Address all communication to the Chief Executive Officer
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Australand Corporation (NSW) Pty Ltd
PO Box 4148
SHELLHARBOUR NSW 2529

NOTICE OF DETERMINATION OF DEVELOPMENT APPLICATION
Issued under the Environmental Planning and Assessment Act 1979 Section 4.18

Being the applicant of Development Application No. DA0187/2021 (PAN-86684) for consent to the following development:

EARTHWORKS

LOT 1092 DP 1254727

HARBOUR BOULEVARD SHELL COVE NSW 2529

Determination date of consent: 6 December 2021

Note: This Approval will lapse 5 years from the date of consent.

In accordance with section 4.16 of the Act the Development Application has been determined by the GRANTING OF CONSENT SUBJECT TO THE CONDITIONS DESCRIBED BELOW.

This development consent has been divided into different parts according to where, during the development process, each condition may be most relevant. Some conditions may be appropriate to more than one part. All conditions must be complied with.

[redacted]

Jasmina Micevski
Manager - Planning
City Development

On behalf of Carey McIntyre, Chief Executive Officer

PART A – ADMINISTRATIVE CONDITIONS

1. Prescribed Conditions

This development consent is subject to the prescribed conditions made under the *Environmental Planning & Assessment Regulation 2000*.

2. Development in Accordance with Plans and Documents

The development must be in accordance with the following approved Development Application plans and documents as endorsed by Council's stamp. Where there is an inconsistency between the approved plans/documentation and conditions of consent, the conditions of consent take precedence to the extent of the inconsistency.

Name of Plan/Document	Prepared By	Drawing/Document No./Revision	Drawing/Document Date
Erosion and sediment control plan	Arcadis	Sheet 1 - A-BP-BE-101 – AA06310-05 Sheet 2 – C-BP-BE-102-AA06310-04	08.02.2021
Erosion and sediment control details	Arcadis	C-BP-BE-106-AA06310-05	08.02.2021
Bulk Earthworks cut and fill plan	Arcadis	Sheet 1 – C-BP-BE-11-AA06310-05 Sheet 2 – C-BP-BE-112-AA06310-04	08.02.2021
Bulk Earthworks Sections	Arcadis	Sheet 1 – C-BP-BE-116-AA06310-05 Sheet 2 – C-BP-BE-117-AA06310-04	08.02.2021
Road Sections	Arcadis	Sheet 1 – C-BP-BE-221-AA06310-05 Sheet 2 – C-BP-BE-222-AA06310-05	08.02.2021
Waste Management Plan	[redacted]	-	24.02.2020
Contaminated Land Comment	Douglas Partners	78599.62 R.001.REV0	22.02.2021
Acid Sulphate Soil Management Plan	SMEC	3001886-R12 rev. 1	12.02.2021
Statement of Environmental Effects	Ethos Urban	2191011	25.03.2021

3. Compliance with Notations on Drawings

Works must comply with any notations highlighted on the approved plans and specifications.

4. Easements on Site

Easements for power lines and conveyance of water which bisect the site are to be expunged and/or re-located as relevant prior to the commencement of works.

5. Endeavour Energy

Advice from Endeavour Energy relating to the existing easement for power lines which bisects the application site has been included as Part H of this consent. All relevant requirements as specified in this advice must be adhered to as required.

PART B – PRIOR TO COMMENCEMENT OF WORKS

6. Construction Environmental Management Plan (CEMP)

A Construction Environmental Management Plan must be submitted to Shellharbour City Council for approval by the Manager Environment prior to commencement of works to include but not limited to:

a. Sediment and erosion controls (as per Shell Cove - Business Park Bulk Earthworks by Arcadis 08/02/2021),
b. Acid sulfate Soils Management Plan (as per chapters 4.1 and 4.2 of Acid Sulfate Soils Management Plan: Shellcove Business Park and RE1 Zoned Land" SMEC 12/02/2021,
c. Management of fuels and chemicals,
d. Native fauna protection measures - fauna supervision by a qualified person be undertaken during the proposed works to watch for, capture and relocate frogs and other fauna as earthworks are completed,
e. Dust control measures,
f. Site establishment
g. Stop work Protocol for heritage items.

7. Dam Dewatering Plan

As per the advice in "Pre-works fauna survey for proposed bulk earthworks at Lot 1092 DP1254727 Harbour Boulevard, Shell Cove" by Eco Logical Australia (24/06/2021) a dam dewatering plan for detention basins and swales is to be developed to allow a qualified ecologist to undertake aquatic fauna relocation before and during dewatering.

8. Site Meeting

A site meeting with Council's Engineer, the applicant and the contractor must be held not less than 7 days prior to the commencement of work on site.

9. Initial Geotechnical Report

A geotechnical report, prepared by a suitably qualified and experienced geotechnical engineer must be submitted to Shellharbour City Council for approval by the Manager Subdivision Development prior to the commencement of works.

