

Triplex Service Drop Attachment on Building

SKETCH #1
SHEET 1

SKETCH #1
SHEET 1

PPL EU FURNISHES, INSTALLS, MAINTAINS:

1. NEW SERVICE DROP AND MAKES CONNECTION TO CUSTOMER'S SERVICE ENTRANCE CONDUCTORS. MAXIMUM TENSION - 700 LBS.
2. METER.

PPL EU FURNISHES, MAINTAINS:
CUSTOMER INSTALLS:

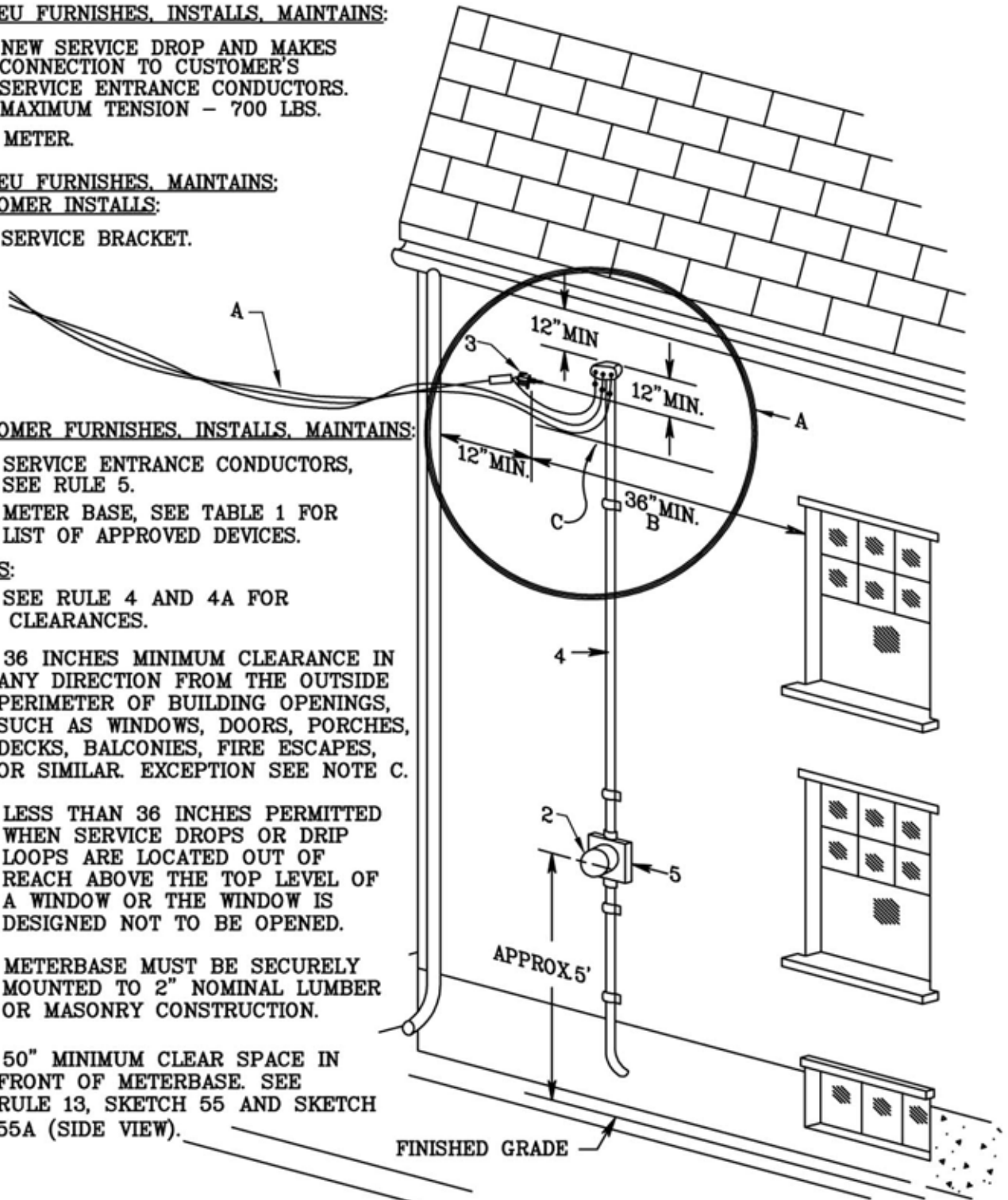
3. SERVICE BRACKET.

CUSTOMER FURNISHES, INSTALLS, MAINTAINS:

4. SERVICE ENTRANCE CONDUCTORS, SEE RULE 5.
5. METER BASE, SEE TABLE 1 FOR LIST OF APPROVED DEVICES.

NOTES:

- A. SEE RULE 4 AND 4A FOR CLEARANCES.
- B. 36 INCHES MINIMUM CLEARANCE IN ANY DIRECTION FROM THE OUTSIDE PERIMETER OF BUILDING OPENINGS, SUCH AS WINDOWS, DOORS, PORCHES, DECKS, BALCONIES, FIRE ESCAPES, OR SIMILAR. EXCEPTION SEE NOTE C.
- C. LESS THAN 36 INCHES PERMITTED WHEN SERVICE DROPS OR DRIP LOOPS ARE LOCATED OUT OF REACH ABOVE THE TOP LEVEL OF A WINDOW OR THE WINDOW IS DESIGNED NOT TO BE OPENED.
- D. METERBASE MUST BE SECURELY MOUNTED TO 2" NOMINAL LUMBER OR MASONRY CONSTRUCTION.
- E. 50" MINIMUM CLEAR SPACE IN FRONT OF METERBASE. SEE RULE 13, SKETCH 55 AND SKETCH 55A (SIDE VIEW).



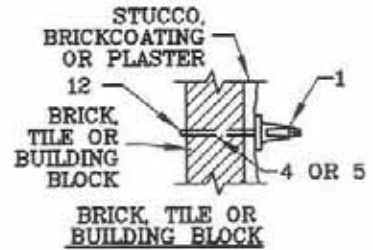
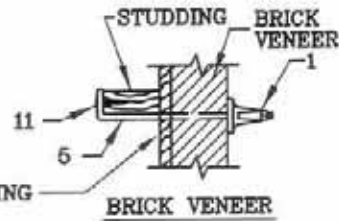
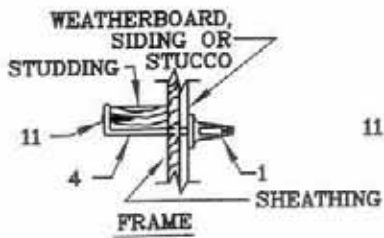
*REFERENCE SKETCH 55 & SKETCH 55A

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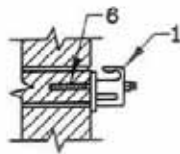
RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS
PPL ELECTRIC UTILITIES CORPORATION

Rules: 4, 4A, 5, 13

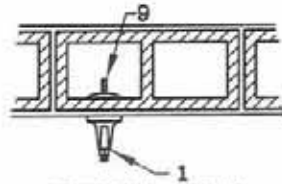
Date: 8/17/07 **Engr:** MDB



NEW HOUSES (NOTE 1)



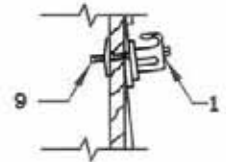
MASONRY



BUILDING BLOCK



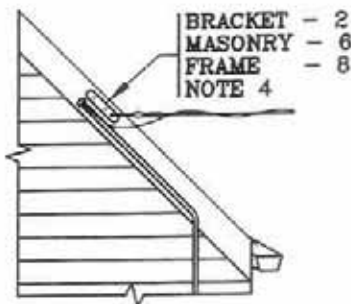
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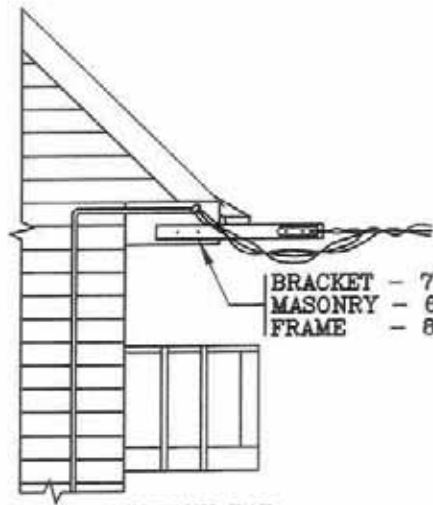
(ALTERNATE)

FRAME OR SIDING (NOTE 5)

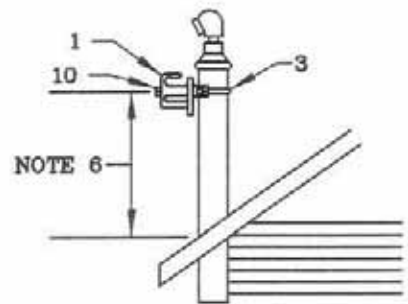
EXISTING HOUSES (NOTE 2)



TWISTED SERVICE
DROP BRACKET



BALCONY BAR



PIPE MAST

NEW AND EXISTING HOUSES

Secondary Service
Service Drop Attachments

SKETCH #1A

SHEET 1AP2

SKETCH #1A

SHEET 1AP2

ITEM	DESCRIPTION
1	BRACKET, SERVICE DROP, THREE POINT
2	BRACKET, SERVICE DROP, TWISTED
3	BRACKET, SERVICE DROP, PIPE ATTACHMENT
4	BOLT, ANCHOR, HOUSE, BRACKET, 3/8" x 12"
5	BOLT, ANCHOR, HOULSE BRACKET, 3/8" x 16"
6	ANCHOR, EXPANSION, 3/8" x 5"
7	BRACE, CROSSARM - DRILL EXTRA 3/8" HOLE
8	SCREW, LAG, GIMLET POINT, 3/8" x 5"
9	BOLT, TOGGLE, 3/8" x 5 "
10	BOLT, MACHINE, 3/8" x 2"
11	NAIL, WIRE, 8d
12	NAIL, MASONRY

NOTES:

1. PPL EU SUPPLIES BOLT, DESIGNATES ATTACHMENT LOCATION, INSTALLS BRACKET AND CUTS OFF EXCESS BOLT LENGTH. BUILDER INSTALLS ANCHOR BOLT WITH BOLT EXTENDING AT LEAST 2 INCHES BEYOND OUTSIDE FACE OF FINISHED WALL.
2. PPL EU SUPPLIES BRACKET AND FASTENERS; CUSTOMER ATTACHES OR RE-ATTACHES BRACKET.
3. DRILL 1/4 INCH HOLE INTO STUD.
4. TWISTED SERVICE CABLE BRACKET USED TO PROVIDE CLEARANCE BETWEEN SERVICE CABLE AND DOWN SPOUT OR ROOF EDGE.
5. PREFERRED ATTACHMENT METHOD IS TO INSTALL LAG SCREW INTO STUD. IF NO STUD IS LOCATED, THE ALTERNATE METHOD CAN BE USED PROVIDED BRACKET IS LOCATED LESS THAN 4 FEET FROM ANY CORNER OF STRUCTURE.
6. SEE SKETCH 3 FOR ATTACHMENT HEIGHTS ABOVE ROOF ON PIPE MAST.

RULES FOR ELECTRIC METER AND SERVICE
INSTALLATIONS
**PPL ELECTRIC UTILITIES
CORPORATION**

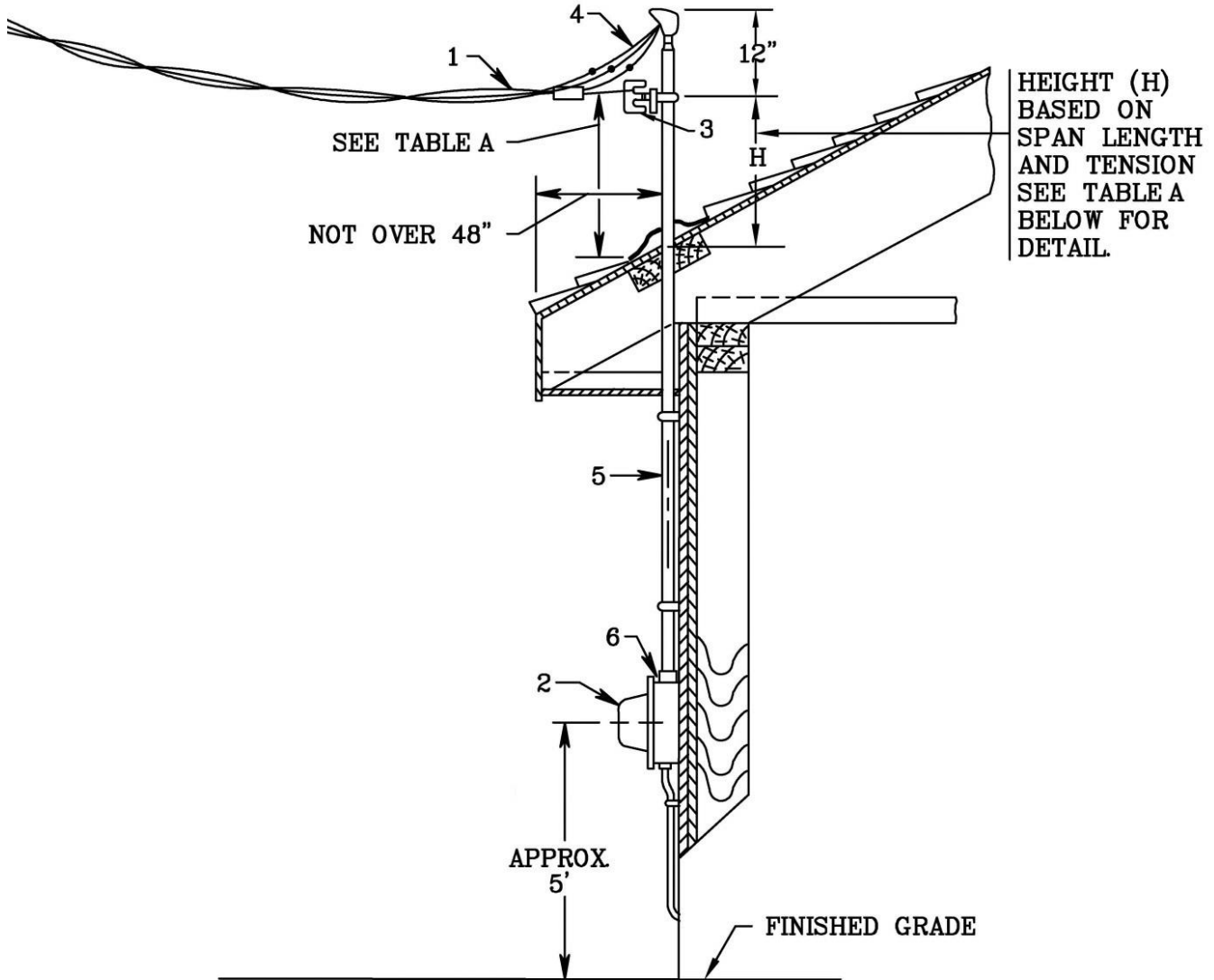
Rules: 4, 5

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Date: 11/1/06 **Engr:** MDB

Sketch #3 Secondary service drop attachment to a mast attached to low building to provide required clearances

THIS TYPE OF CONNECTION IS LIMITED TO SERVICES WITH SELF-CONTAINED METER AND #4, #1/0, OR #4/0 TRIPLEX FOR SINGLE PHASE, 3 WIRE OR #2/0 OR #4/0 QUADRUPLIX FOR THREE PHASE, 4 WIRE.



* REFERENCE SKETCH 55 & 55A

REV	DATE	APPROVED			RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS PPL ELECTRIC UTILITIES CORPORATION RULES: 4, 4A, 5, 13
		DRAFTER	SPONSOR	REVIEW	
0	7/15/15	RRC	MP	-	
1	8/11/15	RRC	MP	-	
2	8/22/16	RRC	NAP	-	

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**REMSI Sketches 1-25
Sketch #3
6-50**

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 Custom ID: DCS 6-50
 Revision: 01
 Effective Date: 09/19/2016
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Sketch #3 Secondary service drop attachment to a mast attached to low building to provide required clearances (cont.)

PPL EU FURNISHES, INSTALLS, MAINTAINS:

1. NEW SERVICE DROP AND MAKES CONNECTION TO CUSTOMER'S SERVICE ENTRANCE CONDUCTORS. MAXIMUM TENSION - 850 LBS.
2. METER

PPL EU FURNISHES, CUSTOMER INSTALLS:

3. SERVICE BRACKET - PPL EU CATALOG #107283, 107280, 106150

CUSTOMER FURNISHES, INSTALLS, MAINTAINS:

4. SERVICE ENTRANCE CONDUCTORS; SEE RULE 5.
5. THREADED GALVANIZED-RIGID METAL CONDUIT (RMC) OR INTERMEDIATE METAL CONDUIT (IMC) FIRMLY ATTACHED TO BUILDING. ANCHOR PIPE RIGIDLY AT ROOF TO PREVENT ROOF DAMAGE DUE TO VIBRATION. DO NOT INSTALL CONDUIT COUPLING ABOVE ROOF LINE.
6. METER BASE: SEE TABLES 1 & 3 - APPROVED METER SERVICE DEVICES.

NOTES:

- A. SEE RULE 4 AND 4A FOR CLEARANCE.
- B. 50" MINIMUM CLEAR SPACE IN FRONT OF METER BASE. SEE RULE 13, SKETCH 55, AND SKETCH 55A (SIDE VIEW).

Table A

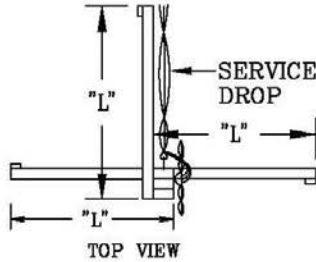
SERVICE MULTIPLEX CABLE ASSEMBLY SIZED ACCORDING TO DIVERSIFIED LOAD	SPAN LENGTH	MINIMUM CONDUIT SIZE	HEIGHT ABOVE ROOF ATTACHMENT (H)	
			MINIMUM	MAXIMUM
#4 AL TRIPLEX	100' OR LESS	2"	18"	24"
		2.5"		36"
	100' TO 150'	2.5"		22"
		3"		36"
#1/0 AL TRIPLEX	100' OR LESS	2.5"	18"	30"
	100' TO 125'	2.5"		22"
	125' OR LESS	3"		36"
#4/0 AL TRIPLEX	100' OR LESS	2.5"	18"	22"
		3"		36"
#2/0 AL QUADRUPLIX	100' OR LESS	2.5"	18"	22"
		3"		36"
#4/0 AL QUADRUPLIX	100' OR LESS	2.5"	18"	18"
		3"		30"

* REFERENCE SKETCH 55 &55A

REV	DATE	APPROVED			RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS PPL ELECTRIC UTILITIES CORPORATION RULES: 4, 4A, 5, 13
		DRAFTER	SPONSOR	REVIEW	
0	7/15/15	RRC	MP	-	
1	8/11/15	RRC	MP	-	
2	8/22/16	RRC	NAP	-	

REMSI_S003

Sketch #4 Secondary service drop attachment on temporary structure for construction



NOTE:
DIMENSION "L" SHALL NOT BE LESS THAN 1/2 OF DIMENSION "H", NOR GREATER THAN "H". "H" SHALL BE 8 FEET MINIMUM.

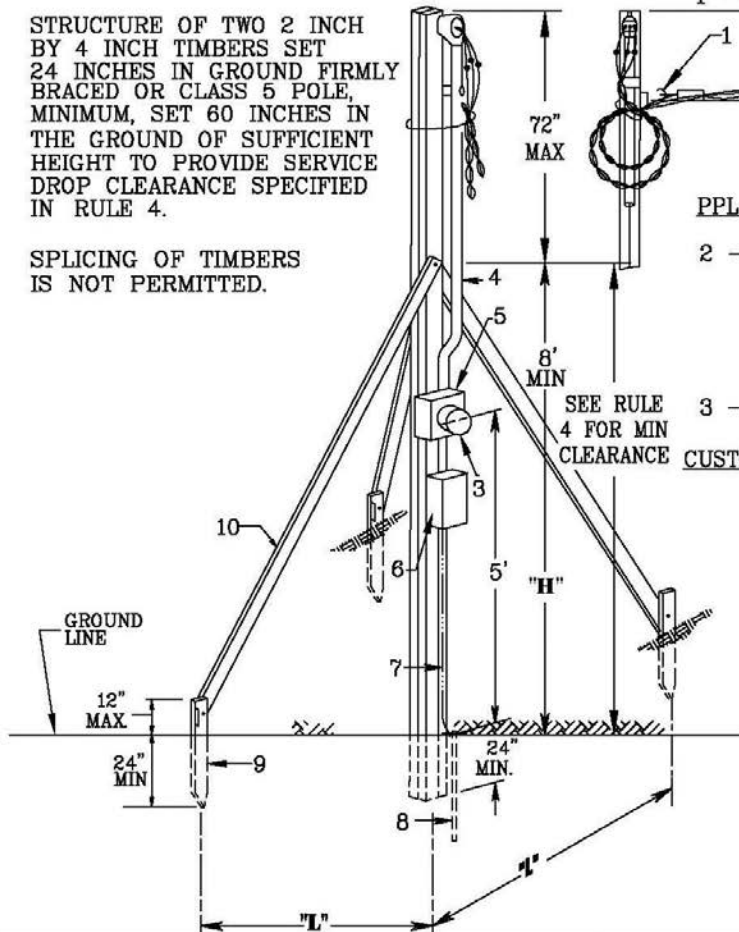
CUSTOMER SHALL INSTALL STRUCTURE AT A LOCATION DESIGNATED BY PPL THE STRUCTURE SHALL BE ACCESSIBLE TO PPL BUCKET TRUCKS. STRUCTURE MUST BE INSTALLED IN AN AREA WHICH IS NOT ASSESSIBLE TO VEHICULAR TRAFFIC.

PPL FURNISHES, MAINTAINS:
CUSTOMER INSTALLS:

- 1 - SERVICE BRACKET, SEE RULE 4.

STRUCTURE OF TWO 2 INCH BY 4 INCH TIMBERS SET 24 INCHES IN GROUND FIRMLY BRACED OR CLASS 5 POLE, MINIMUM, SET 60 INCHES IN THE GROUND OF SUFFICIENT HEIGHT TO PROVIDE SERVICE DROP CLEARANCE SPECIFIED IN RULE 4.

SPLICING OF TIMBERS IS NOT PERMITTED.



PPL FURNISHES, MAINTAINS, INSTALLS:

- 2 - SERVICE DROP OF SUFFICIENT LENGTH TO REACH THE PERMANENT SERVICE LOCATION AND MAKES CONNECTION TO CUSTOMER'S SERVICE ENTRANCE CONDUCTORS. MAXIMUM TENSION - 400 LBS.
- 3 - METER.

CUSTOMER FURNISHES, INSTALLS, MAINTAINS:

- 4 - SERVICE ENTRANCE CONDUCTORS.
- 5 - METER BASE OR METER BASE/BREAKER COMBINATION. SEE TABLE 1 - APPROVED METER SERVICE DEVICES.
- 6 - SERVICE DISCONNECT EQUIPMENT, IF SEPARATE.
- 7 - SERVICE GROUND.
- 8 - GROUND ROD
- 9 - 2"x4"x36" STAKES (3 REQUIRED)
- 10 - 2"x4" BRACES (3 REQUIRED)

<p align="center">RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS PPL ELECTRIC UTILITIES CORPORATION</p>	<p>Rules: 4, 5 REMSI_S004_R2.dwg Date: <u>7/18/16</u> Engr: <u>NAP</u></p>
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Underground Secondary Service
to Underground Attachment on Temporary Structure
for Construction

SKETCH #4A
SHEET 4A

SKETCH #4A
SHEET 4A

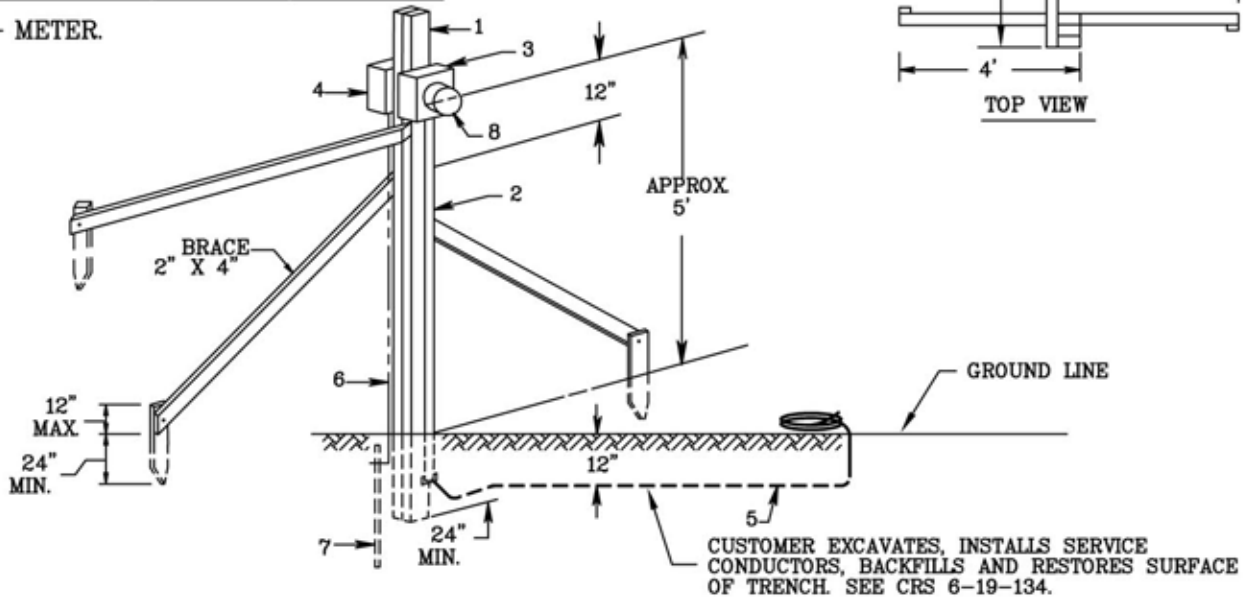
CUSTOMER FURNISHES, INSTALLS, MAINTAINS:

- 1 - STRUCTURE OF TWO 2 INCH BY 4 INCH OR ONE 4 INCH BY 4 INCH TIMBER SET 24 INCHES IN GROUND OF SUFFICIENT HEIGHT TO ALLOW METER BASE TO BE PLACED APPROXIMATELY 5 FEET ABOVE GROUND. STRUCTURE SHOULD BE PLACED AT THE LOCATION DESIGNATED BY PPL BRACE STRUCTURE IN THREE DIRECTIONS AS SHOWN. THOROUGHLY COMPACT EARTH AROUND TIMBERS.
- 2 - 3 INCH MINIMUM THREADED GALVANIZED RIGID OR INTERMEDIATE STEEL CONDUIT AND BUSHING OR SCHEDULE 40 GRAY PVC CONDUIT EXTENDING 12 INCHES BELOW GRADE.
- 3 - METER BASE OR METER BASE/BREAKER COMBINATION. SEE TABLE 2 - APPROVED METER SERVICE DEVICES.
- 4 - SERVICE DISCONNECT EQUIPMENT IF SEPARATE (MAY BE MOUNTED ON FRONT OR REAR OF STRUCTURE).
- 5 - 3 SERVICE CONDUCTORS IN 3 INCH MINIMUM SUPER CORFLO FLEXIBLE PIPE OR SCHEDULE 40 GRAY PVC INSTALLED AT LEAST 12 INCHES BELOW GRADE AND IN SUFFICIENT LENGTH TO EXTEND 10 FEET BEYOND PPL SOURCE.
NOTE: PPL WILL MAKE CONNECTION TO SOURCE.
- 6 - SERVICE GROUND.
- 7 - GROUND ROD.

NOTE: TIMBER SHALL NOT BE SPLICED.

PPL FURNISHES, INSTALLS, MAINTAINS:

- 8 - METER.



*REFERENCE CRS 6-19-134

RULES FOR ELECTRIC METER AND SERVICE
INSTALLATIONS
**PPL ELECTRIC UTILITIES
CORPORATION**

Rules: 4

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Date: 11/04/04 **Engr:** RGR



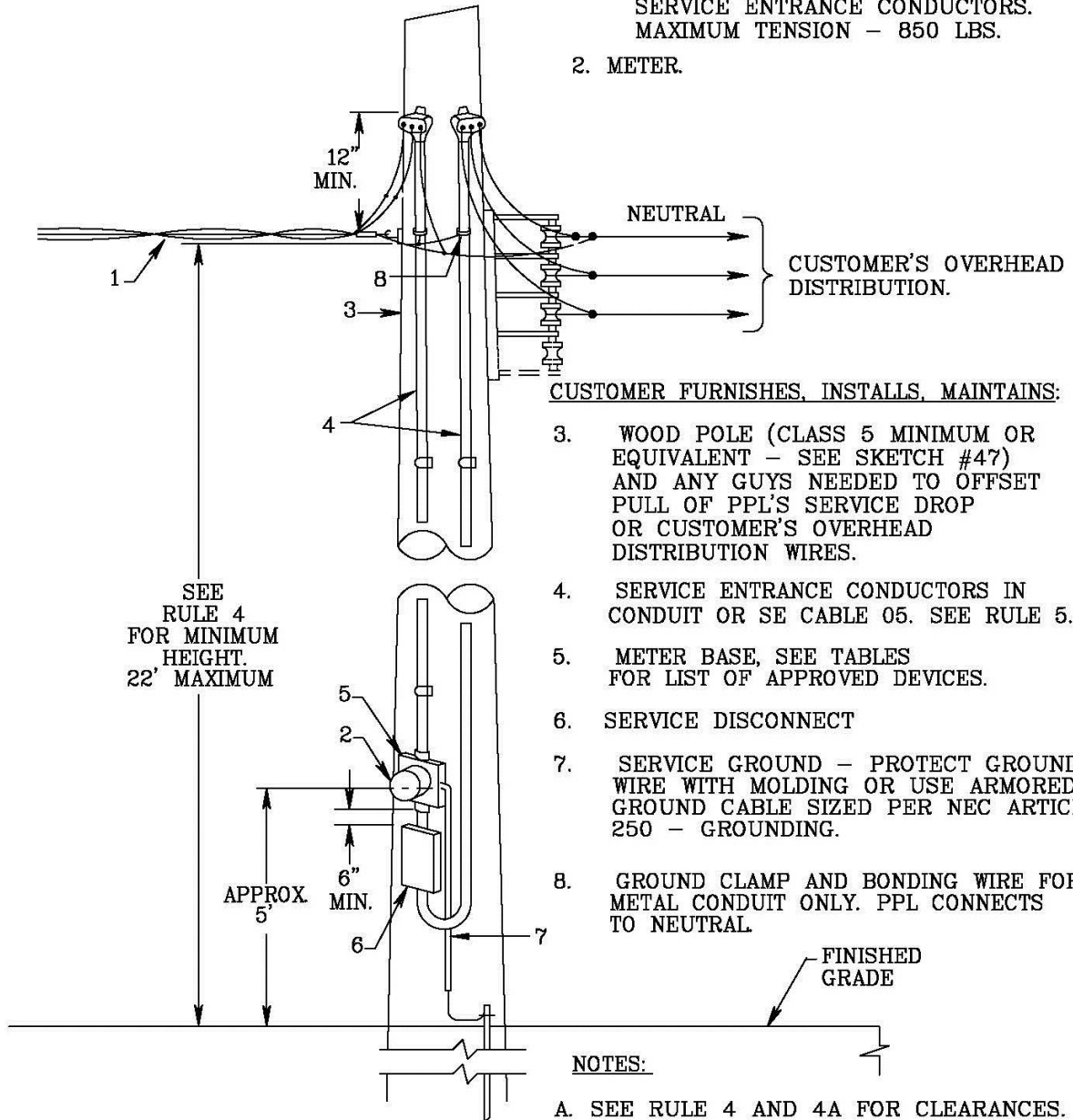
REMSI Sketches 1-25
Sketch #5
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 Custom ID: DCS 6-50
 Revision: 01
 Effective Date: 09/19/2016
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Sketch #5 Overhead secondary service drop attachment to customer-owned service and meter pole for overhead distribution

PPL FURNISHES, INSTALLS, MAINTAINS:

1. SERVICE DROP AND MAKES CONNECTION TO CUSTOMER'S SERVICE ENTRANCE CONDUCTORS. MAXIMUM TENSION - 850 LBS.
2. METER.



<p>RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS</p> <p>PPL ELECTRIC UTILITIES CORPORATION</p>	<p>Rules: 4, 4A, 5</p> <p>Date: 7/18/16 Engr: NAP</p> <p style="text-align: right;">REMSL_S005..dwg</p>
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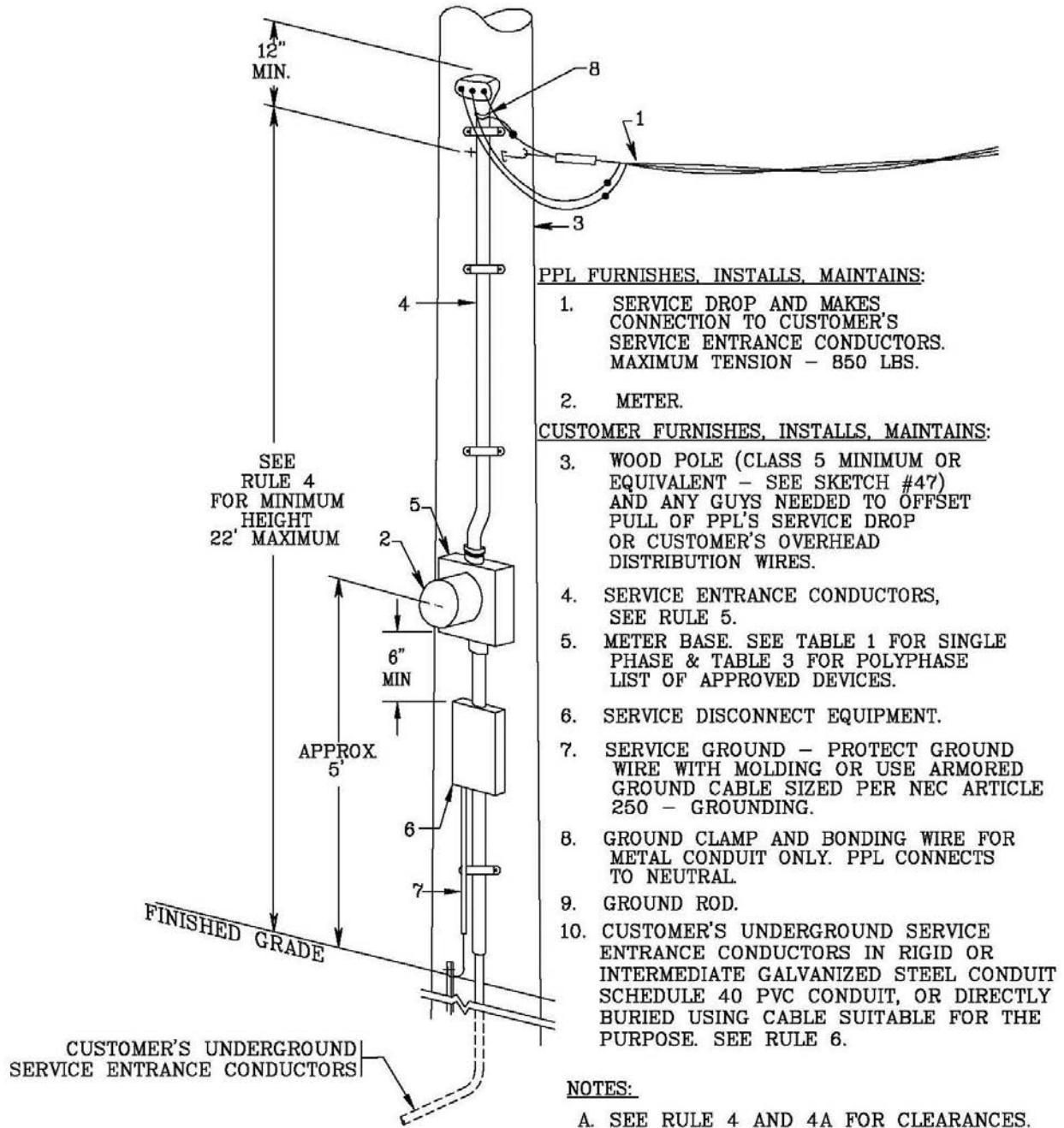


REMSI Sketches 1-25
Sketch #6
6-50

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 Custom ID: DCS 6-50
 Revision: 01
 Effective Date: 09/19/2016
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Sketch #6 Overhead secondary service drop attachment to customer-owned service and meter pole to underground service entrance

Single phase or Three Phase, 240 volt maximum, self-contained meter, 600 ampere maximum



<p>RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS PPL ELECTRIC UTILITIES CORPORATION</p>	<p>Rules: 4, 4A, 5, 6 REMSI_S006_R2.dwg Date: 7/18/16 Engr: NAP</p>
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SKETCH 7	TYPICAL ARRANGEMENT OF METER ON BUILDING	SKETCH 7
Sheet 1		Sheet 1

NOT TO SCALE

<u>VOLTAGE:</u> 1 Phase, 3 Wire, 120/240V 1 Phase, 3 Wire, 120/208V*	<u>SERVICE TYPE:</u> Underground
<u>AMPERAGE:</u> *400 A Maximum 600 A Maximum	<u>METER BASE:</u> Outdoor

CUSTOMER FURNISHES, INSTALLS, MAINTAINS

1. UNDERGROUND METER BASE APPROVED BY PPL EU SEE TABLE 2 - 1 PHASE.
2. SERVICE ENTRANCE CABLE OR CONDUCTORS IN CONDUIT. SEE RULE 5.
3. SLIP RISER AND CONDUIT DOWN TO 90° ELBOW SEE SKETCH #7A FOR MORE DETAILS.
4. 90° ELBOW, 36-INCH RADIUS (GRAY SCHEDULE 40 PVC OR GALVANIZED STEEL) (CONSULT PPL EU TECHNICIAN FOR MATERIAL).

