SERVICE ENTRANCE - UNDERGROUND
Transformer Rated
480 V. Max., 2000 A. Max.

USE: Typical arrangement of service equipment to supply electric energy where instrument transformer rated underground meter installations are required.

PREVIOUS REVISION	ORIGINATED	PREVIOUS NUMBER
10-01-13	03-94	ER 1-250-A, 03-28-90

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
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, and ground rods and ground wires shall be installed a minimum of 2 feet away from the riser pipe to permit the installation and maintenance of service cables.

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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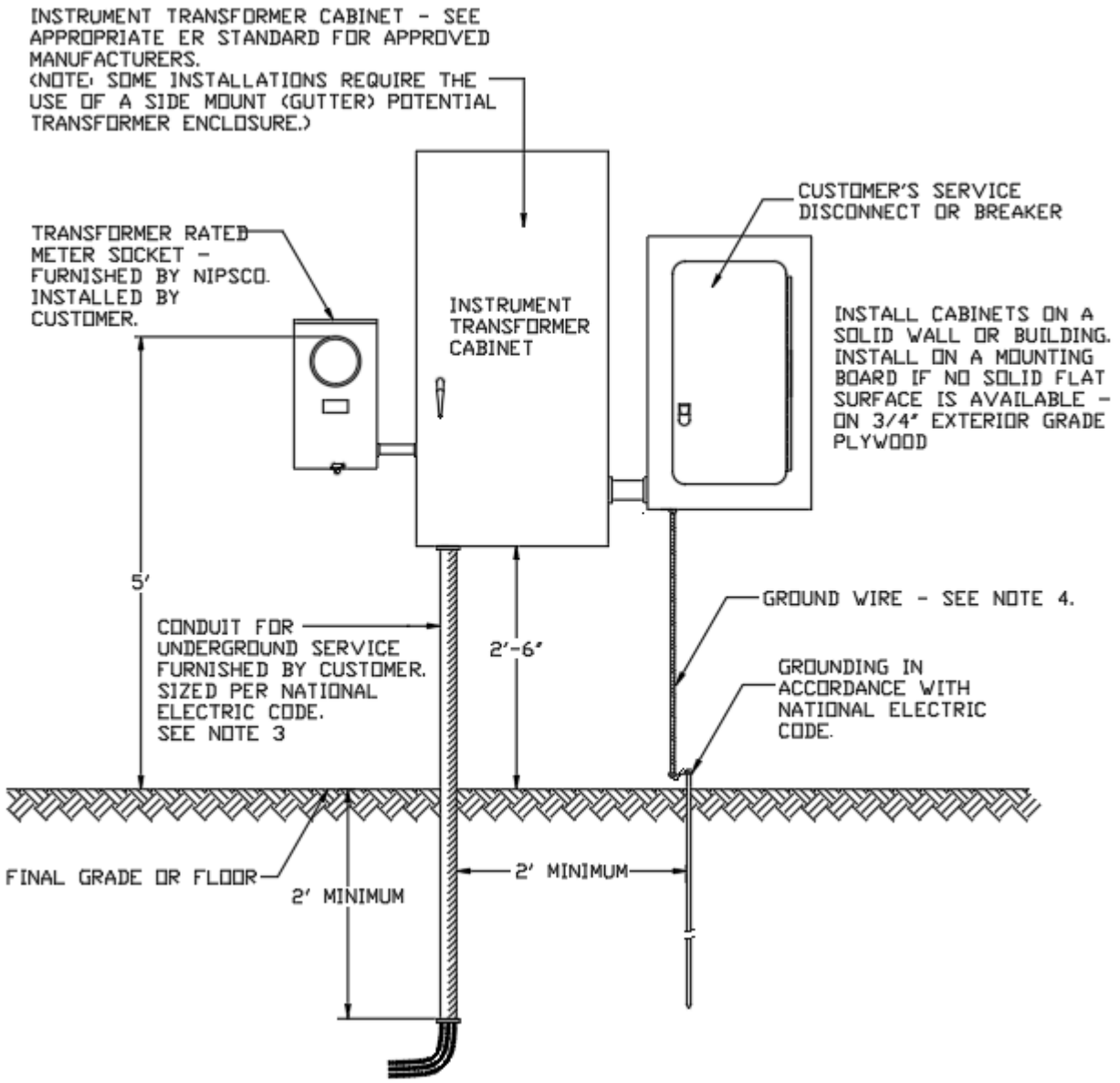

