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Ref: D2013/113817

24 January 2014

Mr Pascal van de Walle
Development Assessment Systems and Approvals
NSW Planning & Infrastructure
GPO Box 39
Sydney, NSW, 2001

Dear Mr van de Walle

Warehouse and Distribution Facilities, Oakdale Central (SSD 6078)

Thank you for the invitation to comment on the Development Application (DA) and Environmental Impact Statement (EIS) for the above proposal.

The twin pipelines from Warragamba to Prospect, which are owned and managed by the Sydney Catchment Authority (SCA), are immediately adjacent to the land covered by the Oakdale Central Project. These pipelines are critical public infrastructure and are potentially affected by the proposed development.

The SCA has a number of overall concerns in regard to developments that may impact on the integrity of the Pipelines and the its ability to manage them. These are:

- **Protection of the Pipelines:** Development, especially major construction projects, potentially can have impacts on the integrity of the Pipelines and service corridor. These impacts include changes in drainage and stormwater that may increase flooding, subsidence and erosion; unauthorised breaches of the corridor; and damage to the actual infrastructure of the Pipelines, particularly during construction activities.
- **Operation and maintenance of the Pipelines:** Development proposals adjacent to, or crossing the Pipelines, may impact on the SCA's ability to safely and effectively access the Pipelines for management and emergency purposes. The SCA needs to be able to maintain vehicle access to the Pipelines and service corridor to undertake operations and maintenance activities.
- **Security and public safety:** In the experience of the SCA, increased commercial, residential and transport development occurring adjacent or near to SCA's infrastructure has a direct correlation with an increased occurrence of security incidents. This includes trespass, malicious damage, rubbish dumping, arson, assault and threatening behaviour. The proximity of development can also have a detrimental impact on our ability to employ security measures of choice due to aesthetic, safety and other considerations. To counter such security risks, the SCA will incur an increase in costs as development encroaches on the Pipelines, through new security works, increased patrolling and response, maintenance of new barriers, repair of damaged barriers, increased signage and lost time due to increased incident investigation.



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Our specific concerns about aspects of the proposed development and the assessment of impacts provided in the (EIS) include:

Protection of SCA Infrastructure

There is a risk of accidental damage to the SCA's Pipelines from construction activities close to the SCA's land, such as earthworks and building on Lot 3 or pile driving associated with the upgrade of Old Wallgrove road. Once the project is completed, there will be a risk of damage to the Pipelines from vehicle accidents, particularly as the top of the building pad on Lot 3 will be directly adjacent to and higher than No 1 Pipeline, and increased heavy vehicle traffic is expected along the upgraded Old Wallgrove Road.

The SCA requests that any approval of this development includes the following conditions:

- The Proponent shall:
 - a) implement all practical measures to prevent damage to the Sydney Catchment Authority's water supply infrastructure that may result from construction or operation of the project;
 - b) install temporary traffic barriers during construction wherever construction activities are undertaken immediately adjacent to the Pipelines corridors; and
 - c) repair, or pay all reasonable costs associated with repairing Sydney Catchment Authority infrastructure that is damaged by the project.
- The Proponent shall monitor vibration from any pile driving, or similar work, in close proximity of the Sydney Catchment Authority's Pipelines and establish appropriate thresholds to ensure their structural integrity is not compromised.
- The Proponent shall install traffic barriers along the section of Old Wallgrove Road and other trafficable areas that are adjacent to the Sydney Catchment Authority Pipelines corridor, in particular the building platform for Lot 3. These barriers shall be designed to the appropriate standard to restrain B-Double vehicles and in consultation with the Sydney Catchment Authority.

Stormwater Management

The EIS states that stormwater drainage has been designed to comply with the requirement that post development stormwater flows are no greater than pre-development stormwater flows. The SCA supports this approach to minimise flooding within the Pipelines corridor downstream of the project and requests that any approval of this development includes an appropriate condition requiring post development stormwater flows to be no greater than pre-development stormwater flows where such flows enter the SCA's Pipelines corridor.

Operation and maintenance of the Pipelines

Although there is no development work proposed within the Pipelines corridor, construction activities, in particular associated with the upgrade of Old Wallgrove Road, may impact on the SCA's ability to safely and effectively access the Pipelines corridor for management and emergency purposes. The SCA requests that any approval of this development includes the following condition:

- The Proponent shall ensure development activities associated with the Project are undertaken in a manner that does not restrict the Sydney Catchment Authority from operating and maintaining the Pipelines. This includes not restricting vehicle or machinery access to the Pipelines corridor or along the existing roadway within the corridor.

Security Fencing

The EIS identifies a requirement to construct a security fence along the Pipelines corridor. Security fencing is required to minimise the potential for the public to access the Pipelines and associated corridor. The SCA requests that the following condition be included in any approval of the development:

- Fencing along the common boundaries between the site and the Sydney Catchment Authority (SCA) Pipelines corridor shall be designed in consultation with the SCA and in accordance with AS/NZS 1725:2003 – Chain-link Fabric Security Fencing and Gates, Appendix A, Type 2 T–B/B–.
- Any existing security fencing along the Sydney Catchment Authority (SCA) Pipelines corridor that is damaged or requires replacement as a result of construction or operation of the Project shall be reinstated to the SCA's requirements and with all reasonable costs met by the Proponent.

Incident Notification and Entry into Sydney Catchment Authority Land

In order to ensure appropriate protection and management of the water supply infrastructure and timely response to incidents, the Sydney Catchment Authority requires notification of any accident, spill or fire within, or potentially affecting the Pipelines corridor. Access to SCA lands is strictly prohibited, except as allowed by an access consent issued under clause 9 of the Sydney Water Catchment Management Regulation 2013. The SCA requests that the following conditions be included in any approval of the development:

- Any incident, such as accident, spill or fire, that occurs in, or potentially affects, the Sydney Catchment Authority (SCA) Pipeline corridor shall be reported to the SCA on SCA's Incident Notification Number 1800 061 069 (24 hour service) as a matter of urgency.
- The Proponent, or any of its contractors, may only enter Sydney Catchment Authority land in accordance with an access consent issued under clause 9 of the Sydney Water Catchment Management Regulation 2013.

Old Wallgrove Road upgrade

The SCA has no in-principle objection to the proposed upgrade of Old Wallgrove Road. The SCA's key concerns in relation to the road upgrade are the protection of the Warragamba to Prospect Pipelines and associated infrastructure and safe vehicular access between SCA land and Old Wallgrove Road.



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The SCA requests the Department continue to consult with the SCA to ensure that access and asset protection are appropriately addressed in the final design for the Old Wallgrove Road upgrade.

The SCA is particularly concerned with the design of the access points and driveways into the Pipelines corridor. SCA operational vehicles and contractors traverse the length of the corridor, in both directions, on a daily basis. This means vehicles regularly cross Old Wallgrove Road, in both directions, going from one section of the Pipelines corridor to the other.

The SCA is concerned that neither of the most recent plans provided by AT&L on behalf of Goodman (Drawing C354 dated 21-10-2013) or AECOM on behalf of the Department (60301100-03B-FIG-ST-0007) appears to allow vehicles to safely cross Old Wallgrove Road. The SCA requests the Department undertake a road safety assessment in relation to SCA access to ensure the final design for the road upgrade provides safe access to SCA land and safe vehicle crossing over Old Wallgrove Road.

The SCA would appreciate being involved in further environmental assessment and ongoing consultation and planning for the project. If you wish to discuss any matter raised in this letter please do not hesitate to contact Neil Abraham on ph: 4724 2456 or via e-mail neil.abraham@sca.nsw.gov.au

Yours sincerely

A handwritten signature in blue ink, appearing to read "Graham Begg".

GRAHAM BEGG
General Manager, Catchments

File No.: MC-10-2286

6 December 2013

Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

Attention: Pascal Van De Walle

Dear Mr Van De Walle,

**Re: Warehouse and Distribution Facilities, Oakdale Central (SSD 6078)
Notice of Exhibition**

Reference is made to your letter received by Council on 12 November 2013 requesting that Council review the Environmental Impact Statement (EIS) from Goodman Property Services (Aust) Pty Ltd for a State Significant Development (SSD) application for the abovementioned proposal, pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act).

Council has considered the proposal and raises no objection in principle to the proposal, however Council does have traffic and drainage concerns which the Applicant is requested to address; these are listed in Attachment A to this letter. Council would like to see the revised traffic and drainage reports to ensure these concerns have been addressed. However, if this is not possible Council requests that DPI ensure that these critical matters are addressed prior to any development consent being granted by the Minister for Planning & Infrastructure.

Should you require any further information regarding this matter, please contact Council's Team Leader Planning Approvals (South), Pauline Daw, on 9839 6000.

Yours faithfully,



Judith Portelli
MANAGER DEVELOPMENT SERVICES & ADMINISTRATION

Attachment A

Council's Drainage Comments

The following amendments are requested to the Civil Design Report prepared by at&I report no 13-143-R001 (rev 3):

a) Under section 3.3.4 it is noted that on-site detention has been provided already within a number of lots, but not lot 4. Elsewhere it is noted that detention is used to limit post developed flows to pre developed flows for the 5 year to 100 year events. From Blacktown's view to only reduce the flows to the 5 year ARI event is insufficient and will potentially lead to increased scour of the natural creek systems in Blacktown that lie immediately downstream of the site. From the planning controls within the north west growth centres it has been necessary to limit the post developed flows down to pre developed flows for the 2 year events to avoid significant damage to the creeks. It is appropriate that this should be applied here as well.

b) In table 8 the Bioretention Basin Parameters are set out for the design. It is noted that a Saturated Hydraulic Conductivity of 180 mm/hr is proposed for the basins. This figure needs to represent the long term infiltration rate that can be achieved throughout the life of the filter material. Though filter media can be supplied that initially achieves this result, over time blockages occur over the filter media that make this rate unsuitable for ongoing operation. Consequently a more standard rate of between 100 to 125 mm/hr should be used for hydraulic conductivity and the basins increased slightly in size.

c) Sediment loading is the major problem associated with successful performance of the bioretention systems. Consequently there should be a requirement to defer the installation of the filter media and planting out until the upstream catchment is 90% complete including landscaping.

