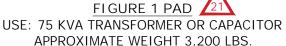
USE: CUSTOMER PROVIDED
AND INSTALLED
EQUIPMENT PAD.

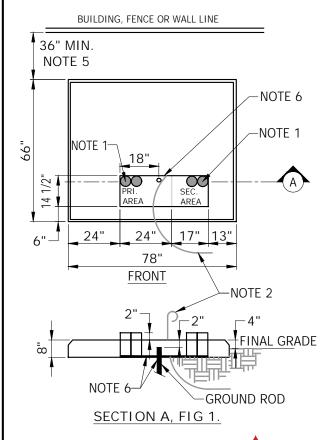
## TRANSFORMER AND CAPACITOR PAD, THREE-PHASE



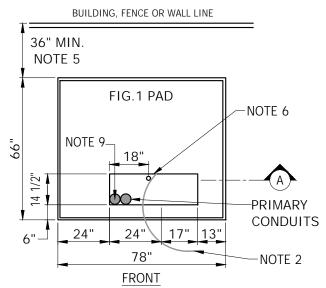
## APPROVED PRECAST CONCRETE PAD

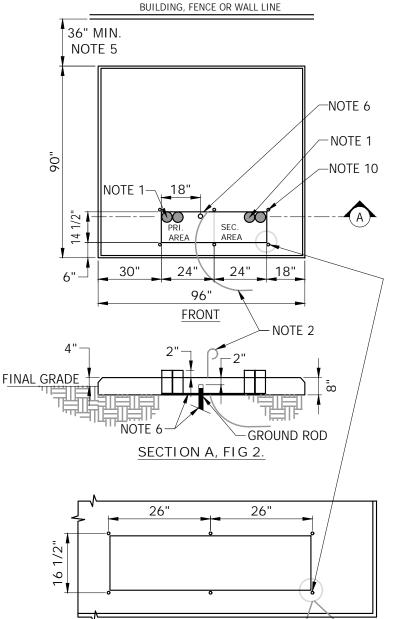


1 PAD 21 FIGURE 2 PAD 21 RMER OR CAPACITOR USE: 150 KVA THRU 2500 KVA TRANSFORMER APPROXIMATE WEIGHT 5,600 LBS.









TEP Tucson Electric Power	UniSourceEnergy Services Santa Cruz County
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INITIATED BY	SC	REVIS
		ESR C
ESR COMM.	12-78	EFFEC <sup>°</sup>

REVISION NO.	21		
ESR COMM.	9-23		
EFFECTIVE DATE	9-23		

INSERT DETAIL FIG. 2 PAD

NOTE 10-

SR-233				
Pg.	1	of 2		

## TRANSFORMER AND CAPACITOR PAD, THRFF-PHASE



## NOTES:

- 1. Place primary ducts as far to the left and to the rear of the primary area as possible and secondary duct(s) as far to the right and to the rear of the secondary area as possible (as viewed from the front of the pad). All ducts to be cut off 2 inches above the top of the pad. Unless otherwise specified, primary ducts shall be 4 inches and shall enter transformer pad with a 36 inch x 90 degree radius PVC sweep. This primary duct run shall be a minimum of 36 inches deep and shall be encased with a 3 inch minimum / 5 inch maximum concrete cap for a minimum distance of 10 feet, measured horizontally from the top of the sweep. Concrete encasement required only on vertical sweeps if duct run is more than 150 feet in length or any length with a combination of 270 degrees (or more) of bends, check with the Design Services. Secondary duct(s) shall be PVC no larger than 4 inches.
- 2. Install a #6 Cu. conductor for Telco bonding from the center front primary and secondary duct opening to a point 12 inches in front of pad and in line with right edge, 12 inches below final grade. Leave at least 2 feet of #6 Cu. conductor above top of pad.
- 3. Customer owned service conductor shall not be installed prior to setting of the company transformer. When service conductor is installed, conductor(s) shall extend to the top of the interior of the transformer to allow for cable termination. Each service (every neutral conductor) is to be identified with an address tag at the transformer location. Example, DYMO aluminum embossing strip or other approved method. Identify parallel conductors to assure proper connection, 1 foot above top of pad. Service conductors are to be no greater than 600kcmil.
- 4. Transformers on pads exposed to vehicular traffic or as noted on the Service Provider's Construction Drawing shall have protective barriers installed in accordance with SR-230.
- 5. The rear edge and the sides of the transformer pad shall be no closer than 3 feet to any building, wall, fence, or other above grade installation, and no structure of any kind shall overhang the pad and/or easement.
- 6. Customer to provide and install a 5/8" x 8'-0" copper coated ground rod 2 inches below the top of the pad, and with 1/2 inch of mortar slurry mix in the pad opening. Driven ground rod to be within 6 inches of final grade (NESC 094B2). Ground rods are NOT PERMITTED to be cut under any circumstance. If soil conditions prohibit driving the ground rod, contact Design Services, prior to making any deviation from this standard.
- 7. Customer to provide and install transformer pad(s) per the Service Provider's Construction Drawing. Refer to TABLE 1 for approved manufacturers for pad purchase. The transfomer pad(s) are to be free of structural defects and installed level. All rebar shall be No. 4 and shall be placed so that it does not extend into the primary and secondary duct opening. All concrete and reinforcement shall meet specifications contained in SR-205. The pad surface shall be level and troweled smooth. All edges must be chamfered. Poured in place concrete pads are not allowed.

TABLE 1 - APPROVED PADS			
MANUFACTURER	FIGURE 2 CATALOG NO.		
HAYDEN	P-6-56	P-8-758	
JENSEN	SR-233A	SR-233B	
OLDCASTLE	SR233-1	SR233-2	

- 8. See SR-208 for site preparation for equipment pads on sloping grades and for screen wall enclosures.
- 9. Place primary ducts as far to the left and to the front of the primary area as possible (as viewed from the front of the pad). All ducts to be cut off 2 inches above the top of the pad. Unless otherwise specified, primary ducts shall be 4 inches and shall enter transformer pad with a 36 inch x 90 degree radius PVC sweep. See SR-241 for the Capacitor Civil Installation.
- 10. Figure 2 pads are to have six (6) zinc plated or equivalent steel inserts that are 3/8" x 1 1/4" in length installed by the approved manufactures, as detailed on Page 1.

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TEP	<b>UniSourceEnergy</b>			ESR COMM.	3-23	31X 200
Tucson Electric Power	<b>SERVICES</b> SANTA CRUZ COUNTY	ESR COMM.	12-78	EFFECTIVE DATE	3-23	Pg. 2 of 2