

96-1309-EL-CSS 5/5/97

Exhibit needs added  
to the end of Direct  
testimony of Brander  
J. Wagner, filiof  
May 5, 1997

BJW Exhibit 7

Columbus Southern P  
Ohio Power  
215 W Front St  
Columbus, OH 43215-2291  
614 464 7700



November 16, 1995

Coaxial Communication of Central Ohio, Inc.  
3770 E. Livingston Ave.  
Columbus OH 43227

**Subject: CATV Power Supplies, Amplifiers and Relocation of Facilities**

**To Whom It May Concern:**

Both Columbus Southern Power Company and Ohio Power Company have reviewed their existing policies on the subject of CATV Power Supplies. Attached is a copy of the new policy effective November 15, 1995.

As stipulated in the new policy, existing power supplies located on company poles and those power supplies that are unmetered will be "grandfathered" and permitted to remain until changes, as listed in the policy, are made. For existing unmetered units, we will institute a schedule to periodically measure their energy usage and revise billing records accordingly. CATV companies will be invoiced for the cost to secure these measurements.

If you have any questions regarding this matter, I can be reached at (614) 464-7455.

Very truly yours,

A handwritten signature in dark ink, appearing to read 'A. J. Shaffer'.

A. J. Shaffer  
Joint Use Coordinator

cc: Region Engineering Manager

**COLUMBUS SOUTHERN POWER COMPANY/OHIO POWER COMPANY  
POLICY AND OPERATING PROCEDURE  
CATV POWER SUPPLIES, AMPLIFIERS AND RELOCATION OF FACILITIES  
EFFECTIVE NOVEMBER 15, 1995**

The following are Columbus Southern Power Company/Ohio Power Company policies regarding CATV power supplies, amplifiers and relocation of facilities:

**I. POWER SUPPLIES**

**A. Location**

1. Commencing with the date of this policy, no new CATV power supplies (including conventional and standby) are permitted on Columbus Southern Power Company/Ohio Power Company (CSP/OP) poles.
2. The attached drawings CATV-1, 2, 3 & 4 show four methods whereby CATV can take service on their own facility.
3. Existing units, either metered or unmetered, attached to power company poles prior to the effective date of this policy will be "Grandfathered" and permitted to remain on CSP/OP poles until:
  - a. The pole is replaced by CSP/OP.
  - b. The unit is upgraded and replaced by CATV.
  - c. The unit is relocated to another pole by CATV.
4. This policy will become effective on any Grandfathered units when any of the stipulations in Section IA3 occur.
5. When requesting permission for service on a telephone company owned pole, CATV shall supply evidence to CSP/OP that the telephone company will permit the installation.

**B. General Conditions**

1. All new CATV Power Supplies shall be metered due to varying load. The meters will be read by CSP/OP quarterly and billed monthly using energy usage secured from the previous quarterly reading.
2. CATV shall supply an underground pedestal (if used) to properly accept meter base and meter per CSP/OP criteria.

3. CATV shall meet the requirements of the various codes and regulations in providing for backfeed protection.
4. CATV shall provide trenching and install service conduit sufficient to reach 3 inches above final grade on underground installations. CATV also to install pull rope in conduit. CSP/OP will provide and install a boot and U-guard cable riser shield after installing and connecting service conductors.

C. MONITORING LOAD ON UNMETERED POWER SUPPLIES

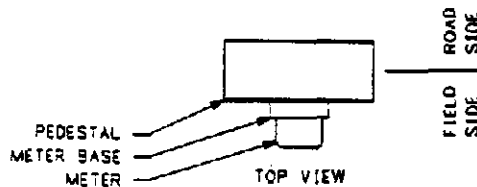
1. Periodically (no more often than once a year) CSP/OP will measure the energy usage of existing Grandfathered unmetered power supplies. Data secured from those measurements will be used to revise the billing records and the revised billing will remain in effect until either a new measurement is taken, the power supply is removed from service, or the power supply becomes metered under the terms of Section IA4 above.
2. The cost incurred by CSP/OP to periodically measure unmetered power supplies shall be paid to CSP/OP by the CATV company.

