Technical Standard – TS102

Easement Standard for Distribution Network

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SA Power Networks

Empowering South Australia

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1. Introduction

The purpose of this document is to establish the easement requirements to ensure adequate legal tenure, such as registered easements, to secure access rights for any new installations, extensions, or alterations to SA Power Networks' infrastructure.

The easement requirements are applicable to all SA Power Networks infrastructure located on any land (installed on, crossing, aboveground, or underground), except from public roads or land owned by SA Power Networks.

This standard will assist with the design, plan preparation, lodgement process and clarify the responsibilities of the customer or their agent. It also specifies the easement responsibilities for a customer whether the customer elects to be responsible for obtaining easements themselves or SA Power Networks.

2. Definitions and Abbreviations

2.1 Definitions

Agreement to Grant Easement	An agreement letter signed by the registered proprietor of land agreeing to allow SA Power Networks to cross their property with our equipment and that they will grant to SA Power Networks a formal easement on completion of the works.
Conductor	A wire, cable or form of metal designed for carrying electric current.
Conductor overhang	Where a conductor can be physically positioned over an adjoining property under the influence of wind normally expected (i.e. design wind conditions).
Customer	The customer as set out in the project specific offer letter
Customer's Agent	A contractor and/or a designer engaged by the customer
Designer	A person who is a suitably accredited designer (full or provisional) engaged by the customer and has satisfied the SA Power Networks terms and conditions (i.e. 3302) to undertake the design works.
Development	The development proposed by the Applicant on the Land and any land external to that land but included in the applicant's proposal.
Distribution Lessor Corporation (DLC)	The state government body which leases to SA Power Networks the distribution system which existed as of 28 January 2000 (and certain parts of the distribution system acquired after that date) by virtue of Memorandum of Lease 8890000.
Distribution Network	Has the meaning given to that term in the Electricity Act 1996, namely the whole or a part of a system for distribution of electricity but does not include anything declared by regulation not to be a distribution network or part of a distribution network. For the purposes of this standard references to Distribution Network means the network poles, wires, underground cables, transformers, substations etc, operated by SA Power Networks, which transports electricity from the transmission system to a customer/building owner's Connection Point.
Easement	The right to enter private property, to erect, or lay and maintain infrastructure subject to any condition stated in the easement document.
Operating area	An area that is clear of obstacles is reasonably level and accessible 24 hours a day for network operational requirements.
Owner/Landowner	The owner/landowner is the person or an entity that is the registered proprietor/owner of the land, as recorded at the Land Titles Office. All easement agreements shall be with the owner/landowner.
Plan of Division	Means the Applicant's Plan of the proposed division of the land into residential allotments, public roads, reserves and the like as varied from time to time.

Powerline	• A set of cables for the transmission or distribution of electricity and their supporting or protective structures, conduits, and equipment; and • Associated equipment for the transmission or distribution of electricity but does not include a telecommunications cable or associated equipment.
Registered Easement	An instrument registered over land under the Real Property Act or Crown Lands Act which provides a permanent public record of the location of SA Power Networks equipment and rights to that equipment.
Responsible officer	Means the officer appointed by the relevant SA Power Networks Manager to be responsible for the application of this document. There may be multiple Responsible Officers with specific responsibilities, eg negotiation for supply, provision of transformers, specification of points of supply, types of supply, servicing, and metering.
SA Power Networks Infrastructure	Infrastructure includes (but not limited to be): • Stobie poles • Public lighting columns • Substation asset, overhead HV and LV mains • HV and/or LV connection (e.g. joints, termination) • Underground cable/conduit installations • Ground mounted equipment. (e.g. transformers, switching cubicles) • Service pit/pillars • The SA Power Networks telecommunications asset (includes overhead & underground cables, pits, pillars, microwave RF, tower, pole, building, etc.)
SA Power Networks Manager	The SA Power Networks Manager or the Authorised Officer serving that area of the customer's installation.
Statutory easement	An easement provided by statute pursuant to Schedule 1, Paragraph 2 of the Electricity Corporations (Restructuring and Disposal) Act 1999 for: • That part of the distribution system, which is located on, above or under land which does not belong to SA Power Networks or Distribution Lessor Corporation or their predecessors; and That part of the distribution system which was in existence as of 28 January 2000. • Except for where an inconsistency between the above and an instrument (i.e. easement) to which SA Power Networks is a party, the instrument prevails to the extent of the inconsistency.
Works Agreement	Means the Agreement for the Design, Construction and Testing of Electrical Services entered by SA Power Networks and the Applicant for the Development of the Land.

2.2 Abbreviations

DLC	Distribution Lessor Company
HV	High Voltage
HVSC	Standard HV Switching Cubicle
LTO or LTRO	Lands Titles Office or Lands Titles Registration Office
LV	Low Voltage
LVSC	Standard LV Switching Cabinet
NICC	SA Power Networks' publications 'Network Information for Contractors and Customers'
Pad T/F	Padmount Transformer
PM	SA Power Networks Project Manager
SWER	Single Wire Earth Return
TS	The SA Power Networks Technical Standard
VHVSC	S&C 'VISTA' HV Switching Cubicle

2.3 Terminology

Shall or Must	Indicates a mandatory requirement.
May or Should	Indicates a recommendation that will not be mandatory but can be imposed as deemed appropriate by SA Power Networks.

3. Relevant Rules, Regulations, Standards and Codes

3.1 Standards and Codes

The following listed documents are for additional information and other documentation may be required on a project specific basis.

Please Note: It is the responsibility of the customer/customer's agent to ensure you have complied with all applicable, SA Legislative Regulations (under Acts), ESCOSA/ENA/AEMC/IEC documentations, relevant AS/NZS standards, the SA Power Networks publications, and you have ensured their current publications, before implementing them.

Australian Standards publications

AS 2067	2016	Substations and high voltage installations exceeding 1 kV a.c.
AS/NZS 3000	2018	Electrical installations (known as the wiring rules)
AS 5577	2013	Electricity network safety management systems
AS IEC 60038	2022	Standard Voltages

SA Power Networks publications

Network Information for Customers and Contractors	
NICC401	Information on Network Design and Installation by an External Contractor
NICC404	Working in the Vicinity of SA Power Networks' Infrastructure – Network Permit Process
NICC802	Padmount Transformers – General Information for Customers/Contractors
Technical Standards	
TS085	Trenching and Installation of Underground Conduits and Cables (up to and including 33 kV)
TS099	Distribution and Sub-transmission CAD Drafting Standards
TS100	Electrical Design Standard for Underground Distribution Networks (up to and including 33 kV)
TS101	Public Lighting – Design and Installation
TS105A (Forms)	Standard Forms for SA Power Networks' Electrical Infrastructure
TS108	Technical Standard for Indoor Equipment Room
TS110	Electrical Design, Civil/Electrical Works, and Testing for 66 kV Underground Networks
Manuals	
Manual 14	Safety, Reliability, Maintenance and Technical Management Plan
Manual 18	SA Power Networks' Connections and Ancillary Network Services
Manual 32	Service and Installation Rules
Others	
3302	Construction Terms (Non-Contestable & Contestable)

3.2 Legislation and Regulations

This section provides a list of the relevant legislation and regulations which shall apply to the design, manufacture, installation, testing and commissioning, and operations and maintenance of all plant and equipment for the distribution network.

In an event where there is any inconsistency between legislation and regulations and these technical requirements, the legislation and regulations shall prevail.

- Electricity Act 1996 and Electricity (General) Regulations 2012
- Work Health & Safety Act 2012 and Work Health & Safety Regulations 2012
- Environment Protection Act 1993 and Environment Protection Regulations 2023
- Native Vegetation Act 1991 and Native Vegetation Regulations 2017
- Planning, Development and Infrastructure Act 2016 and Planning, Development and Infrastructure (General) Regulations 2017
- Electricity Corporation (Restructuring and Disposal) Act and Regulations of 1999
- National Electricity Rules

4. Easement Guidelines

These guidelines should be read in conjunction with:

- TS100: Electrical Design Standard for Underground Distribution Networks (up to & incl. 33kV)
- TS108: Technical Standard for Indoor Equipment Room
- Documents of Survey Practice, issued by Property and Land Management group of Department for Infrastructure and Transport (DIT)

For the purposes of sub-transmitting and distributing electricity, SA Power Networks may at its own cost undertake the following works:

- lay under the surface of the land ducts, pipes, conductors, cables, and other works; or
- construct on the land ancillary works, including cable markers, personnel access holes and signs; or
- construct on that part of the land marked # in Filed Plan No [between the heights of YY meters Australia Height Datum (AHD) and ZZ meters (AHD)] equipment (and associated structural works) for sub-transmitting, controlling, and distributing electricity: or
- undertake the works to erect on the Land/that part of the Land marked # in filed plan no poles, and install on them, and suspend between them, overhead conductors, cables, and other equipment.