The report must cover, but no be limited to the following:

a. extent and stability of proposed embankments including those acting as retarding basins,
b. recommended Geotechnical testing requirements,
c. level of geotechnical supervision for each part of the works as defined under *AS 3798 - 2007 Guidelines on Earthworks for Commercial and Residential Developments or subsequent amendments,*

d. an analysis of the level of risk to existing adjacent structures/buildings including the scenario of a construction contractor using vibratory rollers anywhere within the site the subject of these works. In the event that vibratory rollers could affect adjacent structures/buildings, high risk areas must be identified on a plan and indicate that no vibratory rollers shall be used within that zone,

e. the impact of the installation of services on overall site stability and recommendations on short term drainage methods, shoring requirements and other remedial measures that may be appropriate during installation,

f. the recommended treatment of any unstable areas within privately owned allotments,

g requirement for subsurface drainage lines,

h. overall assessment of the engineering plans for the proposed development and their suitability in relation to the site's geotechnical characteristics.

10. Soil and Water Management Plan (SWMP)

Prior to the commencement of works, the applicant must submit a Soil and Water Management Plan to Shellharbour City Council for approval by Manager - Subdivision Development. The SWMP must clearly identify site features, constraints and soil types together with the nature of the proposed land disturbing activities and also specifies the type and location of erosion and sediment control measure. In addition, rehabilitation techniques that are necessary to deal with such activities should be referred to.

The SWMP must take into account the requirements of Landcom's publication Managing Urban Stormwater - Soils and Construction (2004) thus ensuring the following objectives are achieved, namely:

a. minimise the area of soils exposed at any one time,

b. conserve topsoil for reuse on site,

c. identity and protect proposed stockpile locations,

d. preserve existing vegetation and identify revegetation techniques and materials,

e. control surface water flows through the development construction site on a manner that:

   i. diverts clean run-off around disturbed areas.

   ii. minimises slope gradient and flow distance within disturbed areas.

   iii. ensures surface run-off occurs at non-erodible velocities.

   iv. ensures disturbed areas are promptly rehabilitated.

f. trap sediment on the site to prevent off site damage. Hay bales are not to be used as sediment control devices. To ensure regular monitoring and maintenance of erosion and sediment control measures and rehabilitation works until the site is stabilised (including landscaping),

g specifies measure to control dust generated as a result of construction activities on site,

h. temporary sediment ponds must be fenced where the batter slope exceeds 1 vertical to 5 horizontal,

i. design scour protection for the 10 year ARI event at all inlet and outlet structures.

j. including measures to prevent the tracking of sediment off the site.

11. Stormwater Discharge to Natural Watercourse

Stormwater discharge point to the natural watercourse must be protected against erosion.

Details are to be submitted to Shellharbour City Council for approval by the Manager Subdivision Development prior to commencement of works.

12. Long Service Levy

The Long Service Levy must be paid prior to commencement of works.

Note: This is a levy imposed by the NSW Government and administered by the Long Service Payments Corporation for the purpose of long service payments to building and construction workers.

13. Dilapidation Report

It is the applicant's responsibility to notify Council of any existing damage to public areas in the vicinity of the development site through the submission of a Dilapidation Report. The report must be supported with suitable photographic records. This information must be submitted to Council prior to the commencement of work.

14. Fauna Relocation Surveys

As per the advice in "Pre-works fauna survey for proposed bulk earthworks at Lot 1092 DP1254727 Harbour Boulevard, Shell Cove" by Eco Logical Australia (24/06/2021)

- Proposed earthworks are not to commence until a pre works fauna survey and relocation is undertaken by a qualified ecologist at Spring at the earliest, the ecologist is to confirm optimal day in Spring accounting for weather.
- Relocation surveys should be conducted within the water detention basins proposed to be modified on-site as identified in Figure 1 of the Eco Logical report (24/06/21)
- Relocation surveys to be carried out at night, as close to proposed works date as possible (note must be in Spring at earliest)
- In addition, a qualified ecologist to undertake aquatic fauna relocation from detention basins and plans before and during dewatering of as per dewatering plan (this may be done before or after fauna relocations targeting frogs and other non-aquatic organisms, as advised by ecologist)
- Captured Eastern Dwarf Tree Frogs and other fauna encountered should be relocated to suitable nearby habitat.

15. Soil and Water Management Plan Implementation (SWMP)

The measures required in the Soil and Water Management Plan approved by Shellharbour City Council must be implemented prior to the commencement of works.

16. Site Management Plan

Prior to the commencement of works, the applicant must submit a construction and site management plan to Shellharbour City Council for approval by the Manager Subdivision Development that clearly sets out the following:

a. what actions are proposed to ensure safe access to and from the site and what protection will be provided to the road and footpath area from building activities, crossings by heavy equipment, plant and materials delivery and static load from cranes, concrete pumps and

the like,

b. the proposed method of loading and unloading excavation machines, building materials and formwork within the site,

c. the proposed areas within the site to be used for the storage of excavated material, construction materials and waste containers during the construction period,

d. sediment and erosion control measures as per Landcom's publication 'Managing Urban Stormwater - Soils and Construction (2004)' also known as the 'Blue Book' or subsequent revisions,

e. how it is proposed to ensure that soil/excavated materials are not transported on wheels or tracks of vehicles or plant and deposited on the roadway, and

f. the proposed method of support to any excavation adjacent to adjoining buildings or the road reserve. The proposed method of support is to be certified by an appropriately qualified and experienced engineer.

