# LEGAL PLANS

NGED's guide to the production of legal plans

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# Legal Plans

**Use a scale and paper size that best suits the situation**

Show the rights being secured relative to existing and any new environment to make it easy to locate the site. [Land Registry like plans to detail at least one road name].

Custom and practice is to use the following scales:

1:500, 1:1250 1:2500

Enlargement/blow-up inserts at any given scale can be used to clarify detail where necessary.

As far as possible produce plans at **A4** and **A3** as plans bigger than this are problematic to handle, store and manage.

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# Legal Plans

- NORTH POINT

Custom and practice is to orientate plans so that North is to the top of the page and South is to the bottom.

- TITLE

This is at your discretion but convention is to use the site address.

- DRAWING NUMBER

Provide a unique reference.

- REVISION NUMBER

Each time a plan is altered the new version should be allocated a revision number or letter. This is to help all concerned make sure they are using the same version.

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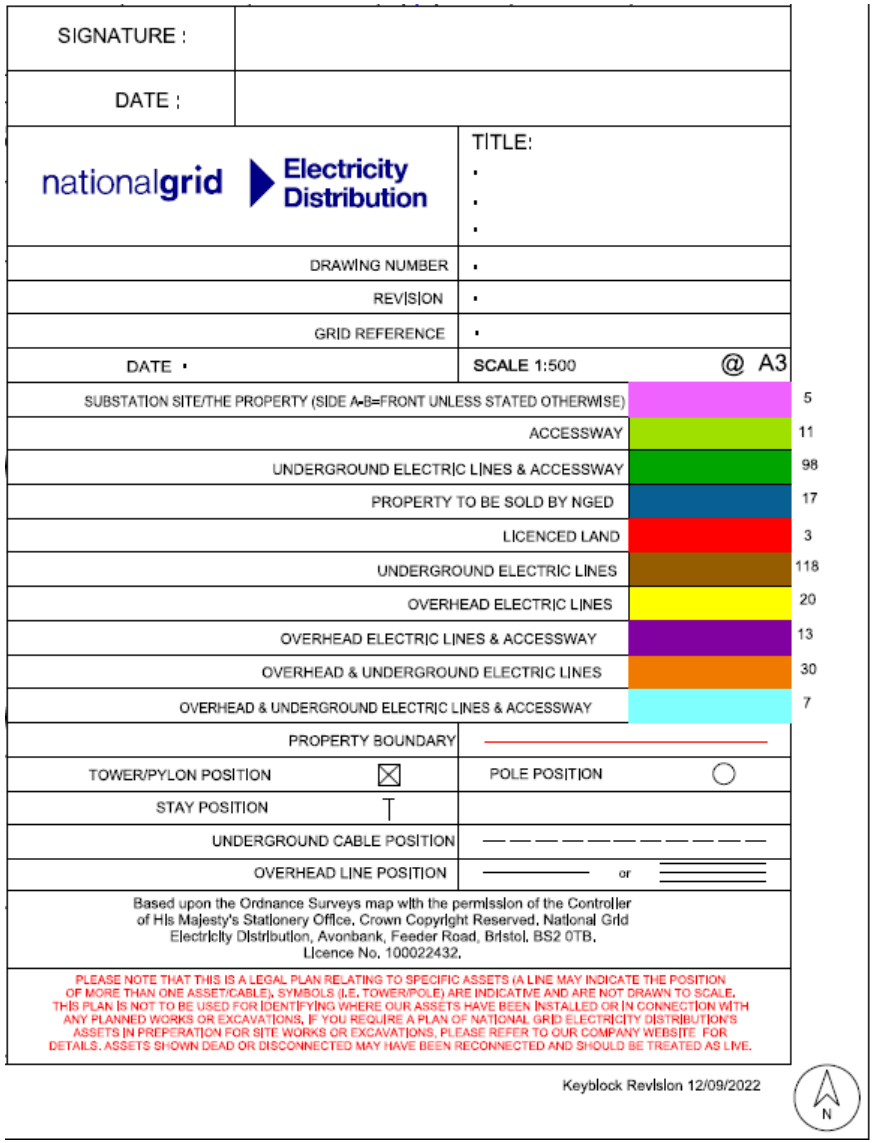
# New Plan Key



| | |
|---|---|
| SIGNATURE : | |
| DATE : | |
| nationalgrid Electricity Distribution | TITLE: . . . |
| DRAWING NUMBER | . |
| REVISION | . |
| GRID REFERENCE | . |
| DATE . | SCALE 1:500 @ A3 |

| | |
|---|---|
| SUBSTATION SITE/THE PROPERTY (SIDE A-B=FRONT UNLESS STATED OTHERWISE) | 5 |
| ACCESSWAY | 11 |
| UNDERGROUND ELECTRIC LINES & ACCESSWAY | 98 |
| PROPERTY TO BE SOLD BY NGED | 17 |
| LICENCED LAND | 3 |
| UNDERGROUND ELECTRIC LINES | 118 |
| OVERHEAD ELECTRIC LINES | 20 |
| OVERHEAD ELECTRIC LINES & ACCESSWAY | 13 |
| OVERHEAD & UNDERGROUND ELECTRIC LINES | 30 |
| OVERHEAD & UNDERGROUND ELECTRIC LINES & ACCESSWAY | 7 |
| PROPERTY BOUNDARY | |
| TOWER/PYLON POSITION ☒ | POLE POSITION ○ |
| STAY POSITION T | |
| UNDERGROUND CABLE POSITION | |
| OVERHEAD LINE POSITION | or |

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PLEASE NOTE THAT THIS IS A LEGAL PLAN RELATING TO SPECIFIC ASSETS (A LINE MAY INDICATE THE POSITION OF MORE THAN ONE ASSET/CABLE), SYMBOLS (I.E. TOWER/POLE) ARE INDICATIVE AND ARE NOT DRAWN TO SCALE. THIS PLAN IS NOT TO BE USED FOR IDENTIFYING WHERE OUR ASSETS HAVE BEEN INSTALLED OR IN CONNECTION WITH ANY PLANNED WORKS OR EXCAVATIONS. IF YOU REQUIRE A PLAN OF NATIONAL GRID ELECTRICITY DISTRIBUTION'S ASSETS IN PREPERATION FOR SITE WORKS OR EXCAVATIONS, PLEASE REFER TO OUR COMPANY WEBSITE FOR DETAILS. ASSETS SHOWN DEAD OR DISCONNECTED MAY HAVE BEEN RECONNECTED AND SHOULD BE TREATED AS LIVE.

