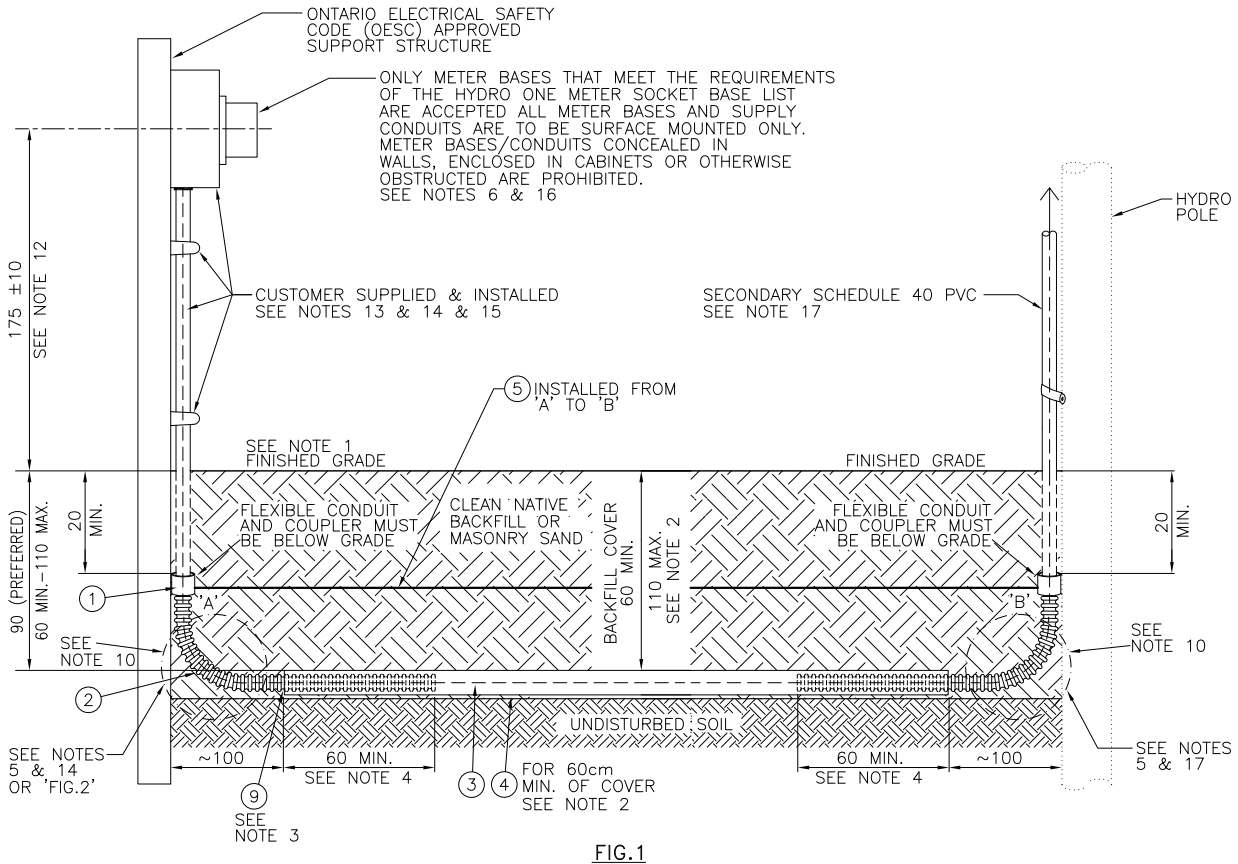

FIG.1

OPTION 1 – TYPICAL INSTALLATION
WITH FLEXIBLE CONDUIT TRANSITION

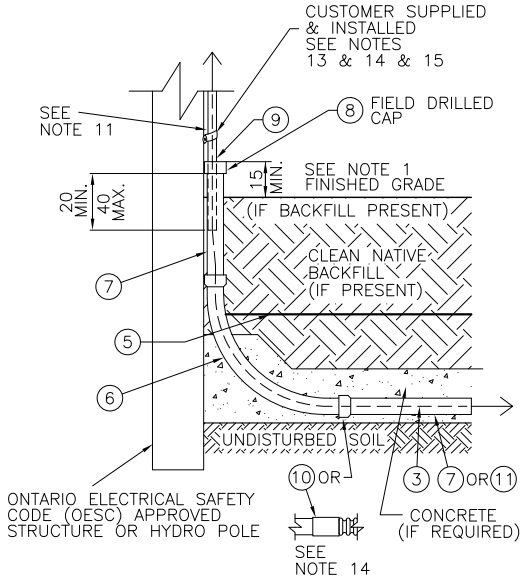

FIG.2

OPTION 2 – TYPICAL INSTALLATION
WITH CONTINUOUS CONDUIT TRANSITION

FOR SHEET 2 OF THIS DRAWING SEE DU11–102–0501
FOR SHEET 3 OF THIS DRAWING SEE DU11–102–0502

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Rev No.	Date	Revision Particulars	dwn	ckd	des	app
03	JUNE 2026	UPDATED REFERENCE TO METER BASE REQUIREMENTS ON FIG. 1 AND NOTE 6. UPDATED NOTE 16 TO INCLUDE CLEARANCE REQUIREMENTS FOR PROPANE TANKS. UPDATED PULLING TAPE DESCRIPTION FOR PART #9 AND IN NOTE 3.	PC	MM	VM	MM
02	JUNE 2024	PROVIDED A BETTER REFERENCE TO NOTE 1 ON ALL FIGURES FOR BACKFILLING INSTRUCTIONS.	GJ	PC	DK	MM

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PC	M.MATEVSKI	M.MATEVSKI	M.MATEVSKI P.Eng.
Scale: N.T.S.	Date: (yyyy/mm/dd) 2022/05/03	Pole ID:	

Title: TRENCH DETAIL – SECONDARY SERVICE CABLE FROM DIP POLE TO METER BASE