PART D - DURING CONSTRUCTION WORKS

17. Flood Risk Signage

Signage is to be provided on site for the duration of works to warn people that the site may be subject to flooding and to follow the designated evacuation routes.

18. Safety Measures

Safety measures, such as inlet/outlet screens or exclusion bars are required for the culverts in accordance with the procedures prescribed in the Queensland Urban Drainage Manual (QUDM).

19. Construction Traffic Management Plan (CTMP)

Prior to the commencement of works, a CTMP detailing vehicle routes, number of trucks, hours of operation, access arrangements, impact on pedestrians and traffic control must be submitted to Shellharbour City Council and approved by the Group Manager Asset Strategy.

It is the person benefitting from this consents responsibility to adequately inform all construction workers, sub-contractors and supervisors to ensure that the Construction Traffic Management procedures are adhered to at all times.

20. Lots and Site Filling

All filling must be performed under level 1 Geotechnical supervision in accordance with AS 3798-2007 or subsequent amendments.

21. Hours for Carrying out of any work

Construction may only be carried out between 7.00 am and 5.00 pm on Monday to Saturday and no construction is to be carried out at any time on a Sunday or a public holiday.

22. Maintenance of Erosion & Runoff Controls

The soil and water management controls must be maintained at all times and checked for adequacy daily. The controls must not be removed until the development is completed and the disturbed areas have been stabilised.

Maintenance must include but is not limited to ensuring:

a. all sediment fences, sediment traps and socks are properly placed and are working effectively

b. drains, gutters and roads must be maintained clear of sediment at all times.

It is an offence under the *Protection of the Environment Operations Act 1997* to allow soil or other pollutants to fall or be washed into any waters or be placed where it is likely to fall or be washed into any waters. Substantial penalties may be issued for any offence.

23. Waste Management

The management of waste must comply with the approved Waste Management Plan. Any variations to the Waste Management Plan must have prior written approval of Council.

24. Storage of Materials

Building materials and equipment must not be stored on the road reserve/footpath area.

25. Contamination - Unexpected Finds Contingency

Should any contamination or suspect material be encountered during site preparation, earth works, construction or any other stage of the development, then works must cease immediately and a suitably qualified consultant engaged to conduct a thorough contamination assessment.

In the event that contamination remediation is required, all works must cease and the Council must be notified immediately. The contamination assessment must be submitted to Council for approval.

All recommendations provided in the contamination assessment must be followed as stipulated.

26. Cultural Heritage

A stop work protocol must be included in the CEMP and implemented for any potential heritage items found during excavation including:

a. cease work immediately if any Aboriginal objects are found/uncovered,
b. secure the site, and
c. inform NSW Heritage and Shellharbour Council's Aboriginal Liaison Officer immediately.

27. General Environmental Safeguards

Storage areas should be located away from drainage lines to minimise risk of pollution and adverse impact to aquatic ecosystems.

A sterile cover-crop should be used to stabilise soil once earthworks have been completed.

Installation of sediment and runoff control measures to prevent runoff entering adjacent bushland areas consistent with the Landcom Blue Book (Landcom, 2004).

Weeds within the construction site should be controlled appropriately according to their class.

Wash down machinery before entering the site to limit weed spread. Washing or degreasing of vehicles, motors and other equipment must only be conducted in the designated washbay area from the approved Construction and Environmental Management Plan.

Ongoing weed control must be undertaken along the length of the works and around the site to reduce the impacts of edge effects on adjacent vegetation.

Suitable industry and use specific spill kits must be available on site at all times. Spill kits are to be maintained as per industry standards.

28. Grade interface at boundaries

The earthworks must be completed to ensure the transition of grade is to match the natural grade at the opposite boundaries.

29. Imported Fill Material

The only fill material that may be received at the development site is:

a. Virgin excavated natural material (within the meaning of the Protection of the Environment Operations Act 1997):or
b. Any other waste derived material the subject of a resource recovery exemption under clause 51A of the Protection of the Environment Operations (Waste) Regulation 2005 that is permitted to be used as fill material.

Any waste derived material the subject of a resource recovery exemption received at the development site must be accompanied by documentation as to the material's compliance with the exemption conditions and must be provided to the Certifying Authority on request.

The intent of this requirement is to ensure that imported fill is of an acceptable standard for environmental protection purposes.

Note: The application of waste derived material to land is an activity that may require a licence under the Protection of the Environment Operations Act. However, a licence is not required by the occupier of land if the only material applied to land is virgin excavated natural material or waste derived material the subject of a resource recovery exemption under clause 51A of the Protection of the Environment Operations (Waste) Regulation 2005.

30. Treatment of Acid Sulphate Soils

The importation, management and reuse of Acid Sulphate Soils is to be undertaken in accordance with the approved Acid Sulphate Soil Management Plan reference SMEC 3001886-R-12 Rev.1 dated 12.02.2021.

PART E - PRIOR TO OCCUPATION

Not applicable

PART F - PRIOR TO ISSUE OF SUBDIVISION CERTIFICATE

Not Applicable

PART G – AFTER COMPLITION OF WORKS

31. Potential Land Rectification Works

The site is to be returned to its original state (re-filled and revegetated to stabilise the land) where any future development application for the site redevelopment is refused. This work is to be commenced within 12 months of any determination regarding the future business park and/or playing fields.