Keyblock Revision 12/09/2022

N

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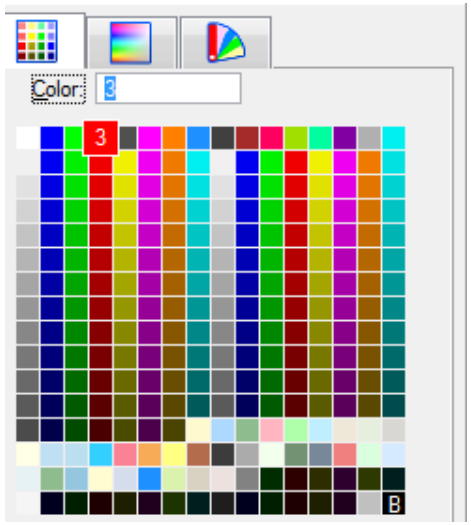
# Provides




Simplified text to correlate with the wording used in legal documents.
One colour for each of the land categories used [no cross hatching].
Reference to EMU colours to be used.

| | |
|---|---|
| SUBSTATION SITE/THE PROPERTY (SIDE A-B=FRONT UNLESS STATED OTHERWISE) | 5 |
| ACCESSWAY | 11 |
| UNDERGROUND ELECTRIC LINES & ACCESSWAY | 98 |
| PROPERTY TO BE SOLD BY WPD | 17 |
| LICENCED LAND | 3 |
| UNDERGROUND ELECTRIC LINES | 118 |
| OVERHEAD ELECTRIC LINES | 20 |
| OVERHEAD ELECTRIC LINES & ACCESSWAY | 13 |
| OVERHEAD & UNDERGROUND ELECTRIC LINES | 30 |
| OVERHEAD & UNDERGROUND ELECTRIC LINES & ACCESSWAY | 7 |

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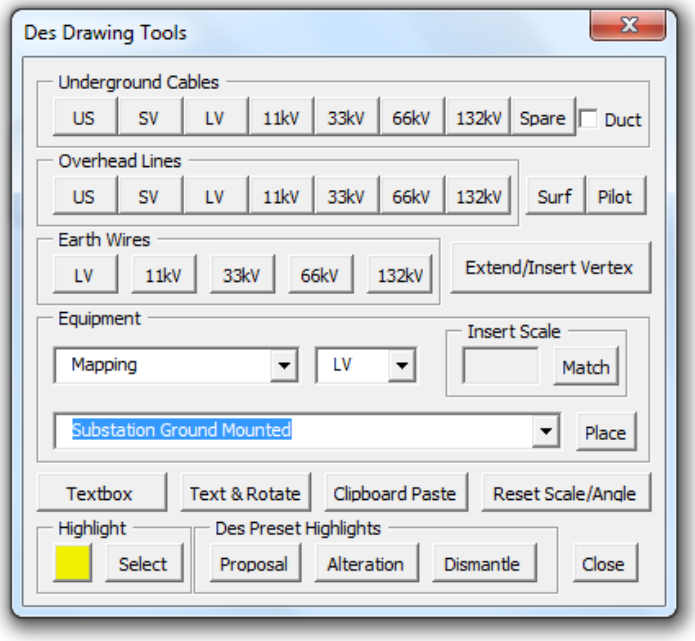
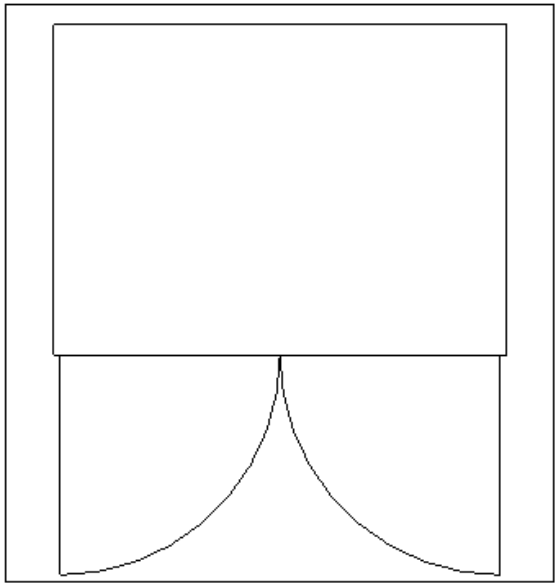
# Use Symbols to clarify

The key advises that they are indicative and not drawn to scale.

PLEASE NOTE THAT THIS IS A LEGAL PLAN RELATING TO SPECIFIC ASSETS (A LINE MAY INDICATE THE POSITION OF MORE THAN ONE ASSET/CABLE). SYMBOLS (I.E. TOWER/POLE) ARE INDICATIVE AND ARE NOT DRAWN TO SCALE. THIS PLAN IS NOT TO BE USED FOR IDENTIFYING WHERE OUR ASSETS HAVE BEEN INSTALLED OR IN CONNECTION WITH ANY PLANNED WORKS OR EXCAVATIONS. IF YOU REQUIRE A PLAN OF WESTERN POWER DISTRIBUTION'S ASSETS IN PREPARATION FOR SITE WORKS OR EXCAVATIONS, PLEASE REFER TO OUR COMPANY WEBSITE FOR DETAILS. ASSETS SHOWN DEAD OR DISCONNECTED MAY HAVE BEEN RECONNECTED AND SHOULD BE TREATED AS LIVE.



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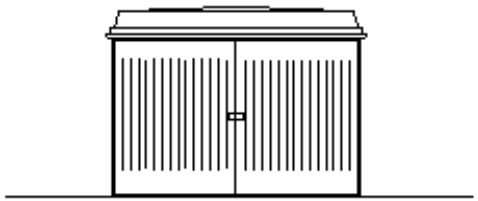
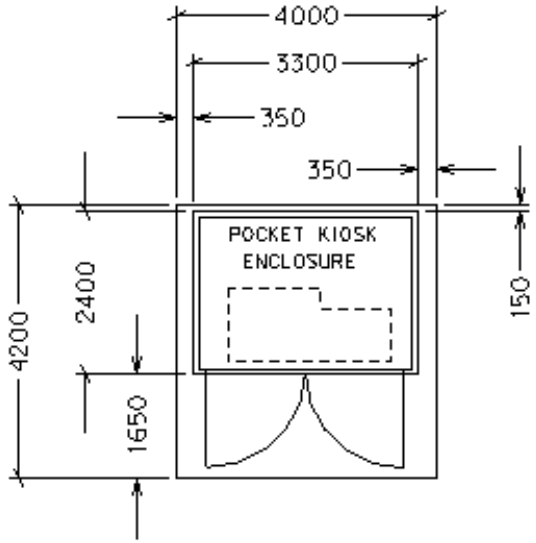
# Substation Sites / Property

Confirm the size of the site.



FRONT ELEVATION




PLAN
Scale 1:200

A POCKET KIOSK TYPE SUBSTATION TO BE INSTALLED OF APPROX. DIMENSIONS 3112 x 2264 x 2250 HIGH ON A CONCRETE BASE 3300 x 2400 WITHIN A 4200 x 4000 PAVED SITE AREA FOR OPERATIONAL & MAINTENANCE PURPOSES.