Drawing No. DU11–102–0500 Rev. No. 03

A4 (210 x 297) millimetres 0 10 50

Sheet Number: 1 / 3

TITLE BLOCK REV 02 – AUGUST 2014

NOTES:

1. BACKFILL: ENSURE DB2 CONDUIT IS ENVELOPED WITH MASONRY SAND UPON INSTALLATION (7.5cm MINIMUM BELOW AND 15cm MINIMUM ABOVE). REMAINDER OF BACKFILL MUST BE CLEAN AND FREE OF DEBRIS TO PREVENT DAMAGE TO THE DUCT. BACKFILL SHALL BE WELL TAMPED.
2. STRAIGHT DUCT SHALL BE EMPLOYED IN THE TRENCH TO HOUSE THE CABLE. IT SHALL BE 100mm (4") DIAMETER PVC TYPE DB2 CONDUIT. THE ENDS OF THE DUCT SHALL BE CAPPED OR BAGGED TO PREVENT DEBRIS AND MOISTURE FROM ENTERING THE DUCT PRIOR TO CABLE INSTALLATION. AFTER CABLE INSTALLATION, INSTALL THE FLEXIBLE CONDUIT TO MAKE 90° TRANSITION. SEE DU11–102–0500 OPTION 1. SCHEDULE 40 PVC CONDUIT AND ASSOCIATED FITTINGS ARE ACCEPTABLE POSITIVE DEVIATION, IF DB2 CONDUIT IS NOT AVAILABLE, PROVIDED SEPARATIONS SPECIFIED ON THIS DRAWING ARE MAINTAINED.