PART H – OTHER APPROVALS

32. Endeavour Energy

Endeavour Energy

Chief Executive Officer
Shellharbour City Council

1 August 2021

ATTENTION: Madeline Cartwright

Dear Sir or Madam

I refer to the referral of 13 July 2021 from NSW Planning, Industry & Environment regarding NSW Government concurrence and referral request CNR-25048 for Shellharbour City Council Development Application DA0187/2021 at HARBOUR BOULEVARD SHELL COVE 2529 (Lot 1092 DP 1254727) for 'Bulk earthworks to establish preliminary ground levels for the subject lot prior to the preparation and lodgement of a future civil works and subdivision development application. Proposed works in this application includes cut to fill, fill import, fill export, construction of stormwater infrastructure'. Submissions need to be made to Council by 3 August 2021.

As shown in the below site plans from Endeavour Energy's G/Net master facility model (and extracts of Google Maps Street View) there is:

- An easement benefitting Endeavour Energy (indicated by red hatching) for 11,000 volt / 11 kilovolt (kV) (constructed at 22,000 volt / 22 kV) high voltage overhead power lines. The overhead conductor exits the easement at 11 kV high voltage going to pole mounted substation no. 32743 (indicated by the symbol). to the eastern side boundary.

  From pole mounted substation no. 32743:

  - The 11 kV high voltage overhead power lines go east to a metering unit (indicated by the symbol MU) and from there to a high voltage customer substation no. 92814 (indicated by the symbol HC) and from which there is a low voltage customer connection point for the high voltage customer.
  - There is an extended low voltage overhead service conductor utilising customer owned / private poles to provide a customer connection point for the site.

  The light orange colouring ( ) indicates this electricity infrastructure is 'Proposed Removed'.

- From Rangoon Avenue there are 11 kV high voltage underground cables and underground earth cables going to east to Lot 22 DP 1010797 to switch station no. 35622 (indicated by the symbol SS), then to a metering unit and to high voltage customer substation no. 36774 and from which there is a low voltage customer connection point for the high voltage customer.
- Low voltage (for streetlighting) and 11 kV high voltage (for the previously mentioned high voltage customer connection) underground cables to the Rangoon Avenue road verge /roadway.
- Low voltage and 11 kV high voltage underground cables to the Harbour Boulevard road verge / roadway.

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Please note the location, extent and type of any electricity infrastructure, boundaries etc. shown on the plan is indicative only. In addition it must be recognised that the electricity network is constantly extended, augmented and modified and there is a delay from the completion and commissioning of these works until their capture in the model. Generally (depending on the scale and/or features selected), low voltage (normally not exceeding 1,000 volts) is indicated by blue lines and high voltage (normally exceeding 1,000 volts but for Endeavour Energy's network not exceeding 132,000 volts / 132 kV) by red lines (these lines can appear as solid or dashed and where there are multiple lines / cables only the higher voltage may be shown). This plan only shows the Endeavour Energy network and does not show electricity infrastructure belonging to other authorities or customers owned electrical equipment beyond the customer connection point / point of supply to the property. This plan is not a 'Dial Before You Dig' plan under the provisions of Part 5E 'Protection of underground electricity power lines' of the *Electricity Supply Act 1995* (NSW).

Endeavour Energy has noted the following in the Statement of Environmental Effects addressing the easement over the site but, which based on the 'Proposed Removed' site plans from Endeavour Energy's G/Net master facility model, also appears to refer to the some of the other electricity infrastructure outside of the easement.

5.2 Shellharbour Development Control Plan 2017

Table 6 Summary of consistency with Shellharbour DCP 2017

Control	Comment
Easements	
23.1.9 Cut and fill platforms must not extend over a drainage easement.	There are easements for power and water to service the quarry. These are in the process of being removed as ongoing negotiation with the benefited party. No existing stormwater easements exist on the site.
23.1.10 Excavation associated with a development must not result in the loss of support of a drainage easement.	
23.1.11 No part of a retaining wall including footings and aggregate drainage lines must encroach onto a drainage easement or transmission line easement without the approval of the consent authority.	

Under Endeavour Energy's Company Policy 9.2.3 'Property Tenure for Network Assets', the company will assess all applications for the release of easements to identify and manage risks to its network, commercial and community interests. The company may seek compensation for the extinguishment of property tenure. No easement is considered to be redundant or obsolete until it is released under this policy.

Applications for the release / extinguishment of an easement can only be made by the registered landowners of the encumbered property and are usually done either:

- As part of an application for connection of load or capital works project for a development project eg. where alternative / new network arrangements are to be put in place, which is managed by Endeavour Energy's Network Connections Branch. Endeavour Energy's Network Connections Branch will make the applicant or their ASP aware of Endeavour Energy's requirements for the release of easement. Please refer to the above point 'Network Capacity / Connection'.

- At the request of landowners where the electrical assets within the easement have been removed or it has become apparent that the easement has possibly become redundant to Endeavour Energy's future network requirements eg. no electrical assets have ever been installed in the easement. Further details are available by contacting Endeavour Energy's Property Services Section via Head Office enquiries on business days from 9am - 4:30pm on telephone: 133 718 or (02) 9853 6666 or email network_property@endeavourenergy.com.au (underscore between 'network' and 'property'). The greater amount of detail provided will assist in the assessment of the application.

