



SERVICE ENTRANCE - OVERHEAD

Transformer Rated
480 V Max., 2000 A Max.

11-01-21
ER 19-255-C
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USE: Typical arrangement of service equipment to supply electric energy where instrument transformer rated overhead meter installations are required.

PREVIOUS REVISION 04-01-13	ORIGINATED 03-94	PREVIOUS NUMBER ER 1-190, 12-12-89
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LATEST REVISION: Revised Figure 1 and added Figure 2. Added Specification on service equipment layout. Updated Notes information on conduit size and bonding.

REFERENCE: Indiana Electrical Code / National Electrical Code (IEC / NEC), latest revision
National Electrical Safety Code (NESC), latest revision
ER 5-500

SPECIFICATION:

1. GENERAL:

- 1.1 All equipment, except the transformer rated meter socket, instrument transformers, and wiring between the instrument transformers and the transformer rated meter socket, shall be owned, installed, and maintained by the Customer.
- 1.2 The electrical equipment shall be installed in a neat and workmanlike manner per the National Electric Code.
- 1.3 The service installation shall be in accordance with the IEC / NEC, as well as the rules and requirements of any recognized legal inspection service in effect in the community, and be satisfactory, to the Company.
- 1.4 The service installation shall be adequately grounded in accordance with the IEC / NEC.
- 1.5 The Customer shall provide meter identification satisfactory to the Company so that the location of each meter and it's respective disconnect(s), with respect to the location being serviced is easily determined. For installations involving multiple meters, the meter socket and it's respective main disconnect shall be labeled per Standard ER 5-500.
- 1.6 The meter position height, as measured from the top of the meter at the transformer rated meter socket to the final grade (floor) level, shall be 5 feet.
- 1.7 The instrument transformer cabinet position height, as measured from the bottom of the instrument transformer cabinet to the final grade (floor) level, shall be 2 feet 6 inches (30 inches).
- 1.8 The service entrance equipment shall be laid out as shown in Figures 1 or 2. If the Customer's service disconnect or breaker is installed inside their building, the Customer can run their load conductors through the lower back or the bottom of the instrument transformer cabinet.

