

6-09-194	12 kV 3-PHASE SERVICE FUSED INTERRUPTER SWITCH ON CUSTOMER-OWNED POLE Customer Reference Specification	6-09-194
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Overhead Service to Overhead

(Replaces A-128453)

THIS CUSTOMER REFERENCE SPECIFICATION (CRS) IS PART OF THE
RULES FOR ELECTRIC METER AND SERVICE INSTALLATION (REMSI) WEBSITE.

DISTRIBUTION CONSTRUCTION SPECIFICATIONS PPL ELECTRIC UTILITIES CORPORATION	Issue Date: <u>9/8/2011</u> Typist: <u>SLF</u> Drafter: _____
	Sponsor: <u><i>Malcolm D. Blawie</i></u> Approved: <u><i>Edward P. Jones</i></u> LRE - Distribution Standards

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This specification defines the customer's responsibilities and requirements necessary for 12 kV 3-phase overhead service to overhead. All details of this specification must be strictly followed.

The pole location and equipment installation must be approved by the PPL EU Metering Support and the PPL EU Area Design Lead. Any deviation from this specification must be approved. Unapproved deviations are usually costly for the customer to correct and can result in delays or possible refusal to connect services.

General Notes:

1. All facilities, except source side deadend assemblies and lightning arresters, are provided, installed, and maintained by customer.
2. PPL EU will make connections to source side of switch and all connections to the system neutral. Customer must make all grounding connections using compression connectors and all primary connections using cable-to-flat or stem connectors as appropriate.
3. Customer to furnish and install lightning arresters on load side.
4. Ground wire from the lightning arrester cross arm to ground rod must be minimum #2 covered HDPE copper.
5. Coil approximately 6-feet of the #2/0 bare copper ground wire under platform and connect at two points. The platform should be chained to the pole to prevent removal.
6. Switch handle is to have provision for 2 locks (customer lock & PPL EU lock) so that either customer or PPL EU may operate switch independently.
7. Whenever the customer's pole must be guyed to offset the pull of PPL EU's service drop or the customer's distribution wires, the guy(s) is provided, installed, and maintained by the customer. If guying is necessary to offset tension from PPL EU's service drop, PPL EU will provide specifications for guy wire rod size and lead length. A strain insulator must be installed at the pole end of the guy wire.
8. Minimum clearance required between primary conductor and bare guy is 7". Minimum clearance required between primary conductor and guy insulator is 5-1/4".
9. Ground bare guy to a multi-grounded system neutral or to a pole ground wire that is connected to a multi-grounded system neutral.

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Item	Qty.	BILL OF MATERIAL	CID No. or Drawing No.
MATERIALS PROVIDED BY PPL EU			
1	3	Deadend assembly, 12 kV	6-13-18
	*	Ft wire, #2 Cu (minimum) SD solid, bare, with connectors as required	147476
2	1	Deadend assembly, neutral	6-13-18
3	3	Bracket, crossarm mounting	139506
	3	Arrester, lightning	139110
	*	Ft wire, #6 Cu, bare (hot leads)	147474
	3	Clamp, hot line, aluminum, 400A, #1/0 - #4/0 ACSR	913204
	3	Clamp, hot line, aluminum, 600A, 334.4 - 477 KCM AAC	912529
	*	Ft wire, #6 HDPE Cu, (for grounds)	147484
MATERIALS PROVIDED BY CUSTOMER			
4	1	Pole, (class 4 minimum) length as specified (35' minimum)	
5	*	Crossarm, wood, 3-1/2" x 4-1/2" x 8' long	
	*	Bolt, double arming, 5/8" x length to suit, galvanized	
	*	Bolt, machine, 5/8" x length to suit, galvanized	
	*	Washer, 2-1/4" square for 5/8" bolt, galvanized	
	*	Brace, crossarm, flat, 28" long, galvanized	
	*	Screw, lag, 1/2" x 4" long, galvanized	
	3	Bolt, carriage, 3/8" x 5" long, galvanized	
	*	Gain, pole	
6	3	Deadend assembly, 12 kV	
7	3	Bracket, for lightning arresters	(Note 3)
	3	Arrester, lightning, for 12 kV, 4 wire system	
	*	Ft wire, #6 HDPE Cu, and connectors as required	
8	1	Deadend assembly, neutral	
9	*	Ft wire, #6 HDPE Cu, and connectors as required	
10	*	Ft wire, #2 HDPE Cu	(Note 4)
	*	Connectors as required	
11	6	Pin, insulator, steel, wood mounting	
	6	Insulator, pin type, 12 kV	
	*	Ft wire, #6 Cu, bare, self drawn, tie	
12	*	Ft wire, #2 Cu (minimum), strand, bare	
	12	Connectors, as required	
13	1	Rod, ground, 1/2" diameter x 8' long, steel, copper clad	
14	*	Ft wire, #2/0 Cu, XLP Insulation, stranded	
	*	Connectors as required	