PLANNING :- PERMITTED DEVELOPMENT

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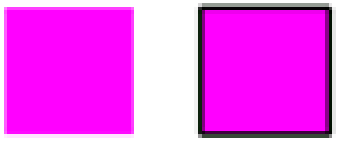
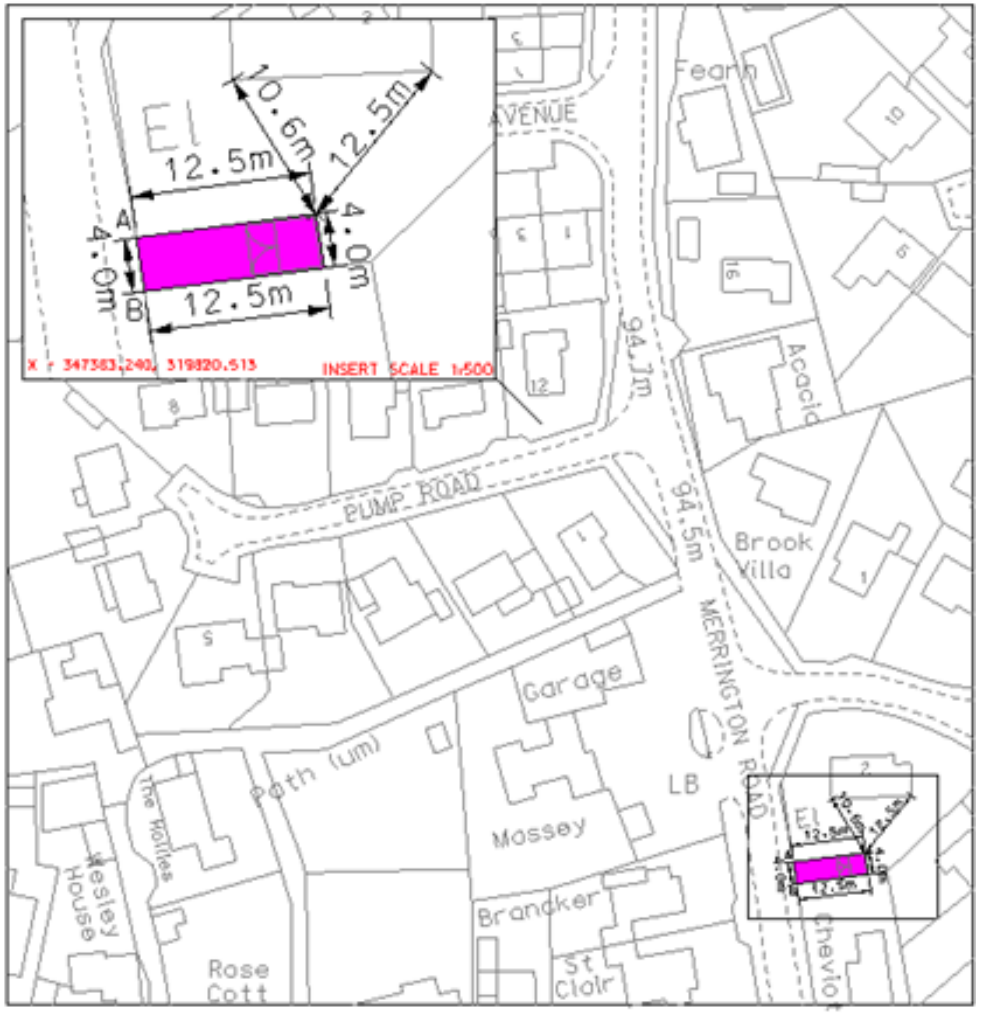
# Substation Sites / Property

Property is to be shown

- Coloured pink [EMU colour palette no 5] and may be edged black.



- True to scale [use inserts if necessary]

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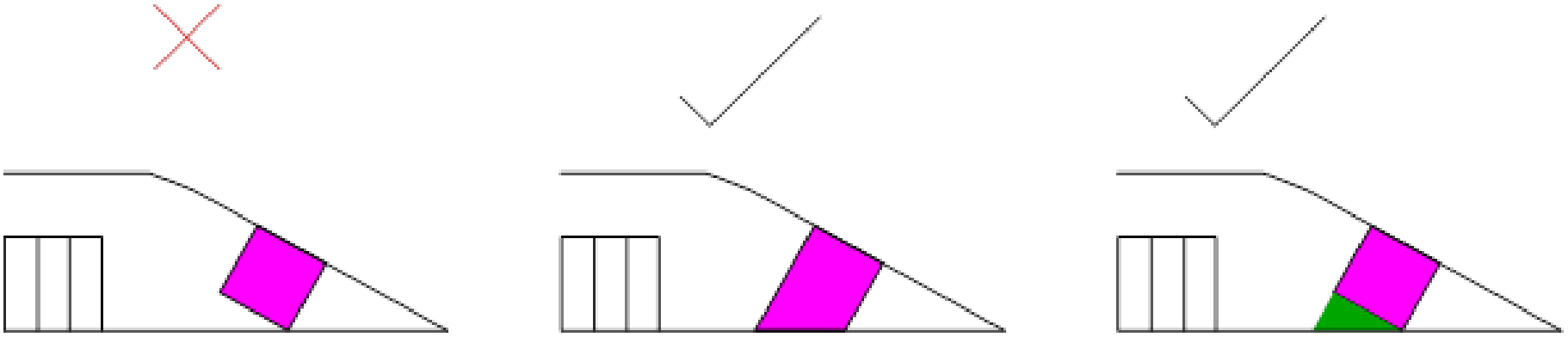
# Substation Sites / Property

Positioned square to the back edge of the adopted highway.

If this is not possible, either extend the area of the site to be acquired or cover the area between the site and the highway with an access or combined cable and access easement.



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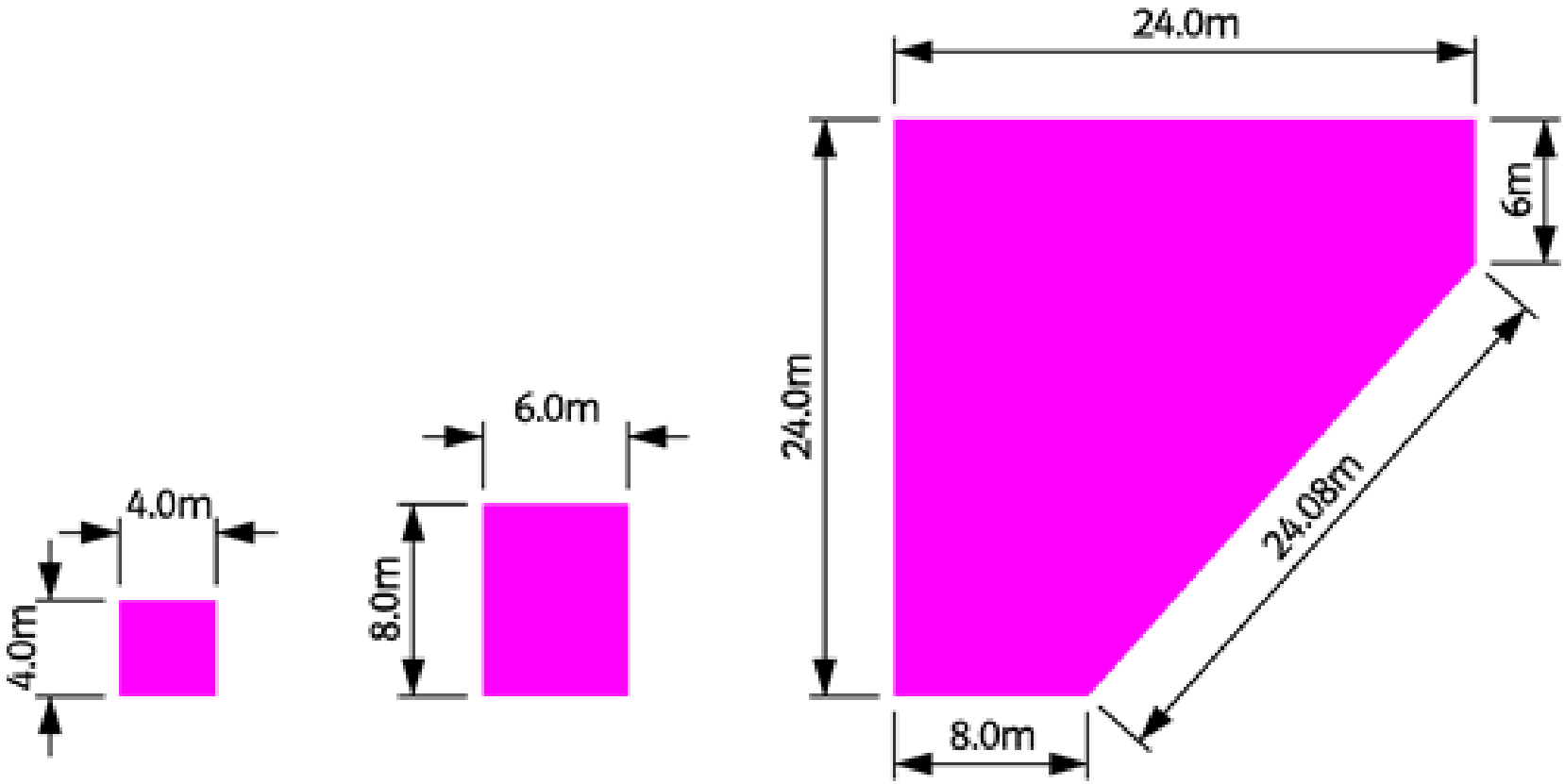
# Substation Sites / Property

Dimensions should be detailed next to the relevant site boundary.