The following guidelines provides requirements for the two types of easements: 'Registered Easement' and 'Statutory Easement'. These easements are described below:

4.1 Registered Easement

A **registered easement** shall be obtained for all SA Power Networks infrastructure placed on, or crossing, or underground, or above ground on public and private land, except in the following circumstances:

1. where the powerline (excludes ground mounted transformers or switchgear) is situated on a public road reserve including footpath; or
2. where an overhead powerline line on the property being supplied involves only one span of less than 50 meters and the property has no possibility of being divided: or
3. where supply to a property is provided by an LV underground powerline to a service pit or service enclosure and the service pit or enclosure is within 6.0 meters of the front boundary which abuts a public road, and the cable follows a straight line from the property boundary along a direct route to the pit or enclosure; or
4. where a powerline is constructed on or near a property boundary, an easement from the adjoining property owner is required for conductor overhang; or
5. where a powerline constructed in road reserves. No easement will be required from the property owners abutting the road unless conductor overhang exists.

4.2 Statutory Easement

A **statutory easement** entitles SA Power Networks/DLC to:

1. to maintain the relevant part of the sub-transmission and distribution system on, crossing, or above, or under the land effected by the easement,
2. to enter the land, by its agents or employees, at any reasonable time, for the purpose of examining, maintaining, repairing, modifying, or replacing the relevant part of the sub-transmission and distribution system, and
3. to bring on to the land any vehicles or equipment that may be reasonably necessary for any of the above purposes.

Minor work such as the addition of a pole for increased ground clearance would be covered by the **statutory easement**. However, a statutory easement does not provide for a substantial alteration to any mains which existed on 28 January 2000. Where such work is to be carried out, a new easement must be negotiated in the usual way.

5. Applicant's Responsibility for Easements

5.1 New Land Developments

Where the applicant is lodging a survey plan (Deposited Plan or Community Plan) in conjunction with a new land development, the applicant will be responsible for creating the SA Power Networks easement in accordance with this standard.

Easements are not required for underground or overhead mains which are totally contained within a road reserve or land that will become a road reserve upon deposit of a plan of division.

To ensure compliance with the Electricity Act 1996, Electricity (General) Regulations 2012, and any access requirements where a trench alignment in the footpath of the road reserve running parallel with a property boundary is less than 2.0m clear of a property boundary, SA Power Networks may request a cable easement over the adjoining property to a width to be determined to suit the specific situation.

Easements are not required for standard SA Power Networks connection points as defined in SA Power Networks Manual 32: Service and Installation Rules.

Before any work commences, all easements are to be surveyed by a registered surveyor and pegs placed in position, all at the applicant's cost. The pegs shall delineate an easement and the boundaries of blocks before, during and after the electricity sub-transmission and distribution assets are installed.

Prior to acceptance of the SA Power Networks Certificate of Electrical Compliance all easements (if a development includes an easement) shall have been surveyed. A copy of a numbered plan shall be forwarded to the SA Power Networks Easement Manager, Easement Branch via email for approval.

If SA Power Networks infrastructure is to be located outside of the land being divided (a nearby council reserve etc) then a registered easement will be required to be created by virtue of a Filed Plan and formal unencumbered Grant of Easement document.

The applicant is responsible for all costs associated with the preparation and registration of the Filed Plan and unencumbered Grant of Easement documents with the Lands Titles Office (LTO).

All documentation relevant to easements shall be lodged at the LTO as soon as possible. Any connection process to the SA Power Networks distribution system will not commence until the lodgement of this documentation has taken place.

5.2 When Customer elects to be responsible for obtaining Easements

Where the customer elects to be responsible for obtaining the SA Power Networks easements the following applies:

- The customer is responsible for all costs associated with the preparation and registration of the filed plan and unencumbered grant of easement documents with the LTO.
- The customer is responsible for obtaining, negotiating, and paying any compensation to any third-party landowner (if the new supply will cross land other than that owned by the customer).
- Where the new supply will cross third party land the customer shall obtain an agreement from the third-party landowner agreeing to grant the required registered easement to SA Power Networks. Access to the agreement form "Easement – Third Party Letter of Agreement" shall be organised with the relevant SA Power Networks representative.
- The customer shall arrange for a filed plan delineating the required easement/s to be lodged with and approved by the LTO and arrange for the formal unencumbered grant of easement document/s to be prepared and signed by all relevant parties and lodged for registration with the LTO.
- This documentation shall be received by SA Power Networks Easement Manger, Easements Branch (email to: realestateadmin@sapowernetworks.com.au), together with a written undertaking from realestateadmin@sapowernetworks.com.authe customer that they will ensure that the easement documents are lodged for registration at the LTO as soon as possible and prior to any connection to the SA Power Networks sub-transmission and distribution system being programmed.
- For indoor equipment rooms, the formal land tenure, by registration with the LTO shall be provided by the customer/customer's agent to SA Power Networks for the indoor equipment room, together with rights of access for the SA Power Networks personnel, equipment, related services and vehicles, where necessary.

5.3 When SA Power Networks is responsible for obtaining required Easements

Where SA Power Networks is responsible for obtaining the required easement/s the following applies:

- The customer shall agree to the conditions set out in the SA Power Networks quotation letter, in particular the condition that states that the registered proprietor of the land receiving supply, shall grant the required registered easement to SA Power Networks.
- Acceptance of the quotation letter by the customer binds the customer to granting the registered easement to SA Power Networks.
- Where the customer is not the registered proprietor of the land, the customer is responsible for obtaining a written agreement from the registered proprietor of the land undertaking to grant the required registered easement to SA Power Networks. This undertaking shall be provided by the customer to the SA Power Networks Project Manager handling the job before works can commence.
- If it is necessary to cross third party land (being land not owned by the customer requesting supply) an agreement/s to grant easement letter shall be obtained from the property owner/s of the third-party land. These agreements are issued by the relevant Project Manager and shall be received by the Project Manager handling the job before works can commence.
- Once all required agreements have been obtained and supplied to the Project Manager the construction works can commence/Authority to Proceed can be issued by the Project Manager (provided all other SA Power Networks requirements have been met).
- Once the infrastructure has been installed SA Power Networks will then arrange the required easement survey plan and unencumbered Grant of Easement documentation and issue this documentation to the relevant property owners.

6. Site Planning Requirements

6.1 Relocation of Equipment

If the position of the infrastructure which is to be vested to SA Power Networks is to be altered because of obstructions encountered during installation, the survey plan shall be amended to reflect the change.

The customer shall provide to SA Power Networks a copy of the amended survey plan. Equipment installed within an easement shall still comply with this standard.

6.2 Condition of Site Levels

Easement sites shall be reasonably level and free from encumbrances. The applicant shall provide satisfactory information to SA Power Networks as to the proposed finished surface levels, indicating adequate surface drainage of land abutting easement sites.

For technical requirements for retaining walls, refer to TS100.

6.3 Drawings to Contain Easement Details

Details of the required easements shall be shown on SA Power Networks conduit easement and trenching drawing for the development where SA Power Networks performs the design, or on the design drawings reviewed by SA Power Networks where the applicant performs the design.

6.4 Fencing Around Designated Easement

6.4.1 Private Fencing

If private fencing is installed, it shall be constructed outside or on the perimeter boundary of the designated easement. Notwithstanding, the front boundary shall not be fenced without the prior written approval of SA Power Networks.

If security to the property is required by the landowner, SA Power Networks may grant approval to install a front fence but only on the basis that it incorporates SA Power Networks master key locking facilities.

Maintaining/repairing of the fences shall be the responsibility of the customer/landowner noting:

1. Any subsequent costs to fence repairs will be negotiated between customer/landowner and SA Power Networks.
2. SA Power Networks shall not be responsible for repairs as a result of fence's defect materials or accidental damage by third party.

6.4.2 Ground Level Transformer Site Fencing

In some instances, SA Power Networks will have installed fencing around its ground level transformer stations. These fences are installed outside or on the perimeter boundary of the designated easements around the ground-mounted transformer.

It is the responsibility of SA Power Networks to maintain and repair this fencing as required.

6.5 Vegetation and Rubbish Removal

Enquiries relating to vegetation removal/clearance should be directed to SA Power Networks Customer Service Switchboard on **13 12 61** or via the SA Power Networks website Contact Us.

SA Power Networks shall not be responsible for rubbish removal on land where it holds a registered or statutory easement.