* As required

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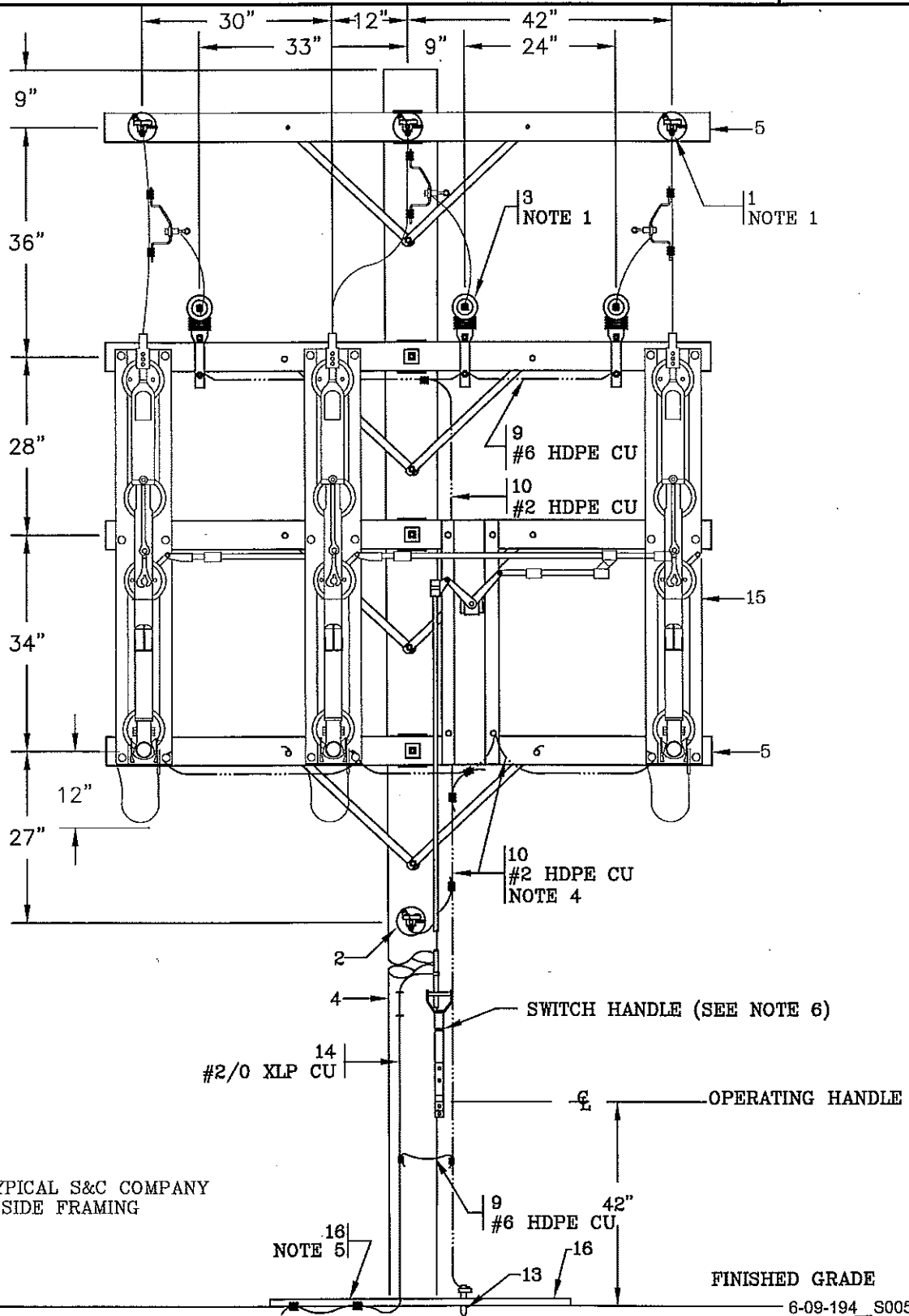
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Item	Qty.	BILL OF MATERIAL	CID No. or Drawing No.	
MATERIALS PROVIDED BY CUSTOMER				
15	A	1	S&C Type SM, 3 pole switch and fuse mounting for SM-4, 200E maximum fuse. Switch rated 17 kV design voltage, 100 kV BIL, 600 Amp continuous and interrupting current.	S&C CO 135302R4
		3	Fuse holder for SM-4 fuses, 200E maximum	S&C CO 86052
		6	SM-4 fuse refill unit, 200E maximum (includes 3 required spares)	As specified by PPL EU
	B	1	S&C Type SM, 3 pole switch and fuse mounting for SM-5, 400E maximum fuse. Switch rated 17 kV design voltage, 110 kV BIL, 600 Amp continuous and interrupting current.	S&C CO 135332R4
		3	Fuse holder for SM-5 fuses, 400E maximum	S&C CO 86052
		6	SM-5 fuse refill unit, 400E maximum (includes 3 required spares)	As specified by PPL EU
	C	1	S&C Type SMD, 3 pole switch and fuse mounting (incl. fuse unit end fittings, SMD-20 fuse type). Switch rated 17 kV design voltage, 110 kV BIL, 600 Amp continuous and interrupting current	S&C CO 135552R1
		3	Fuse holder for SM-5 fuses, 400E maximum (includes 3 required spares)	S&C CO 86052
	16	1	Grounded platform, 3' x 5'	LB12669 Note 5
17	1	Guy wire	(Note 7)	
	2	Grip, guy, preformed		
	1	Plate, pole eye for fiberglass guy insulator		
	1	Insulator, guy, fiberglass 75		
	2	Bolt, stud, length to suit		
	2	Washer, curved		
	2	Nut, ferrous, locking		
	1	Anchor rod		
	1	Guard, guy, yellow plastic, 8' long		