CUSTOMER FURNISHES AND INSTALLS, PPL EU MAINTAINS.

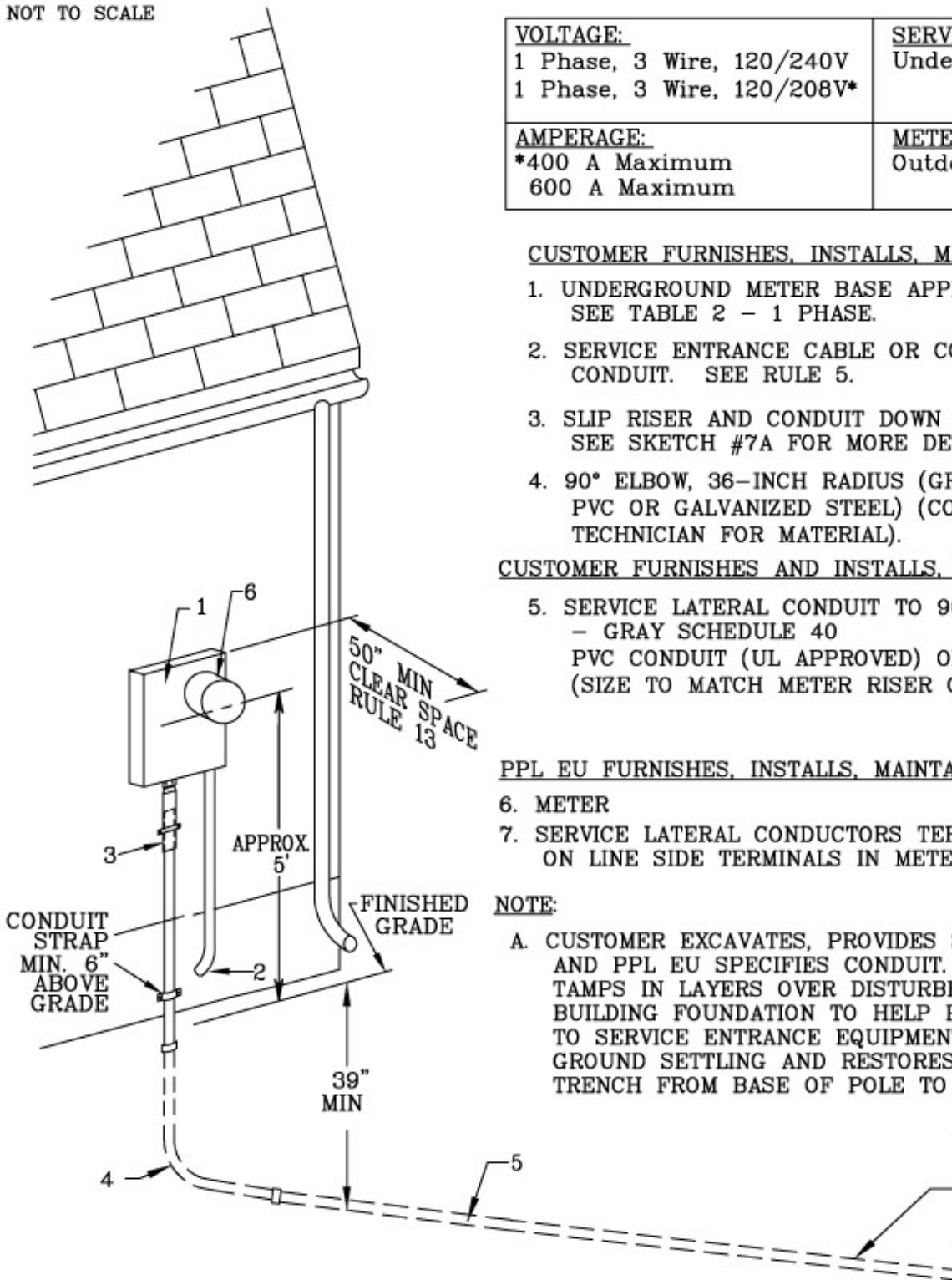
5. SERVICE LATERAL CONDUIT TO 90° ELBOW - GRAY SCHEDULE 40 PVC CONDUIT (UL APPROVED) OR SUPERCORFLO (SIZE TO MATCH METER RISER CONDUIT).

PPL EU FURNISHES, INSTALLS, MAINTAINS:

6. METER
7. SERVICE LATERAL CONDUCTORS TERMINATING ON LINE SIDE TERMINALS IN METER BASE.

NOTE:

- A. CUSTOMER EXCAVATES, PROVIDES SELECT BACKFILL AND PPL EU SPECIFIES CONDUIT. BACKFILLS, TAMPs IN LAYERS OVER DISTURBED EARTH NEAR BUILDING FOUNDATION TO HELP PREVENT DAMAGE TO SERVICE ENTRANCE EQUIPMENT DUE TO GROUND SETTLING AND RESTORES SURFACE OF TRENCH FROM BASE OF POLE TO BUILDING.

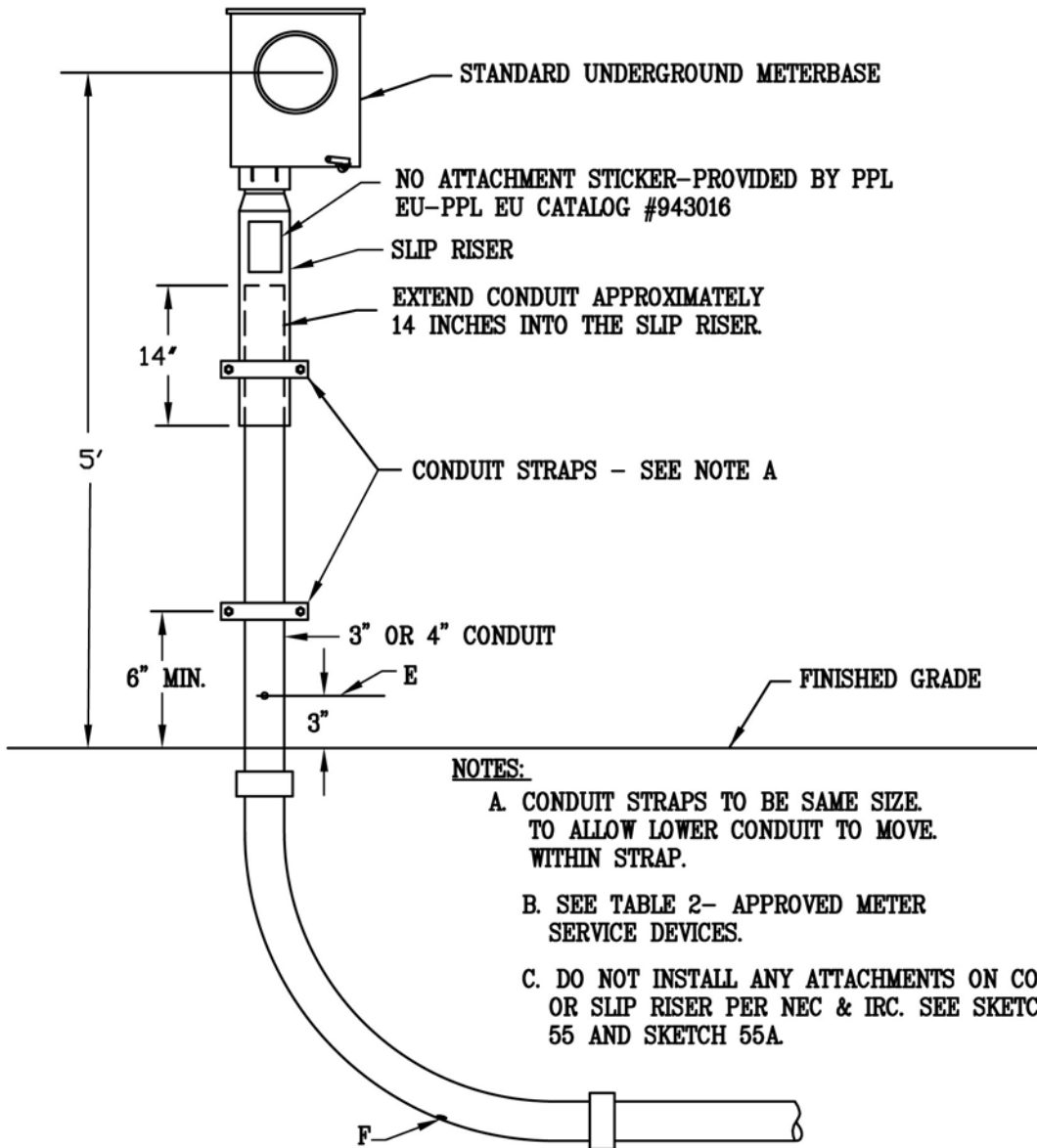


SERVED FROM OVERHEAD OR PAD-MOUNT TRANSFORMER

*REF: CRS 6-19-133 & CRS 6-19-134 & SKETCH #7A

RULES: 5, 6, 10, 11B, 13, & 14 AC

REV	DATE	APPROVED			RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS
		Drafter	Sponsor	Review	
0	2-2015	JJA	MP		PPL ELECTRIC UTILITES CORPORATION



NOTES:

- A. CONDUIT STRAPS TO BE SAME SIZE TO ALLOW LOWER CONDUIT TO MOVE WITHIN STRAP.
- B. SEE TABLE 2- APPROVED METER SERVICE DEVICES.
- C. DO NOT INSTALL ANY ATTACHMENTS ON CONDUIT OR SLIP RISER PER NEC & IRC. SEE SKETCH 55 AND SKETCH 55A.

- D. 50" MINIMUM CLEAR SPACE IN FRONT OF METER BASE. SEE RULE 13, SKETCH 55 AND SKETCH 55A (SIDE VIEW).
- E. DRILL TWO (2) 1/4" HOLES IN BACK OF CONDUIT 3" ABOVE GROUND PRIOR TO PULLING CABLE.
- F. DRILL TWO (2) 1/4" HOLES IN BOTTOMSIDE OF ELBOW PRIOR TO PULLING CABLE.
- G. SEE APPROVED SLIP RISER TABLE.

REFERENCE: CRS 6-19-133, CRS 6-19-134, SKETCH 55 & SKETCH 55A

Typical Arrangement of Outdoor Meter on Building

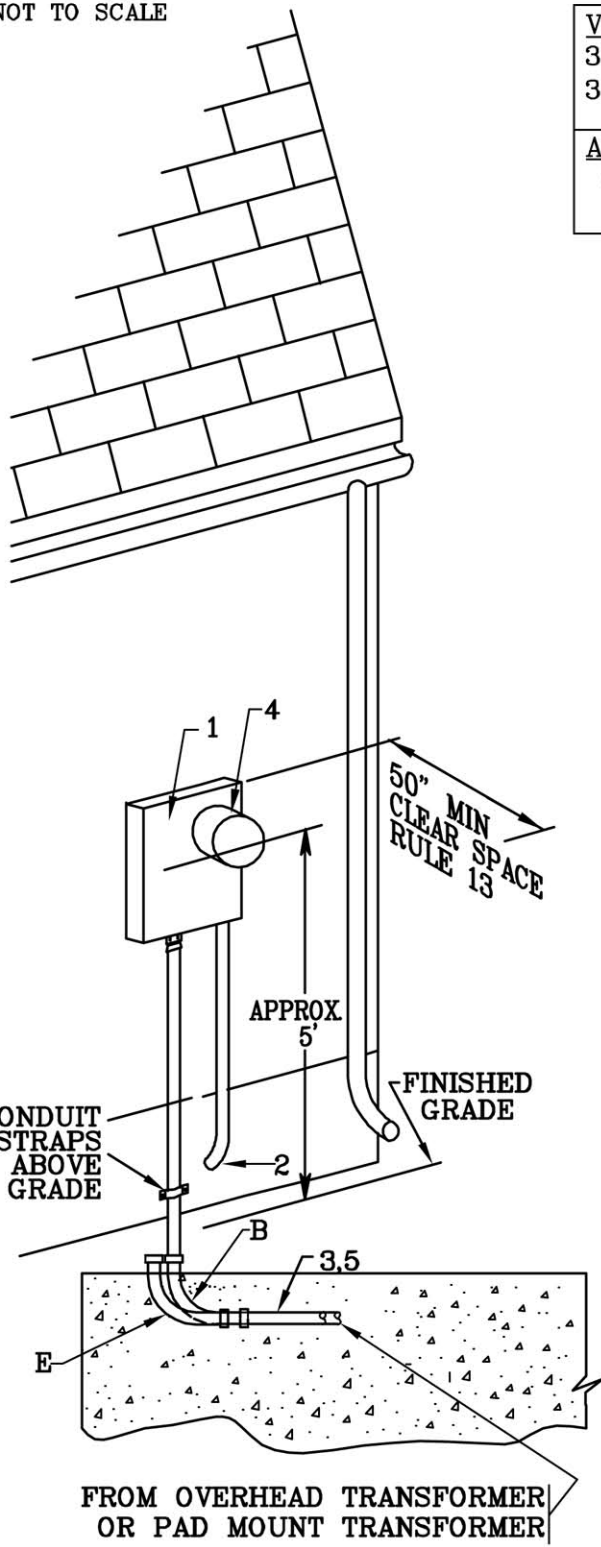
SKETCH #7B

SKETCH #7B

SHEET 1 of 1

SHEET 1 of 1

NOT TO SCALE



VOLTAGE: 3 Phase, 4 Wire, 120/208V 3 Phase, 4 Wire, 120/240V	SERVICE TYPE: Underground
AMPERAGE: 600 A Maximum	METER BASE LOCATION: Outdoor

CUSTOMER FURNISHES, INSTALLS, MAINTAINS:

1. UNDERGROUND METER BASE APPROVED BY PPL EU SEE TABLE 4 - 3 PHASE
2. SERVICE ENTRANCE CABLE OR CONDUCTORS IN CONDUIT. SEE RULE 5.
3. CUSTOMER INSTALLED CONDUIT SYSTEM CAN BE EITHER STEEL, OR GRAY SCHEDULE 40 PVC (SEE NOTE B) ENCASED IN CONCRETE FOR THE FULL LENGTH OF THE RUN, OR DIRECTLY BUIRED STEEL.

PPL EU FURNISHES, INSTALLS, MAINTAINS:

4. METER CL200(200A), CL320(400A), CL480(600A)
5. SERVICE LATERAL CONDUCTORS INSTALLED INSIDE OF CUSTOMER SUPPLIED CONDUIT TERMINATING IN METER BASE.

NOTES:

- A. PPL EU WILL SPECIFY CONDUIT SIZE FROM TRANSFORMER TO METER BASE AND PROVIDE FAULT CURRENT (ARC).
- B. ELBOW MUST BE STEEL TO PREVENT PVC TO STEEL COUPLING FROM BREAKING, ENCASE LOWER HALF OF THE STEEL ELBOW IN CONCRETE.
- C. IF DIRECT BURIED STEEL, CUSTOMER EXCAVATES, PROVIDES SELECT BACKFILL, BACKFILLS, TAMPs IN LAYERS OVER DISTURBED EARTH NEAR BUILDING FOUNDATION TO HELP PREVENT DAMAGE TO SERVICE ENTRANCE EQUIPMENT DUE TO GROUND SETTLING AND RESTORE SURFACE OF TRENCH FROM BASE OF POLE TO BUILDING.
- D. ALL EQUIPMENT MUST BE SECURELY MOUNTED TO 2" NOMINAL LUMBER OR MASONRY CONSTRUCTION.
- E. SPARE CONDUIT, MEETING REQUIREMENTS IN ITEM 3 ABOVE REQUIRED

*REFERENCE CRS 6-19-133 & CRS 6-19-134

RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS

PPL ELECTRIC UTILITIES CORPORATION

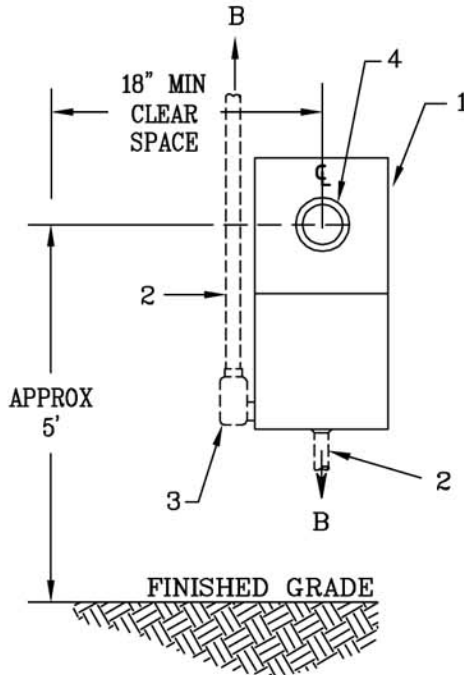
Rules: 5, 6, 10, 11B, 13, 14 REMSL_S007B.dwg

Date: 3/18/11 **Engr:** MDB

NOT TO SCALE

METER PANEL INSTALLATION

INDOOR INSTALLATION REQUIRES PRIOR APPROVAL FROM METERING SUPPORT



FURNISHED BY PPL EU AND INSTALLED BY CUSTOMER:

1. METER PANEL – LOCATION DESIGNATED BY PPL EU – MUST BE SECURELY MOUNTED TO 2” NOMINAL LUMBER OR MASONRY FINISH. DO NOT ATTACH PANEL TO THE SWITCH GEAR.

CUSTOMER FURNISHES, INSTALLS, AND MAINTAINS:

2. FOR INSTALLATION 50 FEET AND LESS, 1-1/4 INCH MINIMUM THREADED GALVANIZED OR INTERMEDIATE RIGID STEEL OR GRAY SCHEDULE 40 PVC CONDUIT AND FITTINGS BETWEEN INSTRUMENT TRANSFORMERS AND METER PANEL.

OR

FOR INSTALLATION OVER 50 FEET, APPROVAL BY METERING SUPPORT IS REQUIRED, 1½ INCH MINIMUM THREADED GALVANIZED OR INTERMEDIATE RIGID STEEL OR GRAY SCHEDULE 40 PVC CONDUIT (WITH NO MORE THEN THREE 90 DEGREE BENDS) AND FITTINGS BETWEEN INSTRUMENT TRANSFORMERS AND METER PANEL.

3. CONDUIT BODY/CONDULET.

PPL EU FURNISHES AND INSTALLS:

4. METER
5. WIRING BETWEEN INSTRUMENT TRANSFORMERS AND THE METER PANEL. SEE RULE 15.

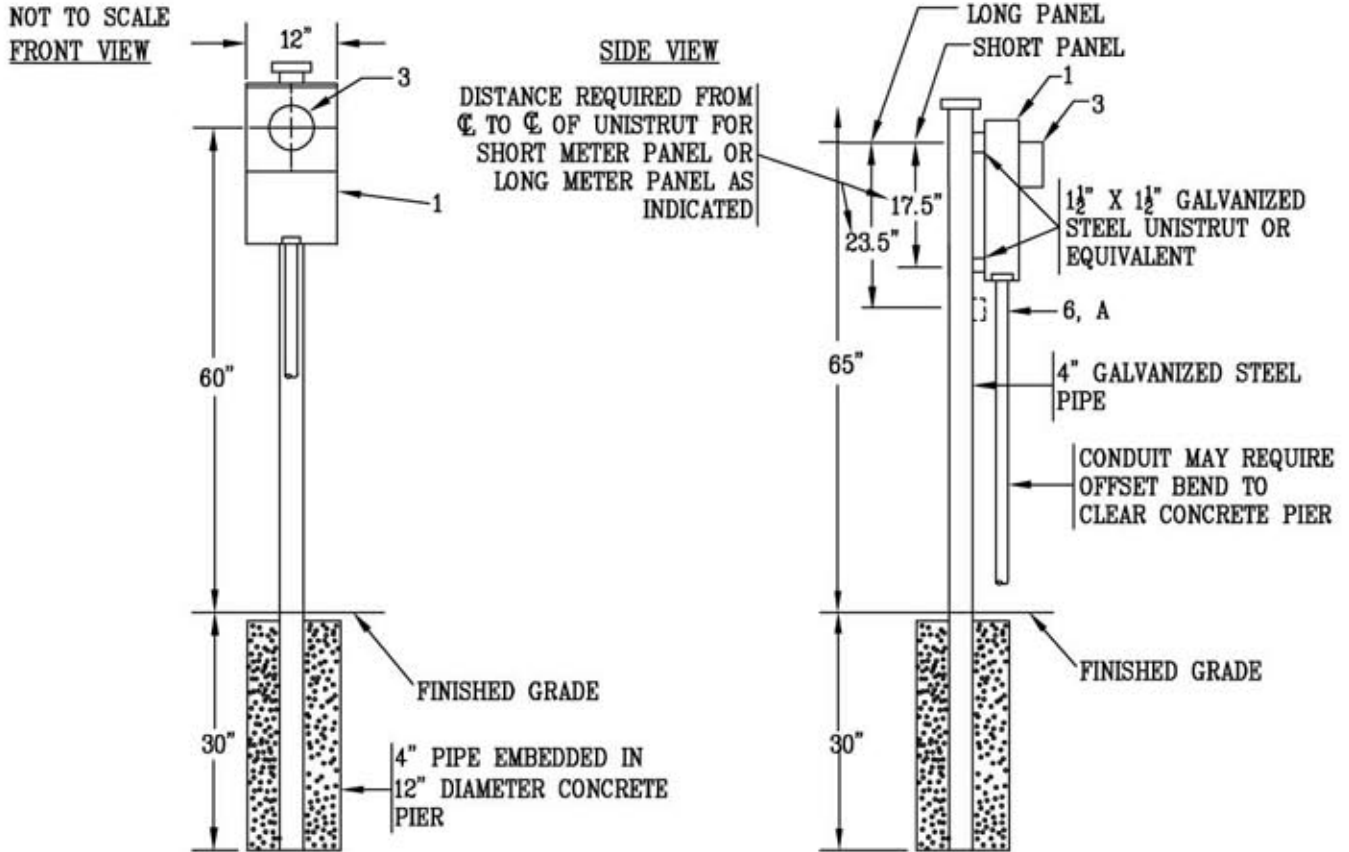
NOTES:

- A. PROVIDE WALL SPACE 40 INCHES BY 40 INCHES FOR METER PANEL. ALLOW CLEAR SPACE, 18 INCHES MINIMUM, TO LEFT OF METER. SEE RULE 13 FOR OTHER CLEARANCES.
- B. CONDUIT ENTRANCE POINT, FROM INSTRUMENT TRANSFORMERS, AS APPROPRIATE.

<p>RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS PPL ELECTRIC UTILITIES CORPORATION</p>	<p>Rules: 13, 15, 18 Date: <u>8/12/11</u> Engr: <u>MDB</u></p>	<p>REMSL_S008C.dwg</p>
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Typical Meter Panel Mounting Arrangement
For Use With Instrument Transformer
Metering

SINGLE METER PANEL ARRANGEMENT



PPL EU FURNISHES, MAINTAINS, CUSTOMER INSTALLS:

- 1. METER PANEL - 12 INCH CLEARANCE REQUIRED ON BOTH SIDES

PPL EU FURNISHES, INSTALLS, MAINTAINS:

- 2. CELL PACK, EXTERNAL ANTENNA (IF REQUIRED), AND MOUNTING
- 3. METER
- 4. RELAYS

CUSTOMER FURNISHES, INSTALLS, MAINTAINS:

- 5. STRUCTURE (UNISTRUT, POLES, CONCRETE, ETC.)
- 6. CONDUIT - SEE NOTE A FOR MORE DETAILS

NOTES:

- A. FOR METERING CONDUIT RUN 50 FEET OR LESS - 1 1/4" MINIMUM GALVANIZED RIGID OR INTERMEDIATE STEEL OR GRAY SCHEDULE 40 PVC CONDUIT AND FITTINGS BETWEEN METER PANEL AND INSTRUMENT TRANSFORMERS.
- B. FOR METERING CONDUIT RUN OVER 50 FEET APPROVAL FROM METERING SUPPORT REQUIRED. SEE RULE 15H FOR MORE DETAIL.
- C. SEE BARRIER SKETCH #20 AS REQUIRED BY PPL EU.

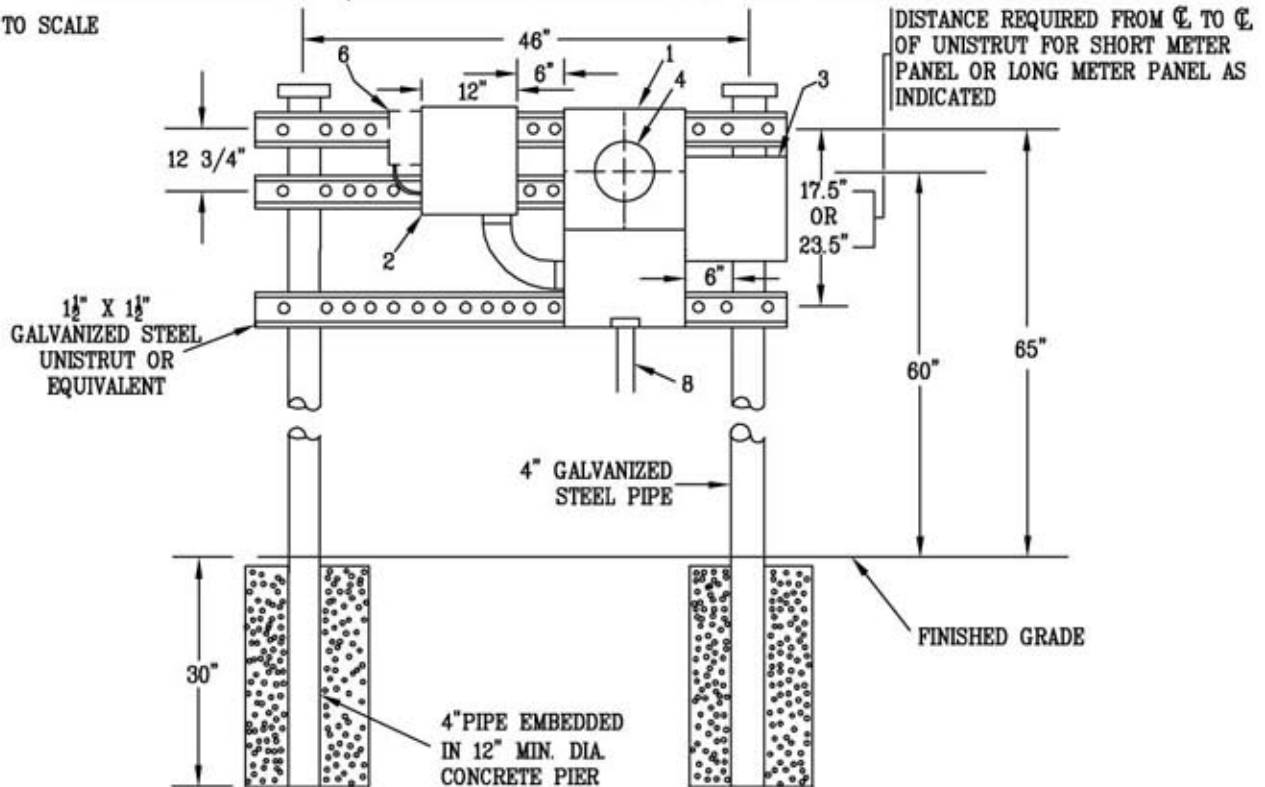
* REFERENCE SKETCH #8C, SKETCH #20

<p>RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS PPL ELECTRIC UTILITIES CORPORATION</p>	<p>Rules: 13, 15, 18</p> <p>Date: 8/12/11 Engr: MDB</p> <p style="text-align: right; font-size: small;">REMSI_S008DP1.dwg</p>
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Typical Meter Panel Mounting Arrangement
For Use With Instrument Transformer
Metering

SINGLE METER PANEL W/AUXILIARY BOX & DUAL DEMAND PULSE OUTPUT ARRANGEMENT

NOT TO SCALE



PPL EU FURNISHES, MAINTAINS, CUSTOMER INSTALLS:

1. METER PANEL
2. AUXILIARY BOX

PPL EU FURNISHES, INSTALLS, MAINTAINS:

3. CELL PACK, EXTERNAL ANTENNA (IF REQUIRED), & MOUNTING
4. METER
5. RELAYS
6. DEMAND PULSE BOX (OPTIONAL)

CUSTOMER FURNISHES, INSTALLS, MAINTAINS:

7. STRUCTURE (UNISTRUT, POLES, CONCRETE, ETC.)
8. CONDUIT

NOTES:

- A. FOR METERING CONDUIT RUN 50 FEET OR LESS - 1 1/2" MINIMUM GALVANIZED RIGID OR INTERMEDIATE STEEL OR GRAY SCHEDULE 40 PVC CONDUIT AND FITTINGS BETWEEN METER PANEL AND INSTRUMENT TRANSFORMERS.
- B. FOR METERING CONDUIT RUNS OVER 50 FEET - APPROVAL FROM METERING SUPPORT REQUIRED. SEE RULE 15H FOR MORE DETAIL.
- C. SEE BARRIER SKETCH #20 AS REQUIRED BY PPL EU.

