

Transmission & Distribution
Material & Installation Specification

Circle Ground Assembly

conductor is required to service the ancillary device or connections such as neutral bushing connection, shields, drain wires etc.

I. Quantity

The base bid shall include "Circle Ground Assembly" as an integral supplemental assembly to be field installed and included with all apparatus and equipment modules.

II. Material

- A. The material shall be equal in quality, design, performance, and appearance to the items specified herein or Engineer approved equal as follows:
- B. Conductor shall be class B stranded copper, soft drawn, bare, #6 for all pole and #4 for ground mount apparatus, transformers. Larger conductor may be required by special applications as directed by engineer.
- C. Connections of conductor to conductor shall be copper H-Tap for copper to copper connections similar to Blackburn type "CF" and aluminum H-Tap with antioxidant compound for copper to aluminum or aluminum to aluminum similar to Blackburn type "WR".
- D. Connections of conductor to metal tanks and frames shall be bronze aerial type connectors similar to Penn Union type "HGSE" or "GM" as appropriate for the application.

III. Installation

- A. The installation shall be as shown on typical drawing TDMIS-1213.
- B. The intent is to provide a redundant/continuous ground bus/electrode system that shall allow the transformer or other apparatus to be removed and replaced without having to interrupt the redundant ground circuit.
- C. The ancillary grounds and shields shall be connected to the circle ground conductor independently and shall be arranged such that no interruption of the circle ground

IV. Method of measurement

The "Circle Grounds" and associated connections hereinbefore specified shall be quoted on and included with the unit price for transformers and/or apparatus. No separate payment shall be made.