In some circumstances the release of easement may be for nil compensation eg. the affected land is subject to dedication as public road or as part of an asset relocation / capital works project where the alternative network arrangements occur at the same voltage and level of easement affectation. Otherwise the release will be subject to monetary compensation paid by the applicant having regard to the potential increase in value of the land as a result of the easement release / reduction in the extent of easement affectation (with appropriate consideration given to the applicant's alternative network arrangements).

Until such time as the electricity infrastructure is decommissioned and removed and any associated easement released, the following advice applies.

For the high voltage customer connections, as a high voltage customer the 'High Voltage Operational and Maintenance Protocol' between Endeavour Energy and the customer regarding the provision of high voltage supply to the site will specify a 'Load of Customers Installation'. The Protocol also identifies where Endeavour Energy's responsibility terminates (normally at the pole or pillar on the road verge from which supply is taken) in respect of:

- ownership of high voltage equipment;
- switching operations; and
- maintenance of equipment.

For the electricity infrastructure traversing the site which is not held under easement, these are regarded as protected assets and deemed to be lawful for all purposes under Section 53 'Protection of certain electricity works' of the *Electricity Supply Act 1995* (NSW). Essentially this means the owner or occupier of the land cannot take any action in relation to the presence in, on or over the land of electricity works ie. the electricity infrastructure cannot be removed to rectify the encroachment. These protected assets are managed as if an easement is in place – please refer to the below point 'Easement Management / Network Access'.

In accordance with Endeavour Energy's Mains Design Instruction MDI 0044 'Easements and Property Tenure Rights', as shown in the following extracts of Table 1 – 'Minimum easement widths', the 11 kV high voltage overhead power lines require a 9 metre minimum easement width ie. 4.5 metres to both sides of the centre line of the poles / conductors.

Table 1 - Minimum easement widths

	Voltage	Asset Type	Construction	Minimum Easement (m)
Overhead Assets	400V–22kV	Bare Construction	All	9
		ABC		
		CCT		

ABC = Aerial Bundled Cables CTT = Covered Conductor Thick

This easement width in some circumstances may not be warranted ie. depending on the span (the longer the span the greater the sag and blowout of the overhead power lines), type of conductor, access, property type and use etc. However if the easement width cannot be reasonably provided, as a minimum any building or structure (including fencing, signage, flag poles etc.) whether temporary or permanent must comply with the minimum safe distances / clearances for voltages up to and including 132,000 volts (132 kV) as specified in:

- Australian/New Zealand Standard AS/NZS 7000 – 2016: 'Overhead line design' as updated from time to time.
- 'Service and Installation Rules of NSW' which can be accessed via the following link to the Energy NSW website:

  https://energy.nsw.gov.au/government-and-regulation/legislative-and-regulatory-requirements/service-installation-rules .

These distances must be maintained at all times and regardless of the Council's allowable building setbacks etc. under its development controls. As a guide only please find attached a copy of Endeavour Energy Drawing 86232 'Overhead Lines Minimum Clearances Near Structures'. As indicated above in regard to the width of the easement, some of these factors will similarly impact on the minimum clearances.

If there is any doubt whatsoever regarding the safety clearances to the overhead power lines, the applicant will need to have the safety clearances assessed by a suitably qualified electrical engineer / Accredited Service Provider (please refer to the below point 'Network Capacity / Connection'. This will require the provision of a detailed survey plan showing the location of the conductors to enable the assessment / modelling of the clearances for which there are software packages available. If the safety clearances are inadequate, either the parts of the building or structure encroaching the required clearances or the overhead power lines will need to be redesigned to provide the required clearances.

Even if there is no issue with the safety clearances to the building or structure, ordinary persons must maintain a minimum safe approach distance of 3.0 metres to all voltages up to and including 132,000 volts / 132 kV. Work within the safe approach distances requires an authorised or instructed person with technical knowledge or sufficient experience to perform the work required, a safety observer for operating plant as well as possibly an outage request and/or erection of a protective hoarding.

Endeavour Energy's recommendation is that whenever reasonably possible buildings and structures be located and designed to avoid the need to work within the safe approach distances for ordinary persons eg. not having parts of the building normally accessible to persons in close proximity of the overhead power lines; the use of durable / low maintenance finishes. Alternatively, in some instances the adoption of an underground solution may be warranted ie. particularly for low voltage which can be more readily (in shorter distances) and comparatively economically be undergrounded.

For the 11 kV high voltage underground cables and underground earth cables, Endeavour Energy's Mains Design Instruction MDI 0044 'Easements and Property Tenure Rights', and as shown in the following extract of Table 1 – 'Minimum easement widths', requires a 3 metre minimum easement width ie. 1.5 metres to both sides of the centre line of the cable ducts (assumed to have no concrete protection unless proven otherwise).

Table 1 - Minimum easement widths

	Voltage	Asset Type	Construction	Minimum Easement (m)
Underground Assets	400V - 22kV		Underbore / Ducted / Direct buried	3
		Cables	Ducted ≤ 100m and with concrete protection *(min 50 mm concrete cover at standard burial depth)*	1

Endeavour Energy's Property Services Section has advised 'Easement documentation for the underground cables was signed in July 2020 and is currently with Council for signing'.