II. AMPLIFIERS

- A. Amplifiers are not permitted on CSP/OP Company poles.
- B. Amplifiers shall be placed on the CATV strand 15" minimum from the edge of pole.

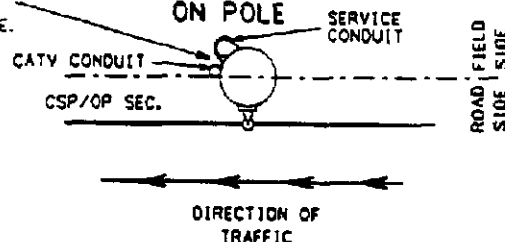
III. RELOCATION OF FACILITIES

- A. CATV shall remove or relocate, at their own expense, any cable or apparatus which does not comply with the agreement, codes or regulations.
- B. CATV shall remove or relocate, at their own expense, any cable or apparatus, on any pole which CSP/OP requires to place facilities, that would necessitate CATV's removal or relocation.



CATV AND SERVICE RISERS  
SHOULD BE LOCATED ON THE  
SAME QUADRANT OF THE POLE.

## LOCATION OF CONDUITS ON POLE



### NOTES:

1. LOAD SIDE ENTRANCE CABLE SHALL NOT BE TAKEN THROUGH BACK OF METER BASE.
2. INSTALLATION OF CATV FACILITIES AND EQUIPMENT TO BE IN ACCORDANCE WITH LOCAL ORDINANCES OR CODES AND MUST CONFORM TO NESC AND NEC REQUIREMENTS AS MINIMUM REQUIREMENT OF CSP/OP.
3. ALL "STANDBY" POWER SUPPLY UNITS MUST PROVIDE AUTOMATIC DISCONNECT AND POSITIVE ISOLATION FROM CSP/OP SERVICE WHEN UNIT IS IN THE BATTERY STANDBY MODE.
4. METER BASE TO BE PLACED ON FIELD SIDE OF PEDESTAL ON SOLID WALL.

200 AMP METER BASE-  
FURNISHED BY CSP/OP AND  
INSTALLED BY CATV.  
(SEE NOTES 1 & 4)

CSP/OP TO PROVIDE AND INSTALL  
1/0 TRIPLEX SERVICE CONDUCTORS  
AND MAKE CONNECTIONS AT BOTH  
ENDS FOR 120/240 VOLT SERVICE.

CATV POWER SUPPLY UNIT AND  
SERVICE EQUIPMENT TO BE  
FURNISHED AND INSTALLED BY  
CATV IN PEDESTAL. SERVICE  
EQUIPMENT MUST BE APPROVED  
FOR USE AS SERVICE ENTRANCE  
EQUIPMENT. (SEE NOTE 3)

CATV TO PROVIDE AND  
INSTALL 8' GROUND ROD  
AND WIRE FOR GROUNDING  
OF SERVICE EQUIPMENT,  
POWER SUPPLY CASE,  
& PEDESTAL. (SEE NOTE 2)  
(GROUND WIRE NOT TO BE  
IN CSP/OP METER BASE).

METER FURNISHED AND  
INSTALLED BY CSP/OP

CSP/OP TO PROVIDE AND INSTALL  
BOOT AND U-GUARD CABLE RISER  
SHIELD.

CATV 60 VOLT COAXIAL CABLE TO  
BE IN 1" SCHEDULE 80 PVC  
CONDUIT FROM BASE OF POLE TO  
CABLE LEVEL. HOWEVER, IF STANDOFF  
BRACKETS ARE USED, CONSULT THE  
LOCAL CSP/OP OFFICE.

CATV TO PROVIDE TRENCHING FOR UNDERGROUND  
FACILITIES, PROVIDE AND ASSEMBLE 2" CONDUIT  
SUFFICIENT TO REACH 3" ABOVE FINAL GRADE.  
CATV TO INSTALL A PULL ROPE IN CONDUIT.

**COLUMBUS SOUTHERN POWER**

STANDARD OF INSTALLATION FOR  
CATV POWER SUPPLY UNIT-  
UNDERGROUND SERVICE TO CATV PEDESTAL

FOLDER NO.

TUB NO.

