22 November 2021

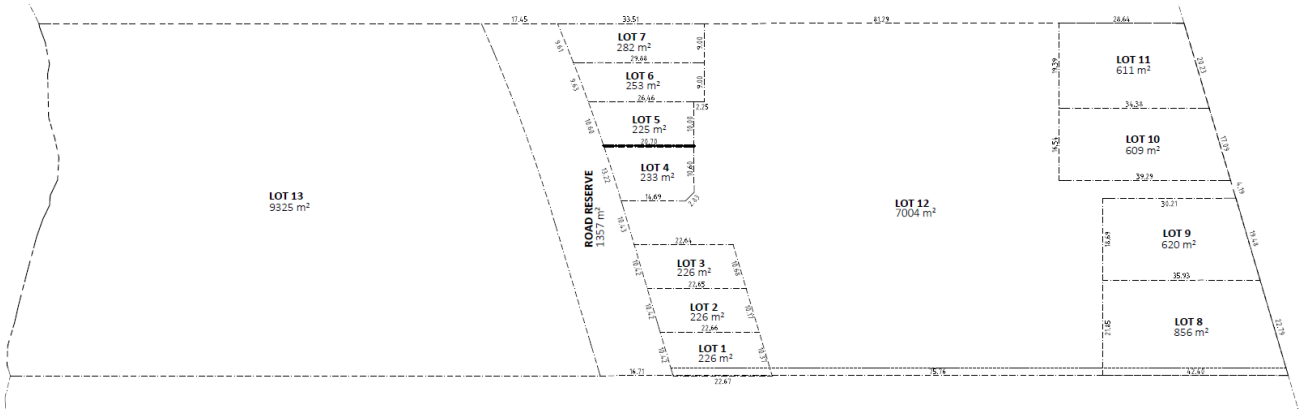
Our ref: 3860

Ausgrid Electrical Infrastructure Report

43, 45 & 49 Warriewood Road, Warriewood

Edgewater Connections prepare this Ausgrid Network Infrastructure report for Archidrome ('Client') for the development of the land, including twelve (12) lot residential subdivision and construction of two residential flat buildings comprising 34 apartments at 43, 45 and 49 Warriewood Road Warriewood, Lot 2, DP 972209, Lot 2, DP 349085 and Lot 1, DP 349085 respectively.

The subdivision is as indicated below and includes 11 Torrens Title Lots, 4 (lots 8 – 11) facing Warriewood Road and 7 (lots 1 – 7) facing the proposed extension of Lorikeet Grove and one super lot for the two proposed flat buildings comprising the 34 apartments and one creekline corridor (lot 13).



1.0 Proposed Development Electrical Supply Requirements

To service the subdivision, Ausgrid network infrastructure is required to provide LV supply to each of the 11 Torrens Title Lots and LV supply to Lot 12 which includes 34 Apartments. Ausgrid allow for provision of supply using a predetermined After Diversity Maximum Demand (ADMD) per dwelling of 3.5kVA for Sydney Urban Residential Developments (URDs).

The required electrical demand for the site is as follows using this ADMD of 3.5kVA:

- 11 Torrens Title Lots 11 x 3.5kVA: 38.5kVA, 55.8Amps
- Two residential Flat buildings with 34 Apartments: 34 x 3.5kVA: 119kVA, 172.5Amps
- Total Supply Requirement: 157.5kVA, 228Amps

LV Supply to the development can be provided from existing Ausgrid assets where supply capacity and connections are available, or from new Ausgrid assets installed for the subdivision including new substation and LV pillars.