As indicated in the below point 'Easement Management / Network Access', any proposed works or activities within the easement or affecting the protected assets (even if not part of the Development Application) must be referred to Endeavour Energy's Easements Officer for assessment and possible approval provided it meets the minimum safety requirements and controls. However please note that this does not constitute or imply the granting of approval by Endeavour Energy to any or all of the proposed encroachments and / or activities within the easement.

Subject to the satisfactory resolution of the foregoing and the following recommendations and comments Endeavour Energy has no objection to the Development Application.

- Earthing

The construction of any building or structure (including fencing, signage, flag poles, hoardings etc.) whether temporary or permanent that is connected to or in close proximity to Endeavour Energy's electrical network is required to comply with Australian/New Zealand Standard AS/NZS 3000:2018 'Electrical installations' as updated from time to time. This Standard sets out requirements for the design, construction and verification of electrical installations, including ensuring there is adequate connection to the earth. It applies to all electrical installations including temporary builder's supply / connections.

Inadequate connection to the earth to allow a leaking / fault current to flow into the grounding system and be properly dissipated places persons, equipment connected to the network and the electricity network itself at risk from electric shock, fire and physical injury.

The earthing system is usually in the form of an earth electrode consisting of earth rods or mats buried in the ground. It should be designed by a suitably qualified electrical engineer / Accredited Service Provider (ASP) following a site-specific risk assessment having regard to the potential number of people could be simultaneously exposed, ground resistivity etc. For details of the ASP scheme please refer to the above point "Network Capacity / Connection'.

In particular appropriate consideration should be provided to the conductivity of the fencing within the easement where there is a possibility it could act as a conductor of electricity and dangerous currents may be carried along the fence. Where conductive / metal fencing is used it must be appropriately earthed eg. the by the use of isolation panels where the fence enters or exits the easement created by the use of timber posts and/or earth electrode installed adjacent to the easement.

- Easement Management / Network Access

The following is a summary of the usual / main terms of Endeavour Energy's electrical easements requiring that the land owner:

- Not install or permit to be installed any services or structures within the easement site.
- Not alter the surface level of the easement site.
- Not do or permit to be done anything that restricts access to the easement site without the prior written permission of Endeavour Energy and in accordance with such conditions as Endeavour Energy may reasonably impose.

Endeavour Energy's preference is for no activities or encroachments to occur within its easements. However, if any proposed works (other than those approved / certified by Endeavour Energy's Network Connections Branch as part of an enquiry / application for load or asset relocation project) will encroach/affect Endeavour Energy's easements or protected assets, contact must first be made with the Endeavour Energy's Easements Officer, Jennie Saban, on business days on mobile 0417484402 or alternately via email Jennie.Saban@endeavourenergy.com.au or Easements@endeavourenergy.com.au .

Please find attached for the applicant's reference copies of Endeavour Energy's:

- Mains Design Instruction MDI 0044 'Easements and Property Tenure Rights' which deals with activities / encroachments within easements.
- General Restrictions for Overhead Power Lines.
- General Restrictions for Underground Cables.

It is imperative that the access to the existing electrical infrastructure on and in proximity of the site be maintained at all times. To ensure that supply electricity is available to the community, access to the electricity infrastructure may be required at any time. Restricted access to electricity infrastructure by electricity workers causes delays in power restoration and may have severe consequences in the event of an emergency.

This is particularly important where there are poles or towers as in the event of fallen conductors, access to the restring overhead power lines will be required by electricity workers with heavy vehicles, machinery and materials essential for restoring electricity supply.

- Prudent Avoidance

The electricity industry has adopted a policy of prudent avoidance by doing what can be done without undue inconvenience and at modest expense to avert the possible risk to health from exposure to emissions form electricity infrastructure such as electric and magnetic fields (EMF) and noise which generally increase the higher the voltage ie. Endeavour Energy's network ranges from low voltage (normally not exceeding 1,000 volts) to high voltage (normally exceeding 1,000 volts but not exceeding 132,000 volts / 132 kV).

In practical terms this means that when designing new transmission and distribution facilities, consideration is given to reducing exposure and increasing separation distances to more sensitive uses such as residential or schools, pre-schools, day care centres or where potentially a greater number of people are regularly exposed for extended periods of time.

These emissions are usually not an issue but with Council's permitting or encouraging development with higher density, reduced setbacks and increased building heights, but as the electricity network operates 24/7/365 (all day, every day of the year), the level of exposure can increase.

Endeavour Energy believes that irrespective of the zoning or land use, applicants (and Council) should also adopt a policy of prudent avoidance by the siting of more sensitive uses eg. the office component of an industrial building, away from and less susceptible uses such as garages, non-habitable or rooms not regularly occupied eg. storage areas in a commercial building, towards any electricity infrastructure – including any possible future electricity infrastructure required to facilitate the proposed development.

Where development is proposed near electricity infrastructure, Endeavour Energy is not responsible for any amelioration measures for such emissions that may impact on the nearby proposed development.