DR. BY T. J. DONAH

CHKD. BY

SCALE N.T.S.

DATE 2-29-84

REV. 1 6-15-90

10-26-95  
2 J. EASH

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DWG. NO. **CATV-1**

CATV AND SERVICE RISERS  
SHOULD BE LOCATED ON THE  
SAME QUADRANT OF THE POLE.

## LOCATION OF CONDUITS

ON POLE

SERVICE  
CONDUIT

CATV CONDUIT

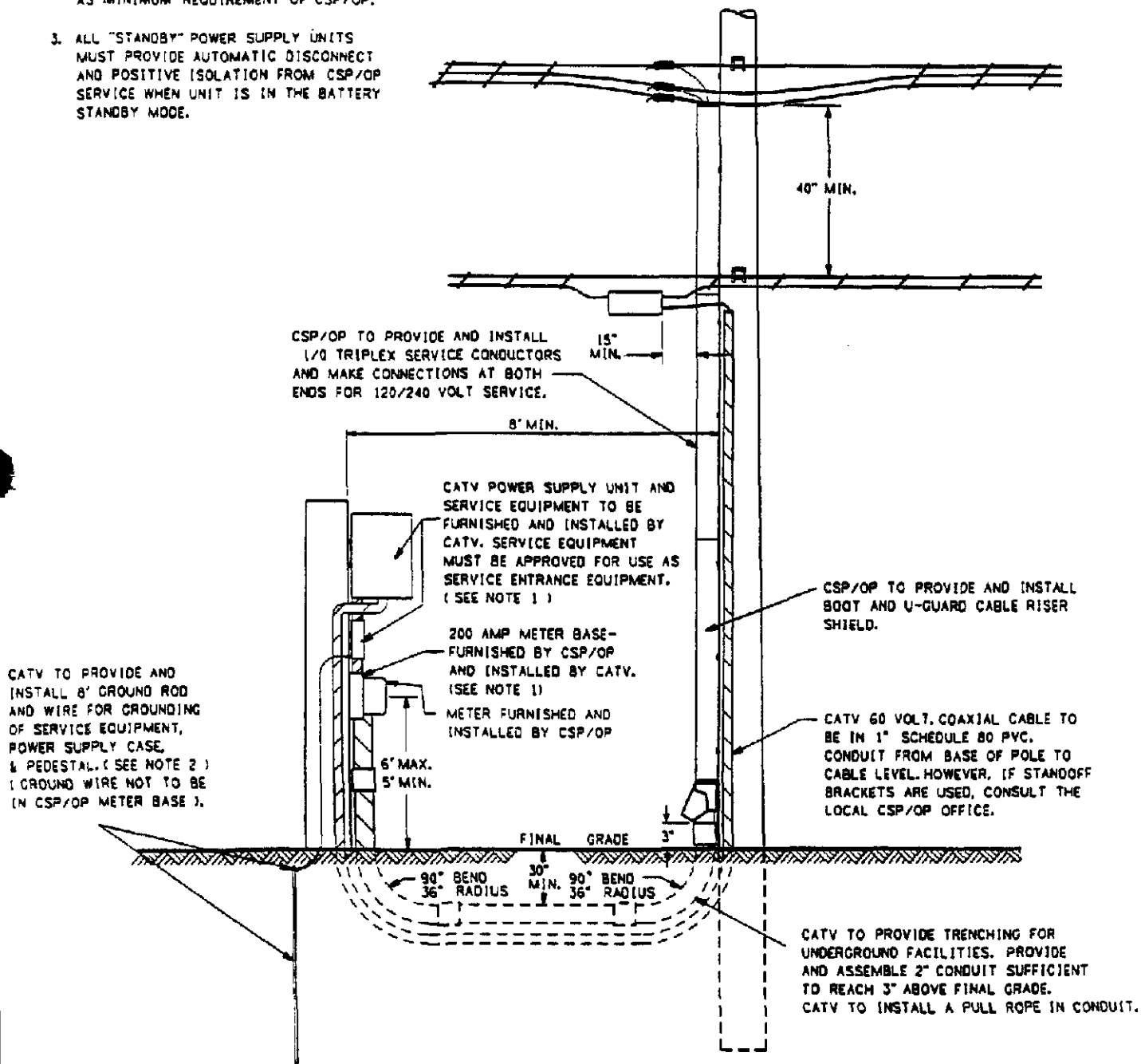
CSP/OP SEC.

ROAD FIELD  
SIDE

DIRECTION OF  
TRAFFIC

### NOTES:

1. LOAD SIDE ENTRANCE CABLE SHALL  
NOT BE TAKEN THROUGH BACK OF  
METER BASE.
2. INSTALLATION OF CATV FACILITIES AND  
EQUIPMENT TO BE IN ACCORDANCE WITH  
LOCAL ORDINANCES OR CODES AND MUST  
CONFORM TO NESC AND NEC REQUIREMENTS  
AS MINIMUM REQUIREMENT OF CSP/OP.
3. ALL "STANDBY" POWER SUPPLY UNITS  
MUST PROVIDE AUTOMATIC DISCONNECT  
AND POSITIVE ISOLATION FROM CSP/OP  
SERVICE WHEN UNIT IS IN THE BATTERY  
STANDBY MODE.



**COLUMBUS OHIO  
SOUTHERN POWER**

STANDARD OF INSTALLATION FOR  
CATV POWER SUPPLY UNIT-  
UNDERGROUND SERVICE TO CATV STUB POLE

FOLDER NO.

TUB NO.

DR. BY T.J. DONANT

CHKD. BY

SCALE N.T.S.

DATE 2-29-84

REV. 1 6-15-90 10-26-95  
2 J. EASH

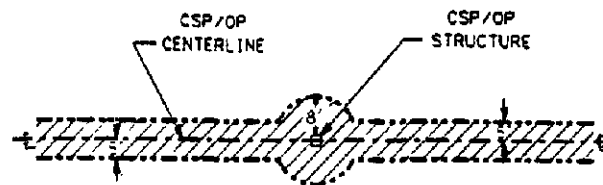
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DWG. NO. CATV-2



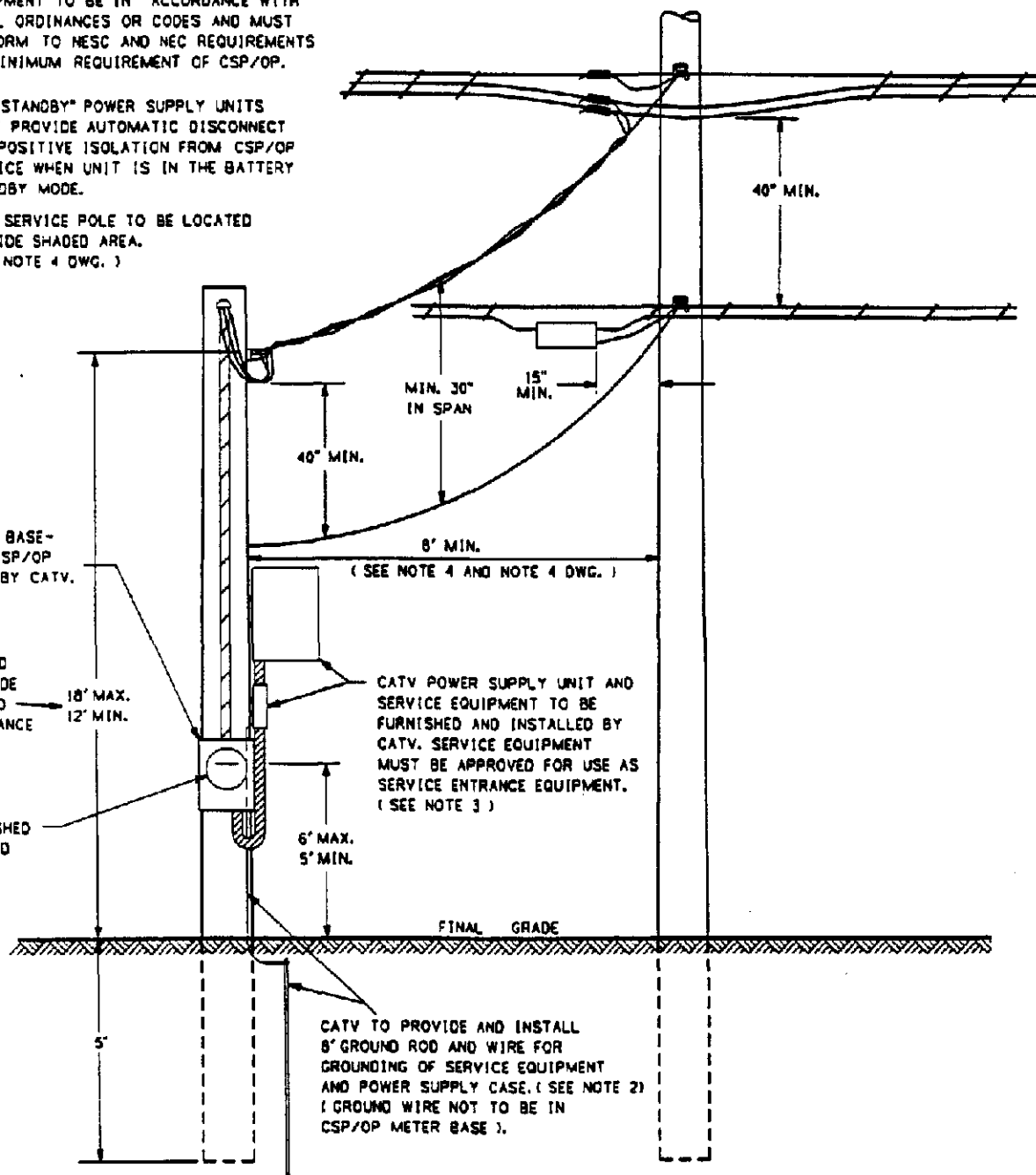
# NOTES:

