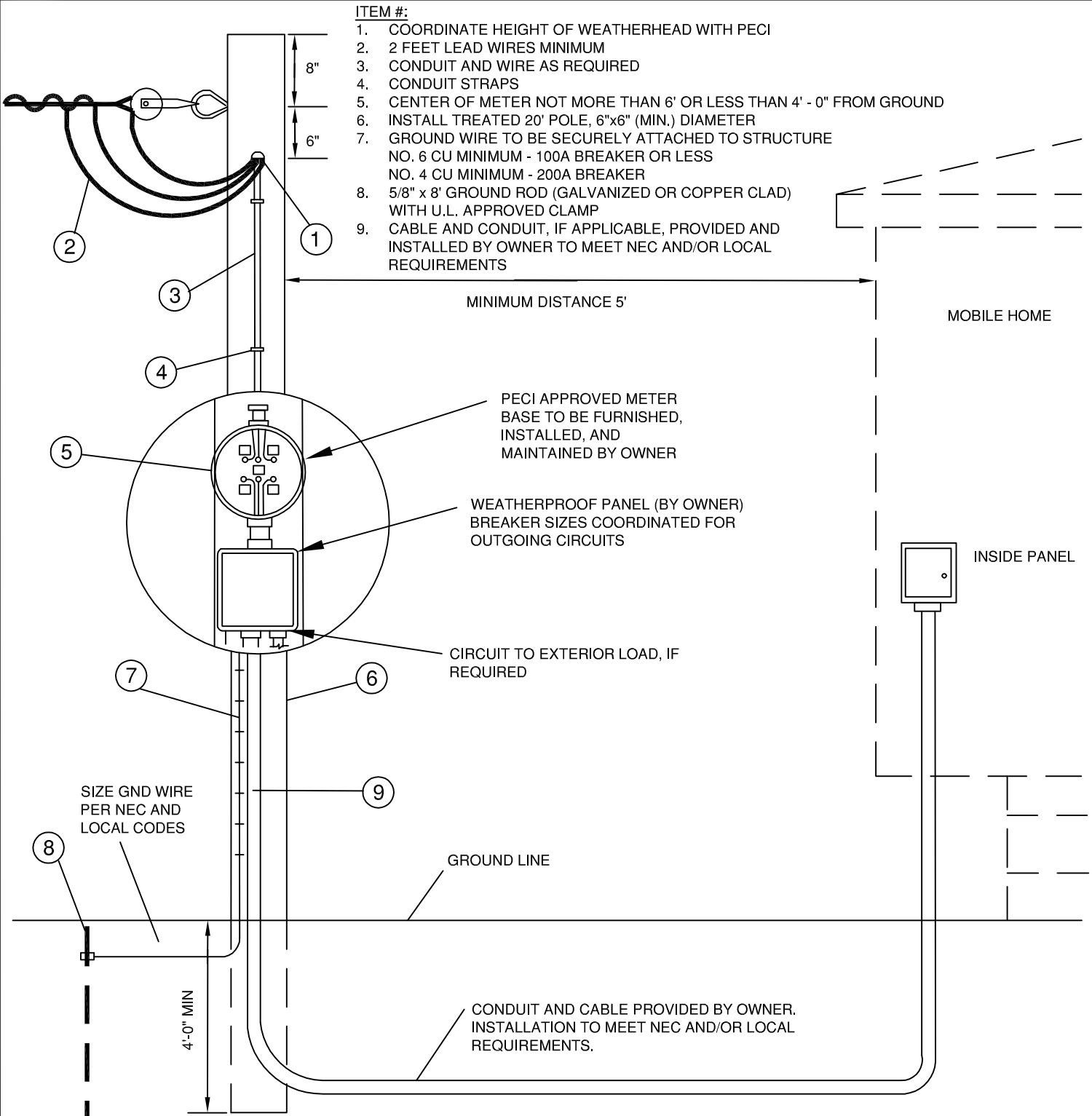


# MOBILE HOME METER SERVICE POLE



- ITEM #:**
1. COORDINATE HEIGHT OF WEATHERHEAD WITH PECI
  2. 2 FEET LEAD WIRES MINIMUM
  3. CONDUIT AND WIRE AS REQUIRED
  4. CONDUIT STRAPS
  5. CENTER OF METER NOT MORE THAN 6' OR LESS THAN 4' - 0" FROM GROUND
  6. INSTALL TREATED 20' POLE, 6"x6" (MIN.) DIAMETER
  7. GROUND WIRE TO BE SECURELY ATTACHED TO STRUCTURE  
NO. 6 CU MINIMUM - 100A BREAKER OR LESS  
NO. 4 CU MINIMUM - 200A BREAKER
  8. 5/8" x 8' GROUND ROD (GALVANIZED OR COPPER CLAD)  
WITH U.L. APPROVED CLAMP
  9. CABLE AND CONDUIT, IF APPLICABLE, PROVIDED AND  
INSTALLED BY OWNER TO MEET NEC AND/OR LOCAL  
REQUIREMENTS

MINIMUM DISTANCE 5'

MOBILE HOME

PECI APPROVED METER  
BASE TO BE FURNISHED,  
INSTALLED, AND  
MAINTAINED BY OWNER

WEATHERPROOF PANEL (BY OWNER)  
BREAKER SIZES COORDINATED FOR  
OUTGOING CIRCUITS

CIRCUIT TO EXTERIOR LOAD, IF  
REQUIRED

INSIDE PANEL

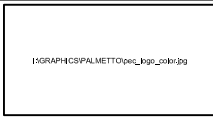
SIZE GND WIRE  
PER NEC AND  
LOCAL CODES