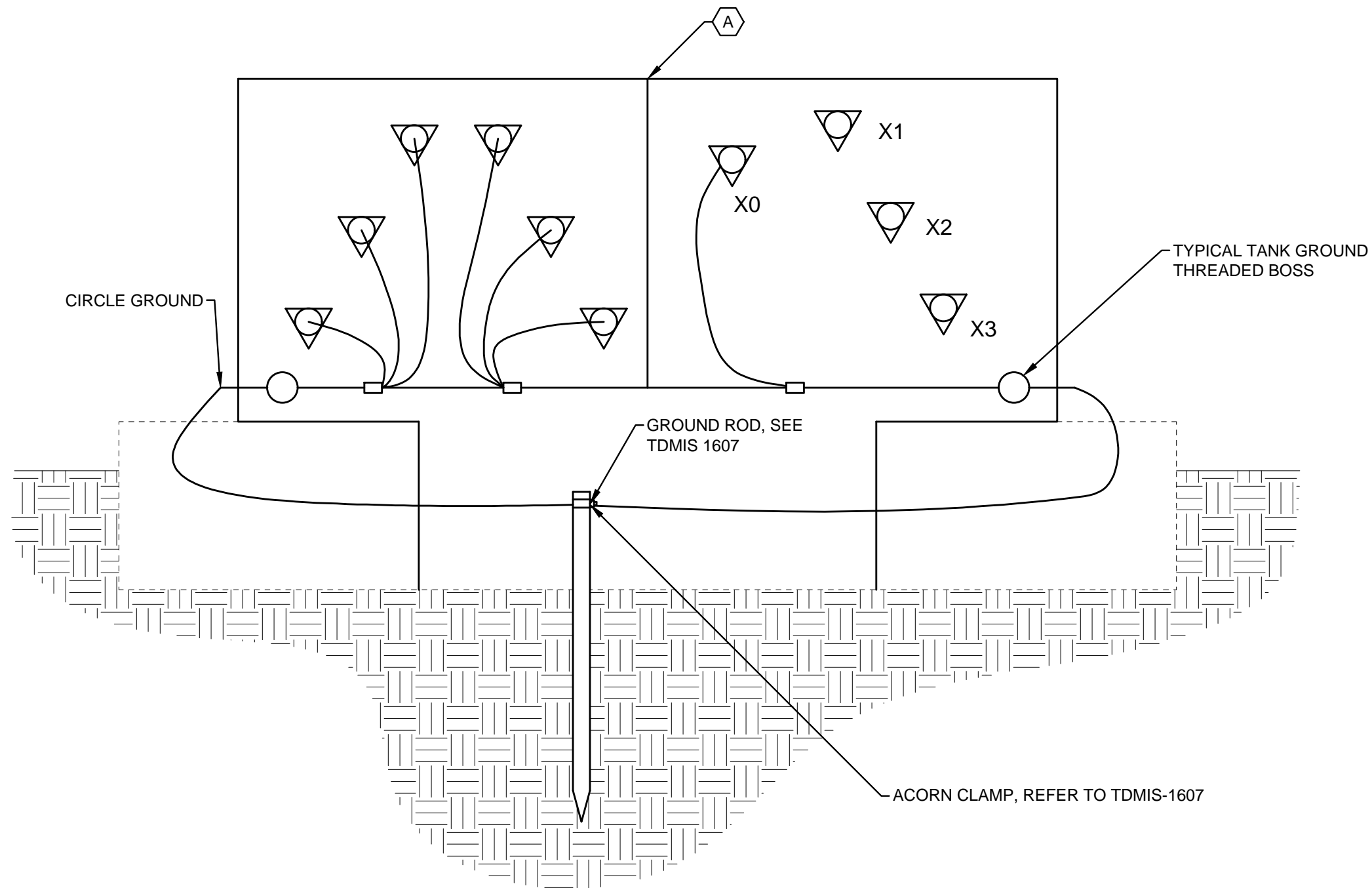
V. Basis of payment

The "Circle Grounds" and associated connections hereinbefore specified shall be quoted on and included with the unit price for transformers and/or apparatus. No separate payment shall be made.

CITY OF COLUMBUS DEPT. OF PUBLIC UTILITIES – DIVISION OF POWER CIRCLE GROUND ASSEMBLY		
DRAWN BY: AEC	DATE: 01/01/2018	TDMIS-1213
APPROVED: <i>[Signature]</i>		
	SHEET 1 of 3	

CODED NOTES:

A TRANSFORMER CAN BE THREE PHASE OR SINGLE PHASE. NEUTRALS ARE CONNECTED TO THE CIRCLE GROUND INDEPENDENTLY USING H-TAP COMPRESSION CONNECTOR.

