

# BUILDER'S CONSTRUCTION SUPPLIES

(Builder's temporary supply poles)

## REQUIREMENTS

June 2014

Energy Safe Victoria (ESV) has produced these requirements to assist the electrical and building trade with the minimum requirements for the installation of construction electrical supplies using a builder's temporary supply pole (BTS).

Should the builder's construction supply use the building's permanent consumer's mains and switchboard/meter enclosure, please refer to the ESV *Builder's construction supplies – Temporary in permanent position requirements* located on the ESV website.

BTS can be installed using the minimum requirements of *AS/NZS 3000:2007, Wiring Rules* and *AS/NZS 3012:2010, Electrical installations - Construction and demolition sites* or can be installed with strict compliance with these requirements. Either method will need to comply with the current Victorian Service and Installation Rules (SIRs).

The electricity distribution business (DB) needs to be consulted for:

- The provision of supply
- Point of supply (overhead or underground)
- An appropriate location for the BTS
- The fire hazard rating of the property

**NOTE: BTS in high bushfire risk areas cannot be supplied overhead.**

An example of a typical installation of the BTS is provided.

Figure 1 – pole supports for underground connections.

Figure 2 and 3 – pole, support and overhead connection requirements.

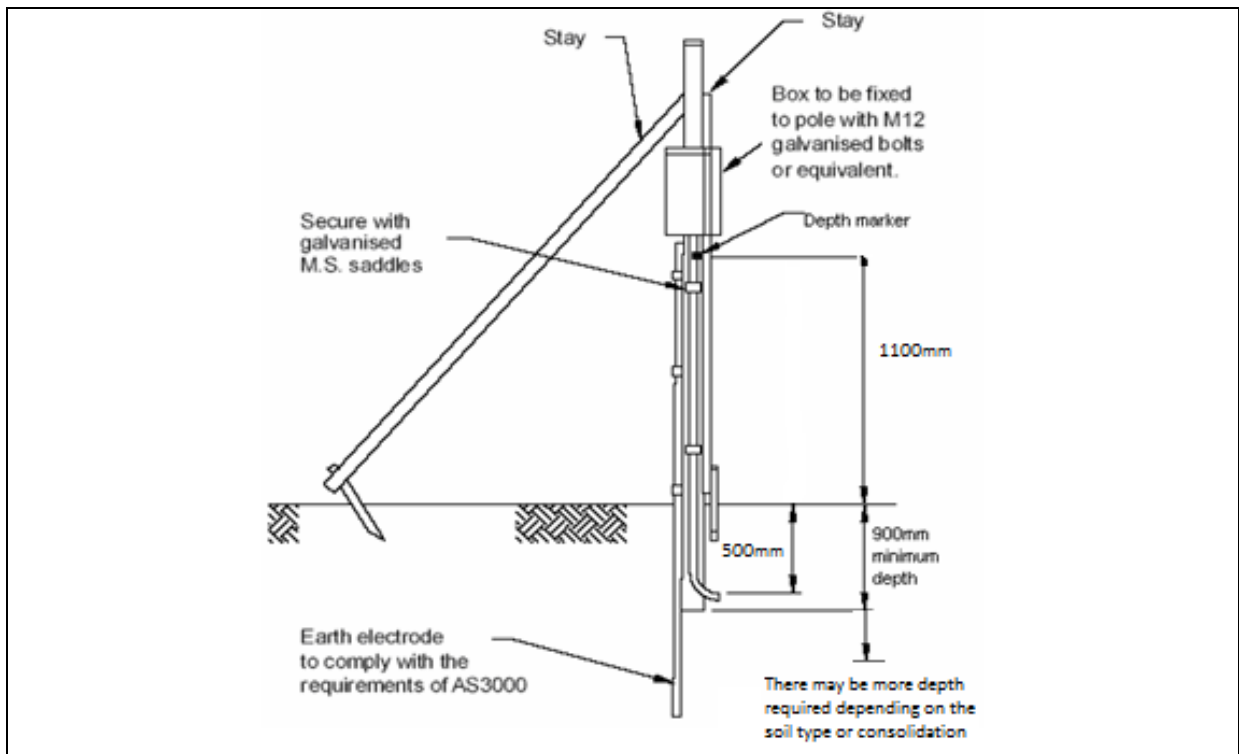
Figure 4 – Pole supports locations.