GROUND LINE

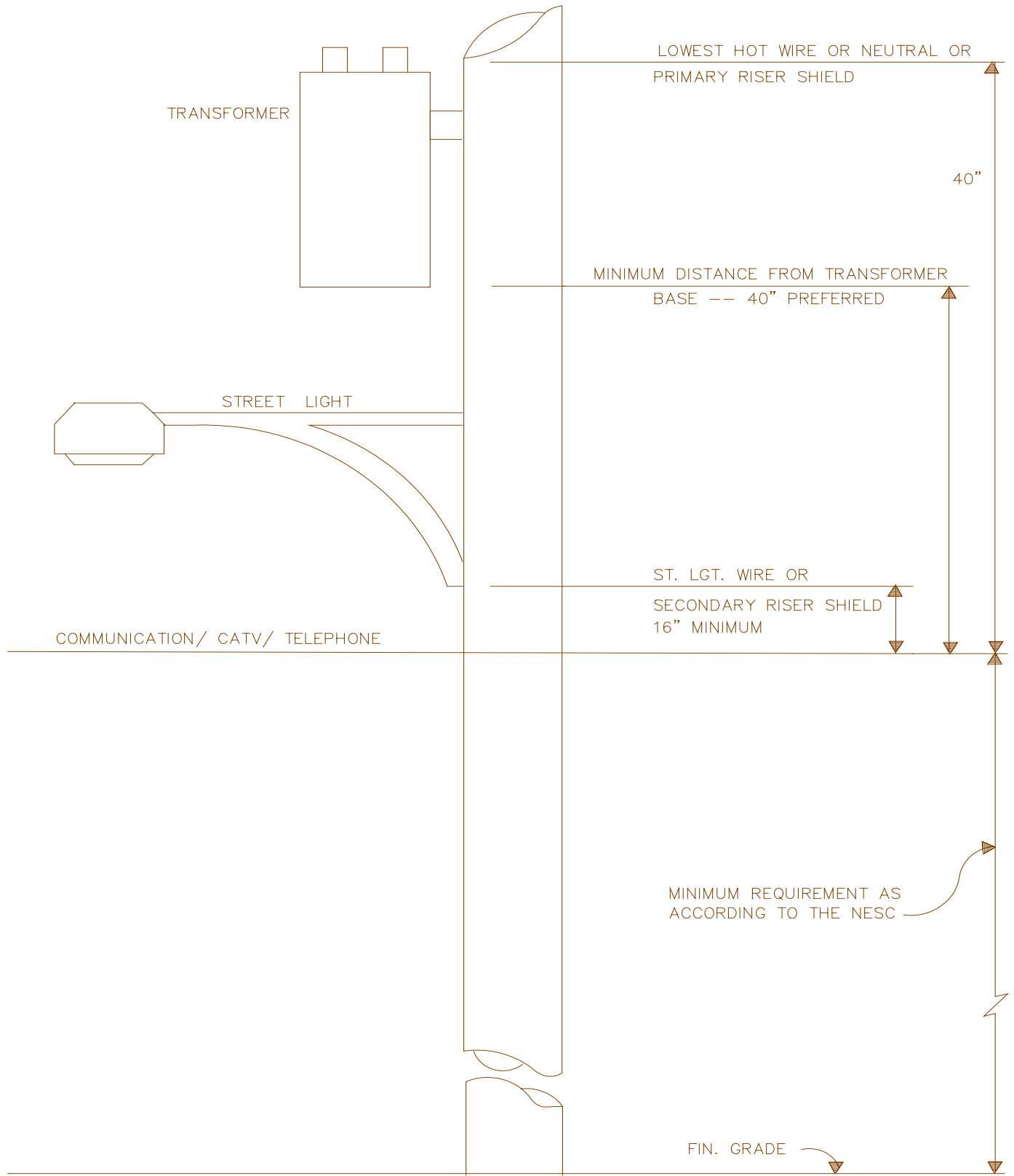
CONDUIT AND CABLE PROVIDED BY OWNER.  
INSTALLATION TO MEET NEC AND/OR LOCAL  
REQUIREMENTS.

**NOTES**

1. POWER SUPPLY CONDUCTOR FROM OUTSIDE PANEL TO HOME MUST MEET ALL REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL CODES
2. ENTIRE ASSEMBLY TO MEET PECI, NEC, AND LOCAL REQUIREMENTS
3. DRAWING SHOWS TYPICAL METHOD FOR BURIED SERVICE THIS IS ONLY A GUIDE FOR INSTALLATION
4. CALL SC811 BEFORE YOU DIG



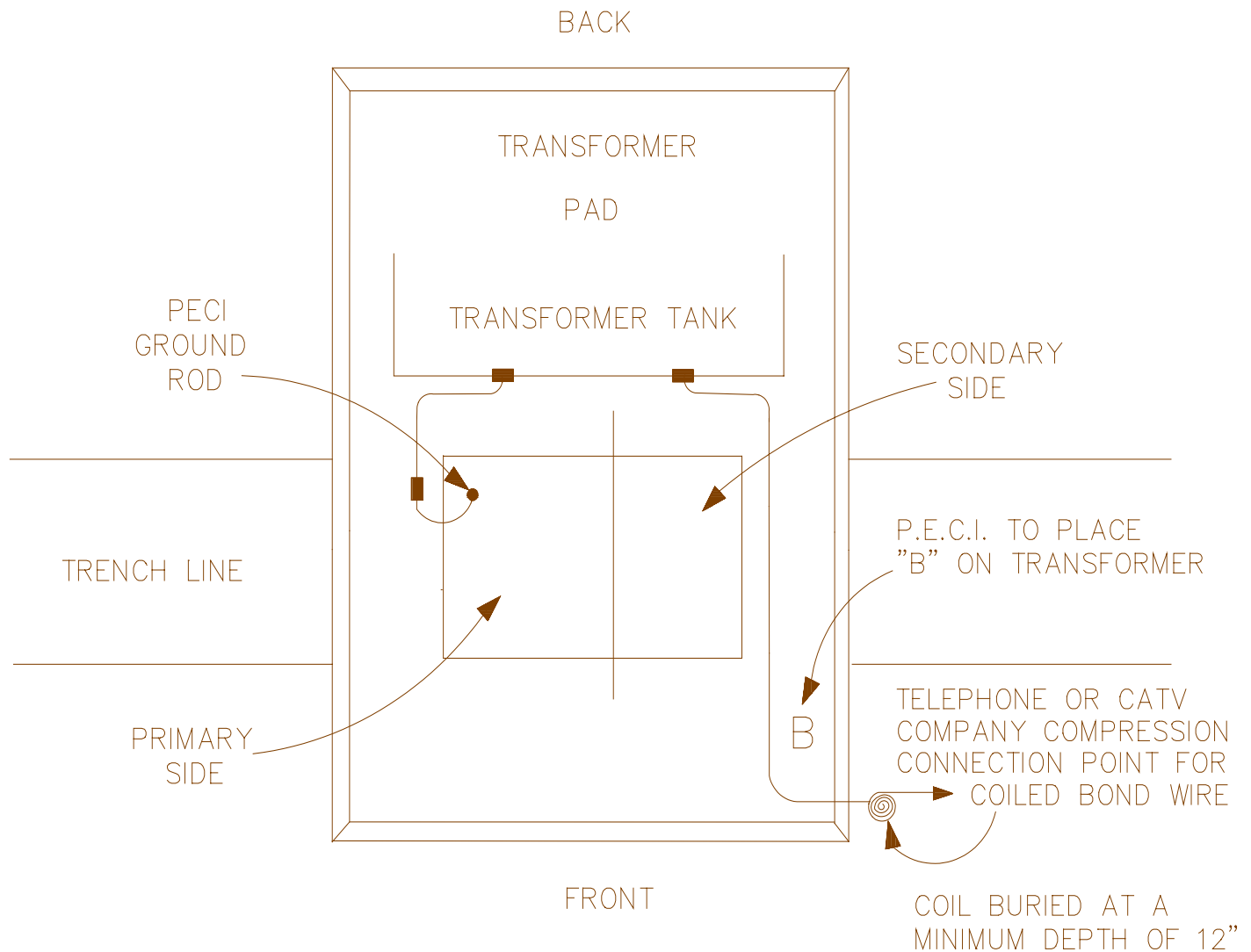
# REQUIRED MINIMUM CLEARANCES FROM COMMUNICATION ATTACHMENT TO P.E.C.I. FACILITIES