* REFERENCE: SKETCH #8C, SKETCH #20

RULES FOR ELECTRIC METER AND SERVICE
INSTALLATIONS
**PPL ELECTRIC UTILITIES
CORPORATION**

Rules: 13, 15, 18

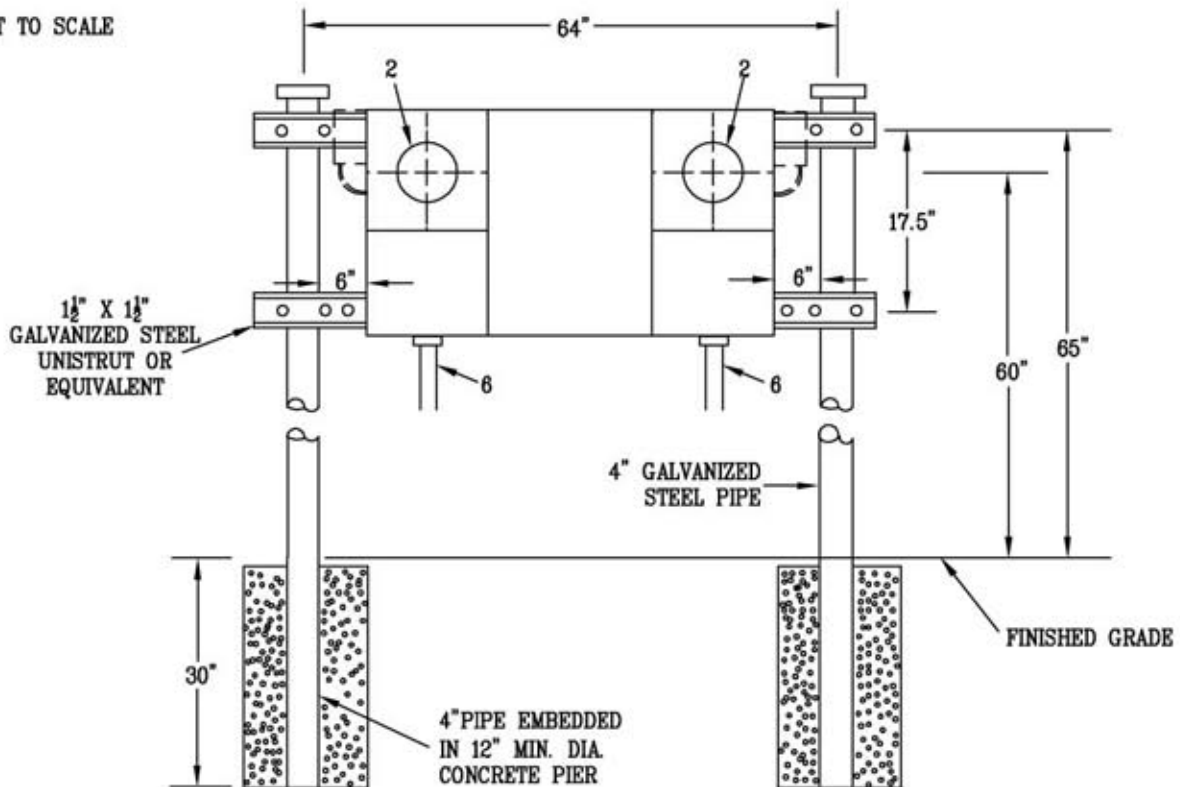
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Date: 8/12/11 **Engr:** MDB

Typical Meter Panel Mounting Arrangement
For Use With Instrument Transformer
Metering

DUAL METER PANEL/AUXILIARY BOX COMBO (2 METERS) ARRANGEMENT

NOT TO SCALE



PPL EU FURNISHES, MAINTAINS, CUSTOMER INSTALLS:

1. DUAL METER PANEL/AUXILIARY BOX COMBO

PPL EU FURNISHES, INSTALLS, MAINTAINS:

2. METER
3. RELAYS
4. DEMAND PULSE BOX (OPTIONAL)

CUSTOMER FURNISHES, INSTALLS, MAINTAINS:

5. STRUCTURE (UNISTRUT, POLES, CONCRETE, ETC.)
6. CONDUIT

NOTES:

- A. FOR METERING CONDUIT RUN 50 FEET OR LESS - 1 1/2" MINIMUM GALVANIZED RIGID OR INTERMEDIATE STEEL OR GRAY SCHEDULE 40 PVC CONDUIT AND FITTINGS BETWEEN METER PANEL AND INSTRUMENT TRANSFORMERS.
- B. FOR METERING CONDUIT RUNS OVER 50 FEET - APPROVAL FROM METERING SUPPORT REQUIRED. SEE RULE 15H FOR MORE DETAIL.
- C. SEE BARRIER SKETCH #20 AS REQUIRED BY PPL EU.

* REFERENCE: SKETCH #8C, SKETCH #20

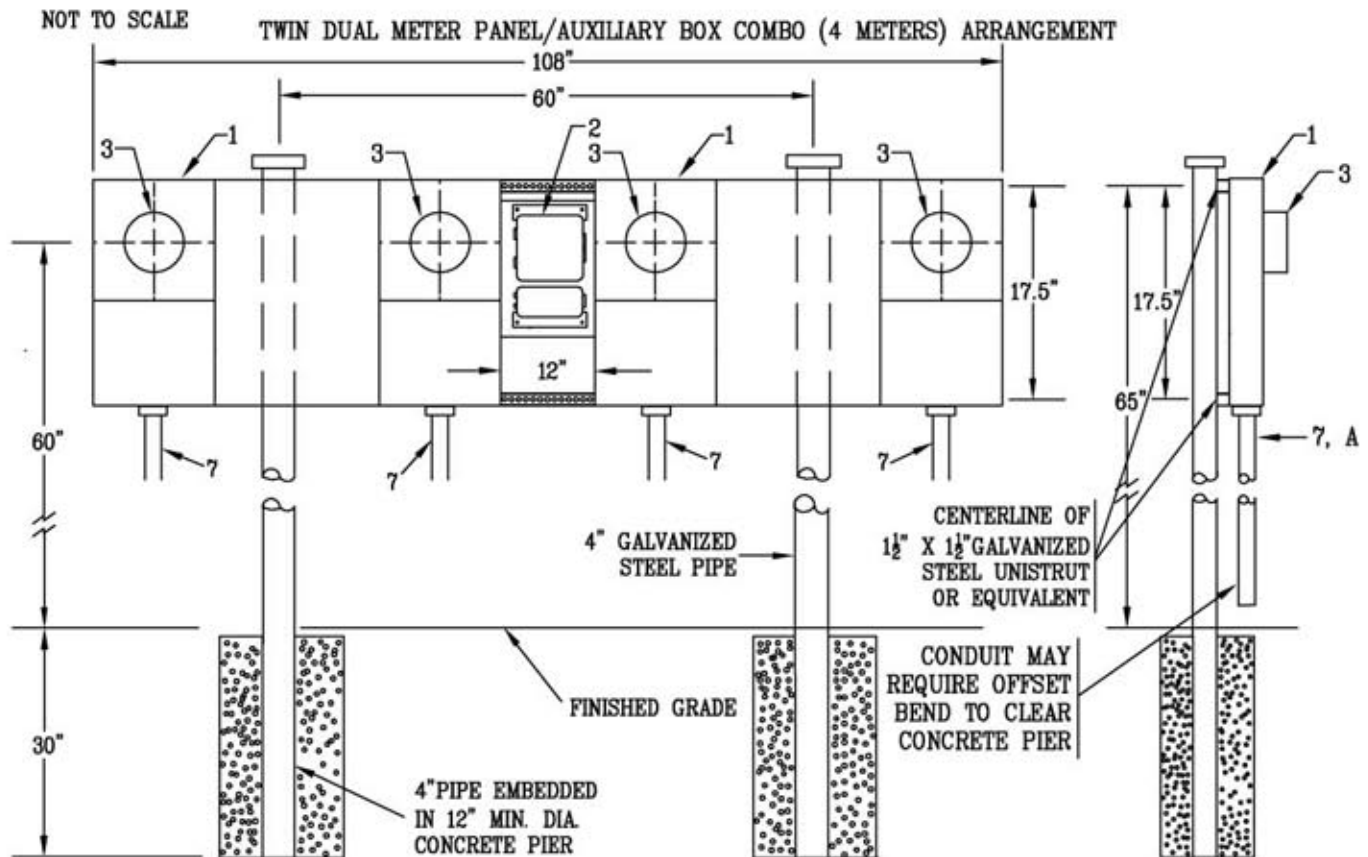
RULES FOR ELECTRIC METER AND SERVICE
INSTALLATIONS
**PPL ELECTRIC UTILITIES
CORPORATION**

Rules: 13, 15, 18

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Date: 8/12/11 **Engr:** MDB

Typical Meter Panel Mounting Arrangement
For Use With Instrument Transformer
Metering



PPL EU FURNISHES, MAINTAINS, CUSTOMER INSTALLS:

1. DUAL METER PANEL/AUXILIARY BOX COMBO

PPL EU FURNISHES, INSTALLS, MAINTAINS:

2. CELL PACK, EXTERNAL ANTENNA (IF REQUIRED)
3. METER
4. ANY RELAYS REQUIRED
5. DEMAND PULSE BOX (OPTIONAL)

CUSTOMER FURNISHES, INSTALLS, MAINTAINS:

6. STRUCTURE (UNISTRUT, POLES, CONCRETE, ETC.)
7. CONDUIT

NOTES:

- A. FOR METERING CONDUIT RUN 50 FEET OR LESS - 1½" MINIMUM GALVANIZED RIGID OR INTERMEDIATE STEEL OR GRAY SCHEDULE 40 PVC CONDUIT AND FITTINGS BETWEEN METER PANEL AND INSTRUMENT TRANSFORMERS.
- B. FOR METERING CONDUIT RUNS OVER 50 FEET - APPROVAL FROM METERING SUPPORT REQUIRED. SEE RULE 15H FOR MORE DETAIL.
- C. SEE BARRIER SKETCH #20 AS REQUIRED BY PPL EU.

* REFERENCE: SKETCH #8C, SKETCH #20

RULES FOR ELECTRIC METER AND SERVICE
INSTALLATIONS
**PPL ELECTRIC UTILITIES
CORPORATION**

Rules: 13, 15, 18

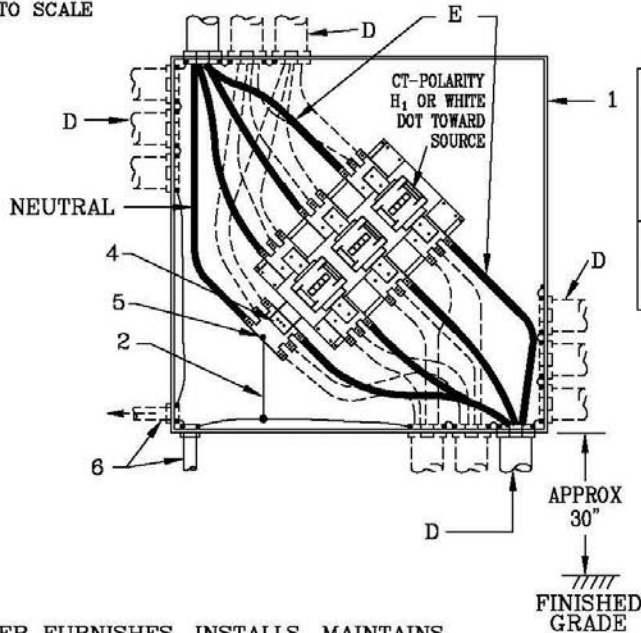
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Date: 8/12/11 **Engr:** MDB

Sketch #14 Typical arrangement of instrument transformers and mounting for installation in instrument transformer cabinet

3 phase, 4 wire, 208Y/120 volts or 3 phase, 4 wire, Delta 240/120 volts, 1200 ampere maximum

NOT TO SCALE



VOLTAGE: 3 Phase, 4 Wire Wye 120/208V 3 Phase, 4 Wire Delta 120/240V	SERVICE TYPE: Overhead Underground
AMPERAGE: 1200 A Maximum	CABINET LOCATION: Indoor Outdoor

CUSTOMER FURNISHES, INSTALLS, MAINTAINS

1. SEALABLE METAL CABINET MINIMUM SIZE 48 INCHES BY 48 INCHES BY 12 INCHES (SEE TABLES 3 AND 4 – APPROVED INSTRUMENT TRANSFORMER CABINET) AND INSTALLS INSTRUMENT TRANSFORMERS AND MOUNTING FURNISHED BY PPL EU. MOUNT ON 45° ANGLE TO ELIMINATE SHARP BENDS IN CABLES. GROUP CONDUITS IN CORNER OF CABINET.
2. BONDING JUMPER PER NEC ARTICLE 250 – GROUNDING. BONDING JUMPER SIZE 1/0 COPPER.
3. GROUNDING BUSHING SHALL BE ATTACHED TO ALL METAL CONDUITS. THE CONDUITS SHALL BE BONDED TOGETHER, TO THE CABINET AND TO THE NEUTRAL BUS.

PPL EU FURNISHES, INSTALLS, MAINTAINS:

4. TERMINAL FOR METERING NEUTRALS
5. STUD FOR BONDING JUMPER

CUSTOMER FURNISHES, INSTALLS, PPL EU MAINTAINS:

6. CONDUIT TO METER PANEL SEE SKETCH #8C AND RULE 15

PPL EU FURNISHES, MAINTAINS, CUSTOMER INSTALLS:

7. CURRENT TRANSFORMERS (CTS) CT MOUNTING BRIDGE.

NOTES:

- A. MAXIMUM AMPACITY OF EACH CT MOUNTING CONNECTOR IS 400 AMPERES. EACH CONNECTOR CAN ACCOMODATE ONE COPPER OR ALUMINUM CONDUCTOR WIRE RANGE FROM 300 TO 750 KCMIL.
- B. MAXIMUM TIGHTENING TORQUE ON THE CT MOUNTING WIRE CONNECTION 450 INCH-POUNDS.
- C. REAR ENTRY OF CT CABINETS IS NOT PERMITTED FOR PPL EU CABLES.
- D. CONDUITS SHALL HAVE 36 INCH MINIMUM BENDING RADIUS
- E. THIS CONDUCTOR OF 3 PHASE, 4 WIRE, DELTA CONNECTED SERVICE SHALL HAVE THE HIGHER VOLTAGE TO GROUND AND BE IDENTIFIED SEE RULE 5 (G).

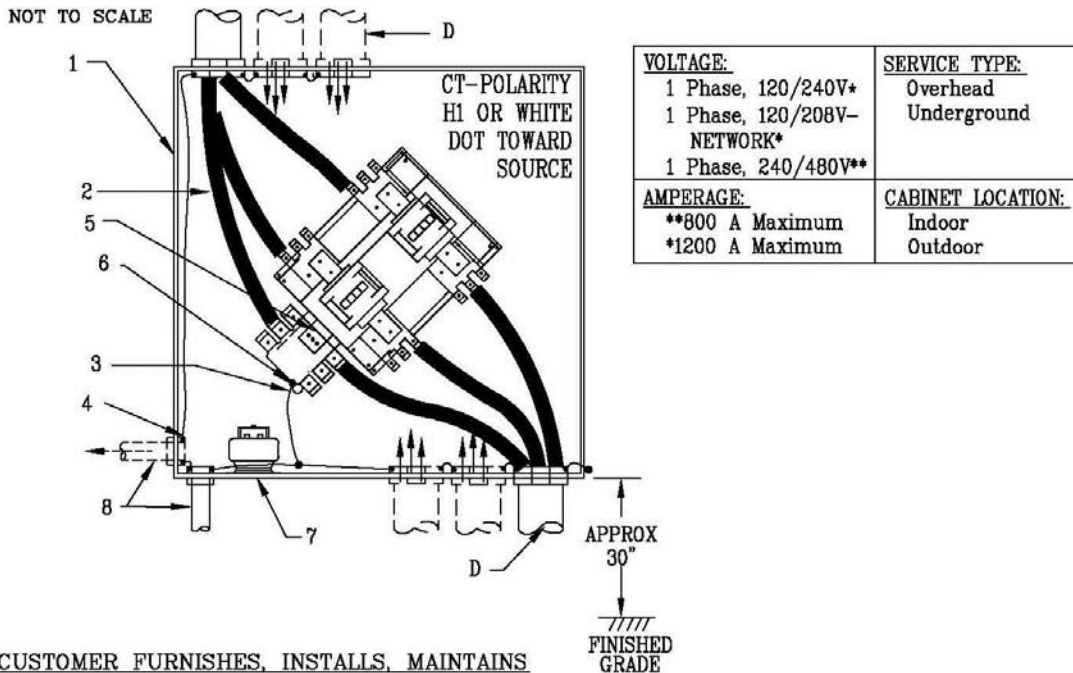
*REFERENCE SKETCH #8C

RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS PPL ELECTRIC UTILITIES CORPORATION	Rules: 5, 13, 15 Date: 7/18/16 Engr: NAP
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Sketch #14a Typical arrangement of instrument transformers and mounting for installation in instrument transformer cabinet

Single phase 120/240 volt or 240/208 volt, Network – 800 to 1200 ampere, Single phase 240/480 volt 600 to 800 ampere



CUSTOMER FURNISHES, INSTALLS, MAINTAINS

1. SEALABLE METAL CABINET MINIMUM SIZE 48 INCHES BY 48 INCHES BY 12 INCHES (SEE TABLES 3 AND 4 – APPROVED INSTRUMENT TRANSFORMER CABINET) AND INSTALLS INSTRUMENT TRANSFORMERS AND MOUNTING FURNISHED BY PPL EU. MOUNT ON 45° ANGLE TO ELIMINATE SHARP BENDS IN CABLES. GROUP CONDUITS IN CORNER OF CABINET.
2. NEUTRAL
3. BONDING JUMPER PER NEC ARTICLE 250 – GROUNDING. BONDING JUMPER SIZE 1/0 COPPER.
4. GROUNDING BUSHING SHALL BE ATTACHED TO ALL METAL CONDUITS. THE CONDUITS SHALL BE BONDED TOGETHER, TO THE CABINET AND TO THE NEUTRAL BUS.

PPL EU FURNISHES INSTALLS, MAINTAINS:

5. TERMINAL FOR METERING NEUTRALS
6. STUD FOR BONDING JUMPER
7. VOLTAGE TRANSFORMERS FOR 240/480V SERVICE

CUSTOMER FURNISHES, INSTALLS, PPL EU MAINTAINS:

8. CONDUIT TO METER PANEL SEE SKETCH #8C AND RULE 15

NOTES:

- A. MAXIMUM AMPACITY OF EACH CT MOUNTING CONNECTOR IS 400 AMPERES. EACH CONNECTOR CAN ACCOMODATE ONE COPPER OR ALUMINUM CONDUCTOR WIRE RANGE FROM 300 TO 750 KCMIL.
- B. MAXIMUM TIGHTENING TORQUE ON THE CT MOUNTING WIRE CONNECTION 450 INCH-POUNDS.
- C. REAR ENTRY OF CT CABINETS IS NOT PERMITTED FOR PPL EU CABLES.
- D. CONDUITS SHALL HAVE 36 INCH MINIMUM BENDING RADIUS

*REFERENCE SKETCH #8C
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RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS PPL ELECTRIC UTILITIES CORPORATION	Rules: 5, 13, 15 Date: 7/18/16 Engr: NAP
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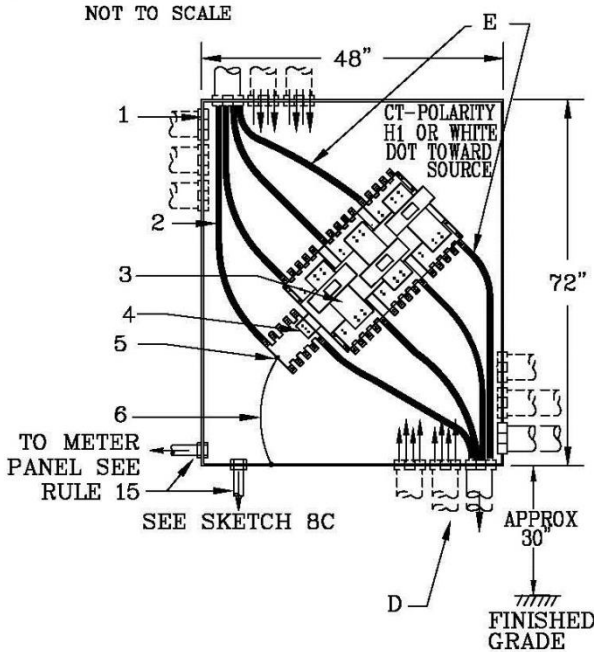


REMSI Sketches 1-25
Sketch #14b
6-50

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 Custom ID: DCS 6-50
 Revision: 01
 Effective Date: 09/19/2016
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Sketch #14b Typical arrangement of instrument transformers and mounting for installation in instrument transformer cabinet

3 phase, 4 wire, 208Y/120 volts or 3 phase, 4 wire, Delta 240/120 volts, 2000 Ampere Maximum



VOLTAGE: 3 Phase, 4 Wire Wye 120/208V 3 Phase, 4 Wire Delta 120/240V	SERVICE TYPE: Overhead Underground
AMPERAGE: 2000 A Maximum	CABINET LOCATION: Indoor Outdoor

CUSTOMER FURNISHES, INSTALLS, MAINTAINS:

1. SEALABLE METAL CABINET MINIMUM SIZE 48 INCHES BY 72 INCHES BY 12 INCHES (SEE TABLES 5 AND 6 – APPROVED INSTRUMENT TRANSFORMER CABINET) AND INSTALLS INSTRUMENT TRANSFORMERS AND MOUNTING FURNISHED BY PPL EU. MOUNT ON 45° ANGLE TO ELIMINATE SHARP BENDS IN CABLES. GROUP CONDUITS IN CORNER OF CABINET.
2. NEUTRAL
3. FILLER BARS PROVIDED BY PPL EU AND INSTALLED BY CUSTOMER.

PPL EU FURNISHES INSTALLS, MAINTAINS:

4. TERMINAL FOR METERING NEUTRALS
5. STUD FOR BONDING JUMPER

CUSTOMER FURNISHES, INSTALLS, PPL EU MAINTAINS:

6. BONDING JUMPER PER NEC ARTICLE 250–GROUNDING. ALL METALLIC CONDUITS CONDUITS MUST BE BONDED TOGETHER AND TO THE CABINET. BONDING JUMPER SIZE 1/0 COPPER.

NOTES:

- A. MAXIMUM AMPACITY OF EACH CT MOUNTING CONNECTOR IS 400 AMPERES. EACH CONNECTOR CAN ACCOMMODATE ONE COPPER OR ALUMINUM CONDUCTOR UP TO 750 KCMIL.
- B. MAXIMUM TIGHTENING TORQUE ON THE CT MOUNTING 450 INCH-POUNDS.
- C. REAR ENTRY OF CT CABINETS IS NOT PERMITTED FOR PPL EU CABLES.
- D. CONDUITS SHALL HAVE 36 INCH MINIMUM BENDING RADIUS.
- E. THIS CONDUCTOR OF 3 PHASE, 4 WIRE, DELTA CONNECTED SERVICE SHALL HAVE THE HIGHER VOLTAGE TO GROUND AND BE IDENTIFIED SEE RULE 5 (G).

RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS PPL ELECTRIC UTILITIES CORPORATION	Rules: 5, 13, 15 Date: <u>7/18/16</u> Engr: <u>NAP</u>	REMSL_S014B.dwg
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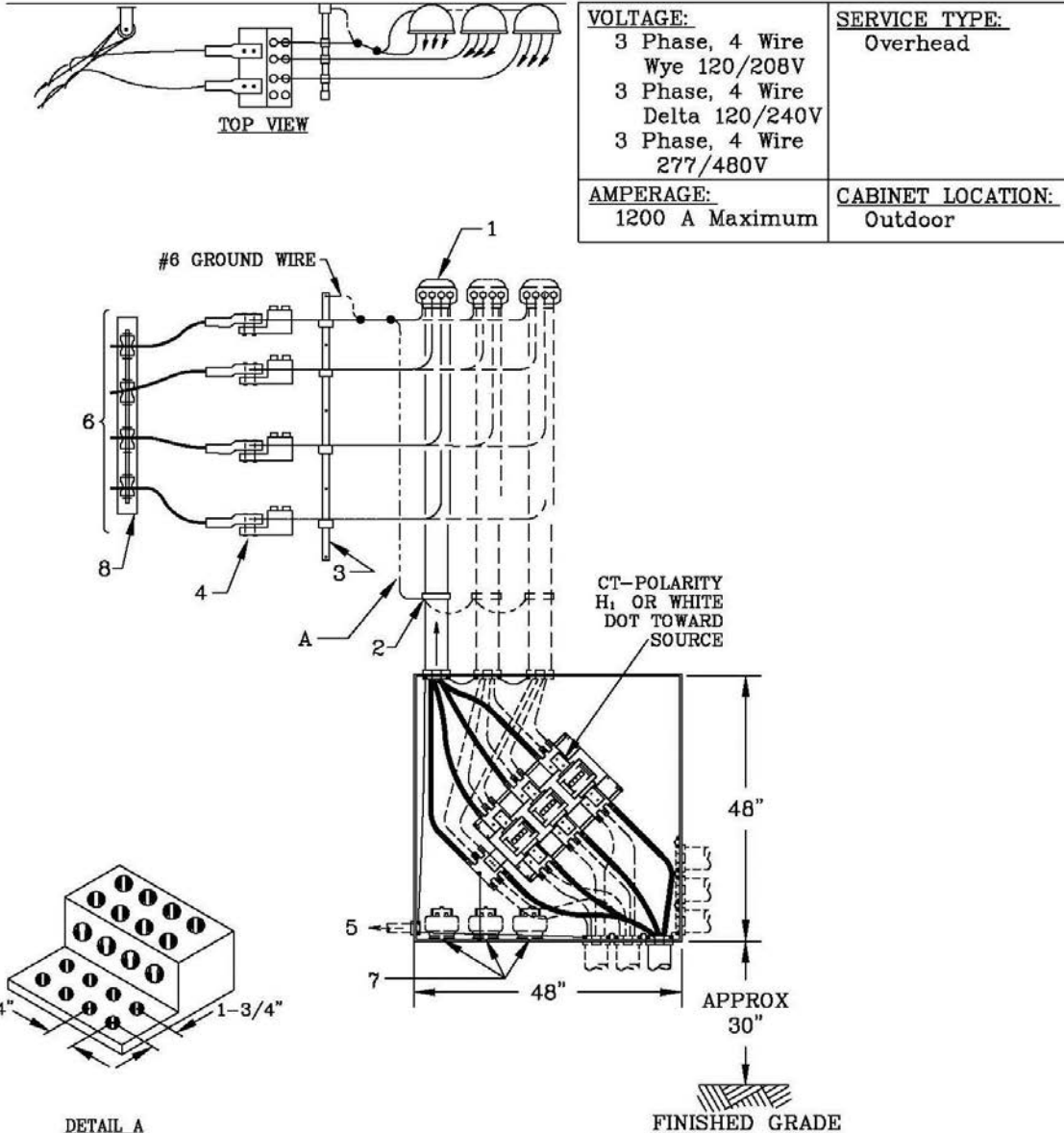
REMSI Sketches 1-25
Sketch #14c
6-50

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 Custom ID: DCS 6-50
 Revision: 01
 Effective Date: 09/19/2016
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Sketch #14c Typical arrangement of overhead instrument transformers and mounting for installation in instrument transformer cabinet

3 phase, 4 wire, 208Y/120 volts or 3 phase, 4 wire, Delta 240/120 volts or 3 phase, 4 wire, 480/277 volts
 1200 Ampere Maximum

NOT TO SCALE



*REFERENCE: SKETCH #8C, SKETCH #44, SKETCH #49

RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS PPL ELECTRIC UTILITIES CORPORATION	Rules: 5, 13, 15 Date: 7/18/16 Engr: NAP
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REMSI Sketches 1-25
Sketch #14c
6-50

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Custom ID: DCS 6-50
Revision: 01
Effective Date: 09/19/2016
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Sketch #14c Typical arrangement of overhead instrument transformers and mounting for installation in instrument transformer cabinet (cont.)

CUSTOMER FURNISHES, INSTALLS, MAINTAINS

1. SERVICE ENTRANCE SEE RULE 5.
2. GROUND CLAMPS.
3. CABLE SUPPORT RACK.
4. LUG CONNECTORS. SEE DETAIL A OR SKETCH #49 FOR ALTERNATIVE CONNECTORS.
5. CONDUIT TO METER PANEL, SEE SKETCH #8C AND RULE 15.

PPL EU FURNISHES, INSTALLS, MAINTAINS

6. SERVICE DROP AND MAKES CONNECTION TO CUSTOMER'S SERVICE ENTRANCE CONDUCTORS. MAXIMUM TENSION PER CONDUCTOR.
7. VOLTAGE TRANSFORMER FOR 480/277V SERVICE ONLY.

PPL EU FURNISHES; CUSTOMER INSTALLS, MAINTAINS

8. SERVICE RACK OR BRACKET

NOTES:

- A. PPL EU MAKES GROUNDING CONNECTION FOR METAL CONDUIT.
- B. SEE SKETCH #44 FOR INSTRUMENT TRANSFORMER CABINET NOTES.
- C. SEE SKETCH #49 FOR 'DETAIL A'.

*REFERENCE: SKETCH #8C, SKETCH #44, SKETCH #49

RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS PPL ELECTRIC UTILITIES CORPORATION	Rules: 5, 13, 15 Date: <u>7/18/16</u> Engr: <u>NAP</u>
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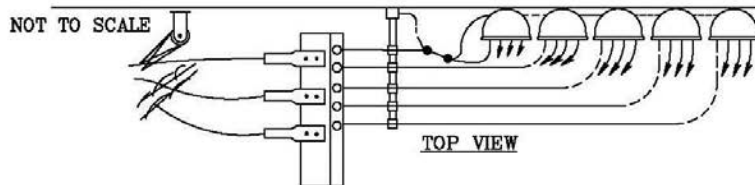


REMSI Sketches 1-25
Sketch #14d
6-50

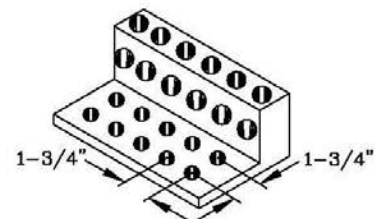
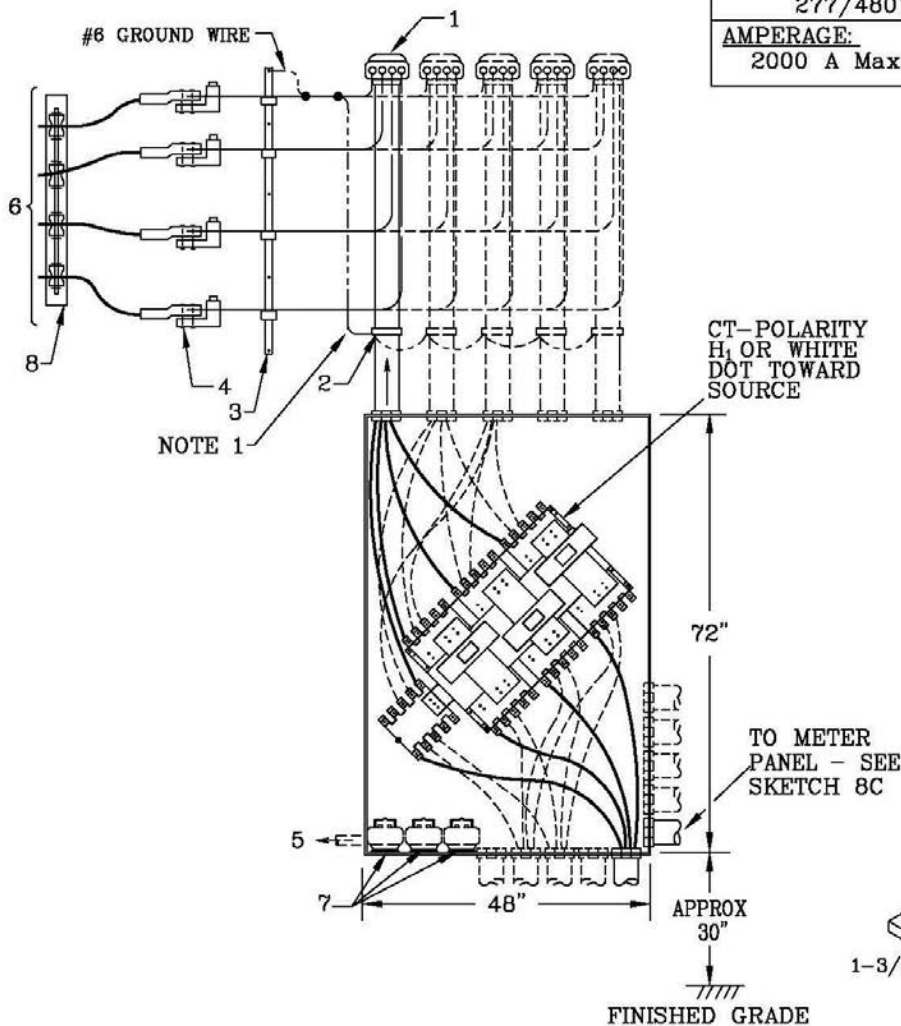
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 Revision: 01
 Effective Date: 09/19/2016
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Sketch #14d Typical arrangement of overhead instrument transformers and mounting for installation in instrument transformer cabinet

3 phase, 4 wire, 208Y/120 volts or 3 phase, 4 wire, Delta 240/120 volts or 3 phase, 4 wire, 480/277 volts
 2000 Ampere Maximum



VOLTAGE: 3 Phase, 4 Wire Wye 120/208V 3 Phase, 4 Wire Delta 120/240V 3 Phase, 4 Wire 277/480V	SERVICE TYPE: Overhead
AMPERAGE: 2000 A Maximum	CABINET LOCATION: Outdoor



RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS PPL ELECTRIC UTILITIES CORPORATION	Rules: 5, 13, 15
	Date: 7/18/16 Engr: NAP

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REMSI Sketches 1-25
Sketch #14d
6-50

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Revision: 01
Effective Date: 09/19/2016
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Sketch #14d Typical arrangement of overhead instrument transformers and mounting for installation in instrument transformer cabinet (cont.)

CUSTOMER FURNISHES, INSTALLS, MAINTAINS

1. SERVICE ENTRANCE, SEE RULE 5.
2. GROUND CLAMPS.
3. CABLE SUPPORT RACK.
4. LUG CONNECTORS. SEE DETAIL A OR SKETCH #49 FOR ALTERNATIVE CONNECTORS.
5. CONDUIT TO METER PANEL, SEE SKETCH #8C AND RULE 15.

PPL EU FURNISHES, INSTALLS, MAINTAINS

6. SERVICE DROP AND MAKES CONNECTION TO CUSTOMER'S SERVICE ENTRANCE CONDUCTORS. MAXIMUM TENSION PER CONDUCTOR.
7. VOLTAGE TRANSFORMER FOR 480/277V SERVICE ONLY.