Council's Traffic Comments

Earlier this year in relation to Goodman's proposal for the upgrading of Old Wallgrove Road (OWR) to undertake further development in the Oakdale Precinct Council provided comments which initiated traffic modelling organised by DP&I. It is to be noted that final modelling results have not communicated to Council as yet. It is not clear to Council whether there will be one or two connections are needed in the north-south direction and what will be the status of the existing OWR in the future. Hence, we are not in a position to determine the future status of OWR. However, the following comments are provided on the proposal:

a) It is acknowledged in the Traffic report prepared by Traffix on behalf of the applicant that the final decision on the north-south link has not been made by DP&I. However, the proposed development in Oakdale is seeking existing OWR to be upgraded to a sub-arterial standard. Whilst Council does not raise objection to the proposal to upgrade OWR to a 4 lane sub-arterial road it should not preclude the number of north-south links in the BWSEA (Broader Western Sydney Employment Area).

b) The traffic report proposed to upgrade OWR in 2 stages in particular stage 2 would only occur subject to funding arrangement with State Government. Our view is that the full upgrade to a 4 lane sub-arterial road to the entire length of

OWR should be undertaken in stage one to ensure that sufficient capacity is provided to handle additional traffic generated by the development.

c) DP&I WSEA Southern Link Road Network Strategic Transport Assessment report (November 2010) indicated realignment of northern portion of this section of OWR to form a T-intersection with Erskine Park Link Road. This needs to be included in the upgrading works.

In reply please quote: 09/03134
Your Ref: SSD 6078

Contact: Julio Assuncao on 9725 0228

18 December 2013

Mr Chris Ritchie
Manager – Industry
Development Assessment Systems and Approvals
Department of Planning and Infrastructure
GPO Box 39
Sydney NSW 2001

Attention: Pascal van de Walle

Dear Mr Ritchie,

**RE: PUBLIC EXHIBITION OF STATE SIGNIFICANT DEVELOPMENT (SSD)
APPLICATION NO. 6078 - WAREHOUSE AND DISTRIBUTION FACILITIES -
OAKDALE CENTRAL, HORSLEY PARK**

Reference is made to Council's previous advice contained in the correspondence dated 19 September 2013 (**Attachment A**) which raised a number of issues in respect to certain aspects of the proposal. Council officers take this opportunity to reiterate the advice contained therein.

In addition to the above, Council officers have reviewed the Environmental Impact Statement (EIS) dated November 2013 prepared by McKenzie Group and provide the following comments:

Application of Section 94A under the EP&A Act and Voluntary Planning Agreement

Council's previous correspondence raised issues in respect to Council's ability to levy the applicable Section 94A contributions associated with this proposal as well as its ability to continue to levy Section 94A fees for any future redevelopment of the subject sites.

It is noted that the application is accompanied by a draft Deed of Variation to the associated Voluntary Planning Agreement which does not seek to exclude applicability of Section 94A for proposals on the subject sites. This approach is supported by Council officers.

In respect to the payment of Section 94A fees for this proposal, Council's previous submission stated that it was considered appropriate to seek the imposition of a local 1% Section 94 Levy (in accordance with the Fairfield City Council Indirect S94 Development Contribution Plan 2011) on this proposal

having regard to the following matters:

- In the long term Council is likely to have some responsibility for the maintenance of local roads allocated within the development;
- Although at this stage the proposal is not directly connected into the Fairfield Rural Area, this has potential to change as a result general traffic generation levels associated from the proposal;
- Future investigations by the State Government into regional road network and employment land issues; and
- Despite the above, there is still potential for traffic generated by the development to access and utilize the existing local road network of Horsley Park associated with journeys to work or other industrial traffic movements.

In respect to these issues the EIS provides the following:

The provision of Section 94A contributions is noted. Any approval issued for this proposal will require the payment of contributions prior to the issue of a Construction Certificate.

In this regard, Council officers will raise no further objection to this aspect of the proposal subject to a condition, for any approval that may be issued, that requires the proponent to pay a local 1% Section 94A Levy to Fairfield City Council prior to the issue of a Construction Certificate.

The amount payable is estimated to be AU\$888,800 based on the capital investment of AU\$88,880,000.00 provided by the EIS.

Upgrading of Old Wallgrove Road

Council's previous correspondence on this matter indicated that the existing conditions of these roads were considered unsatisfactory to accommodate the additional heavy traffic expected to be generated by this proposal and that it was considered that the proposed upgrades should have been completed prior to the commencement of further development in the precinct.

It is noted that the proponent is seeking to upgrade Old Wallgrove Road as part of this proposal.

Council officers raise no objection to this aspect of the proposal but seek clarification in respect to the future required upgrades to the southern section of Old Wallgrove Road.

Clarification is sought that this section of Old Wallgrove Road will be upgraded by the proponent of the Jacfin proposal, which is likely to benefit/require the link, and that any upgrade be completed at no cost to

Council.

Permissibility Issue On-Site Detention on E2 Zoned Land SEPP Western Sydney Employment Area (WSEA)

A meeting was held between Council officers and the proponent on 21 October 2013 to discuss the proposal. Amongst the issues discussed at this meeting was the issue of permissibility of providing an On-Site Detention (OSD) within the bio-diversity lots which, as stated by the EIS, are zoned E2 Environmental Conservation under the SEPP WSEA.

At this meeting, Council officers advised the proponent that amendments may need to be made to the approved Concept Plan and/or the SEPP WSEA in which the proponent advised that they would investigate this aspect of the proposal.

In response to this issue the EIS states the following:

The Biodiversity Lots within the estate are zoned E2 - Environmental Conservation under the SEPP, however no work is proposed in the E2 Zone under this application as it will be approved by Fairfield Council under the development applications for the bio-retention works.

It should be noted that the development applications, referred to in the EIS, considered by Council for the bio-retention works did not include an OSD component. The bio-retention approvals are considered to fall generally with the definition of 'environmental protection works' which are permitted in the E2 zone under the SEPP WSEA.

Council officers consider that an OSD system, if located on E2 zoned land, does not fall under the definition of 'environmental protection works' or 'artificial waterbody' which in the case of the latter, specifically excludes a dry detention basin or other stormwater management construction that is only intended to hold water intermittently.

It is important to note that this advice does not imply that Council officers are supportive of locating the OSD system within the Biodiversity lots as proposed by the proponent. Council officers are of the position that the OSD system should be provided within the lot boundaries of each proposed development.

The Department of Planning and Infrastructure (DP&I) should ensure that any proposals that may seek to undertake development within the E2 zoned land (such as OSD systems) under the SEPP WSEA are permissible. In this regard, Council officers consider that amendments to the SEPP WSEA may be required which may also result in amendments to the Concept Plan.

Note: The DP&I should also be aware that there is an inconsistency within the land use table of the E2 Zone under the SEPP WSEA which uses the term '*artificial waterbodies*' whilst the Dictionary contained therein uses the term '*artificial waterbody*'.

On Site Detention System Issues

The EIS states, in the section titled 'Part E – Consultation', that "the On Site Detention (OSD) system for the proposed allotments shall be provided within the off-lot bio-retention basins as per the basin Development Application drawings approved by Fairfield City Council."

The bio-retention Development Applications 396.1/2013 and 652.1/2013 were approved 14th October and 19th November, 2013 respectively. An OSD system within the Biodiversity lots was not approved for either of the development applications. The applicant has made allowances in volume and capacity of the approved system to accommodate the additional function of the Bio-diversity basin with an OSD component.

Council officers position is that stormwater generated from a development should be managed within its boundaries. The applicant is not proposing on-site detention at lot scale, but rather treating the whole development as one and providing an OSD component within the off-lot bio-retention basins.

Council officers consider that an OSD system is a key component of the overall proposal therefore requiring the issues associated with location and permissibility, referred to earlier, to be addressed at this stage rather than relying on separate approval processes.

This approach allows for a holistic assessment process that addresses and considers all the issues associated with the proposal such as the provision of the OSD system.

Requirements for OSD Systems

The following is information relating to Council's requirements for OSD systems.

- Stormwater detention in accordance with Council's Policies, including Council's Stormwater drainage policy, Urban Area On-Site Detention Handbook and the rural Area On-Site Detention Guidelines
- OSD to be provided to cater for all impervious areas including hardstand and roof areas

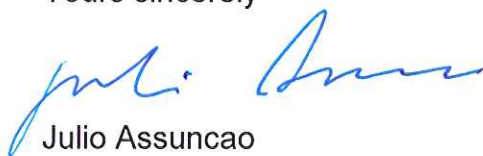
In this regard, a list of Council draft conditions in respect to the OSD (**Attachment B**) is included as part of this submission.

Council officers thank you for the opportunity to comment on this proposal and look forward to liaising further with both the DP&I and the proponent in addressing the issues raised in this submission.

Council officers apologise for the late submission and thank the DP&I for the short extension to the submission deadline.

Please contact the undersigned if you have any further enquiries relating to this matter.

Yours sincerely



Julio Assuncao
LAND USE PLANNER

Attachment A – Fairfield City Council Letter dated 19 September 2013-12-17
Attachment B – Draft Fairfield City Council conditions OSD system

Fairfield City Council, Administration Centre, 86 Avoca Road, Wakeley 2176
Tel: (02) 9725 0222 Fax: (02) 9725 4249 ABN: 83 140 439 239
All communications to:
Fairfield City Council, PO Box 21, Fairfield NSW 1860
Email address: mail@fairfieldcity.nsw.gov.au

In reply please quote: 09/03134
Your Ref: SSD 6078

Contact: Nelson Mu on 9725 0313

19 September 2013

Major Projects Assessment
NSW Department of Planning & Infrastructure
23-33 Bridge Street
SYDNEY NSW 2000

Attention: Chris Ritchie

Dear Sir,

STATE SIGNIFICANT DEVELOPMENT – OAKDALE CENTRAL, HORSLEY PARK

I refer to the Department's email received on 17 September 2013 in relation to a proposal for the construction of a warehouse and distribution centres logistic hub on the proposed estate allotments 1C, 2B and 3 (Lot 2 in Deposited Plan 120673) within the Oakdale Central Precinct. The proposal, as amended, now proposes the construction of 3 separate warehouses upon 3 separate proposed allotments as well as the upgrading of Old Wallgrove Road to a regional road to service the site and all land south of the Sydney Catchment Authority pipeline.