DATE: March 26, 1990  
APPROVED BY: A. Berl Davis  
REV: \_\_\_\_\_ SHEET 1

MEMO # 9

# BONDING WITH ABOVE GROUND COMMUNICATION COMPANY FACILITIES AT PECI TRANSFORMER (EQUIPMENT) LOCATIONS



**NOTES:**

1. P.E.C.I. TO COIL 1 FOOT OF #6 COPPER BARE WIRE AT FRONT RIGHT OUTSIDE EDGE OF PAD FOR CONNECTION WITH COMMUNICATION COMPANY BOND WIRE. P.E.C.I. TO MAKE CONNECTION INSIDE TRANSFORMER SECONDARY COMPARTMENT.
2. 15KV RATED GLOVES ARE TO BE WORN BY COMMUNICATION COMPANY PERSONNEL WHEN ATTACHING TO P.E.C.I. BOND WIRE.
3. P.E.C.I. TO INDICATE ON JOB DRAWING AT WHICH TRANSFORMER LOCATIONS BOND WIRE IS TO BE INSTALLED. BONDS SHOULD BE PROVIDED BETWEEN ALL ABOVE GROUND METALLIC POWER AND COMMUNICATION APPARATUS THAT ARE SEPARATED BY A DISTANCE OF 6 FEET OR LESS AND AS REQUESTED BY TELEPHONE AND CATV COMPANIES.

DATE: November 6, 1991  
 APPROVED BY: A. Berl Davis  
 REV: \_\_\_\_\_ SHEET 1

MEMO # 10

# INSTALLATION and GROUNDING OF POST MOUNTED SECURITY LIGHTS SERVED UNDERGROUND

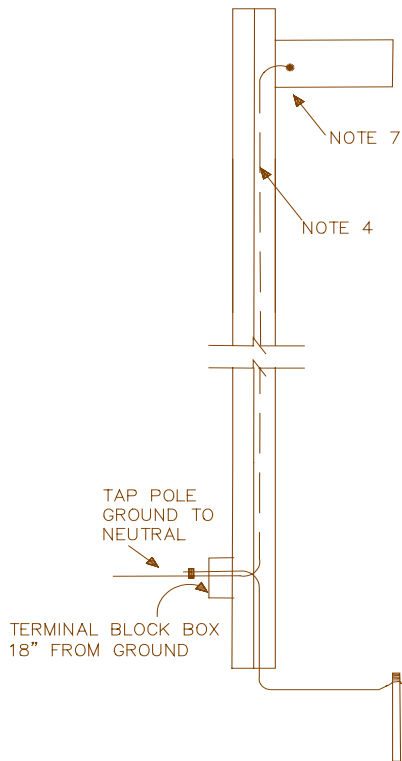


FIGURE 1  
GROUNDING OF A WOOD POLE

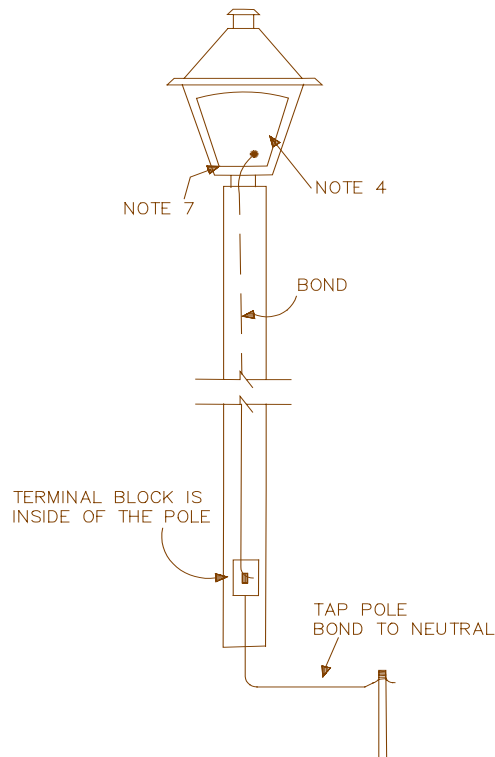


FIGURE 2  
GROUNDING OF A FIBERGLASS POLE

**NOTES:**

1. Security light poles must have at least four low resistance grounds per mile.
2. All fiberglass and wood poles which have a street light circuit terminating (ending), must have a low resistance ground rod installed.
3. All metal poles are required to have a low resistance ground rod installed.
4. The luminaire should be bonded by a ground wire to the terminal box at the base of the pole. (See figures 1, 2, & 3)
5. Ground rods are 5/8" x 8' - 0" with a pigtail and ground lug.
6. P.E.C.I. map number tag to be installed on back of pole at eye level.
7. Lamp marker identifying code for lamp wattage and manufacturer:  
15C=150w 17G=175w, 25C 250w, 40G=400w, 100C=100w.  
(Ex: 15G = 150 watt General Electric, 40C = 400 watt Crouse Hinds).
8. Use 10-2 UG wire for feed in interior of light poles.
9. All underground lighting circuits feeding one or more poles will be protected by a fuse at its power source.
10. For Figure 3, ground rod should be installed within a plastic sleeve in the concrete foundation.