PPL EU FURNISHES; CUSTOMER INSTALLS, MAINTAINS

8. SERVICE RACK OR BRACKET

NOTES:

- A. PPL EU MAKES GROUNDING CONNECTION FOR METAL CONDUIT.
- B. SEE SKETCH #44 FOR INSTRUMENT TRANSFORMER CABINET NOTES.
- C. SEE SKETCH #49 FOR 'DETAIL A'.

*REFERENCE: SKETCH #8C, SKETCH #44, SKETCH #49

RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS PPL ELECTRIC UTILITIES CORPORATION	Rules: 5, 13, 15 Date: <u>7/18/16</u> Engr: <u>NAP</u>
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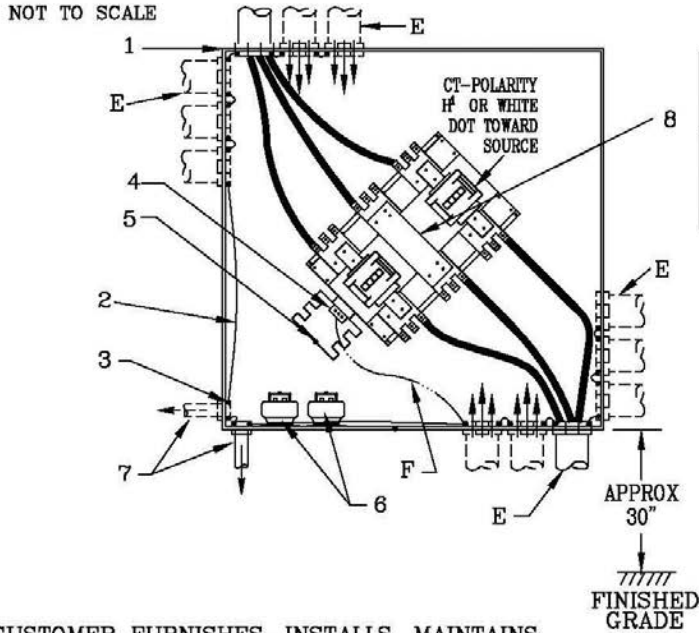


REMSI Sketches 1-25
Sketch #15
6-50

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 Custom ID: DCS 6-50
 Revision: 01
 Effective Date: 09/19/2016
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Sketch #15 Typical arrangement of instrument transformer and mounting for installation in instrument transformer cabinet underground

3 phase, 3 wire, 480 volts, 1200 Ampere Maximum



VOLTAGE: 3 Phase, 3 Wire 480V	SERVICE TYPE: Overhead Underground
AMPERAGE: 1200 A Maximum	CABINET LOCATION: Indoor Outdoor

CUSTOMER FURNISHES, INSTALLS, MAINTAINS

1. SEALABLE METAL CABINET MINIMUM SIZE 48 INCHES BY 48 INCHES BY 12 INCHES (SEE TABLES 3 AND 4 - APPROVED INSTRUMENT TRANSFORMER CABINET) AND INSTALLS INSTRUMENT TRANSFORMERS AND MOUNTING FURNISHED BY PPL EU. MOUNT ON 45° ANGLE TO ELIMINATE SHARP BENDS IN CABLES. GROUP CONDUITS IN CORNER OF CABINET.
2. BONDING JUMPER PER NEC ARTICLE 250. BONDING JUMPER SIZE 1/0 COPPER.
3. GROUNDING BUSHING SHALL BE ATTACHED TO ALL METAL CONDUITS. THE CONDUITS SHALL BE BONDED TOGETHER, TO THE CABINET AND TO THE NEUTRAL BUS.

PPL EU FURNISHES INSTALLS, MAINTAINS:

4. TERMINAL FOR METERING NEUTRALS.
5. STUD FOR BONDING JUMPER.
6. VOLTAGE TRANSFORMERS FOR 480V SERVICE.
7. CONDUIT TO METER PANEL SEE SKETCH #8C AND RULE 15.

CUSTOMER FURNISHES, INSTALLS, PPL EU MAINTAINS:

8. FILLER BAR.

NOTES:

- A. MAXIMUM AMPACITY OF EACH CT MOUNTING CONNECTOR IS 400 AMPERES. EACH CONNECTOR CAN ACCOMMODATE ONE COPPER OR ALUMINUM CONDUCTOR WIRE RANGE FROM 300 TO 750 KCMIL.
- B. MAXIMUM TIGHTENING TORQUE ON THE CT MOUNTING WIRE CONNECTION 450 INCH-POUNDS.
- C. REAR ENTRY OF CT CABINETS IS NOT PERMITTED FOR PPL EU CABLES.
- D. CUSTOMER MUST EXTEND GROUND & BOND IT TO THE INSTRUMENT TRANSFORMER CABINET IF PLASTIC CONDUIT IS INSTALLED BETWEEN CABINET & SERVICE EQUIPMENT.
- E. CONDUITS SHALL HAVE 36 INCH MINIMUM BENDING RADIUS.
- F. GROUND WIRE NOT TO BE USED AS NEUTRAL SEE RULE 5.

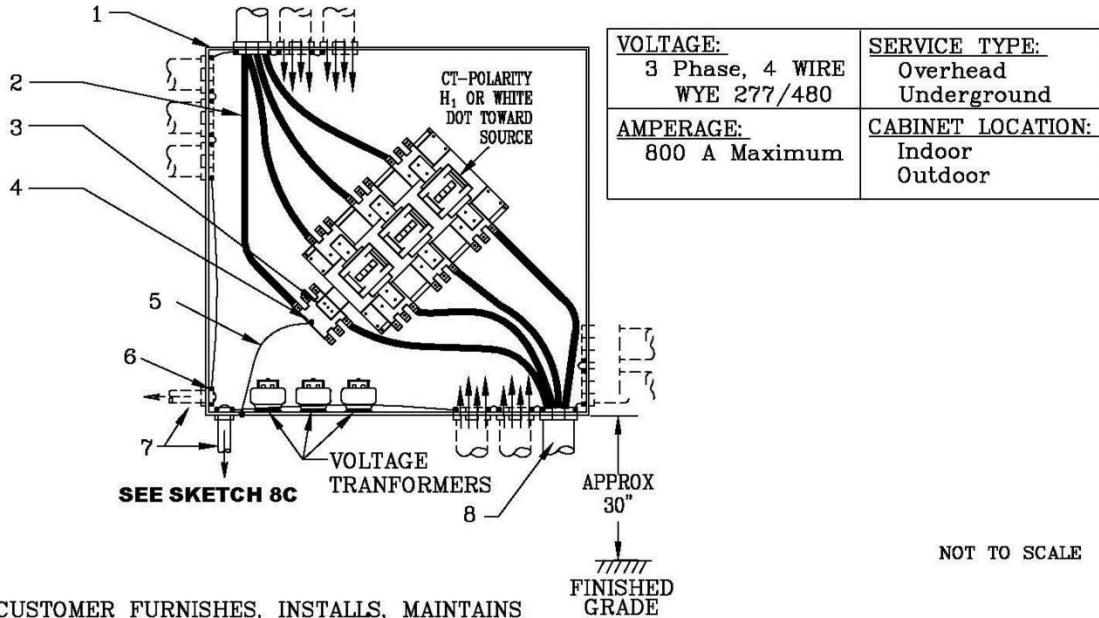
*REFERENCE SKETCH #8C
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RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS PPL ELECTRIC UTILITIES CORPORATION	Rules: 5, 13, 15 Date: <u>7/18/16</u> Engr: <u>NAP</u>
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Sketch #15a Typical arrangement of instrument transformers and mounting for installation in instrument transformer cabinet underground service

3 phase, 4 wire, Wye 277/480 volts, 800 Ampere Maximum

IF LOAD EXCEEDS 800 AMPERES, SWITCHGEAR OR INSTALLATION PER SKETCH #16A IS REQUIRED.



NOT TO SCALE

CUSTOMER FURNISHES, INSTALLS, MAINTAINS

1. SEALABLE METAL CABINET MINIMUM SIZE 48 INCHES BY 48 INCHES BY 12 INCHES (SEE TABLES 3 AND 4 - APPROVED INSTRUMENT TRANSFORMER CABINET) AND INSTALLS INSTRUMENT TRANSFORMERS AND MOUNTING FURNISHED BY PPL EU. MOUNT ON 45° ANGLE TO ELIMINATE SHARP BENDS IN CABLES. GROUP CONDUITS IN CORNER OF CABINET.
2. NEUTRAL
3. TERMINAL FOR METERING NEUTRALS
4. STUD FOR BONDING JUMPER

CUSTOMER FURNISHES, INSTALLS, PPL EU MAINTAINS:

5. BONDING JUMPER PER NEC ARTICLE 250 - GROUNDING. BONDING JUMPER SIZE 1/0 COPPER.
6. GROUNDING BUSHING SHALL BE ATTACHED TO ALL METAL CONDUITS. THE CONDUITS SHALL BE BONDED TOGETHER, TO THE CABINET AND TO THE NEUTRAL BUS.
7. TO METER PANEL SEE RULE 15
8. CONDUITS SHALL HAVE 36 INCH MINIMUM BENDING RADIUS

NOTES:

- A. MAXIMUM AMPACITY OF EACH CT MOUNTING CONNECTOR IS 400 AMPERES. EACH CONNECTOR CAN ACCOMODATE ONE COPPER OR ALUMINUM CONDUCTOR FROM 300 TO 750 KCMIL.
- B. MAXIMUM TIGHTENING TORQUE ON THE CT MOUNTING WIRE CONNECTION IS 450 INCH-POUNDS.
- C. REAR ENTRY OF CT CABINETS IS NOT PERMITTED FOR PPL EU CABLES.

*REF: SKETCH #8C

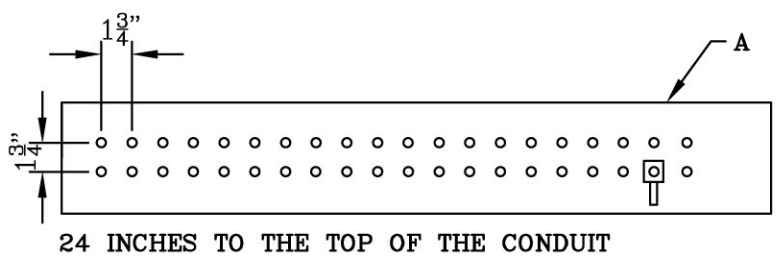
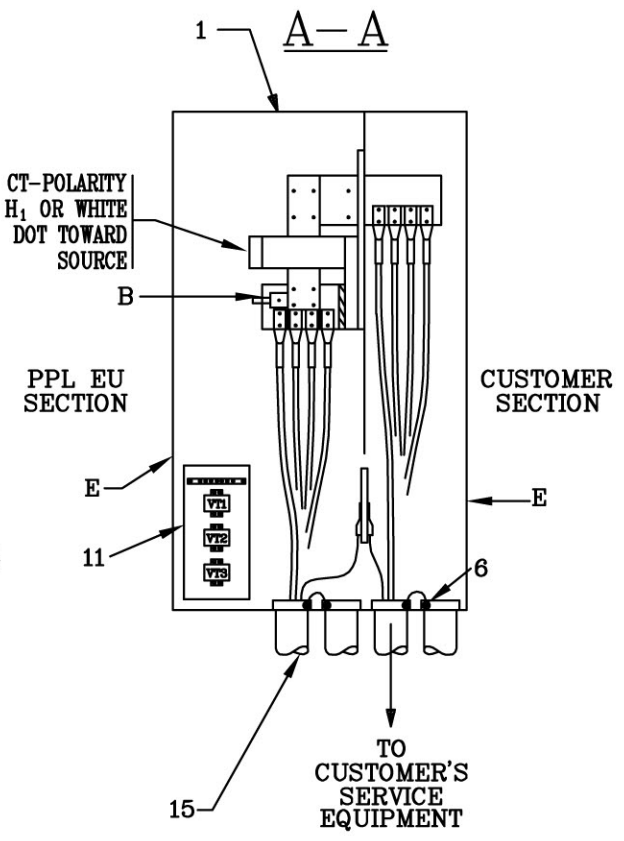
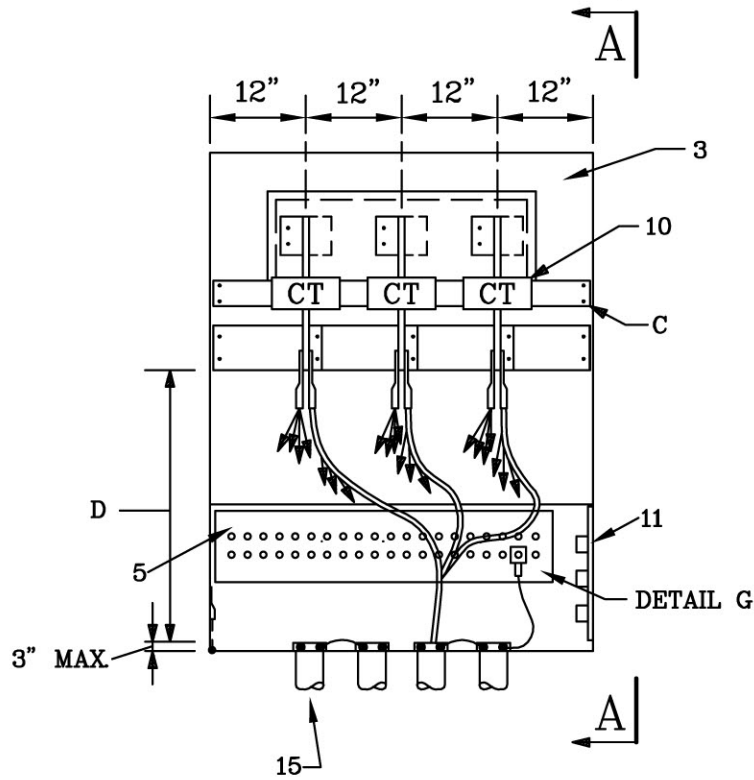
RULES: 5, 13, 15

REV	DATE	APPROVED			RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS PPL ELECTRIC UTILITES CORPORATION
		Drafter	Sponsor	Review	
0	2-2015	JJA	MP		
1	7/18/16	RRC	NAP		

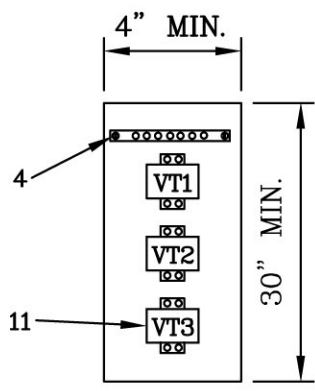
Typical Arrangement of Pad Mounted Metering and Service Termination Cabinet Up to Eight 750 KCMIL Conductors per Phase

NOT TO SCALE

VOLTAGE: 3 Phase, 4 Wire Wye 120/208V 3 Phase, 4 Wire Wye 277/480V	SERVICE TYPE: Underground
AMPERAGE: 2000 A Maximum	CABINET LOCATION: Outdoor



DETAIL G - SEE CRS 6-19-100



VT BRACKET DETAIL

* REFERENCE: CRS 6-15-180, CRS 6-19-100, SKETCH #8C, SKETCH #8D, SKETCH #20

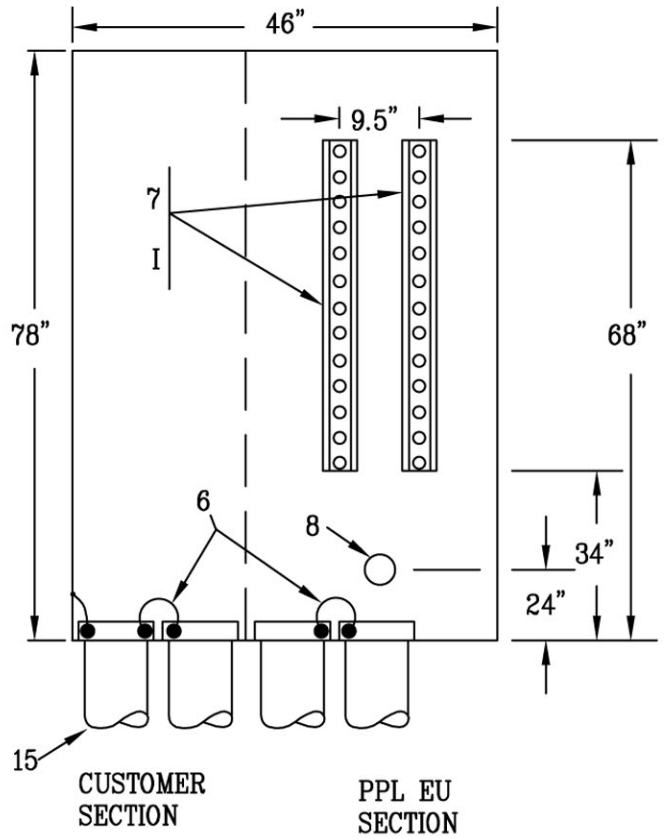
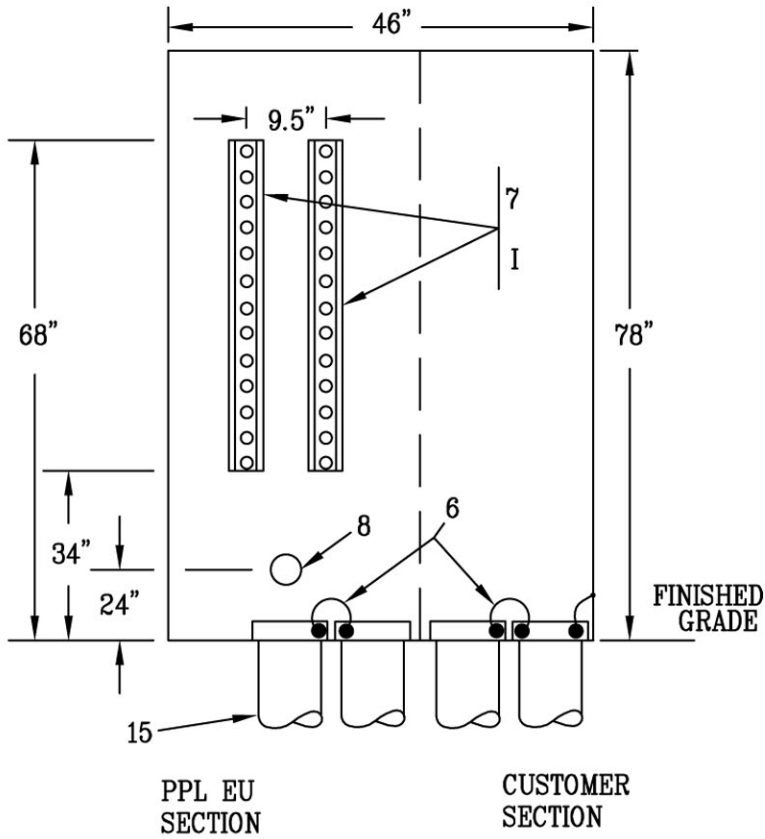
RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS
PPL ELECTRIC UTILITIES CORPORATION

Rules: 5, 13, 15
Date: 9/27/13 **Engr:** JPM
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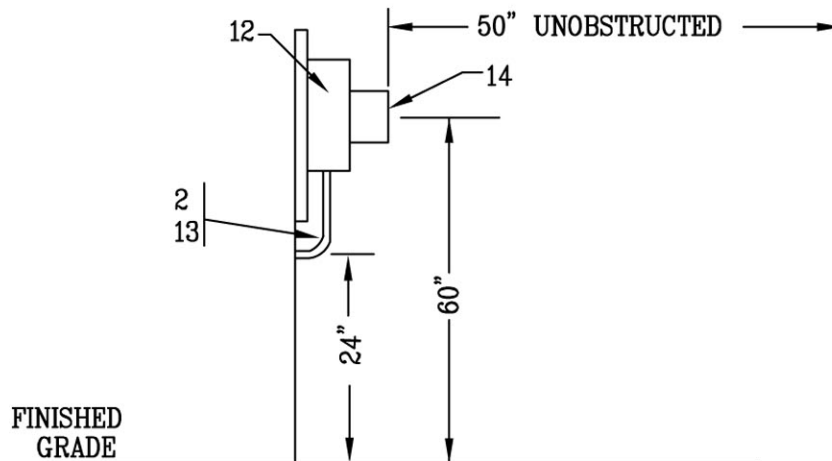
NOT TO SCALE

CABINET LEFT SIDE

CABINET RIGHT SIDE



SIDE VIEW OF METER



* REFERENCE: CRS 6-15-180, CRS 6-19-100, SKETCH #8C, SKETCH #8D, SKETCH #20

CUSTOMER FURNISHES, INSTALLS, MAINTAINS:

1. SEALABLE METAL CABINET MINIMUM 48 INCHES WIDE BY 78 INCHES HIGH BY 46 INCHES DEEP. OUTDOOR CABINET MUST BE NEMA-3R (WEATHERPROOF). INCLUDES ALL CONDUITS, BUSWORK, HARDWARE, ETC. EXCEPT FOR THAT EQUIPMENT DESIGNATED AS BEING PROVIDED BY PPL EU. SEE REMSI TABLE 1-APPROVED PAD MOUNTED METERING AND SERVICE TERMINATION CABINET FOR PREAPPROVED LIST.
2. 1-1/4 INCH MINIMUM THREADED GALVANIZED OR INTERMEDIATE RIDGID STEEL OR SCHEDULE 40 PVC CONDUIT AND FITTINGS BETWEEN INSTRUMENT TRANSFORMERS AND METER PANEL.
3. CUSTOMER IS RESPONSIBLE FOR BUS ARRANGEMENT, INTERNALS, AND CABINET.
4. METER GROUNDING TERMINAL BLOCK MOUNTED ON AN INSULATED STANDOFF AT THE TOP OF THE VT BRACKET. MUST ACCOMMODATE 2-#6 AND 5-#10 STRANDED COPPER CONDUCTORS AND BE BONDED TO THE NEUTRAL BUS WITH A #6 COPPER CONDUCTOR.
5. NEUTRAL BUS TO BE BOLTED TO CABINET FOR BONDING PURPOSES.
6. GROUNDING BUSHINGS SHALL BE ATTACHED TO ALL METAL CONDUITS. THE CONDUITS SHALL BE BONDED TOGETHER, TO THE CABINET, AND THE NEUTRAL BAR.
7. 2-34 INCH PIECES OF UNISTRUT ARE TO BE MOUNTED, BY THE CABINET MANUFACTURER, VERTICALLY 9-1/2 INCHES FROM CENTERLINE TO CENTERLINE APART. THE BOTTOM OF THE UNISTRUT SHALL BE 34 INCHES, THE TOP OF THE UNISTRUT SHALL BE 68 INCHES, FROM THE BOTTOM OF THE CABINET. THE UNISTRUT WILL BE MOUNTED ON THE OUTSIDE OF PPL EU'S SECTION OF THE CABINET. THE UNISTRUT SHALL BE MOUNTED ON EITHER SIDE OR BOTH SIDES OF THE PPL EU SECTION OF THE CABINET. SEE NOTE 1 FOR MORE INFORMATION.
8. CENTERED BELOW THE TWO PIECES OF UNISTRUT THE CUSTOMER WILL CUT A 1-1/4 INCH HOLE 24 INCHES CENTERLINE FROM THE BOTTOM OF THE CABINET TO ATTACH THE METERING CONDUIT AND FITTINGS. THE METER PANEL WILL BE MOUNTED ON THE UNISTRUT.

PPL EU FURNISHES, MAINTAINS; CUSTOMER INSTALLS:

10. CURRENT TRANSFORMERS.
11. VOLTAGE TRANSFORMERS FOR 277/480V SERVICES.
12. METER PANEL

PPL EU FURNISHES, INSTALLS, MAINTAINS:

13. WIRING BETWEEN INSTRUMENT TRANSFORMERS AND METER PANEL SEE RULE 15.
14. METER

CUSTOMER FURNISHES, INSTALLS, PPL EU MAINTAINS:

15. PPL EU SPECIFIES THE NUMBER OF CONDUITS, (MIN 4") IN PPL EU'S SECTION. NUMBER OF CONDUITS IS DETERMINED BY THE SIZE OF THE TRANSFORMER. SERVICE ENTRANCE UP TO 8 CONDUITS. GALVANIZED RIGID OR INTERMEDIATE STEEL CONDUIT SWEEPS SHALL HAVE A 36 INCH MINIMUM BENDING RADIUS.

* REFERENCE: CRS 6-15-180, CRS 6-19-100, SKETCH #8C, SKETCH #8D, SKETCH #20

NOTES:

- A. PPL EU CONNECTS STARTING FROM THE RIGHT SIDE OF THE NEUTRAL BAR WHEN ACCESSING FROM PPL EU'S SECTION. THE CUSTOMER CONNECTS STARTING FROM THE RIGHT SIDE OF THE NEUTRAL BAR WHEN ACCESSING FROM THE CUSTOMERS SECTION.
- B. 1/4 X 20 TAPPED HOLE AND HEX HEAD SCREW FOR METERING VOLTAGE CONNECTION.
- C. ADJUSTABLE CT SUPPORT.
- D. MINIMUM CLEARANCE FROM THE BOTTOM OF THE BAR TO TOP OF CONDUITS. SEE RULE 15(F) AND SKETCH #50 FOR CABLE LIMITER DETAILS.
- E. PPL EU AND CUSTOMER DOORS MUST BE TRIPLE HINGED. THE HINGES AND HINGE PINS MUST BE NON-REMOVABLE. THE PPL EU AND CUSTOMER DOORS MUST ALSO BE SEALABLE. SEE NOTE F AND NOTE G.
- F. A THREE POINT LATCHING MECHANISM THAT SECURES BOTH DOORS IS REQUIRED. THE LATCHING BARS MUST PASS THROUGH A GUIDE THAT ASSURES CORRECT LATCHING. THE LATCHING MECHANISM CANNOT PROTRUDE MORE THAN 1" INSIDE THE CABINET. ALL CONNECTION BOLTS MUST BE PERMANENTLY SECURED TO PREVENT ACCIDENTAL CONTACT OF ANY METAL PART SHOULD THE LATCHING ASSEMBLY FAIL.
- G. THE LATCHING MECHANISM HANDLE MUST BE DESIGNED TO PROVIDE A LOCKING PROVISION IN THE CLOSED POSITION. A 1/2" HOLE IS REQUIRED FOR THE LOCKING PROVISION. KEY LOCKING OF THE HANDLE IS NOT ALLOWED.
- H. REFER TO THE APPROVED METERING AND EQUIPMENT TABLES (TABLE 1) FOR PREAPPROVED PAD MOUNTED METERING AND SERVICE TERMINATION CABINET. CABINETS NOT ALREADY ON THE PREAPPROVED LIST MUST HAVE DETAILED CONSTRUCTION DRAWINGS SUBMITTED TO PPL EU FOR APPROVAL BY THE AREA DESIGN SUPERVISOR PRIOR TO CONSTRUCTION.
- I. IN THE EVENT THE UNISTRUT HAS NOT BEEN MOUNTED BY THE CABINET MANUFACTURER THE METER PANEL IS NOT PERMITTED TO BE INSTALLED ON THE CABINET. THE METER PANEL SHALL THEN BE INSTALLED ON A SEPARATE MOUNTING ARRANGEMENT WITHIN VISUAL DISTANCE OF THE CABINET. SEE SKETCH #8D. CONTACT METERING SUPPORT FOR LOCATION OF METER PANEL. METER PANEL INFORMATION SEE SKETCH #8C. METERING CONDUIT WILL NEED TO BE INSTALLED IN THE FOUNDATION TO RUN BETWEEN THE INSTRUMENT CABINET AND THE METER PANEL. THE METERING CONDUIT SHALL BE BONDED TO THE OTHER CONDUIT AND THE CABINET.
- J. CLEAR SPACE-SEE SKETCH #8C AND RULE 13 FOR MORE INFORMATION.
- K. SEE BARRIER SKETCH #20 AS REQUIRED BY PPL EU.

* REFERENCE: CRS 6-15-180, CRS 6-19-100, SKETCH #8C, SKETCH #8D, SKETCH #20

RULES FOR ELECTRIC METER AND SERVICE
INSTALLATIONS
**PPL ELECTRIC UTILITIES
CORPORATION**

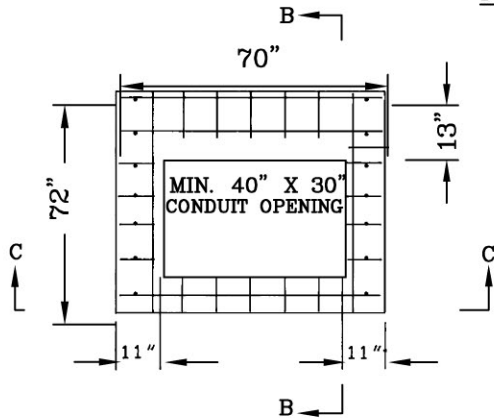
Rules: 5, 13, 15

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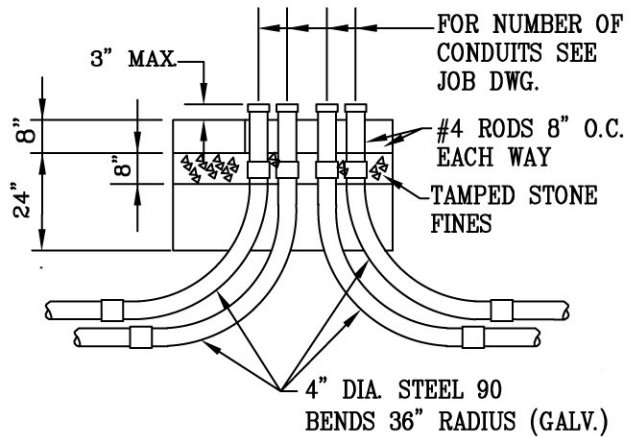
Date: 9/27/13 **Engr:** JPM

FOUNDATION DETAILS

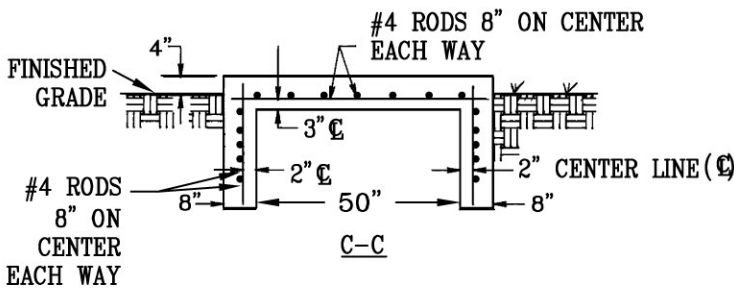
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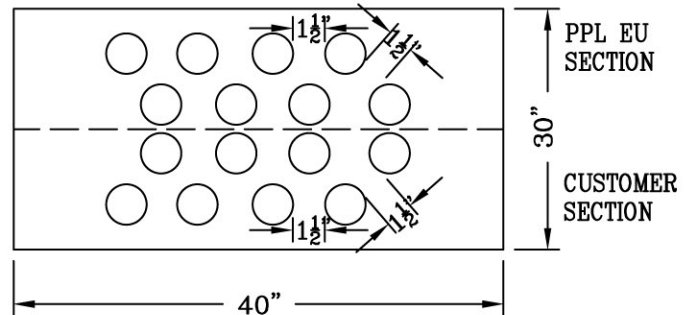
FOUNDATION PLAN
METER CABINET PAD



B-B



C-C



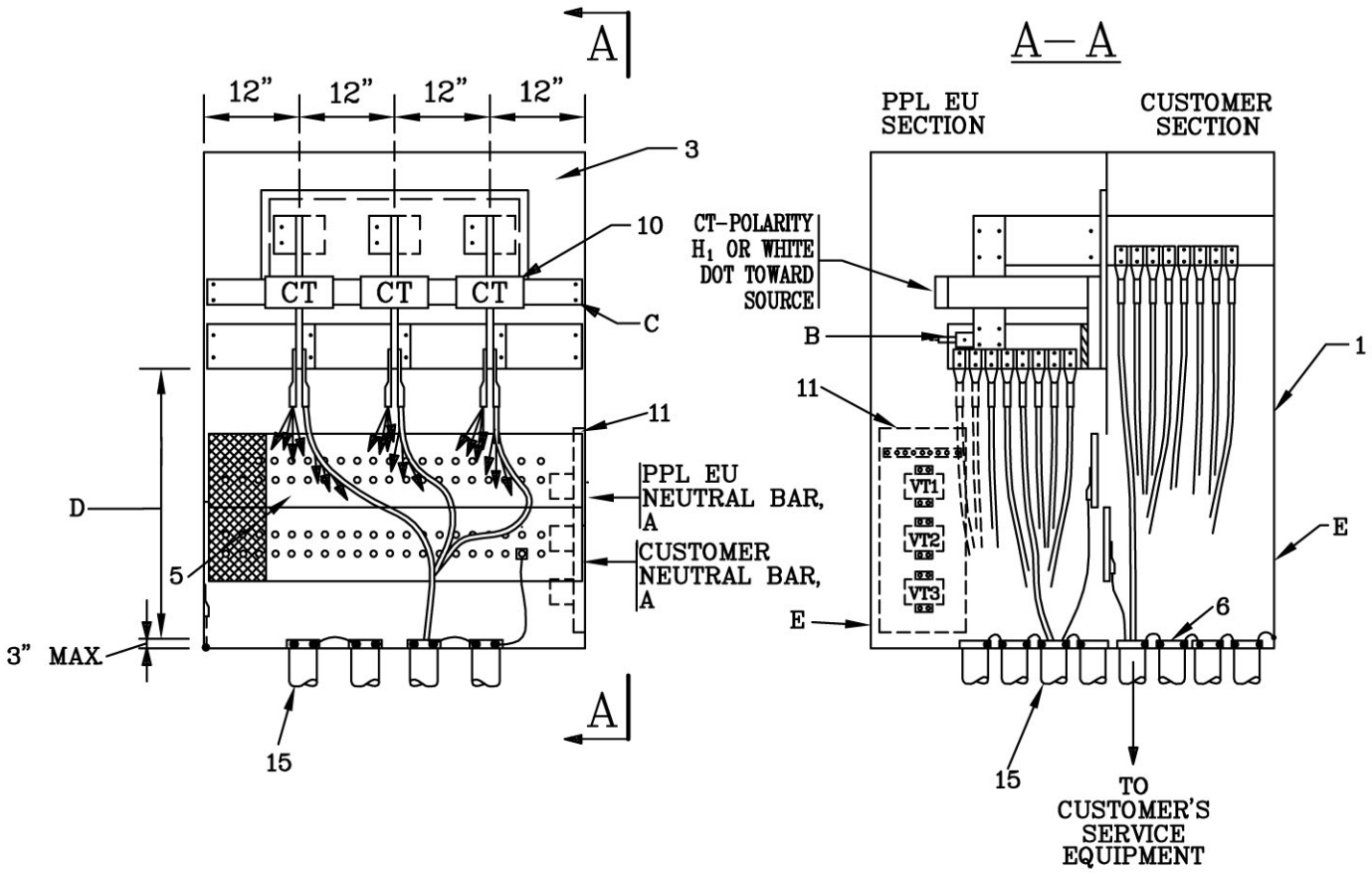
CONDUIT PLAN

* REFERENCE: CRS 6-15-180, CRS 6-19-100, SKETCH #8C, SKETCH #8D, SKETCH #20

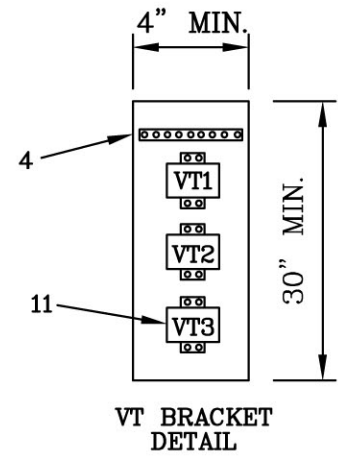
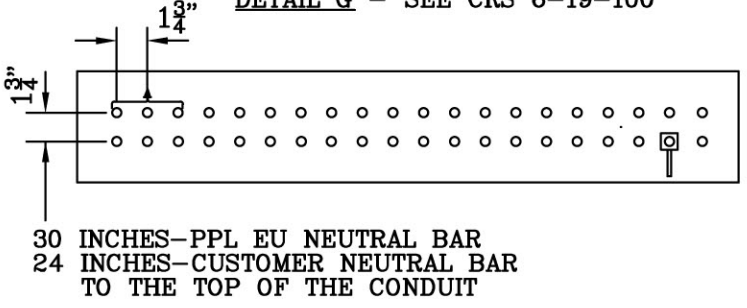
Typical Arrangement of Pad Mounted Metering
and Service Termination Cabinet
Up to Twelve 750 KCMIL Conductors per Phase

