

**POLE TERMINATION, 3Ø 15/26 kV DISTRIBUTION,
 350, 500, 750, AND 1000 KCMIL, 27 kV SHIELDED CABLE
 HIGH FAULT CURRENT AREAS**

Use this Construction Guideline where fault duty is between 20,000 A and 40,000 A. Use Construction Guideline DU5-15.6 where fault duty is 20,000 A or less.

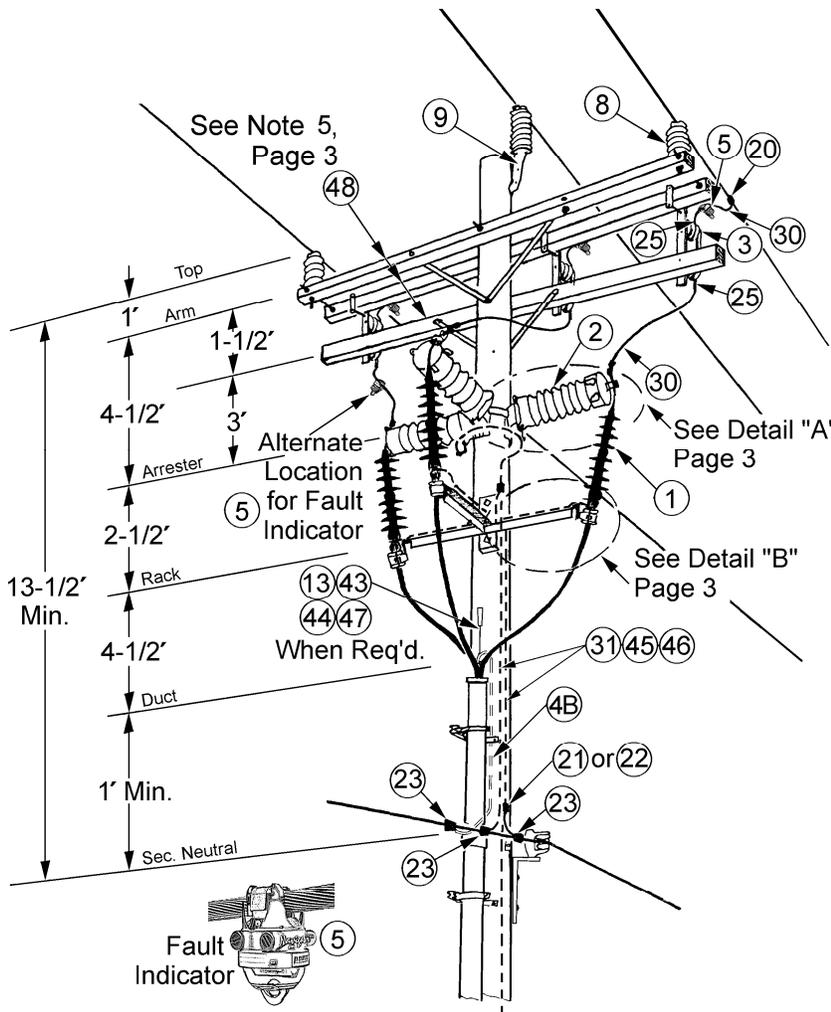


Figure 1, Construction Details

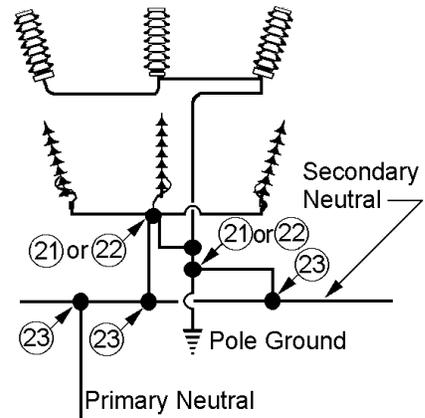


Figure 2, Grounding Schematic

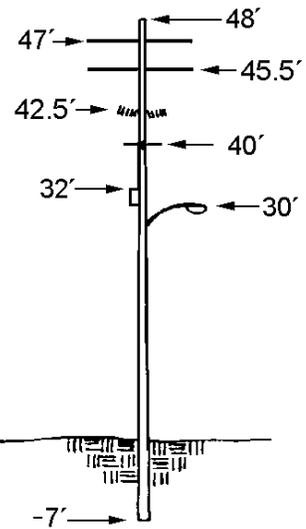


Figure 3, Typical Pole Framing

STANDARDS COORDINATOR	STANDARDS SUPERVISOR	UNIT DIRECTOR
<p><i>Charles L. Shaffer</i> Charles L. Shaffer</p>	<p><i>John C. Skinner</i> John C. Skinner</p>	<p><i>Hardev Juj</i> Hardev Juj</p>

CONSTRUCTION GUIDELINE

Pole Termination, 3Ø 15/26 kV Distribution, 350, 500, 750, and 1000 kcmil, 27 kV Shielded Cable, High Fault Current Areas

