

Development adjoining or in proximity to a padmount transformer

24 April 2024

The purpose of this guideline is to inform developers about what should be considered when developing around padmount transformers.

What is a padmount transformer?

A padmount transformer (seen in **Figure 1**) forms part of the distribution network and is used to step down voltages to service a large building, multiple residences or a commercial site. Padmounts are sometimes located within the road reserve or contained within an easement over a freehold property.

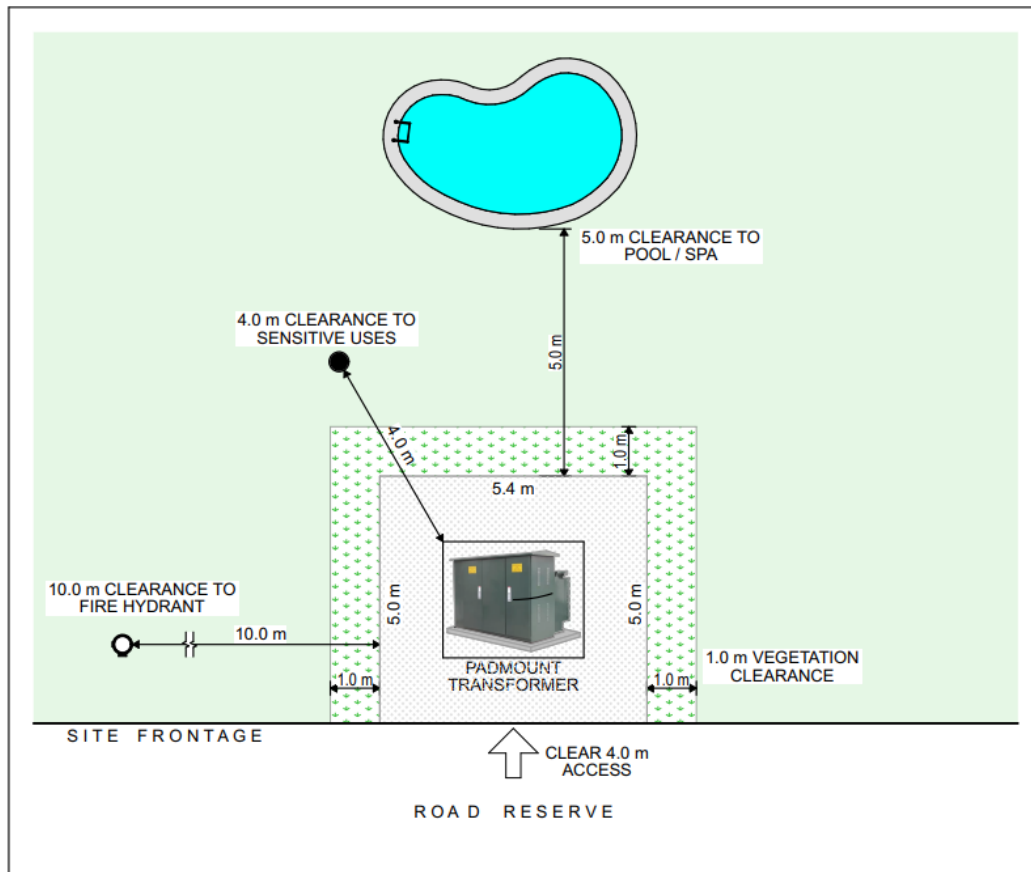


Figure 1. Example of Padmount Transformer with typical access and setback requirements.

What should be considered when developing near a padmount transformer?

If the padmount is contained within an Energex or Ergon easement over a private property, this will trigger a development referral under the Planning Regulation and the following will be assessed:

1. What type of land use is going to occur near the padmount?

If a sensitive land use (such as residential or a childcare centre) is proposed within close proximity to a padmount, the developer should consider noise emanating from the padmount, electro-magnetic fields (EMF) and the potential for fire or explosion risks.

2. *Does the padmount have to be located along the street frontage?*

Padmounts need to be located in areas where a mobile crane can easily access the site to install and replace a padmount at any time of the night or day, seven days a week. If a padmount is located within a basement or internal to a site, the easement and land requirements to access the padmount can require significant space. Padmounts located along the street frontage can often be co-located with certain other services and can be less land hungry.

3. *What are the design criteria for new developments around padmount transformers?*

When designing a new development, early consideration of electricity assets can help avoid issues down the track. New buildings and structures should consider that:

- No building or permanent structure is allowed within 5m vertical clearance, above ground level, of a padmount transformer site;
- Where possible, maintain a 4m separation from the transformer plinth to offices and liveable areas for EMF and fire clearances;
- The padmount site must not be located within 10m of a Fire Hydrant as per AS2419.1;
- A padmount must not be located within 5m (common earthed) from a Private Swimming Pool and/or Spa;
- No other services are to pass through or under (if directly on ground) the padmount site;
- Plans should identify how a 4m wide clear access path can be provided to the padmount.

4. *What can be done to make padmounts more visually appealing?*

Padmounts located along the street frontage can be made more visually appealing through the use of fencing, landscaping or art work. In terms of fencing, a padmount can be enclosed on three sides by walls, but must be open to ventilation in the front and not encumbered from above. If doors are required at the front, they must be louvered to allow for air flow.

When planting vegetation in landscaped areas and gardens, take into consideration the fully matured size of vegetation, ensuring access to the site can still be achieved. For spacing, one metre clear access around the sides and back of the padmount must be maintained and 2m clear access to the front of the padmount is required.

Lastly, painting or turning a padmount into an art work may be another option, particularly in urban areas, to improve the visual amenity of the streetscape. Consent from both Council and Energex / Ergon may be required. Further details can be found via the website listed below.



Figure 2. Example of creating more visually attractive Padmount Transformer.

Contact us

For more information please visit our website or contact us at:

- www.energex.com.au/referralagency
- townplanning@energex.com.au



Part of Energy Queensland