NOT TO SCALE

VOLTAGE: 3 Phase, 4 Wire Wye 277/480V 3 Phase, 4 Wire Wye 120/208V	SERVICE TYPE: Underground
AMPERAGE: 3200 A Maximum Continuous	CABINET LOCATION: Outdoor

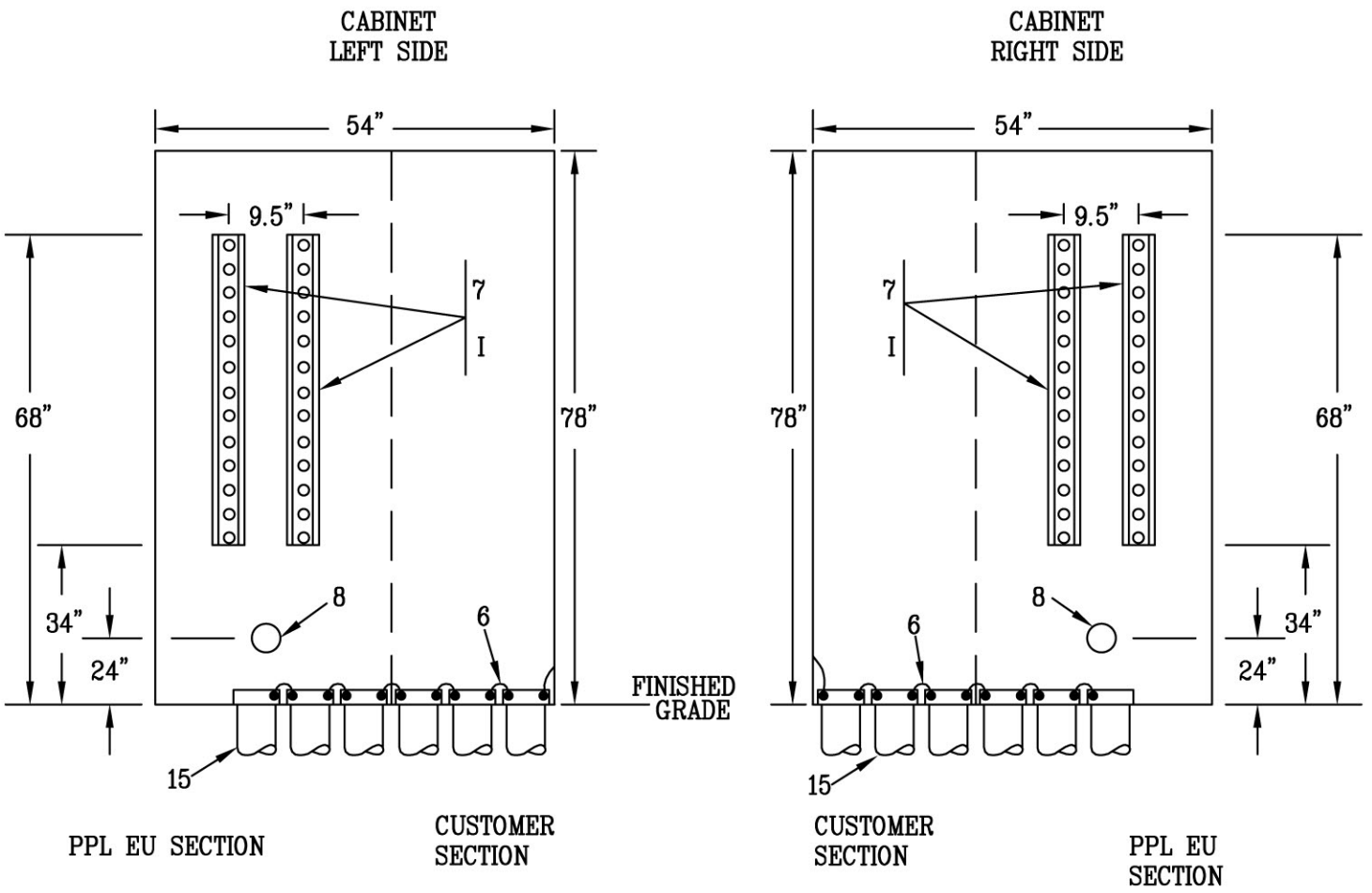


NEUTRAL BAR
DETAIL G - SEE CRS 6-19-100

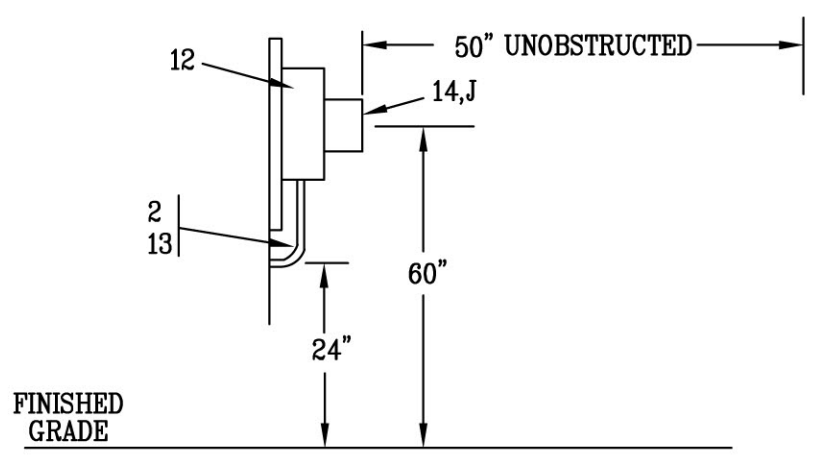


* REFERENCE: CRS 6-15-180, CRS 6-19-100, SKETCH #8C, SKETCH #8D, SKETCH #20

NOT TO SCALE



SIDE VIEW OF METER



* REFERENCE: CRS 6-15-180, CRS 6-19-100, SKETCH #8C, SKETCH #8D, SKETCH #20

CUSTOMER FURNISHES, INSTALLS, MAINTAINS:

1. SEALABLE METAL CABINET MINIMUM 48 INCHES WIDE BY 78 INCHES HIGH BY 62 INCHES DEEP. OUTDOOR CABINET MUST BE NEMA-3R (WEATHERPROOF). INCLUDES ALL CONDUITS, BUSWORK, HARDWARE, ETC. EXCEPT FOR THAT EQUIPMENT DESIGNATED AS BEING PROVIDED BY PPL EU. SEE REMSI TABLE 1-APPROVED PAD MOUNTED METERING AND SERVICE TERMINATION CABINET FOR PREAPPROVED LIST.
2. 1-1/4 INCH MINIMUM THREADED GALVANIZED OR INTERMEDIATE RIDGID STEEL OR SCHEDULE 40 PVC CONDUIT AND FITTINGS BETWEEN INSTRUMENT TRANSFORMERS AND METER PANEL.
3. CUSTOMER IS RESPONSIBLE FOR BUS ARRANGEMENT, INTERNALS, AND CABINET.
4. METER GROUNDING TERMINAL BLOCK MOUNTED ON AN INSULATED STANDOFF AT THE TOP OF THE VT BRACKET. MUST ACCOMMODATE 2-#6 AND 5-#10 STRANDED COPPER CONDUCTORS AND BE BONDED TO THE NEUTRAL BUS WITH A #6 COPPER CONDUCTOR.
5. NEUTRAL BUS TO BE BOLTED TO CABINET FOR BONDING PURPOSES.
6. GROUNDING BUSHINGS SHALL BE ATTACHED TO ALL METAL CONDUITS. THE CONDUITS SHALL BE BONDED TOGETHER, TO THE CABINET, AND THE NEUTRAL BAR.
7. 2-34 INCH PIECES OF UNISTRUT ARE TO BE MOUNTED, BY THE CABINET MANUFACTURER, VERTICALLY 9-1/2 INCHES FROM CENTERLINE TO CENTERLINE APART. THE BOTTOM OF THE UNISTRUT SHALL BE 34 INCHES, THE TOP OF THE UNISTRUT SHALL BE 68 INCHES, FROM THE BOTTOM OF THE CABINET. THE UNISTRUT WILL BE MOUNTED ON THE OUTSIDE OF PPL EU'S SECTION OF THE CABINET. THE UNISTRUT SHALL BE MOUNTED ON EITHER SIDE OR BOTH SIDES OF THE PPL EU SECTION OF THE CABINET. SEE NOTE I FOR MORE INFORMATION.
8. CENTERED BELOW THE TWO PIECES OF UNISTRUT THE CUSTOMER WILL CUT A 1-1/4 INCH HOLE 24 INCHES CENTERLINE FROM THE BOTTOM OF THE CABINET TO ATTACH THE METERING CONDUIT AND FITTINGS. THE METER PANEL WILL BE MOUNTED ON THE UNISTRUT.

PPL EU FURNISHES, MAINTAINS; CUSTOMER INSTALLS:

10. CURRENT TRANSFORMERS.
11. VOLTAGE TRANSFORMERS FOR 277/480V SERVICES.
12. METER PANEL

PPL EU FURNISHES, INSTALLS, MAINTAINS:

13. WIRING BETWEEN INSTRUMENT TRANSFORMERS AND METER PANEL SEE RULE 15.
14. METER

CUSTOMER FURNISHES, INSTALLS, PPL EU MAINTAINS:

15. PPL EU SPECIFIES THE NUMBER OF CONDUITS, (MIN 4") IN PPL EU'S SECTION NUMBER OF CONDUITS IS DETERMINED BY THE SIZE OF THE TRANSFORMER. SERVICE ENTRANCE UP TO 16 PARALLEL CONDUITS. GALVANIZED RIGID OR INTERMEDIATE STEEL CONDUIT SWEEPS SHALL HAVE A 36 INCH MINIMUM BENDING RADIUS.

* REFERENCE: CRS 6-15-180, CRS 6-19-100, SKETCH #8C, SKETCH #8D, SKETCH #20

RULES FOR ELECTRIC METER AND SERVICE
INSTALLATIONS

**PPL ELECTRIC UTILITIES
CORPORATION**

Rules: 5, 13, 15

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Date: 9/27/13 **Engr:** JPM

NOTES:

- A. THE LEFT-MOST THREE HOLES ON PPL EU'S BUS BAR AND THE RIGHT-MOST THREE HOLES ON THE CUSTOMER'S BUS BAR ARE TO BE BONDED BY THE MANUFACTURER AND ARE NOT PERMITTED TO BE USED FOR CONNECTING THE NEUTRAL CONDUCTORS.
- B. 1/4 X 20 TAPPED HOLE AND HEX HEAD SCREW FOR METERING VOLTAGE CONNECTION.
- C. ADJUSTABLE CT SUPPORT.
- D. MINIMUM CLEARANCE FROM THE BOTTOM OF THE BAR TO TOP OF CONDUITS. SEE RULE 15(F) AND SKETCH #50 FOR CABLE LIMITER DETAILS.
- E. PPL EU AND CUSTOMER DOORS MUST BE TRIPLE HINGED. THE HINGES AND HINGE PINS MUST BE NON-REMOVABLE. THE PPL EU AND CUSTOMER DOORS MUST ALSO BE SEALABLE. SEE NOTE F AND NOTE G.
- F. A THREE POINT LATCHING MECHANISM THAT SECURES BOTH DOORS IS REQUIRED. THE LATCHING BARS MUST PASS THROUGH A GUIDE THAT ASSURES CORRECT LATCHING. THE LATCHING MECHANISM CANNOT PROTRUDE MORE THAN 1" INSIDE THE CABINET. ALL CONNECTION BOLTS MUST BE PERMANENTLY SECURED TO PREVENT ACCIDENTAL CONTACT OF ANY METAL PART SHOULD THE LATCHING ASSEMBLY FAIL.
- G. THE LATCHING MECHANISM HANDLE MUST BE DESIGNED TO PROVIDE A LOCKING PROVISION IN THE CLOSED POSITION. A 1/2" HOLE IS REQUIRED FOR THE LOCKING PROVISION. KEY LOCKING OF THE HANDLE IS NOT ALLOWED.
- H. REFER TO THE APPROVED METERING AND EQUIPMENT TABLES (TABLE 1) FOR PREAPPROVED PAD MOUNTED METERING AND SERVICE TERMINATION CABINET. CABINETS NOT ALREADY ON THE PREAPPROVED LIST MUST HAVE DETAILED CONSTRUCTION DRAWINGS SUBMITTED TO PPL EU FOR APPROVAL BY THE AREA DESIGN SUPERVISOR PRIOR TO CONSTRUCTION.
- I. IN THE EVENT THE UNISTRUT HAS NOT BEEN MOUNTED BY THE CABINET MANUFACTURER THE METER PANEL IS NOT PERMITTED TO BE INSTALLED ON THE CABINET. THE METER PANEL SHALL THEN BE INSTALLED ON A SEPARATE MOUNTING ARRANGEMENT WITHIN VISUAL DISTANCE OF THE CABINET. SEE SKETCH #8D. CONTACT METERING SUPPORT FOR LOCATION OF METER PANEL. METER PANEL INFORMATION SEE SKETCH #8C. METERING CONDUIT WILL NEED TO BE INSTALLED IN THE FOUNDATION TO RUN BETWEEN THE INSTRUMENT CABINET AND THE METER PANEL. THE METERING CONDUIT SHALL BE BONDED TO THE OTHER CONDUIT AND THE CABINET.
- J. CLEAR SPACE-SEE SKETCH #8C AND RULE 13 FOR MORE INFORMATION.
- K. SEE BARRIER SKETCH #20 AS REQUIRED BY PPL EU.

* REFERENCE: CRS 6-15-180, CRS 6-19-100, SKETCH #8C, SKETCH #8D, SKETCH #20

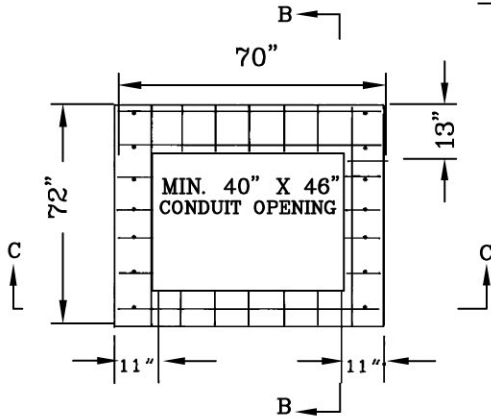
**RULES FOR ELECTRIC METER AND SERVICE
INSTALLATIONS
PPL ELECTRIC UTILITIES
CORPORATION**

Rules: 5, 13, 15
Date: 9/27/13 **Engr:** JPM
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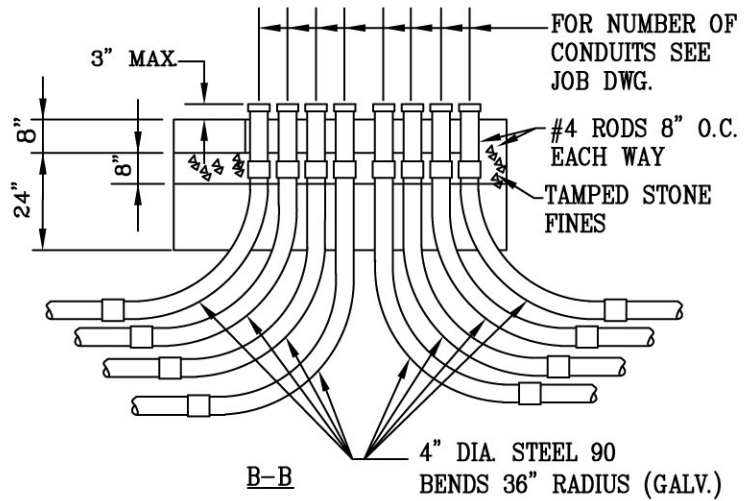
Typical Arrangement of Pad Mounted Metering
and Service Termination Cabinet
Up to Twelve 750 KCMIL Conductors per Phase

FOUNDATION DETAILS

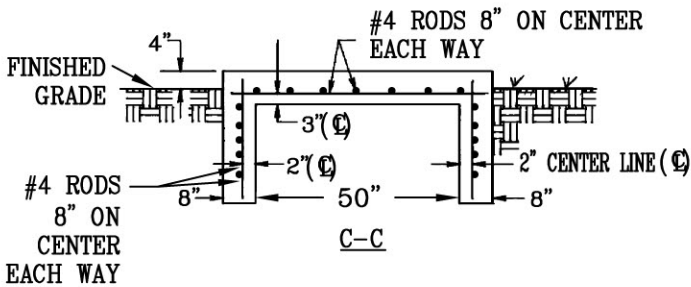
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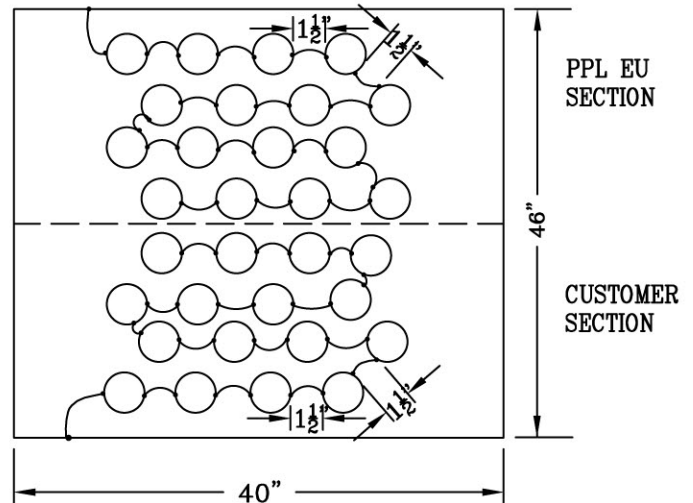
FOUNDATION PLAN
METER CABINET PAD



B-B
4" DIA. STEEL 90
BENDS 36" RADIUS (GALV.)



C-C



CONDUIT PLAN (WITH FOUR SPARES)

* REFERENCE: CRS 6-15-180, CRS 6-19-100, SKETCH #8C, SKETCH #8D, SKETCH #20

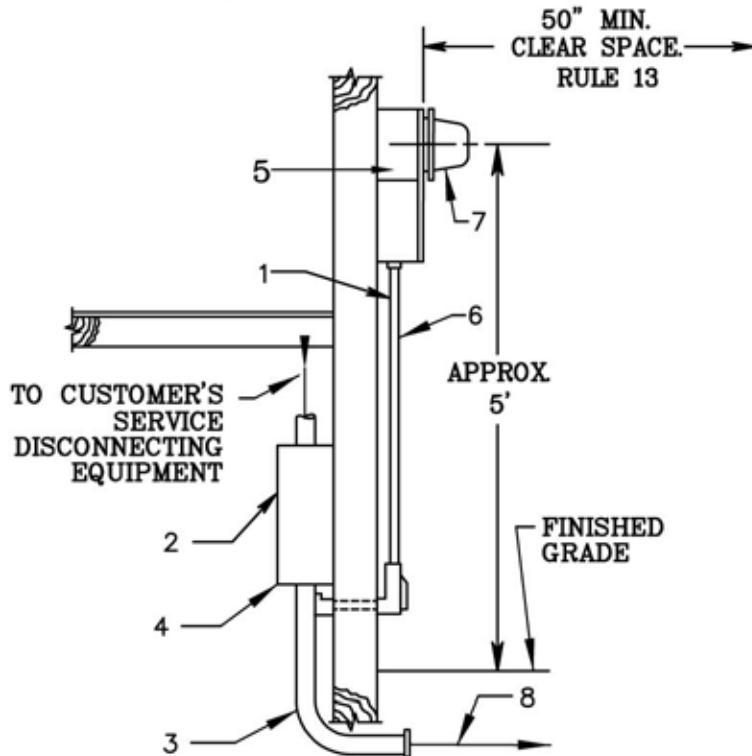
RULES FOR ELECTRIC METER AND SERVICE
INSTALLATIONS
**PPL ELECTRIC UTILITIES
CORPORATION**

Rules: 5, 13, 15

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Date: 9/27/13 **Engr:** JPM

Arrangement of Equipment for Instrument Transformer
Metering, Services Over 600 AMPS



CUSTOMER FURNISHES, INSTALLS, MAINTAINS:

1. 1-1/4 INCH MINIMUM, THREADED, GALVANIZED, RIGID OR INTERMEDIATE STEEL OR GREY SCHEDULE 40 PVC CONDUIT AND FITTINGS BETWEEN INSTRUMENT TRANSFORMER CABINET AND METER PANEL.
2. SEALABLE METAL INSTRUMENT TRANSFORMER CABINET, MINIMUM SIZE 48 INCHES BY 48 INCHES BY 12 INCHES. SEE RULE 15 AND SEE TABLE 1. APPROVED INSTRUMENT TRANSFORMER CABINET. SEE TABLE 2 IF OUTDOORS.
3. 36 INCH MINIMUM RADIUS, GALVANIZED, STEEL ELBOW THROUGH BASEMENT WALL.

PPL EU FURNISHES, MAINTAINS: CUSTOMER INSTALLS:

4. INSTRUMENT TRANSFORMERS AND MOUNTING.
5. METER PANEL INSTALLED AT LOCATION DESIGNATED BY PPL EU.

PPL EU FURNISHES, INSTALLS, MAINTAINS:

6. WIRING BETWEEN INSTRUMENT TRANSFORMERS AND METER PANEL.
7. METER.
8. SERVICE LATERAL CABLES TERMINATING ON THE LINE SIDE OF THE INSTRUMENT TRANSFORMERS.

NOTES:

- A. INDOOR LOCATION NEEDS APPROVAL OF SUPERVISOR METER SERVICES.
- B. 50" MINIMUM CLEAR SPACE IN FRONT OF METERBASE. SEE RULE 13. SKETCH 55 AND SKETCH 55A.

*REFERENCE CRS 6-19-133 & CRS 6-19-134, SKETCH 8C, SKETCH 55 & SKETCH 55A

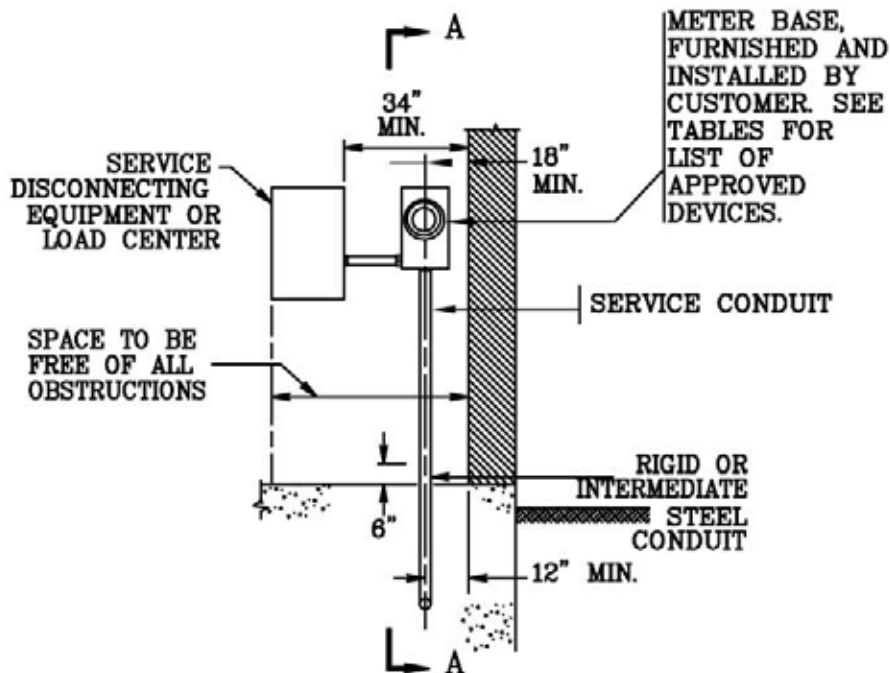
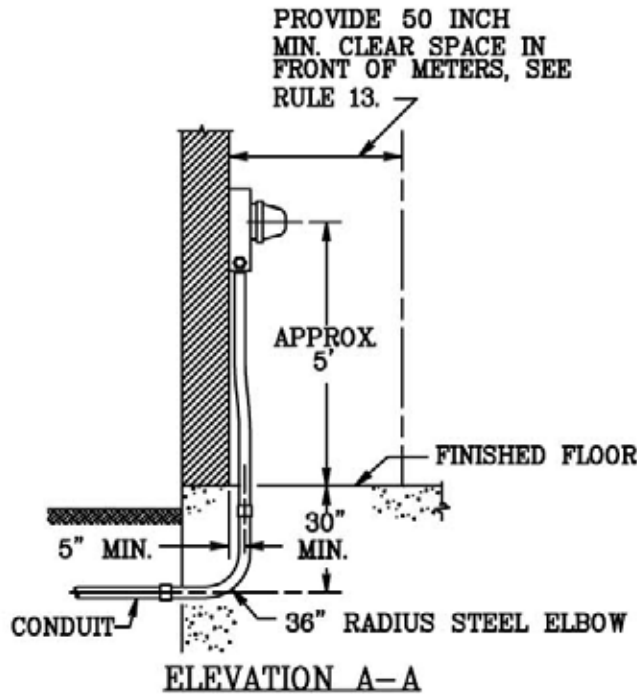
<p>RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS PPL ELECTRIC UTILITIES CORPORATION</p>	<p>Rules: 5, 6, 10, 11B, 12, 13, 15 REMSL_S017.dwg Date: <u>8/17/07</u> Engr: <u>MDB</u></p>
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SKETCH #18
SHEET 18P1

Typical Arrangement of Indoor Metering Equipment
to Accomodate Either Self-Contained or Secondary
Instrument Transformer Metering
Underground Service from an Underground Service Lateral
Single Phase, 3 Wire, 120/208 V or 120/240 V and
3 Phase, 4 Wire, 208Y/120 V

SKETCH #18
SHEET 18P1

ARRANGEMENT OF EQUIPMENT FOR SELF-CONTAINED METER



RULES FOR ELECTRIC METER AND SERVICE
INSTALLATIONS
PPL ELECTRIC UTILITIES
CORPORATION

Rules: 5, 6, 10, 11A, 12, 13, 15
Date: 8/18/06 Engr: MDB
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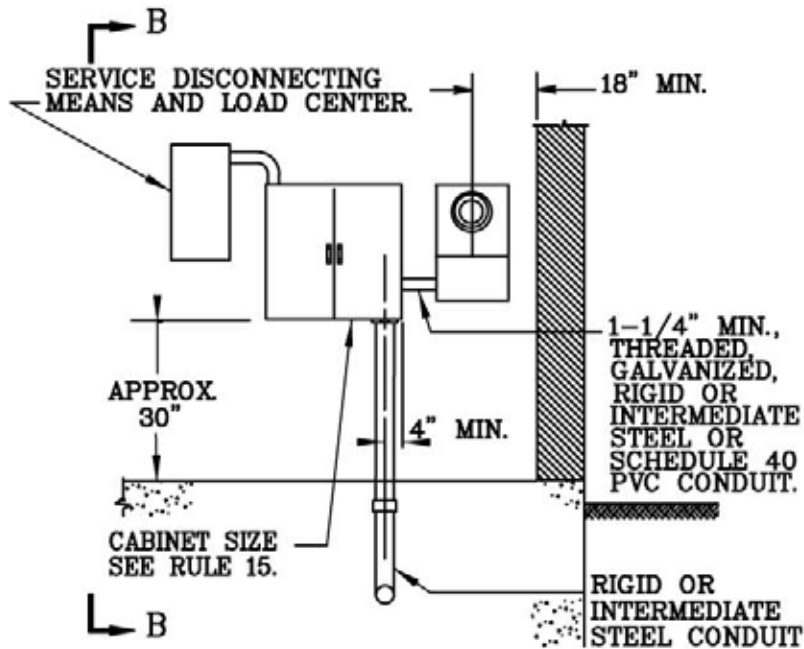
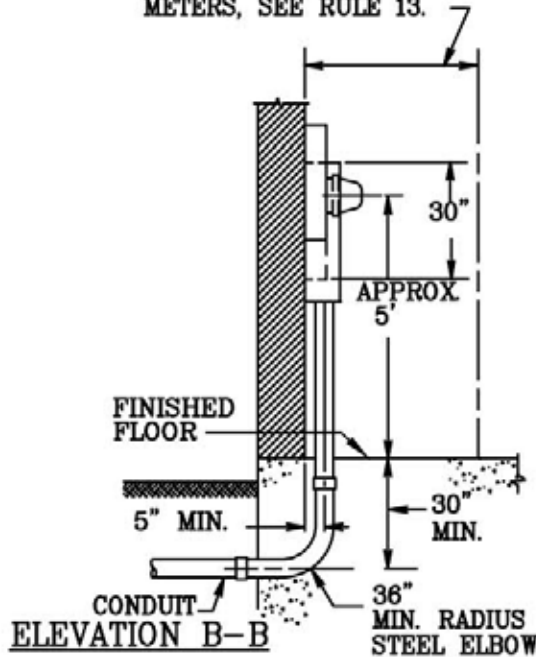
SKETCH #18
SHEET 18P2

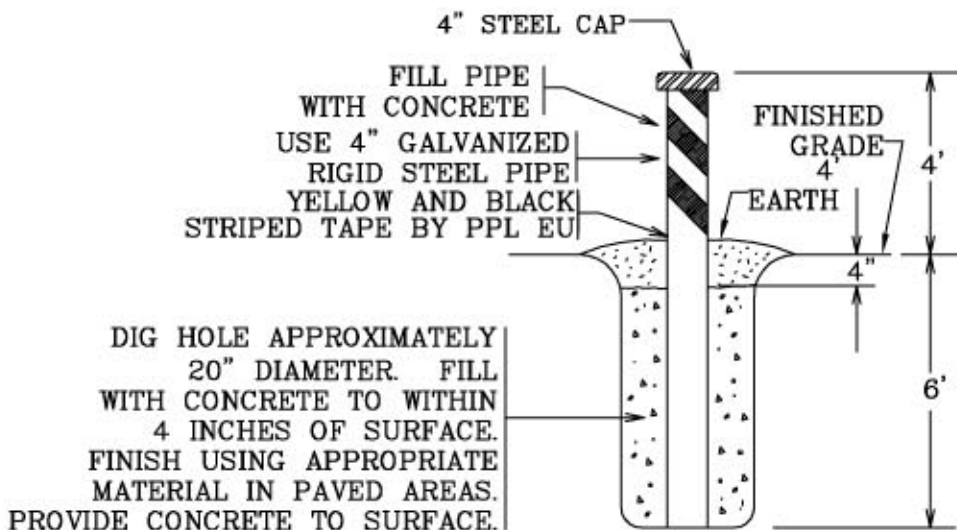
Typical Arrangement of Indoor Metering Equipment
to Accomodate Either Self-Contained or Secondary
Instrument Transformer Metering
Underground Service from an Underground Service Lateral
Single Phase, 3 Wire, 120/208 V or 120/240 V and
3 Phase, 4 Wire, 208Y/120 V

SKETCH #18
SHEET 18P2

ARRANGEMENT OF EQUIPMENT FOR INSTRUMENT TRANSFORMER

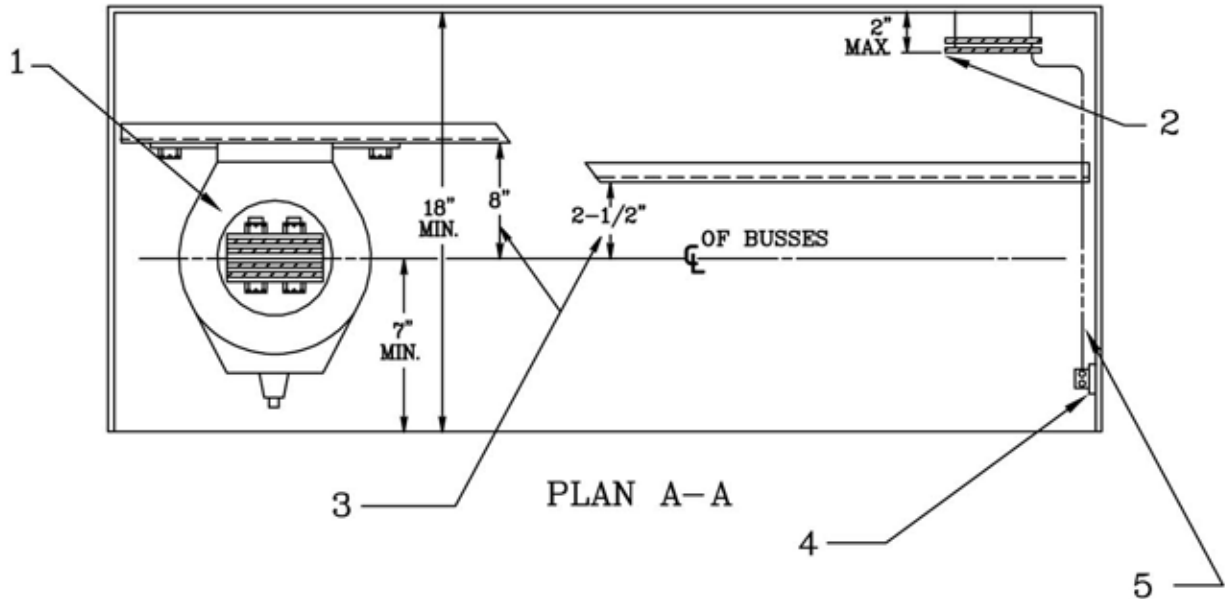
PROVIDE 50 INCH MINIMUM
CLEAR SPACE IN FRONT OF
METERS, SEE RULE 13.