1. LOAD SIDE ENTRANCE CABLE SHALL NOT BE TAKEN THROUGH BACK OF METER BASE.
2. INSTALLATION OF CATV FACILITIES AND EQUIPMENT TO BE IN ACCORDANCE WITH LOCAL ORDINANCES OR CODES AND MUST CONFORM TO NESC AND NEC REQUIREMENTS AS MINIMUM REQUIREMENT OF CSP/OP.
3. ALL "STANDBY" POWER SUPPLY UNITS MUST PROVIDE AUTOMATIC DISCONNECT AND POSITIVE ISOLATION FROM CSP/OP SERVICE WHEN UNIT IS IN THE BATTERY STANDBY MODE.
4. CATV SERVICE POLE TO BE LOCATED OUTSIDE SHADED AREA. (SEE NOTE 4 DWG.)

100 AMP METER BASE-  
FURNISHED BY CSP/OP  
AND INSTALLED BY CATV.  
(SEE NOTE 1)

OR AS REQUIRED  
FOR PROPER CODE  
CLEARANCES AND  
UTILITY CLEARANCE  
REQUIREMENTS

METER FURNISHED  
AND INSTALLED  
BY CSP/OP.



CATV TO PROVIDE AND INSTALL  
8' GROUND ROD AND WIRE FOR  
GROUNDING OF SERVICE EQUIPMENT  
AND POWER SUPPLY CASE. (SEE NOTE 2)  
(GROUND WIRE NOT TO BE IN  
CSP/OP METER BASE).

**AEP COLUMBUS AEP OHIO SOUTHERN POWER**

STANDARD OF INSTALLATION FOR  
CATV POWER SUPPLY UNIT-  
OVERHEAD SERVICE TO CATV POLE

OR. BY T. J. DONANT

CHKD. BY

SCALE N.T.S.

FOLDER NO.

TUB NO.

DATE 2-29-84

REV. 1 6-15-90

10-26-95  
2 J. EASH

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DWG. NO. CATV-3

TRANSFORMER, IF PRESENT (SEE NOTE 4)  
CAUTION - CATV EQUIPMENT OTHER THAN COAXIAL CABLE SHALL NOT BE INSTALLED ON POLES WITH CERTAIN POWER EQUIPMENT IN PLACE.

