS NOTED
	QUADPLEX RECEPTACLE (+12" U.O.N.)
	DUPLEX RECEPTACLE ON ROOF - W.P.
	JUNCTION BOX WITH FLEX CONNECTION
	[illegible]
	FUSED DISCONNECT SWITCH BY ELEC. CONN. WITH FLEX CONNECTION
	MECHANICAL HVAC CONTROL SYSTEM TIME CLOCK
	[illegible]
	[illegible]
	[illegible] REFER TO ELECTRICAL [illegible]
	[illegible]

THESE DRAWINGS, SPECIFICATIONS, IDEAS, DESIGNS, AND ARRANGEMENTS REPRESENTED THEREBY ARE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECTS AND NO PART THEREOF SHALL BE COPIED, DISCLOSED TO OTHERS OR USED IN CONNECTION WITH ANY WORK OR PROJECT OTHER THAN THE SPECIFIED PROJECT FOR WHICH THEY HAVE BEEN PREPARED AND DEVELOPED WITHOUT THE WRITTEN CONSENT OF THE ARCHITECTS. SUBMISSION OF THESE DRAWINGS, SPECIFICATIONS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS.

WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS. SHOP DRAWINGS MUST BE SUBMITTED TO THIS OFFICE FOR REVIEW BEFORE PROCEEDING WITH THE FABRICATION OF ANY PRODUCT TO BE INCLUDED IN THIS PROJECT.

DATE	ISSUE FOR

DATE	REVISION

Frank West Elementary School
HVAC
Bakersfield City School District

pechin associates architects aia
C-8366
1400 easton drive bakersfield, ca 93309 (805)322-2021 suite 188

SHEET E2

Project Number: 449-7289
Plot Date: