

ENGINEERING SERVICES ASSESSMENT REPORT

For

Plantation Retirement Resorts

Vertical Retirement Village

Lot 8002 Baringa Drv, Aura

Job Ref: SC- 10007

January 2024

PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

Approval no: DEV2024/1474
Date: 08 May 2024




Empire

Engineering

AUTHORSHIP INFORMATION

REPORT TITLE	Engineering Services Assessment Report
Affected Properties	
Street Address	Lot 8002 Baringa Drv, Aura
RP Description	8002 SP309500
Prepared For	Plantation Retirement Resorts
Report Status	For DA Approval
Prepared By	
Name	Sean Dwyer
Qualifications	BE (Civil) CPEng RPEQ
Phone Number	07 5477 6437
Reviewed By	
Name	Troy Paulsen
Qualifications	RPEQ 6990
Phone Number	07 5477 6437
Approved By	
Name	Troy Paulsen
Qualifications	RPEQ 6990
Phone Number	07 5477 6437

REVISION	DATE	Reviewed/ Approval
A	29.01.2024	

PLANS AND DOCUMENTS
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1.0 Introduction

1.1 Background

This report is to accompany and be considered part of an application to Economic Development Queensland (EDQ) to gain a Development Approval for a proposed Vertical Retirement Village development on Lot 8002 Baringa Drv, Aura. This application seeks a PDA Development Permit for a Material Change of Use for Multiple Residential Unit Dwellings - stages 1 and 2.

1.2 Scope

This report covers issues related to civil infrastructure required to suitably service the site. The civil infrastructure to be addressed includes, water reticulation, sewer reticulation, stormwater, electrical and telecommunications.

The objective of this report is to demonstrate that the proposed development can be supported by the existing infrastructure, serviced by new infrastructure and that the development is compliant with the Sunshine Coast Planning Scheme 2014, Queensland Streets, Australian Standards and other relevant guidelines. Figure 1.1 indicates the location of the site.

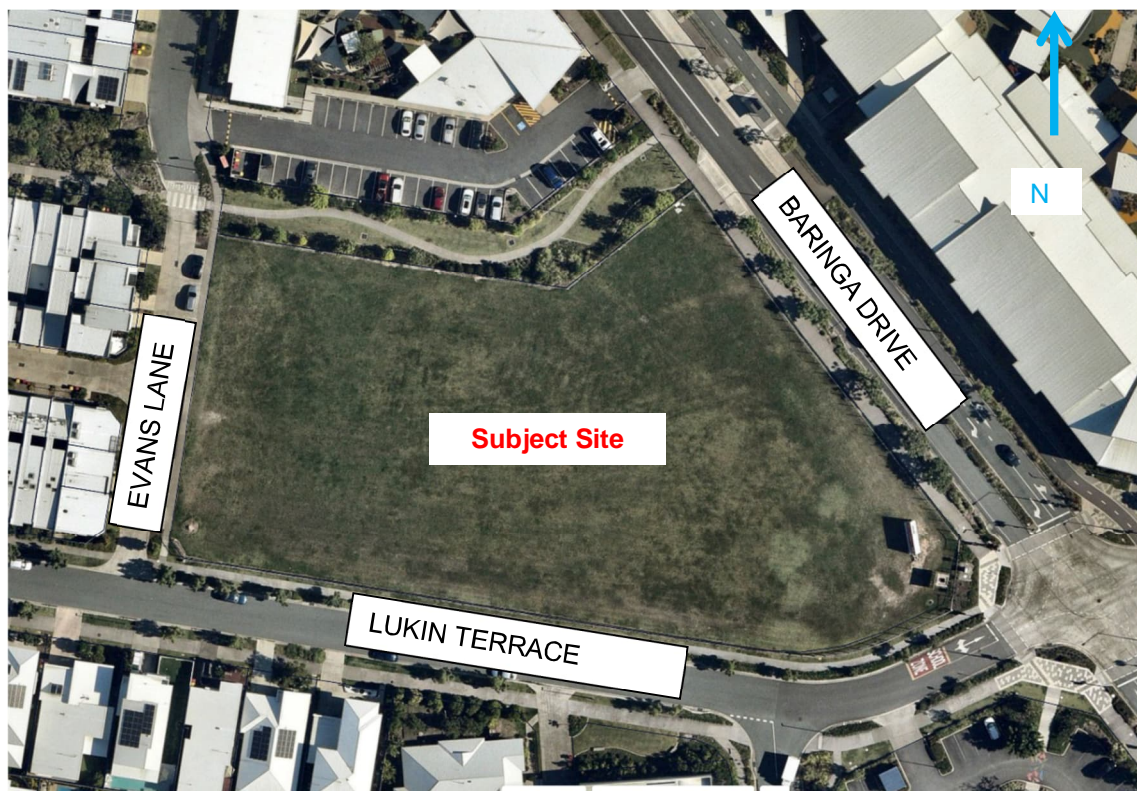


Figure 1.1 - Subject Site

1.3 Existing Topography

The site generally falls from west to east. There is approximately 1m of fall across the lot. Earthworks for the site were previously completed as part of the Aura Estate, as such the site is generally cleared of large vegetation with low growing grass coverage.

1.4 Proposed Development

Preliminary architectural drawings prepared by OGE Group Architects depict a proposed residential 92 unit development with associated ground floor parking and associated access driveways.

2.0 Existing Infrastructure Assessment

2.1 Water Supply

The site is serviced by an existing water connection located at the western end of the site along Evans Lane which is connected to a 100mm diameter main. This connection will not be used and a new connection coming from the 150mm main in Lukin Terrace will be proposed under separate application to Unitywater for Connection Approval.

An application to Unitywater will be required for the approval and construction of the site master meter. A plumbing and drainage approval will also be required from Sunshine Coast Council for the internal water reticulation, which will be carried out by the hydraulics consultant as part of detailed design.

Upon Council approval, water main pressure tests may be required to determine the extent of booster valves (if any) to ensure adequate firefighting pressure as determined by the hydraulic consultant.

Refer to Appendix A for *DBYD* GiS information.

2.2 Sewerage

The site has an existing sewer connection located adjacent Lukin Tce and Baringa Drv.. The existing sewer connection will be used as the sole connection for sewerage to the site. The connection will be subject to Unitywater approval. A plumbing and drainage approval from Sunshine Coast Council will be required for the sanitary drainage, which will be completed as part of the detailed design.

The lot will require a 150mm diameter sewer house connection as the development is a multi-unit development.

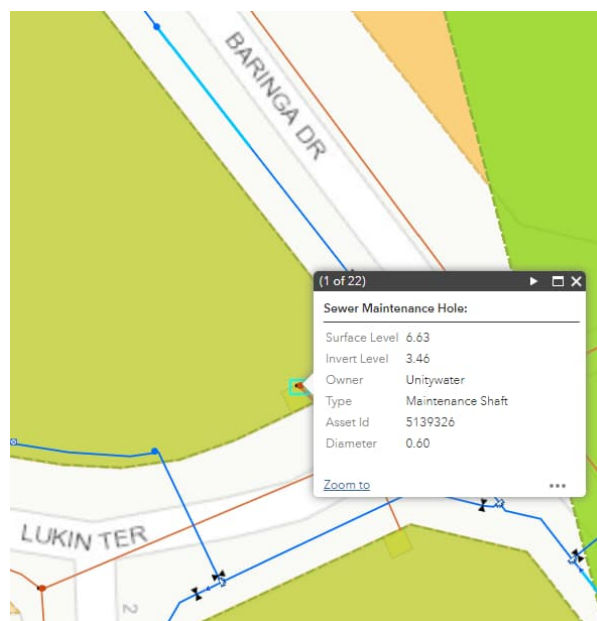


Figure 2.2 – Existing Sewer Manhole Connection

Refer to Appendix A for *DBYD* GiS information.

2.3 Telecommunication and Electrical

Electrical supply will need to be confirmed by a relevant Electrical Engineering consultant; however it is likely a transformer will be required. A proposed Pad Mount Transformer is to be located at the western end of the site to the corner of Evans Lane and Lukin Terrace which will provide the main supply point to the site.

The site will be serviced with electrical and telecommunication reticulation in accordance with agreements with the relevant providers.

Refer to Appendix A for *DBYD* GiS information.

2.4 Stormwater Management

Stormwater will be conveyed by a combination of road surface flows and an underground pipe network. An existing stormwater connection point is provided along the eastern edge of the site which connects to the external major drainage line on the corner of Baringa Drive and Lukin Terrace.

A Stormwater Quality Management Plan (SWQMP) has been prepared by Empire Engineering and should be read in conjunction with this report. The SWQMP sets out the required water quality performance objectives and the treatment system required to achieve the objectives.

In summary, the treatment strategy comprises the construction of six (3) ATLAN Stormsacks distributed across the site and thirteen (10) ATLAN Filter cartridges in an ATLAN precast rectangular tank. The Stormsacks and Filter cartridges will treat local catchments prior to discharging to the broader stormwater network.

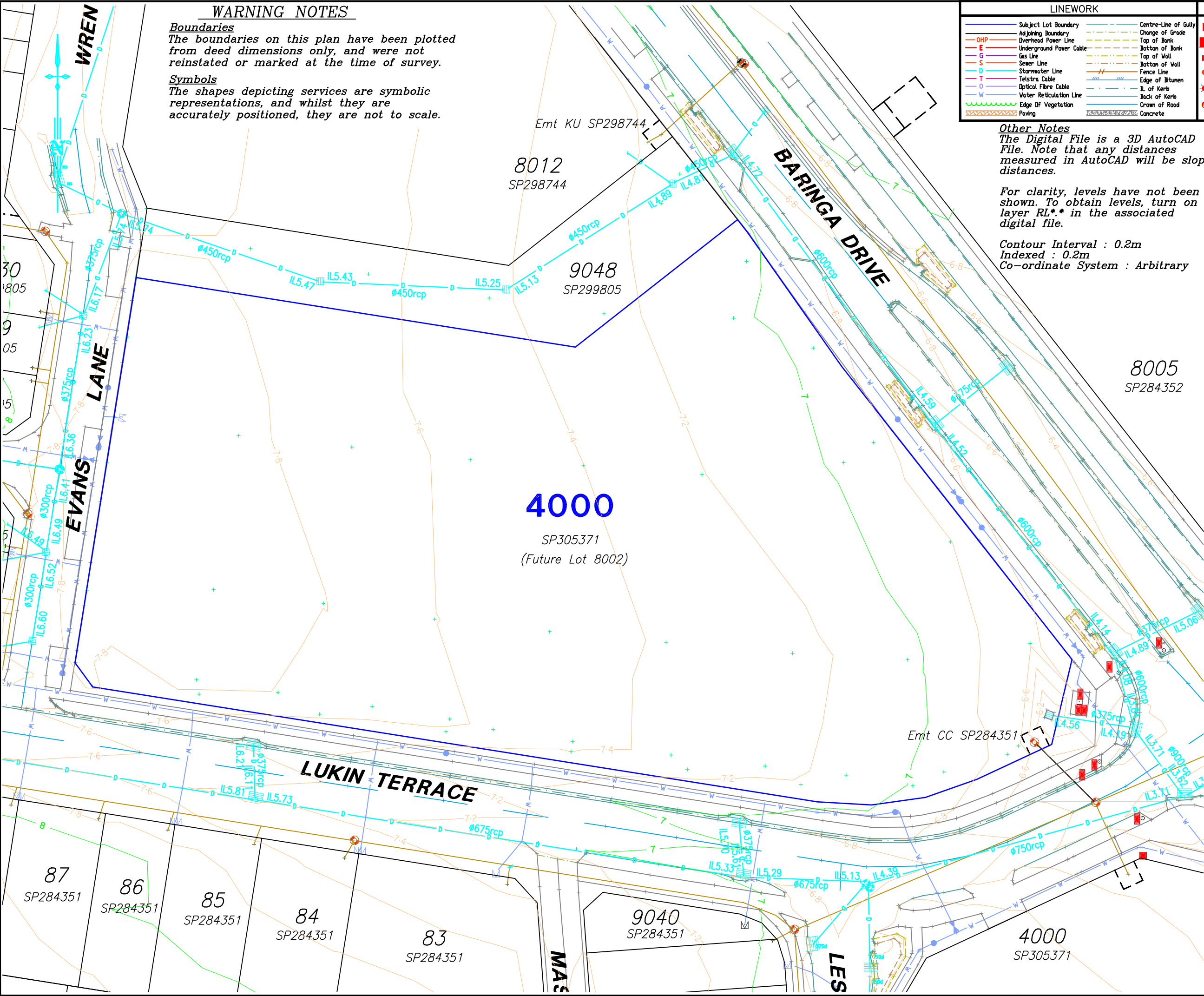
Refer to Appendix A for *DBYD* GiS information.

3.0 Conclusions

The findings of this 'Engineering Report' support the development proposal to Council. All required essential services can be suitably provided to the development including:

- Reticulated Water
- Reticulated Sewerage
- Telecommunications and Electricity Supply; and
- Stormwater Infrastructure.

APPENDIX A – SURVEY & DBYD GIS SEARCHES



WARNING NOTES

Boundaries
The boundaries on this plan have been plotted from deed dimensions only, and were not reinstated or marked at the time of survey.

Symbols
The shapes depicting services are symbolic representations, and whilst they are accurately positioned, they are not to scale.

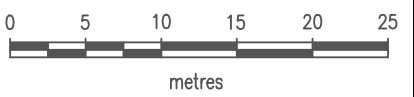
LINEWORK		SYMBOLS	
Subject Lot Boundary	Centre-Line of Gully	Electricity Pit	Telstra Pit
Adjoining Boundary	Change of Grade	Electricity Manhole	Telstra Manhole
OHP Overhead Power Line	Top of Bank	Electricity Pillar	Telstra Pillar
Underground Power Cable	Bottom of Bank	Power Pole	Telstra Marker
Gas Line	Top of Wall	Sewer Line	Telstra Cable
Sewer Line	Bottom of Wall	Stormwater Line	Optical Fibre Cable
Telstra Cable	Fence Line	Water Reticulation Line	Water Reticulation Line
Optical Fibre Cable	Edge of Bitumen	Edge of Vegetation	Paving
Water Reticulation Line	IL of Kerb		
Edge of Vegetation	Back of Kerb		
Paving	Crown of Road		
	Concrete		

Electricity	Telstra	Stormwater	Water	Tree
Pit	Pit	Manhole	Meter	
Manhole	Manhole	Gully	Trap	Shrub
Pillar	Pillar	Field	Valve	Palm Tree
Marker	Marker	Inlet	Hydrant	
Post	Post	Manhole	Water	Bench
Opening	Opening	Inspection	Marker	Mark
Light	Light	Valve	Sign	Traffic
Marker	Valve			Sign

Other Notes
The Digital File is a 3D AutoCAD File. Note that any distances measured in AutoCAD will be slope distances.

For clarity, levels have not been shown. To obtain levels, turn on layer RL*.* in the associated digital file.

Contour Interval : 0.2m
Indexed : 0.2m
Co-ordinate System : Arbitrary



SCALE 1:500 IS APPLICABLE ONLY TO THE ORIGINAL SHEET SIZE. (A3)

Date :	21.02.2020
Drafted By :	RCG
Surveyed :	MPV
Checked By :	MRT
DWG Name :	124697-336.dwg
Scale :	1:500@A3
Sheet Size :	A3
12d File Ref :	124697-070
Level Datum :	AHD
Origin :	

CLIENT
Coast2bay Housing Group

PROJECT
Proposed Lot 8002

Partial Detail and Contour Survey
Over Lot 4000 on SP305371
Baringa Drive, Baringa

Local Authority :
Sunshine Coast Regional Council

RPS Australia East Pty Ltd
ACN 140 292 762
ABN 44 140 292 762
1 Innovation Parkway, Birtinya, Qld, 4575
PO BOX 6149, Meridan Plains, Qld, 4551

T 07 5436 7888
F 07 5493 6630
W rpsgroup.com

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Plan Reference 124697-336	Sheet 1 of 1
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Contact Details

Contact	Contact number	Company	Enquirer ID
Sean Dwyer	(07) 5477 6437	Empire Engineering Pty Ltd	3320226
Email		Address	
sean@empireengineering.com.au		PO Box 102 Mooloolaba QLD 4556	

Job Site and Enquiry Details

WARNING: The map below only displays the location of the proposed job site and does not display any asset owners' pipe or cables. The area highlighted has been used only to identify the participating asset owners, who will send information to you directly.

Enquiry date	Start date	End date	On behalf of	Job purpose	Locations	Onsite activities
25/01/2024	08/02/2024	07/03/2024	Private	Excavation	Both Road, Nature Strip, Footpath	Manual Excavation



Check that the location of the job site is correct. If not, you must submit a new enquiry.

If the scope of works change or plan validity dates expire, you must submit a new enquiry.

Do NOT dig without plans. Safe excavation is your responsibility. If you don't understand the plans or how to proceed safely, please contact the relevant asset owners.

User Reference	Address	Notes/description
SC-10007	Lot 8002 Baringa Drive Baringa QLD 4551	NA

Your Responsibility and Duty of Care

- Lodging an enquiry does not authorise project commencement.** Before starting work, you must obtain all necessary information from all affected asset owners.
- If you don't receive plans within 2 business days, contact the asset owner & quote their sequence number.
- Always follow the 5Ps of Safe Excavation (page 2), and locate assets before commencing work.
- Ensure you comply with State legislative requirements for Duty of Care and safe digging.
- If you damage an underground asset, you MUST advise the asset owner immediately.
- By using the BYDA service, you agree to the [Privacy Policy](#) and [Term of Use](#).
- For more information on safe digging practices, visit www.byda.com.au

Asset Owner Details

Below is a list of asset owners with underground infrastructure in and around your job site. It is your responsibility to identify the presence of these assets. Plans issued by Members are indicative only unless specified otherwise. Note: not all asset owners are registered with BYDA. You must contact asset owners not listed here directly.

Referral ID (Seq. no)	Authority Name	Phone	Status
234565208	Energex QLD	13 12 53	NOTIFIED
234565206	NBN Co Qld	1800 687 626	NOTIFIED
234565205	Sunshine Coast Regional Council	(07) 5475 8719	NOTIFIED
234565209	Telstra QLD South East	1800 653 935	NOTIFIED
234565207	Unitywater North	1300 086 489	NOTIFIED

END OF UTILITIES LIST

All underground cables shall be treated as being energised. Where a cable is located that is not represented on the ENERGEX BYDA map, then ENERGEX shall be contacted immediately.

For Emergency Situations
please call 13 19 62



BYDA

Sequence: 234565208

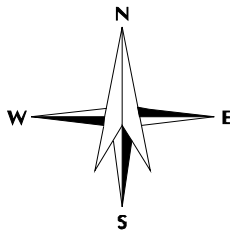
Date: 25/01/2024

Scale: 1:1025

OVERVIEW

For a full list of Map
Symbols, please
refer to the supplied
BYDA Symbology
Legend page

AS5488 Category "D" Plan



DISCLAIMER: While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither Energex nor PelicanCorp shall have any liability whatsoever in relation to any loss, damage, cost or expense arising from the use of this plan response or the information contained in it or the completeness or accuracy of such information. Use of such information is subject to and constitutes acceptance of these terms.

This output provides details of the ENERGEX electrical network. As variations map exist no responsibility is incurred by ENERGEX for the accuracy or completeness of the information provided. Exact positions of cables and electrical connectivity should be confirmed on site.

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BYDA

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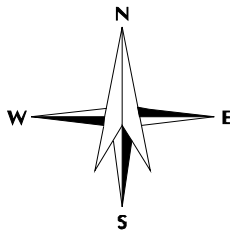
Date: 25/01/2024

Scale: 1:500

Tile No: 1

For a full list of Map
Symbols, please
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BYDA Symbology
Legend page

AS5488 Category "D" Plan



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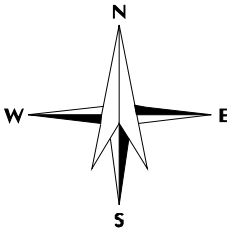


BYDA

Sequence: 234565208
Date: 25/01/2024
Scale: 1:500
Tile No: 2

For a full list of Map
Symbols, please
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BYDA Symbolology
Legend page

AS5488 Category “D” Plan



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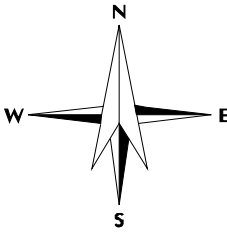


BYDA

Sequence: 234565208
Date: 25/01/2024
Scale: 1:500
Tile No: 3

For a full list of Map
Symbols, please
refer to the supplied
BYDA Symbology
Legend page

AS5488 Category “D” Plan



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All underground cables shall be treated as being energised. Where a cable is located that is not represented on the ENERGEX BYDA map, then ENERGEX shall be contacted immediately.

For Emergency Situations
please call 13 19 62

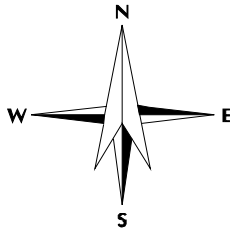


BYDA

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Date: 25/01/2024
Scale: 1:500
Tile No: 4

For a full list of Map
Symbols, please
refer to the supplied
BYDA Symbology
Legend page

AS5488 Category “D” Plan



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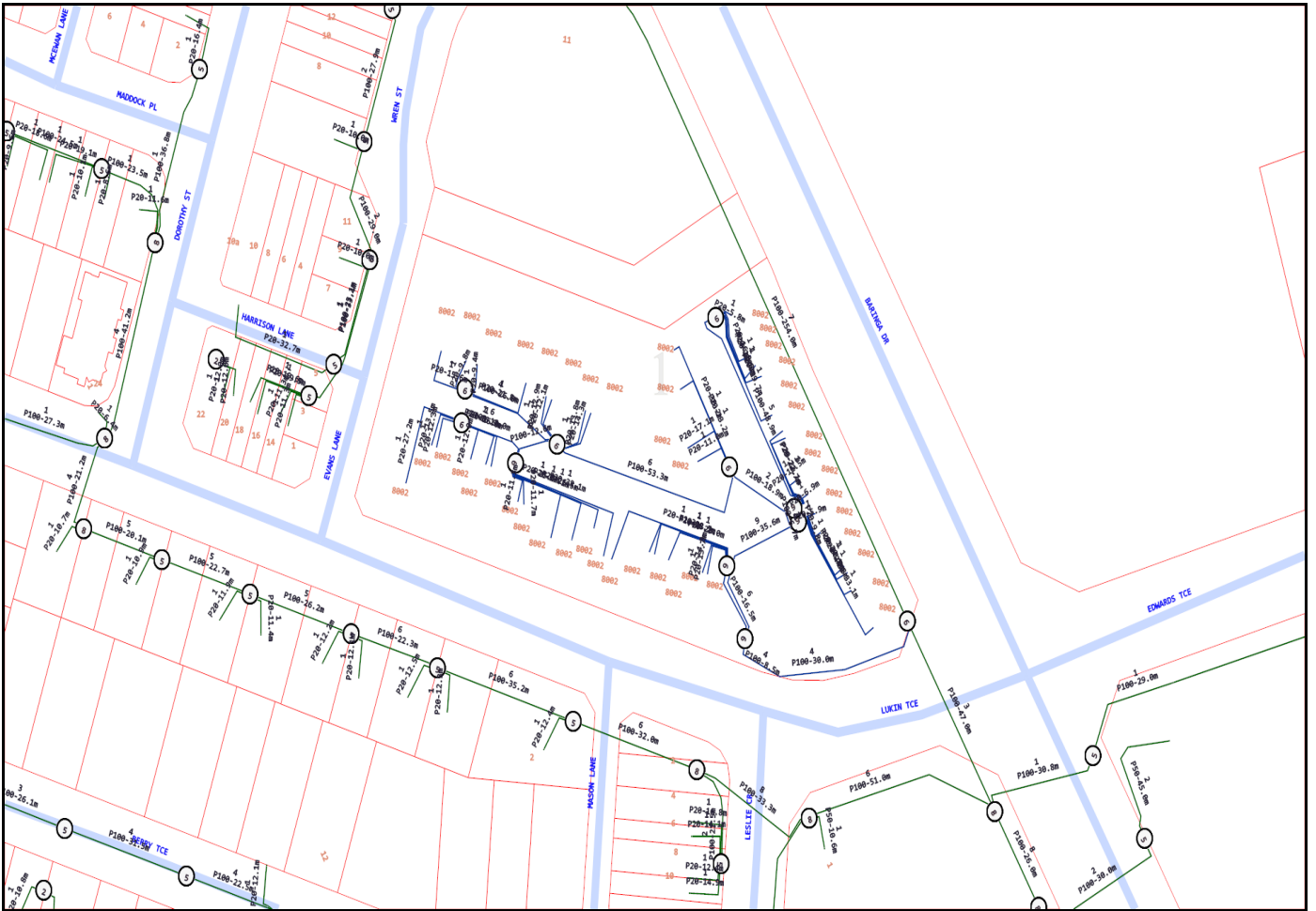
This output provides details of the ENERGEX electrical network. As variations map exist no responsibility is incurred by ENERGEX for the accuracy or completeness of the information provided. Exact positions of cables and electrical connectivity should be confirmed on site.