CATV SERVICES  
(SEE NOTE 3 & 12)

CATV AMPLIFIER TO BE ATTACHED TO MESSENGER (SEE NOTE 9)  
MOUNTING OF AMPLIFIERS ON POLE SHALL NOT BE PERMITTED.

ON "GRANDFATHERED" UNITS 8" GROUND ROD AND WIRE PROVIDED AND INSTALLED BY CATV FOR GROUNDING OF SERVICE EQUIPMENT POWER SUPPLY. (GROUND WIRE NOT TO BE IN CSP/OP METER BASE)

20" MIN.  
SEE NOTE 10  
12" MIN.  
12" MIN.  
AS REQ'D. BY NESC  
(CURRENT EDITION)

CATV 60 VOLT COAXIAL CABLE TO BE IN 1" CONDUIT.

ROAD SIDE

ROAD OR STREET  
DIRECTION OF TRAFFIC

CATV AND SERVICE RISERS SHOULD BE LOCATED ON THE SAME QUADRANT OF THE POLE.

"CONVENTIONAL" POWER SUPPLY, SERVICE EQUIPMENT AND METER FOR EXISTING "GRANDFATHERED" UNITS TO BE MOUNTED ON SIDE OF POLE FACING ONCOMING TRAFFIC.

POWER COMPANY PRIMARY CIRCUITS

POWER COMPANY SECONDARY CIRCUITS  
(SEE NOTE 1)

LUMINAIRE  
STREET LIGHT BRACKET

SERVICE WIRE IN CONDUIT OR U-GUARD  
CABLE RISER SHIELD.

SEPARATION VOLTAGE (SEE NOTE 11)  
40" MIN. --- 0-8750 VOLTS  
60" MIN. --- OVER 8750 VOLTS

WHERE NON-CURRENT CARRYING PARTS OF EQUIPMENT INCLUDING METAL SUPPORTS FOR CABLES OR CONDUCTORS ARE EFFECTIVELY GROUNDING TO MULTI-GROUNDED NEUTRAL, THE SEPARATION MAY BE REDUCED TO 30".

COAXIAL CATV CABLE OR CABLES SUPPORTED BY MESSENGER (SEE NOTES 4, 7, & 8)

TELEPHONE SPACE-IF OCCUPIED OR RESERVED BY TELEPHONE CO.

"GRANDFATHERED" SERVICE TO CATV "CONVENTIONAL" POWER SUPPLY (SEE NOTE 4, 5, 14, & 15).

100 AMP METER BASE FOR EXISTING "GRANDFATHERED" CATV "CONVENTIONAL" POWER SUPPLY.

ANY DEVIATION FROM THIS STANDARD FOR INSTALLATION MUST BE APPROVED IN WRITING BY CSP/OP, GENERAL OFFICE.

SERVICE EQUIPMENT MUST BE APPROVED FOR SERVICE ENTRANCE EQUIPMENT (SEE NOTE 14)