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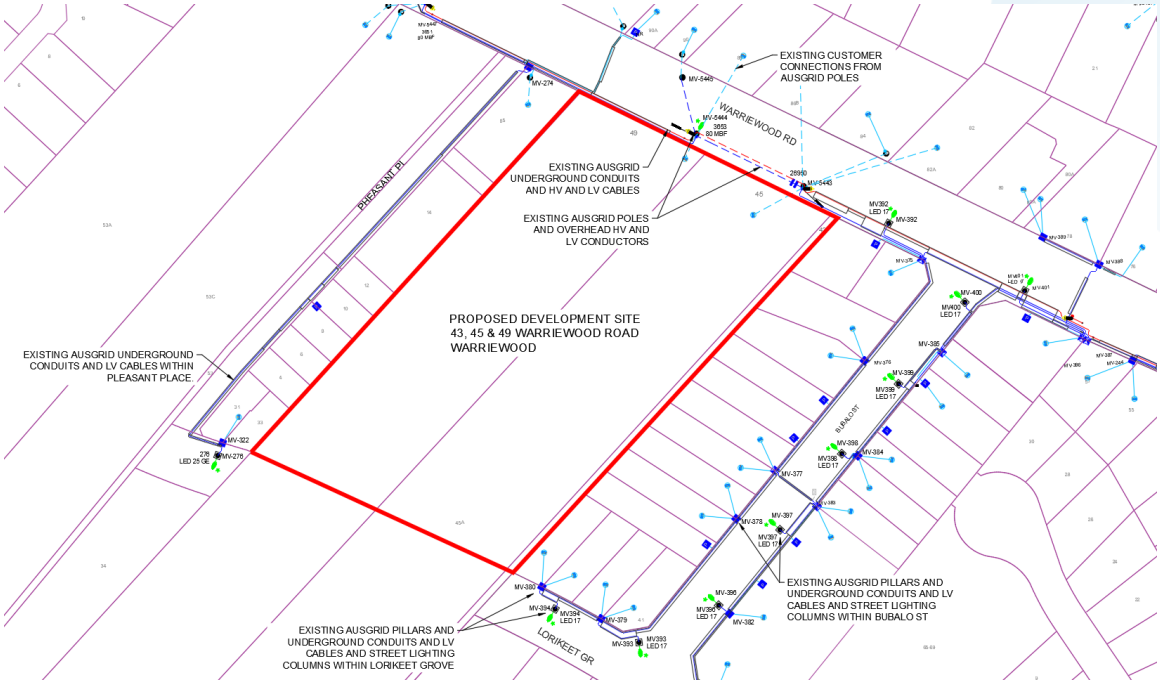
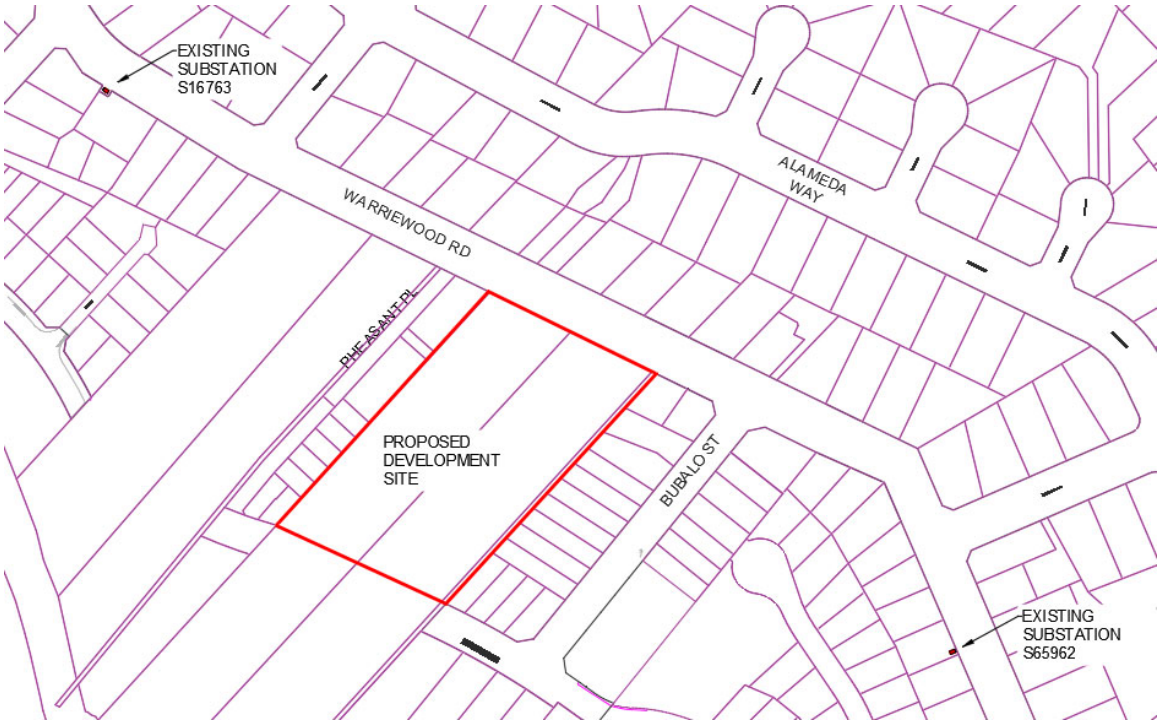
2.0 Existing Ausgrid Network Infrastructure