6.6 Graffiti Removal

SA Power Networks is responsible for removal of graffiti from infrastructure it owns. SA Power Networks is not responsible for removal of graffiti on fences/retaining walls that have been installed by property owners and form part of the property fencing.

All queries regarding graffiti removal from SA Power Networks-owned infrastructure should be directed to SA Power Networks Customer Service on **13 12 61**.

6.7 Shared occupation of Easements

Other parties seeking to share SA Power Networks easements shall obtain approval from SA Power Networks before placing any infrastructure in an easement area to ensure that SA Power Networks rights pursuant to an easement are able to be fully utilised by SA Power Networks.

6.8 Equipment located in Car Parking Areas

Where a transformer or switching cubicle, frontage abuts a car park on private property, the standard easement area shall be increased to include the required operating area. Where an easement covering the operating area includes a car parking space, protection of the operating area is required by installing traffic bollards. For traffic bollard technical requirements, refer to TS085.

The protected area is to include the area directly in front of the equipment to be operated. The extremities of the protection are to be bounded by the projection of the equipment area, as depicted in Appendix B 'Easement Requirements for Equipment (with a Retaining Wall)' of this document, to a depth of the required operating area.

Where equipment frontage abuts a car park roadway/thoroughfare, adjacent to trafficable areas and are at a risk from any vehicular impact, a risk assessment is to be conducted to ensure the safety of the operator, equipment and always allow access. Traffic bollards are required to be installed outside equipment's easement boundary and are to be maintained by the customer.

6.9 Equipment Located in Designated Indoor Equipment Room

An indoor equipment room is a building/structure or a free-standing building/structure which has a roof enclosed within a minimum of two walls and houses padmount distribution transformers and/or switchgear including accessories.

Where a transformer, switching cubicle and /or a LV switching cabinet are located wholly within a designated indoor equipment room, the registered easement will include the following additional requirements:

1. The customer/owner of the building shall be responsible for all costs associated with physically installing and removing the infrastructure if directed by SA Power Networks in the event that the equipment needs to be replaced and
2. The customer/owner of the building shall ensure that access is available 24 hours/7 days per week to the transformer rooms located within the building.

Refer to TS108 for technical requirements for indoor equipment rooms.

7. Easement Rights

For SA Power Networks to exercise the specific easement rights, but for no other purpose, SA Power Networks may at its own cost:

- exercise the rights under this easement either itself or by SA Power Networks lessees, or licensees, or by any of their respective employees, agents, or contractors,
- enter the land either with or without vehicles, machines, and other equipment,
- excavate the land and conduct building works,
- install access gates (including in the owner's fences) and security fences,
- inspect, repair, and replace any of SA Power Networks equipment,
- distribute electricity, and
- do anything else that is reasonably necessary to help SA Power Networks to exercise the specific easement rights.

7.1 Covenants - Owner's Reserved Rights

SA Power Networks agrees that, despite SA Power Networks right to exercise the specific and standard easement rights, the owner retains the following rights:

- to use and occupy the land,
- to grow crops on the land, if such plantings will not (in SA Power Networks reasonable opinion) interfere with SA Power Networks equipment,
- to keep fences across and around the land provided any such fence does not restrict SA Power Networks right of access as set out above,
- to require SA Power Networks to reinstate the land in a manner that is consistent with the condition of the land before SA Power Networks exercise of the Specific and Standard Easement Rights,
- SA Power Networks right to have equipment on the land, and
- to recover from SA Power Networks any loss or expense reasonably incurred by the Owner as a direct result of:
  - SA Power Networks using the land in a manner that is inconsistent with the Specific and Standard Easement Rights; or
  - SA Power Networks equipment causing property damage or physical injury.

8. Easement Provisions

8.1 Underground Easements

The following general rules apply to underground easements:

1. All easements in favour of SA Power Networks are to be 'Easements in Gross' and registered on title plans.
2. An easement width must be uniform for the entire length.
3. In Community Title developments an underground cable easement can be the entire width of the community roadway provided the roadway is not wider than 10m.
4. A standard note for a cable easement on a plan of division or community plan shall be "Portion of Allotment marked (X) hereon is to be subject to an easement for electricity supply purposes to Distribution Lessor Corporation (subject to Lease 8890000)".
5. For a service, an easement to vest on a plan of division/community division the width shall not exceed 10m. Any easements to be created that are wider than 10m cannot be created as service easements but they may be created in the documentation accompanying the relevant plan. If two units (eg. transformer and switching cubicle) shall be located side by side and both dimensions will exceed 10m, then a single easement is not acceptable. In this instance, two separate easements are required to be shown on the plan, providing each easement has one dimension no greater than 10m and each easement contains a single unit and there is no encroachment by the other unit.
6. For underground cable networks up to and including 33kV, a minimum easement of 2.0m either side of the cable's outer phase is required, (unless otherwise negotiated with SA Power Networks Project Manager) and preferably located along the boundary of a designated allotment/s.
7. For underground sub-transmission networks operating at voltage 66kV, a minimum easement of 3.0m either side of the outer phase of cable is required (unless otherwise negotiated with SA Power Networks Project Manager).
8. Where multiple underground 66kV circuits exist in a single trench, the easement width will need to be increased such that the 3.0m requirement from the outer phases of cable is met for each circuit.

8.2 Overhead Line Easements

A registered easement for existing overhead sub-transmission and distribution powerlines shall be negotiated at any opportunity with a landowner where SA Power Networks wishes to retain an existing overhead sub-transmission and/or distribution powerline network. This requirement also applies to powerlines where they are protected by an existing statutory easement in accordance with the Electricity Act 1996.

Where there exists a registered easement for an overhead powerline network which is to remain, with a prescribed easement width not less than the current requirements set out in Table 1, provision shall be made for an easement to be delineated on the survey plan using the current prescribed easement width, at the cost of the applicant.

A standard note for overhead sub-transmission and distribution powerline network easement on a plan of division or community plan shall be "Portion of Allotment marked (X) hereon is to be subject to an easement for electricity supply purposes to Distribution Lessor Corporation (subject to Lease 8890000)".

The same notation on the survey plan can be used as that for cable easements mentioned above however a different easement identifier shall be used.

Table 1: Easement Widths for Overhead Sub-Transmission and Distribution Powerline Voltages

Overhead Powerline Voltage	Easement Building Restriction Width (Measured from the Centre Line of the Overhead Powerline) (m)	Typical Full Easement Width (m)	References
7.6kV and 11kV	**7.5**	**15**	SA Power Networks
19kV SWER Lines	**8.5**	**17**	
33kV	**10**	**20**	AS 7000 Table CC1
66kV	**13**	**26**	SA Power Networks
Above 66kV	AS 7000 Table CC1, Electricity (General) Regulations 2012, Schedule 1, Table 1		

8.3 Equipment Easements

Appendix A delineates standard easement **without retaining wall** requirements for padmount transformer, switching cubicle and LV switching cabinet installed by SA Power Networks.

Note that the operating area is not required to be part of an easement if the transformer, switching cubicle, and or LV switching cabinet are located on a common boundary with a public road. Different size easements may be required and will be determined by negotiation. The equipment area, the easement and the SA Power Networks equipment will in general have a common centerline.

Appendix B delineates an easement requirement for equipment **with a retaining wall** installed by SA Power Networks. In situations where a retaining wall is required for the retainment of fill material, the easement boundary is to be extended by the height of the retaining wall to allow the retaining wall to be constructed inside the easement boundary. Refer to TS100 for technical requirements for retaining walls.

A retaining wall installed as part of a transformer, switching cubicle and or LV switching cabinet installation shall be contained within the registered easement and not impact on the minimum requirements of the equipment area. If the standard easement area is not sufficient, a larger registered easement shall be provided.

The actual easement dimensions required will be confirmed at the time of installation of the SA Power Networks equipment and it will be the customer's responsibility to ensure that documented dimensions on either the Deposited Plan of Division or Community Plan are equal or greater than the site-specific requirements prior to SA Power Networks vesting the asset.

Any changes to an easement shown on a Deposited Plan will require the lodgement of a Filed Plan and the unencumbered Grant of Easement documentation signed by all parties prior to SA Power Networks commencing the vesting of any project with an easement.

For a service, an easement to vest on a plan of division/community division the width shall not exceed 10m. Any easements to be created that are wider than 10m cannot be created as service easement but they may be created in the documentation accompanying the relevant plan. If two units (eg. transformer and switching cubicle) shall be located side by side and both dimensions will exceed 10m, then a single easement is not acceptable. In this instance, two separate easements are required to be shown on the plan, providing each easement has one dimension no greater than 10m and each easement contains a single unit and there is no encroachment by the other unit.