Your letter advised that the Department has received a request for the Director-General's Requirements from Goodman Ltd for a State Significant Development application and the Department is requesting comments from Council on key planning issues and assessment requirements that may be included in the DGRs for the preparation of an Environmental Impact Statement.

It is advised that Council has reviewed the submitted documentation and provides the following comments with respect to the proposal, which have been separately forwarded to the proponent.

1. General Planning Issue - Consent Authority

The then Minister for Planning under Part 3A of the EP&A Act, 1979 approved a Concept Plan and concurrent Stage 1 Project Approval for the establishment of Oakdale Central Precinct Industrial Estate and the construction of warehouse buildings on 2 January 2009. The approved Concept Plan permitted the subdivision of the Oakdale Central Precinct into 8 developable lots, 2 biodiversity lots, a service lot and an estate road. The approved Project Plan allowed the construction of warehouse buildings upon proposed Lot 1A and Lot 2A. The warehouse buildings and part of the estate road, known as Milne Road, have been completed and the new buildings are being occupied.

However, Part 3A of the EP&A Act has since been repealed. Council notes that the subsequent stage of the re-development of the Oakdale Central Precinct Industrial Estate did not fall within a Transitional Major Project, as was the case

with the re-development of Lot 1B. That is, DA 1084.1/2011 for the construction of a warehouse distribution facility at proposed Lot 1B of the subdivision of Lot 2 in DP 120673, which was submitted to Fairfield Council under Part 4 of the Act for the construction of a warehouse/distribution facility upon Lot 1B.

On the basis of the above and pursuant to SEPP (Western Sydney Employment Area), Council should be the consent authority rather than the Department of Planning and Infrastructure in respect to any further re-developments of the Oakdale Central Precinct.

Consequently, it is considered that the proposed grouping of the warehouses into a single application so as to satisfy the threshold requirement for a State Significant Development would be inconsistent with the spirit and intent of the provisions of the EP&A Act.

2. Upgrading of Old Wallgrove Road and the Intersection of Old Wallgrove Road and Wallgrove Road

An area of concern with the proposal relates to the capacity of Old Wallgrove Road and the intersection of Old Wallgrove Road and Wallgrove Road to handle additional trucks associated with the proposed the re-development of the Oakdale Central Precinct. It is noted that the conditions of approval of the Project Approval required the upgrading of Old Wallgrove Road between Roberts Road and the site and the upgrading of the intersection of Old Wallgrove Road and Wallgrove Road prior to the commencement of operation.

It is noted that the approved buildings on Lot 1A and 2A that formed part of Project Approval are completed and being occupied. However, the required upgrading of Old Wallgrove Road and the upgrading of the intersection of Old Wallgrove Road and Wallgrove Road are yet to commence. The existing conditions of these roads are considered unsatisfactory to accommodate the additional heavy vehicles that will be generated by the proposal.

As such, it is unclear as to why additional approval is being sought for the upgrading of Old Wallgrove Road when the Stage 1 Project Approval required such works to be completed prior to the commencement of operation of Stage 1 as conditions of consent, though the required works do not appear to have commence.

3. Site development area and landscaping

It is noted that the proposal includes extensive hard surface areas (more than 90% incorporating building and hard stand), and it appears that this level of site development is not inconsistent with the approvals for Lots 1A, 2A and 1B.

However, notwithstanding the above, Council is concerned that an inadequate, landscape buffer is provided along the property frontage.

Council requests that the landscape buffer along the estate road be increased to a minimum of 10m wide (consistent with landscape buffers for other major road frontages in the industrial areas of the City) to ensure establishment of satisfactory planting on this road frontage.

A detailed landscaped plan shall be prepared and submitted with the application. A minimum of 75% of planting on the site shall be Cumberland Plain Woodland, including a range of mature trees which are capable of establishing 30% canopy cover within the landscape cover on the site.

4. Draft Structure Plan

The proposed development, in particular with respect to the proposed extension of the estate road shall be designed and aligned taking into consideration of the Draft Structure Plan for the Broader Western Sydney Employment Area, notably the alignment of the proposed future link road.

5. Ecological Sustainable Development

Water Reuse

Consideration should be given to incorporate rainwater harvesting, recycling and reuse of sewerage to deliver potable water both within Oakdale Central, subject to approval from Sydney Water, to supplement the Sydney Water Supply.

These measures would assist in promoting sustainable development and offsetting climatic impacts associated with the proposal, subject to necessary technical matters and statutory approvals for these measures being addressed.

Potential Energy Generation

Consideration should be given to reduce reliance on connection to standard electricity and gas supplies for the future operation of the facility. In this regard, it is considered that the potential to provide further offsets against climate impacts (including carbon emissions) that may be associated with the proposal should be fully considered.

Given the large roof area of the warehouses, measures should be incorporated into the proposal to take advantage of the significant roof area associated with the proposal for the purposes of rainwater harvesting. Similarly, Council considers that further consideration should be given in both the current and future stages of the development for the inclusion of solar power and how green power can be returned to the State electricity grid.

The applicant should be required to provide advice on design requirements for future management including access and connection to the individual site grid or state electricity grid. Design loads and space for connections and equipment should be factored into design of warehouses in the development.

6. VPA and s.94A Issues

Council notes the applicant proposes to modify the Deed of Agreement with the Department of Planning & Infrastructure to enter into a voluntary planning agreement in lieu of s.94 contributions under the EP&A Act.

The proposed Deed of Variation to the VPA as proposed by the proponent relates primarily to the provision of regional rather than local infrastructure and to improvements associated with the development that would be required as part of any assessment of the proposal

Council considers it appropriate to seek imposition of a local 1% S.94A levy on the Oakdale proposal having regard to the following matters:

- In the long term Council is likely to have some responsibility for the maintenance of local roads allocated within the development;
- Although at this stage the proposal is not directly connected into the Fairfield Rural Area, this has potential to change as a result general traffic generation levels associated from the proposal;
- Future investigations by the State Government into regional road network and employment land issues; and
- Despite the above, there is still potential for traffic generated by the development to access and utilize the existing local road network of Horsley Park associated with journeys to work or other industrial traffic movements.

7. Statement of Commitments

The proposed development shall be designed and take into consideration of the approved Statement of Commitments that formed part of the approved Concept Plan and Stage 1 Project Approval for the Oakdale Central Precinct.

8. Flooding

A hydrological and hydraulic assessment has previously been undertaken for the site at the concept stage and updated for subsequent approval modifications. This model should be modified to reflect the new site layout and structures. An assessment should then be undertaken to determine:

- The impact of flooding on the proposed development and any flood risk to people and properties for the full range of the floods up to the probable maximum flood (PMF) event including potential long term cumulative impacts from potential development. This assessment should address any relevant provisions of the NSW Floodplain Development Manual (2005) and the Fairfield Citywide DCP (2013) and include mainstream and overland flooding. Flood level difference mapping showing the difference between the existing and proposed flood levels is to be provided.

- The impact of the proposed development on flood behaviour (i.e. levels, velocities and duration of flooding) and the impact of the proposed development on adjacent, downstream and upstream areas.
- The impacts of earthworks and filling of land within the proposed development. This assessment should be based on an understanding of cumulative flood impacts.
- An emergency response plan to manage floods above the flood planning level. This plan should include an assessment of the flood evacuation needs and impacts from the proposed development on the capacity or operation of existing local evacuation routes. Additionally, this plan should include consideration of a flood free access to or from the development site in extreme flood events

9. On Site Detention

On-Site-Detention (OSD) shall be provided at the lot scale and each of the proposed lot development sites. OSD shall not be undertaken outside the serviced lot's boundary (i.e. within Biodiversity lots).

Details of the OSD and associated drainage shall be designed in consultation with Fairfield City Council to our standards and must avoid any adverse impacts on downstream properties.

10. Drainage

Details of the drainage associated with the proposal, including stormwater and drainage infrastructure, which shall be designed in consultation with Fairfield City Council to Fairfield Council's requirements and must avoid any adverse impacts on downstream properties. The proposal shall address the impact of stormwater flows on the site from other catchments than the lots being developed.

11. WSUD

Details of water quality improvement to ensure stormwater leaving the site meets the water quality objectives as outlined in the Western Sydney Growth Centres – Stormwater Guidance for Precinct Planning (DEC, Nov 2006).

Undertake a detailed water balance for the site ensuring that onsite stormwater reuse is maximised

12. Stream Health

Ensure that any stormwater discharge from the lots to be developed do not detrimentally impact the stream health by localised velocity increases introducing scour

13. Natural Resource Management

Need to detail what will be undertaken in areas within the biodiversity lots (adjacent to the lots proposed to be developed) that are not within the scope of the vegetation management plan.

14. Traffic and Parking

The following information needs to be addressed in respect to traffic and parking for the proposal:

- i. The total daily and peak hour trips generated by the development needs to be undertaken and the impacts of the traffic generated by the development on local road networks, including intersection capacity and level of service needs to be assessed.
- ii. Detail access and parking provisions associated with the proposed development including compliance with the requirements of the relevant Australian Standards to be submitted.
- iii. Information to be provided in regard to the proposed number of car parking spaces and compliance with appropriate parking codes. If the applicant proposes change of use in the future, the adequacy of parking needs to be reviewed.
- iv. The design of service areas shall include provision for the largest design vehicle likely to use the facility.
- v. Provision of service bays, insufficient numbers to accommodate the expected peak loading and to the specified dimensions according to the size of vehicle using them.
- vi. Sufficient internal roadway widths shall be provided to facilitate service vehicles access into and out of the development.

15. Fairfield Local Environmental Plan 2013

The proposed development shall have regard to the provisions of Fairfield Local Environmental Plan 2013.

16. Fairfield City Wide Development Control Plan 2013

The proposed development shall be designed taking into consideration the provisions of Fairfield City Wide DCP 2013, particularly in respect to Chapter 9 and Chapter 12.