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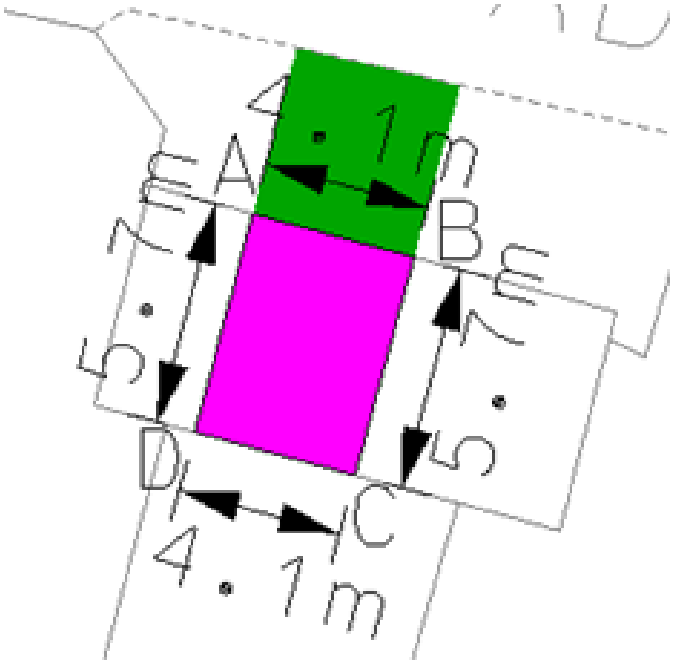
# Substation Sites / Property

Annotate corners with letters, with side A-B to be the front of the property with the main site access.

If the plan is cluttered it is acceptable to just use letter  A and B to confirm which side is the front.

SUBSTATION SITE/THE PROPERTY (SIDE A-B=FRONT UNLESS STATED OTHERWISE) 5

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# Substation Sites / Property

If appropriate show offset distances.


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# Site Access

Confirm the access requirements

Accesses should:-

- Be physically possible, that is of sufficient width and height to accommodate a vehicle and its load.
- Extend uninterrupted from the property to the currently adopted highway.
- Cover both sides of the road to allow access to the site and back to the highway.
- Allow room for a vehicle to be parked next to the site.
- If necessary allow a vehicle to be turned around.
- Take into consideration one way systems.
- Allow an area for unloading.

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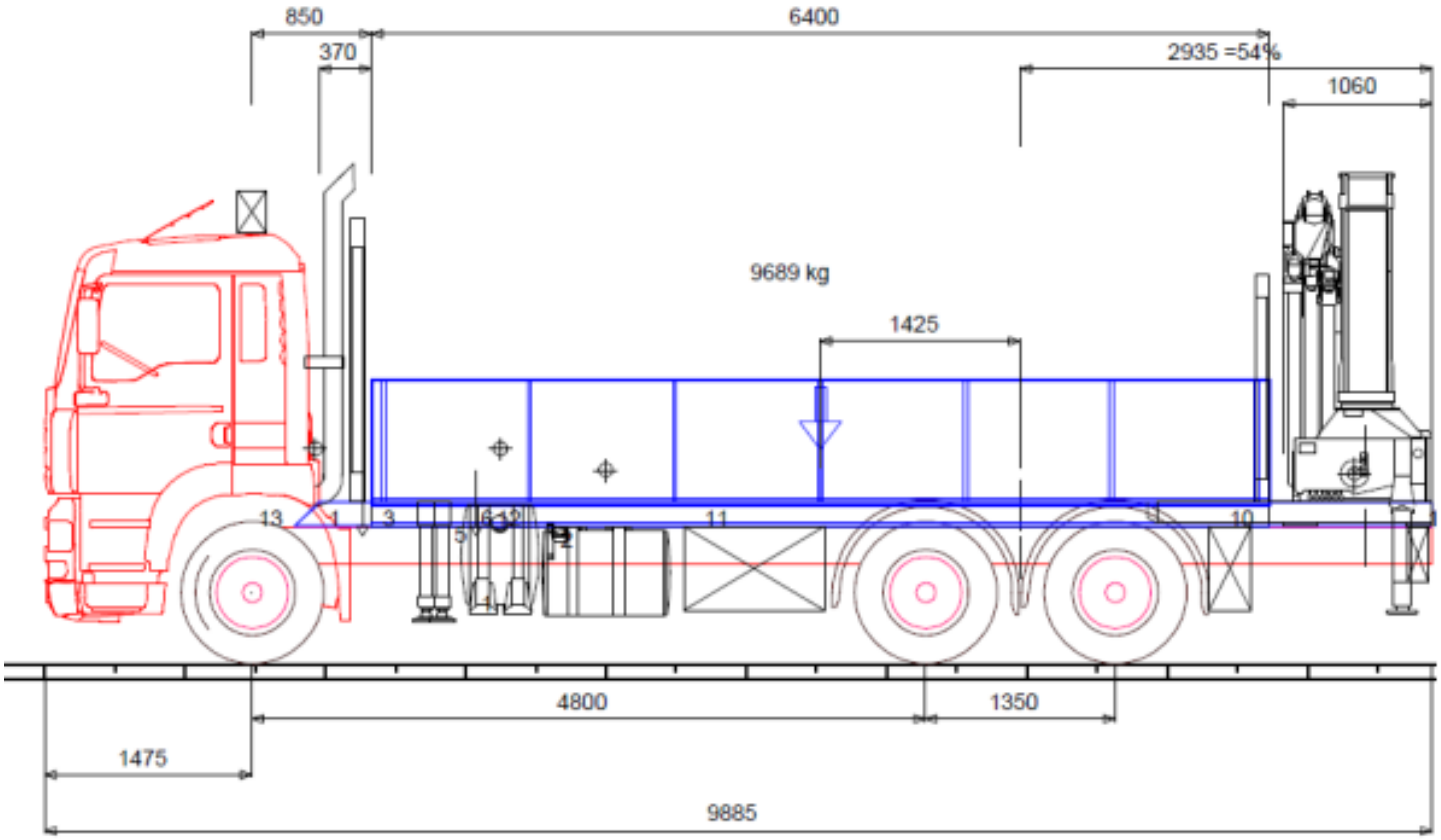
# Site Access

We use Lorries of up to 26 tonnes to transport secondary network plant to site [dimensions in mm]

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# Site Access

In simple terms they are 9.9m long.