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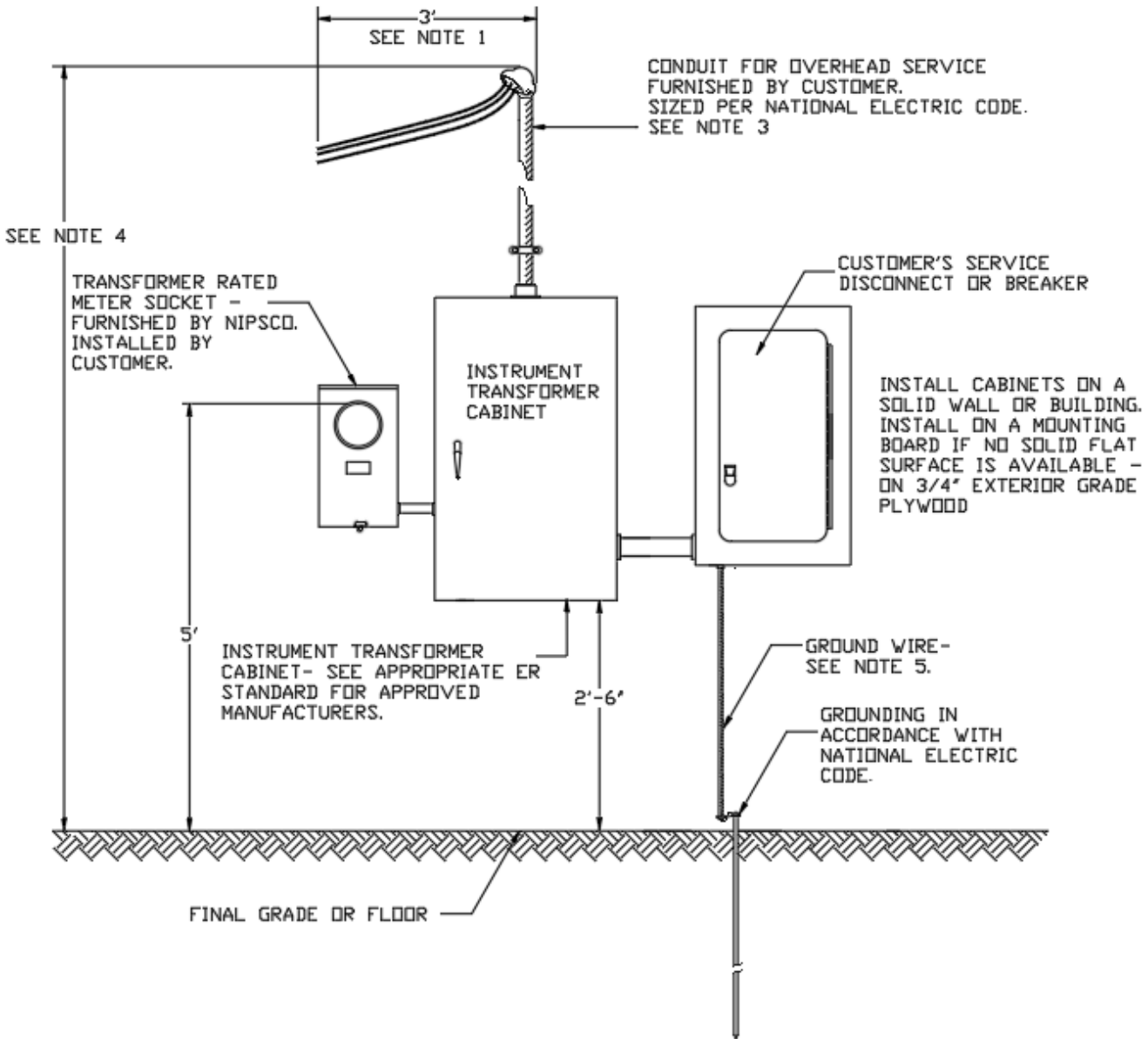