17. Environmental Management

Noise

In consideration of the potential noise impacts of the development, rural residential receivers located in Greenway Place and Burley Road, Horsley Park, should be included in the assessments and modelling conducted for the proposal. Consideration must be given to a range of potential noise impacts, including during the construction phase and then the proposed 24hr/7 day operational phase of the warehousing and distribution facilities (including additional traffic generated).

Contamination

Council notes that a site contamination was considered as part of the Concept Plan approval. The assessment included a Phase 1 Site Contamination Assessment for the entire Oakdale Estate, while Phase 2 Site Contamination Assessment was carried out for Oakdale Central.

The required site contamination assessment should demonstrate that the Oakdale Central precinct is suitable for commercial/industrial land use and the proposed development is consistent with the provisions of SEPP 55.

A Construction Phase Environmental Management Plan (EMP) should also be developed to provide guidance on appropriate measures to be adopted in the event that unusual ground conditions are encountered during site development and the future management of the visual bund material, to determine suitability to remain on-site.

Storage of Dangerous Goods

Details of the types and quantities of dangerous goods that may be stored within the warehouses should be provided, taking into consideration of the provisions of SEPP 33.

Sewerage and recycle Water System

The applicant shall construct all non-Sydney Water sewage and recycled water reticulation mains within private property where possible. If a main must be laid across a public road, the applicant must obtain a written agreement from the relevant road authority concerning access and maintenance arrangements for these mains, and restoration of damaged road pavements and footways prior to the commencement of construction.

Salinity Assessment

A Salinity Assessment & Management Plans should be prepared for the proposal including any affected road and drainage works in addition to building works.

Furthermore, site Salinity Assessment & Management Plans should also address any detrimental impacts resulting from the irrigation of surplus recycled water.

Soil and Water Management

A Soil & Water Management Plan should be prepared for the site. A Construction Environment Management Plan is also to be prepared which will include more detailed management measures.

I trust that the above information is of assistance and Council looks forward to liaising further with both the DP&I and Goodman in addressing the issues raised in this submission.

Please contact the undersigned if you have any further enquires relating to the above.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Nelson Mu', is written over the typed name.

Nelson Mu

Senior Strategic Land Use Planner

ATTACHMENT B

Conditions to be imposed for OSD

1. Stormwater Drainage Certificate

Prior to the issue of a Construction Certificate, a certificate shall be submitted to the Certifying Authority certifying that:

- a. Satisfactory arrangements have been made for the disposal of stormwater;
- b. The proposed development and alterations to the natural surface contours will not impede or divert natural surface water runoff so as to cause a nuisance to adjoining properties;

2. On-site Detention Design Certificate

Prior to the issue of a Construction Certificate, a certificate shall be submitted to the Certifying Authority certifying that the drainage system has been designed to comply with:

- a) Method 1/ Method 2 of Council's Urban Area On-site Detention Handbook – February 1997:
 - i) To restrict the total discharge from site to current site discharge for all storms up to and including the 100 year storm events;
 - ii) To restrict the peak discharge from the site for 100 year 9-hour storm event to 140/1/s/ha..

Note: Where Fairfield City Council is nominated to issue a Construction Certificate for on-site detention, the following details will be required:

- a. Full details, as per Council's On Site Detention Handbook, of the proposed stormwater drainage system should be submitted. Details should include a full calculation schedule producing hydrologic and hydraulic grade line analysis (similar to that shown in "Australian Rainfall and runoff", published by the Institution of Engineers, Australia), catchment plan, pipe sizes, discharge points, natural and finished surface levels, invert levels, etc.
- b. A plan showing the natural surface and finished surface and finished surface contours to AHD should be submitted. The natural surface contours should be extended into the adjoining properties. The finished surface contours should be of such an interval as to give a true representation of the proposed regrading of the site. If so desired, the finished surface contours may be presented in red ink on a single print of a site plan that shows proposed finished surface spot levels.

ATTACHMENT B

3. On Site Detention – Works-As-Executed

On completion of the drainage works and prior to Occupation, Works-As-Executed plans certified by a Registered Surveyor are to be submitted to the Principal Certifying Authority to verify that the drainage works have been completed in accordance with the approved plans. The following details are to be on the Works-As-Executed plans and shall be marked in red on a copy of the original plan approved at the Construction Certificate stage.

- b. Sufficient levels and dimensions to verify the On-Site Detention storage volumes.
- c. Location and surface levels of all drainage pits, weir levels and dimensions.
- d. Invert levels of
 - the internal drainage lines.
 - orifice plates.
 - outlet control pit.
- e. Finished floor levels of structures such as units and garages.
- f. Verification that the orifice plates have been fitted and the diameter of the fitted plates.
- g. Verification that a trash screen is installed.
- h. Location and levels of any overland flow paths through the site.
- i. Details of any variations made from approved plans.

4. Registration of Restriction and Covenant over OSD System

Prior to the issue of the Final Occupation Certificate, proof of the creation of a 'Restriction on Use of Land' and 'Positive Covenant' over the on-site detention system in accordance with Council's On-Site Detention Handbook (February 1997) shall be submitted to the Principal Certifying Authority.

5. On-Site Detention – Certification of Works

A Certificate shall be issued to the Principal Certifying Authority upon completion of the drainage works and prior to issue of the Occupation Certificate certifying the following:

- i. That the on-site detention system will function in accordance with the approved drainage design.
- ii. Any variations from the approved drainage design.
- iii. That these variations will not impair the performance of the On-Site Detention system, or alternatively provide details of the remedial works required to make the system function according to design control standards.

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6. OSD – Marker Plate

Each on-site detention basin shall be indicated by fixing a standard marker plate, details of which are as follows:

Minimum size: 150mm x 100mm

Material: Non Corrosive metal or 4mm thick laminated plastic

Location: Fixed in a prominent position to the nearest concrete or permanent surface and be above the expected water level in the basin. If in doubt, contact Council on 9725-0222.

Wording: A minimum letter height of 5mm is required. The wording is to consist of:-

**THIS IS AN ON-SITE DETENTION STRUCTURE
DO NOT TAMPER WITH,
CONTACT FAIRFIELD CITY COUNCIL PRIOR
TO ANY PROPOSED WORKS IN THIS AREA**

The marker plate is to be attached prior to occupation of the proposed development.

Conditions being imposed for Road Works

7. Engineering Works Inspection Fee

The payment to Council of engineering works inspection fee (if Council is the Principal Certifying Authority). The value of this fee will be determined in accordance with Council's Schedule of Fees and Charges with inspections being carried out in accordance with Council's Specification for Roadwork and Drainage associated with the Development. This fee will need to be paid prior to release of the Construction Certificate.

8. Maintenance Bond

The submission to Council of a maintenance bond covering all works constructed in association with the development. The maintenance bond is to be paid in cash or a bank guarantee. The value of the maintenance bond will be determined by Council in accordance with the rates listed in Council's Annual Schedule of Fees and Charges following the submission of "work as executed" plans detailing all works constructed in association with the subdivision.

The maintenance bond will generally be held by Council for a period of twelve (12) months from the date of issue of Subdivision Certificate on the final plan of subdivision. The maintenance bond will be released at the end of the maintenance period subject to satisfactory performance of the works. Council may use the maintenance bond to carry out any rectification works required at

ATTACHMENT B

the end of the maintenance period should the applicant fail to comply with any written request from Council to carry out such works.

Council will not accept "work as executed" plans with coloured highlighter markings on the plans. All dimensions and levels are to be handwritten in blue or red pen only.

9. Alignment of Roadway

The alignment of Old Wallgrove Road to be in accordance with plans issued with a Construction Certificate (Engineering Approval) by an Accredited Certifier or by Fairfield City Council prior to the commencement of works on site.

10. Road Shoulder

The road shoulder and footpath formation shall be regraded, topsoiled and turfed for the length of the upgrade of Old Wallgrove Road. This regrading is to provide an easily maintained surface that will carry stormwater flows generated by the roadway and shall be in accordance with levels issued with a Construction Certificate (Engineering Approval) by an Accredited Certifier or by Fairfield City Council prior to the commencement of works on site.

11. Road Construction Plans

Road construction shall not commence until the plans and specifications giving full details of the proposed construction have been issued with a Construction Certificate (Engineering Approval) by an Accredited Certifier or by Fairfield City Council.

12. Works as Executed Drawings

Following completion of the works the applicant shall provide a detailed "work as executed" drawing signed by a registered surveyor showing the finished surface levels of the access, road shoulder, driveway, inter-allotment drainage and any lot filling, carried out under this consent.

Council will not accept "work as executed" plans with coloured highlighter markings on the plans. All dimensions and levels are to be handwritten in blue or red pen only.

13. Easements for all Services

Easements shall be created over all services and/or stormwater pipelines within private property which service adjacent roads or properties.

14. Sydney Water Compliance Certificate

A Section 73 Compliance Certificate under the Sydney Water Act, 1994 must be obtained.

ATTACHMENT B

Application must be made through an authorised Water Servicing Co-ordinator, for details see the Sydney Water web site <http://www.sydneywater.com.au/Buildingdeveloping/DevelopingYourLand/GettingaSect73ComplianceCertificate.cfm> or telephone 13 20 92.

Following application a "Notice of Requirements" will be forwarded detailing water and sewer extensions to be built and charges to be paid. Please make early contact with the Co-ordinator, since building of water/sewer extensions can be time consuming and may impact on other services and building, driveway or landscape design.

The Section 73 Certificate must be submitted to the Principal Certifying Authority prior to release of the linen plan.

15. Endeavour Energy Notification of Arrangement

The submission of "Notification of Arrangement" from Endeavour Energy stating that satisfactory arrangements have been made for the provision of underground low voltage electricity installation.

The attached application form should be completed and submitted to Endeavour Energy, Network Connections, PO Box 6366, Blacktown, NSW 2148, together with a set of plans detailing all engineering works to be constructed in association with the subdivision and a plan detailing the proposed lot dimensions.

It is considered that the provision of natural gas services is desirable to new subdivisions and in this regard, the developer is requested to liaise with Jemena, Sydney (www.jemena.com.au).