A standard note for an SA Power Networks transformer/switching cubicle created on a plan of division/community plan shall be "Portion of Allotment marked (X) (T/F) hereon is to be subject to a service easement to Distribution Lessor Corporation (subject to Lease 8890000 for electricity supply purposes". Equipment identifiers shall contain the following characters: **TG** for ground-mounted transformers, **TC** for transformer cubicles and **C** for switching cubicles.

If the position of any transformer, HV switching cubicle, and or LV switching cabinet is to be altered at any time during the execution of the works, the survey plan shall be amended to reflect the change. The customer will provide to SA Power Networks a copy of the amended survey plan for SA Power Networks approval prior to lodgement of the plan or electrification of the electrical works.

Parties involved in the preparation of plans which delineate SA Power Networks easements are reminded that all SA Power Networks services shall be field located to verify that the constructed position are consistent with the original design ie. located within an easement as specified in this standard.

Refer to Table 2 for a summary of equipment easement areas:

Table 2: Equipment Easement Area [width (W1) x depth (D1)]

Type of Equipment	Equipment Easement Width, W1 (m)	Equipment Easement Depth, D1 (m)
Pad T/F - 11kV/433V (up to & including 1MVA)	**3.5**	**3.5**
Pad T/F - 11kV/433V (including 1.5MVA and above)	**4.0**	**4.0**
Pad T/F - 33kV/415V (up to & including 2MVA)	**4.0**	**5.0**
Pad T/F - 33kV/11kV (up to & including 3MVA) installed centrally due to earth grid 1.5m all around below Pad T/F	**6.5**	**6.5**
Standard HV Switching Cubicle	**3.5**	**2.5**
S&C 'VISTA' HV Switching Cubicle	**3.5**	**4.5**
Standard LV Switching Cabinet	**2.0**	**1.0**

9. Documentation

9.1 Plans of Division/Community Division

Service easements (which do not exceed 10m in width) will, if delineated on a plan of division or community plan, automatically vest upon deposit of the plan in the Lands Titles Office, pursuant to Section 223 lg (3) of the Real Property Act 1886.

Easements which exceed 10m in width cannot be created as service easements and will not vest in this manner and shall be created in the long form in the Application for Plan of Division (RTC)/Application for Community Title Division (ACT) document accompanying the relevant plan at the cost of the applicant. Refer to Section 5.1 of this document for further information.

9.2 If Infrastructure is located outside of a Plan of Division/Community Plan (New URD)

These easements shall be delineated on a filed plan prepared by a surveyor and then a formal grant of easement prepared by a conveyancer shall be provided to SA Power Networks, all at the cost of the applicant. Refer to Section 5.1 of this document for further information.

9.3 If Customer elects to be responsible for obtaining Easement (Non-URD)

These easements shall be delineated on a filed plan prepared by a surveyor and then a formal unencumbered grant of easement prepared by a conveyancer shall be provided to SA Power Networks for approval and then lodged for registration at the Lands Titles Office, all at the cost of the applicant. Refer to Section 5.2 of this document for further information.

9.4 Associated Easement Costs

The landowner shall agree to pay all reasonable costs associated with the granting of the easements (including those required over any third-party land).

The easement will also require that the landowner meet the costs of any equipment (including but not limited to cranes, forklifts, telehandlers etc) required for installation and replacement of the subject electricity infrastructure due to its location as requested by the landowner and or their associated parties, rather than a location deemed by SA Power Networks to be more convenient and accessible.

Below are SA Power Networks costs relating to easements:

- SA Power Networks survey cost for filed plans = $1400 *(excludes GST)
- SA Power Networks easement documentation and registration = $650 *(per property owner, excludes GST)
- An easement plan and documentation prepared and registered by applicant (SA Power Networks required to execute only, $100 *(per property owner)

*__Note__: It is not a standard practice for SA Power Networks to undertake survey plans for land divisions and accordingly no costs have been included for this function. Also note that SA Power Networks fees and charges are subject to change without notice.

9.5 Extinguishment of SA Power Networks/DLC Easements

Where infrastructure, which is protected by a registered easement, has been removed and an easement is no longer required, the applicant can apply, in writing, to have the easement extinguished.

All extinguishments are subject to SA Power Networks 'Procurement of Easements' policy. An application does not guarantee the extinguishment of the easement. Any costs associated with the extinguishment of the easement, if approved, will be incurred by the applicant.

Similarly, where infrastructure which is protected by a registered easement has been removed in conjunction with a new land development and an easement is no longer required the extinguishment of that easement can be shown on the Plan of Division/Community Plan and extinguished as part of the Plan of Division/Community Plan process.

All costs associated with the extinguishment of the easement will be borne by the applicant/developer.

10. Works Compliance and Asset Inspection

All works contained within this technical standard is subject to SA Power Networks design compliance and asset inspection processes. It is the responsibility of the customer/landowner to confirm with their designer to ensure that all design requirements are met.

Any changes required to the approved design shall be submitted and approved by the SA Power Networks Project Manager (PM), prior to work commencing.

SA Power Networks reserves the rights to refuse energisation, where on inspection, non-compliances are identified, for example but not limited to:

- The design does not meet specific requirements stipulated in this document and any other applicable standards.
- The design is not built to the approved specifications.

Any identified non-conformances to SA Power Networks requirements shall be rectified at the customer's/landowner's cost.

11. Who You Should Talk To?

1. **SA Power Networks Easement Branch**

   Email: realestateadmin@sapowernetworks.com.au

2. **SA Power Networks' Customer Solutions Managers:**

   Website: https://www.sapowernetworks.com.au/public/download.jsp?id=315697

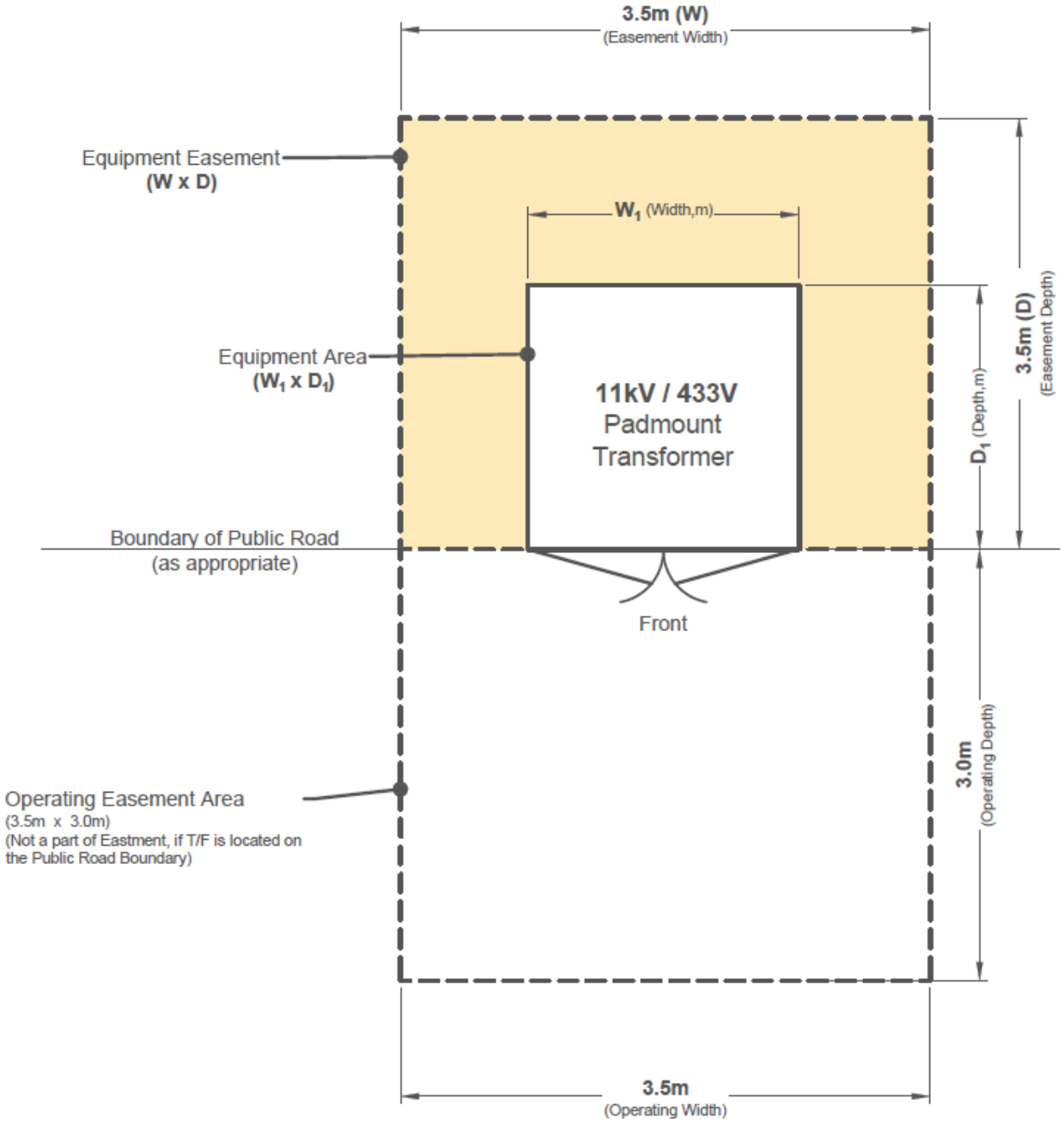
3. **General Enquiries:**

   Contact SA Power Networks' Customer Service Team:
   Website: https://www.sapowernetworks.com.au/contact-us
   Email: customerservice@sapowernetworks.com.au;
   Call: 13 12 61