NOTES:

- A. IT IS THE CUSTOMER'S RESPONSIBILITY TO INSTALL PROTECTIVE BARRIERS. THEY ARE REQUIRED WHEN THE EQUIPMENT IS LOCATED IN AN AREA EXPOSED TO VEHICULAR TRAFFIC—FOR EXAMPLE, PARKING LOTS, LOADING DOCKS, AND DRIVEWAYS.
- B. BARRIERS SHALL NOT BE LOCATED DIRECTLY OVER CONDUITS AND SHALL BE INSTALLED BEFORE THE SERVICE IS ENERGIZED.
- C. BARRIERS SHALL NOT BE LOCATED WITH IN MINIMUM CLEARANCE AREAS.

Typical Arrangement of Instrument Transformers in
Switchgear Cubicle
3 Phase, 4 Wire, 208Y/120 V or
3 Phase, 4 Wire, Delta 240/120 V



1. 400 TO 4000 AMPERE CURRENT TRANSFORMER.
2. GROUNDED NEUTRAL BUS.
3. SUPPORT ADJUSTABLE FROM 2-1/2 INCHES MIN. TO 8 INCHES MAX.
4. TERMINAL BLOCK BY CUSTOMER FOR METERING GROUND INSULATED FROM CUBICLE BLOCK TO ACCOMMODATE 2-#6 & 5-#10 STRANDED COPPER CONDUCTORS.
5. GROUND WIRE BY CUSTOMER 600V COVERED COPPER, #6 AWG MIN. CONNECTED BETWEEN NEUTRAL BUS & TERMINAL BLOCK.

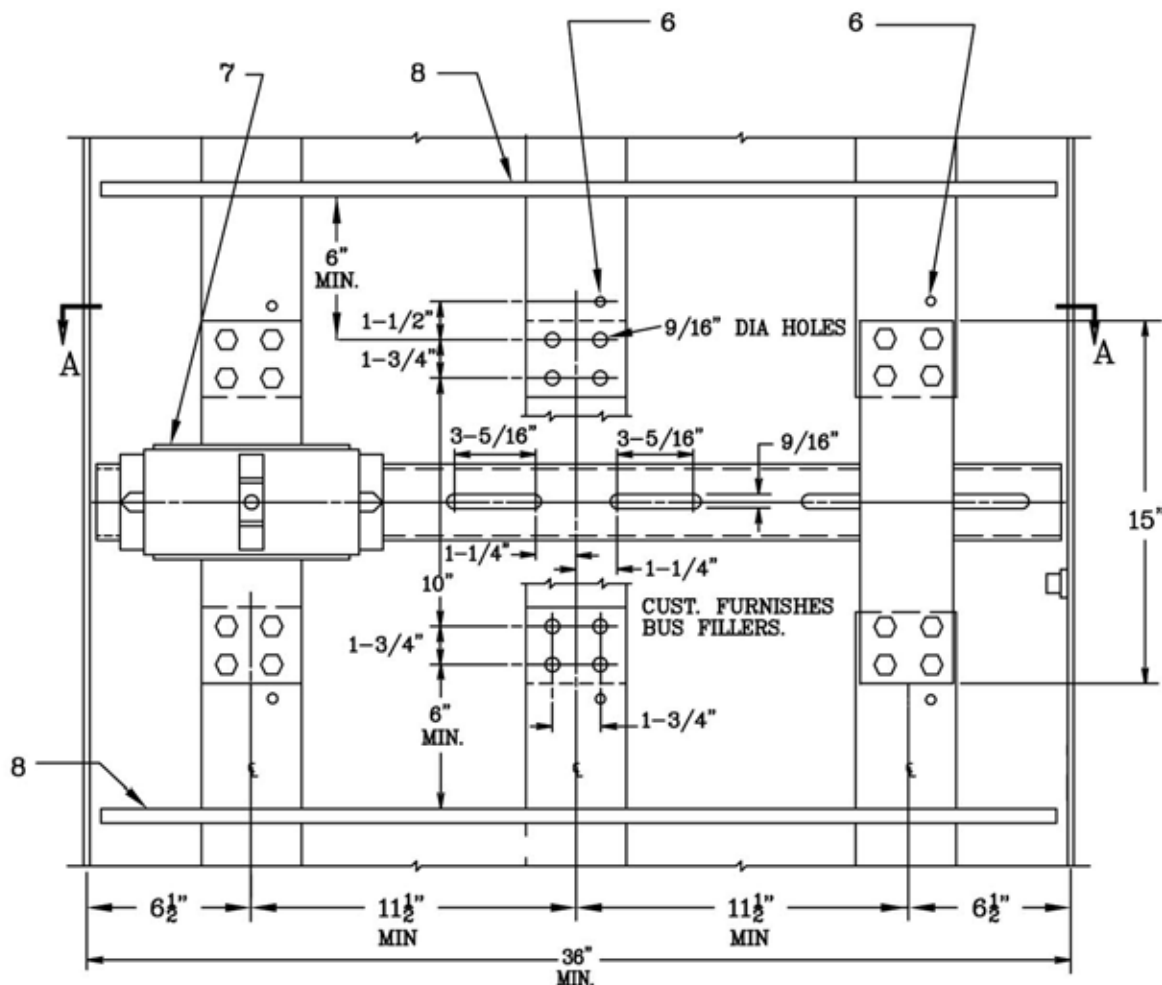
Typical Arrangement of Instrument Transformers in
Switchgear Cubicle
3 Phase, 4 Wire, 208Y/120 V or
3 Phase, 4 Wire, Delta 240/120 V

SKETCH #21

SHEET 2 of 2

SKETCH #21

SHEET 2 of 2



6. PROVIDE $\frac{1}{4}$ INCH BY 20 TAPPED HOLE & SCREW FOR METER WIRING ONNECTION ON EACH BUS
7. CURRENT TRANSFORMERS FURNISHED AND MAINTAINED BY PPL EU AND INSTALLED BY CUSTOMER.
8. FULLY INSULATED BARRIER.
9. MINIMUM CLEAR VERTICAL DISTANCE BETWEEN THE BOTTOMOF THE BUS BAR TO THE BOTTOM OF THE CABINET 48".
10. MAXIMUM CONDUIT HEIGHT IS 3".
11. FRONT VIEW THROUGH ACCESS OPENING WHEN FLAT OF BUS FACES OPENING. 3 C.T.'S REQUIRED - 1 CT SHOWN. (BUS CAN BE ROTATED 90°)
12. FOR 3 PHASE, 4 WIRE DELTA CONNECTED SERVICE, IDENTIFY PHASE CONDUCTOR WITH THE HIGHER VOLTAGE TO GROUND. SEE RULE 5 (h).
13. FOR TERMINATION COMPARTMENT DETAILS, SEE - APPROVED SWITCHGEAR METERING AND TERMINATION COMPARTMENTS TABLE 1

*REFERENCE CRS 6-19-100

RULES FOR ELECTRIC METER AND SERVICE
INSTALLATIONS
**PPL ELECTRIC UTILITIES
CORPORATION**

Rules: 5, 15

REMSL_S021P2.dwg

Date: 6/24/09 **Engr:** MDB

Typical Arrangement of Instrument Transformer in
Switchgear Cubicle
Delta 480V or Wye 277/480V

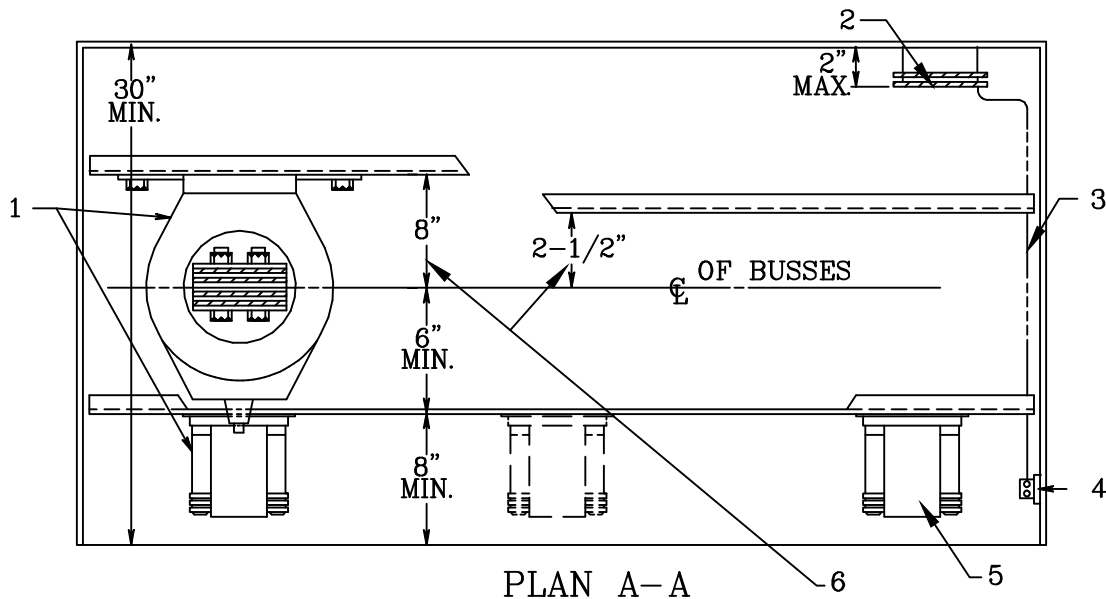
SKETCH #23

SHEET 1 of 2

SKETCH #23

SHEET 1 of 2

NOT TO SCALE



1. CURRENT AND VOLTAGE TRANSFORMERS FURNISHED AND MAINTAINED BY PPL EU AND INSTALLED BY CUSTOMER.
2. GROUNDED NEUTRAL BUS FOR, WYE 277/480V, OMIT NEUTRAL BUS FOR, DELTA 480V AND INSTALL GROUNDING WIRE IN SERVICE PER RULE 5(H).
3. GROUND WIRE BY CUSTOMER 600V COVERED COPPER, #6 AWG MIN. CONNECTED BETWEEN NEUTRAL BUS & TERMINAL BUS & TERMINAL BLOCK
4. TERMINAL BLOCK BY CUSTOMER FOR METERING GROUND INSULATED FROM CUBICLE BLOCK TO ACCOMMODATE 2-#6 & 5-#10 STRANDED COPPER CONDUCTORS.
5. VOLTAGE TRANSFORMER.
6. SUPPORT ADJUSTABLE FROM 2-1/2 INCHES MIN. TO 8 INCHES MAX.

*REFERENCE CRS 6-19-100; SKETCH #50

RULES FOR ELECTRIC METER AND SERVICE
INSTALLATIONS
**PPL ELECTRIC UTILITIES
CORPORATION**

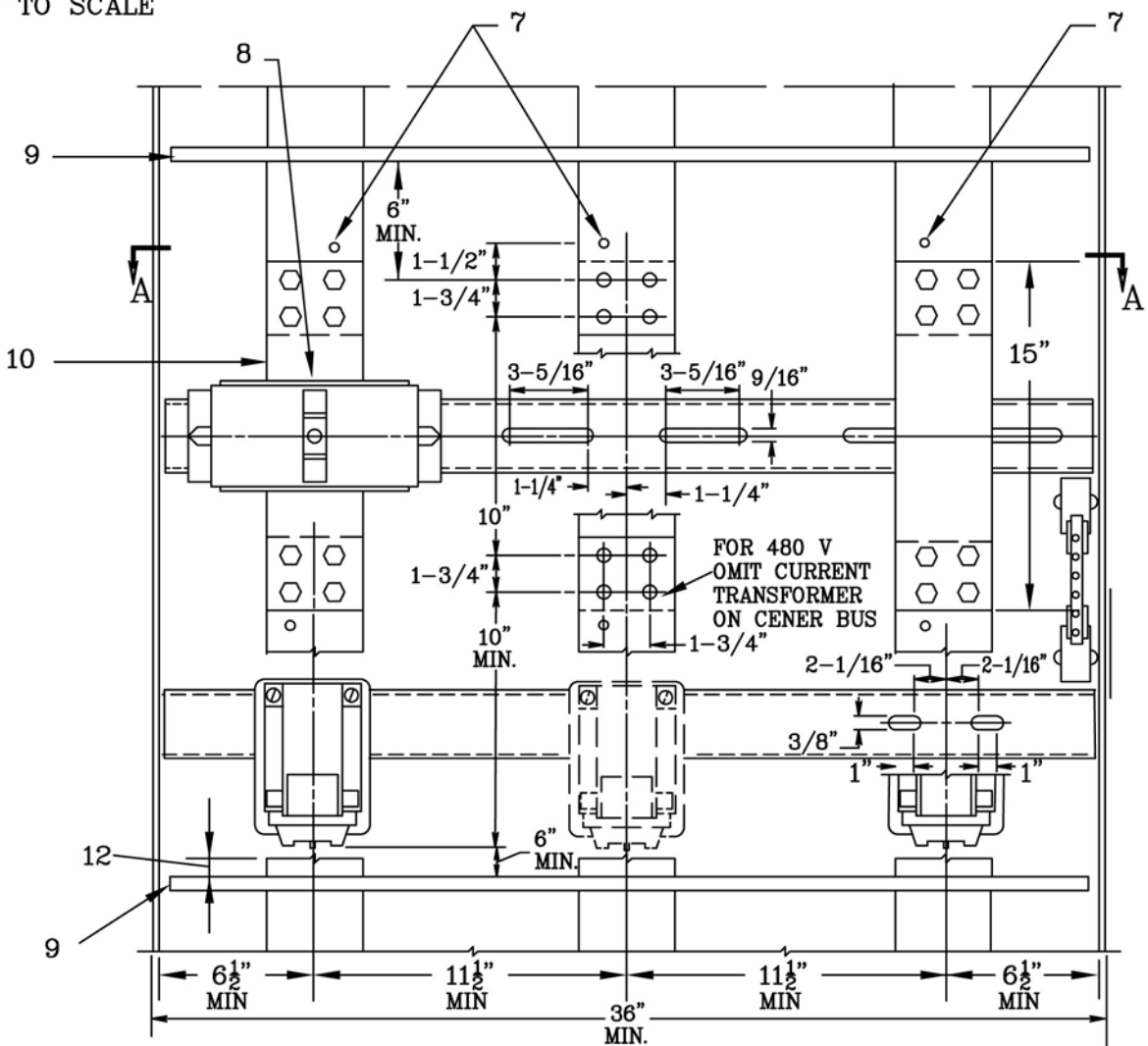
Rules: 5, 15

REMSI_S023P1.dwg

Date: 3/7/14 **Engr:** JCC

Typical Arrangement of Instrument Transformer in
Switchgear Cubicle
Delta 480V or Wye 277/480V

NOT TO SCALE



FRONT VIEW THROUGH ACCESS OPENING
WHEN FLAT OF BUS FACES OPENING.
BUS MAY BE TURNED SO BUS EDGE
FACES FRONT
1 C.T. SHOWN, 3 C.T.'S TYPICAL

- 7. PROVIDE 1/4 INCH BY 20 TAPPED HOLE AND SCREW FOR METER WIRING CONNECTION.
- 8. 400 TO 4000 A CURRENT TRANSFORMER.
- 9. FULLY INSULATED BARRIER.
- 10. CUSTOMER FURNISHES BUS FILLERS.
- 11. MINIMUM CLEAR VERTICLE DISTANCE BETWEEN BOTTOM OF BUS BAR AND BOTTOM AT THE CABINET IS 48 INCHES.
- 12. MAXIMUM CONDUIT HEIGHT IS 3 INCHES.

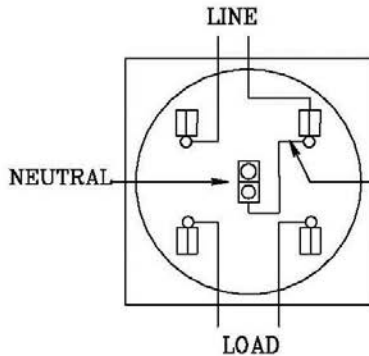
*REFERENCE CRS 6-19-100; SKETCH #50
REMSI_S023P2_R1.dwg



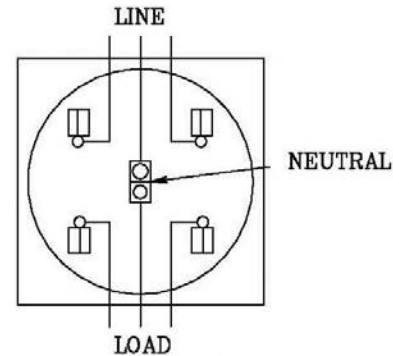
REMSI Sketches 1-25
Sketch #25
6-50

0000-000-ST-6050
 Custom ID: DCS 6-50
 Revision: 01
 Effective Date: 09/19/2016
 Page 64 of 69

Sketch #25 Secondary service meter base connections for self-contained meters, overhead service, 100 and 200 ampere

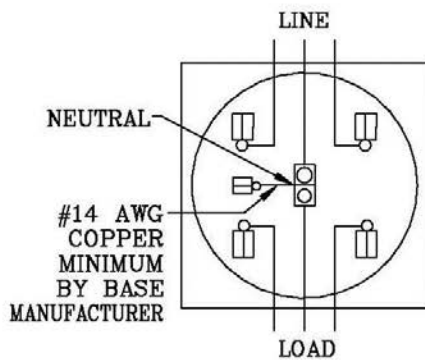


2 WIRE, 1 PHASE, 120 V
 TABLE 1 - APPROVED METER SERVICE DEVICES

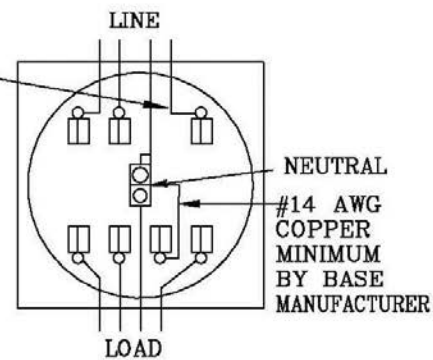


3 WIRE, 1 PHASE, 120/240 V
 TABLE 1 - APPROVED METER SERVICE DEVICES

JUMPER BY CUSTOMER.
 SIZED FOR SERVICE
 AMPACITY #6
 MINIMUM INSULATED
 CONDUCTOR.

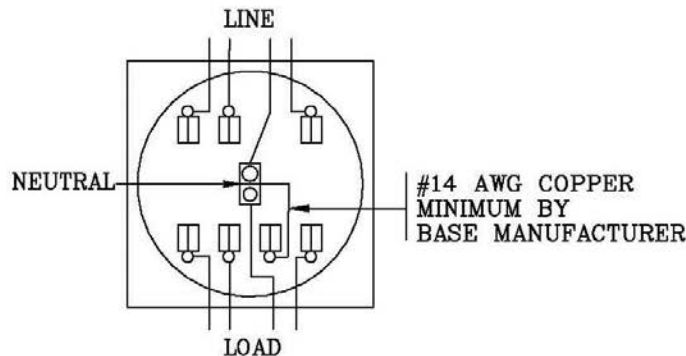


3 WIRE NETWORK, 208/120 V
 TABLE 1 - APPROVED METER SERVICE DEVICES
WITH 5th TERMINAL ACCESSORY



4 WIRE, 3 PHASE, DELTA 240/120 V
 TABLE 3 - APPROVED METER SERVICE DEVICES

THE CONDUCTOR WITH
 HIGHER VOLTAGE TO
 GROUND MUST BE
 INSTALLED IN RIGHT
 HAND POSITION OF
 THE METER BASE
 AND MUST BE
 IDENTIFIED.



4 WIRE, 3 PHASE, 208Y/120 V
 TABLE 3 - APPROVED METER SERVICE DEVICES

<p>RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS PPL ELECTRIC UTILITIES CORPORATION</p>	<p>Rules: 5, 10, 12, 13, 14, 16, 20 Date: 7/18/16 Engr: NAP</p>
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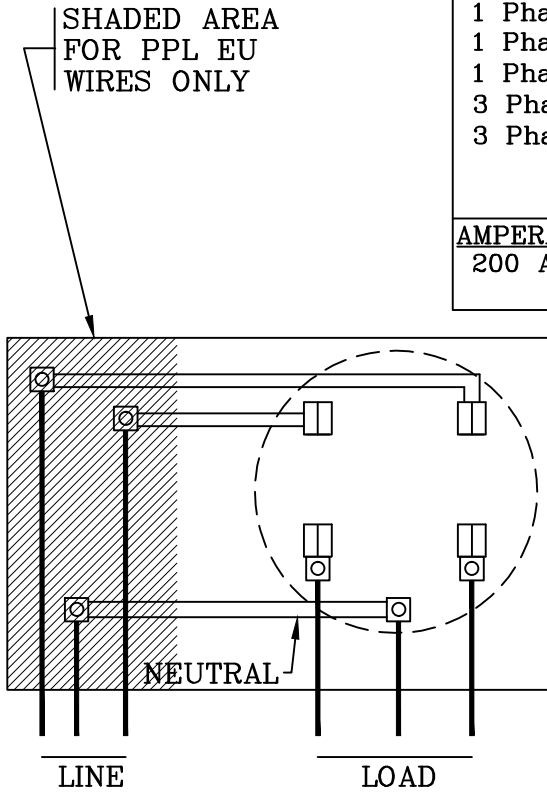
REMSI_S025_R1.dwg

SKETCH #25A
SHEET 1 of 2

Secondary Service
Meter Base Connections for Self-Contained Meters
Underground Service
200A

SKETCH #25A
SHEET 1 of 2

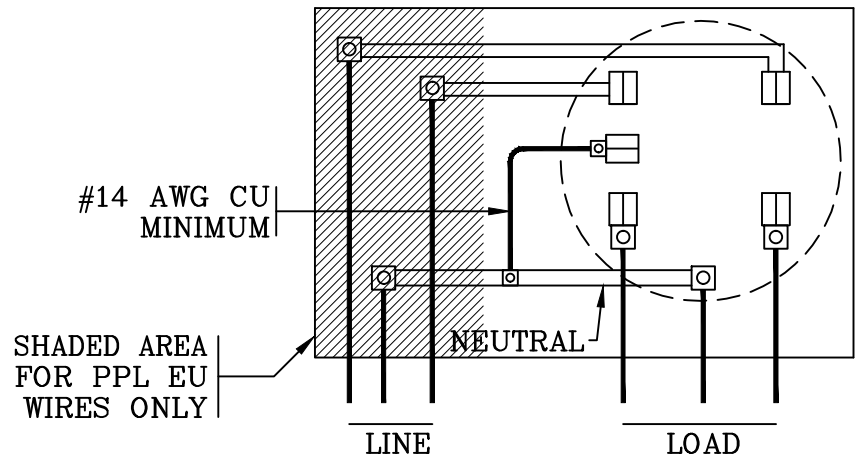
1



LINE LOAD
3 WIRE, 1 PHASE, 120/240 V
TABLE 2 - APPROVED METER SERVICE DEVICES

VOLTAGE: 1 Phase, 2 Wire, 120V 1 Phase, 3 Wire, 120/208V Network 1 Phase, 3 Wire, 120/240V 3 Phase, 4 Wire, WYE 120/208V 3 Phase, 4 Wire, Delta 120/240V	SERVICE TYPE: Underground
AMPERAGE: 200 A	METER BASE LOCATION: Outdoor

2

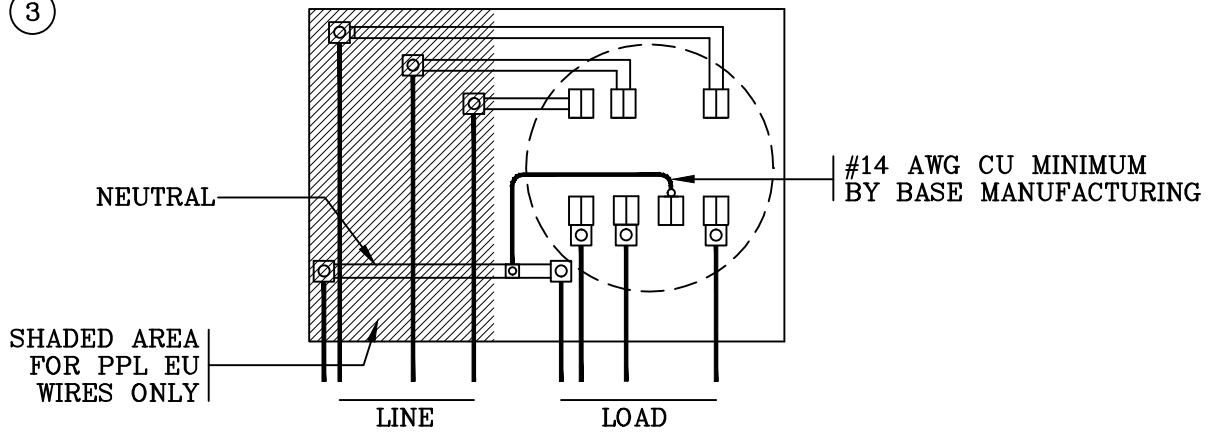


LINE LOAD
3 WIRE NETWORK, 208/120 V
TABLE 2 - APPROVED METER SERVICE DEVICES
WITH 5th TERMINAL ACCESSORY

<p>RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS PPL ELECTRIC UTILITIES CORPORATION</p>	<p>Rules: 5, 10, 12, 13, 14, 16, 20</p>
	<p>Date: 6/7/13 Engr: JPM</p>

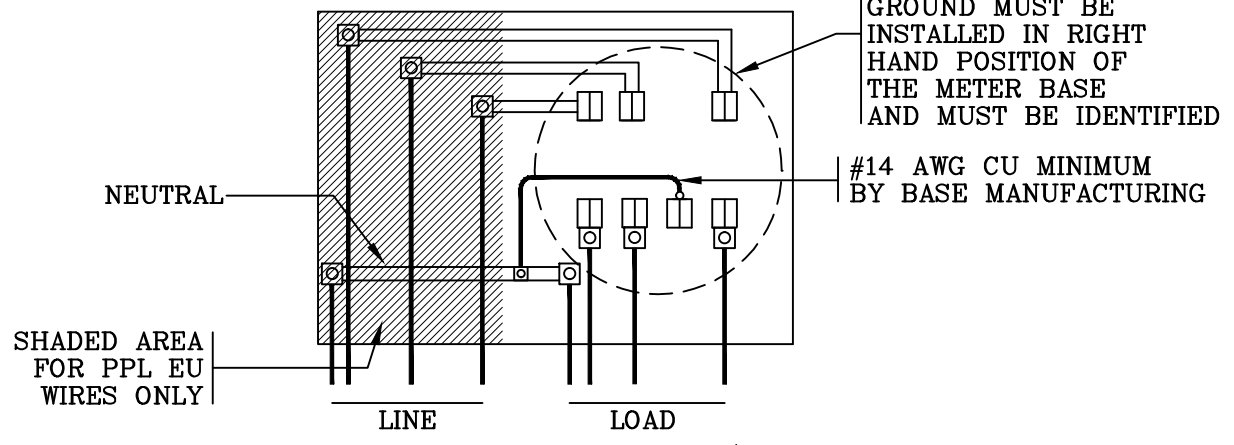
Secondary Service
Meter Base Connections for Self-Contained Meters
Underground Service
200A

3



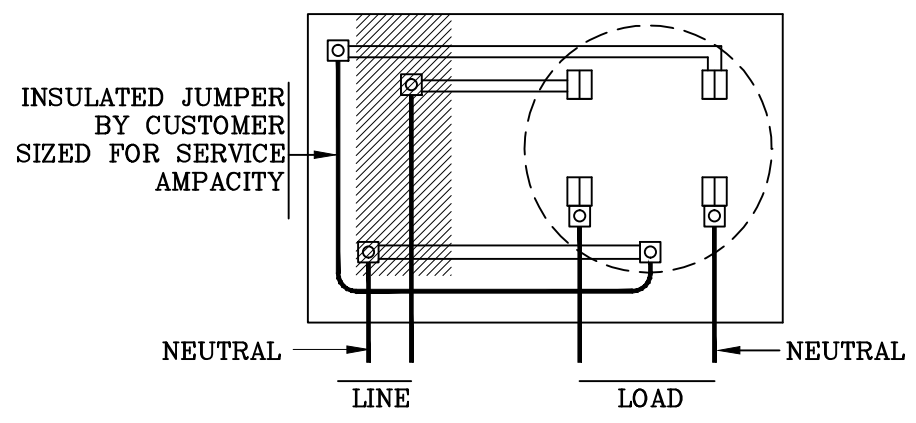
4 WIRE, 3 PHASE, 208Y/120 V
TABLE 4 - APPROVED METER SERVICE DEVICES

4



4 WIRE, 3 PHASE, DELTA 240/120 V
TABLE 4 - APPROVED METER SERVICE DEVICES

5



2 WIRE, 1 PHASE, 120 V
TABLE 2 - APPROVED METER SERVICE DEVICES

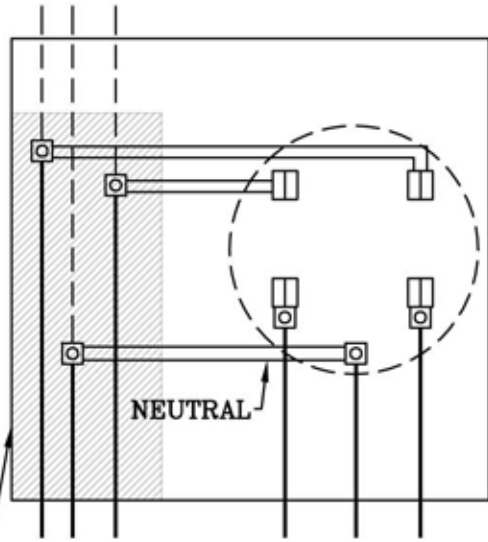
<p>RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS PPL ELECTRIC UTILITIES CORPORATION</p>	<p>Rules: 5, 10, 12, 13, 14, 16, 20 Date: 6/7/13 Engr: JPM</p>
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**Secondary Service
Meter Base Connections for Self-Contained Meters
Overhead or Underground Service
400A**

SKETCH #25B
SHEET 1

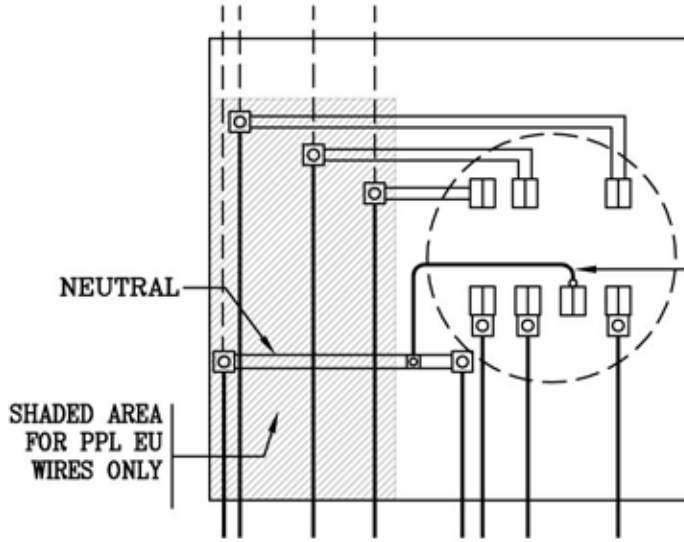
SKETCH #25B
SHEET 1

OH LINE
BY CUSTOMER



UG LINE
BY PPL EU
3 WIRE, 1 PHASE, 120/240V
TABLE 1 & 2 - APPROVED METER SERVICE
DEVICES

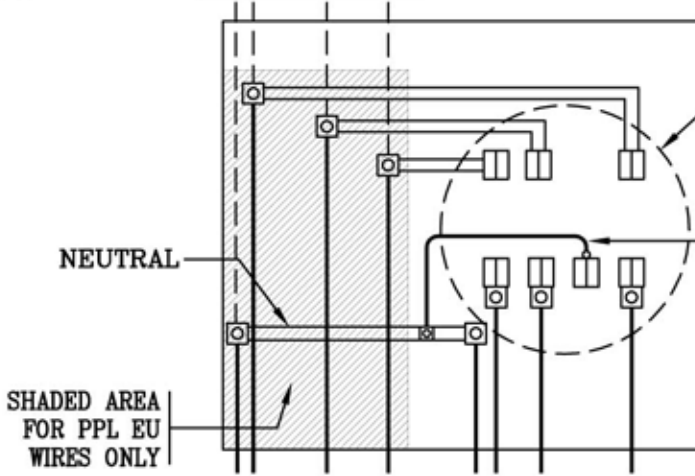
OH LINE
BY CUSTOMER



UG LINE
BY PPL EU
4 WIRE, 3 PHASE, 208Y/120V TABLE 3 & 4
- APPROVED METER SERVICE DEVICES

SHADED AREA
FOR PPL EU
WIRES ONLY

OH LINE
BY CUSTOMER



UG LINE
BY PPL EU
4 WIRE, 3 PHASE, 240A/120V TABLE 3 & 4
APPROVED METER SERVICE DEVICES

THE CONDUCTOR WITH HIGHER
VOLTAGE TO GROUND MUST BE
INSTALLED IN RIGHT HAND
POSITION OF THE METER BASE
AND MUST BE IDENTIFIED