16. Telecommunications Compliance Certificate

The submission of a Compliance Certificate from a Telecommunications carrier as evidence that satisfactory arrangements have been made for all communications plant to be laid underground.

For further enquiries regarding the issue of the Compliance Certificate, contact Telstra on 13 22 00 or complete the online form at <http://www.telstra.com.au/smart-community/developers/>.

Conditions being imposed for Manoeuvring off road and Access

17. Driveway and Manoeuvring Areas

- a. The driveways and manoeuvring areas are to be designed in accordance with Australian Standard AS 2890 part 2.
- b. The internal driveways and parking areas are to be designed in accordance with AS 2890 part 1.

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18. Deliveries

Vehicles servicing the site shall comply with the following requirements:

- a. All vehicular entries and exits shall be made in a forward direction.
- b. All vehicles awaiting loading, unloading or servicing shall be parked on site and not on adjacent or nearby public roads.
- c. All deliveries to the premises shall be made to the loading bay/s provided.

17 December 2013

RMS Ref: SYD13/01013/02
Your Ref: SSD 6078

Manager –Industry
Development Assessment Systems and Approvals
Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

Attention: Pascal van de Walle

Dear Sir/Madam,

**WAREHOUSE AND DISTRIBUTION FACILITIES – OAKDALE CENTRAL
LOT 21 DP1173181 OLD WALLGROVE ROAD, HORSLEY PARK**

I refer to your letter dated 12 November 2013 regarding the abovementioned development application which was referred to Roads and Maritime Services (RMS) for comment.

RMS has reviewed the submitted information and notes that as part of this development, the applicant is proposing to upgrade part of Old Wallgrove Road. The upgrade of this section of Old Wallgrove Road does not include any traffic control signal works.

Old Wallgrove Road is a local road under the care and control of Fairfield City Council. Hence, any works on this road should be undertaken in accordance with Council's requirements and standards. RMS requests that any reference to RMS in the Planning Agreement for this development is to be replaced with Fairfield City Council.

Any inquiries in relation to this matter can be directed to the undersigned on 8849 2219.

Yours faithfully



Pahee Rathana
Senior Land Use Planner
Transport Planning, Sydney Region

Roads & Maritime Services

**Network Services and Operations
/Property and Services**

Telephone: 02 9284 3207
Our reference: D2013/18700
Your Ref:

201 Elizabeth Street (cnr Park St)
PO Box A1000 Sydney South
New South Wales 1235 Australia
Facsimile (02) 9284 3456
Telephone (02) 9284 3000
Web <http://www.transgrid.com.au>
DX 1122 Sydney

NSW Department of Planning and Infrastructure

Attention: Major Projects Assessment

Dear Sirs

State Significant development (SSD 13-6078) – Oakdale Central, Horsley Park (Lot 21 in DP 1173181)

We refer to the proposed State Significant Development (SSD 13 -6078). TransGrid's property: Lot 13 in DP 115491 and Lot 6 in DP 229769 abutt either side of part of Old Wallgrove Road subject to the proposed upgrade to a sub arterial four land road included in the application. TransGrid acknowledges that this upgrade of the road is required to facilitate the Oakdale Central development proposals on adjoining land. In this regard cooperation in the proposal from TransGrid is required.

TransGrid has been involved in consultations between Goodman International, Austral, Blacktown Council, the RMS and the Department of Planning and Infrastructure and is satisfied that the road works application portions of the proposal abutting TransGrid land are consistent with those discussions.

TransGrid consents to the carrying out of the road upgrade subject to a formal agreement being established in relation to negotiations to acquisition of TransGrid land at market value and to the following improvement at the detailed design/construction documentation stage: -

- Local widening is provided in the plans at the TransGrid entrance. This will be required to provide sufficient turning circle into the drive to allow for a large truck delivering a transformer without a median strip or lights impeding access;
- Heavy duty concrete design intersection due to single heavy loads such as transformers so as repairs are not necessary after the delivery of the same;
- Bus stop nearby;
- The developer must facilitate TransGrid's vehicular access to its transmission towers. . A layback will be required in an appropriate location to be specified by TransGrid. The layback is to include a 4.5 metre wide gate for facilitating access to the transmission towers to the left of the South bound lane;
- The intersection at the main entry and the proposed road to be lit in accordance to Australian standards;
- The construction of a suitable front fence, replacement of the entranceway and gardens to a suitable standard to be agreed to by TransGrid.
- Relocation of affected underground services;
- Traffic collision guards may also be required, with earthing and isolation measures implemented along the frontage of the site capable of withstanding the impact of a large truck in order to protect existing power line stanchions;
- Drainage must be designed to prevent the base of transmission towers becoming susceptible to flooding and/or soil erosion. The existing substation drainage system is being strained to over capacity by additional drainage from the Goodman development across the road. This needs to be redirected away from the substation. Any road upgrade to the subject development will need to

adequately address the drainage issues and must not discharge into the existing substation drainage system on TransGrid land;

- and
- That appropriate screen planting is provided across the frontage of the site to reduce visibility of the infrastructure from the roadway.

The road works application plans are acceptable to TransGrid subject to the technical issues in terms of proximity to existing TransGrid high voltage towers, the existing location of and future placement of any earth wires emanating from existing high voltage towers adjacent to Old Wallgrove Road and the conditions outlined below.

TransGrid's transmission line within the proximity of the Old Wallgrove Road upgrade is the:

Sydney West to Holroyd 330KV TL

- A perpendicular undercrossing of the transmission line and easement is proposed. The TL and associated easement are subject to both vertical and horizontal clearances. The clearances provided in the design statement report at Appendix 7 of the application refer to a 132kv transmission line but do not relate to the undercrossing of a 330KV transmission line. A copy of TransGrid's standard minimum construction clearances is attached for information. TransGrid requests that detailed plans and specifications be provided for assessment by TransGrid's engineers. The detailed plans and specifications to be provided need to state the design Reduced Levels (RL) using Australian Height Datum. Upon receipt of the abovementioned plans and specifications, TransGrid can appraise whether a proposed undercrossing fulfils the vertical clearance requirements based on the maximum operating temperature of the catenaries;
- Transmission towers possess underground earthing straps that protrude from each leg of a tower. For this reason, it is important to ensure that any development within reasonable vicinity of a transmission tower remains outside of the horizontal clearances around the base of the tower, which may be greater than the width of the easement. These horizontal clearances also serve to ensure that there is a safe working platform around the base of a transmission structure;
- Horizontal distances from stanchions or other transmission structures also need to be specified on the plans (with units of measure stated), to ensure the proposed placement and design of the road does not pose a risk to the transmission line. Vertical and horizontal clearances also apply to any preliminary civil works where mounds of earth, however temporary they may be, can still hazardously alter ground levels within the clearance requirement. TransGrid's prior written approval is required before any works may commence in the clearance zone.
- The developer is to pay for TransGrid to alter any transmission line earthing system required to be altered as a consequence of the proposed road upgrade;

Although outside the scope of this application, it is noted that the future road alignment of the proposed link road to the west through Jacfin appears to be in the SEPP alignment which is consistent with the requirements not to encroach into TransGrid's land in the south western corner of our site.

Should you require further information please contact TransGrid's, Property Planning and Development Manager T: (02) 9284 3207 | M: 0428 248 458

Yours faithfully



15.12.13

TransGrid
encl



TransGrid is a NSW statutory State-owned corporation

Example of Required Working Platform for Transmission Tower Maintenance

330kV Transmission Tower Maintenance



TransGrid is a NSW statutory State-owned corporation

OBJECT BEING CROSSED	DESIGN CODE OR AGREEMENT USED TO DETERMINE CLEARANCE	MINIMUM CLEARANCE (METRES)				
		500kV	330kV	220kV	132kV	≤ 66kV
GROUND	TRANSGRID DESIGN CLEARANCE	11.0	9.0	8.0	7.5	7.5
	ELECTRICITY ASSOCIATION OF NSW CODE OF PRACTICE FOR ELECTRICITY TRANSMISSION AND DISTRIBUTION ASSET MANAGEMENT - SEE NOTE 2	(9.0)	(8.0)	(7.5)	(6.7)	(6.7)
	ELECTRICITY ASSOCIATION OF NSW CODE OF PRACTICE FOR ELECTRICITY TRANSMISSION AND DISTRIBUTION ASSET MANAGEMENT - SEE NOTE 3	(7.5)	(6.7)	(6.0)	(5.5)	(5.5)
POWER LINES	TRANSGRID DESIGN CLEARANCE SEE NOTE 4	7.0	5.5	4.5	3.5	2.5
TELEPHONE LINES	TRANSGRID DESIGN CLEARANCE SEE NOTE 4	SEE NOTE 5	5.5	4.5	3.5	2.5
	SAA HB103-1997 (CJC 7) CROSSINGS CODE SEE NOTE 2		(4.6)	(3.7)	(3.0)	(2.1)
RAILWAY LINES	TRANSGRID DESIGN CLEARANCE SEE NOTE 2	15.0	12.0	12.0	12.0	10.0
	NSW STATE RAIL AUTHORITY AGREEMENT SEE NOTE 6	(10.7)	(10.7)	(10.7)	(10.7)	(8.8)
ROADWAYS	TRANSGRID DESIGN CLEARANCE FOR FREEWAYS, MOTORWAYS & MAIN ROADS UNLIKELY TO BE RETICULATED SEE NOTE 7 & 8	15.0	12.0	11.0	10.0	9.0
	TRANSGRID DESIGN CLEARANCE FOR LOCAL COUNCIL ROADS UNLIKELY TO BE RETICULATED SEE NOTE 7 & 8	15.0	10.0	8.5	8.0	8.0
	TRANSGRID DESIGN CLEARANCE FOR ROADWAYS LIKELY TO BE RETICULATED SEE NOTE 7 & 8	16.0	14.0	13.0	12.0	11.0
NAVIGABLE WATERS	TRANSGRID DESIGN CLEARANCE SEE NOTE 9	"SAFE CLEARANCE" PLUS 5.0 SEE NOTE 9				

TABLE 1
SEE NOTE 1

NOTES:

1. THE UNBRACKETED FIGURES SHOWN IN TABLE 1 ARE DESIGN CLEARANCES AND INDICATE THE MINIMUM CLEARANCE FROM CONDUCTOR TO GROUND OR SERVICES THAT SHOULD BE ACHIEVED IN THE DESIGN OF NEW OVERHEAD TRANSMISSION LINES. THE CLEARANCES SHOWN APPLY WHEN THE LOWEST CONDUCTOR OF THE OVERCROSSING SPAN IS AT MAXIMUM DESIGNED OPERATING TEMPERATURE.
2. IN SPECIAL CIRCUMSTANCES, SUBJECT TO APPROVAL BY THE MANAGER / TECHNOLOGY DEVELOPMENT, REDUCED CLEARANCES MAY BE ACCEPTED DUE TO ECONOMIC, ENVIRONMENTAL OR PHYSICAL CONSIDERATIONS. IN NO CIRCUMSTANCES SHALL THESE CLEARANCES BE REDUCED BELOW THE STATUTORY REQUIREMENTS LISTED (IN BRACKETS) IN THE APPROPRIATE CODE OR AGREEMENT DESCRIBED IN TABLE 1.
3. THE ELECTRICITY ASSOCIATION OF NEW SOUTH WALES CODE OF PRACTICE FOR ELECTRICITY TRANSMISSION AND DISTRIBUTION ASSET MANAGEMENT ALLOWS FOR REDUCED STATUTORY MINIMUM CLEARANCES OVER GROUND WHICH DUE TO ITS CONDITION IS NOT TRAVERSABLE BY VEHICLES.
4. FOR CROSSINGS OF EXISTING POWER OR TELEPHONE LINES, THE CLEARANCES SHOWN SHALL BE ACHIEVED WHEN THE LOWEST CONDUCTOR OF THE OVERCROSSING CIRCUIT IS AT DESIGNED MAXIMUM OPERATING TEMPERATURE AND THE HIGHEST CONDUCTOR OR EARTHWIRE OF THE UNDERCROSSING CIRCUIT IS AT MINIMUM DESIGNED OPERATING TEMPERATURE. IN SOME CIRCUMSTANCES, SUBJECT TO APPROVAL BY THE MANAGER / TECHNOLOGY DEVELOPMENT, A CLEARANCE LESS THAN THE DESIGN VALUE SHOWN IN TABLE 1 MAY BE ACCEPTABLE. THERE ARE NO STATUTORY MINIMUM CLEARANCES SPECIFIED IN THE ELECTRICITY ASSOCIATION OF NSW CODE OF PRACTICE APPLICABLE TO THE CROSSING OF OTHER POWER LINES OR TELEPHONE LINES.
5. THE SAA HB103-1997 (CJC 7) CO-ORDINATION OF POWER AND TELECOMMUNICATIONS - CROSSINGS CODE DOES NOT PERMIT CROSSINGS OF OVERHEAD TELEPHONE LINES BY OVERHEAD TRANSMISSION LINES OPERATING AT VOLTAGES GREATER THAN 330kV.
6. THE NSW - SRA AGREEMENT MAKES NO DISTINCTION BETWEEN REQUIRED CLEARANCES WHEN CROSSING RAILWAY LINES WITH TRANSMISSION LINES GREATER THAN 132kV.
7. CLEARANCES OVER ROADS SHOULD BE DETERMINED BY THE TYPE OF ROAD BEING CROSSED AND WHETHER OR NOT IT IS LIKELY TO BE AFFECTED BY LOWER VOLTAGE RETICULATION. TYPES OF ROADS HAVE BEEN BROADLY CLASSIFIED ACCORDING TO THE LIKELY PRESENCE OF RETICULATION AND THE APPROPRIATE DESIGN MINIMUM CLEARANCES ARE LISTED IN TABLE 1. DURING THE DESIGN STAGE OF A TRANSMISSION LINE, THE LOCAL DISTRIBUTION AUTHORITY SHOULD BE CONSULTED TO INDICATE ANY PROPOSALS FOR FUTURE DEVELOPMENT OF THEIR SYSTEM.
8. MINIMUM CLEARANCES ABOVE ROADS AS REQUIRED BY THE ELECTRICITY ASSOCIATION OF NSW CODE OF PRACTICE FOR TRANSMISSION LINES OPERATING AT VOLTAGES OF 66kV AND ABOVE ARE THE SAME AS THE BRACKETED FIGURES SHOWN IN ROW 2 OF TABLE 1, CLEARANCES TO GROUND.
9. CLEARANCES OVER NAVIGABLE WATERS ARE DETERMINED BY THE WATERWAYS AUTHORITY OF NSW. THE MINIMUM "SAFE CLEARANCE" FOR TRANSMISSION LINES ABOVE MAXIMUM HIGH WATER LEVEL AS DETERMINED BY THE AUTHORITY SHALL BE INCREASED BY 5 METRES FOR DESIGN PURPOSES.

AMENDMENTS NOTES 2 TO 8 AND TABLE 1 REVISED TO SHOW CURRENT REGULATIONS, CODES, AGREEMENTS, AUTHORITY NAMES AND TITLES. NAVIGABLE WATERS ADDED TO TABLE 1. NO CHANGES MADE TO MINIMUM CLEARANCE REQUIREMENTS IN TABLE 1.	HA	SVH	25-SEP-98	DATE	01	DRN	CKD	TransGrid	DRAWN	HA/PE	DESIGN	DG	RS	SH	SVH	PASSED	KKS CODING	7TD	ORIGINAL DRAWING APPROVED BY	B CORDEROY per SVH	MANAGER/TPE	25-FEB-1993	APPROVED	DRAWING STATUS	SCALE	NONE	A3	TL613883	01	PREFIX	NUMBER	SHEET	AMDT	INDEX CLASS 'N 36 - 04
PLOT ISSUE NUMBER 20		PLOT ISSUE DATE 25SEP98		COPIED FROM		SUPERSEDES TL142021		SUPERSEDED BY																										

TRANSGRID EASEMENT GUIDELINES FOR THIRD PARTY DEVELOPMENT

Background

Transmission Line (TL) and cable easements are acquired by TransGrid to provide adequate clearance along the route of a transmission line for construction and maintenance work and also to ensure that no work or other activity is undertaken under or near the TL or cable which could create an unsafe situation either for persons or for the security of the TL or cable. The easement area contributes to the *prudent avoidance* of exposure by persons to EMF (Electric and Magnetic Fields).

The TL or cable easement area and its ongoing maintenance are control measures that cannot be compromised. The easement is established to prevent and mitigate against the following electrical safety risks:

- Infringement of electrical safety clearances e.g. due to an activity or vegetation growth.
- Electrical Induction e.g. due to parallel conducting materials.
- Step and touch potentials under fault conditions e.g. due to lightning or bushfire.
- Failure of structures or line equipment e.g. due to third party vehicle or plant impact.
- Transfer off easement of dangerous voltages, e.g. by services installed within the easement area.
- Blowout of a conductor under high wind (or blow in of vegetation) e.g. into an adjacent structure.

Safety to people and property is of paramount concern. TransGrid is also bound to maintain its infrastructure efficiently and cost effectively. TL and cable easements along with accesses thereto have been designed to facilitate effective operational maintenance.

Development Approval Process

Where the Environmental Planning and Assessment Act 1979 makes Local Councils the consent authority for development applications, proponents to a proposed development on land are to prepare a development application and submit same to the Local Council for development consent.

The *State Environmental Planning Policy (Infrastructure) 2007* (SEPP), which commenced on 1 January 2008, requires local councils to consult with Electricity Network Operators before granting development consent for proposals that might adversely affect:

- existing electricity infrastructure;
- easements for electricity purposes, even if no infrastructure has yet been constructed in the easement.

Local Councils must give written notice to the network operator of any proposals for development:

- within or immediately adjacent to an easement for electricity purposes;
- immediately adjacent to a substation;
- within 5 metres of an exposed overhead power line;
- involving excavation within 2 metres of an underground power line or a pole or within 10 metres of a tower;
- involving a swimming pool within 30m of a transmission tower or within 5m of an overhead line.

TRANSGRID EASEMENT GUIDELINES FOR THIRD PARTY DEVELOPMENT

Any comments made by the Electricity Network Operator within 21 days of receiving Local Council's written notification must be taken into consideration by the Local Council before it determines the development application.

The *proponent* is required to consult with TransGrid in accordance with the *State Environmental Planning Policy (Infrastructure) 2007* (SEPP); the *NSW Occupational Health and Safety Act 2000*, and; the *NSW WorkCover Code of Practice for Working Near Overhead Power Lines 2006*.

TransGrid Approval

The approving statutory authority will require written approval from TransGrid for all proposed activities within an easement area in accordance with Section 45 of the *State Environmental Planning Policy (Infrastructure) 2007* (SEPP).

To assess and respond to an approving statutory authority, TransGrid will require the following information from the development proponent. TransGrid will object to any development where the development proponent has not provided the following information to TransGrid prior to Local Council's notification:

- Detailed specifications and plans drawn to scale and fully dimensioned, showing property boundaries and other relevant information.
- An *Impact Assessment* of the development on TransGrid infrastructure and associated interests (including easements). Further, details as to how any impacts thereto are proposed to be managed, mitigated or resolved (see below – *Impact Assessment*).

Upon receipt of the abovementioned documentation, the proponent's proposed development will be assessed in relation to its impact on TransGrid infrastructure, easements and means of access thereto. The proponent should note that for complicated proposals the consultation process will be iterative and the proponent should allow sufficient time for this process (see *Timeframes* below).

General Development Proposal Guidelines

1. Prohibited Activities and Encroachments

A number of activities and encroachments are not permitted within the easement area. These are detailed in the "TransGrid Easement Guide" (see Appendix 1 - *Prohibited Activities*).

Any *Development Proposal* should be designed in such a way that:

- It does not involve these activities, nor introduce these encroachments; and
- Does not to encourage other parties to undertake such activities or introduce such encroachments in the future.