Please find attached a copy of Energy Networks Association's 'Electric & Magnetic Fields – What We Know' which can also be accessed via their website at https://www.energynetworks.com.au/electric-and-magnetic-fields and provides the following advice:

> *Electric fields are strongest closest to their source, and their strength diminishes rapidly as we move away from the source.*
>
> *The level of a magnetic field depends on the amount of the current (measured in amps), and decreases rapidly once we move away from the source.*

Typical magnetic field measurements associated with Endeavour Energy's activities and assets given the required easement widths, safety clearances etc. and having a maximum voltage of 132,000 volt / 132 kV, will with the observance of these separation distances not exceed the recommended magnetic field public exposure limits.

- Vegetation Management

The planting of large trees near electricity infrastructure is not supported by Endeavour Energy. Particularly for overhead power lines, ongoing vegetation management / tree trimming is a significant network cost and falling trees and branches during storms are a major cause of power outages.

Suitable planting needs to be undertaken in proximity of electricity infrastructure (including any new electricity infrastructure required to facilitate the proposed development). Only low growing shrubs not exceeding 3.0 metres in height, ground covers and smaller shrubs, with non-invasive root systems are the best plants to use. Larger trees should be planted well away from electricity infrastructure (at least the same distance from overhead power lines as their potential full grown height) and even with underground cables, be installed with a root barrier around the root ball of the plant.

Landscaping that interferes with electricity infrastructure may become a potential safety risk, cause of bush fire, restrict access, reduce light levels from streetlights or result in the interruption of supply. Such landscaping may be subject to Endeavour Energy's Vegetation Management program and/or the provisions of the *Electricity Supply Act 1995* (NSW) Section 48 'Interference with electricity works by trees' by which under certain circumstances the cost of carrying out such work may be recovered.

Endeavour Energy's recommendation is that existing trees which are of low ecological significance in proximity of overhead power lines be removed and if necessary replaced by an alternative smaller planting. Any planting needs to ensure appropriate clearances are maintained whilst minimising the need for future pruning.

- Dial Before You Dig

Before commencing any underground activity the applicant is required to obtain advice from the ***Dial Before You Dig* 1100** service in accordance with the requirements of the *Electricity Supply Act 1995* (NSW) and associated Regulations. This should be obtained by the applicant not only to identify the location of any underground electrical and other utility infrastructure across the site, but also to identify them as a hazard and to properly assess the risk.

- Site Remediation

Endeavour Energy has noted the Contaminated Land Comment does not appear to identify the electricity infrastructure on or in vicinity of the site which is likely to become redundant assets as a result of the proposed development as potential areas of environmental concern (AEC) and associated contaminants of potential concern (COPC).

Endeavour Energy's Environmental Business Partner Team have advised that the remediation of soils or surfaces impacted by various forms of electricity infrastructure is not uncommon but is usually not significant eg. transformer oil associated with leaking substations, pole treatment chemicals at the base of timber poles etc. The method of remediation is generally the removal of the electricity infrastructure, removal of any stained surfaces or excavation of any contaminated soils and their disposal at a licensed land fill. The decommissioning and removal of the redundant electricity infrastructure will be dealt with by Endeavour Energy's Network Connections Branch as part of the application for the connection of load for the new development – please refer to the above point 'Network Capacity / Connection'.

If the applicant has any concerns over the remediation works related to redundant electricity infrastructure they should contact Environmental Business Partner Team via Head Office enquiries on business days from 9am - 4:30pm on telephone: 133 718 or (02) 9853 6666.

- Public Safety

Workers involved in work near electricity infrastructure run the risk of receiving an electric shock and causing substantial damage to plant and equipment. Please find attached copies of Endeavour Energy's public safety training resources, which were developed to help general public / workers to understand why you may be at risk and what you can do to work safely. The public safety training resources are also available via Endeavour Energy's website via the following link:

http://www.endeavourenergy.com.au/wps/wcm/connect/ee/nsw/nsw+homepage/communitynav/safety/safety+brochures .

If the applicant has any concerns over the proposed works in proximity of the Endeavour Energy's electricity infrastructure to the road verge / roadway, as part of a public safety initiative Endeavour Energy has set up an email account that is accessible by a range of multiple stakeholders across the company in order to provide more effective lines of communication with the general public who may be undertaking construction activities in proximity of electricity infrastructure such as builders, construction industry workers etc. The email address is Construction.Works@endeavourenergy.com.au .

- Emergency Contact

In case of an emergency relating to Endeavour Energy's electrical network, the applicant should note the Emergencies Telephone is 131 003 which can be contacted 24 hours / 7 days. Endeavour Energy's contact details should be included in any relevant risk and safety management plan.

I appreciate not all the foregoing issues may be directly relevant or significant to the Development Application. However, Endeavour Energy's preference is to alert proponents / applicants of the potential matters that may arise should development within closer proximity of the existing and/or required electricity infrastructure needed to facilitate the proposed development on or in the vicinity of the site occur.

Please note that Endeavour Energy can only assess the Development Application based on the information provided by the applicant and Council. Due to time and resource constraints it is not possible to refer all development application notifications to the relevant internal stakeholders for review and advice or to request additional information from the applicant or Council. Applicants should be providing proper detailed plans of the electricity infrastructure / easements on or near the site and address the potential impacts of the proposed development thereon in the Statement of Environmental Effects. The provision of inadequate detail may result in Endeavour Energy objecting to the Development Application.