#14 AWG CU
MINIMUM BY BASE
MANUFACTURING

**RULES FOR ELECTRIC METER AND SERVICE
INSTALLATIONS
PPL ELECTRIC UTILITIES
CORPORATION**

Rules: 5, 10, 12, 13, 14, 16, 20

Date: 9/17/08 **Engr:** MDB

Secondary Service
Meter Base Connections for Self-Contained Meters

SKETCH #25C

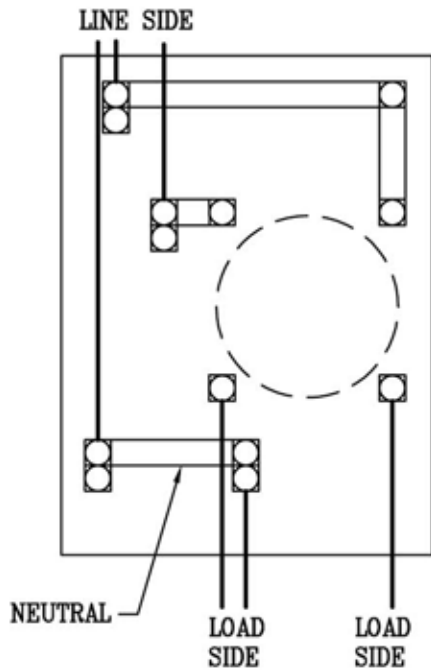
SHEET 1 of 1

SKETCH #25C

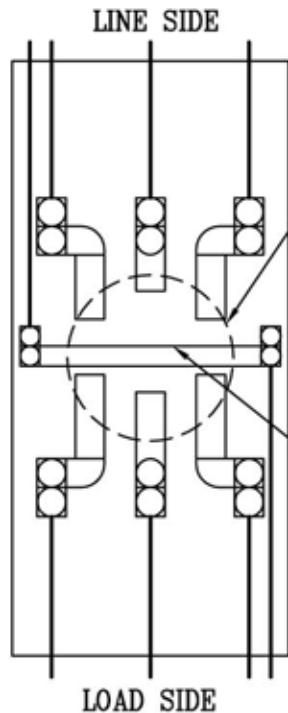
SHEET 1 of 1

NOT TO SCALE

VOLTAGE: 1 Phase, 3 Wire 120/240 3 Phase, 4 Wire WYE 120/208V 3 Phase, 4 Wire DELTA 120/240V	SERVICE TYPE: Overhead
AMPERAGE: 600 A MAXIMUM	CABINET LOCATION: Indoor Outdoor

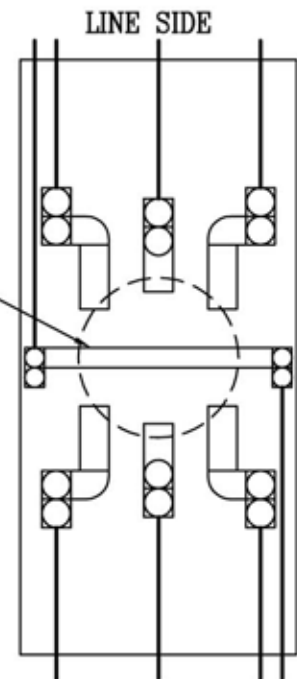


LOAD SIDE
3 WIRE, 1 PHASE, 120/240V
TABLE 1 - APPROVED METER
SERVICE DEVICES



LOAD SIDE
4 WIRE, 3 PHASE, 120/240V
TABLE 3 - APPROVED METER
SERVICE DEVICES

THE CONDUCTOR WITH HIGHER VOLTAGE TO GROUND MUST BE INSTALLED IN RIGHT HAND POSITION OF THE METERBASE AND MUST BE IDENTIFIED



LOAD SIDE
4 WIRE, 3 PHASE, 120/208V
TABLE 3 - APPROVED METER
SERVICE DEVICES

RULES FOR ELECTRIC METER AND SERVICE
INSTALLATIONS
**PPL ELECTRIC UTILITIES
CORPORATION**

Rules: 5, 10, 12, 13, 14, 16, 20

Date: 4/30/10 **Engr:** MDB

Secondary Service Meter Base Connections for Self Contained Meters

SKETCH #25D

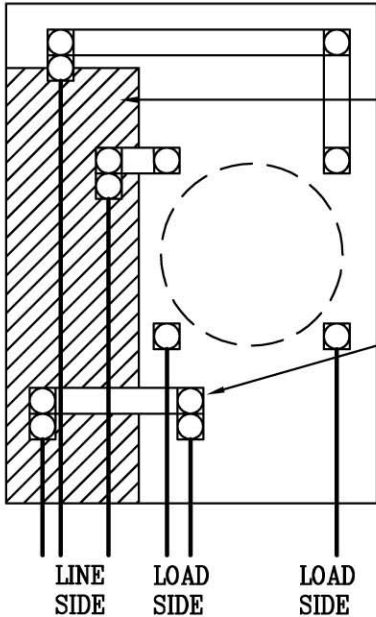
SHEET 1 of 1

SKETCH #25D

SHEET 1 of 1

NOT TO SCALE

VOLTAGE:	SERVICE TYPE:
1 Phase, 3 Wire 120/240	Underground
3 Phase, 4 Wire WYE 120/208V	
3 Phase, 4 Wire DELTA 120/240V	
AMPERAGE:	CABINET LOCATION:
600 A MAXIMUM	Indoor
	Outdoor



SHADED AREA FOR PPL EU USE ONLY

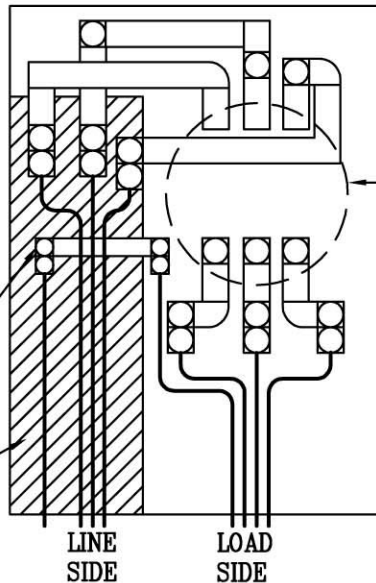
NEUTRAL

LINE SIDE LOAD SIDE LOAD SIDE

3 WIRE, 1 PHASE, 120/240V
TABLE 2 - APPROVED METER SERVICE DEVICES

NEUTRAL

SHADED AREA FOR PPL EU USE ONLY

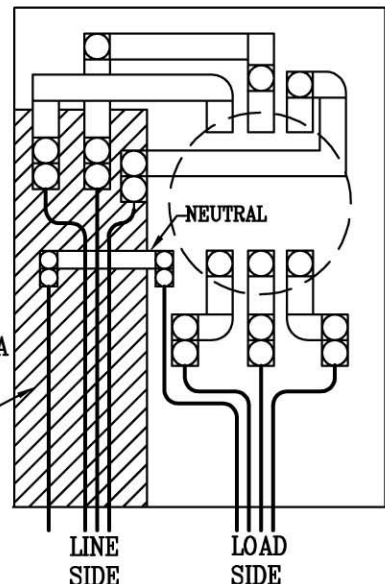


LINE SIDE LOAD SIDE

4 WIRE, 3 PHASE, 120/240V
TABLE 4 - APPROVED METER SERVICE DEVICES

THE CONDUCTOR WITH HIGHER VOLTAGE TO GROUND MUST BE INSTALLED IN RIGHT HAND POSITION OF THE METERBASE AND MUST BE IDENTIFIED

SHADED AREA FOR PPL EU USE ONLY



LINE SIDE LOAD SIDE

4 WIRE, 3 PHASE, 120/208V
TABLE 4 - APPROVED METER SERVICE DEVICES

RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS
PPL ELECTRIC UTILITIES CORPORATION

Rules: 5, 10, 12, 14, 16, 20

Date: 4/30/10 **Engr:** MDB

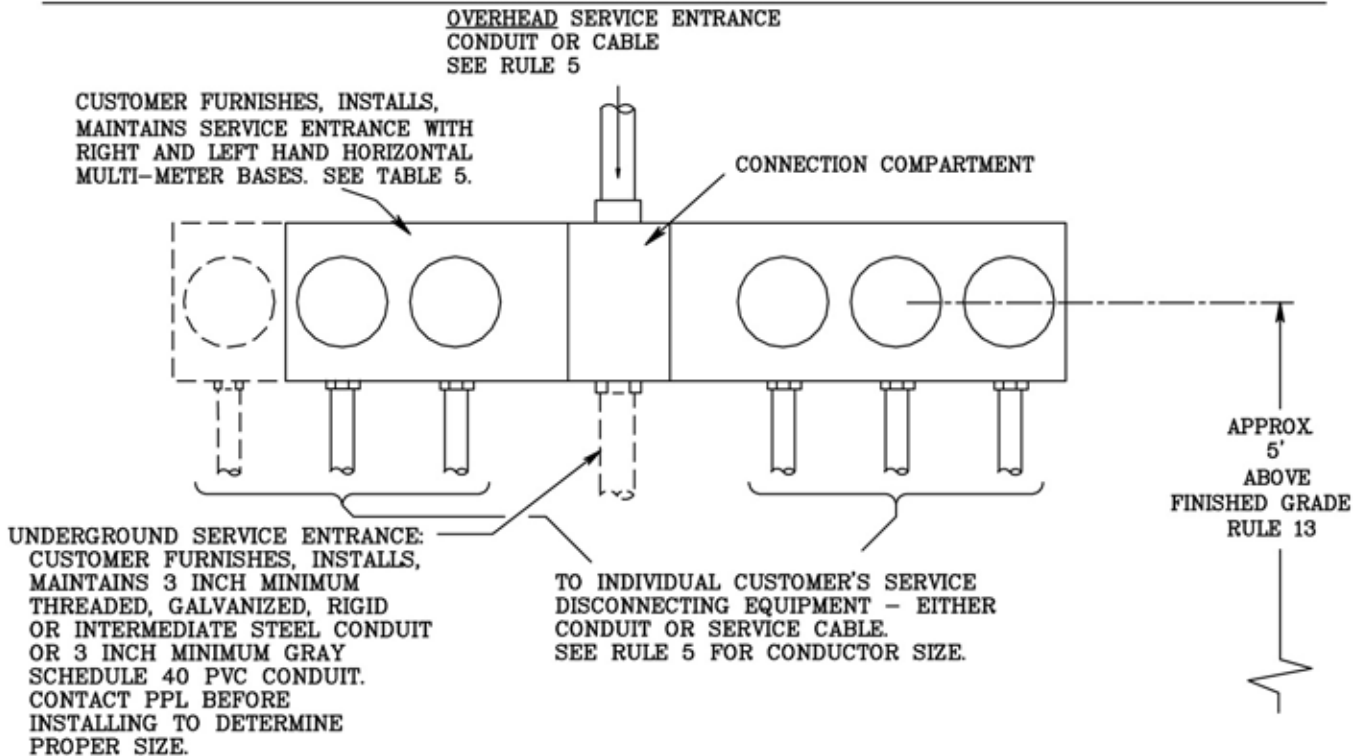
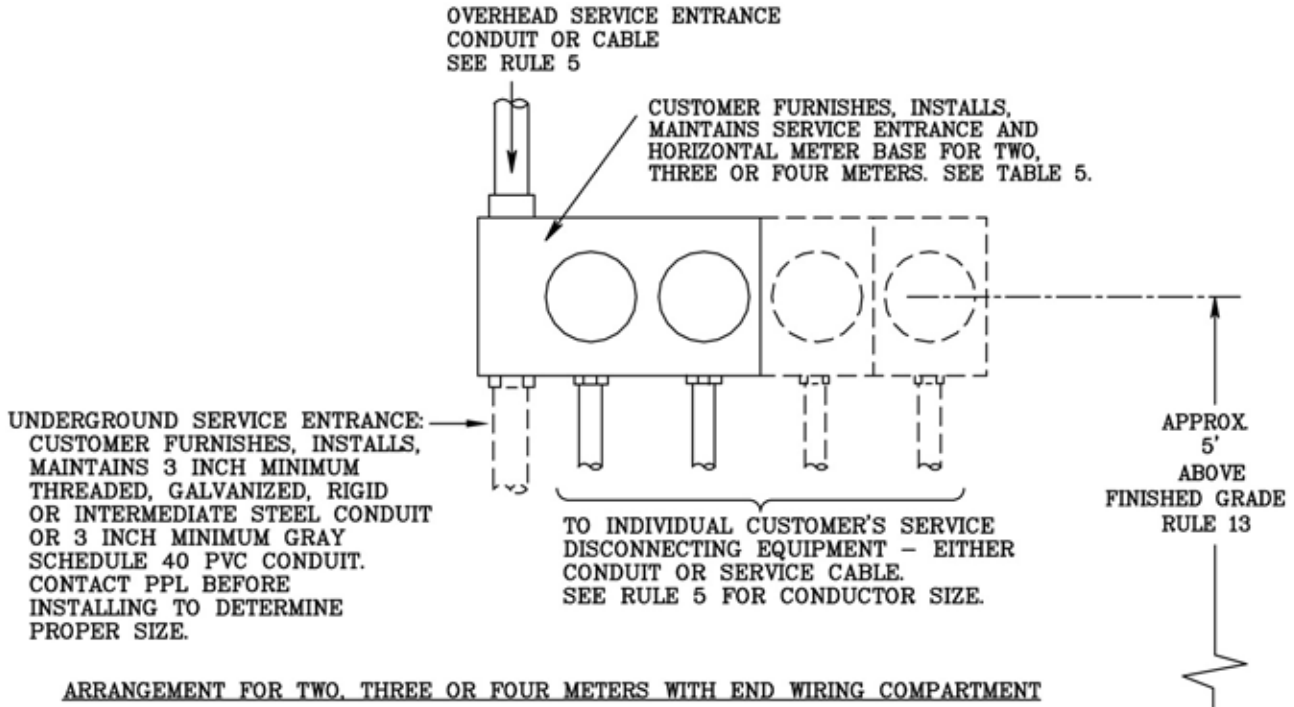
Multi-meter Installation using Meter Base
with Factory Built-in Bus
Single Phase, 3 Wire, 120/208 Volts or 120/240 Volts

SKETCH #26

SHEET 26

SKETCH #26

SHEET 26



REFERENCE CRS 6-19-134

RULES FOR ELECTRIC METER AND SERVICE
INSTALLATIONS
**PPL ELECTRIC UTILITIES
CORPORATION**

Rules: 5, 13, 16

REMSL_S026

Date: 6/25/04 **Engr:** RPV

Metered Traffic Signal
and
Unmetered Streetlight

SKETCH #27

SKETCH #27

SHEET 1 OF 1

SHEET 1 OF 1

CUSTOMER FURNISHES, INSTALLS, MAINTAINS:

1. CONTROLLER CABINET OR PEDESTAL
2. TWO POSITION UNDERGROUND METER BASE (100 A PER POSITION) WITH CENTER WIRING COMPARTMENT. SEE APPROVED METER DEVICES, TABLE 5.

VOLTAGE:

120/240

SERVICE TYPE:

Underground

AMPERAGE:

100 A Maximum

METER BASE

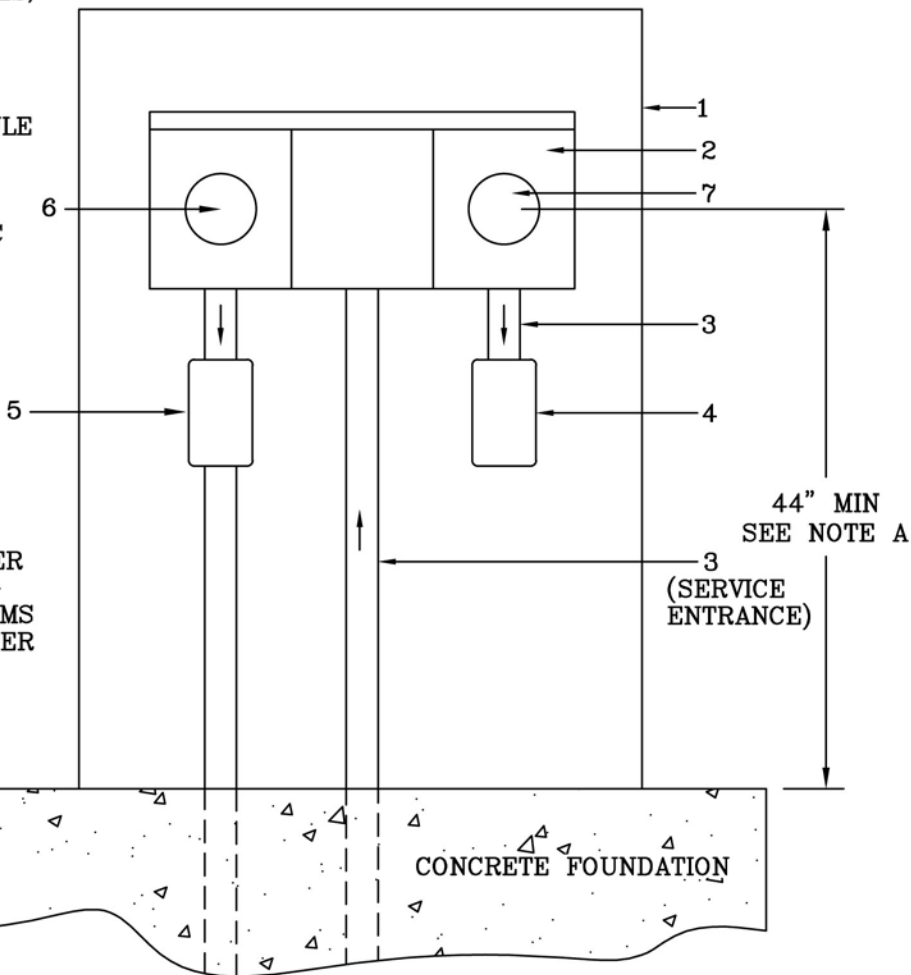
LOCATION:

Outdoor

3. MINIMUM 3 INCH GALVANIZED RIGID STEEL OR GRAY SCHEDULE 40 PVC CONDUIT.

4. SERVICE DISCONNECT EQUIPMENT FOR TRAFFIC SIGNAL.

5. SERVICE DISCONNECT EQUIPMENT FOR STREETLIGHTING.



PPL EU FURNISHES, INSTALLS, MAINTAINS:

6. FOR UNMETERED STREETLIGHTS USE METER SOCKET JUMPER COVER—PPL EU CAT# 943477—WMS CU — MTR—COVER—JUMPER
7. METER

NOTES:

- A. REDUCTION OF MINIMUM HEIGHT REQUIRES APPROVAL OF SUPERVISOR — METERING SERVICES.

RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS

PPL ELECTRIC UTILITIES CORPORATION

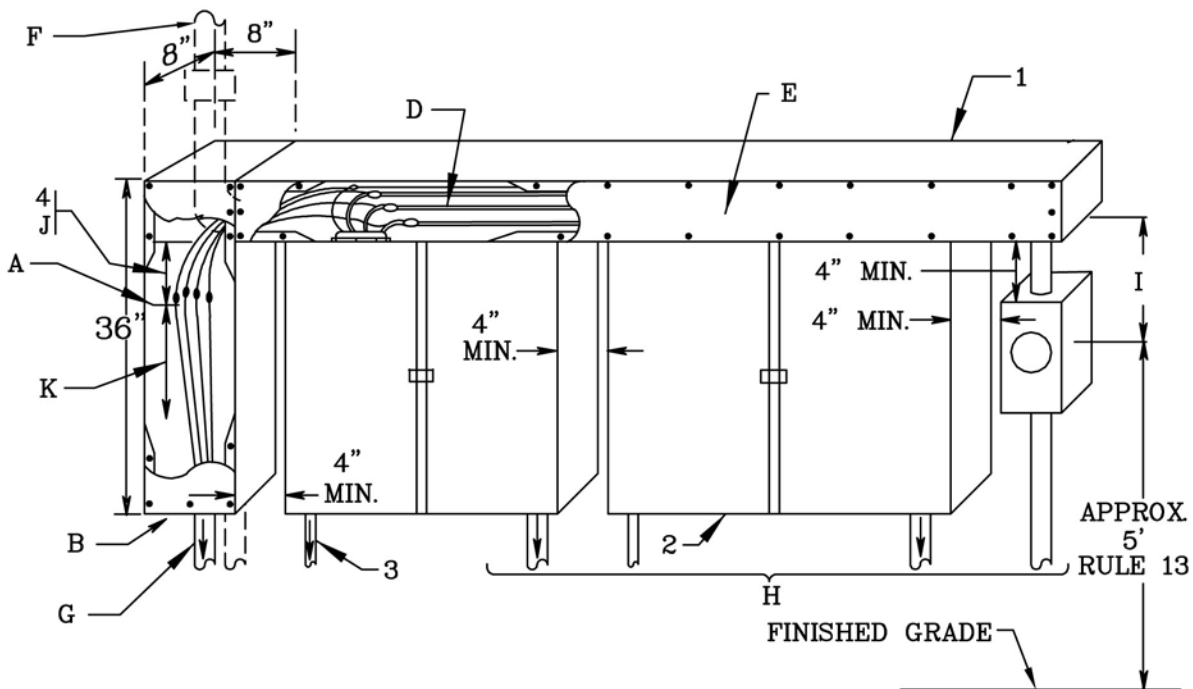
Rules:

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Date: 10/11/12 **Engr:** JPM

NOT TO SCALE

VOLTAGE: 1 Phase, 3 Wire 120/208V 1 Phase, 3 Wire 120/240V 3 Phase, 4 Wire Wye 120/208V 3 Phase, 4 Wire Delta 120/240V	SERVICE TYPE: Overhead Underground
AMPERAGE: **800 A Maximum *1200 A Maximum	CABINET LOCATION: Indoor Outdoor



CUSTOMER FURNISHES, INSTALLS, MAINTAINS:

1. SERVICE ENTRANCE, HORIZONTAL AND VERTICAL SEALABLE WIRE BASE, INSTRUMENT TRANSFORMER CABINETS AND INDIVIDUAL METER BASE. SEE RULE 16.
2. SEALABLE METAL CABINET, MINIMUM SIZE 48" X 48" X 12" AND INSTALLS INSTRUMENT TRANSFORMERS AND METER MOUNTINGS FURNISHED BY PPL EU, RULE 15. SEE SKETCH #14 FOR DETAILS OF ARRANGEMENT OF INSTRUMENT TRANSFORMERS.
3. 1-1/4 INCH MINIMUM, THREADED, GALVANIZED, RIGID, OR INTERMEDIATE STEEL OR SCHEDULE 40 PVC CONDUIT AND FITTINGS BETWEEN INSTRUMENT TRANSFORMER CABINET AND METER MOUNTING. PPL EU FURNISHES AND INSTALLS WIRING BETWEEN INSTRUMENT TRANSFORMERS AND METER.
4. ALLOW 18 INCHES MINIMUM LENGTH OF CABLE IN BASE.

*REFERENCE CRS 6-19-134, SKETCH #14 SKETCH #48, SKETCH #49, SKETCH #54 & SKETCH #54A

RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS
PPL ELECTRIC UTILITIES CORPORATION

Rules: 2, 5, 12, 13, 16, 21

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Date: 10/11/12 **Engr:** JPM

NOTES:

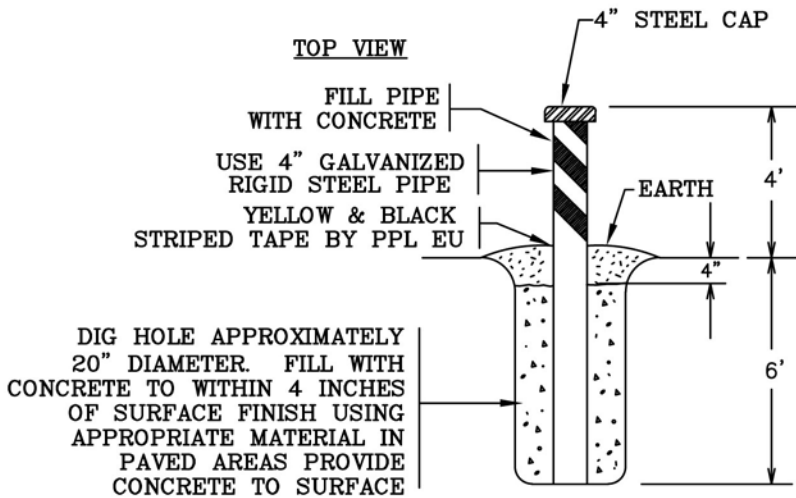
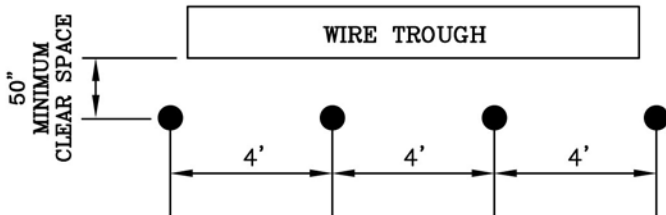
- A. POINT OF SERVICE. PPL EU MAKES CONNECTION BETWEEN SERVICE LATERAL CABLES AND CUSTOMER SERVICE ENTRANCE CABLES. SEE SKETCH #48 AND SKETCH #49 FOR MULTIPLE SERVICE ENTRANCE CONDUCTORS.
- B. VERTICAL SEALABLE WIRE TROUGH SHALL OPEN ON FRONT.
- C. SUB-SERVICE FROM A COMMON 3 PHASE, 4 WIRE, 208 VOLT SERVICE SHALL BE BALANCED (NOT SHOWN). SEE RULE 2.
- D. IDENTIFY THE HIGHEST VOLTAGE TO GROUND CONDUCTOR OF 3 PHASE, 4 WIRE, DELTA CONNECTED SERVICE. SEE RULE 5.
- E. CUSTOMER SHALL MAKE ALL SUB-SERVICE TAPS TO INDIVIDUAL METER BASES FROM CUSTOMER'S BUS IN HORIZONTAL WIRE BASE. SEE RULE 16. METERED CONDUCTORS SHALL NOT BE INSTALLED IN THIS WIRE BASE. SEE RULE 12.
- F. SERVICE ENTRANCE CONDUIT OR CABLE FOR OVERHEAD SERVICE. RULES 5 AND 16.
- G. UNDERGROUND SERVICE ENTRANCE CABLE OR 3 INCH RIGID CONDUIT. RULES 5 AND 16.
- H. SUB-SERVICES TO INDIVIDUAL CUSTOMER'S SERVICE DISCONNECTING EQUIPMENT. SEE RULE 21.
- I. SPACE TO SUIT.
- J. CUSTOMER RESPONSIBILITY
- K. PPL EU RESPONSIBILITY
- L. SKETCH DIMENSIONS ARE FOR ONE SET OF 3 OR ONE SET OF 4 #1/0, #4/0, OR 350 KCMIL ALUMINUM XLP CABLE.
- M. FOR ALL SETS OF 500 AND 750 KCMIL CABLE, CUSTOMER FURNISHES, INSTALLS, MAINTAINS SEALABLE METAL CABINET PER SKETCH #54 AND SKETCH #54A.
- N. OUTDOOR - THE WIRE TROUGH MUST BE ABOVE THE METERING EQUIPMENT. PPL EU MAY REQUIRED CUSTOMER TO INSTALL BARRIERS TO PROTECT METERING FROM VEHICULAR TRAFFIC. IF REQUIRED SEE SKETCH 28 SHEET 3.
- O. INDOOR- THE WIRE TROUGH CAN BE LOCATED ABOVE OR BELOW THE METERING EQUIPMENT. BARRIERS ARE NOT REQUIRED INDOORS. 50" OF CLEAR SPACE IS REQUIRED IN FRONT OF EQUIPMENT.

*REFERENCE CRS 6-19-134, SKETCH #14, SKETCH #48, SKETCH #49, SHETCH #54 & SKETCH #54A

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RULES FOR ELECTRIC METER AND SERVICE
INSTALLATIONS**PPL ELECTRIC UTILITIES
CORPORATION****Rules:** 2, 5, 12, 13, 16, 21**Date:** 10/11/12 **Engr:** JPM

NOT TO SCALE



BARRIER
OR
BARRIER-BC
TAPE

*REFERENCE CRS 6-19-134, SKETCH #14, SKETCH #48, SKETCH #49, SHETCH #54 & SKETCH #54A



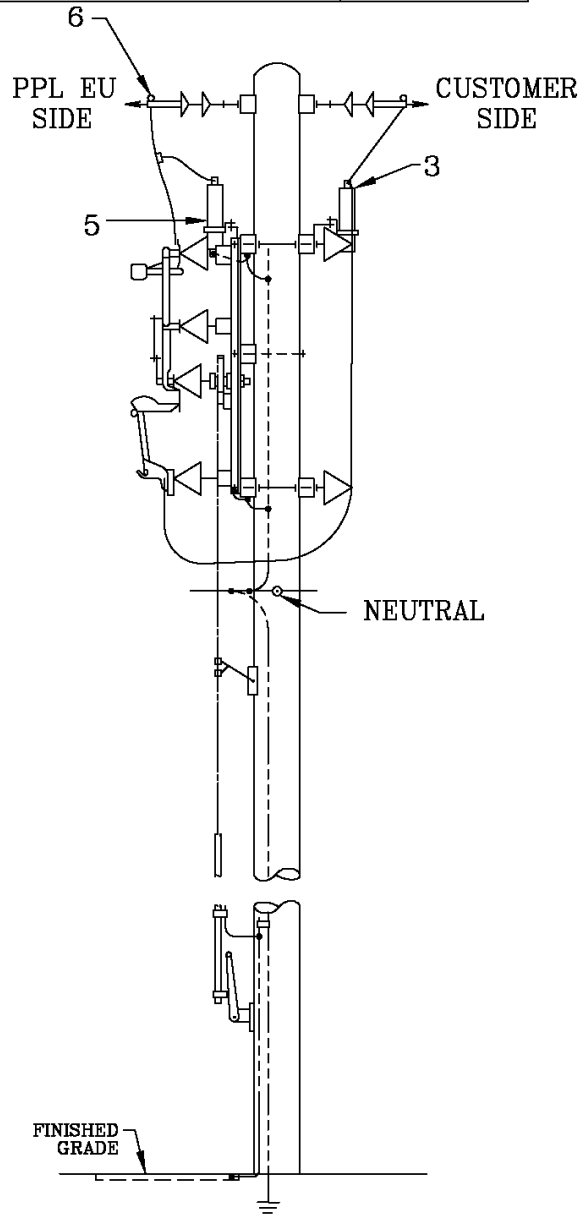
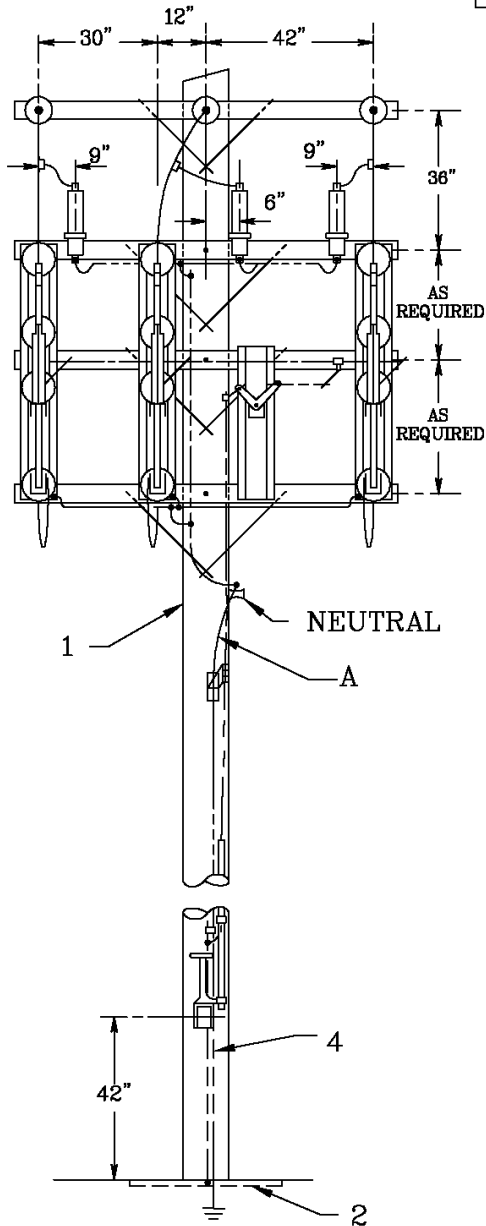
REMSI Sketches 26-50
Sketch #30
6-51

0000-000-ST-6051
 Custom ID: DCS 6-51
 Revision: 01
 Effective Date: 09/19/2016
 Page 12 of 52

Sketch #30 High voltage service, overhead service drop to customers service disconnect on customer-owned service pole, termination of customer-owned overhead distribution, 15kv or less

NOT TO SCALE

VOLTAGE: 3 Phase, 4 Wire Wye 7,200/12,470V	SERVICE TYPE: Overhead
CUSTOMER LOAD: 4 MVA Maximum	



RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS
PPL ELECTRIC UTILITIES CORPORATION

Rules: 7
Date: 3/22/16 Engr: NAP
*REFERENCE CRS 6-9-194, LB-12669
 REMSI_S030P1.dwg



REMSI Sketches 26-50
Sketch #30
6-51

0000-000-ST-6051
Custom ID: DCS 6-51
Revision: 01
Effective Date: 09/19/2016
Page 13 of 52

Sketch #30 High voltage service, overhead service drop to customers service disconnect on customer-owned service pole, termination of customer-owned overhead distribution, 15kv or less (cont.)