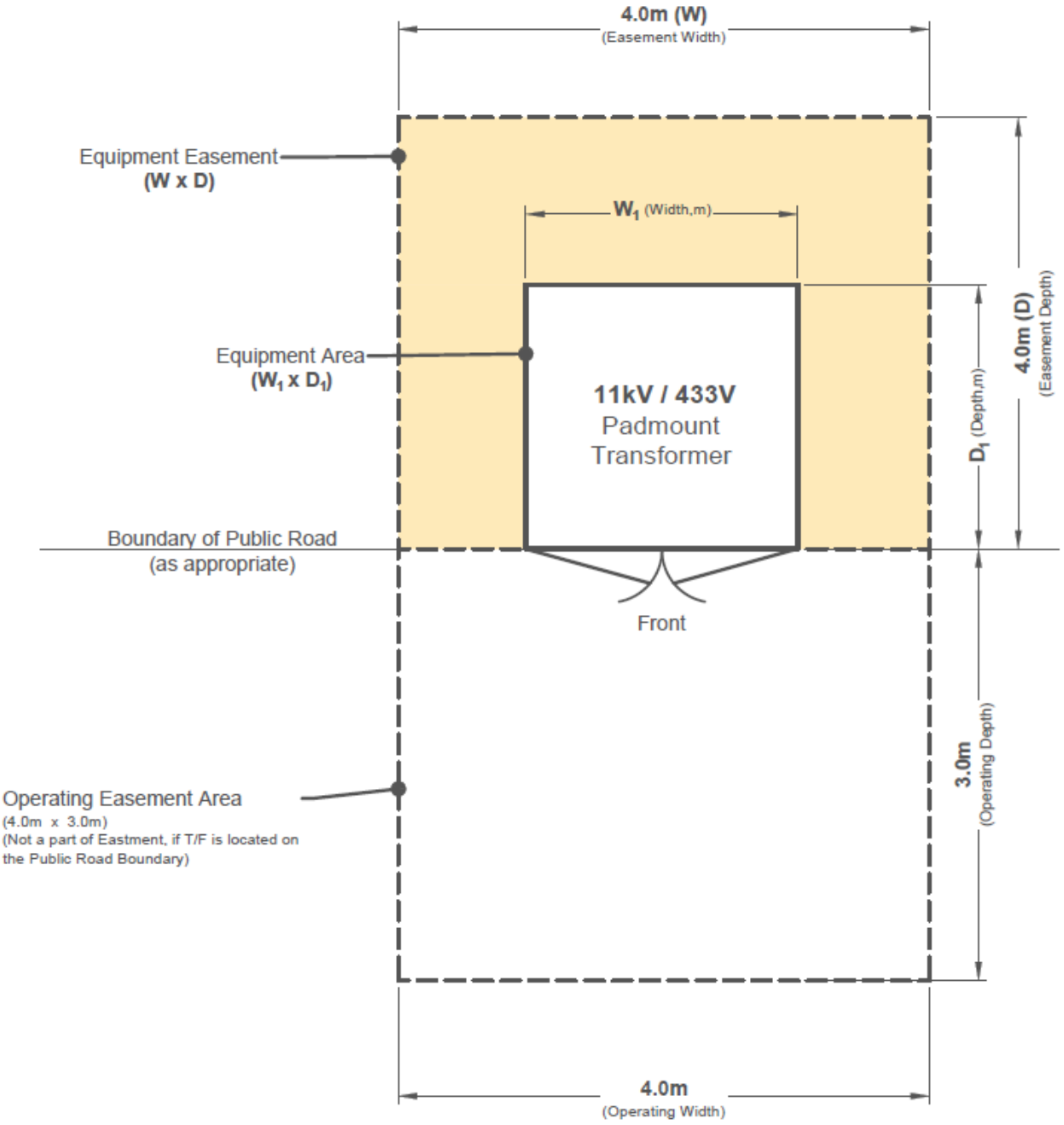
Appendices

A. Easement requirements for equipment without retaining wall

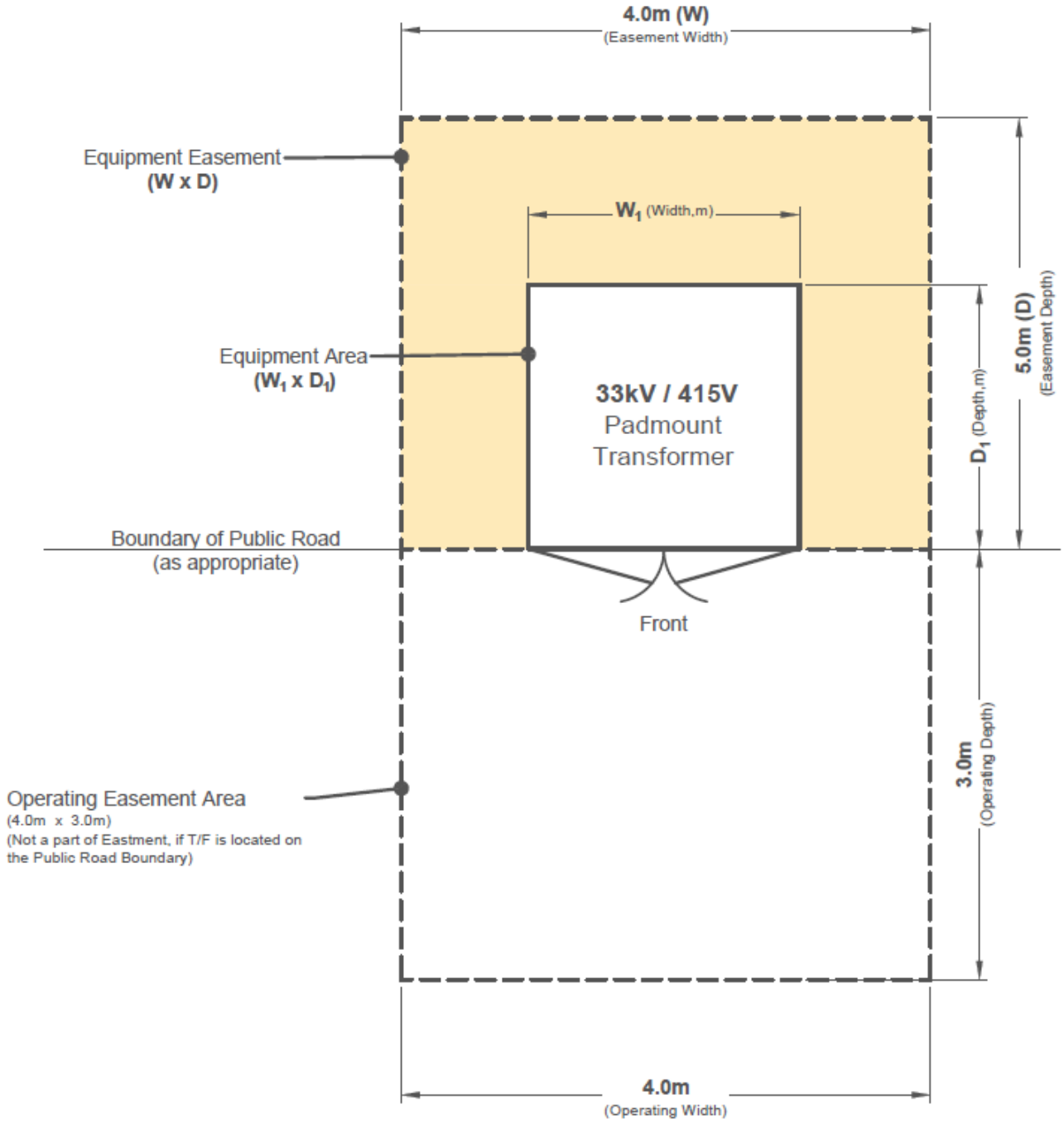
A.1 11 kV/433 V – Padmount Transformer – up to and including 1MVA