LEGEND



	Parcel and the location
	Pit with size "5"
	Power Pit with size "2E". Valid PIT Size: e.g. 2E, 5E, 6E, 8E, 9E, E, null.
	Manhole
	Pillar
	Cable count of trench is 2. One "Other size" PVC conduit (PO) owned by Telstra (-T-), between pits of sizes, "5" and "9" are 25.0m apart. One 40mm PVC conduit (P40) owned by NBN, between pits of sizes, "5" and "9" are 20.0m apart.
	2 Direct buried cables between pits of sizes, "5" and "9" are 10.0m apart.
	Trench containing any INSERVICE/CONSTRUCTED (Copper/RF/Fibre) cables.
	Trench containing only DESIGNED/PLANNED (Copper/RF/Fibre/Power) cables.
	Trench containing any INSERVICE/CONSTRUCTED (Power) cables.
	Road and the street name "Broadway ST"
Scale	0 20 40 60 Meters 1:2000 1 cm equals 20 m



Emergency Contacts

You must immediately report any damage to the **nbn™** network that you are/become aware of. Notification may be by telephone - 1800 626 329.



Plans generated by SmarterWX™
Automate

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In an emergency contact Sunshine
Coast Council on (07) 5475 7272



Job # 35879720

Seq # 234565205

Legend

Electrical Infrastructure

- ⓔ Electrical Pits
- Electrical Poles
- Electrical Conduits

Communications Infrastructure

- ⓐ Communications Pits
- Communications Conduits

Stormwater Network

- CatchPit
- FieldInlet
- Manhole
- - - Allotment
- Pipe

Scale 1:1,000 0 5 10 20
m

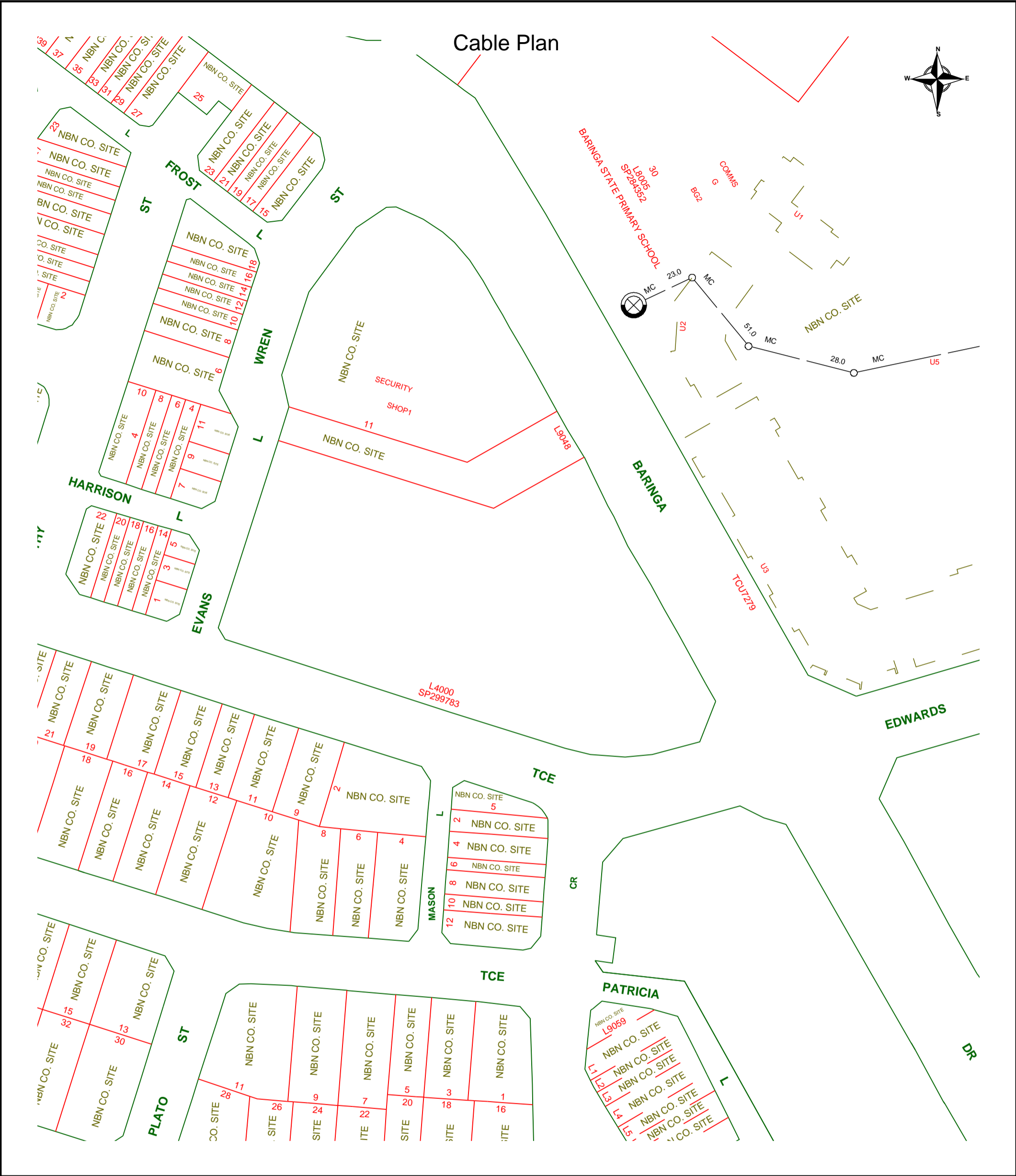
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Report Damage: <https://service.telstra.com.au/customer/general/forms/report-damage-to-telstra-equipment>
Ph - 13 22 03
Email - Telstra.Plans@team.telstra.com
Planned Services - ph 1800 653 935 (AEST bus hrs only) General Enquiries

TELSTRA LIMITED A.C.N. 086 174 781

Generated On 25/01/2024 13:42:24

Sequence Number: 234565209