### Common requirement notes:

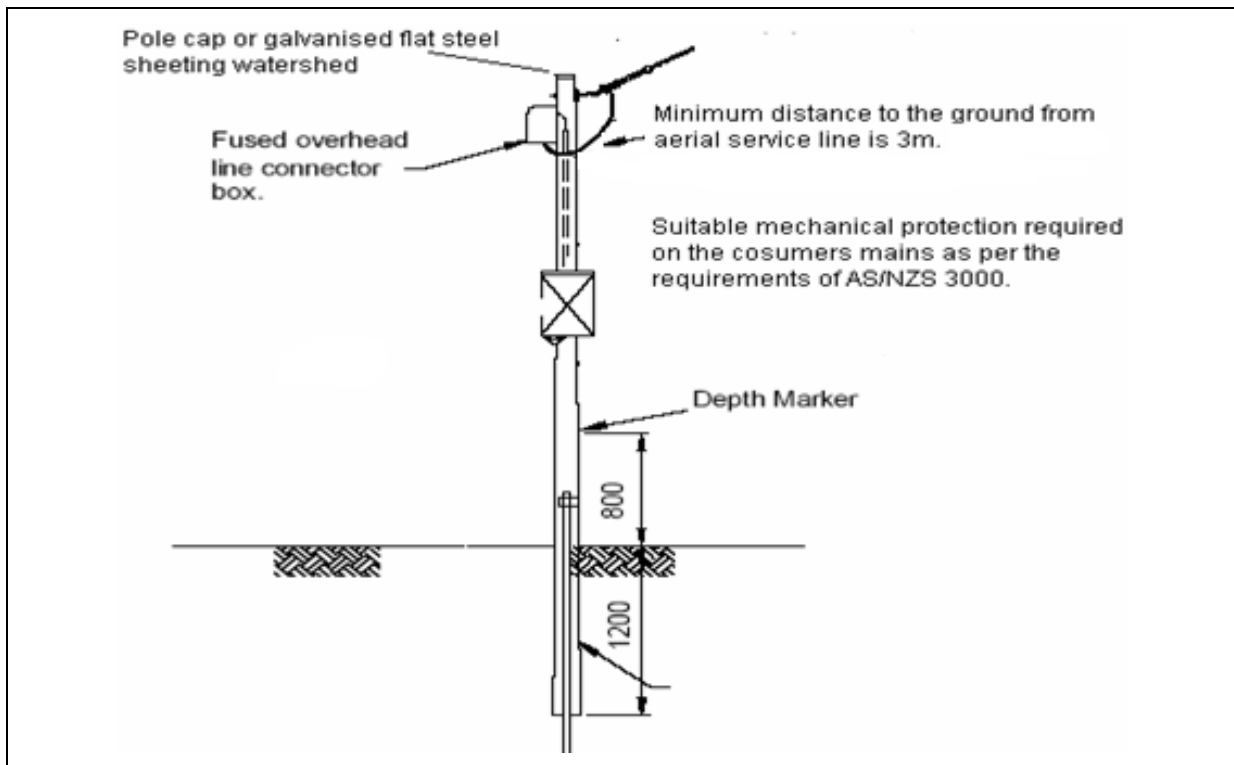
1. Minimum pole size in accordance with *AS/NZS 3000:2007, Wiring Rules* but shall not be less than 150mm for full length preservative treated poles and not be less than 125mm for hardwood poles, with durability of class 1 and strength grade of S3 or better.
2. A minimum of two stays to be a minimum of 75mm x 38mm, 3000mm long and secured to the pole and pegs using a minimum of two galvanized coach screws of adequate size at each fixing point.
3. Pegs are to be a minimum of 600mm and driven to a depth of 450mm.
4. A depth marker consisting of a saw cut (minimum length of 100mm), filled by a row of at least three galvanized nails shall be made on the pole at a distance of 2000mm from the base of the pole.
5. Excavated soil **MUST** be compacted around the pole in 100mm layers and thoroughly tamped.

6. Main switch to be no higher than 2 metres from the ground.
7. Minimum depth of pole in ground 900mm only with additional support.
8. If poles are longer than the figures shown, then additional depth will be required proportional to the additional length above the ground.
9. Pole caps required on all poles.
10. Consumer's mains to be a minimum size of  $4\text{mm}^2$  – consideration should also be given to the prospective fault current as nominated by the DB.
11. Earth electrodes are to be installed in accordance with the Wiring Rules which require they be driven to a minimum depth of 1.2 metres.