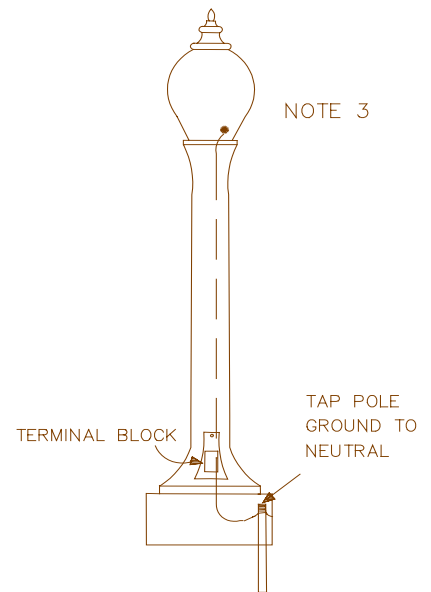
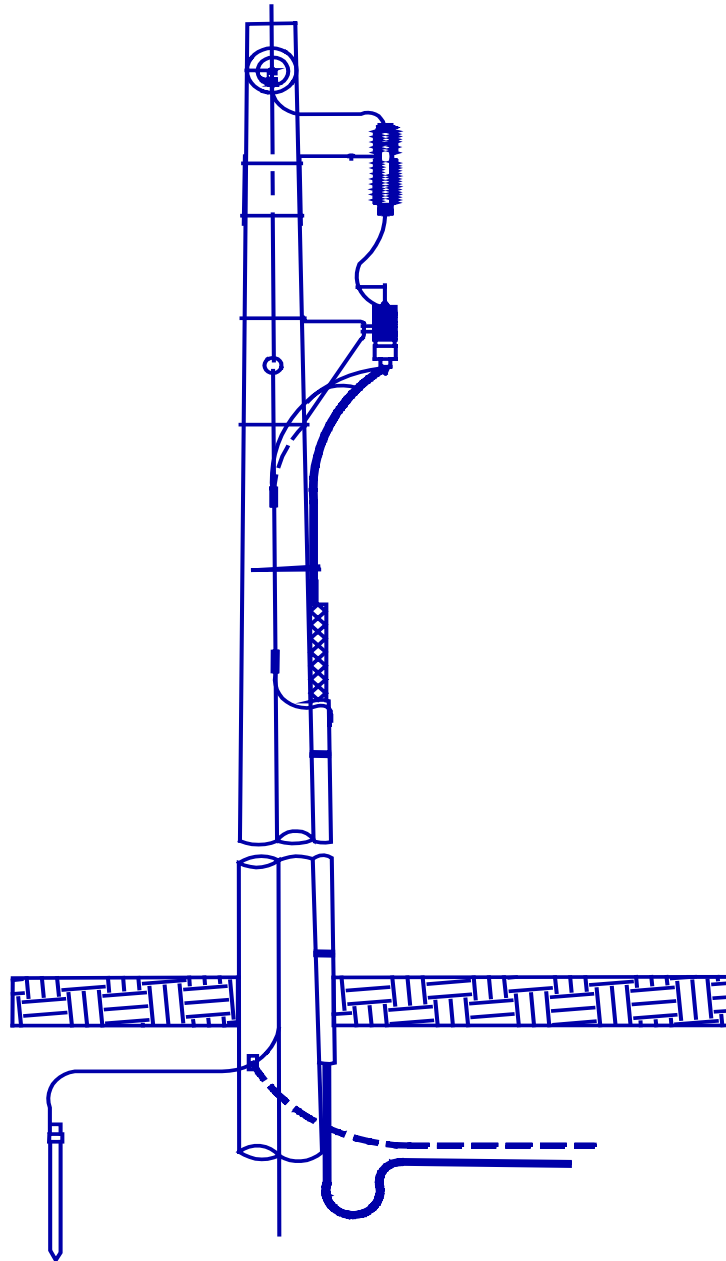


FIGURE 3

## COUNTERPOISE

When installing any primary underground take off from an overhead pole, note in the remarks column of the staking sheet to add a "Counterpoise". This will consist of 100 feet of 3/8" guy wire which is to be connected onto the pole ground at the base of the pole and installed into the trench above the primary underground cable. There should be a soil separation of one (1) foot between the primary cable and the counterpoise. The counterpoise is being installed to provide better lightning protection for our underground cable by providing a low impedance path to ground.



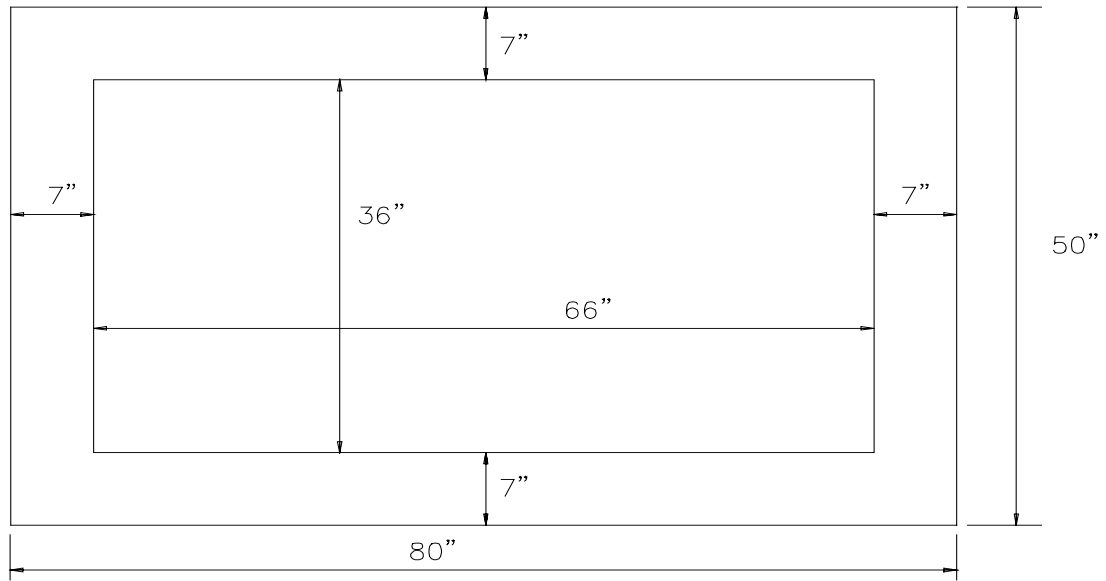
DATE: December 2, 1993  
APPROVED BY: A. Berl Davis  
REV: \_\_\_\_\_ SHEET 1

MEMO # 12

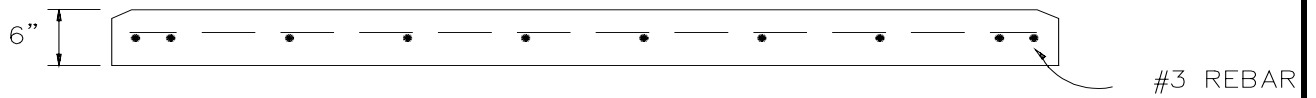
 **PALMETTO**  
ELECTRIC COOPERATIVE INC.  
A Touchstone Energy<sup>SM</sup> Partner 

