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Your reference: 14-193-ATL-TRANSGRID-L2

20 May, 2016

Mr Russell Hogan
Civil Project Manager
AT&L
Level 7, 153 Walker Street
NORTH SYDNEY NSW 2060

Dear Russell,

Re: SSD6917 – Oakdale South Industrial Estate, TransGrid Easement Flood Extents

Thank you for consulting with TransGrid in respect of this matter.

TransGrid has reviewed the stormwater drainage design for the Oakdale South Development and we make the following comments, taking into account the proposed construction of the raised hardstand pads for the warehouses on the edge of our high voltage transmission line easement.

AT&L has issued a letter dated 18 May, 2016 (**Letter**), clarifying the pre and post development flood and drainage conditions on the easement. A copy of the Letter can be sighted in **Annexure A** of this correspondence.

The AT&L Letter outlines the issues TransGrid has raised regarding the interface between our infrastructure easement and the Oakdale South development, in particular the drainage channelling effect that will occur on the easement as a result of the proposed warehouses being constructed above existing ground levels on the boundary edge of the transmission easement.

AT&L's letter advises that flood levels post development will be less significant than what TransGrid's transmission easement is currently subject to and this is based on the flood impact assessment undertaken by Cardno in 2015. Further AT&L have advised that all stormwater collected by the Oakdale South warehouse sites immediately adjacent to our easement will drain away from the easement and detention/retention basins located off the easement.

The estimated post-development 100 year ARI flood extents (indicated in Figure 4 in the Letter) are shown to be less than what the easement is currently subjected to (as indicated in Figure 2 of the Letter). On the basis of the above TransGrid provides inprinciple endorsement of the Oakdale South Industial Estate Drainage and Flood Extents conditional upon the following provisions:

- TransGrid needs to be entitled to rely on Cardno's 2015 *Oakdale South Flood Impact Assessment* (**Flood Study**). TransGrid requests written confirmation in this regard.

- That Cardno's Flood Study is an accurate assessment of post-development flood potentials, showing reduced flood effect on TransGrid's easement in a 1-in-100 year flood event.

- The proposed warehouses in **Stages 3B; 3C; 5A; 6A; 6B** of the Oakdale South development, situated immediately adjacent to TransGrid's easement, be designed so stormwater accumulated by each site including hardstand areas drains away from TransGrid's easement.

- The development must be designed to ensure that stormwater from the surrounding warehouse development does not revert to TransGrid's easement in heavy rainfall flood overflow circumstances. Stormwater retention/detention measures should be included in the development design and positioned off TransGrid's easement.

- TransGrid seeks to have the development include an appropriate drainage design to be constructed on the 1 metre inside edge of TransGrid's easment boundaries (on each side of the easement). This drainage needs to prevent water accumulating on account of the channelling effect that will arise from having the warehouse sites constructed on the immediate edge of TransGrid's easement, in particular the retaining walls supporting hard stand areas. Given the channelling effect ot the adjacent developments, rainfall on the easement particularly in flood events needs to be directed to these rubble drains or swales on the easement boundary, emphasising the need to drain away from transmission towers.

- The design of the swale and any other ground works proposed on the easement, including batters, must not enable water to pool on the easement or form permanently sodden ground. Sodden ground adversely affects soil resistvity around earthing straps and TransGrid's ability to utilise the easement for maintenance of our high voltage infrastructure.

- A 25 metre horizontal clearance from each transmission tower leg must be preserved at all times, especially during construction. Transmission towers have subterranean earthing straps that protrude 15 metres diagonally out from each leg of a stanchion. Earthing straps are very hazardous if disturbed whilst the transmission line is under fault conditions.

- It is reiterated that TransGrid requires comprehensive consultation in respect of the developer's detailed design for works proposing to occur on our transmission easement or immediately adjacent thereto, including but not limited to the design of the retaining walls and boundary fencing, to ensure easement restrictions are adhered to, as well as engineering and safety compliance.

In addition to the WorkCover NSW *'Work Near Overhead Power Lines'* Code of Practice 2006, please find attached the *TransGrid Easement Guidelines for Third Party Development (V10)* ***(Guidelines).*** The Guidelines are not exhaustive, so TransGrid should be consulted if uncertain.

We look forward to receiving formal statutory notification pursuant to regulation 45 of SEPP (Infrastructure) 2007, with supporting documentation. Should you have any queries, please feel free to contact the undersigned via email Timothy.Cowdroy@transgrid.com.au or 0408 192 165.

Yours sincerely

Timothy Cowdroy
Land Economist | Field Services

Encl.