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NOT TO SCALE



*NOTE: TYPICAL S&C COMPANY SOURCE SIDE FRAMING SHOWN.

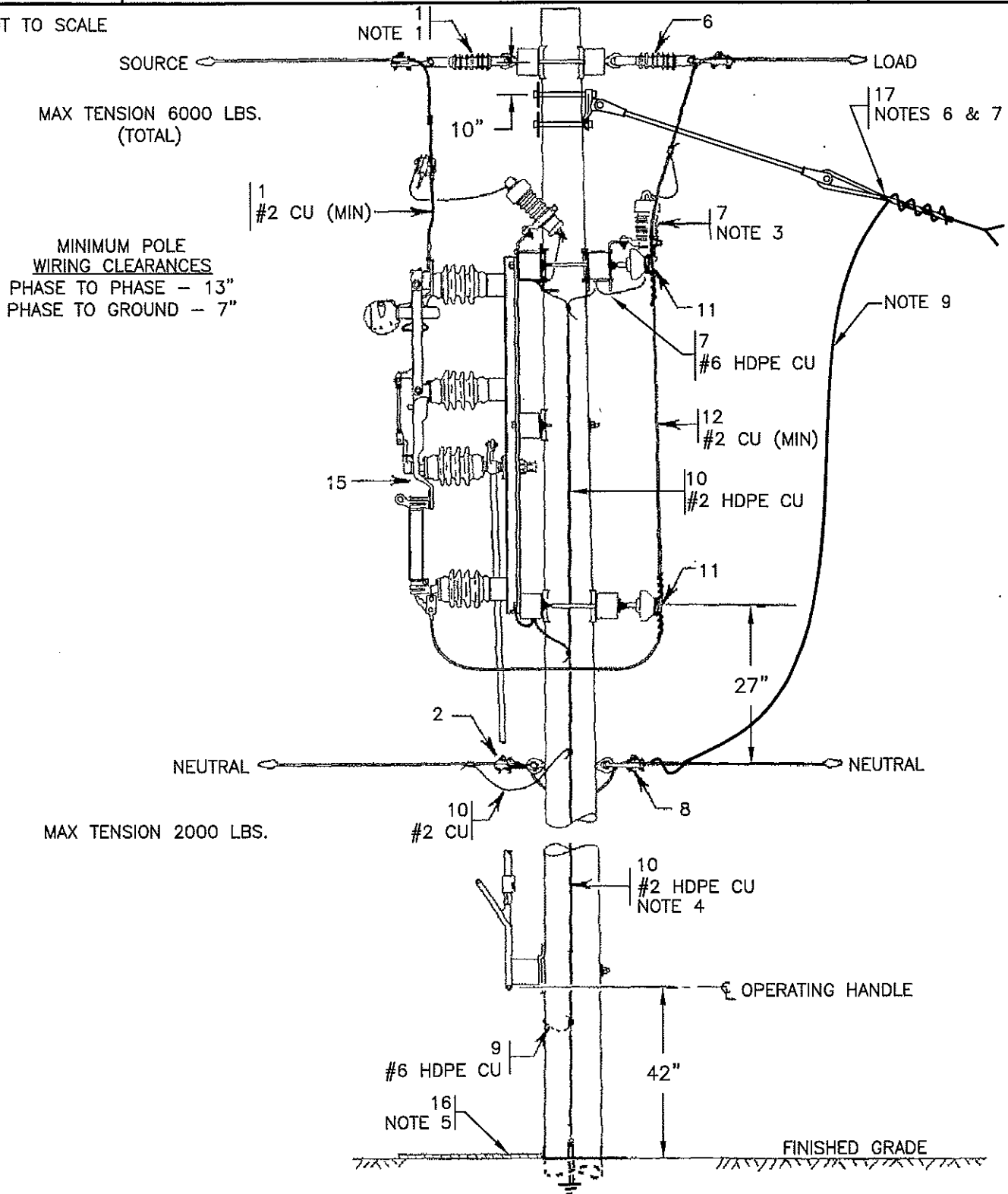
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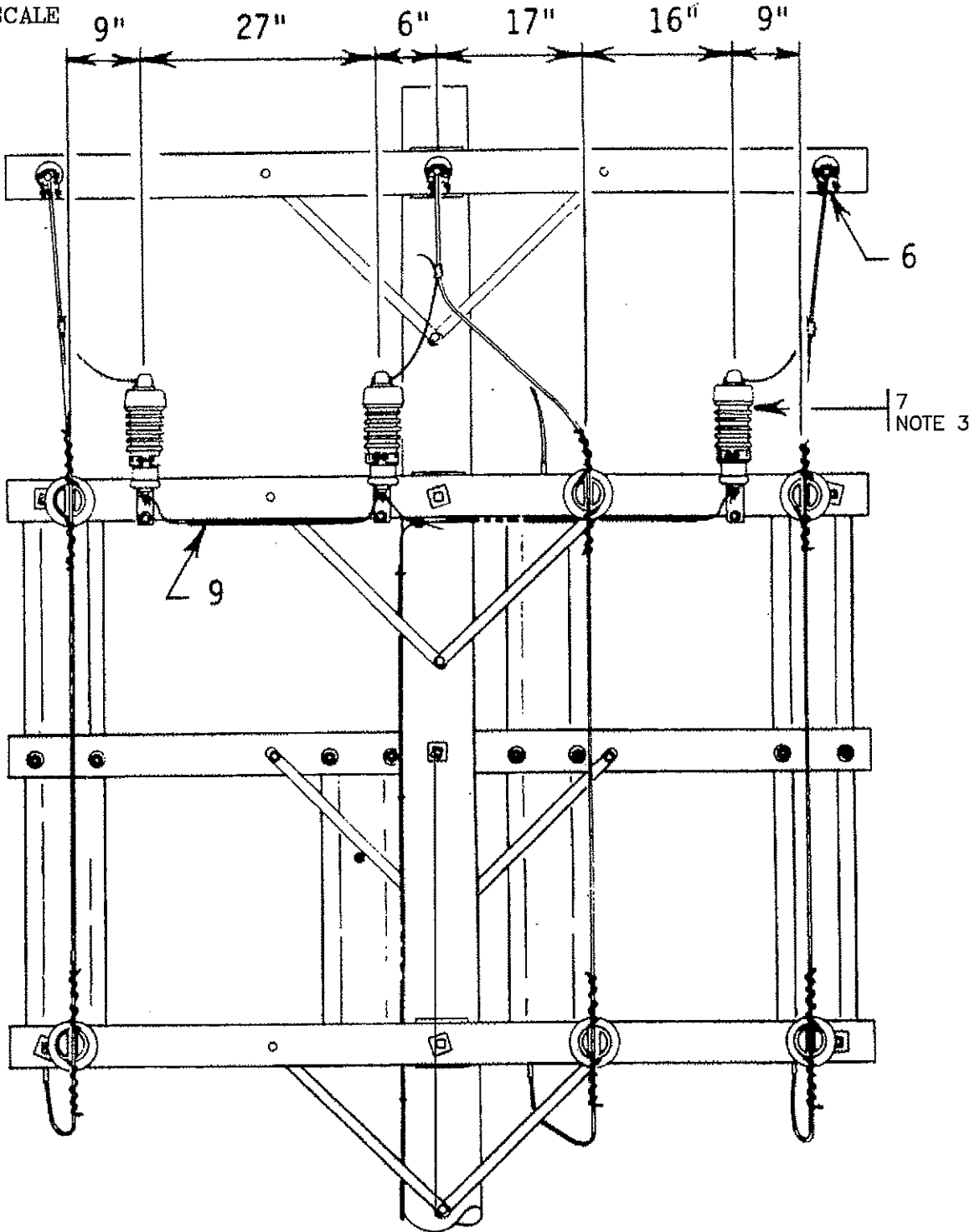


REFERENCE: "RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS" SKETCH #30, LB-12669 6-09-194_S006.dwg/tif

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NOT TO SCALE



TYPICAL SWITCH FRAMING (LOAD SIDE)

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