In terms of width they are approximately:-

- 3m wide mirror to mirror
- 2.5m wide side to side [load bed]
- 6m wide when the stabiliser legs are fully extended

In terms of height they are:-

- 3.81m tall
- 1.37m from ground level to the top of the load bed [consider the size of what might be delivered to site]

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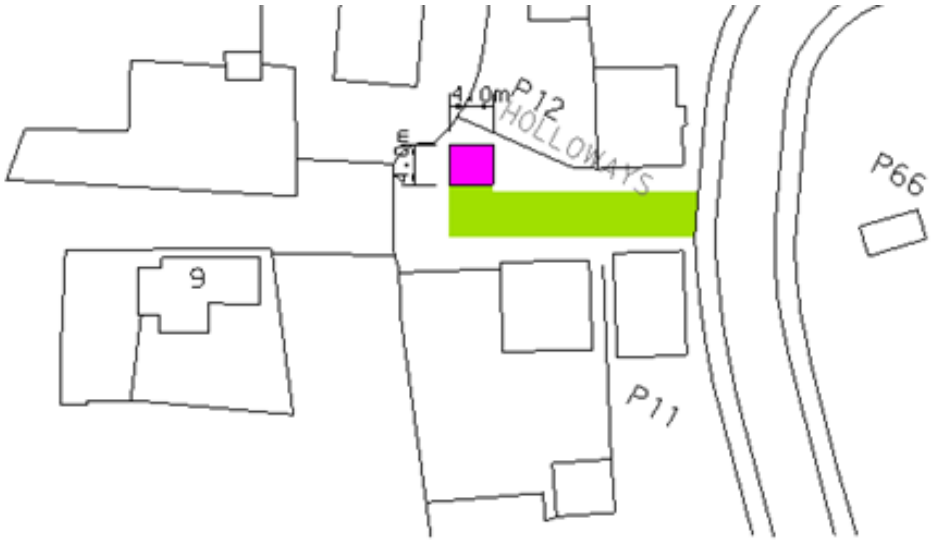
# Site Access

The standard for access to distribution sub stations is specified within Standard technique NCIV/2 and states that access should:-

- be a minimum of 3m wide
- have a minimum unloading area by the substation of 3m x 3m
- Access only easements/access-ways are to be shown using light green [EMU colour palette number 11]

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# Site Access

Accesses to primary sites may need to accommodate very large vehicles and weight is likely to be a consideration. Details of our requirements can be found in the Engineering Design Manual but the basics are

- 4.5m wide
- Minimum internal radius of 6.0m and minimum external radius of 13.5m on corners


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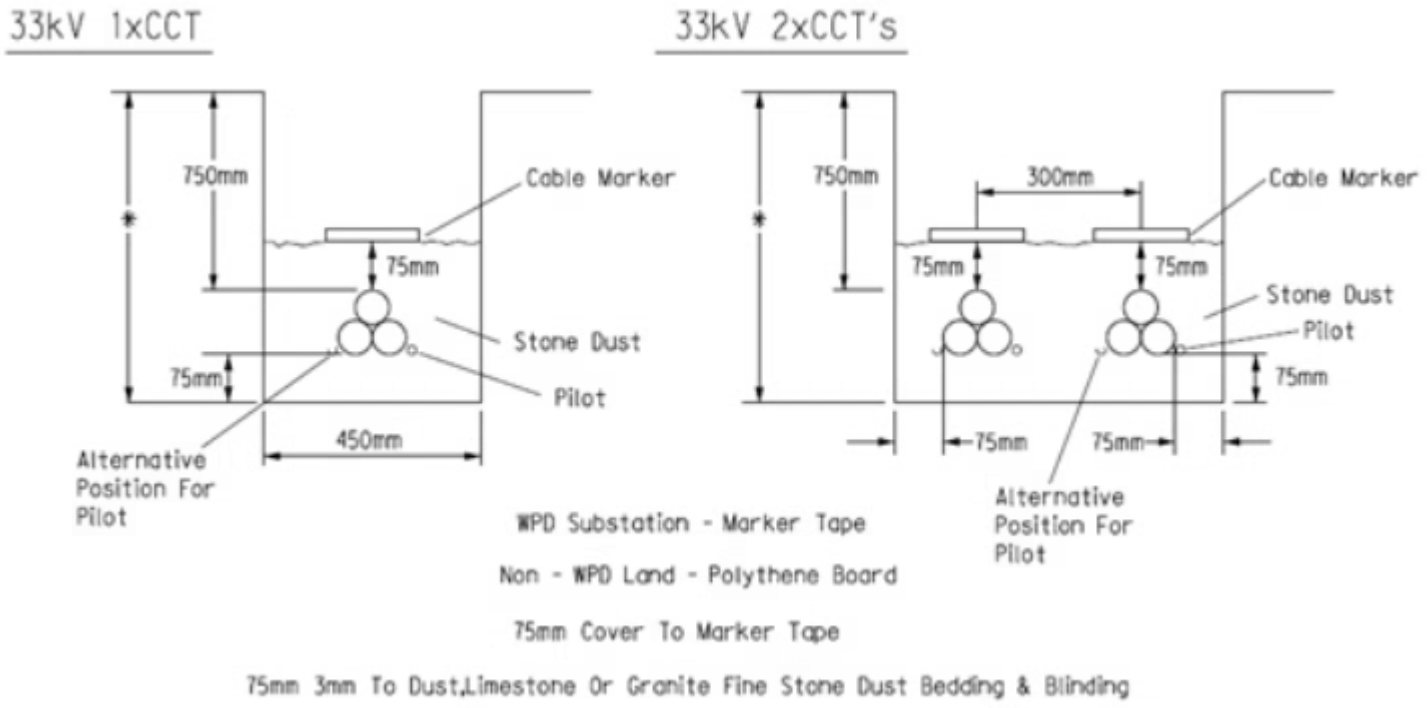
# Cable Easements

## Confirm the size of the easement.

Have due regard to Standard Technique CA6A/4 relating to the installation of underground cables and the width of the cable trench.

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# Cable Easements

Our cable rights are currently made up of two component parts:-

- A right to lay cables in the area/along the route of the line shown coloured brown [EMU colour palette number 118].

- A zone of protection to include the are shown coloured brown and “x” metres either side of it.
  - LV to 33kV, 2.0m either side of the area coloured brown.
  - 66kV to 132kV, 3.0m either side of the area shown coloured brown.