The geographic area is serviced by Ausgrid with existing underground network and a small portion of overhead network remaining on the Warriewood Road boundary of the site. These assets are located within Warriewood Road and the adjacent developments off Pleasant Place, Lorikeet Grove and Bubalo St as indicated below and within Appendix A.



The existing substations located within the vicinity of the development are indicated below. The development will require LV supply from existing substations or from a new Ausgrid substation according to network arrangement and available capacity at the time of application to Ausgrid and development works.



3.0 Proposed Ausgrid Electrical Infrastructure and Impact Assessment

Ausgrids' existing network in the vicinity of the development comprises predominantly underground assets with a small section of overhead along the Warriewood Road frontage of the development site.

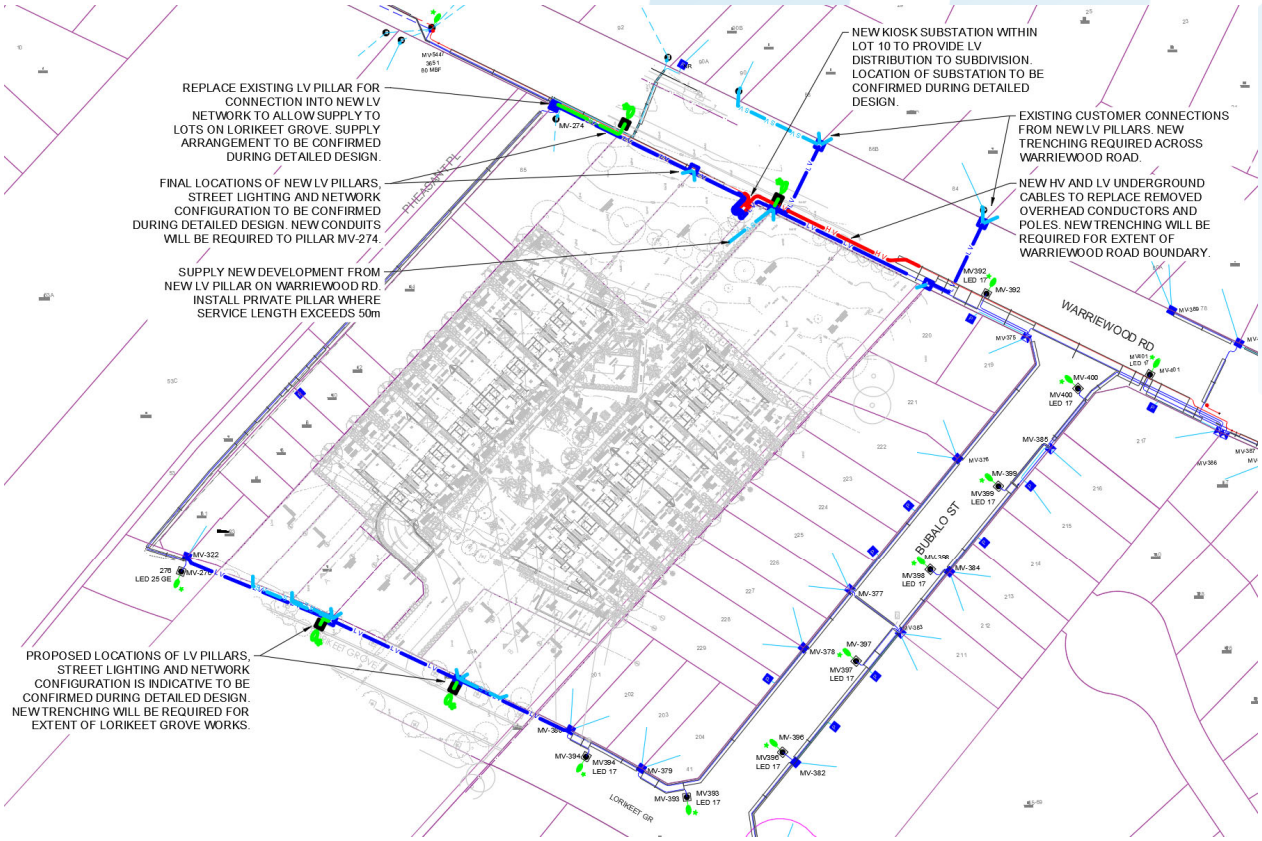
The connection arrangement for the new development into the existing LV network must meet Ausgrid network standards for compliance. The proposed development is at the extremities of the existing LV distribution from the two existing adjacent substations and compliant provision of supply to the full development from the existing substations cannot be achieved. A new substation will be required within the development and can be placed within a lot facing Warriewood Road adjacent the existing HV network underground cable to service the subdivision supply requirements.