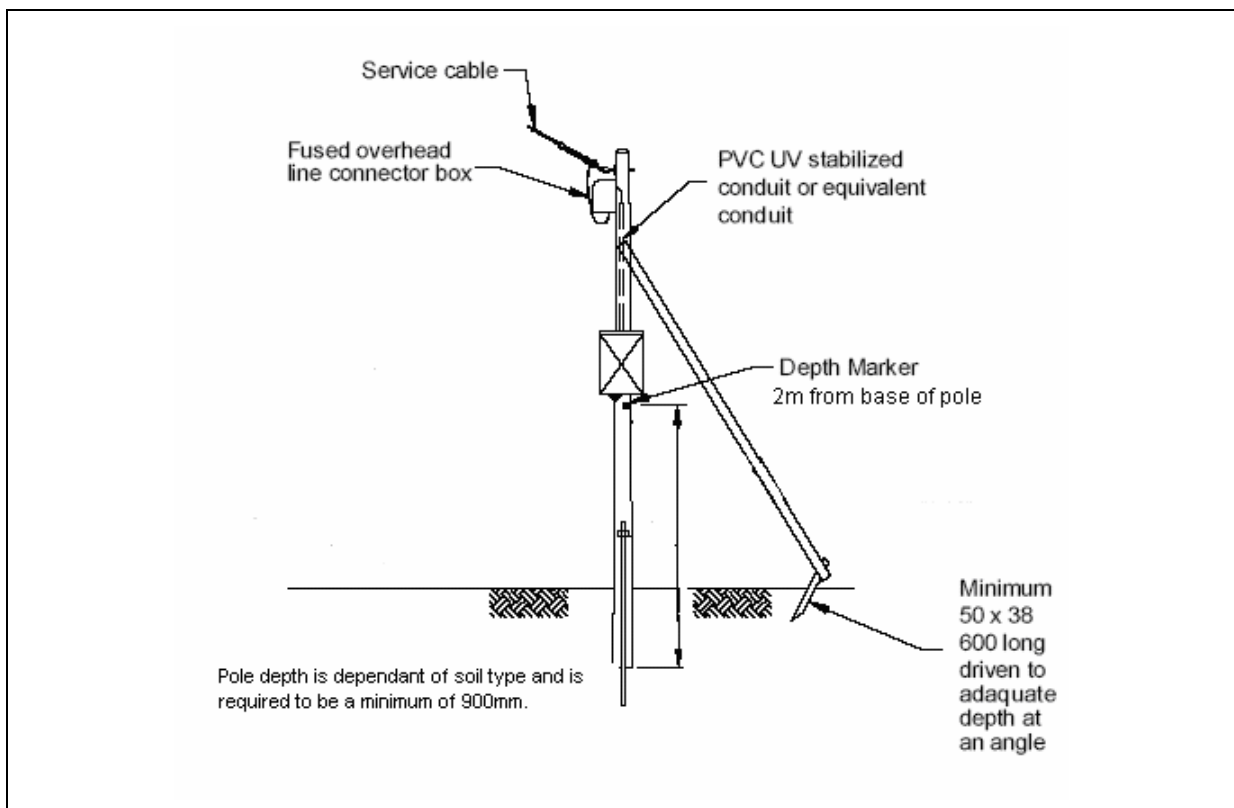
**FIGURE 1 – TYPICAL UNDERGROUND CONSTRUCTION SUPPLY**



**FIGURE 2 – TYPICAL OVERHEAD SUPPLY FOR A 5 METRE POLE**

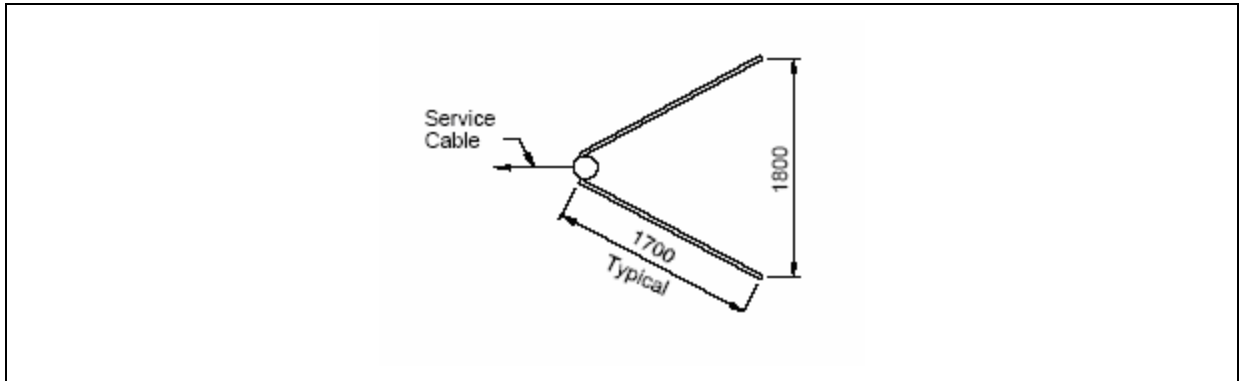


**FIGURE 3 – TYPICAL OVERHEAD SUPPLY WITH STAYS FOR A 5 METRE POLE**



**FIGURE 4 – TYPICAL POLE SUPPORT PLAN**

Stays are to be installed in tension, which is the opposite side of the pole to the pull of the service.



**SAFETY PRECAUTIONS SIMILAR TO WORKING NEAR LIVE PARTS MUST BE TAKEN WHEN INSTALLING CABLES IN A SERVICE PIT CONTAINING LIVE CABLES.**

These requirements supersede all previous versions issued by ESV or its predecessors.