

**Use of Fencing** for security and the reduction of visual impact of a Padmount substation:

- Appropriate screening made of metal, timber, plastic or masonry fencing is allowable outside the easement.
- No sail clothes, covers or tarps of any kind are allowable in the easement.
- Carport posts, metallic clothes hoists poles or posts cannot be located inside the padmount substation easement area nor encroach into it.
- Dial before You Dig (DBYD) service plans are required prior to any property excavation. Contact **1100**. Note: DBYD service plans do not indicate underground electrical service mains.
- Ground excavation must be done manually or by a toothless mechanical scraping device within the easement with an approved safety observer at all times.
- Easement dimensions must not be reduced by any structures e.g. fences, retaining walls, brick walls, terrace work or vegetation etc.
- Ongoing clear entry and exit access around the substation easement area is paramount for Work Health & Safety (WH&S) requirements.
- No trees, shrubs or bushes nor planter boxes or pot plants or decorative features are allowed in the easement.
- No slip or trip hazards allowed in the easement. Tree stumps must be cut to ground level or below.
- Ventilation is required around and through the base of the substation.
- No placing of Council bins or stock piling of any materials is allowed in the easement.
- If the substation is fenced out or gated, ongoing maintenance of the easement area is still the responsibility of the owner of the property.
- If the substation is enclosed and gated and locked, it must open outwards towards the street, and have an Endeavour Energy locking system installed for 24hr 7days access. Contact Integrity locking on **1300 366 488** for assistance.
- Endeavour Energy will provide the appropriate reflective signage for the asset when contacted.

**NOTE:** The easement must be maintained on a regular basis for work health and safety WH&S regulations. The following suggestions are provided to property owners who may find it onerous to maintain the easement on a regular basis. The property owner may install the following within the easement at their cost:

- Remove or spray all vegetation with a non-toxic grass and weed deterrent;
- Remove all foreign objects leaving the easement in an approved and level state;
- Form up the easement perimeter with treated timber minimum 75-100mm deep;
- Followed with the laying of a suitable porous weed mat; and
- Then covering the easement with 20mm min. size blue metal or coloured stones, wood bark/chips, asphalt or install pavers that are easily lifted. Alternately, lay lawn and maintain periodically.

The above suggestions, if employed correctly, will require less ongoing maintenance ensuring a clear firm footing for staff to carry out electrical maintenance or emergency works. This will also ensure an approved aesthetic state for your local community.

## Retaining Walls

The final height of a retaining wall should comply with the Local Council and not exceed 1m.

The finished ground surface of the uphill of the retaining wall should batter down and finish below the top of the wall's capping to mitigate direct water flow into the substation easement.

The finished wall should be completely constructed in the same type of brick or concrete blocks / material for safety as well as aesthetic reasons.

The finished wall should not trap or promote pooling of water in the easement.

The wall should comply with all relevant building and council codes e.g. drainage material inclusion behind the retaining wall to include min. 100mm ag-line, aggregate and geo tech fabric.

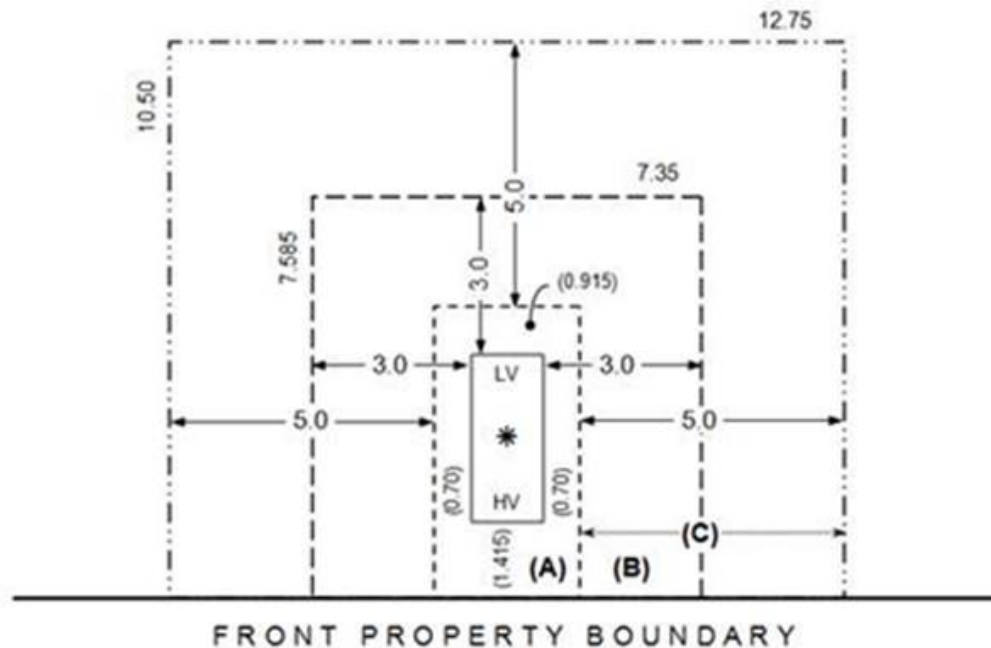
The side walls can be extended minimally in order to accommodate a raised surrounding ground level.

Any future wall extension would need to be properly footed.

Dial before You Dig (DBYD) service plans are required before excavating for retaining wall footings and fence posts. Contact DBYD on 1100 for assistance.

Retaining walls must be constructed outside of and not encroach the electricity easement.

### Easement and Restriction Sites for Padmount Substations - Common Earthing, Residential -



- No building must be erected or permitted to remain within the restriction site marked (B) unless:
  - the external surface of the building erected within 1.5 metres from the substation footing has a 120/120/120 fire rating; and
  - the external surface of the building erected between 1.5 metres and 3.0 metres from the substation footing has a 60/60/60 fire rating; and
  - the owner provides Endeavour Energy with an engineer's certificate to this effect.
  
- No swimming pool or spa must be erected or permitted to remain within the restriction site marked (C).

The foregoing easement and restrictions apply to a padmount substation with a common earth system where the high voltage and low voltage equipment, the local neutral and other metallic parts are electrically bonded together and connected to one earth grid. Common earthing must be used where a new earthing installation is being established and interconnected to 5 or more other substations through the neutral conductor. If the conditions for a common earthing system cannot be achieved economically eg. in non-urban areas, then two separate and distinct earthing systems, one for the high voltage and the other for low voltage must be used. Substation separate earthing changes the dimensions of the restriction sites.

- No fencing must be erected or permitted to remain within 4 metres from the substation footing.
- No swimming pool or spa must be erected or permitted to remain within 30 metres from the substation footing.

For further details refer to Endeavour Energy's Mains Design Instruction Document No: MDI 0044 'Easements and Property Tenure' or contact Endeavour Energy's Head Office enquiries on telephone: 133 718 or (02) 9853 6666 from 8am - 5:30pm.