CAUTION: Fibre optic and/ or major network present in plot area. Please read the Duty of Care and contact Telstra Plan Services should you require any assistance.

The above plan must be viewed in conjunction with the Mains Cable Plan on the following page

WARNING
Telstra plans and location information conform to Quality Level "D" of the Australian Standard AS 5488-Classification of Subsurface Utility Information. As such, Telstra supplied location information is indicative only. Spatial accuracy is not applicable to Quality Level D. Refer to AS 5488 for further details. The exact position of Telstra assets can only be validated by physically exposing it. Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy. Further on site investigation is required to validate the exact location of Telstra plant prior to commencing construction work. A Certified Locating Organisation is an essential part of the process to validate the exact location of Telstra assets and to ensure the asset is protected during construction works.

See the Steps- Telstra Duty of Care that was provided in the email response.



	<p>Report Damage: https://service.telstra.com.au/customer/general/forms/report-damage-to-telstra-equipment Ph - 13 22 03 Email - Telstra.Plans@team.telstra.com Planned Services - ph 1800 653 935 (AEST bus hrs only) General Enquiries</p>	<p>Sequence Number: 234565209</p> <p>CAUTION: Fibre optic and/ or major network present in plot area. Please read the Duty of Care and contact Telstra Plan Services should you require any assistance.</p>

WARNING

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Refer to AS 5488 for further details. The exact position of Telstra assets can only be validated by physically exposing it.

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