TRANSGRID EASEMENT GUIDELINES FOR THIRD PARTY DEVELOPMENT

2. Development

The *Development Proposal* should be planned with the adoption of The Right Honourable Harry Gibbs Report (*Inquiry into Community Needs and High Voltage Transmission Line Development*) recommendations, that being a policy of "*prudent avoidance*".

This report placed recommendations on the design of new transmission lines having regard to their proximity to houses, schools, work sites and the like and is equally valid when considering new developments proposed in proximity to existing powerlines and associated easements.

Electric and Magnetic Field (EMF) strength rises from the easement edge to beneath the conductors and the most practical way to achieve the *prudent avoidance* policy is to keep the development entirely outside the easement area.

If it is desired to place any part of a development within an easement the proponent shall, in conjunction with the *Development Proposal*, undertake an [Impact Assessment](#) to be provided to TransGrid that covers the changes in risk and mitigation measures proposed.

Relocating Infrastructure and Interruption to Transmission

The developer will be liable for any costs involved in having to relocate TransGrid infrastructure as part of any proposed development. Further, the developer will also be liable for any costs and penalties incurred as a consequence of interruptions to TransGrid's transmission operations arising from the development, whether planned or inadvertent.

Impact Assessment

An *Impact Assessment* shall be completed and is to accompany the development proposal when it is submitted to TransGrid for consideration.

The *Impact Assessment* shall cover:

1. Detailed description of the development
2. Health and safety risk assessment and control measures
3. Operational risk to the TL or cable due to the development
4. Maintenance risk to the TL or cable due to the development
5. Design and construction risk to the TL or cable and associated with the proposed development
6. Physical impact risk to the TL (vehicle collision, vegetation or other impact)
7. Risk to TransGrid's rights and entitlements
8. Impact of the proposed development re TransGrid's access to the easement and along the easement.

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Checklist

The following checklist may assist in the completion of the *Impact Assessment*. A template is provided in *Appendix 3*.

Refer also to *Appendix 1* and *Appendix 2* for guidance on prohibited activities and TransGrid's requirements for developments and subdivisions.

1. Detailed Description of the Development

- Street Address;
- Land and Title references;
- Physical proximity of the proposed development to TransGrid's easement boundary (distance dimensions to be provided on a scaled plan); and
- Horizontal and vertical clearances of the proposed development to TransGrid's Infrastructure and associated easements

2. Health and Safety Risk Assessment

- **Safety Risk to General Public**
 - i. Have ground levels been changed that would compromise design clearances?
 - ii. Has the easement been altered in any way that would encourage prohibited activities to occur within the easement?
 - iii. Has the easement or the nature of the land in the vicinity of the easement, been altered in any way that would encourage prohibited encroachments to occur within the easement?
 - iv. Is it possible for proposed structures to transfer voltages off easement, or bring remote earths into the easement?
 - v. Has development been proposed that increase step and touch potential hazards, or that would encourage people to congregate within the step/touch potential zone of a structure?
- **Safety Risk to Non-electrical Workers and Emergency Service Personnel**
 - i. Has infrastructure been proposed that can be climbed compromising design clearances?
 - ii. Has infrastructure been proposed that can be accessed by maintenance persons using Elevated Work Platforms (EWPs) compromising design clearances?
 - iii. Has infrastructure been proposed that can bring remote earths onto the easement?
 - iv. Has infrastructure been proposed that is a fire hazard, or that would encourage the storage or use of flammable material on the easement?
 - v. Has infrastructure been proposed that would require emergency workers (such as fire fighters) to come near, or their equipment to come on or near high voltage conductors?

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- **Safety Risk to TransGrid Employees & Contractors**

- i. Has access around any TransGrid structure been altered preventing EWPs, crane or other plant access or introduced other risks to maintenance staff?
- ii. Has the proposed development complied with TransGrid's horizontal clearances?
- iii. Has access to the easement been altered that would introduce risks to personnel, including although not limited to asset inspectors or patrol staff?

- **Health Risk to the General Public**

- i. Have public spaces been proposed *within the easement* that would encourage persons to congregate for lengthy periods of time?
- ii. Have facilities been provided outside of the easement but immediately adjacent thereto that would encourage persons to congregate within the easement?

3. Operational Risk

- Have any ground level developments been proposed (including roads, driveways, parking lots and turning bays etc) that would expose TransGrid transmission structures and lines to impact risk?
- Has change in water flows or drainage been proposed that could impact on the foundations of any TransGrid structure (or guy)?
- Are excavations or surface activities proposed that would impact a TransGrid structure's foundations, stability or earthing systems?

4. Maintenance Risk

- Have roads, driveways or landscaping been proposed that would prevent or hinder TransGrid maintenance, or increase maintenance costs, for the above or below ground components of the transmission line structure?
- Has access to the easement or within the easement, been obstructed, restricted or altered?
- Have access roads, bridges, crossings and the like been designed to cater for the weight and size of TransGrid maintenance plant (EWPs and Cranes)?
- Does the development encourage the placement of obstructions that would prevent access for routine or emergency works?

5. Development Design and Construction Risk

- Has the development been designed so that during the construction phase TransGrid is not restricted from undertaking normal maintenance and inspection activities?
- Has the development been designed so that during the construction phase prohibited activities or encroachments are not required in the easement area?
- Has the design health and safety risk assessment taken into account the requirements of the NSW WorkCover Code of Practice for *Working Near Overhead Powerlines* 2006?

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6. TransGrid's Rights

- Have TransGrid's existing rights been preserved?
- Has TransGrid been exposed to new maintenance costs (e.g. landscaping or other development changes impacting easement access, use and maintenance)?
- Does a new deed of easement need to be negotiated?

Post Construction Compliance Statement

The development proposal shall include as-built plans of the final construction that must be provided to TransGrid. The as-built drawings must be accurate, scaled and display distances/measurements, demonstrating compliance to the agreed plans and implementation of agreed control measures.

Timeframes

TransGrid will respond to a Local Council notification of a proposed development within 21 days as required in the SEPP, however that response may not be an approval (or disapproval). If the development proposal does not meet the requirements of these Guidelines, or in the event further detailed engineering analysis is required, TransGrid will require the development proposal to be revised and resubmitted.

Developers are advised to consider TransGrid's requirements early in the process (and not as an afterthought that could result in project delays).

Further Assistance

For any further development enquiry assistance please contact the Development Enquiry Services Coordinator on Telephone (02) 9620 0777.

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APPENDIX 1

Prohibited Encroachments and Activities

TransGrid will use its powers under the Electricity Supply Act, involve WorkCover or take other legal action as required to prevent or halt prohibited activities.

1. Transmission Lines

Activities and encroachments that are **prohibited** within a Transmission Line (TL) Easement include, but are not limited to (*Note 2*), the following:

- The construction of houses, buildings, substantial structures, or parts thereof.
- The installation of fixed plant or equipment.
- The storage of flammable materials, corrosive or explosive material.
- The placing of garbage, refuse or fallen timber.
- The planting or cultivation of trees or shrubs capable of growing to a height exceeding 4 metres.
- The placing of obstructions other than timber boundary fences within 15 metres of any part of a transmission line structure or supporting guy.
- Camping or the permanent parking of caravans or other camping vehicles.
- The parking or storage of flammable liquid carriers or containers.
- The installation of site construction offices, workshops or storage compounds.
- Flying of kites or wire controlled model aircraft within the easement area.
- Flying of any manned aircraft or balloon within 30m of any structure, guy or conductor.
- Flying of remote controlled or autonomous aerial devices (such as UAVs) within 30m of any structure, guy or conductor.
- Placing any obstructions on access tracks or placed in the easement area that restricts access.
- Any vegetation maintenance (such as felling tall trees) where the vegetation could come within the *Ordinary Persons Zone* – refer to the NSW WorkCover ‘*Working Near Overhead Powerlines - Code of Practice 2006*’.
- Any substantial excavation within 7 metres of a pole or supporting guy or guy foundation or within 16 metres of a tower
- The climbing of any structure (*any development that encourages or facilitates climbing will not be permitted*).
- Any change in ground levels that reduce clearances below that required in AS7000.
- The attachment of any fence, any signage, posters, or anything else, to a structure, or guy.

Note: Interference to electricity infrastructure is an offence under the Electricity Supply Act.

- The movement of any vehicle or plant between the tower legs, within 5m of a structure, guy or between a guy and the pole.

Note: Any damage to electricity infrastructure is an offence under the Electricity Supply Act.

- The storage of anything whatsoever within the tower base or within 5m of any tower leg.

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- Any structure whatsoever that during its construction or future maintenance will require an *Accredited* person to access. *Note: The final structure may meet AS7000 clearances, but may be accessible (e.g. by EWP) by Ordinary Persons within the Ordinary Persons Zone.*
- Any work that generates significant amounts of dust or smoke that can compromise the TL high voltage insulation.
- The erection of any structure in a location which could create an unsafe situation work area for TransGrid staff.
- Any activity by persons not *Accredited* or not in accordance with the requirements of the WorkCover 'Working Near Overhead Powerlines - Code of Practice 2006' that is within (*Note 1*):
 - 3m of an exposed 132kV overhead power line
 - 6m of an exposed 220kV or 330kV overhead power line
 - 8m of an exposed 500kV overhead power line

Note: Distances quoted are to the design conductor position (i.e. maximum sag and blowout)

The following activities may be approved with conditions. TransGrid's prior written consent is required. The proponent will have to demonstrate (using the *Impact Assessment* process) that the risks associated with the activity have been satisfactorily mitigated. Guidance on how to achieve this is provided in Appendix 2.

- Burning off or the lighting of fires. Lighting of fires directly under energised conductors will not normally be approved.
- Operation of mobile plant or equipment having a height when fully extended exceeding 4.3 metres.

Note: Approval would be based on the need to maintain adequate clearance between the equipment and the line, having regard to the particular situation. Note that plant may require trailing earths and supervision by TransGrid staff.

- *Temporary* parking of caravans and other large vehicles in the outer 3m of the easement area, subject to a 4.3 metre height restriction and metallic parts being *earthed*.
- The erection of flagpoles, weather vanes, single post signs, outdoor lighting, subject to a 4.3 metre height restriction and metallic parts being *earthed*.
- The erection of non-electric agricultural fencing, yards and the like.