   SEE OPTION 2 FOR ALTERNATE METHODS.
3. PULL TAPE: A 5/8" WIDE POLYESTER PULLING TAPE MUST BE INSTALLED THROUGH THE ENTIRE LENGTH OF THE DUCT.
4. INSERT FLEXIBLE CONDUIT 60cm IN THE DB2 CONDUIT. THE SIZE OF THE FLEXIBLE CONDUIT WILL VARY BASED ON THE CONDUCTOR SIZE.
5. RADIUS MUST BE GREATER THAN THE SPECIFIED CABLE MINIMUM BENDING RADIUS.
6. INSTALL METER COMPARTMENT AS PER ONTARIO ELECTRICAL SAFETY CODE (OESC), USE ONLY METER BASES THAT MEET THE REQUIREMENTS OF HYDRO ONE METER SOCKET BASE LIST.
7. TELECOMMUNICATION PLANT MAY SHARE SERVICE TRENCH BUT MUST BE INSTALLED IN ITS OWN CONDUIT.
8. PREFERRED ROUTING FOR GAS SERVICE SHALL BE ON OPPOSITE SIDE OF THE BUILDING THAN THAT OF THE ELECTRICAL SERVICE. IF COMMON TRENCHING IS UNAVOIDABLE, 30cm MINIMUM CLEAR SEPARATION SHALL BE MAINTAINED IN ALL DIRECTIONS BETWEEN GAS SERVICE AND ELECTRICAL SUPPLY CABLE.
9. CLEARANCES, DEPTHS, SEPARATIONS AND FORMS OF MECHANICAL PROTECTION OF THE CABLE ARE MINIMUM REQUIREMENTS. INCREASED CLEARANCES AND OR ADDITIONAL FORMS OF MECHANICAL PROTECTION ARE CONSIDERED POSITIVE DEVIATIONS AND ARE ALLOWED.
10. IF FURTHER TRENCHING ALONG ROAD ALLOWANCE IS REQUIRED, IT SHALL BE CONSTRUCTED PER HYDRO ONE STANDARD TRENCH PROFILES.
11. RISER CONDUIT TO BE EASILY REMOVED BY HYDRO ONE FOR CABLE INSTALLATION PURPOSES. FOR HYDRO ONE DIP POLE PARTS AND FRAMING REFER TO SECTION 5.
12. FINAL METER BASE HEIGHT IN REFERENCE TO FINISHED GRADE.
13. CUSTOMER SUPPLIED AND INSTALLED CONDUIT, METER BASE, CLAMPS AND ASSOCIATED HARDWARE INSTALLED PER ONTARIO ELECTRICAL SAFETY CODE (OESC).
14. THE METER BASE CONDUITS WILL VARY IN SIZE DEPENDING ON CONDUCTOR SIZE (i.e. 2" DIAMETER FOR 3/0 AWG, 3" FOR 250 kcmil OR 500 kcmil CONDUCTOR). FLEXIBLE CONDUIT WILL ALSO VARY IN SIZE (i.e. 2" OR 3" FOR 3/0 AWG OR 3" FOR 250 kcmil OR 500 kcmil CONDUCTOR) WHEN USED TO CONNECT THE RISER CONDUIT TO THE HORIZONTAL DUCT PER OPTION 1. FLEXIBLE CONDUIT WILL BE 4" FOR ALL CONDUCTOR SIZES IF USED AS MAIN CONDUIT (HORIZONTAL DUCT) PER OPTION 2. APPROPRIATELY SIZE COUPLERS (SHOWN AND LISTED IN THE PARTS LIST) SHALL BE USED TO CONNECT THE SCHEDULE 40 PVC TO THE FLEXIBLE CONDUIT. ONLY ONE SERVICE CABLE PERMITTED PER CONDUIT.
15. THE SUPPLY SERVICE CABLE AT THE METER BASE SHALL BE HOUSED IN ITS OWN DISTINCT CUSTOMER SUPPLIED CONDUIT (CONDUIT SHALL NOT HOUSE ANY OTHER PLANT), AND SHALL NOT HAVE ANY ACCESS PORT (LB CONDUIT FITTING, JUNCTION BOX, ETC.). ANY MODIFICATION TO CUSTOMER OWNED METER–BASE WHICH VOIDS CSA CERTIFICATION IS NOT PERMITTED.
16. METER BASE TO MAINTAIN 1m MINIMUM CLEARANCE FROM DISCHARGE OF ANY NATURAL GAS RELIEF DEVICE OR VENT. IF 1m CLEARANCE IS NOT AVAILABLE IT CAN BE REDUCED TO 0.3m MINIMUM CLEARANCE WHICH IS ONLY APPLICABLE IF REGULATORS EQUIPPED WITH CERTIFIED OVERPRESSURE CUT–OFF/SHUT–OFF WITH LIMITED OR NO RELIEF IS INSTALLED FOR THE GAS DISCHARGE OPENING. THE OVERPRESSURE RELIEF DEVICES MUST BE MARKED "LR–OPCO", "P–OPCO" OR "OPSO". METER BASE TO MAINTAIN MINIMUM CLEARANCE OF 3m FROM THE VALVE OF A PROPANE TANK WITH CAPACITY OF 475–3800L OR 7.5m FROM THE VALVE ON A PROPANE TANK WITH CAPACITY GRATER THAN 3800L.
17. FOR CONDUIT SIZES AND TRANSITION OPTIONS AT THE DIP POLE SEE DU5–303–0500.

PARTS LIST

PART No.	MM No.	DESCRIPTION	QTY.
1	30030348 30031161 30030236	COUPLER KIT, 2", FLEX TO 2" RIGID COUPLER KIT, 3", FLEX TO 2" RIGID COUPLER KIT, 3", FLEX TO 3" RIGID	A/R
2	30030366 30030235	CONDUIT, FLEX, 2" CONDUIT, FLEX, 3"	A/R
3	30005908 30005915 30005959	SERVICE CABLE, 3/0 AWG, 3–COND., AL. SERVICE CABLE, 250Kcmil, 3–COND., AL. SERVICE CABLE, 500Kcmil, 3–COND., AL.	A/R
4	30007710	CONDUIT, PVC, 4", DB2	A/R
5	20002181	CAUTION TAPE, BURIED ELECTRIC LINE	A/R
6	30007687	SWEEP, 4" x 16" RADIUS, SCHEDULE 40, PVC	A/R
7	30007583	CONDUIT, 4", SCHEDULE 40, PVC	A/R
8	30031602	CAP, 4", SCHEDULE 40, PVC	A/R
9	20000007	TAPE, PULLING, 5/8" WIDE, POLYESTER	A/R
10	30031918	COUPLER KIT, 4" FLEX TO 4" RIGID	A/R
11	30031917	CONDUIT, FLEX, 4"	A/R

