

Grounding Electrodes for Distribution Poles

1. Scope

This standard covers the installation of grounding electrodes for all wood pole applications and assemblies for the 26 kV primary distribution system.

2. Application

This standard provides direction to Seattle City Light (SCL) engineers, crews, and contractors for the installation of grounding electrodes for distribution poles.

3. Installation Requirements

3.1 Ground Rod

The ground rod shall be driven in firm, undisturbed earth 24 inches from the pole at a depth to achieve 4 to 12 inches of cover as seen in Figure 3a.

3.2 Ground Wire

The ground wire shall be one continuous length.

All ground wire in the supply space shall be connected to the system neutral.

The ground wire shall be inserted from the bottom of the ground clamp and bent over the clamp before tightening.

The ground wire shall be installed in the quadrant of the pole between the pole face and the street side of the pole as seen in Figure 3b.

Ground wire staples shall be installed 24 inches apart to attach the ground wire to the pole.

3.3 Ground Wire Molding

Molding shall be installed over the ground wire to protect the line worker, the wire, and the public.

The molding shall be installed in two 8-ft sections. The lower section shall start at least two inches below the ground line and extend approximately 8 ft above ground line. The upper section shall start 2 ft below the lowest electrical utility conductor and extend down 8 ft through the communication space.

Molding staples shall be installed 18 inches apart to attach the molding to the pole.



Figure 3a. Pole Ground and Ground Rod Installation

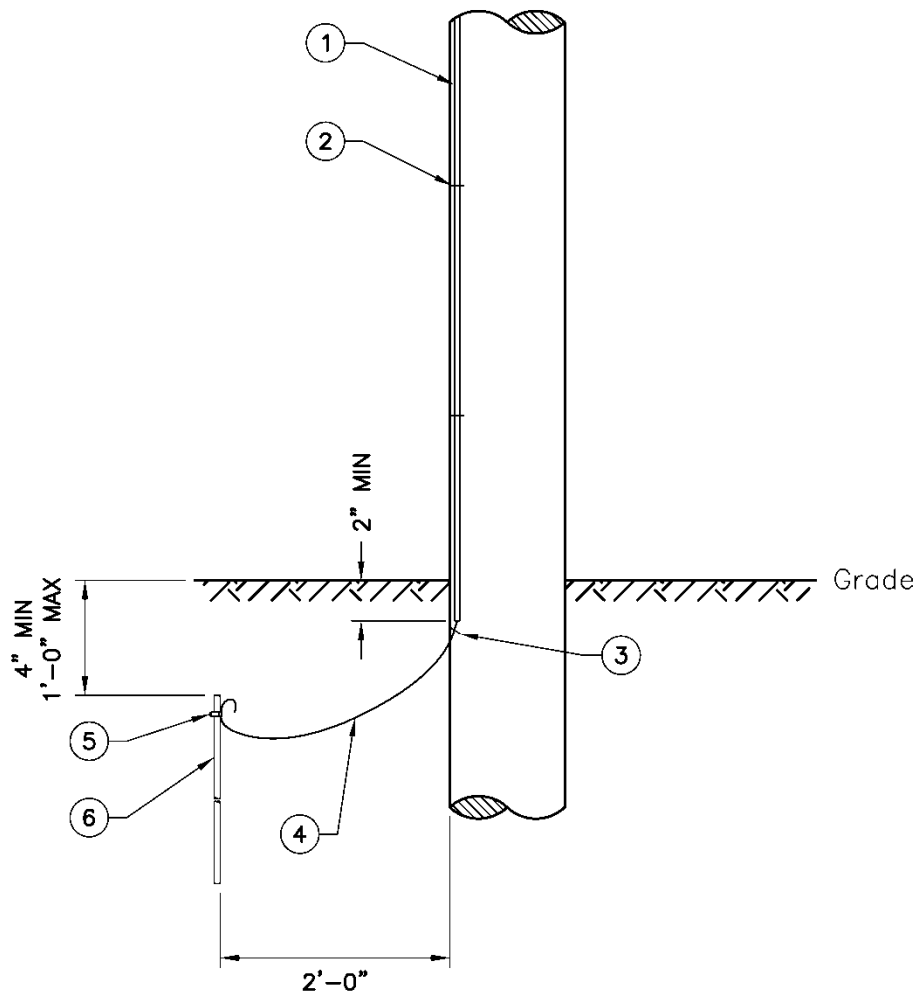
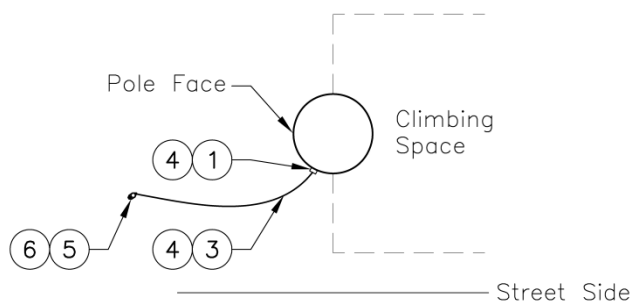


Figure 3b. Pole Ground Orientation with Climbing Space



4. Material Lists

Table 4. Materials for Grounding Electrode Installation

Fig.	Compatible Unit	ID	Qty
3a	Distribution pole ground	POLEGRNDROD	
#	Material Description	ID	
1	Plastic molding, 1/2" x 8"	582060	2
2	Molding staples, 2" x 1/2"	583200	8
3	Wire staples, 1-1/2" x 1/4"	583180	20
4	#4 AWG, bare, copper-clad steel conductor	012702	50
5	Clamp, ground rods, 5/8"	564012	1
6	Ground rod, 5/8" x 8'	564238	1

5. Sources

Hanson, Brett; SCL Standards Supervisor and subject matter expert for 0451.01

Lu, Curtis; SCL Standards Engineer and originator of 0451.01

SCL Construction Standard D16-2; "Grounding Rod Installation" (canceled)