

Surveying Consulting Services

Part 1 – Desktop Analysis Review for Milton Primary School

Prepared for:

(Commercial in Confidence)



Project Name	SINSW Due Diligence – Milton PS
Report Title	Survey Report
File Name	Land Survey DD – Milton – 2565 - Astrea – DDW005391/23

School Name	Milton Public School	Consultancy Name	Astrea Pty Ltd
School ID Number	2565	Report Status	Final
School Address	9 Thomas Street, Milton.	Report Date:	30.10.2023
School Region	Southern NSW	Contract Number:	DDW005391/23

Report Information

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Report Version	A
Report Date	30.10.2023
Project Reference	A4065-Milton

Document History

Issue Date	Status	Comment/Description	Author	Reviewer	Approved
30.10.2023	Draft	Initial Issue	Scott Deveridge	Edyta Krynicka	
14.12.2023	Final	Final Issue	Scott Deveridge	Edyta Krynicka	

Acronyms and Definitions

Acronym	Definition
AHD	Australian Height Datum
MGA	Map Grid of Australia
BYDA	Before You Dig Australia
AS5488	Australian Standard for Classification of Subsurface Utility Information
PM	Permanent Mark
SSM	State Survey Mark

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1 EXECUTIVE SUMMARY

Astrea was engaged to assist with the due diligence assessment of Milton Primary School. The scope of work included a desktop study, topographical survey and underground services survey.

We have collected, reviewed, and analysed all existing available site information. Land title information, survey control, and underground services have all been thoroughly searched from public records.

All information recovered has been summarised in this report and also provided within a dropbox folder. This folder also contains photographs taken on site. Appendix A of this report contains a summary of the cadastral land search.

A site detailed survey was undertaken in accordance with the scope of works contained in Part 2 of the Surveying Consulting Services brief version 1.5. The results of this survey have been summarised in this report and also in full in Appendix C and within a dropbox folder as Autocad dwg file and sheeted pdf.

The existing land, Lot 1 in DP 861814, is affected by an easement for padmount substation, an easement for underground cables, and associated restriction on use of land as shown on the survey plans. It is also subject to Reservations and conditions contained in the crown grant. The land benefits from an easement to drain water on the residential land to the east. The area of the existing site is 4.042 Ha.

As part of the topographical survey scope we search public utilities through a BYDA search. The results of that search have been summarised in Appendix B of this report.

Astrea has also undertaken subsurface utility investigations using non-invasive electromagnetic trace equipment at the proposed school site and surrounds. These services have been marked in field and subsequently surveyed to provide a utilities plan to aid in future planning and development.

The majority of utilities have been traced to QL-B specification – These traced utilities makeup the main services routes that show incoming water, electrical, gas and communication feeds to and from each building. The outgoing sewer and stormwater network has been investigated at pit interfaces and joined into the network where evidence exists.

2 INTRODUCTION AND BACKGROUND

Milton Public School:



As instructed, we have completed a desktop analysis review, detailed site survey, and underground service detection and survey in accordance with Contract ID DDWO05391/23. We understand the purpose of the survey is to assist with the due diligence around future replacement of demountables with permanent classrooms.

The scope of work is compliant with the Surveying Consulting Services, version 1.5, dated 21.03.2022, as provided with the request for tender. Part 1 – Desktop Analysis Review and Part 2 – Detailed Site Survey formed part of this work.

There were no other site documents provided to us.

We searched and ordered public records for land title and cadastral records, permanent survey control, and BYDA records for underground services.

The survey was undertaken during September 2023.

2.1 Limitations

We have made every effort to collect, review and analyse all existing available site information and documentation. Within the detailed survey scope we have also made every effort to find visible services on the site and correlate with public utility records.

Some tracing/equipment limitations have been encountered within this investigation. These limitations include sewer lines that require specialised tracing equipment to determine lines/networks.

Astrea has tabled the significant information gaps within the report and recommends actions should the information be required for planning/design. These include - revisiting sections on completion of building works, CCTV pipe inspection and Non-Destructive Digging.



LAND
REGISTRY
SERVICES

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

Title Search

Information Provided Through
Aussearch
Ph. 02 9054 6867 Fax.

FOLIO: 1/861814

SEARCH DATE	TIME	EDITION NO	DATE
19/9/2023	2:18 PM	2	8/12/2007

LAND

LOT 1 IN DEPOSITED PLAN 861814
AT MILTON
LOCAL GOVERNMENT AREA SHOALHAVEN
PARISH OF ULLADULLA COUNTY OF ST VINCENT
TITLE DIAGRAM DP861814

FIRST SCHEDULE

MINISTER FOR EDUCATION AND TRAINING (CA58890)

SECOND SCHEDULE (5 NOTIFICATIONS)

- 1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
- 2 DP1007477 EASEMENT TO DRAIN WATER 1 METRE(S) WIDE APPURTENANT TO THE LAND ABOVE DESCRIBED
- 3 DP1120833 RESTRICTION(S) ON THE USE OF LAND
- 4 DP1120833 EASEMENT FOR PADMOUNT SUBSTATION 2.75 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN DP1120833
- 5 DP1120833 EASEMENT FOR UNDERGROUND CABLES 1 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN DP1120833

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

The existing land, Lot 1 in DP 861814, is affected by an easement for padmount substation, an easement for underground cables, and associated restriction on use of land as shown on the survey plans. It is also subject to Reservations and conditions contained in the crown grant. The land benefits from an easement to drain water on the residential land to the east. The area of the existing site is 4.042 Ha.

These easements are shown on the site detailed survey and highlighted on the cadastral map in this report.

Aerial Map of the Neighborhood

Legend:

- Lot Numbers
- Addresses

Map Labels:

- DP 817607
- SS 40435
- DP 31885
- DP 548705
- DP 558698
- DP 261841
- DP 154834
- DP 152370
- DP 38064
- DP 526673
- DP 218029
- DP 703805
- SS 14194
- DP 76755
- DP 861814
- DP 348564
- DP 37742
- THOMA



Search Number: 1102352

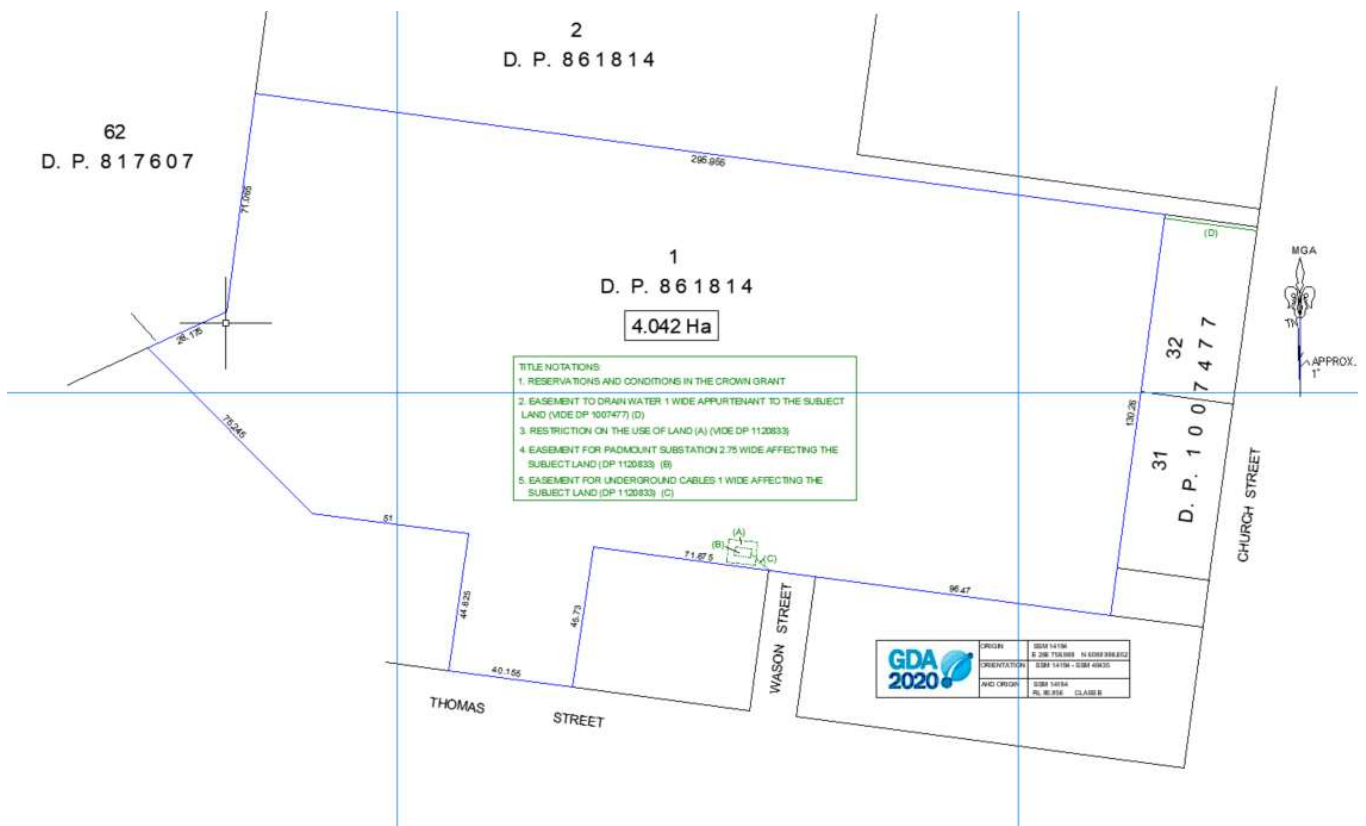
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3.3 Cadastral Map Search results

The site boundaries have been defined utilising reference marks found on the original plan of subdivision and more recent plans of survey surrounding the site. We are confident that title dimensions shown are available and the boundary location is suitable for this due diligence exercise. Our estimate on the overall accuracy of the resulting boundaries is +/- 50mm.

The land has frontage to Thomas Street and Wason Street. The main vehicular access is from Wason Street.

The existing land, Lot 1 in DP 861814, is affected by an easement for padmount substation, an easement for underground cables, and associated restriction on use of land as shown on the survey plans. It is also subject to Reservations and conditions contained in the crown grant. The land benefits from an easement to drain water on the residential land to the east. The area of the existing site is 4.042 Ha.



3.4 Topographic Survey Information results

Our approach was to collect as much data as thoroughly and quickly as possible to cause as little disruption to the school and also ensure a revisit would not be required. We utilised laser scanning for both the site and street frontage detail. Traditional surveying was done in tandem to pick up some tricky areas of terrain, service covers, painted underground services, and establish site control and the boundary survey.

Survey Control:

The survey control for this project was undertaken using a Leica TS16. A series of closed traverse loops were established throughout the school site as well as around the surrounding streets. State survey marks were located as part of this work. The survey has been placed on the MGA 2020 coordinate system and Australian Height Datum. The origin of marks adopted are shown on the previous page and the face of all plans. It is the responsibility of any user of this data to ensure any other data being integrated is on the same coordinate system.

Point Cloud Data:

As with the survey control the laser scanning of the site utilised a series of closed loops around the site buildings within the school grounds as well as a closed loop around the street frontages and perimeter of school. This ensured adequate coverage and overlap of data which is critical to an accurate registration of the overall point cloud. Furthermore, laser scan targets were placed across the site and at the street frontages. These were both acquired by the laser scanner and surveyed traditionally to gain accurate 3D coordinates for use in the final registration. Assessment of the final registration report confirmed to us that the final point cloud data sits within the stated accuracy below.

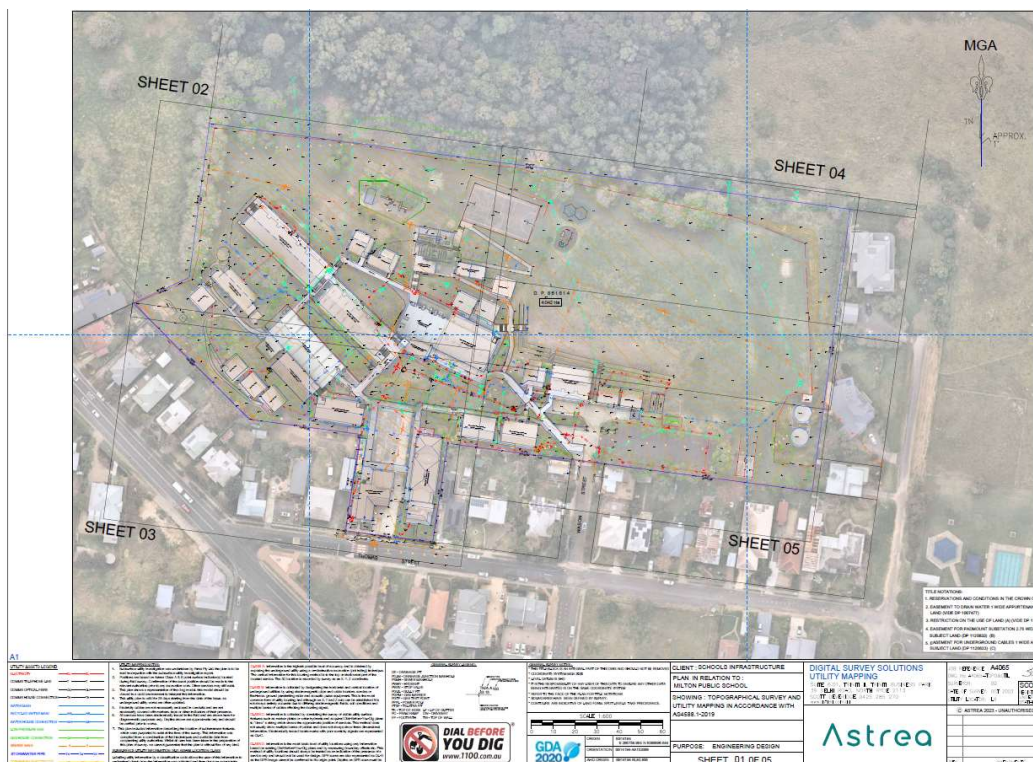
Survey Control: +/- 5mm.

Extracted and Modelled Data: +/- 15-20mm

Registered Point Cloud Data: +/- 10-15mm

Site Boundaries: +/- 50mm

The site and street frontages have been presented in 5 sheets on our final survey drawing. The first sheet being the overall site at a scale of 1:600 and the last 4 sheets at a scale of 1:200 dividing the site as shown on sheet 1 below. The full survey is contained in Appendix C.



3.5 BYDA Search and Underground Service Detection Results

As part of the topographical survey scope we search public utilities through a BYDA search.



Job No 34866501

Phone: 1100
www.byda.com.au

Caller Details

Contact: Astrea Locator
Company: Astrea
Address: 32 Delhi Rd
Macquarie Park NSW 2113
Caller Id: 3005839
Phone: 0476 003 705
Email: dbyd@astrea.com.au

Dig Site and Enquiry Details

WARNING: The map below only displays the location of the proposed dig 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.



User Reference: Milton PS
Working on Behalf of: Private
Enquiry Date: 18/08/2023
Start Date: 21/08/2023
End Date: 21/09/2023
Address: 9 Thomas Street
Milton NSW 2538
Job Purpose: Excavation
Onsite Activities: Manual Excavation, Mechanical Excavation, Non-Destructive Digging
Location of Workplace: Both
Location in Road: Footpath, Nature Strip, Road
Notes/Description of Works: Not supplied

- Check that the location of the dig site is correct. If not you must submit a new enquiry.
- Should 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 do not understand the plans or how to proceed safely, please contact the relevant asset owners.

Your Responsibilities and Duty of Care

- The lodgement of an enquiry **does not authorise** the project to commence. You must obtain all necessary information from any and all likely impacted asset owners prior to excavation.
- If plans are not received within 2 working days, contact the asset owners directly & quote their Sequence No.
- ALWAYS perform an onsite inspection for the presence of assets. Should you require an onsite location, contact the asset owners directly. Please remember, plans do not detail the exact location of assets.
- Pothole to establish the exact location of all underground assets using a hand shovel, before using heavy machinery.
- Ensure you adhere to any State legislative requirements regarding Duty of Care and safe digging requirements.
- If you damage an underground asset you MUST advise the asset owner immediately.
- By using this service, you agree to Privacy Policy and the terms and disclaimers set out at www.byda.com.au
- For more information on safe excavation practices, visit www.byda.com.au

Asset Owner Details

The assets owners listed below have been requested to contact you with information about their asset locations within 2 working days. Additional time should be allowed for information issued by post. It is **your responsibility** to identify the presence of any underground assets in and around your proposed dig site. Please be aware, that not all asset owners are registered with the Before You Dig service, so it is **your responsibility** to identify and contact any asset owners not listed here directly.

** Asset owners highlighted by asterisks ** require that you visit their offices to collect plans.

Asset owners highlighted with a hash # require that you call them to discuss your enquiry or to obtain plans.

Seq. No.	Authority Name	Phone	Status
228546319	Endeavour Energy	(02) 9853 4161	NOTIFIED
228546318	NBN Co NswAct	1800 687 626	NOTIFIED
228546317	Shoalhaven Water	(02) 4429 3214	NOTIFIED
228546320	Telstra NSW South	1800 653 935	NOTIFIED

END OF UTILITIES LIST

A combined BYDA report is contained in Appendix B.

Table 1 – AS5488-2019 summary of Quality Levels

Quality Level D	- (least accurate level and if used on its own has a high risk of damage) QL-D information is generally obtained from existing records provided by utilities as a result of a Before You Dig enquiry being lodged. In many cases the asset depicted on the plan is in a schematic format only and intended only to indicate its presence.
Quality Level C	- (low accuracy and a high risk of damage) Is described as a surface feature correlation or an interpretation of the approximate location and attributes of a subsurface utility asset using a combination of existing records and site survey of visible evidence – for example you can see the pit lids shown on the plan but the actual position of underground connection between pits is still assumed.
Quality Level B	- (significant risk reduction) Provides relative subsurface feature locations in three dimensions. The minimum requirement for QL-B is relative spatial position, this can be achieved via an electromagnetic frequency locating device. An electronic location provided by a DBYD Certified Locator to QL-B standard would have a maximum horizontal tolerance of plus or minus 300mm and a maximum vertical tolerance of plus or minus 500mm.
Quality Level A	- (meets location accuracy standards for minimum risk when excavating) Is the highest Quality Level accuracy and consists of positive identification of the attribute and location of a subsurface utility at a point to an absolute spatial position in three dimensions. It is the only quality level that defines a subsurface utility as 'Validated'.

Equipment and Methodology.

Astrea DBYD accredited technicians were deployed to the school to investigate subsurface utilities pursuant with AS5488 – 2019 specification.

Field technicians have located subsurface utilities using various techniques. These can be classified into their appropriate levels (see below) depending on the method used to identify each service.

(AS5488-2019: Summary of quality levels is depicted below in (table 1).

BYD (Before You Dig) and existing site records were first reviewed to gain an understating of the infrastructure that may be present within the school. The information on record was however minimal and thus in field investigations were used as the primary method for data collection.

It is important to note the class assigned to each of subsurface utility asset as this helps to define the accuracies and confidence levels attributed to various parts of the utilities network.

Primary equipment used in the investigations consisted of the Radio Detection Electromagnetic transmitter/receiver TX10 and 8200 devices in conjunction with Mala Easy Locator Pro – Ground Penetrating Units.

Method of Investigation:

Water - Revision of Sydney Water BYD plans – information of street frontages only, no information of internal network is on record.

Water services were investigated first by visual surface features and connection to physical points via electronic tracing.

The water can be separated into two systems- Domestic potable and fire services. Where conductive pipes are used in the system then these assets will be located to QL-B specification using EM methods.

Electrical – Revision of Ausgrid electrical plans. – information on street frontages to substation only.

Electrical lines area generally conductive and traced via means of EM induction. Physical features such as light poles have been connected to and traced via EM. Where electrical pits are present onsite then cables have been traced via EM induction clamping.

Communication – Revision of Telstra, NBN and Optus plans – Limited internal information.

Communication network is generally investigated via accessing of service pits via EM induction clam method. Where services are nonconductive then conduits have been traced via inserting conductive traces rods into the conduits with subsequent EM trace.

Sewer - Sydney Water BYD plans – information on street frontages only, internal information is limited. Existing as built plans available that show the main network existing within the school grounds.






The sewer network is investigated at the pit interface where the depth, size direction and material of pipes are measured to quality level A specification. These measurements are review against the BYD and as-built information whereby connection between manholes points can be established.




Stormwater – No stormwater BYD were available. No as built available.

Stormwater pits were investigated at the pit interface where depth, size direction and pipe material were recorded to quality level A. Pits were joined in the network via sonic testing. Where this was not possible then a conductive trace rod and sonde was inserted and subsequently traced via EM.

Unknown Pipes – A variety of random scans are carried out of the duration of the works. This is achieved by using both EM and GRR to scan areas to identify anomalies that present in linear arrangements. Once anomalies are identified via these methods technicians attempt to traditional trace and identify source points. When these features cannot be identified then they are marked as unknow pipe on the plan.

Key Utility Infrastructure Features:

Asset:	Description
	Sewer Discharge Pit- Located on the main sports oval
	Water Meter/ Fire Hydrant Booster. Located at the main entry gate off Thomas St
	Sewer Discharge Pit. Sewer discharge pits (Southern Buildings) Located at main school entrance on Thomas St
	Comms Main Feeder Pit. Located at the secondary driveway entrance of Thomas St.
	Comms Main Feeder Pit. Located at the main entry gate

			<p><i>LPG Storage Tank – Located adjacent to the staff carpark and sports field.</i></p>
			<p><i>Fire Booster Tank – South Eastern CNR of the sports oval.</i></p>
			<p><i>Endeavour Energy Electrical substation/Transformer</i></p> <p><i>Located adjacent to the staff carpark</i></p>

			<p><i>Stormwater discharge Point</i></p> <p><i>Located on the Northern boundary</i></p>
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Pipe blockages/Pit Obstructions –

Where possible, Astrea endeavours to show a completed stormwater/sewer network.

There are some instances onsite where a pipe network could not be determined due to features blocked pipes, pits full of debris/Water, buried pits or junction chambers or non-present junction chambers. See (image 2) below.



Image 2 – SW Pit 45, unable to visually inspect and measure pipes. Pit is full of water and has sealed plumbing features below the water line

In these instances, technicians have made best effort to assume the line of these services and the network in which they discharge into. The quality level of pipes should be noted in these scenarios.

Astrea can make recommendations on alternative methods such as CCTV or cleaning of pits that may assist in confirming these networks.

(UTO) unable to open – Where possible technicians open pits using best industry practice however in some instances there were pits that cannot be opened without specialised mechanical lifting or casing unnecessary damage to existing areas. (Image 3) below is an example pit that could not be opened during routine investigations.



Image 3 – SW32, Stormwater pit cover that cannot be manually lifted by a two-person team 300kg +. The lip fitting prevents the lid from being able to slide off for inspection- mechanical lift required for inspection.



Image 5 – Sewer Rising Main pit locked –Licenced Plumber to provide access if internal information is required.

Asset Register – Trace Limitations

Item	Limitation	Comment	Recommendation
Shoalhaven Water Sewer Main	Missing Pits	Some pits represented on the Shoalhaven water plans could not be identified in the field	CCTV line to establish if pits are in fact present
Pressure Sewer	Sewer in demountable toilet – Non traceable	Sewer lines are sealed and under pressure in nonconductive materials	Engage a plumber to disconnect pipe work to trace
SEW05	Pit Full of water- sewer plumbing features sealed – Outgoing sewer line has been represented as class D	No pipe features are visible within the water, PVC standpipe does not have inspection points	Pump Water, engage plumber to open pipe work if information is required.
SEW06	Pit has sealed IO covers, Confined space – outgoing sewer lines have been connected via sonic testing. Class C trace only	Sealed inspection points are located at the bottom of a sewer chamber- this required a confined space entry setup to open and remove caps	Confined space entry and or engage plumber
SEW04	Pit has sealed IO covers, Confined space – outgoing sewer lines have been represented as class D only.	Sealed inspection points are located at the bottom of a sewer chamber- this required a confined space entry setup to open and remove caps	Confined space entry and or engage plumber
SW40	UTO – Heavy Lift incoming and outgoing pipes have been traced to quality level C only	Extremely heavy concrete lid could not be manually removed	Hydraulic/mechanical lift required to remove pit lid.
Fire Hydrant	No trace on some fire hydrant lines	It is suspected that fire hydrant lines are made of non-conductive PVC or Poly materials and unable to be traced via electromagnetic techniques	Non-destructive digging investigations should additional information be required.

Recommendations:

Where possible Astrea has aimed to achieve Quality level B data. It is recommended that NDD be carried out over areas of concern so that the highest level of data (Quality level A) be achieved.

Where services routes cannot be determined due to lack of traceable signal then it is recommended that Non-Destructive Digging be utilised to help define routes.

Where localised plumbing features are required to be traced it is recommended that push camera CCTV be utilised to help identify alignments. Camera footage can help identify obstructions sometimes attributed to plumbing features (boundary traps U bends etc.) which could not otherwise be determined with traditional EM tracing.

4 RECOMMENDATION AND CONCLUSION

In relation to the site detail and level survey

In relation to underground services we have made every attempt to find all information on public record.

Where possible Astrea has aimed to achieve Quality level B data. It is recommended that NDD be carried out over areas of concern so that the highest level of data (Quality level A) be achieved.

Where services routes cannot be determined due to lack of traceable signal then it is recommended that Non-Destructive Digging be utilised to help define routes.

Where localised plumbing features are required to be traced it is recommended that push Camera CCTV be utilised to help identify alignments. Camera footage can help identify obstructions sometimes attributed to plumbing features (boundary traps U bends etc.) which could not otherwise be determined with traditional EM tracing.

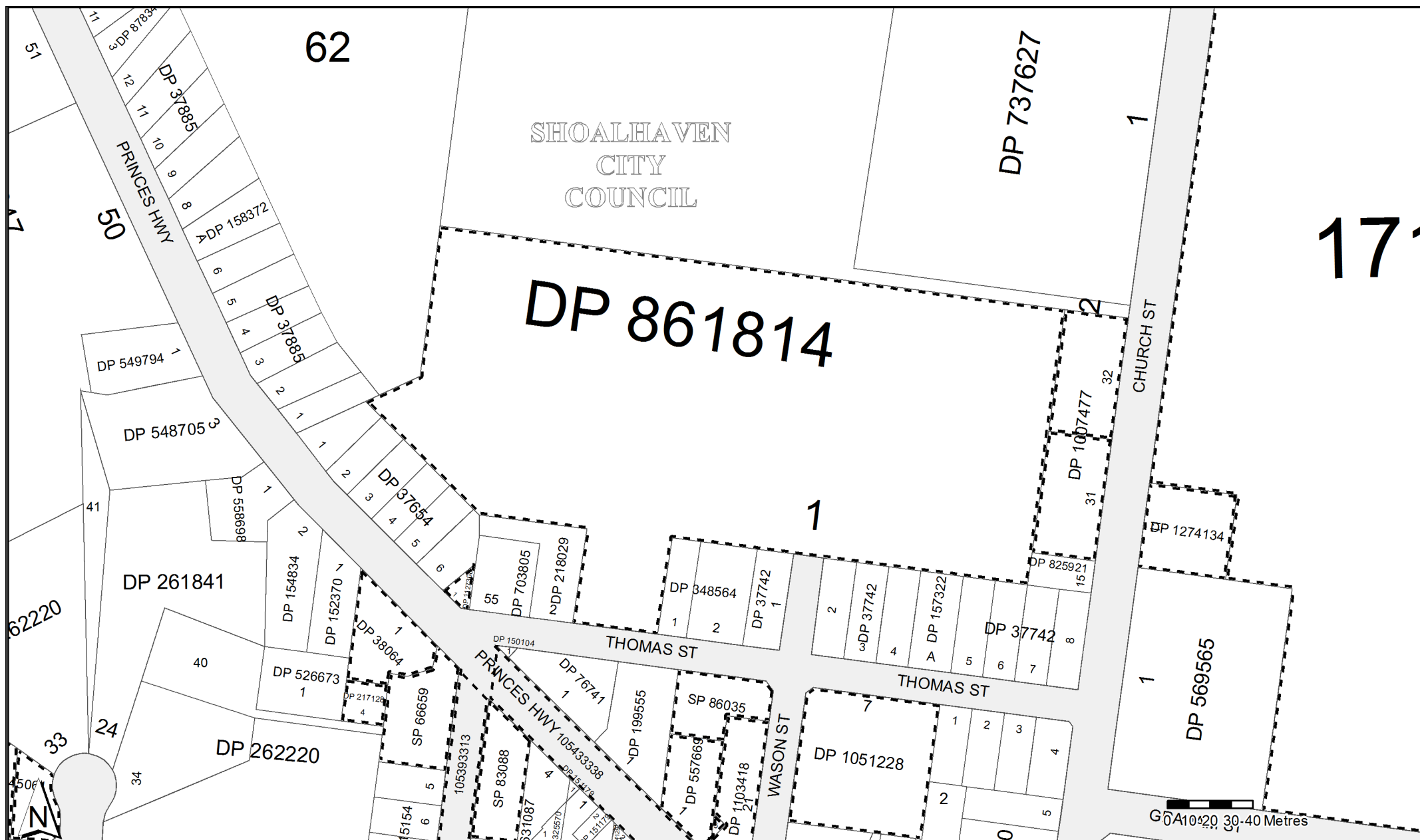
Appendix A of this report contains all Cadastral search documents purchased and utilised as part of this report.
































Appendix B contains all relevant documents ordered via the BYDA search.

Appendix C contains the sheeted detailed site survey.

Appendix D contains the underground service locators field report.

Appendix A. Cadastral Search Documents.



	Status	Surv/Comp	Purpose
DP38064 Lot(s): 1			
 DP1021919	REGISTERED	SURVEY	EASEMENT
DP217128 Lot(s): 4			
 DP1021919	REGISTERED	SURVEY	EASEMENT
DP557669 Lot(s): 1, 3			
 DP1103418	REGISTERED	SURVEY	SUBDIVISION
DP861814 Lot(s): 1			
 DP1007477	REGISTERED	SURVEY	SUBDIVISION
 DP1120833	REGISTERED	SURVEY	EASEMENT
DP1007477 Lot(s): 31, 32			
 DP861814	HISTORICAL	SURVEY	SUBDIVISION
DP1051228 Lot(s): 7			
 DP231561	HISTORICAL	SURVEY	SUBDIVISION
 DP789217	HISTORICAL	SURVEY	SUBDIVISION
DP1103418 Lot(s): 21			
 DP157040	HISTORICAL	SURVEY	UNRESEARCHED
 DP736295	HISTORICAL	COMPILATION	DEPARTMENTAL
 SP86035	REGISTERED	COMPILATION	STRATA PLAN
DP1127308 Lot(s): 1			
 CA111131 - LOT 1 DP1127308			
DP1145061 Lot(s): 1, 2			
 DP262220	HISTORICAL	SURVEY	SUBDIVISION
DP1274134 Lot(s): 11			
 DP192832	HISTORICAL	COMPILATION	UNRESEARCHED
 DP737627	HISTORICAL	COMPILATION	DEPARTMENTAL
DP1290102 Lot(s): 171			
 DP192832	HISTORICAL	COMPILATION	UNRESEARCHED
 DP737627	HISTORICAL	COMPILATION	DEPARTMENTAL
 DP1274134	HISTORICAL	SURVEY	SUBDIVISION
SP66659			
 DP220065	HISTORICAL	SURVEY	OLD SYSTEM CONVERSION
 DP515154	HISTORICAL	SURVEY	OLD SYSTEM CONVERSION
 DP1013722	HISTORICAL	COMPILATION	CONSOLIDATION
 SP76002	REGISTERED	COMPILATION	STRATA SUBDIVISION PLAN
SP83088			
 DP234135	HISTORICAL	SURVEY	SUBDIVISION
 DP1129108	HISTORICAL	SURVEY	REDEFINITION
 SP84619	REGISTERED	COMPILATION	STRATA CONSOLIDATION PLAN
 SP106755	UNREGISTERED	COMPILATION	STRATA SUBDIVISION PLAN
SP86035			
 DP557669	HISTORICAL	SURVEY	OLD SYSTEM CONVERSION
 DP736295	HISTORICAL	COMPILATION	DEPARTMENTAL
 DP1103418	HISTORICAL	SURVEY	SUBDIVISION
 SP86036	REGISTERED	COMPILATION	STRATA SUBDIVISION PLAN
Road Polygon Id(s): 105393313, 105433338			
 EX-SUR 68/01 DP978250			

Caution: This information is provided as a searching aid only. Whilst every endeavour is made to ensure that current map, plan and titling information is accurately reflected, the Registrar General cannot guarantee the information provided. For **ALL ACTIVITY PRIOR TO SEPTEMBER 2002** you must refer to the RGs Charting and Reference Maps.

Plan	Surv/Comp	Purpose
DP23970	SURVEY	UNRESEARCHED
DP37654	SURVEY	UNRESEARCHED
DP37742	SURVEY	UNRESEARCHED
DP37885	SURVEY	UNRESEARCHED
DP38064	SURVEY	UNRESEARCHED
DP76741	SURVEY	UNRESEARCHED
DP150104	COMPILATION	UNRESEARCHED
DP151179	COMPILATION	UNRESEARCHED
DP152370	SURVEY	UNRESEARCHED
DP154834	SURVEY	UNRESEARCHED
DP157322	COMPILATION	UNRESEARCHED
DP158372	COMPILATION	UNRESEARCHED
DP199555	COMPILATION	DEPARTMENTAL
DP217128	SURVEY	SUBDIVISION
DP218029	SURVEY	SUBDIVISION
DP261841	SURVEY	SUBDIVISION
DP262220	SURVEY	SUBDIVISION
DP325570	SURVEY	UNRESEARCHED
DP348564	COMPILATION	UNRESEARCHED
DP514129	SURVEY	SUBDIVISION
DP515154	SURVEY	OLD SYSTEM CONVERSION
DP526673	SURVEY	SUBDIVISION
DP548705	SURVEY	SUBDIVISION
DP549794	SURVEY	SUBDIVISION
DP557669	SURVEY	OLD SYSTEM CONVERSION
DP558698	SURVEY	SUBDIVISION
DP569565	SURVEY	SUBDIVISION
DP624847	COMPILATION	SUBDIVISION
DP631087	SURVEY	SUBDIVISION
DP703805	SURVEY	OLD SYSTEM CONVERSION
DP736273	COMPILATION	DEPARTMENTAL
DP737627	COMPILATION	DEPARTMENTAL
DP789217	SURVEY	SUBDIVISION
DP817607	SURVEY	SUBDIVISION
DP825921	SURVEY	DELIMITATION
DP861814	SURVEY	SUBDIVISION
DP872508	SURVEY	SUBDIVISION
DP878340	SURVEY	SUBDIVISION
DP1007477	SURVEY	SUBDIVISION
DP1051228	COMPILATION	CONSOLIDATION
DP1103418	SURVEY	SUBDIVISION
DP1127308	COMPILATION	LIMITED FOLIO CREATION
DP1145061	SURVEY	SUBDIVISION
DP1274134	SURVEY	SUBDIVISION
DP1290102	SURVEY	SUBDIVISION
SP66659	COMPILATION	STRATA PLAN
SP83088	COMPILATION	STRATA PLAN
SP86035	COMPILATION	STRATA PLAN

Caution: This information is provided as a searching aid only. Whilst every endeavour is made to ensure that current map, plan and titling information is accurately reflected, the Registrar General cannot guarantee the information provided. For **ALL**

ACTIVITY PRIOR TO SEPTEMBER 2002 you must refer to the RGs Charting and Reference Maps.