## NOTES:

- POWER AT APPROXIMATELY 240 VOLTS TO BE AVAILABLE TO CATV SYSTEM.
- SERVICE CONDUIT ON POLE TO CLEAR ANY CATV OR TELEPHONE ATTACHMENTS ON THE SURFACE OF THE POLE BY A MINIMUM OF 2".
- CATV SERVICES TO BE TAKEN OFF CATV CABLE AND MESSENGER, AND NOT AT POLE. MAINTAIN 30" HORIZONTAL CLIMBING SPACE.
- CATV EQUIPMENT, OTHER THAN COAXIAL CABLE, SHALL NOT BE INSTALLED ON CAPACITOR, TRANSFORMER, REGULATOR, RECLOSER, SECTIONALIZER, OR UNDERGROUND TERMINATION POLES.
- METAL CASES OF CATV EQUIPMENT TO BE EFFECTIVELY GROUNDING.
- ATTACHMENT OF COMMUNICATION AND CATV FACILITIES TO BE ON THE SAME SIDE OF POLE. PROVIDE 30" HORIZONTAL CLIMBING SPACE THROUGH ATTACHED EQUIPMENT.
- CATV MESSENGER TO BE BONDED TO POWER MULTI-GROUNDED NEUTRAL IN TWO OR MORE LOCATIONS AND AT LEAST AT EVERY TENTH POLE. THE CATV CABLES MUST BE SUFFICIENTLY SHIELDED TO PREVENT INTERFERENCE WITH TELEVISION RECEPTION.
- ATTACHMENT OF MORE THAN ONE CATV MESSENGER (WITH ASSOCIATED CATV CABLES) WITH EACH RUNNING IN THE SAME DIRECTION IS NOT DESIRABLE ON POWER COMPANY POLES AND SHOULD BE AVOIDED IF POSSIBLE.
- EQUIPMENT SUSPENDED FROM MESSENGER TO BE LOCATED 15" MINIMUM FROM THE EDGE OF POLE.
- THIS DIMENSION MAY BE 4" MINIMUM IF THE STREET LIGHT BRACKET IS GROUNDING. IN SOME INSTANCES THE COAXIAL CABLE MAY BE LOCATED ABOVE THE STREET LIGHT BRACKET.
- 0-8750 VOLTS INCLUDE CIRCUITS THAT ARE 7.2/12 KV AND 7.2/13 KV GROUNDING WYE.
- UNDERGROUND CATV SERVICES MECHANICAL PROTECTION OF CATV CABLE RISER NOT REQUIRED, BUT HOLDING OR CONDUIT PROTECTION IS RECOMMENDED.
- POLE STEPS, IF USED WITHIN ZONE OF 4 FT. FROM GROUNDLINE, MUST BE DETACHABLE TYPE. REMOVE STEPS WHEN POLE IS NOT BEING CLIMBED. POLE STEPS MAY BE USED ONLY ON POLES WITH CATV AMPLIFYING EQUIPMENT AND MUST BE DETACHABLE TYPE.
- SERVICE EQUIPMENT TO BE PROVIDED AND INSTALLED BY CATV COMPANY.
- CATV TO PROVIDE CODE APPROVED POSITIVE MEANS TO AVOID BACKFEED FROM ANY ALTERNATE POWER SOURCE. METHOD MUST ALSO BE APPROVED IN WRITING BY CSP/OP COMPANY, GENERAL OFFICE.
- LOAD SIDE ENTRANCE CABLE SHALL NOT BE TAKEN THROUGH BACK OF METER BASE.

AEP COLUMBUS AEP OHIO  
SOUTHERN POWER

SKETCH SHOWING ARRANGEMENT OF  
CATV ATTACHMENTS PERMITTED  
ON CSP/OP POLE

DR. BY T.J. DONANT

CHKD. BY

SCALE N.T.S.

FOLDER NO.

TUB NO.

DATE 2-29-84

REV. 16-15-90 10-26-95  
2 J. EASH

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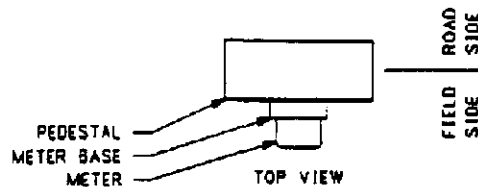
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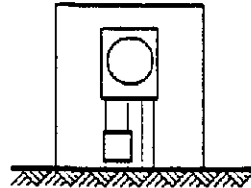
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OWG. NO. CATVEXH3