FIGURE 1

TYPICAL UNDERGROUND INSTRUMENT TRANSFORMER CABINET INSTALLATION

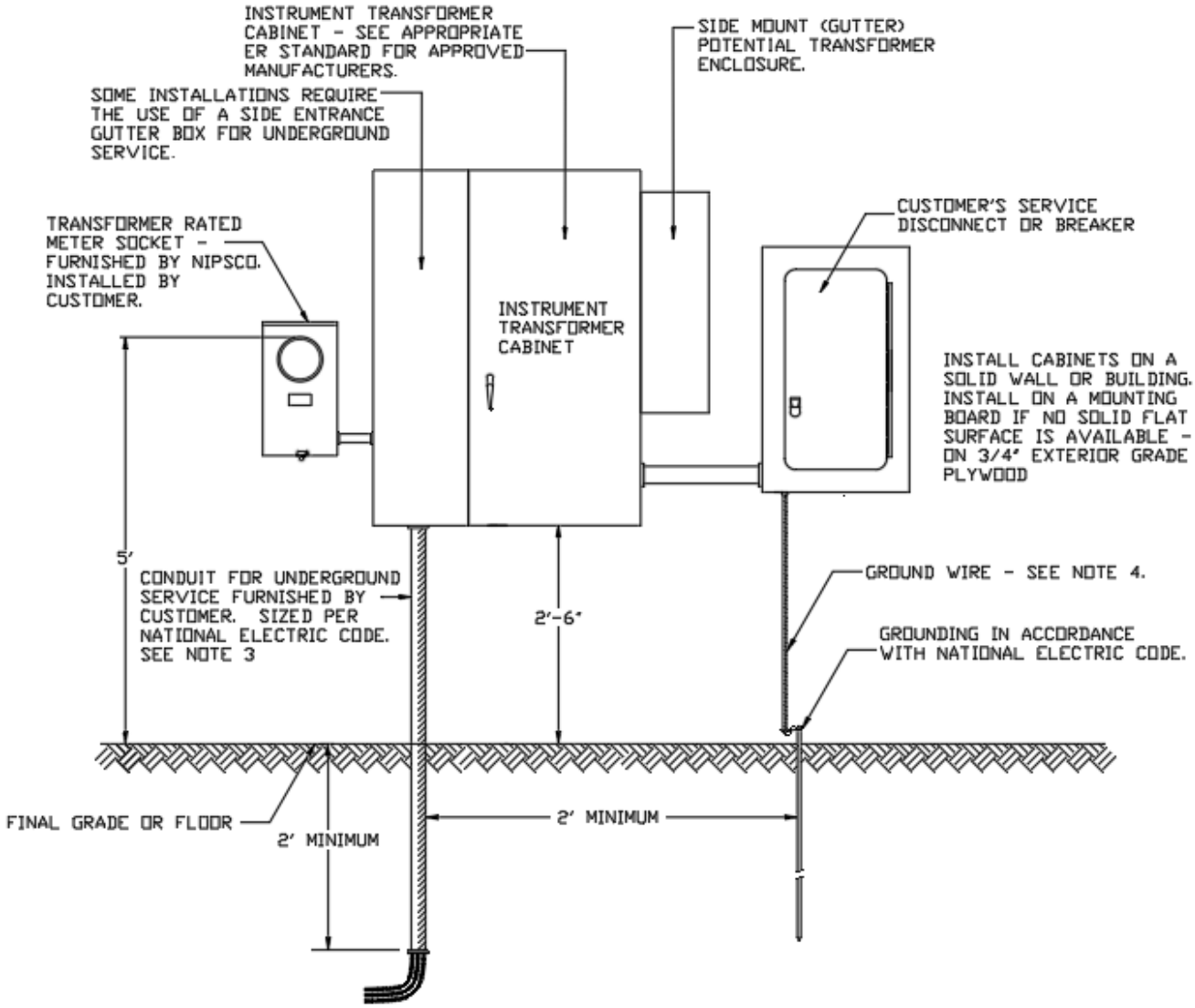

FIGURE 2

TYPICAL UNDERGROUND INSTRUMENT TRANSFORMER CABINET INSTALLATION WITH SIDE MOUNT (GUTTER) POTENTIAL TRANSFORMER ENCLOSURE. (NOTE: SOME INSTALLATIONS REQUIRE THE USE OF A SIDE ENTRANCE GUTTER BOX FOR UNDERGROUND SERVICE.)

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NOTES:

1. The service disconnect means shall be installed at a readily accessible location nearest the point of entrance of the service entrance conductors.
2. A clearance of three (3) feet shall be maintained in front of metering equipment.
3. The Customer shall check with the local District Engineering Department for conduit size required for the underground service entrance conductors. This conduit is furnished by the Customer and shall extend a minimum of two (2) feet below final grade.
4. The Customer's ground wire shall not originate in or pass through the transformer rated meter socket.
5. 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.)
6. 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.