FOLIO: 1/861814

SEARCH DATE	TIME	EDITION NO	DATE
-----	----	-----	----
19/9/2023	2:18 PM	2	8/12/2007

LAND

LOT 1 IN DEPOSITED PLAN 861814
AT MILTON
LOCAL GOVERNMENT AREA SHOALHAVEN
PARISH OF ULLADULLA COUNTY OF ST VINCENT
TITLE DIAGRAM DP861814

FIRST SCHEDULE

MINISTER FOR EDUCATION AND TRAINING (CA58890)

SECOND SCHEDULE (5 NOTIFICATIONS)

- 1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
- 2 DP1007477 EASEMENT TO DRAIN WATER 1 METRE(S) WIDE APPURTENANT
TO THE LAND ABOVE DESCRIBED
- 3 DP1120833 RESTRICTION(S) ON THE USE OF LAND
- 4 DP1120833 EASEMENT FOR PADMOUNT SUBSTATION 2.75 METRE(S) WIDE
AFFECTING THE PART(S) SHOWN SO BURDENED IN DP1120833
- 5 DP1120833 EASEMENT FOR UNDERGROUND CABLES 1 METRE(S) WIDE
AFFECTING THE PART(S) SHOWN SO BURDENED IN DP1120833

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

milton

PRINTED ON 19/9/2023

SIGNATURE AND SEALS ONLY

Handwritten signature
D. P. 861814

DP1007477

Registered (GAS 27-10-1999)

C.A. SEE CERTIFICATE

Title System: TO R E N S

Purpose: SUBDIVISION

Ref. Map: W 4687-44 #

Last Plan: DP 861814

PLAN OF SUBDIVISION OF LOT 3
D.P. 861814.

Lengths are in metres. Reduction Ratio 1:500

LGA: SHOALHAVEN

Locality: MILTON

Parish: ULLADULLA

County: ST VINCENT

This is sheet 1 of any plan in
-Delete if inapplicable- -Delete if inapplicable-

Survey Certificate
Surveyor's Name: *Handwritten*

1. GRAHAM A. BEASLEY

of PW RYNGATE & WEST ULLADULLA

A surveyor registered under the Surveyors Act 1999, I hereby certify that the survey represented in this plan is accurate, has been made in accordance with the Surveyors (Practising Regulations) 1999 and was completed on 12th JULY 1999.
The survey relates to LOTS 31 & 32.

Datum: 'X' Y'

Zone: Suburban

Registered *Handwritten signature*
Surveyor's Name: *Handwritten*

Plans used in preparation of survey/completion

D.P. 825921

D.P. 861814

PANEL FOR USE ONLY for statements of intention to dedicate public roads or to create public reserves, drainage reserves, easements, restrictions on the use of land or positive covenants.

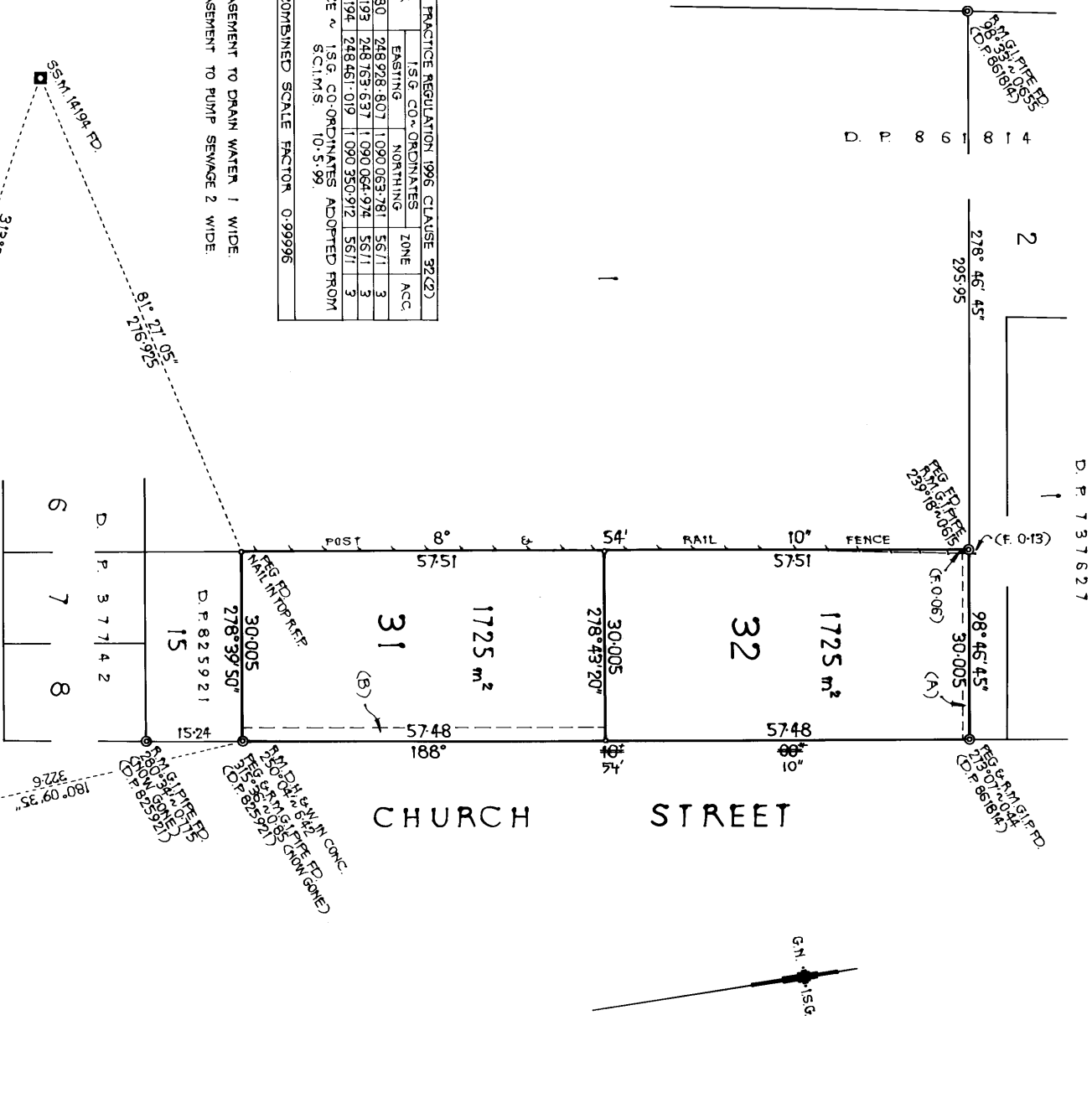
PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT 1919 AS AMENDED IT IS INTENDED TO CREATE:-

1. RESTRICTION ON THE USE OF LAND
2. EASEMENT TO DRAIN WATER
3. EASEMENT TO PUMP SEWAGE
- 2 WIDE.

AS SET OUT IN THE ACCOMPANYING INSTRUMENT SIGNED BY PERSON(S) AUTHORIZED AND ATTENDED IN LITO AT SURVEYORS REQUEST.

SURVEY PRACTICE REGULATION 1996 CLAUSE 32(2)				
MARK	EASTING	NORTHING	ZONE	ACC.
PM 2180	248928.807	1090063.781	56/1	3
SSM 14193	248163.637	1090064.974	56/1	3
SSM 14194	248451.019	1090350.912	56/1	3
SOURCE ~ 1SG CO-ORDINATES ADOPTED FROM SCLIMS 10-5-99.				
COMBINED SCALE FACTOR 0.99996				

- (A) ~ EASEMENT TO DRAIN WATER 1 WIDE.
(B) ~ EASEMENT TO PUMP SEWAGE 2 WIDE.



Crown Lands Office Approval

PLM APPROVED *Handwritten*

Last Date: *Handwritten*

Ref No: *Handwritten*

Ref Date: *Handwritten*

Council's Certificate

I hereby certify that:-
1. The requirements of the Land Management Act 1999 have been complied with for the registration of this plan.
2. The requirements of the Land Management Act 1999 have been complied with for the registration of this plan.
3. The requirements of the Land Management Act 1999 have been complied with for the registration of this plan.
4. The requirements of the Land Management Act 1999 have been complied with for the registration of this plan.
5. The requirements of the Land Management Act 1999 have been complied with for the registration of this plan.
6. The requirements of the Land Management Act 1999 have been complied with for the registration of this plan.
7. The requirements of the Land Management Act 1999 have been complied with for the registration of this plan.
8. The requirements of the Land Management Act 1999 have been complied with for the registration of this plan.
9. The requirements of the Land Management Act 1999 have been complied with for the registration of this plan.
10. The requirements of the Land Management Act 1999 have been complied with for the registration of this plan.

Subdivision No. SE 8494

Date 12-10-99

Registered *Handwritten*

General Manager *Handwritten*

The plan of subdivision is an original and the registration is not to be made until the original is deposited with the Registrar-General of Land and the Survey Office. The Registrar-General of Land and the Survey Office will not accept a copy of the plan for registration unless it is accompanied by the original.

SURVEYOR'S REFERENCE: U10999

CHECK LIST

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

SIGNED BY ME: *Paul M. Heston*
AS DELEGATE OF THE MINISTER FOR EDUCATION AND
TRAINING PURSUANT TO SECTION 125 OF THE EDUCATION
ACT 1990 AND I HEREBY CERTIFY THAT I HAVE NO NOTICE
OF THE REVOCATION OF SUCH DELEGATION.

DP1120833

Registered: 18/12/2007
Title System: TORRENS
Purpose: EASEMENT
Ref Map: W46 87-44#
Last Plan: DP 861814

PLAN OF EASEMENT FOR PADMOUNT
SUBSTATION 2.75 WIDE AND EASEMENT
FOR UNDERGROUND CABLES 1 WIDE
OVER LOT 1 D.P. 861814.

Lengths are in metres. Reduction Ratio 1:1000

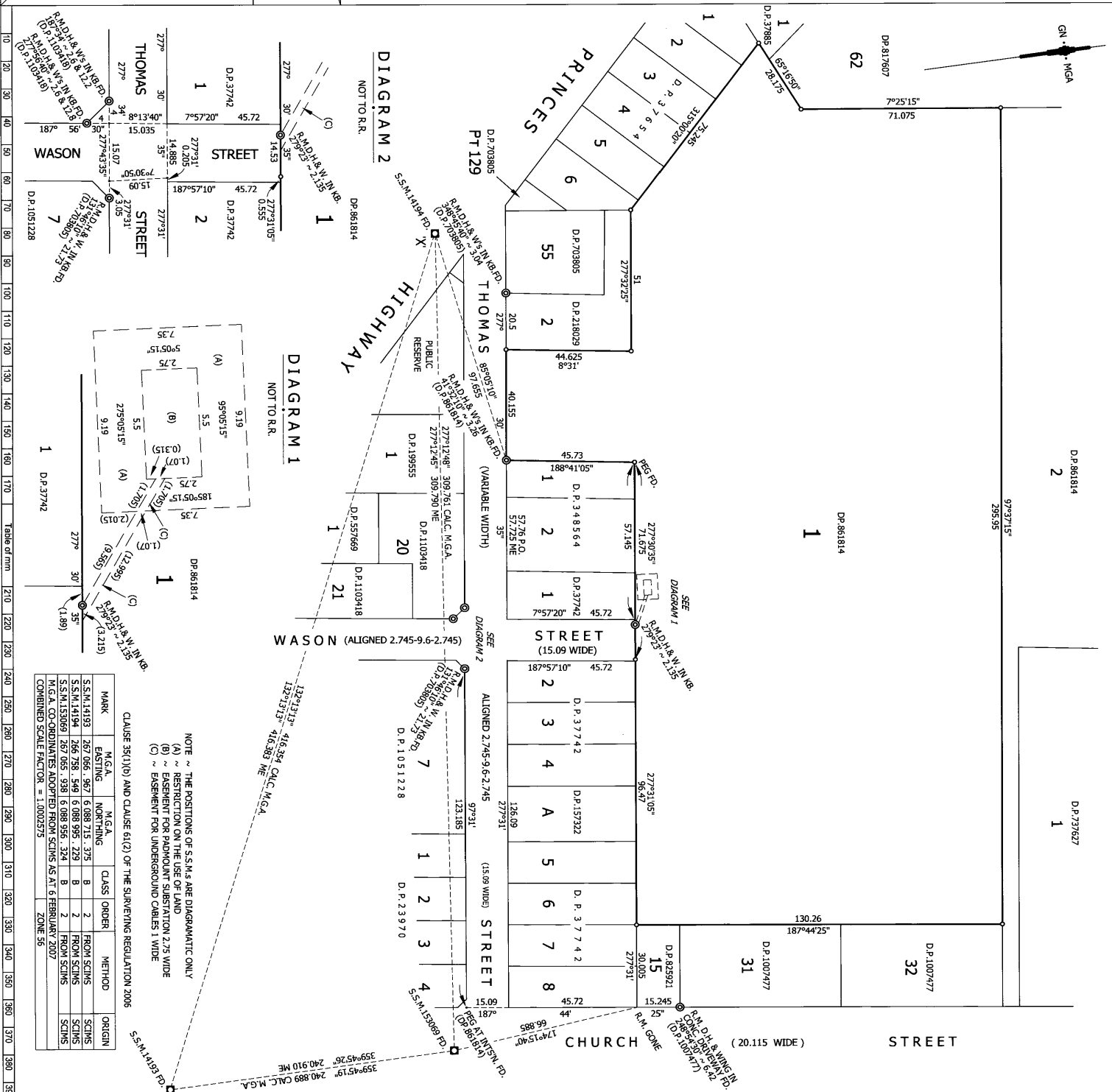
L.G.A.: SHOALHAVEN
Locality: MILTON
Parish: ULLADULLA
County: ST. VINCENT