# PAD FOR 200 AMP MALTON SWITCH

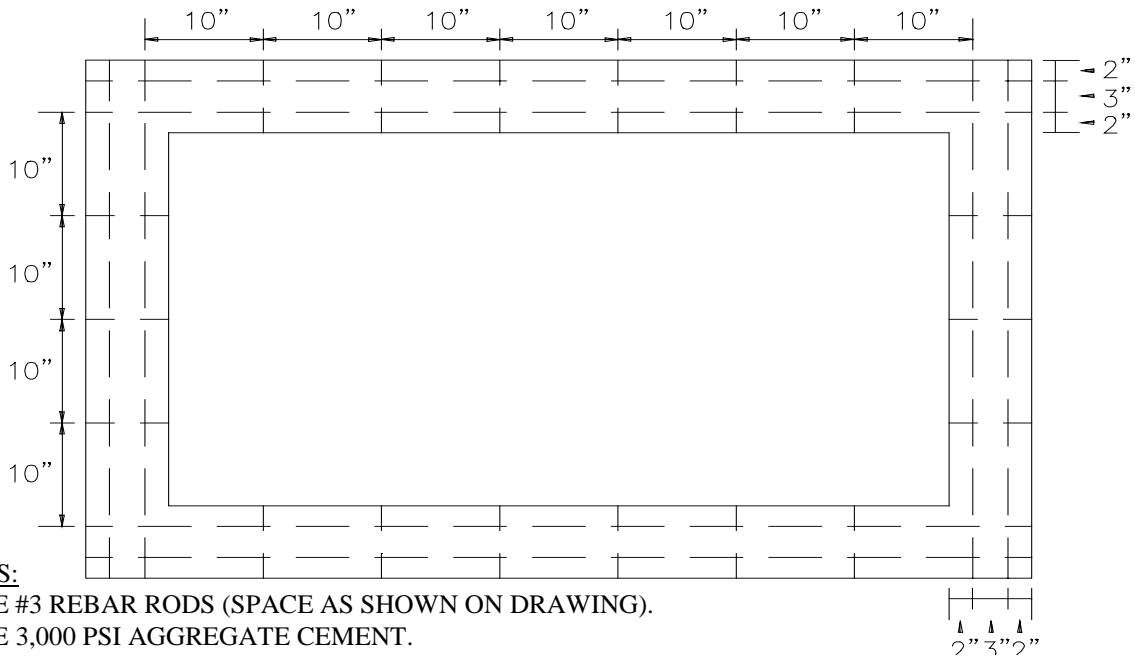
TOP  
VIEW



SIDE  
VIEW



REBAR  
VIEW



**NOTES:**

1. USE #3 REBAR RODS (SPACE AS SHOWN ON DRAWING).
2. USE 3,000 PSI AGGREGATE CEMENT.
3. ALL REBAR INTERSECTIONS SHALL BE WIRED TOGETHER.

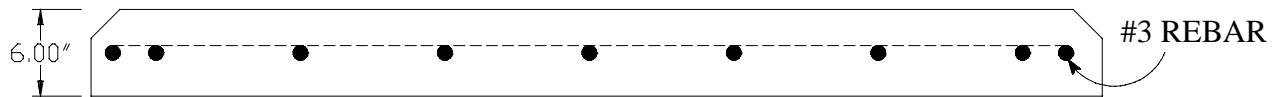
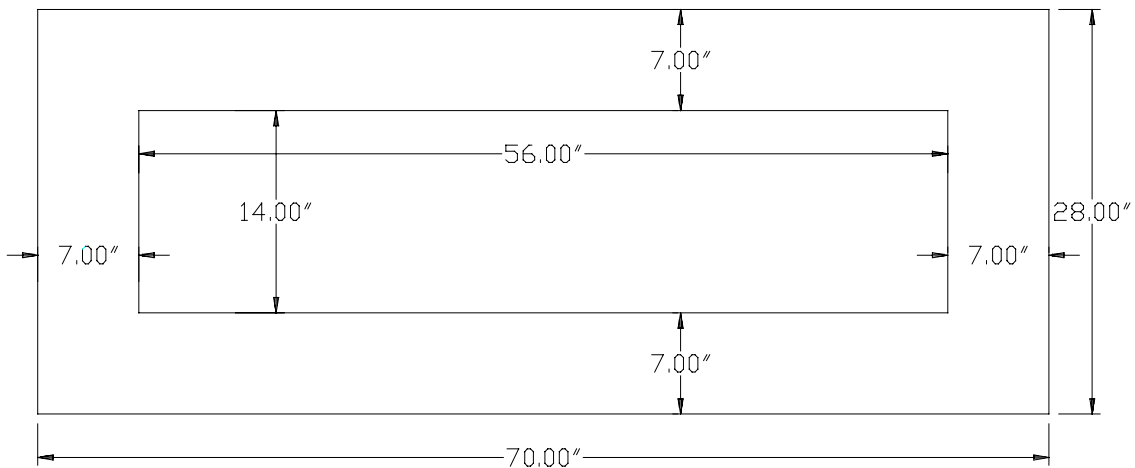
DATE: March 24, 1994  
 APPROVED BY: A. Berl Davis  
 REV: \_\_\_\_\_ SHEET 1

MEMO # 13

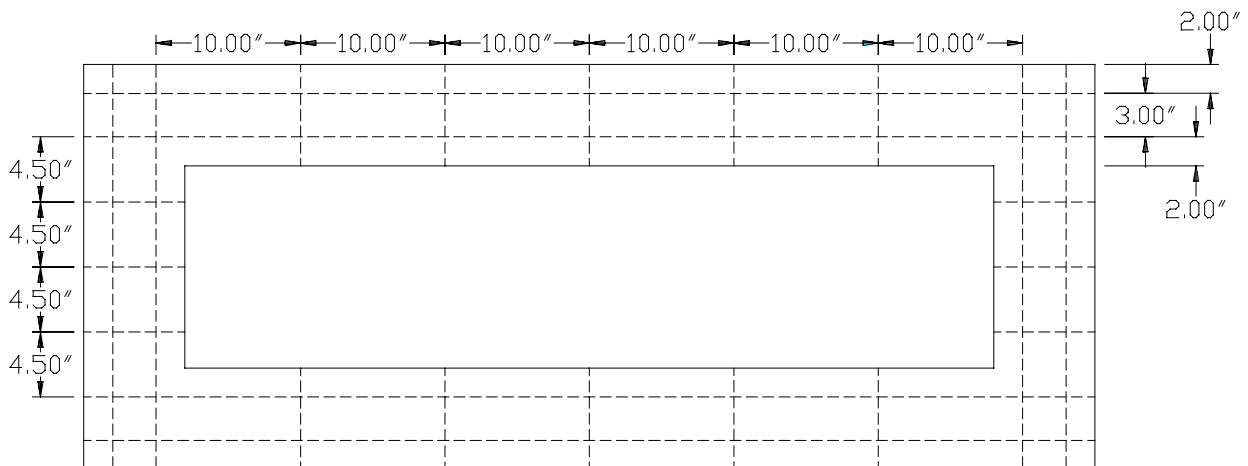


# THREE PHASE JUNCTION CAN PAD

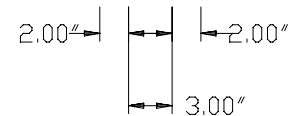
TOP VIEW:



SIDE VIEW:



REBAR VIEW:



**NOTES:**

1. Use #3 rebar rods (space as shown on drawing).
2. Use 3,000 PSI aggregate cement.
3. All rebar intersections shall be wired together.

DATE: March 24, 1994  
 APPROVED BY: A. Berl Davis  
 REV: \_\_\_\_\_ SHEET 1

MEMO # 14



# CONCRETE PAD DETAIL FOR THREE PHASE MOUNTED TRANSFORMERS

## NOTES

1. Provide clearance from edge of pad to any building, property line, wall, screen wall planting, or any other obstruction in accordance with Memo #15-3.
2. Final location of concrete pad to be spotted in the field by PECCI representative.
3. Pad must support transformer weight as shown in table below. If soil will not stand weight per square foot as shown in table, pad area must be increased or piling installed to meet transformer weight requirement.

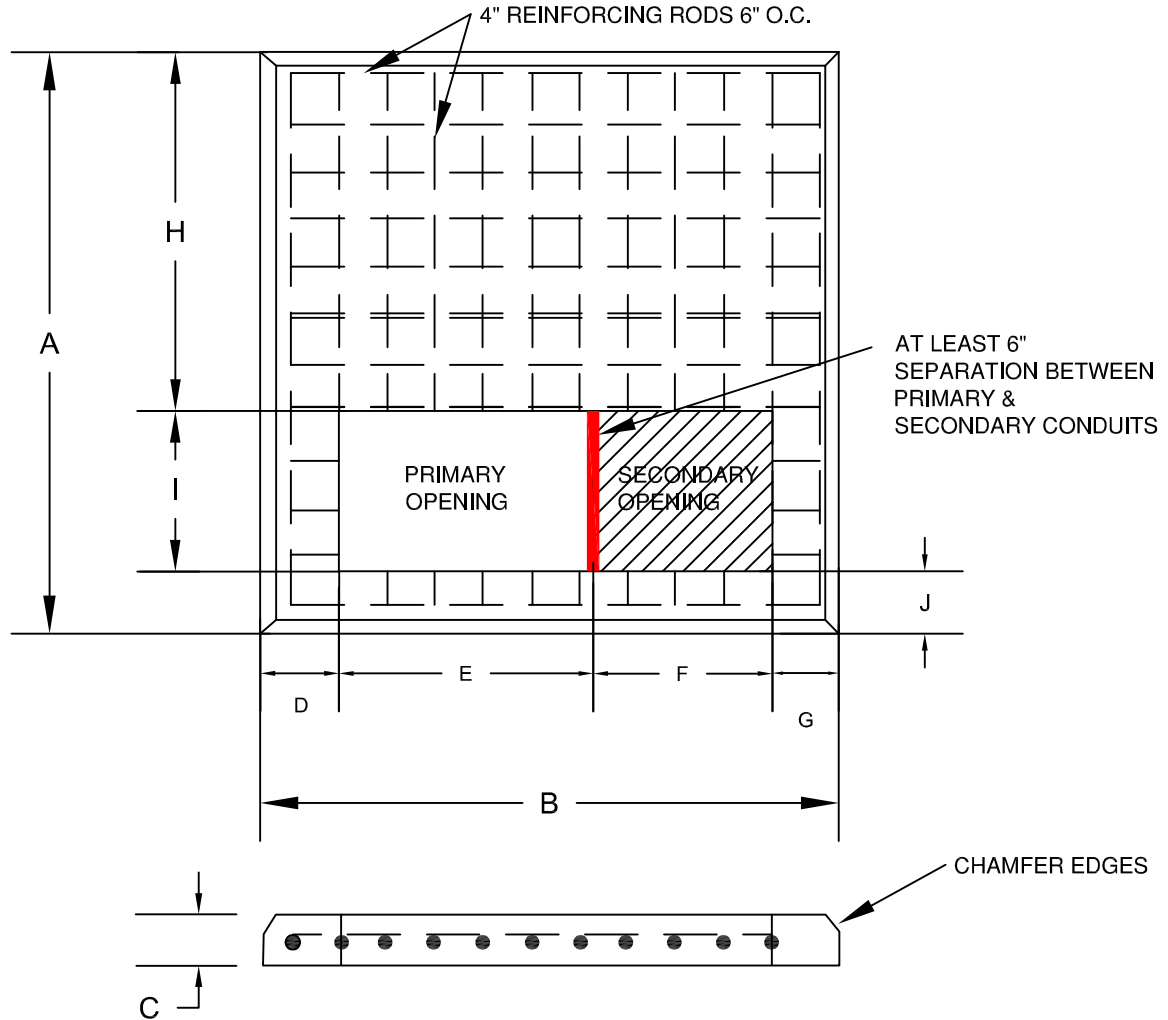
Transformer Size KVA	Transformer Weight	Weight Per ft <sup>2</sup>
45 - 225	8000	150
300 - 500	12000	400
750 - 1000	18000	300
1500 - 2500	23000	500

4. If location is subject to flooding, pad shall be elevated above water level.
5. Location must have heavy truck access not more than 5 feet from pad.
6. Primary conduit (SCHD40 PVC or GI) must extend 1" above the top of pad. GI conduit must have a ground type bushing. Number and size as specified by PECCI.
7. Number of secondary conduits as needed extending 1" above top of pad contained within dimensions shown.
8. The following chart indicates the maximum number of conductors per phase that can be placed in the secondary compartment. Recommended service conductors to be 4/0 through 500 KCMIL stranded cooper cables or 4/0 through 750 KCMIL stranded aluminum or multiples of the same. If the number of conductors exceeds the quantity listed, PECCI's prior approval is required.