Material List

Item	Description		Quantity	Stock No.
1	TERMINATION, Cold Shrink , for drain wire, 27 kV	350 - 500 kcmil, 3 per KT	1 KT	686534
		350 - 500 kcmil	3 EA	012125
		750 - 1000 kcmil	3 EA	012126
2	ARRESTER, Intermediate Class, metal oxide, 17 kV MCOV		3	680121
3	SWITCH, 1Ø disconnect, 600 Amp, 27 kV		3	250130
4	CABLE, 1C, XLP, 27 kV	350 kcmil Al	as required	012099
		500 kcmil Cu	as required	012100
		750 kcmil Cu	as required	012101
		1000 kcmil Cu	as required	012102
4A	CABLE, 600V, XLP, 1/C Neutral, 4/0 Cu, (estimated quantity: 10')		as required	613735
4B	CABLE, 600V, XLP, Primary Neutral, (estimated quantity: 10')	1/0 Cu	as required	613732
		2/0 Cu	as required	613733
5	FAULT INDICATOR, 1Ø, OH, Strobe, hot stick installed		3	765872
8	INSULATOR		3	690157
9	BRACKET, Pole Top		1	563253
10	BRACKET, Arrester Mounting		1	720641
11	BRACKET, Terminator Mounting		1	686835
12	BRACKET, Terminator Support		3	686466
13	BRACKET AND J-BOLT, Cable Grip Support		1	780127
14	CABLE SUPPORT, Insulated, ceramic (must be used with 1000 kcmil)		3	690775
20	CONNECTOR, TAP, Ampact, "C" Type, per D14-1	397.5 to 500	3	651101
		4/0 to 500	3	651097
21	CONNECTOR, Cu to Cu	#4 to #4	7 to 12 ▼	677323E
		#2 to #2	7 to 12 ▼	677326E
		1/0-2/0 to #2-2/0	7 to 12 ▼	669379E
22	CONNECTOR, Split Bolt, #2-14 to #2-14		3 to 8 ▼	668867E
23	CONNECTOR, Al to Cu	#6-350 to 4/0-336 Al 2 Bolt	0 to 3 ▼	651132
		Ampact (See Guideline D14-1 for sizes and range)	0 to 3 ▼	651090 to 651109
24	CONNECTOR, cable to flat, #4 to 2/0		3	676674
25	TERMINAL, Compression, 500 kcmil Cu		6	677091E
26	CONNECTOR, 2 Bolt, parallel, 4/0 to 4/0		6 to 7	669382
30	WIRE, 500 kcmil, Cu, soft drawn, bare, stranded (See note 6)		24' estimate	610397
31	WIRE, #4 Cu, solid, poly insulated		12' or 24' ▼	611442
40	BOLT, Machine, galvanized, 5/8" X length		2	780838E to 780846E
41	WASHER, Flat, 2-1/4" x 2-1/4" x 5/8" hole		1	585135E
42	WASHER, Lock, coil spring, 3/4"		2	584267E
43	SCREW, Lag, 1/2" x 6"		6 or 7 ▼	785265E
44	WASHER, Round, galvanized, 1/2"		6 or 7 ▼	585025E
45	MOULDING, plastic, 1/2" x 8'		16' estimate	582060E
46	STAPLES, galvanized, 5/8" x 2-1/2"		8 estimate	583200E
47	GRIP, Support, single eye, 2" to 2-1/2"		1	763555
48	CROSSARM, Primary Feeder, 10'		2 or 3	540146
49	CONNECTOR, Pigtail	350 kcmil Al	3	650578
		500 kcmil Cu	3	650579
		750 kcmil Cu	3	686075
		1000 kcmil Cu	3	686078
50	WIRE, 397.5 kcmil AAC (Canna)		10' estimate	600113

▼ Quantities will vary due to whether new or existing pole ground, or whether contractor or City Light installed.

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Notes:

1. On deadend poles, overhead line must deadend on same side as terminations are mounted, except where guy stub may be placed to lead the guy wire away from the pole horizontally.
2. Minimum clearance of jumpers shall be 12" phase to phase and 8" phase to ground.
3. When overhead secondary is aluminum, Item 23 is to be used. Copper ground wire from ground or neutral is to be drip looped below the aluminum secondary neutral.
4. When contract job, contractor connects termination (with pigtail) to arrester. City Light installs wire from limiter and connects pigtail to arrester.
5. On lead poles, use three crossarms and install the switch between the upper and lower arms. On deadend poles, the switch may be installed on the top arm only.
6. Install 1000 kcmil and 4/0 copper neutral from all stations. The engineer shall calculate the fault current in order to size the cables away from the station. The minimum size neutral is 2/0 copper. (Use 750 kcmil copper **ONLY IF** the feeder ducts from the station are less than 5" ID).

References:

- U7-10.2 Conduit Installation
- U7-10.9 Conduit Grounding
- D14-1 Ampact Connector Chart
- D16-2 Pole Grounding

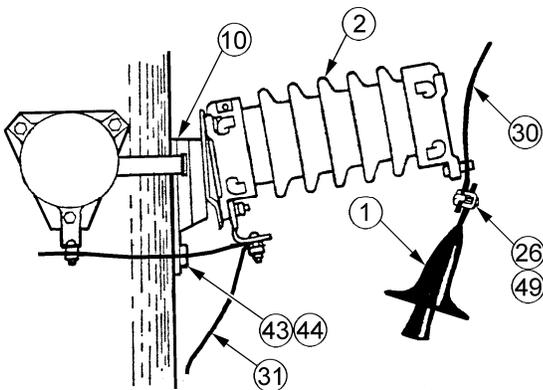


Figure 4, Detail "A"

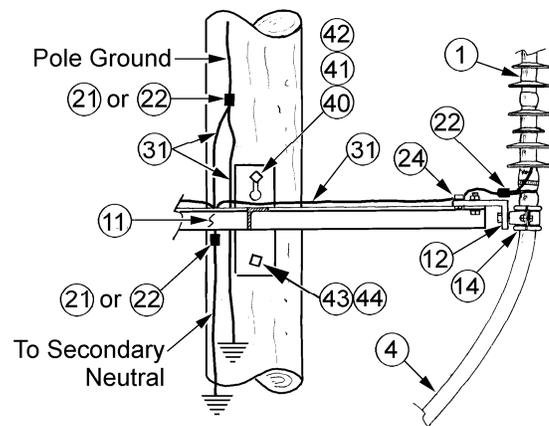


Figure 5, Detail "B"