—The sheet is of my plan in 0 sheets—
(Delete if inapplicable)
Surveying Regulation 2001
1. GRAHAM A. BEASLEY
(Delete if inapplicable)
a surveyor registered under the Surveying Act 2002, hereby
certify that the survey represented in this plan is accurate.
The survey was completed on 11/07/07
This survey relates to PART LOT 1 & THE EASEMENTS
(then specify the land actually surveyed or specify any land
shown in the plan that is not the subject of the survey)
Datum: Line "X" - "Y"
Zone: Suburban
(Signature) *Paul M. Heston*
the Surveying Act 2002

Plans used in preparation of survey
D.P. 23970 D.P. 218029 D.P. 861814
D.P. 37664 D.P. 348564 D.P. 1007477
D.P. 37742 D.P. 703805 D.P. 1051228
D.P. 37885 D.P. 817607 D.P. 1103418
D.P. 197322 D.P. 625921

PANEL FOR USE ONLY for statements of intention
to dedicate public roads to create public reserves
use of land or positive covenants.
PURSUANT TO SECTION 88B OF THE CONVEYANCING
ACT 1919 AS AMENDED IT IS INTENDED TO CREATE ~
1. RESTRICTION ON THE USE OF LAND, (A)
2. EASEMENT FOR PADMOUNT SUBSTATION
2.75 WIDE, (B)
3. EASEMENT FOR UNDERGROUND CABLES
1 WIDE, (C)
AS SET OUT IN THE ACCOMPANYING INSTRUMENT.

Crown Lands Office Approval
PLAN APPROVED: _____
Authorised Officer: _____
Land District: _____
Paper No.: _____
Field Book: _____
Subdivision Certificate
I hereby certify that the provisions of a 1981 of the Environmental Planning
and Assessment Act 1979 have been satisfied in relation to the
proposed:
"Inherit 'subdivision or new road'" set out herein
"Inherit 'new road', 'subdivision' or 'considered lot'" set out herein
Consent Authority: _____
Date of Endorsement: _____
Subdivision Certificate no.: _____
File no.: _____
Note: When the plan is to be lodged electronically in the land Titles office
approved by the Registrar-General is an electronic or digital format.
Deletion whichever is inapplicable



Your Reference: milton

Search Number: 1102352

MARK NAME STATUS	COORDINATES AND HEIGHTS				CLASS	PU	LU	SOURCE	CSF CONVERGENCE AUSGEOID2020
SS 14194	Horizontal coordinates are adjusted (or initialised) in GDA2020								
	MGA2020	266758.988	6088996.652	56	B	0.03	0.03	301189	1.000255
	GDA2020	-35° 18' 54.23221"		150° 26' 03.81558"		-1° 29' 01.59"			
	GDA2020	Ellipsoidal Height		99.1	E	0.18	300777		
AHD71	Normal-Orthometric		80.856	LB	0.03	0.01	300202	18.227	
SS 40435	Horizontal coordinates are adjusted (or initialised) in GDA2020								
	MGA2020	266631.216	6089160.991	56	B	0.03	0.03	301189	1.000256
	GDA2020	-35° 18' 48.79560"		150° 25' 58.92892"		-1° 29' 04.22"			
	GDA2020	Ellipsoidal Height		96.4	E	0.18	300777		
AHD71	Normal-Orthometric		78.172	LB	0.03	0.01	300202	18.240	
SS 153069	Horizontal coordinates are adjusted (or initialised) in GDA2020								
	MGA2020	267066.383	6088957.747	56	B	0.04	0.04	301189	1.000257
	GDA2020	-35° 18' 55.75188"		150° 26' 15.93753"		-1° 28' 54.63"			
	GDA2020	Ellipsoidal Height		77.	U	300778			
AHD71	Normal-Orthometric		59.	U	300564		18.211		



Map Legend							Mark Status*
SCIMS Mark types (Colour codes refer to the assigned accuracy "Class")							F Found Intact
							N Not Found
SS	PM	TS	CR	MM	CP	GB	D Destroyed
							S Subsidence Area
							U Uncertain
							R Restricted Access
Established GDA2020 + Accurate AHD71							
Established GDA2020 Only							
Accurate AHD71 Only							
Accurate AHD71 + Approx. GDA2020							
Approx. GDA2020 Only							
Unknown							
Established GDA coordinates are assigned accuracy class 3A, 2A, A, B, C or D							* Where available, the Mark Status is appended to the Mark Number in the map
Accurate AHD heights are assigned accuracy class L2A, LA, LB, LC, LD, 2A, A or B							

Note: SCIMS publishes coordinates, heights, Uncertainty and Class for NSW State control survey marks to an appropriate precision based on survey observations currently on public record. Positional Uncertainty and Local Uncertainty are only displayed where computed through a least-squares network adjustment. Refer to Surveyors-General's Directions: http://spatialservices.finance.nsw.gov.au/surveying/publications/surveyor_generals_directions

Disclaimer: This report has been generated by various sources and is provided for information purposes only. Spatial Services, a division of the NSW Department of Customer Service, does not warrant or represent that the information is free from errors or omission, or that it is exhaustive. Spatial Services accepts no liability for loss, damage, or costs that may incur relating to any use or reliance upon the information in this report. Spatial Services gives no warranty in relation to the information, especially material supplied by third parties.

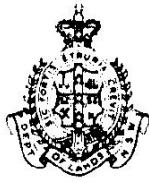
SURVEY MARK					
Mark	Name		Alias		
SS 14194					
Status	Date	Comments			
Location	Monument	Date Placed	Placed By		
GROUND LEVEL	UNKNOWN				

MGA2020/GDA2020					
Horizontal coordinates are adjusted (or initialised) in GDA2020					
MGA2020 Easting	MGA2020 Northing	Zone	GDA2020 Latitude	GDA2020 Longitude	
266758.988	6088996.652	56	-35° 18' 54.23221"	150° 26' 03.81558"	
Class	Positional Uncertainty	Local Uncertainty		GDA2020 Updated	
B	0.03	0.03		9-MAY-2023	
Source	Type	Method	Date issued	Issued By	
301189	ADJUSTMENT	DYNADJUST	1-MAY-2023	JOEL HAASDYK	
Previous Reference		Location			File Number
n/a		n/a			n/a
Comments					
GDA2020 STATE ADJUSTMENT MAY 2023					
MGA2020 Combined Scale Factor			MGA2020 Convergence		
1.000255			-1° 29' 01.59"		

AusGeoid2020(N)					
18.227					

GDA2020 Ellipsoidal Height					
Height					
99.1					
Class	Positional Uncertainty	Local Uncertainty		Ellipsoidal Height Updated	
E	0.18			15-NOV-2021	
Source	Type	Method	Date issued	Issued By	
300777	COMPUTATION	MANUAL	15-NOV-2021	JONATHON SMITH	
Previous Reference		Location			File Number
n/a		n/a			n/a
Comments					
GDA2020 ELLIPSOIDAL HEIGHTS DERIVED USING AUSGEOID2020 FROM AHD71 SPIRIT LEVELLING					

AHD71					
Height					
80.856					
Class	Positional Uncertainty	Local Uncertainty		AHD Updated	
LB	0.03	0.01		27-MAY-2020	
Source	Type	Method	Date issued	Issued By	
300202	ADJUSTMENT	DYNADJUST	19-MAY-2020	NICHOLAS GOWANS	
Previous Reference		Location			File Number
n/a		n/a			n/a
Comments					
NSW LEVELLING NETWORK POSITIONAL AND LOCAL UNCERTAINTY UPDATE JUNE 2020					



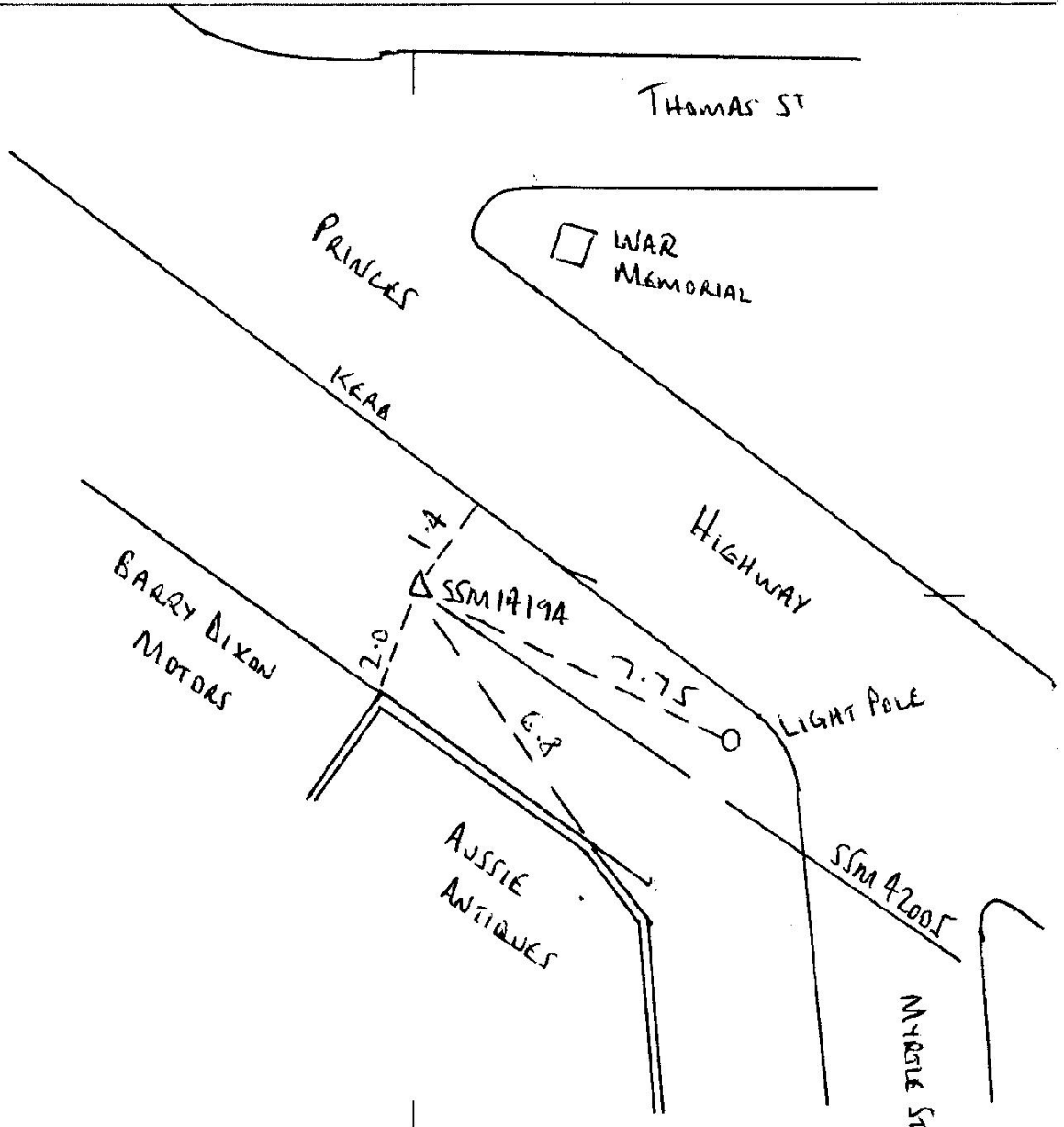
PM
SSM 14194
MsM

LOCALITY SKETCH PLAN

Parish ULLADULLA County ST VINCENT City or Town MILTON
Municipality or Shire SHALHAVEN CITY C.M.A. Map Sheet MILTON 1:25,000

Measurements are in metres

Zone



ORIGINAL

Organization placing Marks SURVEY CONTROL Ref.