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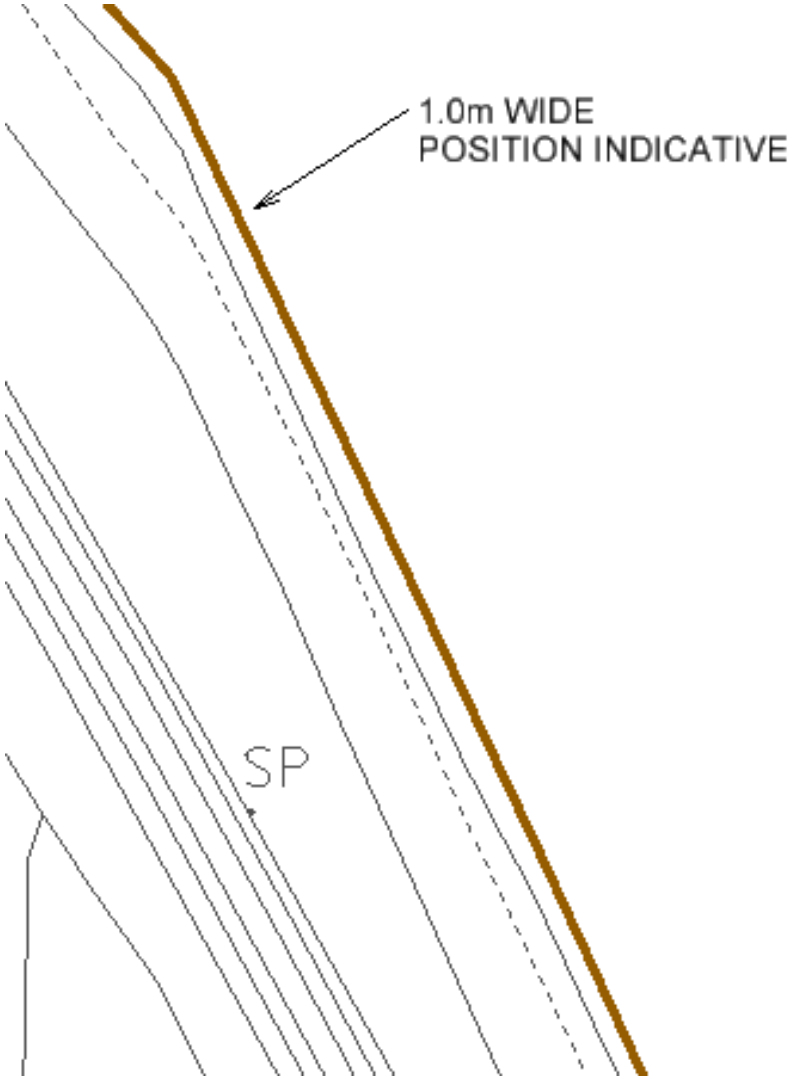
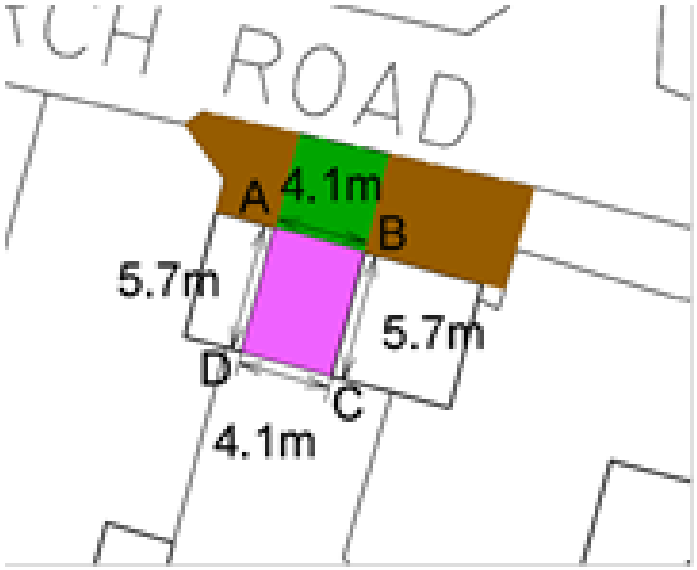
# Cable Easements




Cable easements can be drawn true to scale [ie when multiple cables are associated with a substation] or using an indicative line, [ie long linear runs of network].

When appropriate it is best to annotate both with dimension detail especially if they are not defined by physical features.

Try not to mix true to scale detail with indicative detail as it can get a little confusing.

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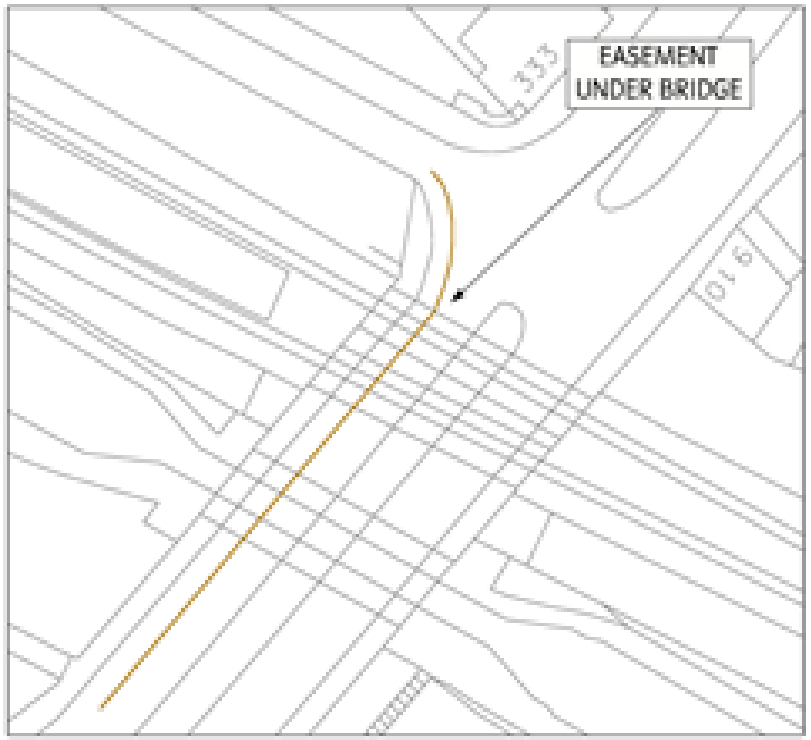
# Cable Easements

When cable easements run over and / or cross under a bridge or an archway the easements should be drawn as if the arch or bridge were not in situ but in such a way that it is still visible and annotated to state whether the easement runs over or under the bridge/archway to clarify the situation.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# Overlapping Cable And Access Easements

If a Cable Easement is to cross an Access Easement combine them as a dark green [EMU colour palette number 98] Cable and Access Easement.

A combined cable and access easement provides greater flexibility.


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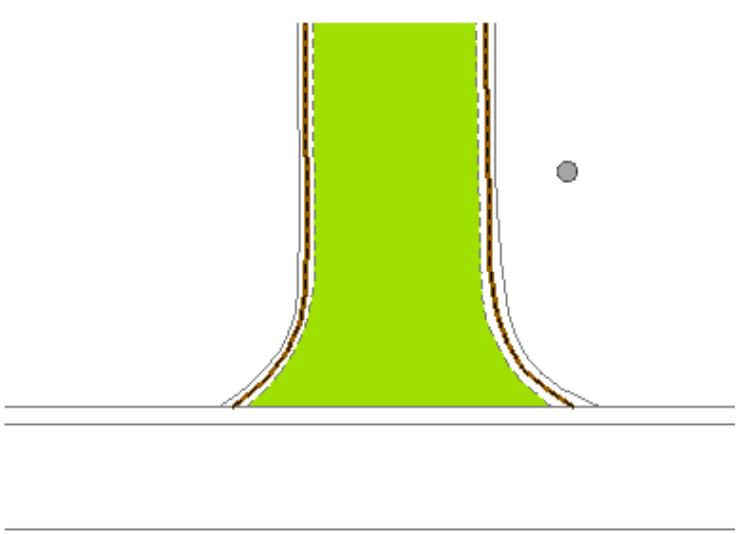
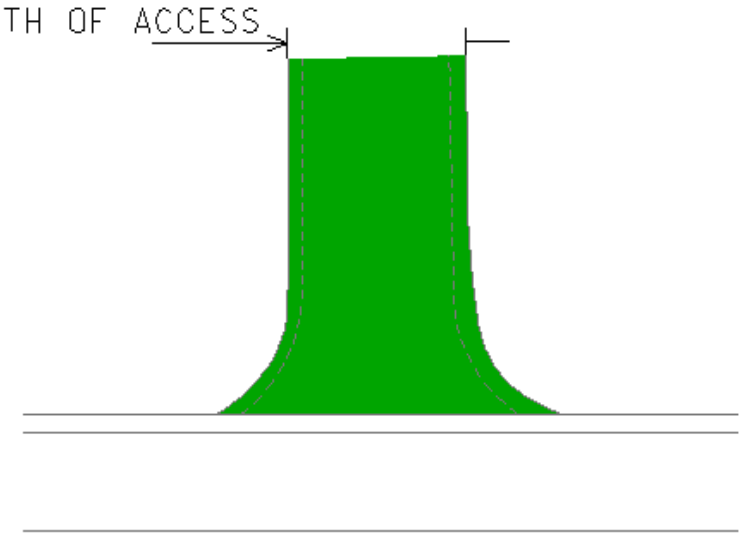
# Combined Cable And Access Easements

Similarly if we require an access easement along a road and a cable only easement within a footway that runs parallel to the road covering both with a cable and access easement is simpler and provides a greater flexibility.