The proposed site connection requirements are as follows. Refer Appendix B for the proposed connectivity arrangement which is indicative and is subject to coordination and confirmation of compliance during detailed design. The new substation will provide LV distribution into the existing network allowing supply to Lorikeet Grove, Warriewood Road and supply to the new 34 Apartment complex within lot 12 of the subdivision and can be located within any of the 4 lots 8, 9 10 or 11 facing Warriewood Road where HV cable is located underground.

Supply arrangement:

- The proposed development supply requirement is 157.5kVA, 228Amps, (Refer Section 1.0).
- A new substation will be established facing Warriewood Road and service the subdivision load requirements.
- The proposed torrens title lots facing Warriewood Road (4 lots - 14kVA) will require new trenching, conduits, LV cable and LV pillars connected into the existing LV network.
- The proposed torrens title lots facing the Lorikeet Grove (7 lots - 24.5kVA) will require new trenching, conduits, LV cable and LV pillars connected into the existing LV network.
- The proposed 34 apartment residential development within the one lot 12 will require a single point of connection to allow a supply of 119kVA (172.5Amps) which can come from a dedicated LV fuse from the substation or from an LV pillar as nominated in design.
- The existing HV and LV overhead conductors are to be removed and replacement will require new trenching, conduits and HV and LV underground cable to maintain existing connectivity. The existing supply arrangement from existing timber poles will be removed and supply to existing customers will be maintained by new trenching, conduits, LV cable and LV pillars connected into the new LV network.
- New Street Lighting columns will be provided on Warriewood Road and Lorikeet Grove to Council requirements.

The proposed supply arrangement and extent of works on Ausgrid's network is shown below and within Appendix B including new substation, extent of new HV and LV works and street lighting.



For any further information please contact the undersigned.

Yours faithfully,
Edgewater Connections

Cheralee Heynes,
Director

Disclaimer:
The information provided within this report is obtained from data accessible to Edgewater Connections as Level 3 accredited service provider. Connection to the Ausgrid network is subject to Ausgrid approval on application for connection.