Mark placed / / 19

Note: Replaces PM
SSM 14189

Locality Sketch Book No. Fol.

Plan Register noted / / 19

\S n 2 019 D. West, Government Printer

PM
SSM 14194
MsM

I certify that the Mark or Marks have been placed and numbered as detailed hereon.

Ren Boyer

Designation

Date / 2 / 19 84

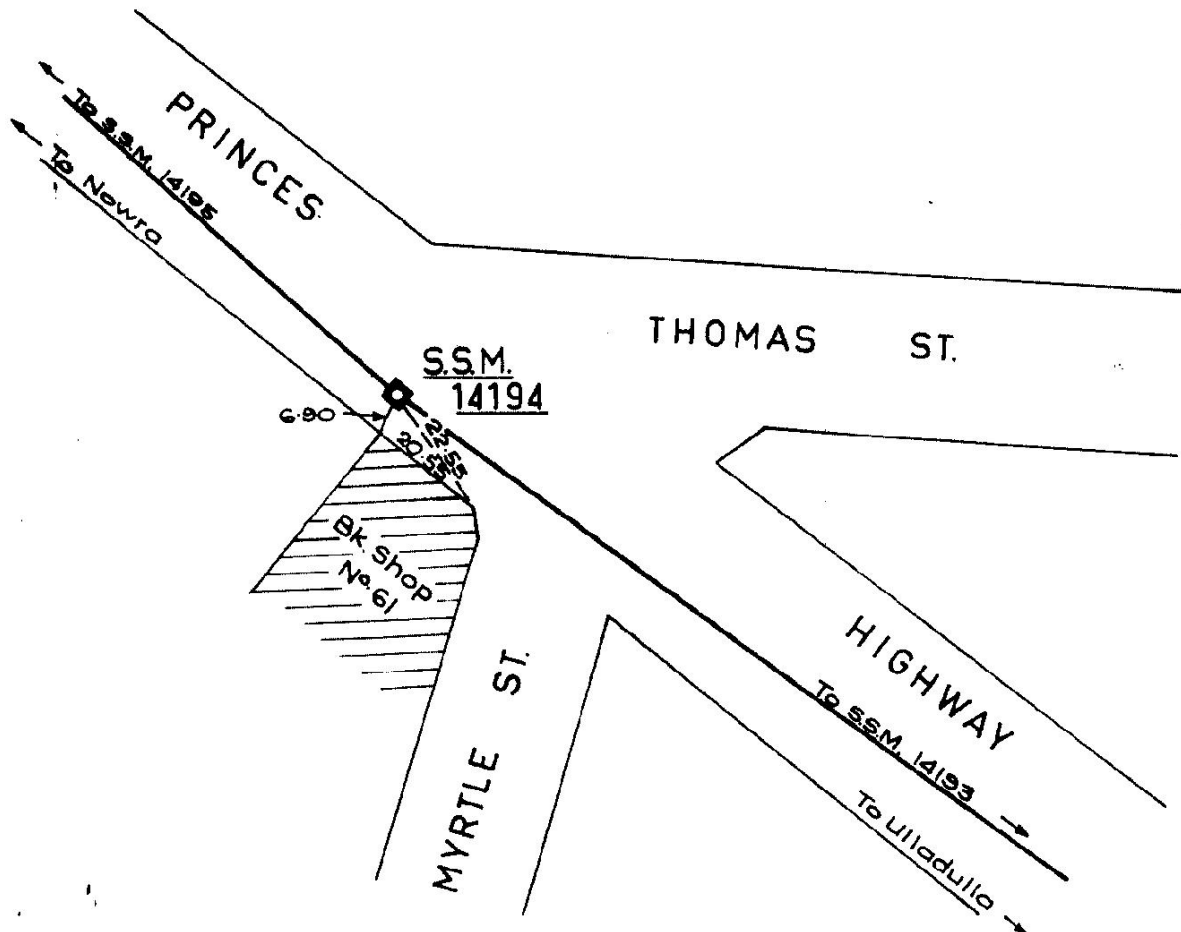
SSM No. 14194
S.C. 70-28

STATE SURVEY MARK SKETCH PLAN

(To be drawn in black waterproof ink, not necessarily to scale.)

Parish Ulladulla County St. Vincent City or Town Milton~~Municipality or Shire~~ Shealhaven Survey AreaZone 8 Map Sheet Ulladulla 8927 Aerial Photograph N.S.W.

NOTE - Measurements are to be shown from the mark to as many nearby survey marks, buildings, fence posts, kerbs, etc., as practicable for location on cadastral plans and aerial photographs. Up to six measurements are desirable.

Measurements are in Feet

Mark last inspected _____

Placed in connection with (type of survey or work) Milton - Ulladulla Sewerage

Co-ordinate values of mark _____

Projection _____ Origin _____

Reduced level of mark _____ to Datum _____

I certify that the State survey mark shown in this sketch has been placed on the ground

*by me _____ and that the information shown hereon is correct.

*under my immediate supervision _____

*Strike out whichever is not applicable.

2784

Field Books _____ of: W.P. HILL & BLUME

(Date) 1st May 1970 (Signature) Barry Challey 185 Elizabeth St. Sydney.

Public Authority _____

(Date) 25th Sept 1970 _____

SSM No. 14194

J. Ulladulla
(Proprietor)
(Officer-in-Charge)
(Survey Co-ordination Branch.)

SURVEY MARK					
Mark	Name		Alias		
SS 40435					
Status	Date	Comments			
Location	Monument	Date Placed	Placed By		
GROUND LEVEL	UNKNOWN				
MGA2020/GDA2020					
Horizontal coordinates are adjusted (or initialised) in GDA2020					
MGA2020 Easting	MGA2020 Northing	Zone	GDA2020 Latitude	GDA2020 Longitude	
266631.216	6089160.991	56	-35° 18' 48.79560"	150° 25' 58.92892"	
Class	Positional Uncertainty	Local Uncertainty		GDA2020 Updated	
B	0.03	0.03		9-MAY-2023	
Source	Type	Method	Date issued	Issued By	
301189	ADJUSTMENT	DYNADJUST	1-MAY-2023	JOEL HAASDYK	
Previous Reference		Location			File Number
n/a		n/a			n/a
Comments					
GDA2020 STATE ADJUSTMENT MAY 2023					
MGA2020 Combined Scale Factor			MGA2020 Convergence		
1.000256			-1° 29' 04.22"		
AusGeoid2020(N)					
18.240					
GDA2020 Ellipsoidal Height					
Height					
96.4					
Class	Positional Uncertainty	Local Uncertainty		Ellipsoidal Height Updated	
E	0.18			15-NOV-2021	
Source	Type	Method	Date issued	Issued By	
300777	COMPUTATION	MANUAL	15-NOV-2021	JONATHON SMITH	
Previous Reference		Location			File Number
n/a		n/a			n/a
Comments					
GDA2020 ELLIPSOIDAL HEIGHTS DERIVED USING AUSGEOID2020 FROM AHD71 SPIRIT LEVELLING					
AHD71					
Height					
78.172					
Class	Positional Uncertainty	Local Uncertainty		AHD Updated	
LB	0.03	0.01		27-MAY-2020	
Source	Type	Method	Date issued	Issued By	
300202	ADJUSTMENT	DYNADJUST	19-MAY-2020	NICHOLAS GOWANS	
Previous Reference		Location			File Number
n/a		n/a			n/a
Comments					
NSW LEVELLING NETWORK POSITIONAL AND LOCAL UNCERTAINTY UPDATE JUNE 2020					

SURVEY MARK					
Mark	Name		Alias		
SS 153069					
Status	Date	Comments			
Location	Monument	Date Placed	Placed By		
GROUND LEVEL	UNKNOWN				

MGA2020/GDA2020					
Horizontal coordinates are adjusted (or initialised) in GDA2020					
MGA2020 Easting	MGA2020 Northing	Zone	GDA2020 Latitude	GDA2020 Longitude	
267066.383	6088957.747	56	-35° 18' 55.75188"	150° 26' 15.93753"	
Class	Positional Uncertainty	Local Uncertainty		GDA2020 Updated	
B	0.04	0.04		9-MAY-2023	
Source	Type	Method	Date issued	Issued By	
301189	ADJUSTMENT	DYNADJUST	1-MAY-2023	JOEL HAASDYK	
Previous Reference		Location			File Number
n/a		n/a			n/a
Comments					
GDA2020 STATE ADJUSTMENT MAY 2023					
MGA2020 Combined Scale Factor			MGA2020 Convergence		
1.000257			-1° 28' 54.63"		

AusGeoid2020(N)					
18.211					

GDA2020 Ellipsoidal Height					
Height					
77.					
Class	Positional Uncertainty	Local Uncertainty		Ellipsoidal Height Updated	
U				15-NOV-2021	
Source	Type	Method	Date issued	Issued By	
300778	COMPUTATION	MANUAL	15-NOV-2021	JONATHON SMITH	
Previous Reference		Location			File Number
n/a		n/a			n/a
Comments					
GDA2020 ELLIPSOIDAL HEIGHTS DERIVED USING AUSGEOID2020 FROM AHD71 DIGITAL ELEVATION MODEL					

AHD71					
Height					
59.					
Class	Positional Uncertainty	Local Uncertainty		AHD Updated	
U				11-MAY-2021	
Source	Type	Method	Date issued	Issued By	
300564	COMPUTATION	MANUAL	11-MAY-2021	JONATHON SMITH	
Previous Reference		Location			File Number
n/a		n/a			n/a
Comments					
AHD71 CLASS U HEIGHT UPDATE FROM NSW DIGITAL ELEVATION MODEL					