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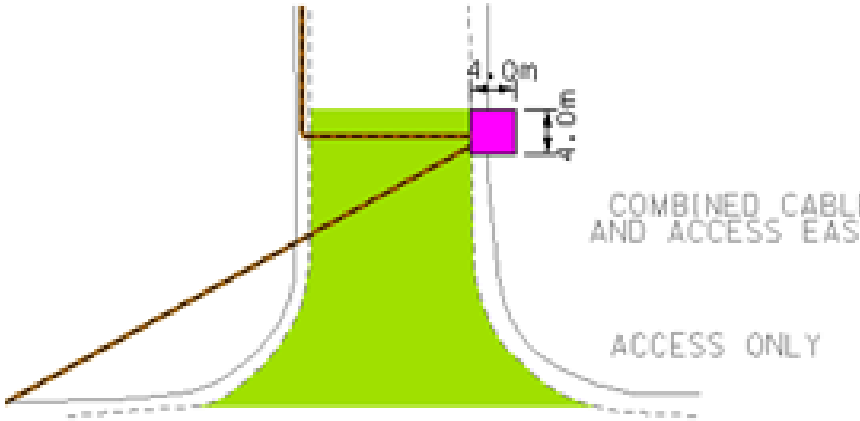
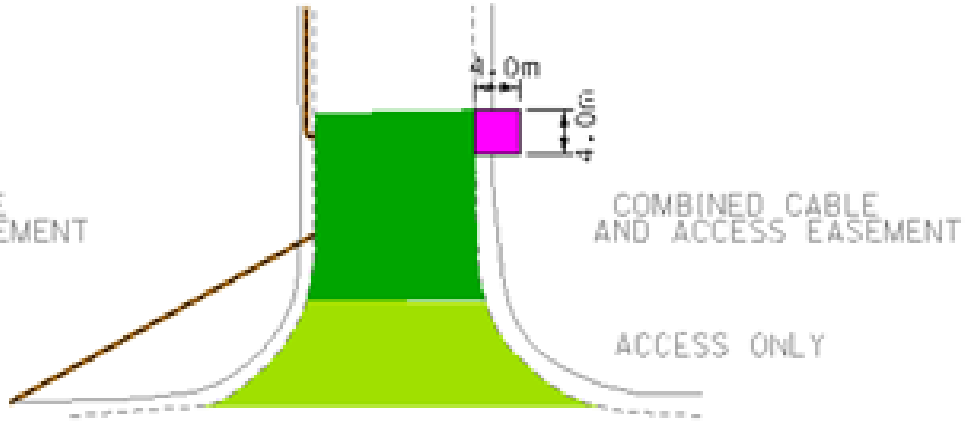
# Combined Cable And Access Easements

It is accepted that it may be necessary to cover only that part of the access, which is crossed by cables, with a combined cable and access easement.

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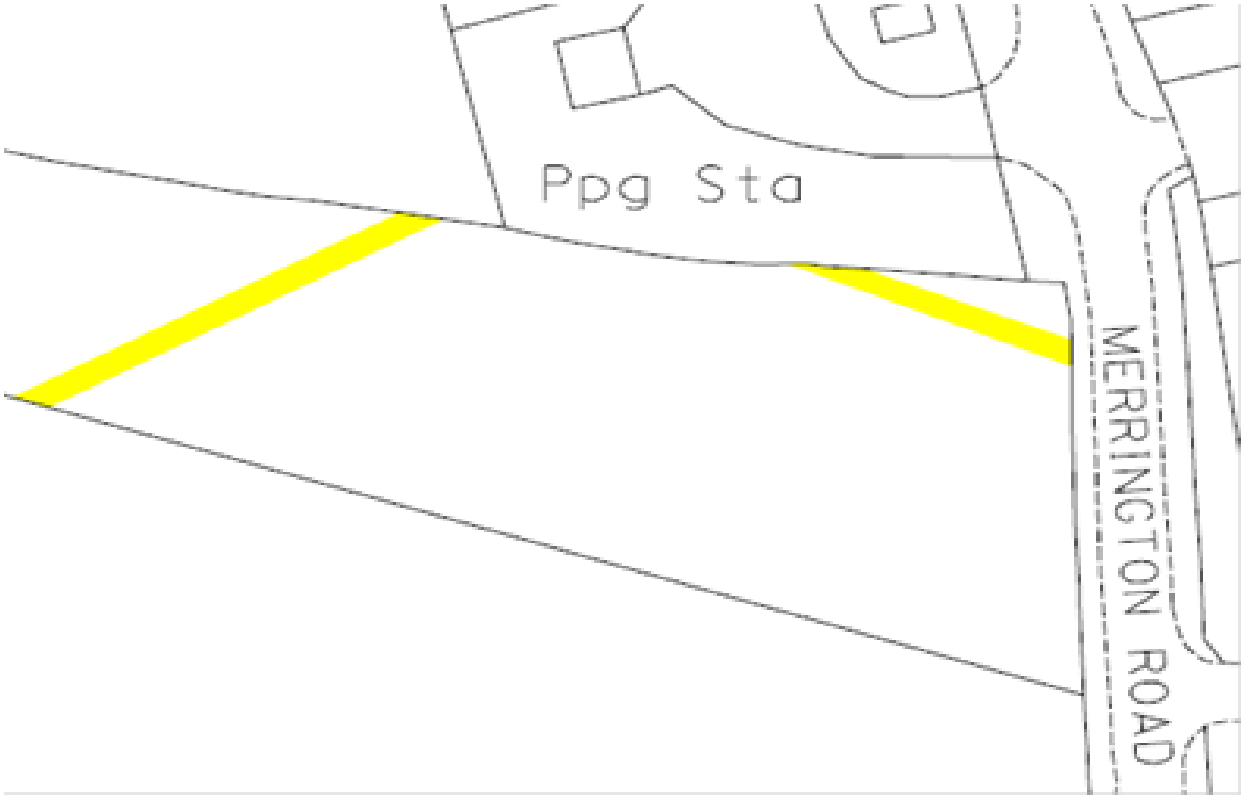
# Overhead Line Easements

Our deeds give us the right to place and maintain overhead lines in the position shown by an indicative yellow line [EMU colour palette number 20]. It is not necessary to detail pole, stay and or tower positions.