CUSTOMER FURNISHES, INSTALLS, MAINTAINS:

1. WOOD POLE (CLASS 3 MIN., SEE SKETCH 47), CROSS ARMS, HARDWARE, 15KV CLASS LOAD INTERRUPTER SWITCH, INCIDENTAL EQUIPMENT, WIRING AND GROUNDING SYSTEM.
2. OPERATING PLATFORM AND GROUNDING SYSTEM FOR OPERATING PLATFORM, SWITCH OPERATING LEVER AND SWITCH BASE.
3. LOAD SIDE LIGHTNING ARRESTERS.
4. SERVICE GROUND – #2 MINIMUM BARE COPPER GROUND WIRE COVERED WITH MOLDING FULL LENGTH OR #2 MINIMUM HDPE COVERED COPPER GROUND WIRE WITHOUT MOLDING.

PPL EU FURNISHES, MAINTAINS; CUSTOMER INSTALLS:

5. LINE SIDE LIGHTNING ARRESTERS.

PPL EU FURNISHES, INSTALLS, MAINTAINS:

6. LINE SIDE DEAD END INSULATOR ASSEMBLY AND CONNECTS SERVICE WIRES TO LINE SIDE TERMINALS OF CUSTOMER'S DISCONNECT. MAXIMUM TENSION PER CONDUCTOR – 2000 LBS.

NOTES:

1. PPL EU CONNECTS GROUND LEAD TO NEUTRAL.
2. PPL EU SPECIFIES TYPE AND LOCATION OF METERING EQUIPMENT FOR EACH LOCATION.
(NOT SHOWN)
3. POINT OF CONTACT (POC) IS CONTAINED IN THE PPL EU DOCUMENT "POINT OF CONTACT REQUIREMENTS FOR HIGH VOLTAGE CUSTOMER-OWNED FACILITIES. 12KV SUPPLY"

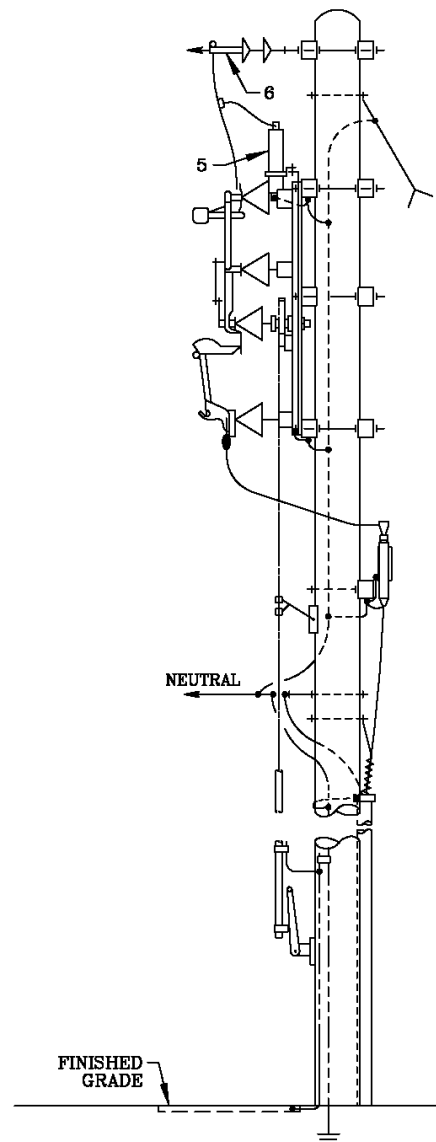
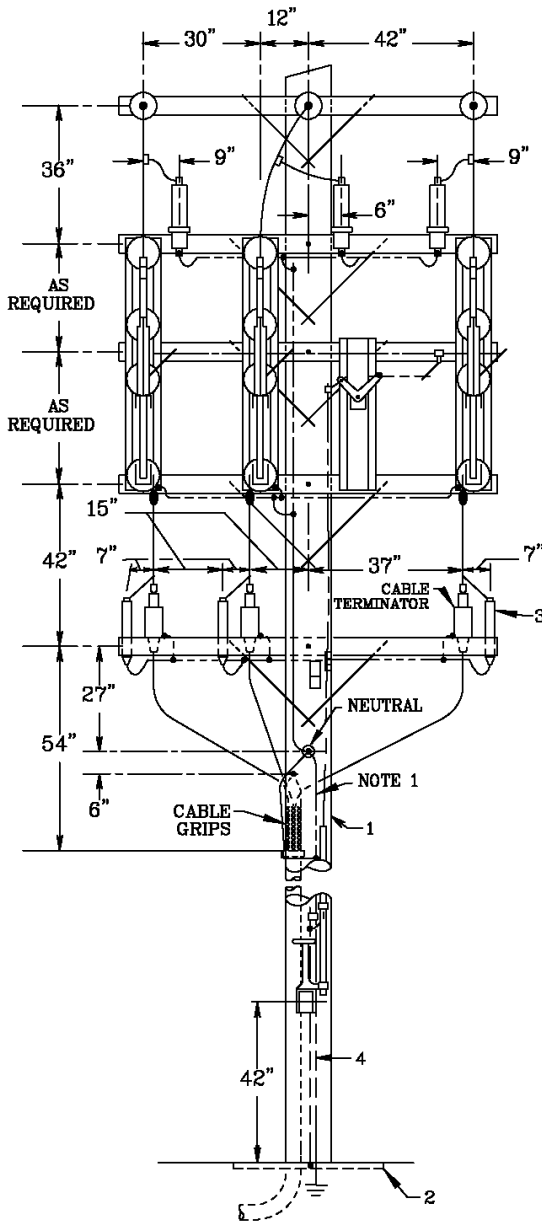
*REFERENCE CRS 6-9-194, LB-12669

<p>RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS</p> <p>PPL ELECTRIC UTILITIES CORPORATION</p>	<p>Rules: 7</p> <p>Date: <u>3/22/16</u> Engr: <u>NAP</u></p> <p style="text-align: right;"><small>REMSL_S030P2.dwg</small></p>
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Sketch #31 High voltage service, overhead service drop to customer's service disconnect on customer-owned service pole, termination of customer-owned underground distribution, 15kv or less

NOT TO SCALE

VOLTAGE: 3 Phase, 4 Wire Wye 7,200/12,470V	SERVICE TYPE: Underground
CUSTOMER LOAD: 4 MVA Maximum	



*REFERENCE CRS 6-09-192, LB12669, SKETCH #47

RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS PPL ELECTRIC UTILITIES CORPORATION	Rules: 7, 8	<small>REMSL_S031.dwg</small>
	Date: 1/12/16 Engr: NAP	



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Sketch #31 High voltage service, overhead service drop to customer's service disconnect on customer-owned service pole termination of customer-owned underground distribution, 15kv or less (cont.)

CUSTOMER FURNISHES, INSTALLS, MAINTAINS:

1. WOOD POLE (CLASS 3 MIN., SEE SKETCH #47), CROSS ARMS, HARDWARE, GUY, 15KV CLASS LOAD INTERRUPTER SWITCH, 15KV CABLE, CABLE TERMINATION, INCIDENTAL EQUIPMENT, WIRING AND GROUNDING SYSTEM.
2. OPERATING PLATFORM AND GROUNDING SYSTEM FOR OPERATING PLATFORM SWITCH OPERATING LEVER, SWITCH BASE AND CONDUIT IN ACCORDANCE WITH PPL EU PRACTICE.
3. LOAD SIDE LIGHTNING ARRESTERS.
4. SERVICE GROUND - #2 MINIMUM BARE COPPER GROUND WIRE COVERED WITH MOLDING FULL LENGTH OR #2 MINIMUM HDPE COVERED COPPER GROUND WIRE WITHOUT MOULDING.

PPL EU FURNISHES, MAINTAINS: CUSTOMER INSTALLS:

5. LINE SIDE LIGHTNING ARRESTERS.

PPL EU FURNISHES, INSTALLS, MAINTAINS:

6. LINE SIDE DEAD END INSULATOR ASSEMBLY AND CONNECTS SERVICE WIRES TO LINE SIDE TERMINALS OF CUSTOMER'S DISCONNECT. MAXIMUM TENSION PER CONDUCTOR - 2000 LBS.

NOTES:

1. PPL EU CONNECTS GROUND LEAD TO NEUTRAL.
2. PPL EU SPECIFIES TYPE AND LOCATION OF METERING EQUIPMENT FOR EACH LOCATION. (NOT SHOWN)
3. POINT OF CONTACT (POC) IS CONTAINED IN THE PPL EU DOCUMENT "POINT OF CONTACT REQUIREMENTS FOR HIGH VOLTAGE CUSTOMER-OWNED FACILITIES 12KV SUPPLY."

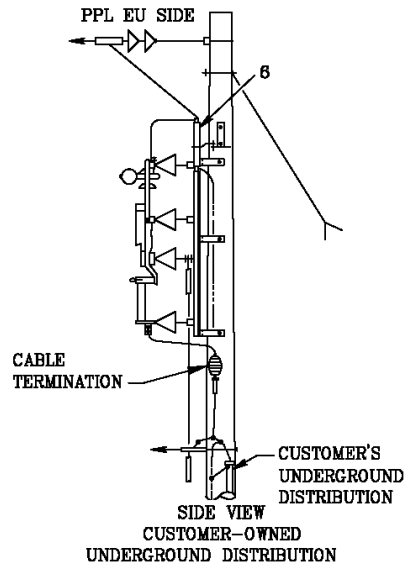
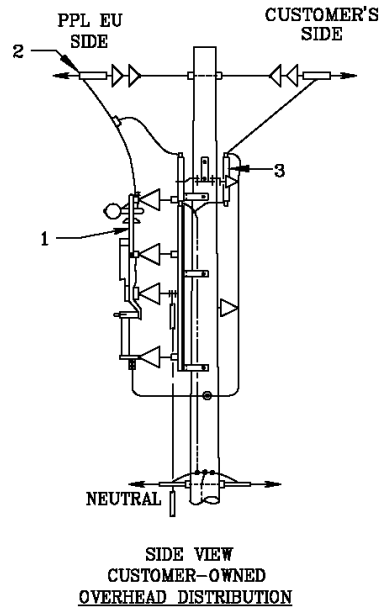
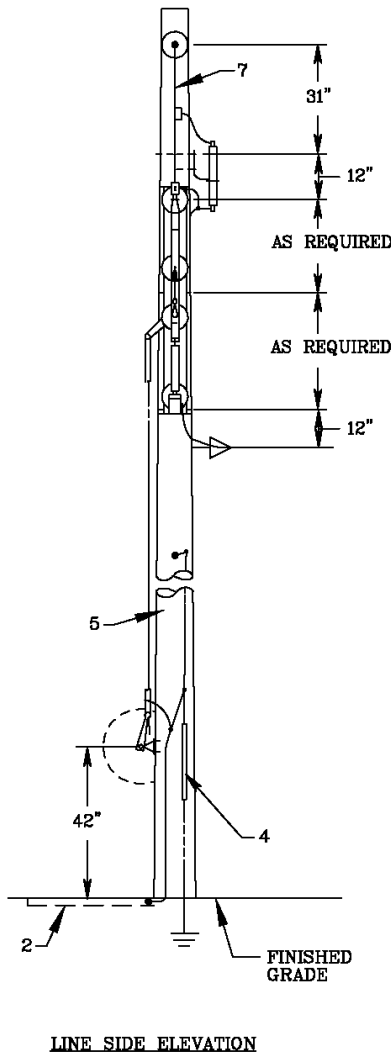
*REFERENCE CRS 6-09-192, LB12669, SKETCH #47

<p>RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS</p> <p>PPL ELECTRIC UTILITIES CORPORATION</p>	<p>Rules: 7, 8</p> <p>Date: <u>1/12/16</u> Engr: <u>NAP</u></p> <p style="text-align: right;">REMSI_S031P2.dwg</p>
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Sketch #32 High voltage service, arrangement of customer's single phase service disconnect on customer-owned service and meter pole, 7.2kv or less

NOT TO SCALE

VOLTAGE: 1 Phase, 7,200V	SERVICE TYPE: Overhead & Underground
CUSTOMER LOAD: 1 MVA Maximum	METER BASE LOCATION: Outdoor



*REFERENCE CRS 6-09-195, LB12669. SKETCH #8C, SKETCH #47

RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS PPL ELECTRIC UTILITIES CORPORATION	Rules: 7, 8, 18 <small>REMSI_S032.dwg</small>
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Sketch #32 High voltage service, arrangement of customer's single phase service disconnect and outdoor metering equipment on customer-owned service and meter pole, 7.2kv or less (cont.)

CUSTOMER FURNISHES, INSTALLS, MAINTAINS:

1. WOOD POLE (CLASS 4 MIN., SEE SKETCH #47), 15KV CLASS FUSED LOAD INTERRUPTER SWITCH, INCIDENTAL EQUIPMENT, WIRING AND GROUNDING SYSTEM, GUYING.
2. OPERATING PLATFORM AND GROUNDING SYSTEM FOR OPERATING PLATFORM, SWITCH OPERATING LEVER AND SWITCH BASE.
3. LOAD SIDE LIGHTNING ARRESTERS.
4. SERVICE GROUND – #2 MINIMUM BARE COPPER GROUND WIRE COVERED WITH MOLDING FULL LENGTH OR #2 MINIMUM HDPE COVERED COPPER GROUND WIRE WITHOUT MOLDING.
5. 1-1/4 INCH MINIMUM, THREADED, GALVANIZED, RIGID OR INTERMEDIATE STEEL OR SCHEDULE 40 PVC CONDUIT AND FITTINGS BETWEEN 8 INCH BY 8 INCH BY 4 INCH WEATHER TIGHT JUNCTION BOX AND METER PANEL.
6. 1 INCH FLEXIBLE CONDUIT AND FITTINGS BETWEEN TRANSFORMERS AND 8 INCH BY 8 INCH BY 4 INCH TRANSFORMERS AND 8 INCH BY 8 INCH BY 4 INCH WEATHER TIGHT JUNCTION BOX.

PPL EU FURNISHES, MAINTAINS; CUSTOMER INSTALLS:

7. METER PANEL (SEE SKETCH #8C).
8. INSTRUMENT TRANSFORMERS AND MOUNTING STEEL.
9. LINE SIDE LIGHTNING ARRESTERS.

PPL EU FURNISHES, INSTALLS, MAINTAINS:

10. SOURCE SIDE DEADEND INSULATOR ASSEMBLY (MAXIMUM TENSION PER CONDUCTOR – 2000 LBS.) AND CONNECTS SERVICE WIRE TO LINE SIDE TERMINALS OF CUSTOMER'S DISCONNECT.
11. WIRING BETWEEN INSTRUMENT TRANSFORMERS AND METER PANEL.

NOTES:

1. PPL EU'S DISTRIBUTION SYSTEM CAN SUPPORT FUSING UP TO 175E STANDARD SPEED POWER FUSES FOR POINT OF CONTACT APPLICATIONS. IF A 175E FUSE IS INADEQUATE FOR CUSTOMER LOADING, THEN AN ELECTRONIC FUSE OR A GROUP OPERATED TRIPPING DEVICE SUCH AS A RECLOSER OR RELAYED CIRCUIT BREAKER IS REQUIRED.

*REFERENCE CRS 6-09-195, LB12669. SKETCH #8C, SKETCH #47

<p>RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS</p> <p>PPL ELECTRIC UTILITIES CORPORATION</p>	<p>Rules: 7, 8, 18</p> <p>Date: 3/4/14 Engr: JCC</p>
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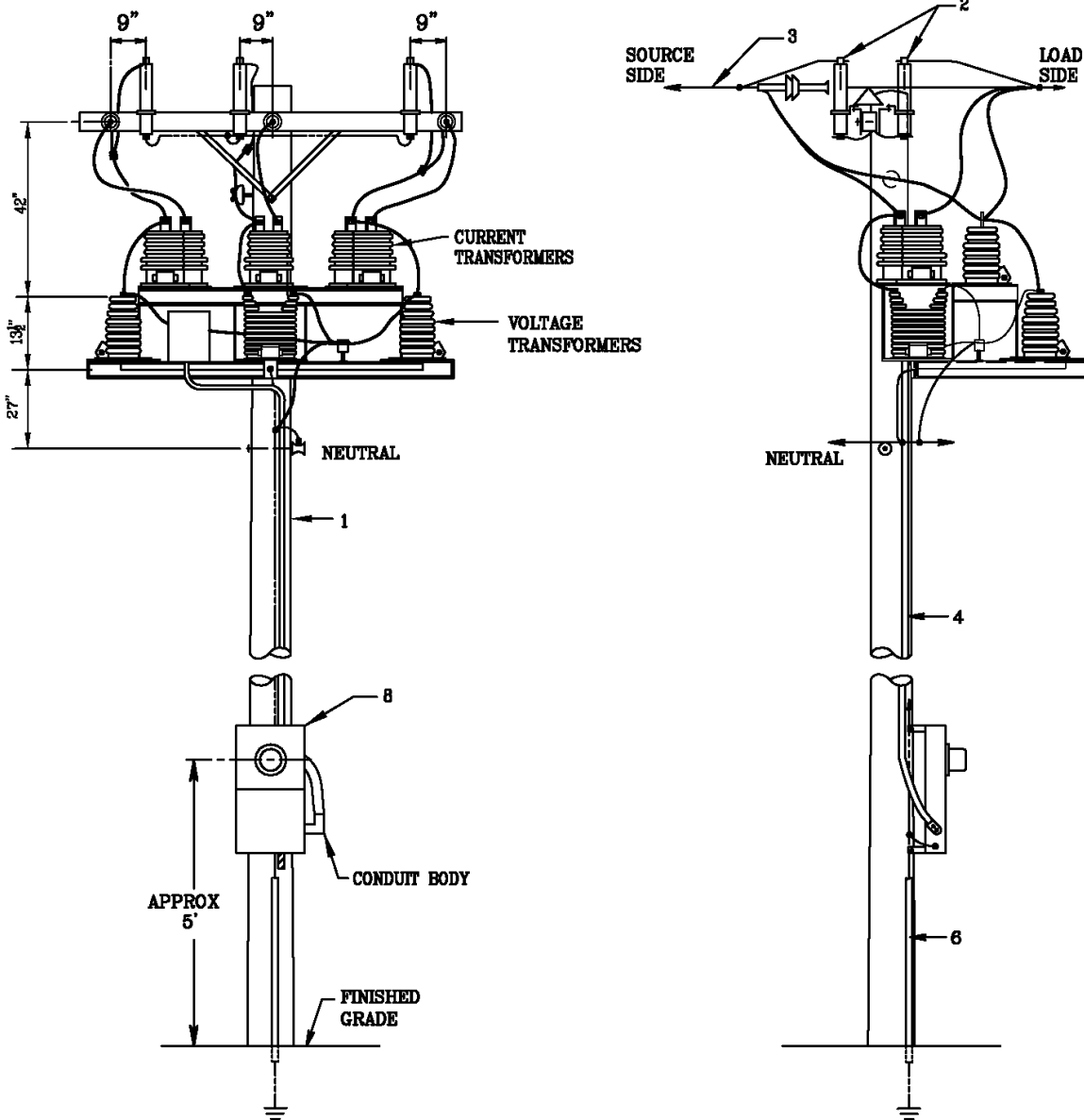
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Sketch #33 High voltage service, typical arrangement of three phase outdoor metering equipment on customer-owned meter pole, overhead line to overhead distribution, 15kv or less

NOT TO SCALE

VOLTAGE: 3 Phase, 4 Wire WYE 7,200/12,470V	SERVICE TYPE: Overhead
CUSTOMER LOAD: 4 MVA Maximum	METER BASE LOCATION: Outdoor



*REFERENCE CRS 6-09-196, SKETCH #30, SKETCH #47

RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS
PPL ELECTRIC UTILITIES CORPORATION

Rules: 7, 8, 18
Date: 4/11/16 **Engr:** NAP



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Sketch #33 High voltage service, typical arrangement of three phase outdoor metering equipment on customer-owned meter pole, overhead line to overhead distribution, 15kv or less (cont.)

CUSTOMER FURNISHES, INSTALLS, MAINTAINS:

1. WOOD POLE (CLASS 4 MIN., SEE SKETCH #47), INSULATORS, INCIDENTAL WIRING AND GROUNDING SYSTEM.
2. SOURCE AND LOAD SIDE LIGHTNING ARRESTERS.
3. OVERHEAD LINE FROM DISCONNECT ON CUSTOMER - OWNED SERVICE POLE, SEE SKETCH #30. MAXIMUM ALLOWED TENSION PER CONDUCTOR - 2000 LBS.
4. 1-1/4 INCH MINIMUM, THREADED, GALVANIZED, RIGID OR INTERMEDIATE STEEL OR SCHEDULE 40 PVC CONDUIT AND FITTINGS BETWEEN JUNCTION BOX AND METER BASE.
5. 1 INCH FLEXIBLE METAL REINFORCED WEATHER TIGHT CONDUIT AND FITTINGS BETWEEN TRANSFORMERS AND 8 INCH BY 8 INCH BY 4 INCH WEATHER TIGHT JUNCTION BOX.
6. SERVICE GROUND - SIZED AND PROTECTED PER NEC ARTICLE 250 - GROUNDING

PPL EU FURNISHES, MAINTAINS; CUSTOMER INSTALLS:

7. INSTRUMENT TRANSFORMERS AND MOUNTING STEEL.
8. METER BASE

PPL EU FURNISHES, INSTALLS, MAINTAINS:

9. WIRING BETWEEN INSTRUMENT TRANSFORMERS AND METER BASE.

NOTES:

1. POINT OF CONTACT (POC) IS CONTAINED IN THE PPL EU DOCUMENT "POINT OF CONTACT REQUIREMENTS FOR HIGH VOLTAGE CUSTOMER-OWNED FACILITIES 12KV SUPPLY."

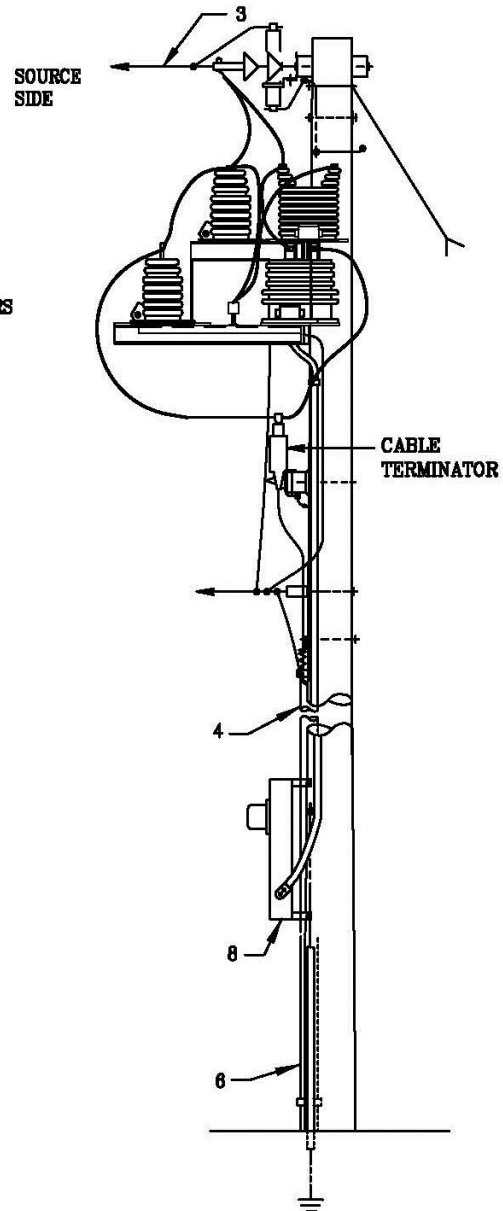
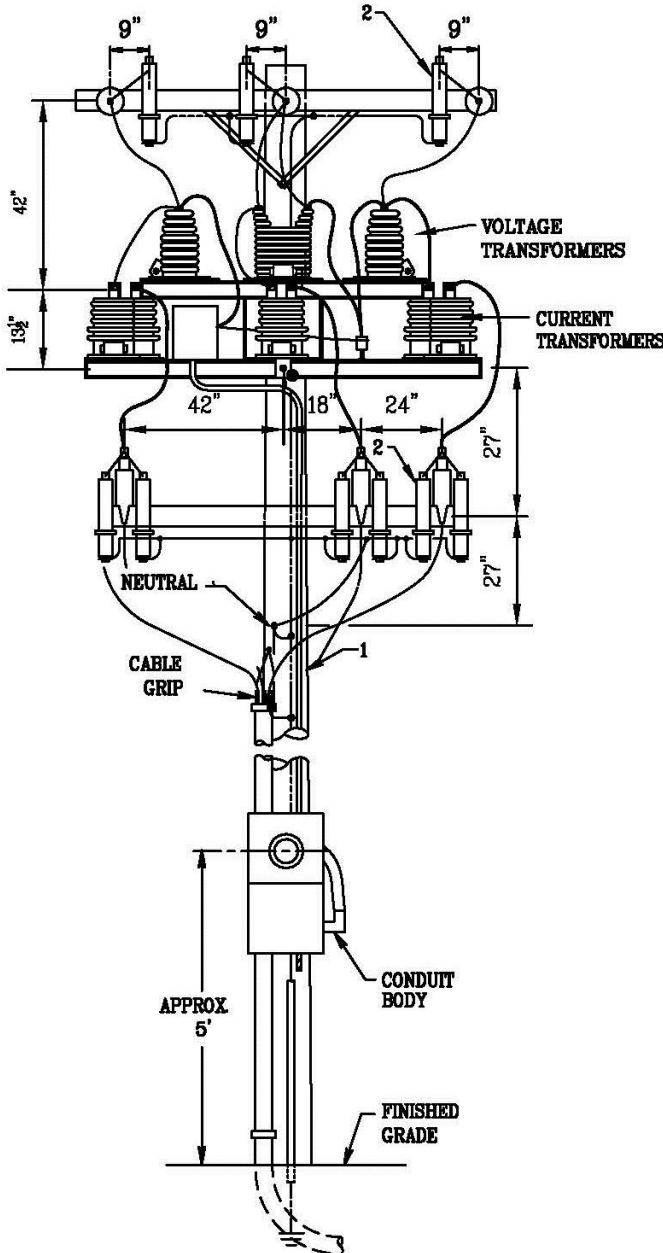
*REFERENCE CRS 6-09-196, SKETCH #30, SKETCH #47

<p>RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS</p> <p>PPL ELECTRIC UTILITIES CORPORATION</p>	<p>Rules: 7, 8, 18</p> <p>Date: <u>4/11/16</u> Engr: <u>NAP</u></p> <p style="text-align: right;"><small>REMSI_S033P2_R1.dwg</small></p>
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Sketch #34 High voltage service, typical arrangement of three phase outdoor metering equipment on customer-owned pole, termination of customer-owned underground distribution, 15kv or less

NOT TO SCALE

VOLTAGE: 3 Phase, 4 Wire WYE 7,200/12,470V	SERVICE TYPE: Underground
CUSTOMER LOAD: 4 MVA Maximum	METER BASE LOCATION: Outdoor



*REFERENCE CRS 6-09-197, SKETCH #30, SKETCH #47

RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS
PPL ELECTRIC UTILITIES CORPORATION

Rules: 7, 8, 18

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Date: 7/18/16 Engr: NAP



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Sketch #34 High voltage service, typical arrangement of three phase outdoor metering equipment on customer-owned pole, termination of customer-owned underground distribution, 15kv or less (cont.)

CUSTOMER FURNISHES, INSTALLS, MAINTAINS:

1. WOOD POLE (CLASS 4 MIN. SEE SKETCH #47), INSULATORS, 15KV CABLE TERMINATION, GUYING, INCIDENTAL WIRING AND GROUNDING SYSTEM.
2. SOURCE AND LOAD SIDE LIGHTNING ARRESTERS.
3. OVERHEAD LINE FROM DISCONNECT ON CUSTOMER - OWNED SERVICE POLE - SEE SKETCH #30. MAXIMUM ALLOWED TENSION PER CONDUCTOR - 2000 LBS.
4. 1-1/4 INCH MINIMUM, THREADED, GALVANIZED, RIGID OR INTERMEDIATE STEEL OR SCHEDULE 40 PVC CONDUIT AND FITTINGS BETWEEN JUNCTION BOX AND METER MOUNTING.
5. 1 INCH FLEXIBLE CONDUIT AND FITTINGS BETWEEN TRANSFORMERS AND 8 INCH BY 8 INCH BY 4 INCH WEATHER TIGHT METAL JUNCTION BOX.
6. SERVICE GROUND - SIZED AND PROTECTED PER NEC ARTICLE 250 - GROUNDING.

PPL EU FURNISHES, MAINTAINS: CUSTOMER INSTALLS:

7. INSTRUMENT TRANSFORMERS AND MOUNTING STEEL
8. METER BASE

PPL EU FURNISHES, INSTALLS, MAINTAINS:

9. WIRING BETWEEN INSTRUMENT TRANSFORMERS AND METER MOUNTING.

NOTES:

1. POINT OF CONTACT (POC) IS CONTAINED IN THE PPL EU DOCUMENT "POINT OF CONTACT REQUIREMENTS FOR HIGH VOLTAGE CUSTOMER-OWNED FACILITIES 12KV SUPPLY."

*REFERENCE CRS 6-09-196, CRS 6-09-197, SKETCH #30, SKETCH #47

<p>RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS PPL ELECTRIC UTILITIES CORPORATION</p>	<p>Rules: 7, 8, 18 Date: 4/11/16 Engr: NAP</p> <p style="text-align: right;"><small>REMSI_S034P2.dwg</small></p>
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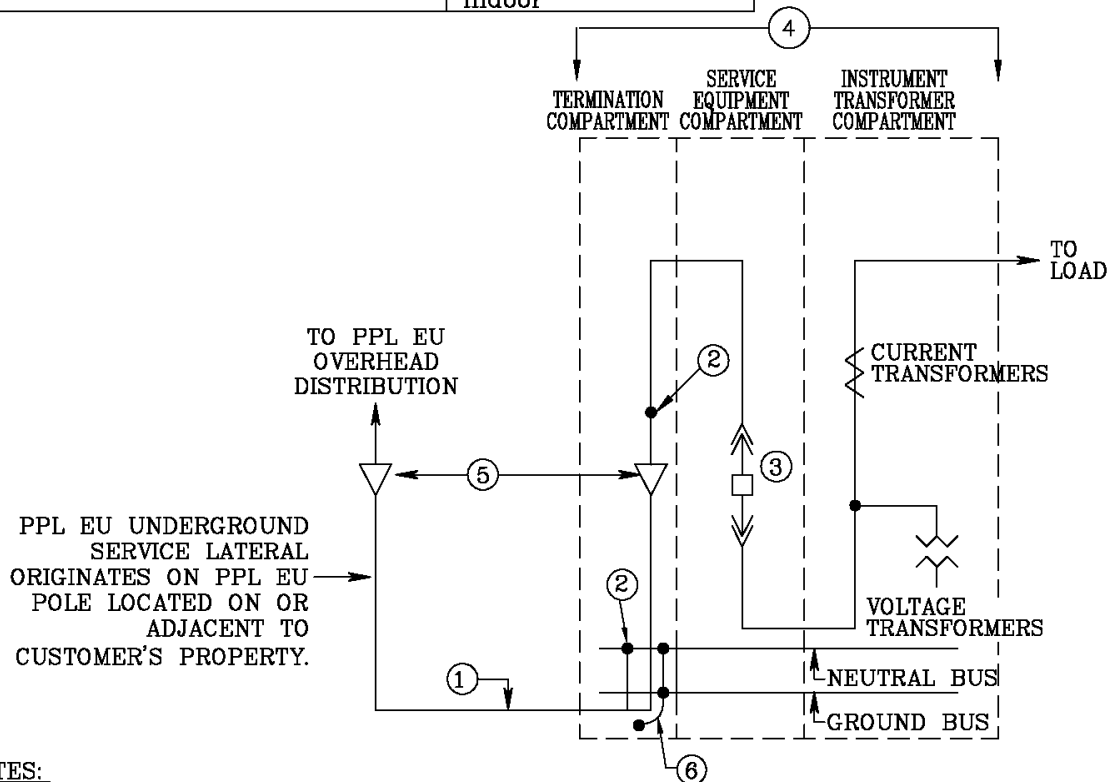


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Sketch #39 High voltage service, 3 phase 4 wire one line diagram for typical arrangement of customer's service disconnect and metering instrument transformers in switch gear compartments, 12 kV

VOLTAGE: 3 Phase, 4 Wire WYE 7,200/12,470V	SERVICE TYPE: Underground
CUSTOMER LOAD: 4 MVA Maximum	METERING EQUIPMENT LOCATION: Indoor



NOTES:

1. UNDERGROUND SERVICE LATERAL FROM OVERHEAD DISTRIBUTION BY PPL EU. SEE REMSI RULE 8.
2. POINT OF DELIVERY (TERMINAL CONNECTORS BY CUSTOMER AS SPECIFIED BY PPL EU).
3. HIGH VOLTAGE SERVICE EQUIPMENT (EXTERNALLY OPERABLE LOAD INTERRUPTER SWITCH OR CIRCUIT BREAKER). SEE CRS 6-09-199.
4. SUPPLIER SHALL SUBMIT DETAILED CONSTRUCTION DRAWING AND ONE LINE DIAGRAM TO PPL EU FOR APPROVAL BEFORE CONSTRUCTING THE SWITCHGEAR. PPL EU FURNISHES DETAILED ELECTRICAL ARRANGEMENT OF TERMINATION AND METERING COMPARTMENTS. SEE CRS 6-09-199.
5. HIGH VOLTAGE SERVICE LATERAL TERMINATIONS BY PPL EU.
6. POINT OF CONTACT (POC) IS CONTAINED IN THE PPL EU DOCUMENT "POINT OF CONTACT REQUIREMENTS FOR HIGH VOLTAGE CUSTOMER-OWNED FACILITIES 12KV SUPPLY."

RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS PPL ELECTRIC UTILITIES CORPORATION	Rules: 8, 18	<small>*REFERENCE CRS 6-09-199 REMSI_S039_R3.dwg</small>
	Date: 1/12/16 Engr: NAP	