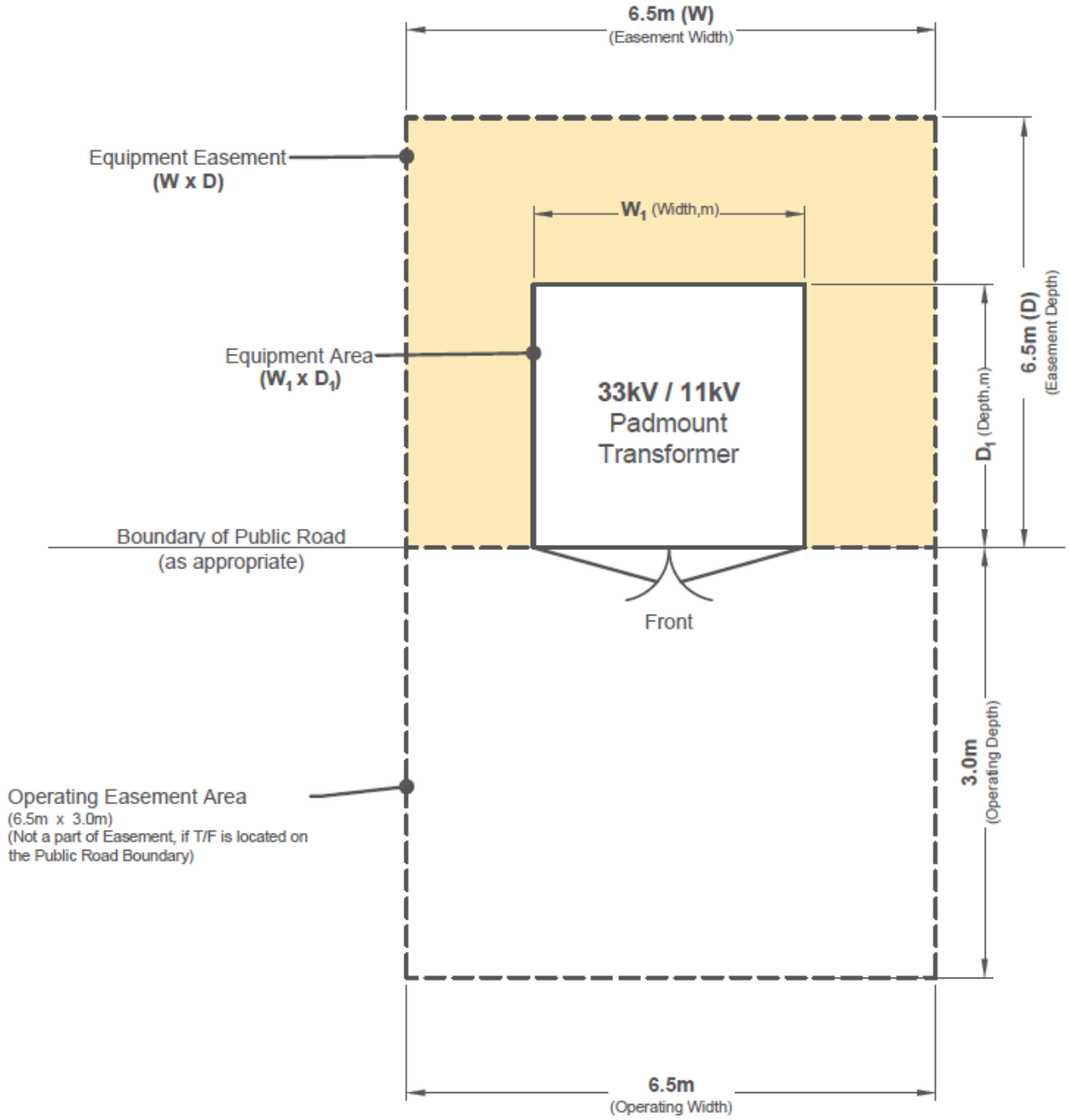
A.2 11 kV/433 V – Padmount Transformer – 1.5MVA to 2MVA



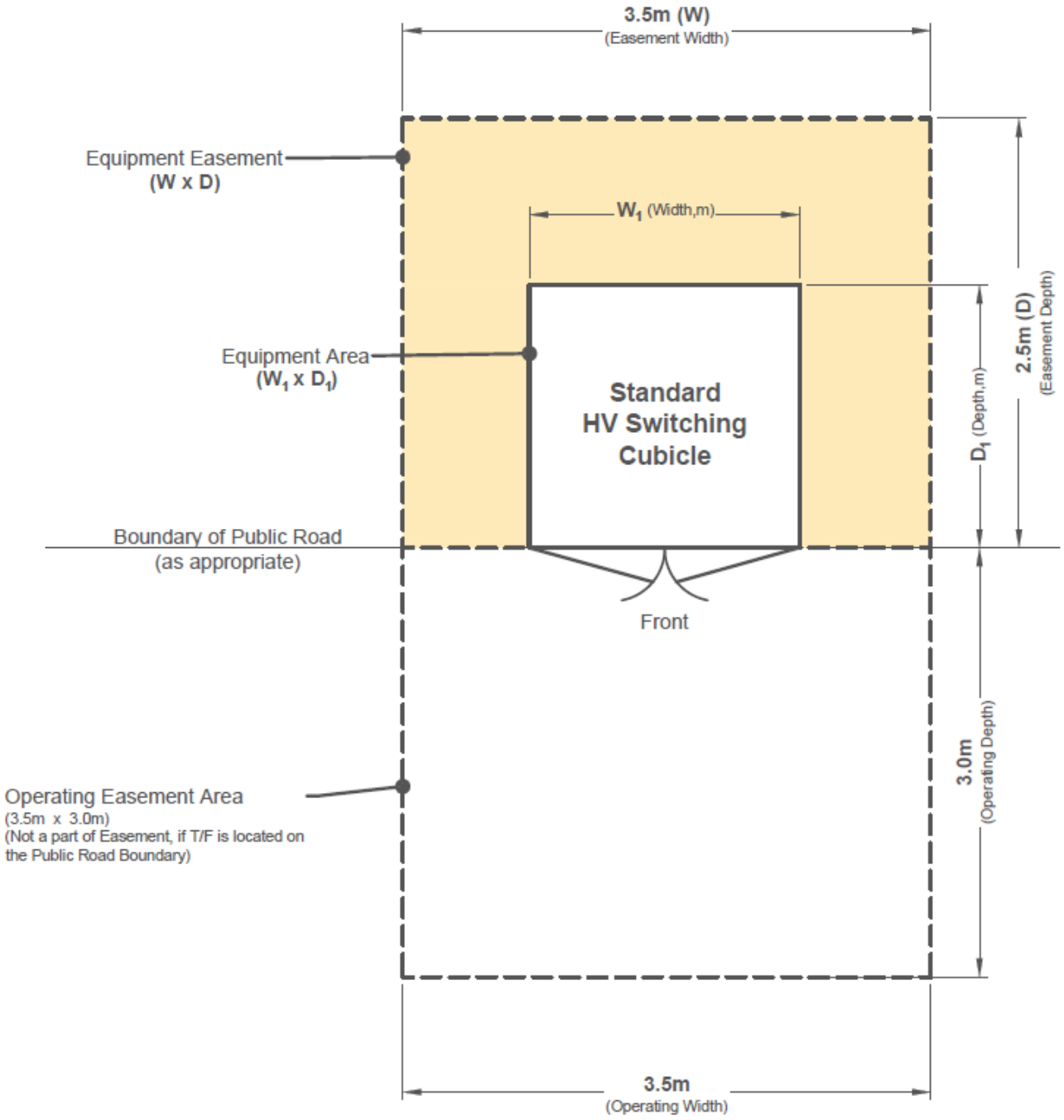
A.3 33 kV / 415 V Padmount Transformer – up to & including 2MVA