Transf. Size Kva	Secondary Voltage		Transf. Size Kva	Secondary Voltage		Transf. Size Kva	Secondary Voltage	
	208Y/120	480Y/277		208Y/120	480Y/277		208Y/120	480Y/277
45 - 150	4	4	750	12	6	2500	-	16
225	4	4	1000	-	8	-	-	-
300	6	4	1500	-	12	-	-	-
500	8	6	2000	-	14	-	-	-



# CONCRETE PAD DETAIL FOR THREE PHASE MOUNTED TRANSFORMERS



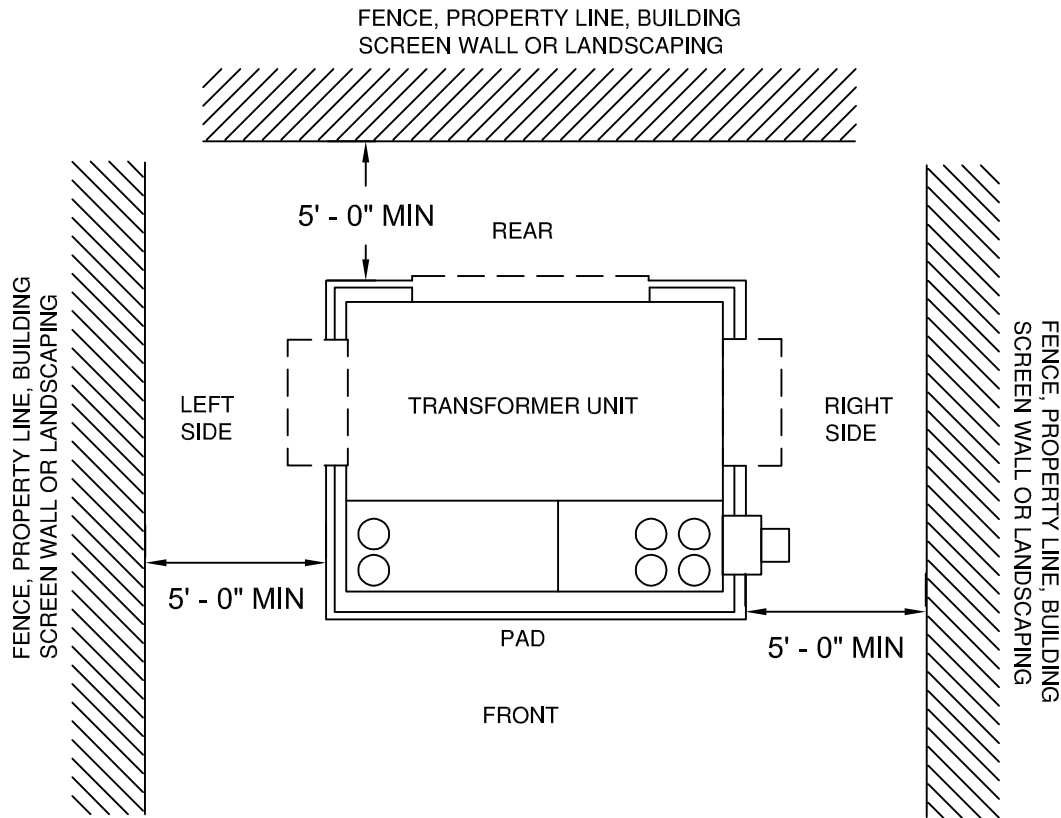
INCHES

KVA	A	B	C	D	E	F	G	H	I	J
45 - 500	76	76	6	8	34	26	8	42	26	8
750 - 1000	90	90	8	15	34	26	15	54	26	10
1500 - 2500	104	104	8	22	34	26	22	68	26	10

### NOTES

1. CONCRETE SPECIFICATIONS, MIN 28 DAY COMPRESSIVE STRENGTH - 3000PSI,  $\frac{3}{4}$ " AGGREGATE MAXIMUM SIZE.
2. REINFORCING STEEL, ASTM - A615 GRADE 60, PLACE 6" O.C. EACH WAY AND SECURELY TIED TOGETHER.
3. MINIMUM CONCRETE COVER OVER REINFORCING RODS, 3".
4. WOOD FLOAT FINISH, LEAVING NO DEPRESSIONS.
5. PRIMARY & SECONDARY CONDUITS TO BE SEPARATED BY AT LEAST 6".

# CONCRETE PAD DETAIL FOR THREE PHASE MOUNTED TRANSFORMERS

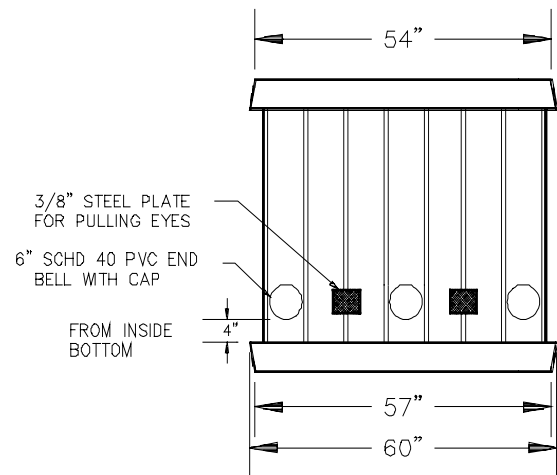
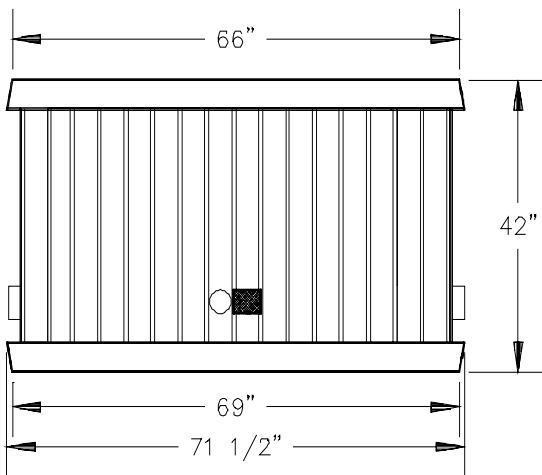
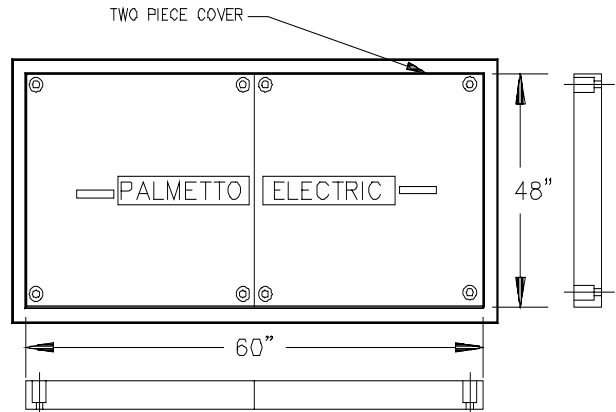
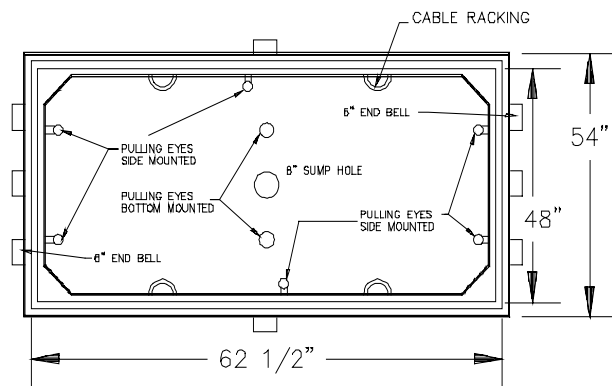