MM# = REFER TO SECTION 16 ONLY | A/R = AS REQUIRED

∗ = SUPPLIED BY CUSTOMER

FOR SHEET 1 OF THIS DRAWING SEE DU11–102–0501
FOR SHEET 3 OF THIS DRAWING SEE DU11–102–0502

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Scale: N.T.S.	Date: (yyyy/mm/dd) 2022/05/03	Pole ID:	

Title:
TRENCH DETAIL – SECONDARY SERVICE CABLE FROM DIP POLE TO METER BASE

Drawing No. DU11–102–0501

Rev. No. 03

TITLE BLOCK REV 02 – AUGUST 2014

A4 (210 x 297) millimetres 0 10 50

Hydro One trenching guidelines:
Secondary service trench with supply taken from dip pole
per Hydro One Networks Inc. standard drawing DU11–102–0500

The installation options listed below explain Hydro One Networks' Standard (DU11–102–0500) for the installation of Hydro One owned single–phase secondary underground cables. Regardless of who installs the cable, the trench **must** be constructed per DU11–102–0500/0501. **Note: Options described below will allow the cable installer crew to perform their work without a coordinated site visit with the trench installer.**

For most installations, either Option 1 or Option 2 can be selected by the customer (Option 2 calls for increased mechanical protection via more rigorous conduit); however, Option 2 must be selected for installations where a minimum cover of 60cm is not possible.

Option 1 (requires minimum cover of 60cm): Ducted cable encapsulated in masonry sand at trench ends as shown in DU11–102–0500

- The trench can be backfilled, excluding open pit area at either end of trench prior to cable installation.
- The trench must be backfilled with clean masonry sand in areas indicated in DU11–102–0500 and clean native backfill to finished grade immediately after installation of flexible conduit and cable.

Since trench end(s) is(are) temporarily left open (i.e. if backfilling cannot occur immediately after cable installation), a length of flexible conduit (specified by Hydro One and listed in DU11–102–0500) shall be applied between the horizontal DB2 conduit and the vertical Schedule 40 PVC at both the meter base and the source pole to provide temporary protection of the cable. See 'Fig.1' in DU11–102–0500. The flexible conduit shall be inserted inside the 100mm DB2 duct a minimum of 60cm.

Option 2 (reduced cover): Schedule 40 PVC / flexible conduit, and sweeps

- In areas of poor soil conditions (e.g. rocky) and where installing straight lengths of Schedule 40 PVC is impossible, flexible conduit can be installed at the sole discretion of Hydro One. This flexible conduit, as listed in DU11–102–0500, shall be 100mm diameter electrical grade corrugated flexible conduit. Flexible drainage pipe or thin wall conduit is **NOT** acceptable.
- In a case where 60cm of cover is not possible, the secondary cable may be installed in Schedule 40 PVC or in a continuous length of flexible conduit (see above for details on flexible conduit) at a minimum cover of 30cm.
- In a case where 30cm of cover is not possible, such as on bald rock, Schedule 40 PVC (or alternatively the flexible conduit as mentioned above) will be covered in a minimum thickness of 3" (7.5cm) of concrete wherever reduced cover is encountered. The concrete shall cover the conduit at all points until the vertical component of the sweep is reached. If flexible conduit is employed, it shall not permanently extend beyond the concrete and be left exposed.
- Schedule 40 PVC sweeps shall be used at the trench ends to make the transition to the meter base and dip pole conduits. See 'Fig.2' in DU11–102–0500.

NOTE: If any discrepancies between this document and the referenced standard are found, the standard shall prevail. It is **the customer's responsibility to ensure compliance** to the standard. Not complying with the standard will result in Hydro One not completing their work and an "extra trip charge" being applied.

FOR SHEET 1 OF THIS DRAWING SEE DU11–102–0500
FOR SHEET 2 OF THIS DRAWING SEE DU11–102–0501

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Drawing No. DU11–102–0502 Rev. No. 03

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A4 (210 x 297) millimetres 0 10 50