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# Overhead Line Easements

Easements are indicative and out of necessity based on a still air position as overhead electric lines sag / stretch and contract and swing / blow out [move up and down and side to side], with the amount of movement affected by:-

- Construction tensions
- The type and size of conductor
- Where the line is relative to the adjacent supports
- Ambient and operating temperatures
- Ice loading
- Wind strength and direction

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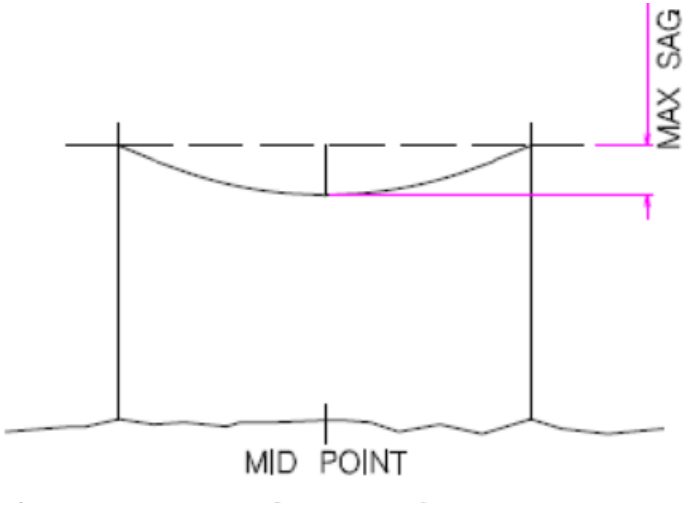
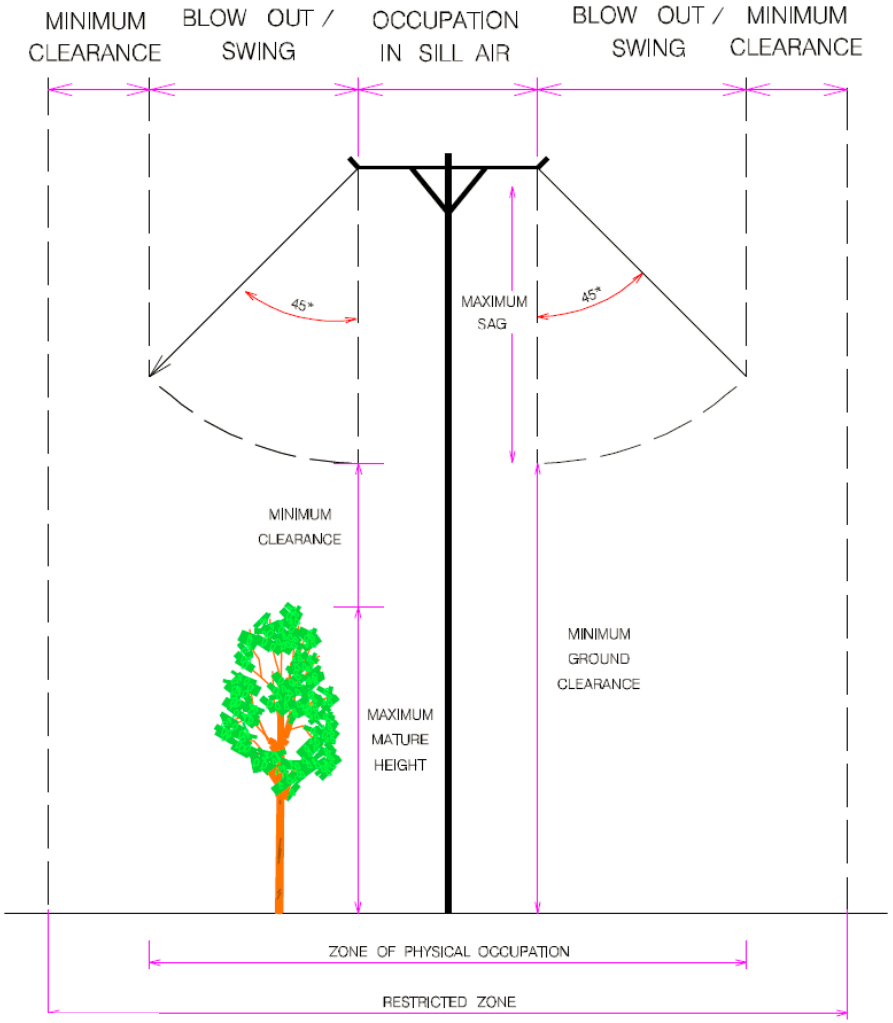
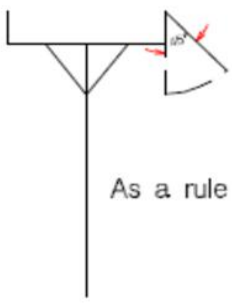
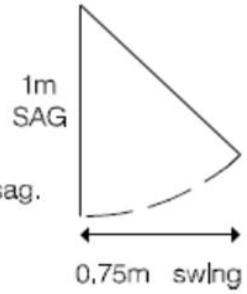
# Overhead Line Spatial Requirements – Lines Occupy A 3D Corridor



As a rule of thumb, maximum sideways swing = 75% of sag.
(71% is a more accurate measure)




For details of minimum clearances see Standard Technique OH1A3

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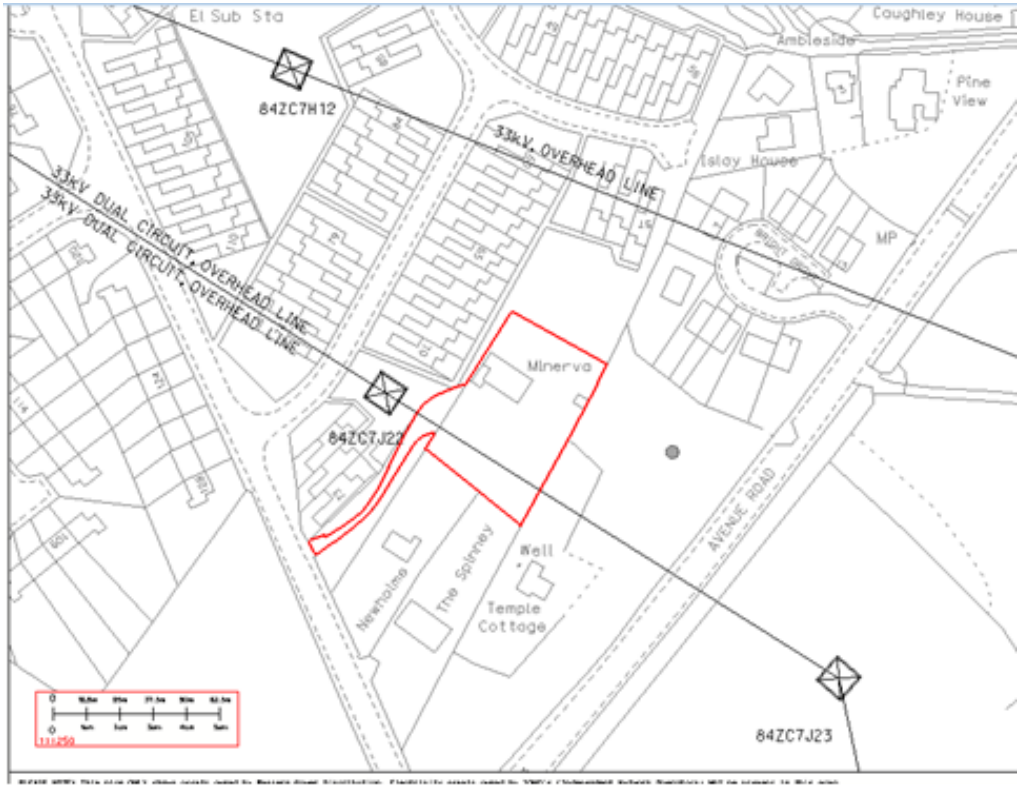
# Property Boundaries

Boundaries should:-

- ❖ Only be detailed if absolutely necessary
- ❖ Be shown as a red solid line
- ❖ Not contradict any boundary detail held by Land Registry

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