VIEW FROM FIELD SIDE

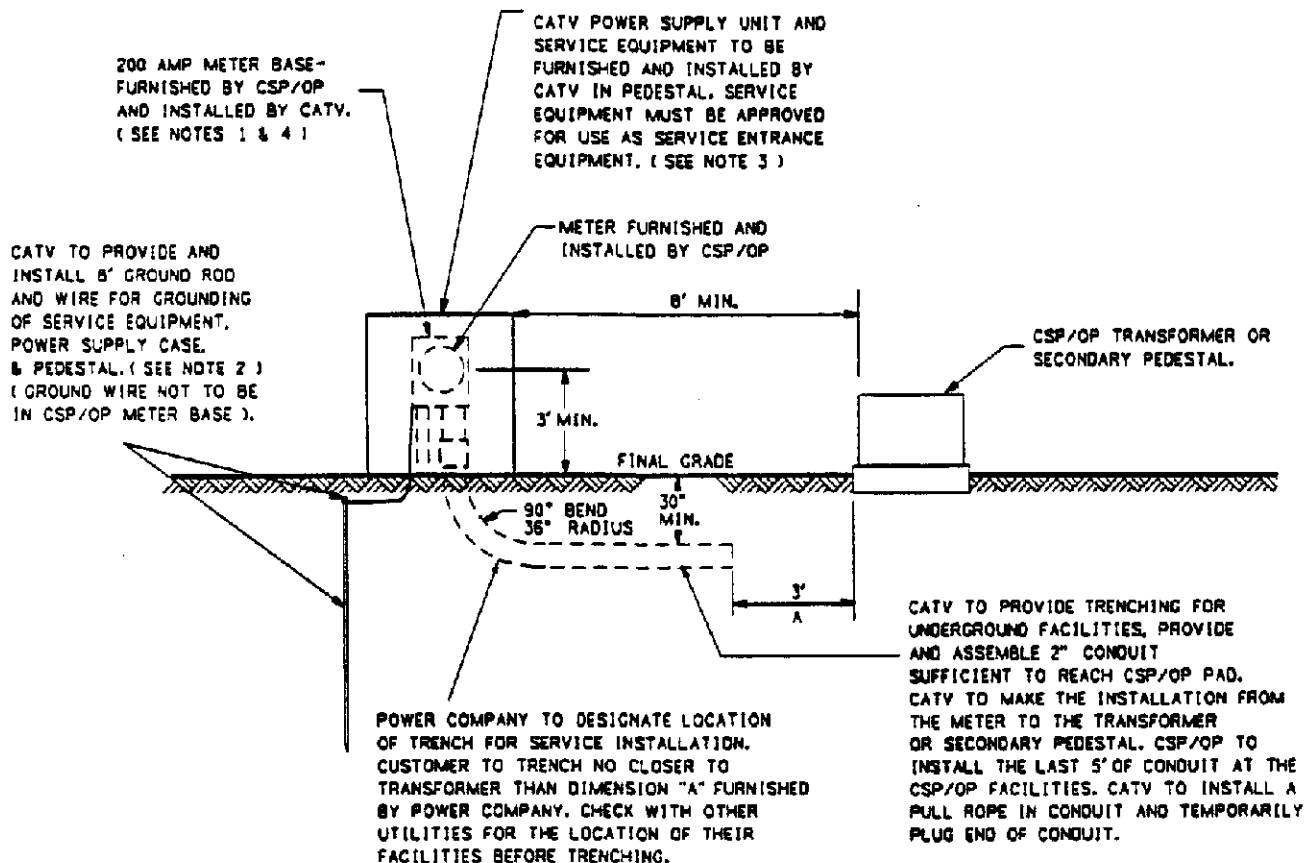


NOTES:

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3. ALL "STANDBY" POWER SUPPLY UNITS MUST PROVIDE AUTOMATIC DISCONNECT AND POSITIVE ISOLATION FROM CSP/OP SERVICE WHEN UNIT IS IN THE BATTERY STANDBY MODE.
4. METER BASE TO BE PLACED ON FIELD SIDE OF PEDESTAL ON SOLID WALL.

CONNECTION OF CUSTOMER CONDUCTORS TO POWER COMPANY FACILITIES SHALL BE THE RESPONSIBILITY OF THE POWER COMPANY.

CSP/OP TO PROVIDE AND INSTALL 1/0 TRIPLEX SERVICE CONDUCTORS AND MAKE CONNECTIONS AT BOTH ENDS FOR 120/240 VOLT SERVICE.



**DEL COLUMBUS DEL OHIO  
SOUTHERN POWER POWER**

STANDARD OF INSTALLATION FOR  
CATV POWER SUPPLY UNIT-  
UNDERGROUND SERVICE TO CATV PEDESTAL

DR. BY T.J. DONANT

CHKD. BY

SCALE N.T.S.

FOLDER NO.

TUB NO.

DATE 2-29-84

REV.	1 6-15-90	2 8-4-92	3 10-25-95 J.EASH	4	5	6	DWG. NO. <b>CATV-4</b>
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