LOCALITY SKETCH PLAN



Local Government Area Shoalhaven

Town/Suburb/Locality Milton

Approx MGA Coordinate: Zone 56

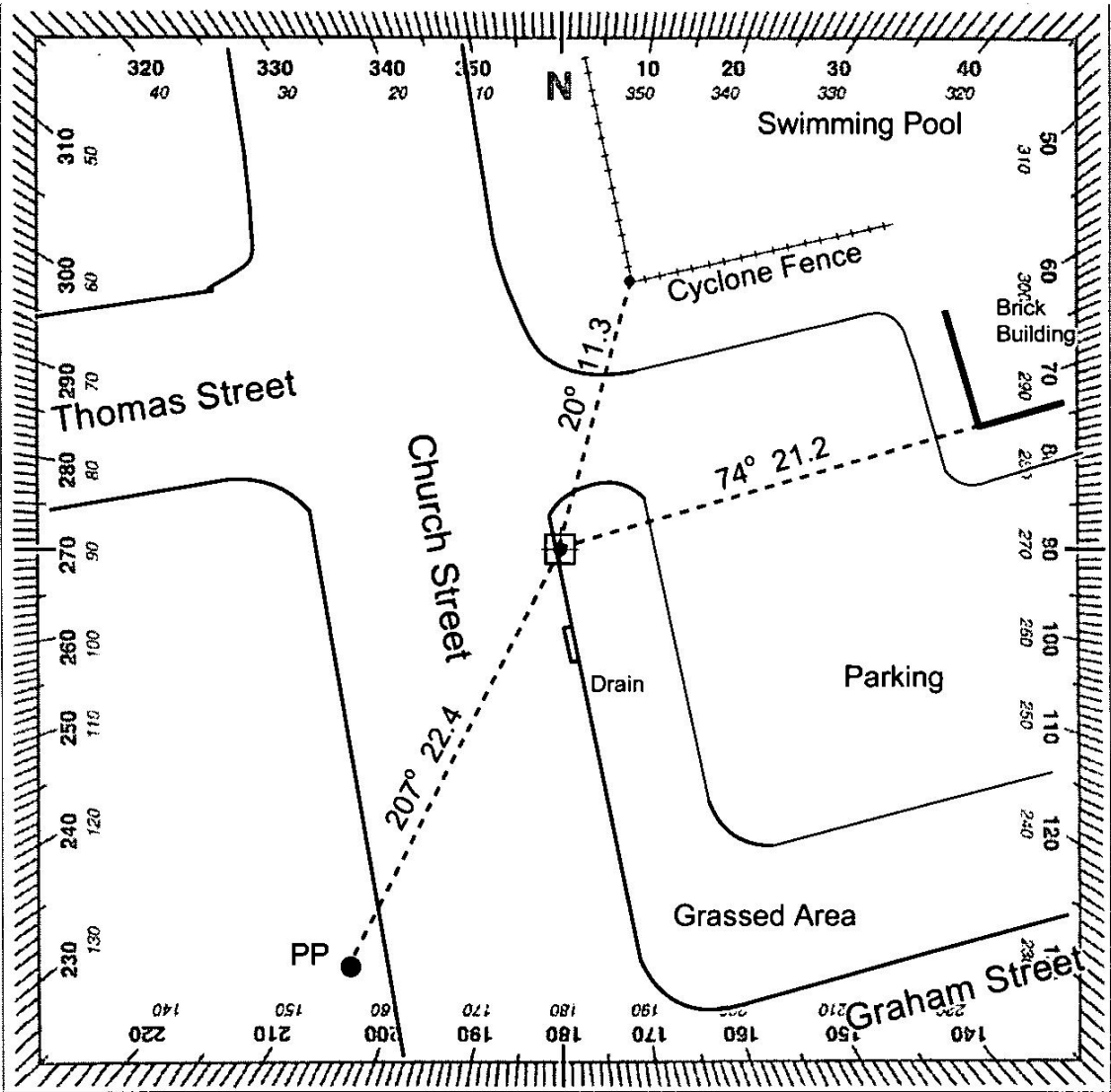
E: 267065

N: 6088956

Description of Mark On Kerb

SS153069

On Kerb



Please use black ink only

SURVEYING REGULATION			
MARK	AHD	SOURCE	DATE
HEIGHT DETERMINED BY		- DIFF. LEVELLING	
(Specify)		- TRIG HEIGHTING	
ADOPTED MARKS		- GPS	

Measurements are in metres

PM
SS 153069
PM
Replaces
SS

I certify that the mark has been placed/found and numbered as detailed hereon.

Signed: _____
Name: Dennis Sluys
Organisation placing mark: LPI
Date mark placed/found: 16/08/05
Ref: _____

Appendix B. **BYDA Search Documents.**

Caller Details

Contact: Astrea Locator
Company: Astrea
Address: 32 Delhi Rd
Macquarie Park NSW 2113

Caller Id: 3005839

Phone: 0476 003 705

Email: dbyd@astrea.com.au

Dig Site and Enquiry Details

WARNING: The map below only displays the location of the proposed dig 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.



User Reference:

Milton PS

Working on Behalf of:

Private

Enquiry Date:

18/08/2023

Start Date:

21/08/2023

End Date:

21/09/2023

Address:

9 Thomas Street
Milton NSW 2538

Job Purpose:

Excavation

Onsite Activities:

Manual Excavation, Mechanical Excavation,
Non-Destructive Digging

Location of Workplace:

Both

Location in Road:

Footpath, Nature Strip, Road

- Check that the location of the dig site is correct. If not you must submit a new enquiry.
- Should 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 do not understand the plans or how to proceed safely, please contact the relevant asset owners.

Notes/Description of Works:

Not supplied

Your Responsibilities and Duty of Care

- The lodgement of an enquiry does not authorise the project to commence. You must obtain all necessary information from any and all likely impacted asset owners prior to excavation.
- If plans are not received within 2 working days, contact the asset owners directly & quote their Sequence No.
- ALWAYS perform an onsite inspection for the presence of assets. Should you require an onsite location, contact the asset owners directly. Please remember, plans do not detail the exact location of assets.
- Pothole to establish the exact location of all underground assets using a hand shovel, before using heavy machinery.
- Ensure you adhere to any State legislative requirements regarding Duty of Care and safe digging requirements.
- If you damage an underground asset you MUST advise the asset owner immediately.
- By using this service, you agree to Privacy Policy and the terms and disclaimers set out at www.byda.com.au
- For more information on safe excavation practices, visit www.byda.com.au

Asset Owner Details

The assets owners listed below have been requested to contact you with information about their asset locations within 2 working days. Additional time should be allowed for information issued by post. It is **your responsibility** to identify the presence of any underground assets in and around your proposed dig site. Please be aware, that not all asset owners are registered with the Before You Dig service, so it is **your responsibility** to identify and contact any asset owners not listed here directly.

** Asset owners highlighted by asterisks ** require that you visit their offices to collect plans.

Asset owners highlighted with a hash # require that you call them to discuss your enquiry or to obtain plans.

Seq. No.	Authority Name	Phone	Status
228546319	Endeavour Energy	(02) 9853 4161	NOTIFIED
228546318	NBN Co NswAct	1800 687 626	NOTIFIED
228546317	Shoalhaven Water	(02) 4429 3214	NOTIFIED
228546320	Telstra NSW South	1800 653 935	NOTIFIED

END OF UTILITIES LIST

WARNING











- **All electrical apparatus shall be regarded as live until proved de-energised.** Contact with live electrical apparatus will cause severe injury or death.
- Underground assets may be congested at the approach to bridges and other structures. Typical asset depths and alignment may vary substantially, rising and falling sharply and at much shallower depths than elsewhere as they are channelled into shared allocated spaces on bridges and other structures. Additional precautions and underground asset location methods will be required in proximity to bridges and other structures.
- In accordance with the *Electricity Supply Act 1995*, you are obliged to report any damage to Endeavour Energy Assets immediately by calling **131 003**.
- The customer must obtain a new set of plans from Endeavour Energy if work has not been started or completed within twenty (20) working days of the original plan issue date.
- The customer must contact Endeavour Energy if any of the plans provided have blank pages, as some underground asset information may be incomplete.
- Endeavour Energy underground earth grids may exist and their location **may not** be shown on plans. Persons excavating are expected to exercise all due care, especially in the vicinity of padmount substations, pole mounted substations, pole mounted switches, transmission poles and towers.
- Endeavour Energy plans **do not** show any underground customer service mains or information relating to service mains within private property.
- Asbestos or asbestos-containing material may be present on or near Endeavour Energy's underground assets.
- Organo-Chloride Pesticides (OCP) may be present in some sub-transmission trenches.
- All plans must be made available at the worksite where excavation is to be undertaken in either printed or electronic format. If the plans are in an electronic format, they must be in a format visible on a screen size 10 inches or greater. Plans must be reviewed and understood by the crew on site prior to commencing excavation.
- Non-destructive water excavation must be operated at or below 2000PSI. Any operation exceeding 2000PSI must be classed and treated as a destructive excavation practice

INFORMATION PROVIDED BY ENDEAVOUR ENERGY

- Any plans provided pursuant to this service are intended to show the approximate location of underground assets relative to road boundaries, property fences and other structures at the time of installation.
- Depth of underground assets may vary significantly from information provided on plans as a result of changes to road, footpath or surface levels subsequent to installation.
- Such plans have been prepared solely for use by Endeavour Energy staff for design, construction and maintenance purposes.
- All enquiry details and results are kept in a register.

DISCLAIMER

Whilst Endeavour Energy has taken all reasonable steps to ensure that the information contained in the plans is as accurate as possible it will accept no liability for inaccuracies in the information shown on such plans.

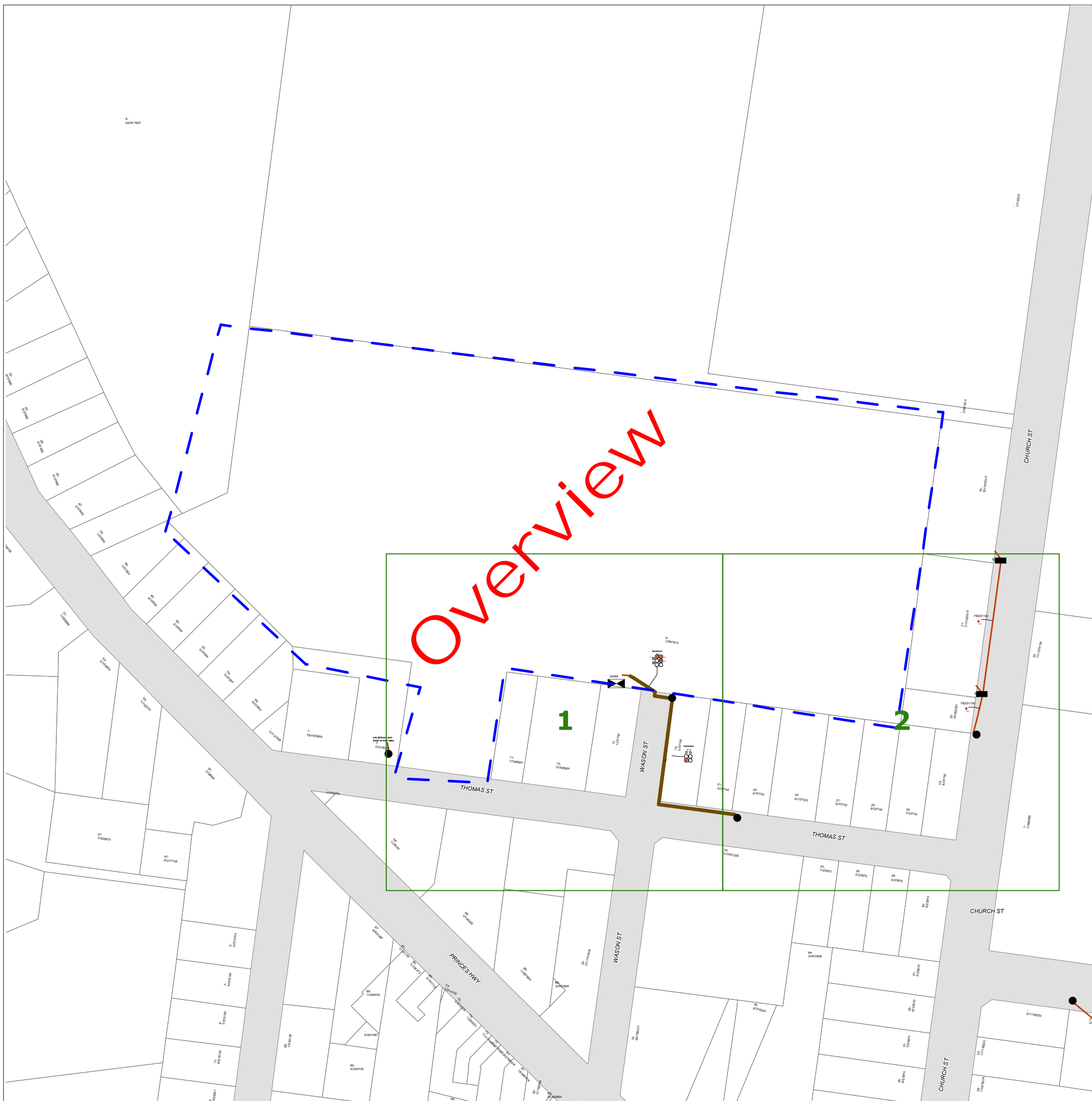
-  or  Street light column
-  Padmount substation
-  or  Overground pillar (O.G.Box)
-  Underground pit
-  Duct run
-  Cable run
-  Typical duct section
-  Asbestos warning