Note: Fencing that exceeds 2.5 metres in height or that impedes would not be approved. Metallic fencing may require earthing and will generally not be approved if located within 15 metres of any part of a transmission line structure or supporting guy or within 4 metres of the vertical projection of the overhead conductors.

- The erection of electric fencing provided that the height of the fencing does not exceed 2.5 metres and provided that the fence does not pass beneath the overhead conductors.

Note: Approval may be given for a portable electric fence to pass underneath the conductors provided that it is supplied from a portable battery-powered energiser that is located remotely

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from frequented areas. Where it is necessary for a permanent electric fence to pass beneath the overhead conductors, or where an extensive permanent electric fencing system is installed in proximity to a transmission line certain additional safety requirements may be required.

- The installation or use of irrigation equipment inside the easement.

NOTE: An irrigation system will not be approved if it is capable of coming within 4 metres of the overhead conductors; exceeds 4.3 metres in height; consists of individual sections of rigid or semi-rigid pipe exceeding 4.3 metres; and/or is capable of projecting a solid jet of water to within 4 metres of any overhead conductors.

- The installation of low voltage electricity, telephone, communication, water, sewerage, gas, whether overhead, underground or on the surface.

Note: Services that do not maintain standard clearances to the overhead conductors that are within 15 metres from the easement centre-line, 16 metres from any part of a transmission line supporting structure or are metallic and within 30 metres of any part of a structure will not be approved. TransGrid may impose additional conditions or restrictions on proposed development.

- The installation of high voltage electricity services, subject to there being no practicable alternative and provided the standard clearances are maintained to the supporting structures.

Note: Where extensive parallels are involved certain additional safety requirements may be imposed by TransGrid, depending on the particular case and engineering advice.

- Swimming pools, subject to TransGrid's strict compliance criteria.

Note: Above ground pools will not be approved. In-ground pools will not be approved if there is a practicable alternative site clear of the easement area. If there is no practical alternative site, in-ground pools including coping will not be approved if it encroaches more than 4.5 metres, or is less than 30 metres away from a transmission line structure.

- Detached garages, detached carports, detached sheds, detached stables, detached glass houses, caravans, site containers, portable tool sheds, pergolas and unroofed verandahs attached to residences. (Easement encroachments of more than 3m will not be approved).
- Prefabricated metal (garden) sheds. TransGrid approved sheds must be earthed.

Note: Sheds exceeding 2.5 metres in height, with a floor area exceeding 8 m², encroaching more than of up to 3 metres or within 15 metres of any part of a transmission line structure will not be approved. Connection of electric power will not be approved.

- Single tennis courts.

Note: Tennis courts that hinder access, are for commercial use or do not provide adequate clearances shall not be approved.

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- Sporting facilities and open recreational areas.

Note: Facilities associated with the use of firearms and public sporting venues are discouraged.

- Subdivisions. See **Appendix 2** requirements.
- Roads, subject to horizontal and vertical clearances. Restrictions and other conditions on consent may also apply.

Note: Roads located within 15 metres of any part of a transmission line structure will not be approved.

Where it is proposed that a road passes within 30 metres of a transmission structure or supporting guy, TransGrid may refuse consent or impose restrictions and other conditions on consent. Where a road passes within 30 metres of a transmission structure or supporting guy, the structure's earthing system may require modification for reasons including, but not limited to, preventing fault currents from entering utility services which may be buried in the road. The option of raising conductors or relocation of structures, at the full cost of the proponent, may be considered.

- Cycleways, walking tracks and footpaths, provided *standard clearances* are maintained and the proposal does not alienate large sections of the easement area.
- Excavation – subject to restriction criteria.

Note: Substantial excavations located within 7 metres of a general purpose pole structure or supporting guy, or within 15 metres of any part of a steel tower or major pole structure and exceeding a depth 3 metres will not be approved.

- Quarrying activities, earthworks, dam or artificial lake construction.
- Mining. Approval would be based on the merits of the proposal and any related circumstances.
- Use of explosives.
- Vehicle access or parking facilities.

Note: Vehicle access and/or car parking facilities will not be approved if within 30 metres of a TL structure without adequate precautions provided to protect the structure from any accidental damage.

Note 1: An encroachment or activity that is located outside the prohibited distance of the infrastructure but still within the easement will not necessarily be permitted. It will generally need to be addressed in the [Impact Assessment](#) and remains subject to TransGrid prior consent.

Note 2: The above list is not exhaustive and if there is any uncertainty as to whether an activity or encroachment is acceptable within an easement, please contact TransGrid.

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2. Cables

The activities listed below are prohibited within cable easements:

- The storage of flammable liquids or explosives.
- The planting or cultivation of trees or shrubs with extensive root systems.
- The construction of houses, buildings or substantial structures.
- The installation of fixed plant or equipment.
- The placing of garbage, refuse or fallen timber.
- Vertical boring directly over the cable lay (eg. the installation of fencing or safety railing).
- The raising or lowering of existing ground surface levels.
- Any excavation within 2m of an underground cable.

The following activities may be approved with conditions. TransGrid's prior written consent is required. The proponent will have to demonstrate (using the *Impact Assessment* process) that the risks associated with the activity have been satisfactorily mitigated. Guidance on how to achieve this is provided in Appendix 2.

- Parking of vehicles.

Note: Parking will be prohibited if the surface is not capable of supporting the vehicles likely to be parked, risking the crushing of the cable/ducts or erosion of the ground.

- The operation of mobile plant and equipment.

Note: Such operations will be prohibited if the surface is not capable of supporting the vehicles likely to be parked, whereby risking the crushing of the cable/ducts or erosion of the ground.

- The erection of structures spanning the easement.
- Excavation.
- Concrete driveways.
- The installation of metal pipes, metal fences, underground or overhead cables.
- Road-boring in the vicinity of a high voltage cable.

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APPENDIX 2

General Requirements for Developments and Subdivisions

The following list of current general requirements is provided for your information. It should be noted that the list is not exhaustive and, where there is any doubt concerning a particular activity within the easement area advice should be sought from TransGrid.

1. Completed Works

The completed works shall provide for the following considerations:

- A safe unobstructed working platform shall be preserved around the transmission line structures for access by EWP, cranes as well as other large plant and equipment. No obstructions of any type shall be placed within 30 metres of any part of a transmission line structure.
- Roads, streets etc (including kerb to property boundaries) and intersections shall not be located within 30 metres of any TL structure.
- Roads crossing the easement require 12 metre clearance between the finished road surface and the conductor at it's maximum operating temperature.
- Roads paralleling the transmission line are not to be within the easement area.
- Proposed roadway locations shall also take into consideration any street lighting requirements to ensure that statutory clearance requirements are followed. The design clearances should include future maintenance safety issues. TL outages will not be provided for street light maintenance.
- Details of the levels of proposed roadways where they cross the easement shall be submitted to TransGrid for written approval prior to construction to ensure that adequate clearances to the TL conductors are maintained. It should be noted that formal approval will not be given to the subdivision if such clearances are not maintained.
- Access to the TL and its structures shall be available at all times for TransGrid plant and personnel. In this regard a continuous and unobstructed access way shall be retained along the easement.
- Where fences are required for security purposes access gates will be installed in an agreed location and a TransGrid lock will be fitted.
- All underground services installed more than 16 metres but within 30 metres of a TL structure shall be non-metallic. Utility services (including street lighting), whether above or below ground, shall not be installed without prior written approval of TransGrid.
- Excavation work or other alterations to existing ground levels shall not be carried out within the easement area without the prior approval of TransGrid. Approval will not normally be granted for such work within 16 metres of any supporting structure.
- Fenced boundaries for all new properties in the subdivision shall not be within 30 metres of any TL structure.
- A "Restriction-as-User" (88B Instrument) shall be placed on the titles of the lots affected by the TL easement. Any proposed activity within an easement area will require the prior written approval of TransGrid (appropriate wording will be advised when required).
- Any proposed development does not impact on TransGrid's costs of inspecting, maintaining or reconstruction the transmission lines.
- Vegetation Control
In order to comply with its statutory responsibilities to maintain adequate clearance between the conductors and any forms of vegetation. TransGrid maintains its easements as follows:

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- Tall growing species likely to infringe safe clearances are to be removed regardless of existing height at time of construction.
- Trees likely to fall onto conductors or towers are also to be removed whether on the easement or off the easement (ref. Sec 48 of the Electricity Supply Act 1995).
- Shrubs and other vegetation of lower mature height within the easement will be reduced and managed, generally by slashing with ground level retained.
- Vegetation management will aim to reduce available fuel and subsequent bushfire risks in accordance with NSW Rural Fire Service Bush Fire Environmental Assessment Code, which sets out requirements for hazard reduction strategies such as Asset Protection Zones and Strategic Fire Advantage Zones
- Removed vegetation will be mulched or chipped and removed from site or retained on site in accordance with owner/stakeholder requirements and
- Other works considered necessary in order to provide a safe working environment for maintenance staff, contractors and for the property owner/manager will be undertaken.

Proposed vegetation plantings, such as Riparian corridors, within the transmission line easements shall be compatible with the above maintenance requirements.

2. Construction

During construction, the development plans shall also provide for the following considerations:

- Vehicles, plant or equipment having a height exceeding 4.3 metres when fully extended shall not be brought onto or used within the easement area without prior TransGrid approval.
- Where temporary vehicular access or parking (during the construction period) is within 16 metres of a transmission line structure, adequate precautions shall be taken to protect the structure from accidental damage. Plans need to be submitted to TransGrid for prior approval.
- The easement area shall not be used for temporary storage of construction spoil, topsoil, gravel or any other construction materials.

3. Costs

The Developer shall bear all costs of any reconstruction or modification of the transmission line, including consultation and design required to maintain clearances due to proposed ground level changes; road crossings within the easement; or due to any damage to the TL arising from the development.

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APPENDIX 3

Impact Assessment Template

Detailed Description of the Development

Risk Type	Aspect	Drawing Reference	Assessment	Risk Level	Control Measure	Residual Risk
Health and Safety						
Operational						
Maintenance						
Design and Construction						
Rights and Entitlements						

Compliance plan