FIGURE 1
TYPICAL OVERHEAD INSTRUMENT TRANSFORMER CABINET INSTALLATION

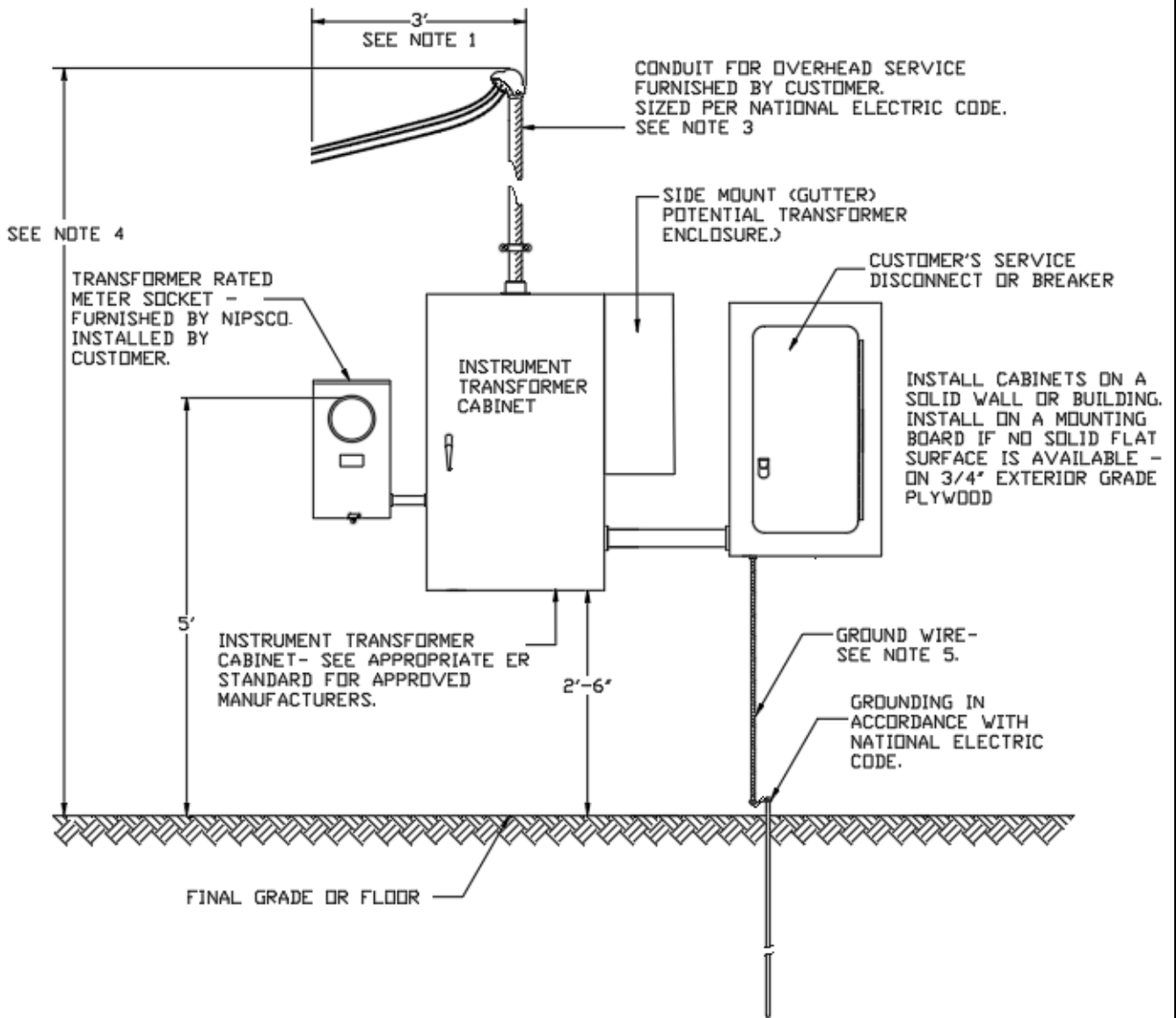


FIGURE 2

TYPICAL OVERHEAD INSTRUMENT TRANSFORMER CABINET INSTALLATION WITH SIDE MOUNT (GUTTER) POTENTIAL TRANSFORMER ENCLOSURE.

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NOTES:

1. The conductors in the entrance run shall extend at least three (3) feet beyond the upper end of the raintight service head.
2. A clearance of three (3) feet shall be maintained in front of the metering equipment.
3. The overhead riser shall consist of an approved weatherhead and conduit and shall be sized in accordance with the National Electrical Safety Code.
4. The height of the overhead riser shall be as specified in the National Electrical Code and the National Electrical Safety Code.
5. The Customer's ground wire shall not originate in or pass through the transformer rated meter socket.
6. The Customer shall furnish and install a 1-1/2" threaded rigid metal conduit with no compression fittings from the instrument transformer cabinet to the transformer rated meter socket. (NOTE: Transformer rated meter sockets supplied by the Company come with a standard 1-1/4" concentric knockout for the installation of the metering conduit. The Customer shall be responsible for increasing the size of the meter socket opening to accommodate to 1-1/2" threaded rigid metal conduit with no compression fittings.)
7. The transformer rated meter socket and instrument transformer cabinet shall be effectively bonded per the National Electrical Code. Bonding bushings and bonding jumpers shall be installed by the Customer on the metering pipe and bonded with jumpers of a minimum size of #6 copper stranded or solid copper wire.
8. The service disconnect means shall be installed at a readily accessible location nearest the point of entrance of the service entrance conductors.