Could you please pass on a copy of this submission and the attached resources to the applicant? Should you wish to discuss this matter, or have any questions, please do not hesitate to contact me or the contacts identified above in relation to the various matters. Due to the high number of development application / planning proposal notifications submitted to Endeavour Energy, to ensure a response contact by email to property.development@endeavourenergy.com.au is preferred.

With the COVID-19 health risk a significant number of Endeavour Energy staff are working from home. Access to emails and other internal stakeholders can accordingly be somewhat limited. As a result it may sometimes take longer than usual to respond to enquiries. Thank you for your ongoing understanding during this time.

Your faithfully
Cornelis Duba
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Network Environment & Assessment
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Endeavour Energy

REASONS FOR THE IMPOSITION OF CONDITIONS

1. To minimise any possible adverse environmental impacts of the proposed development.

2. To ensure that the amenity and character of the surrounding area is protected.

3. To ensure that the design and siting of the development complies with the provisions of Environmental Planning Instruments and Council's Codes and Policies.

4. To ensure that the development does not conflict with the public interest.

Advisory Notes – Project Specific

Finished Site Ground Levels

This DA is for the carrying out of bulk earthworks only and therefore proposed ground levels are subject to change under any future DA for residential subdivision.

Advisory Notes - General

Erection of Signs

The principal contractor and the Principal Certifier will need to have a sign (or signs) erected and maintained on the development site that provides their name and contact telephone number (during and outside work hours for the principal contractor), and stating that unauthorised entry to the site is prohibited. The principal contractor and Principal Certifier can have separate signs or they can both use one sign if they choose.

A maximum penalty of 10 penalty units applies for failure to erect and maintain sign(s) detailing principal contractor and Principal Certifier identification.

SafeWork NSW

The requirements of SafeWork NSW must be satisfied at all times.

Failure to Comply with Consent

Failure to comply with any of the conditions of consent may result in a Penalty Infringement Notice being issued against the owner/applicant/builder. Substantially greater penalties may be imposed by the Court for non-compliance.

Lapsing of Development Consent

In accordance with Part 4, Division 4.9, section 4.53 of the *Environmental Planning & Assessment Act 1979*, the development approval lapses seven years after the approval date unless building, engineering or construction work relating to the building has physically commenced.

Right to Appeal

If you are dissatisfied with this decision, Part 8, Division 8.3, section 8.7 of the *Environmental Planning & Assessment Act 1979* gives you the right to appeal to the Land & Environment Court within twelve months after the date on which you receive this notice.

Review of Determination

If you are dissatisfied with this decision, Part 8, Division 8.2 of the *Environmental Planning & Assessment Act 1979* provides that you may request Council to review its determination. The request cannot be made after the time limit for making of an appeal under section 97 expires.

Division 8.2 of the *Environmental Planning & Assessment Act 1979* does not apply to:

a. a determination to issue or refuse to issue a complying development certificate

b. a determination in respect of designated development

c. a determination in respect of integrated development

d. a determination made by the Council under Division 4 in respect of an application made by the Crown.

To Vary Development Consent

The plans and/or conditions of this consent are binding and may only be varied upon application to Council under section 4.55 of the *Environmental Planning & Assessment Act 1979*. The appropriate fee shall accompany the

application and no action shall be taken on the requested variation unless and until the written authorisation of Council is received by way of an amended consent.

Dial Before You Dig

Underground assets may exist in the area that is subject to your application. In the interests of health and safety and in order to protect damage to third party assets, please contact Dial Before You Dig at www.1100.com.au <http://www.1100.com.au/> or telephone on 1100 before excavating or erecting structures (this is the law in New South Wales). If alterations are required to the configuration, size, form or design of the development upon contacting the Dial Before You Dig service, an amendment to the development consent (or a new development application) may be necessary. Individuals owe asset owners a duty of care that must be observed when working in the vicinity of plant or assets. It is the individual's responsibility to anticipate and request the nominal location of plant or assets on the relevant property via contacting the Dial Before You Dig service in advance of any construction or planning activities.

***Telecommunications Act 1997* (Commonwealth)**

Telstra (and its authorised contractors) are the only companies that are permitted to conduct works on Telstra's network and assets. Any person interfering with a facility or installation owned by Telstra is committing an offence under the *Criminal Code Act 1995* (Commonwealth) and is liable for prosecution. Furthermore, damage to Telstra's infrastructure may result in interruption to the provision of essential services and significant costs. If you are aware of any works or proposed works which may affect or impact on Telstra's assets in any way, you are required to contact Telstra's Network Integrity Team on 1800810443.

Development within Vicinity of a High Pressure Gas Main

Contact Dial Before You Dig on 1100 or www.dialbeforeyoudig.com.au <http://www.dialbeforeyoudig.com.au/> Proposed works in the vicinity of any high pressure gas main must be directed to:

Jemena Asset Management Pty Ltd
PO Box 6507
SILVERWATER NSW 2128

Attention: Land Services Department

Prescribed Payment System Tax Obligations

You may have a taxation obligation under the Prescribed Payment System. For more information, contact the Australian Taxation Office on telephone 132866.

END OF NOTICE