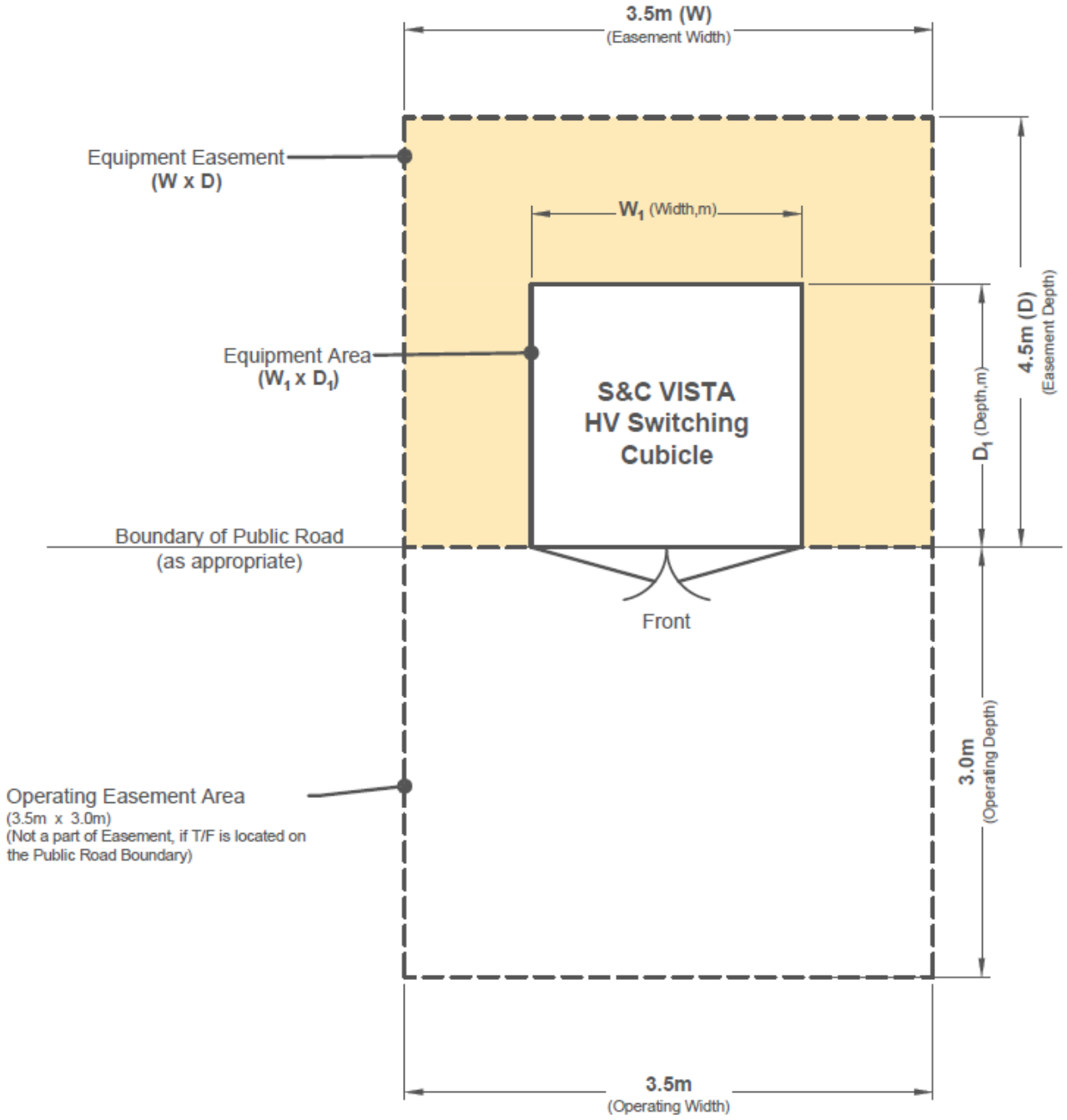
A.4 33 kV / 11 kV Padmount Transformer – up to & including 3MVA



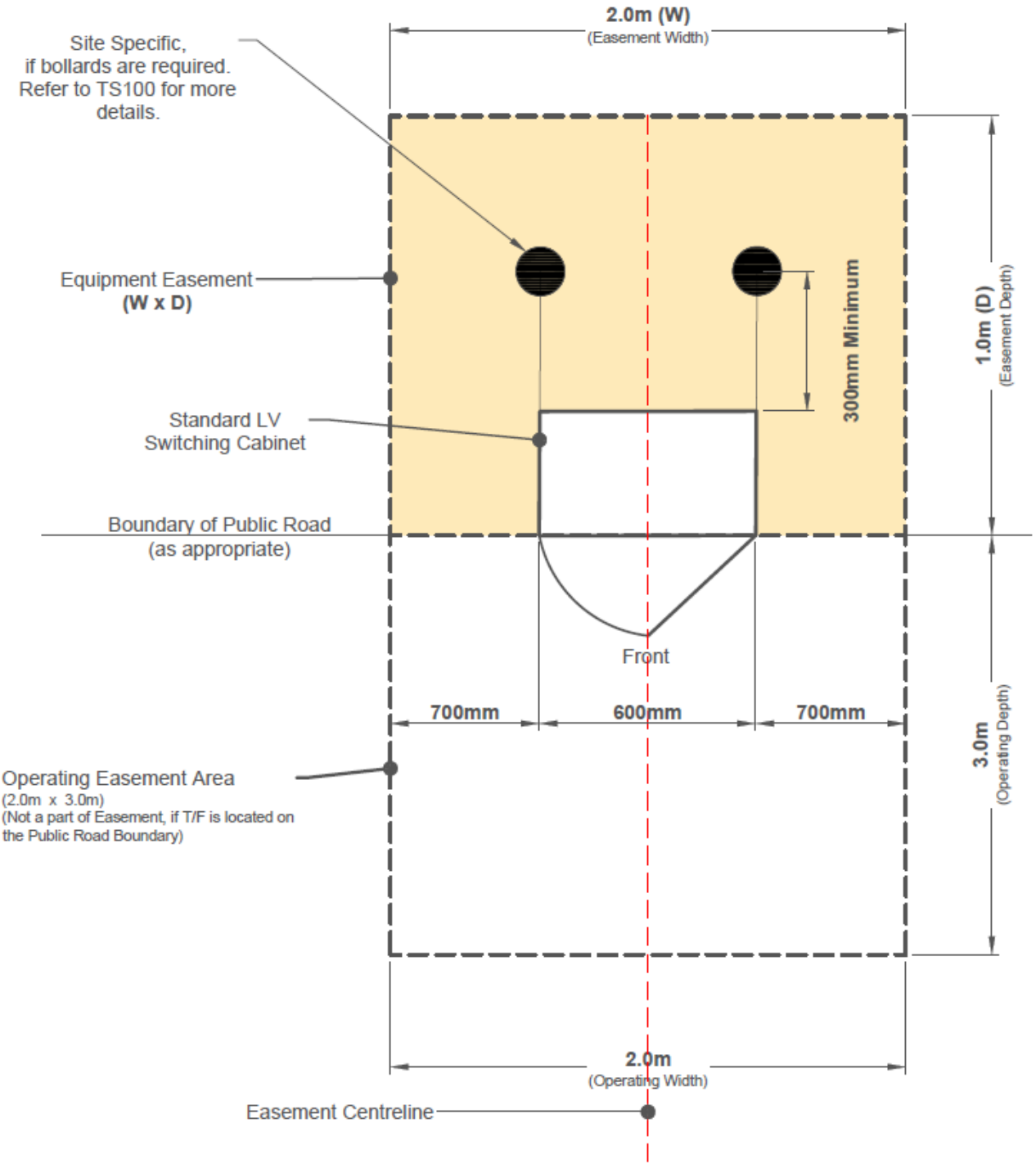
A.5 Standard HV Switching Cubicle



A.6 S&C 'VISTA' HV Switching Cubicle



A.7 Standard LV Switching Cabinet



B. Easement Requirements for Equipment (with retaining wall)

B.1 Fill scenario

Equipment easement areas as are per Table 2.