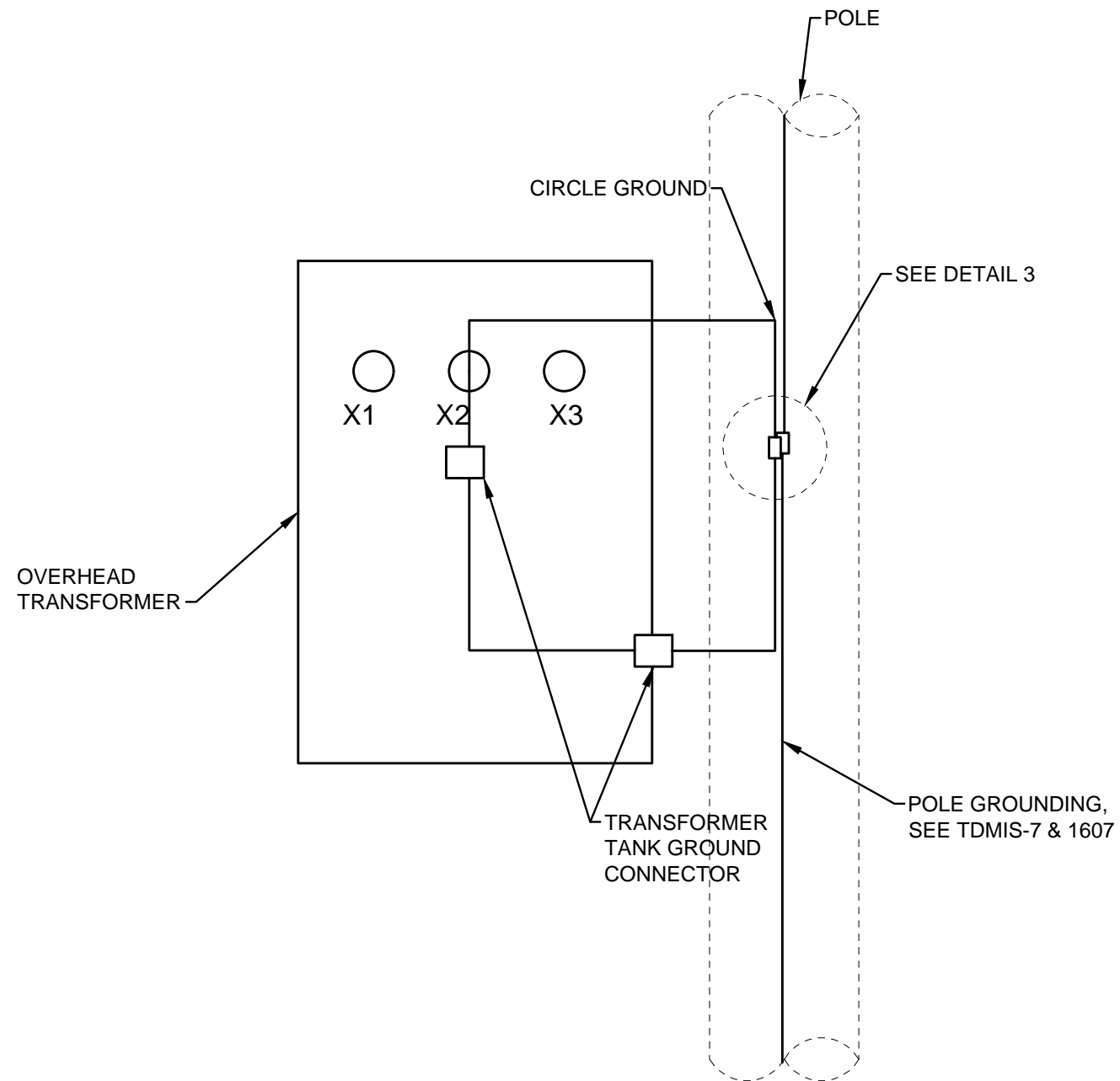


**DETAIL 1
PAD CIRCLE GROUND ASSEMBLY**

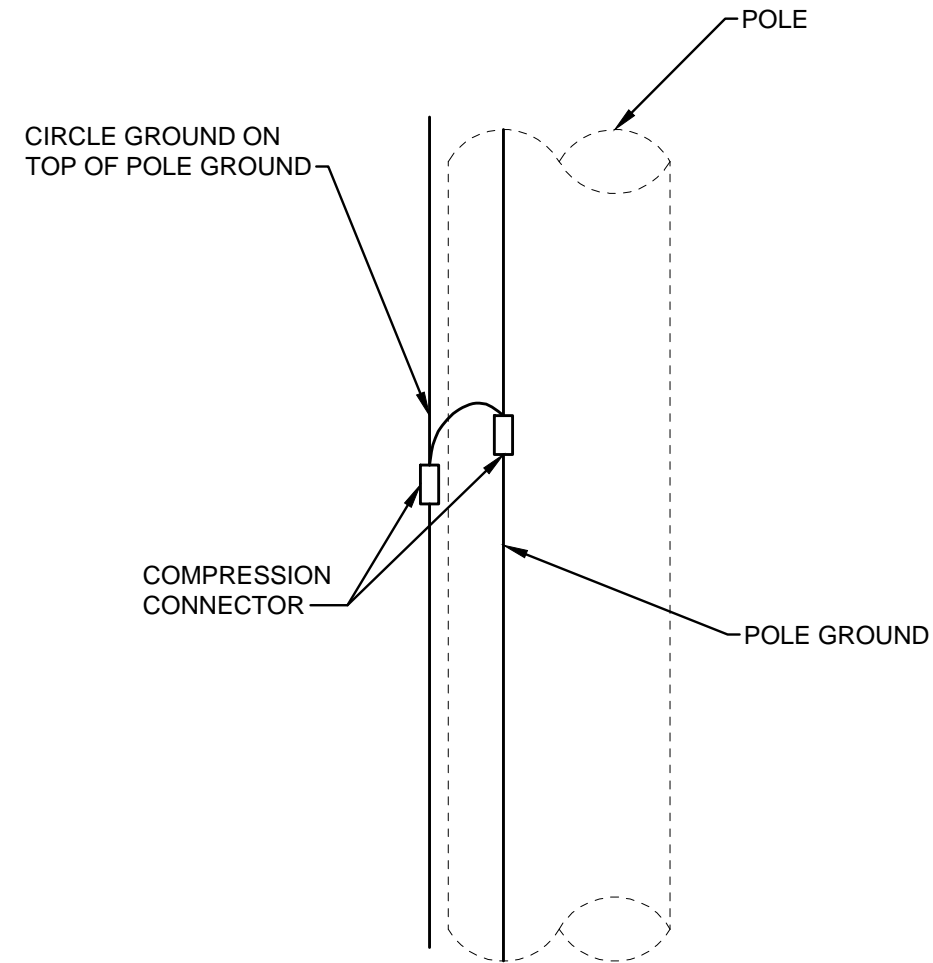
CITY OF COLUMBUS, OHIO DEPT. OF PUBLIC UTILITIES - DIVISION OF POWER		
CIRCLE GROUND ASSEMBLY		
DRAWN BY: AEC	DATE: 01/01/2018	TDMIS-1213
APPROVED: R. SPRITE		
SCALE: NTS	SHEET: 2 OF 3	

GENERAL NOTES:

1. CIRCLE GROUND SHALL BE USED IN PRIMARY WYE SYSTEM. FOR DELTA OR UNGROUNDED WYE SYSTEM, REFER TO TDMIS-7.



DETAIL 2
POLE CIRCLE GROUND ASSEMBLY



DETAIL 3
CIRCLE GROUND & POLE GROUND CONNECTION

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