FOR CLEARANCES, SEE NOTES 1, 4, & 5

## NOTES

1. A 10 foot minimum width corridor, suitable for heavy truck access, shall be provided to within 5 feet of the transformer.
2. Final pad location and orientation to be spotted on job site by PECEI company representative.
3. Transformer location should not be within 10 feet of cooling tower or apparatus which could damage the transformer's finish.
4. A minimum working distance of 12 feet from the point of the pad to any permanent structure must be provided. This distance may be reduced to 5 feet minimum if an easily removable lightweight screen or blind is used.
5. There shall be no building overhang or any structure directly above the concrete transformer pad for a minimum vertical clearance of 40 feet.
6. Suitable protection from vehicles to be provided by customer where deemed necessary and approved by PECEI.
7. Meter should be readily visible or where it faces a building wall, a minimum clearance of 36 inches from wall and access to it must be provided.
8. No foreign underground utility lines shall pass underneath or within 6 feet from the edge of the concrete transformer pad.
9. Do not install sprinkler systems within watering distance of any electrical equipment.
10. See Memo #19 for landscaping specifications around transformer.

# FIBERGLASS POLYMER CONCRETE VAULT (48" x 60" x 42")



**NOTES:**

1. All pulling eyes to be rated 10,000 lb. minimum.
2. SCHD 40 pvc end bells to be 4" from inside bottom as shown.
3. All end bells to be SCHD 40 pvc (Carlton part# E297R or equivalent) with end caps.
4. Box and top to be highway rated to meet SC DOT & NESC requirements.
5. Logo to read - as shown.
6. Any exposed steel reinforced plate and pulling eyes to be galvanized or stainless steel.
7. The interior lid cover nuts, which the vault cover bolts insert into, need to be mounted in a stationary position.
8. The sump hole needs to be grooved at a 3" minimum into the bottom to allow for the insertion of a pump hose.

DATE: April 17, 1997  
 APPROVED BY: A. Berl Davis  
 REV: \_\_\_\_\_ SHEET 1

MEMO # 17



## SELF - CONTAINED METERS

Form #	Phases	Wires	Volts	Terminal	Class	Applications	Notes
1S	Single	2	120	4	100	Sign & Christmas lights, old homes	Ground Right side of M.B.
2S	Single	3	240	4	100 200 320	Residential, small commercial	
12S	Single Network	3	120	5	100 200	Condo's, Spa, Four Seasons, etc.	Electronic & Electro-Mechanical Single phase service fed from a 3 phase 120/208 wye bank. Need to add 5 <sup>th</sup> lug.
14S	Three	4	120 240	7	100 200	Small commercial	Wye bank
15S	Three	4	240	7	100 200	Small commercial, pumps, Churches	Delta bank, high leg on right side of meter base
16S	Three	4	120 thru 480	7	200	Poly-Phase services 75 KVA or less	Electronic Meter Wye or Delta

**NOTE:**

Use Self - Contained Meters for:

1. Single - Phase: 400 Amperes or Less
2. Poly - Phase: 400 Amperes or Less  
240 Volts or Less

DATE: March 9, 1999

APPROVED BY: A. Berl Davis

REV: \_\_\_\_\_ SHEET 1 of 6

MEMO # 18



## TRANSFORMER - RATED METERS

Form #	Phases	Wires	Volts	Terminals	Class	# Of Ct's	Applications	Notes
3S	Single	2	120 240	5	10	1	Large Home, central Metering	
4S	Single	3	240	6	10	2	Large Home, central Metering	
5S	Three	4	120 240 480	8	10 20	2 3	Large Commercial, farms, pumps	Wye or Delta bank
6S	Three	4	120 240	13	10 20	3	Large commercial, pumps	Wye bank
8S	Three	4	240 480	13	10 20	3	Large commercial, pumps	Delta bank
9S	Three	4	120 thru 480	13	20	3	Over 100 KVA transformers	Electronic Meter Wye or Delta bank

**NOTE:**

Use Transformer - Rated Meters for:

1. Single - Phase: Above 400 Amperes
2. Poly - Phase: Above 400 amperes  
Above 240 Volts

DATE: March 9, 1999

APPROVED BY: A. Berl Davis

REV: \_\_\_\_\_ SHEET 2 of 6

MEMO # 18



## RECOMMENDED CT SIZES FOR UNDERGROUND PADMOUNT TRANSFORMERS

### THREE PHASE TRANSFORMER VOLTAGE 120/208

SIZE	LOAD CURRENT	CT SIZE	RATING
75	208	200:5	4.0
112	312	200:5	4.0
150	416	200:5	4.0
225	625	400:5	4.0
300	833	400:5	4.0
500	1388	800:5	3.0
750	2082	1500:5	2.0

### THREE PHASE TRANSFORMER VOLTAGE 277/480

SIZE	LOAD CURRENT	CT SIZE	RATING
45	54	200:5	4.0
75	90	200:5	4.0
112	135	200:5	4.0
150	180	200:5	4.0
225	271	200:5	4.0
300	361	200:5	4.0
500	601	400:5	4.0
750	902	400:5	4.0
1000	1203	800:5	3.0
1500	1805	1500:5	2.0

**NOTES**

1. If size specified is not available in type CT needed, use next larger size.
2. Larger transformers should be sized on an individual basis by PECE Engineer.
3. All CT's are derated for 65 degrees Celcius.

DATE: April 16, 1997  
 APPROVED BY: A. Berl Davis  
 REV: \_\_\_\_\_ SHEET 3 of 6

MEMO # 18