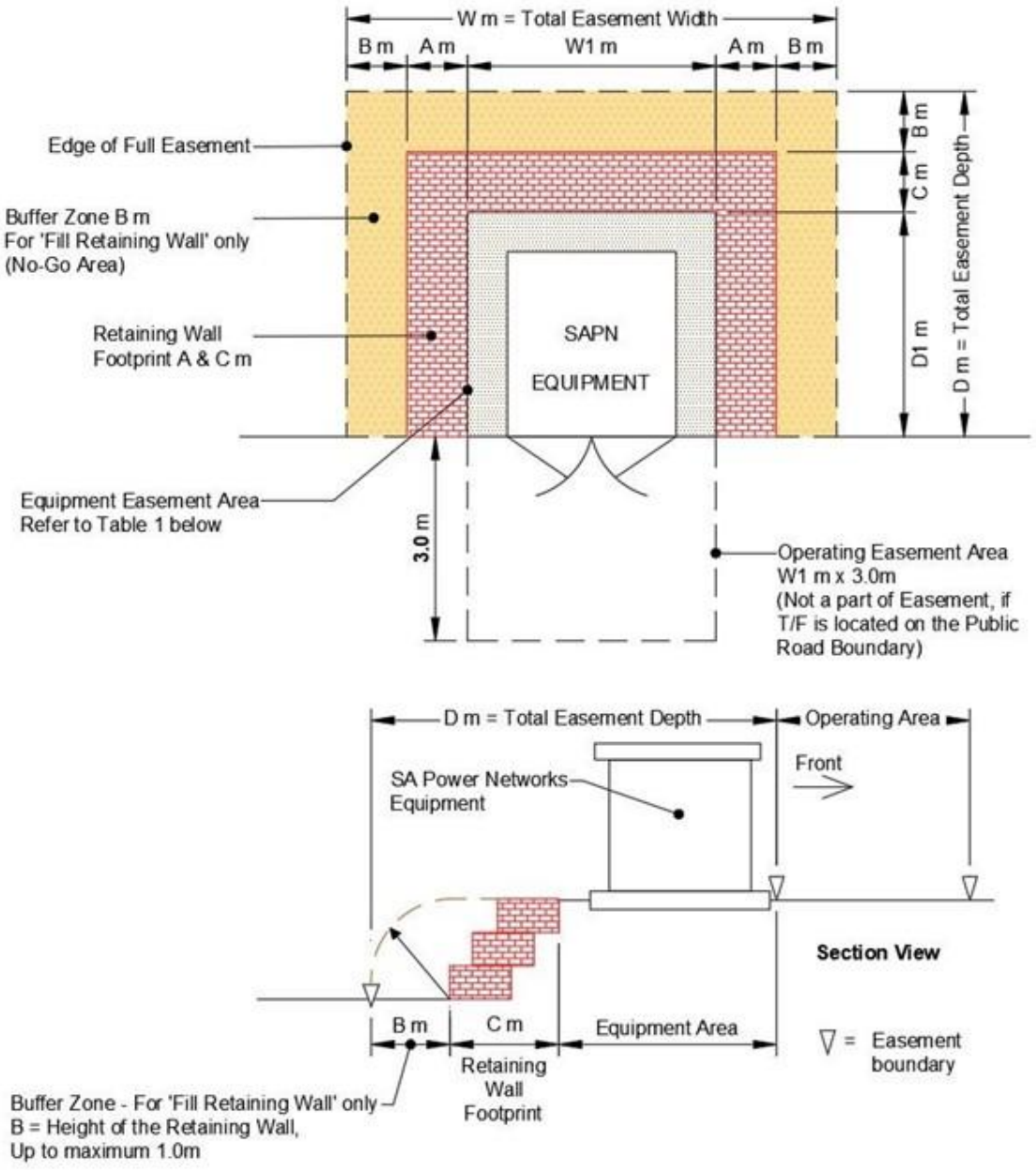


Figure 1 - Equipment with a retaining wall (fill scenario)

B.1.1 Dimensions

Buffer zone (B):

The buffer zone (dimension '**B'**) applies to a <u>filled</u> retaining wall only. The zone provides a no-go area of 'original' ground between the base of the retaining wall and an easement boundary to ensure the retaining wall integrity is not impacted by works external to the easement.

It is equal to the maximum height of any part of the retaining wall and is an additional dimension extending from the base of the retaining wall and defines an easement boundary for any side of a site that has a retaining wall and abuts private and public land.

The maximum buffer zone dimension is 1.0 m in any direction. Tolerance is 100 mm.

Equipment easement area:

A retaining wall (including the required agricultural pipe and specified fill) shall not encroach on the equipment area as stipulated in Table 2.

Retaining wall footprint:

This is the total area needed for the retaining wall and includes any area required for drainage either on the inside or outside of the retaining wall.

B.1.2 Dimension Calculations

Total easement width: $\boldsymbol{W = W1 + (2 \times A) + (2 \times B)}$

- $\boldsymbol{W1}$**:** Equipment Easement Width
- $\boldsymbol{A}$**:** Fill retaining wall footprint
- $\boldsymbol{B}$**:** Buffer zone

Note: the 'Buffer Zone' is only required for the 'Fill Scenario' and shall not exceed 1.0 m)

Total easement depth: $\boldsymbol{D = D1 + C + (2 \times B)}$

- $\boldsymbol{D1}$**:** Equipment Easement Width
- $\boldsymbol{C}$**:** Fill retaining wall footprint
- $\boldsymbol{B}$**:** Buffer zone

Note: the 'Buffer Zone' is only required for the 'Fill Scenario' and shall not exceed 1.0 m)

Maximum easement area: $\boldsymbol{W \times D}$

- $\boldsymbol{W}$**:** Total easement width
- $\boldsymbol{D}$**:** Total easement depth

Operating area: $\boldsymbol{= W1 \times 3.0m}$

- $\boldsymbol{W1}$**:** Equipment Easement Width

Where 3.0 m distance in front of the SA Power Networks equipment is not practicable, then please consult SA Power Networks' Project Manager for best suitable practical distance which will be considered on case-by-case basis.

B.2 Cut scenario

Equipment easement areas as are per Table 2.

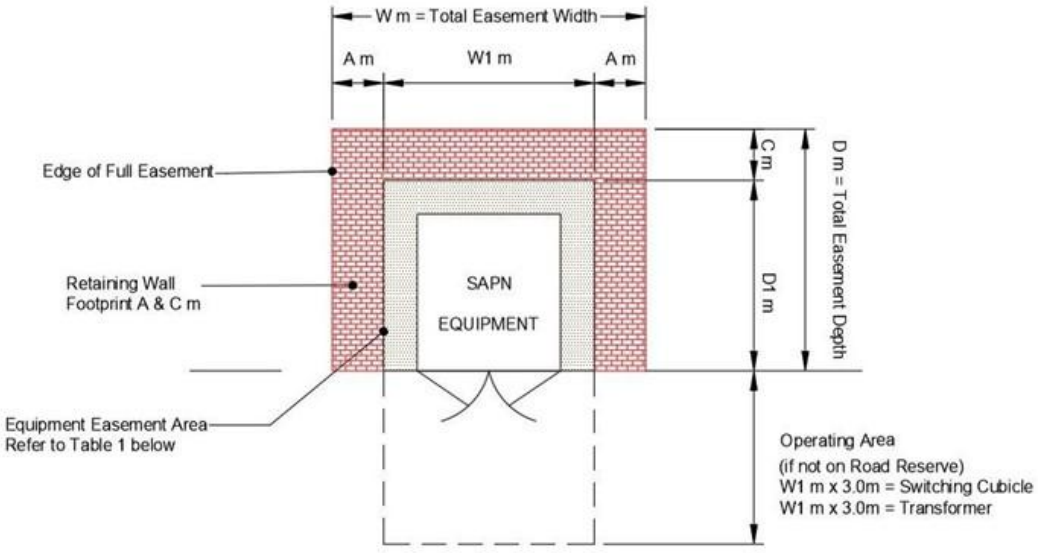


Figure 2 - Equipment with a retaining wall (cut scenario)

The retaining wall shall be external to the equipment easement area and installed so that the following criteria are met:

1. The outside footprint of the retaining wall (including the required agricultural pipe and fill) is located at the edge of an easement.
2. The retaining wall is constructed within total easement.

B.2.1 Dimensions

Buffer zone (B):

The buffer zone is not required for 'Cut Scenario' retaining wall.

Equipment easement area:

A retaining wall (including the required agricultural pipe and specified fill) shall not encroach on the equipment area as stipulated in Table 2.

Retaining wall footprint:

This is the total area needed for the retaining wall and includes any area required for drainage either on the inside or outside of the retaining wall.

B.2.2 Dimension Calculations

Total easement width: $\boldsymbol{W = W1 + (2 \times A)}$

- $\boldsymbol{W1}$**:** Equipment Easement Width
- $\boldsymbol{A}$**:** Fill retaining wall footprint

Total easement depth: $\boldsymbol{D = D1 + C}$

- $\boldsymbol{D1}$**:** Equipment Easement Width
- $\boldsymbol{C}$**:** Fill retaining wall footprint

Maximum easement area: $\boldsymbol{W \times D}$

- $\boldsymbol{W}$**:** Total easement width
- $\boldsymbol{D}$**:** Total easement depth

Operating area: $\boldsymbol{= W1 \times 3.0m}$

- $\boldsymbol{W1}$**:** Equipment Easement Width

Where 3.0 m distance in front of the SA Power Networks equipment is not practicable, then please consult SA Power Networks' Project Manager for best suitable practical distance which will be considered on case-by-case basis.