NOT TO SCALE

BYDA Sequence No.:	228546319
Issued Date:	18/08/2023

Cadastre: © Land and Property Information 2015, 2016



WARNING



- All electrical apparatus shall be regarded as live until proved de-energised. Contact with live electrical apparatus will cause severe injury or death.
- Underground assets may be congested at the approach to bridges and other structures. Typical asset depths and alignment may vary substantially, rising and falling sharply and at much shallower depths than elsewhere as they are channelled into shared allocated spaces on bridges and other structures. Additional precautions and underground asset location methods will be required in proximity to bridges and other structures.
- In accordance with the *Electricity Supply Act 1995*, you are obliged to report any damage to Endeavour Energy Assets immediately by calling **131 003**.
- The customer must obtain a new set of plans from Endeavour Energy if work has not been started or completed within twenty (20) working days of the original plan issue date.
- The customer must contact Endeavour Energy if any of the plans provided have blank pages, as some underground asset information may be incomplete.
- Endeavour Energy underground earth grids may exist and their location **may not** be shown on plans. Persons excavating are expected to exercise all due care, especially in the vicinity of padmount substations, pole mounted substations, pole mounted switches, transmission poles and towers.
- Endeavour Energy plans **do not** show any underground customer service mains or information relating to service mains within private property.
- Asbestos or asbestos-containing material may be present on or near Endeavour Energy's underground assets.
- Organo-Chloride Pesticides (OCP) may be present in some sub-transmission trenches.
- All plans must be made available at the worksite where excavation is to be undertaken in either printed or electronic format. If the plans are in an electronic format, they must be in a format visible on a screen size 10 inches or greater. Plans must be reviewed and understood by the crew on site prior to commencing excavation.
- Non-destructive water excavation must be operated at or below 2000PSI. Any operation exceeding 2000PSI must be classed and treated as a destructive excavation practice


INFORMATION PROVIDED BY ENDEAVOUR ENERGY



- Any plans provided pursuant to this service are intended to show the approximate location of underground assets relative to road boundaries, property fences and other structures at the time of installation.
- Depth of underground assets may vary significantly from information provided on plans as a result of changes to road, footpath or surface levels subsequent to installation.
- Such plans have been prepared solely for use by Endeavour Energy staff for design, construction and maintenance purposes.
- All enquiry details and results are kept in a register.


DISCLAIMER


Whilst Endeavour Energy has taken all reasonable steps to ensure that the information contained in the plans is as accurate as possible it will accept no liability for inaccuracies in the information shown on such plans.


-  or 


Street light column
- 


Padmount substation
-  or 

Overground pillar (O.G.Box)
- 

Underground pit
- 

Duct run
- 

Cable run
- 

Typical duct section
- 

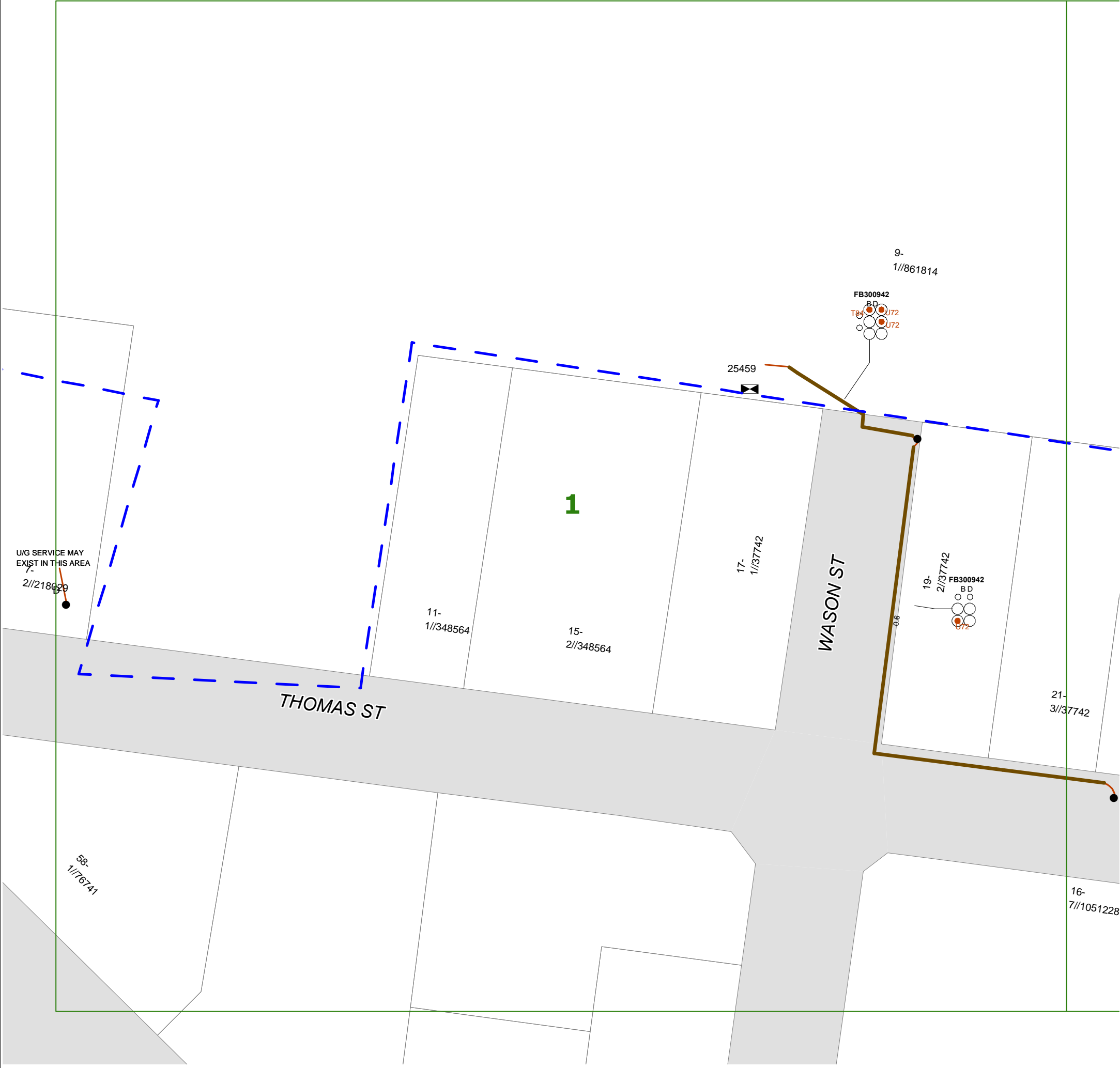
Asbestos warning

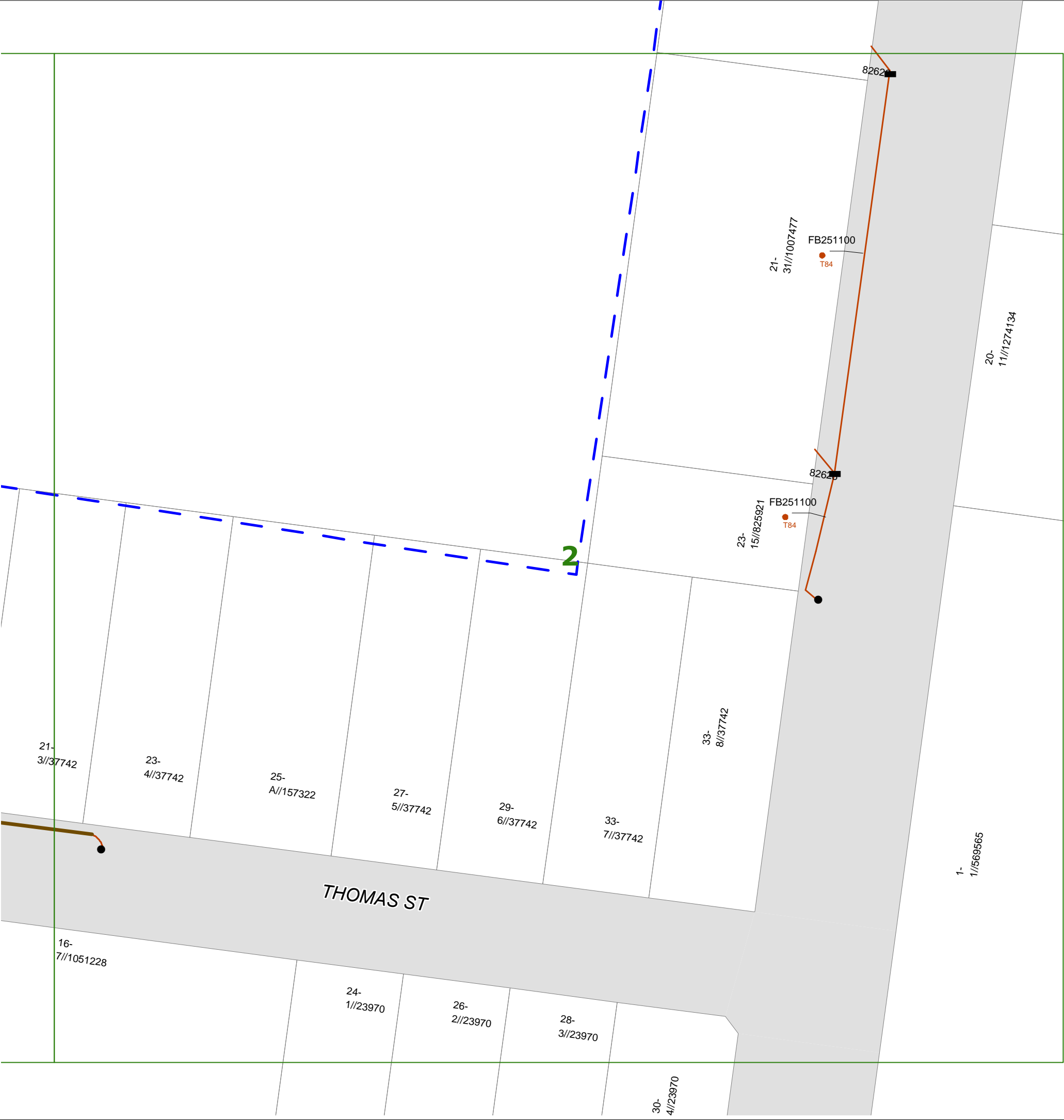


NOT TO SCALE

BYDA Sequence No.:	228546319
Issued Date:	18/08/2023

Cadastre: © Land and Property Information 2015, 2016





WARNING



- **All electrical apparatus shall be regarded as live until proved de-energised.** Contact with live electrical apparatus will cause severe injury or death.
- Underground assets may be congested at the approach to bridges and other structures. Typical asset depths and alignment may vary substantially, rising and falling sharply and at much shallower depths than elsewhere as they are channelled into shared allocated spaces on bridges and other structures. Additional precautions and underground asset location methods will be required in proximity to bridges and other structures.
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- Endeavour Energy plans **do not** show any underground customer service mains or information relating to service mains within private property.
- Asbestos or asbestos-containing material may be present on or near Endeavour Energy's underground assets.
- Organo-Chloride Pesticides (OCP) may be present in some sub-transmission trenches.
- All plans must be made available at the worksite where excavation is to be undertaken in either printed or electronic format. If the plans are in an electronic format, they must be in a format visible on a screen size 10 inches or greater. Plans must be reviewed and understood by the crew on site prior to commencing excavation.
- Non-destructive water excavation must be operated at or below 2000PSI. Any operation exceeding 2000PSI must be classed and treated as a destructive excavation practice


INFORMATION PROVIDED BY ENDEAVOUR ENERGY

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- Depth of underground assets may vary significantly from information provided on plans as a result of changes to road, footpath or surface levels subsequent to installation.
- Such plans have been prepared solely for use by Endeavour Energy staff for design, construction and maintenance purposes.
- All enquiry details and results are kept in a register.

DISCLAIMER

Whilst Endeavour Energy has taken all reasonable steps to ensure that the information contained in the plans is as accurate as possible it will accept no liability for inaccuracies in the information shown on such plans.

-  or 

 Street light column
- 
- Padmount substation

 or 

 Overground pillar (O.G.Box)

NOT TO SCALE

BYDA Sequence No.:	228546319
Issued Date:	18/08/2023

To:

Phone:

Fax:


Email:

Astrea Locator

Not Supplied

Not Supplied

Astrea.Locator.3005839@mail.au.pac.pcgcs.com.au

Dial before you dig Job #:	34866501	
Sequence #	228546318	
Issue Date:	18/08/2023	
Location:	9 Thomas Street , Milton , NSW , 2538	

Indicative Plans

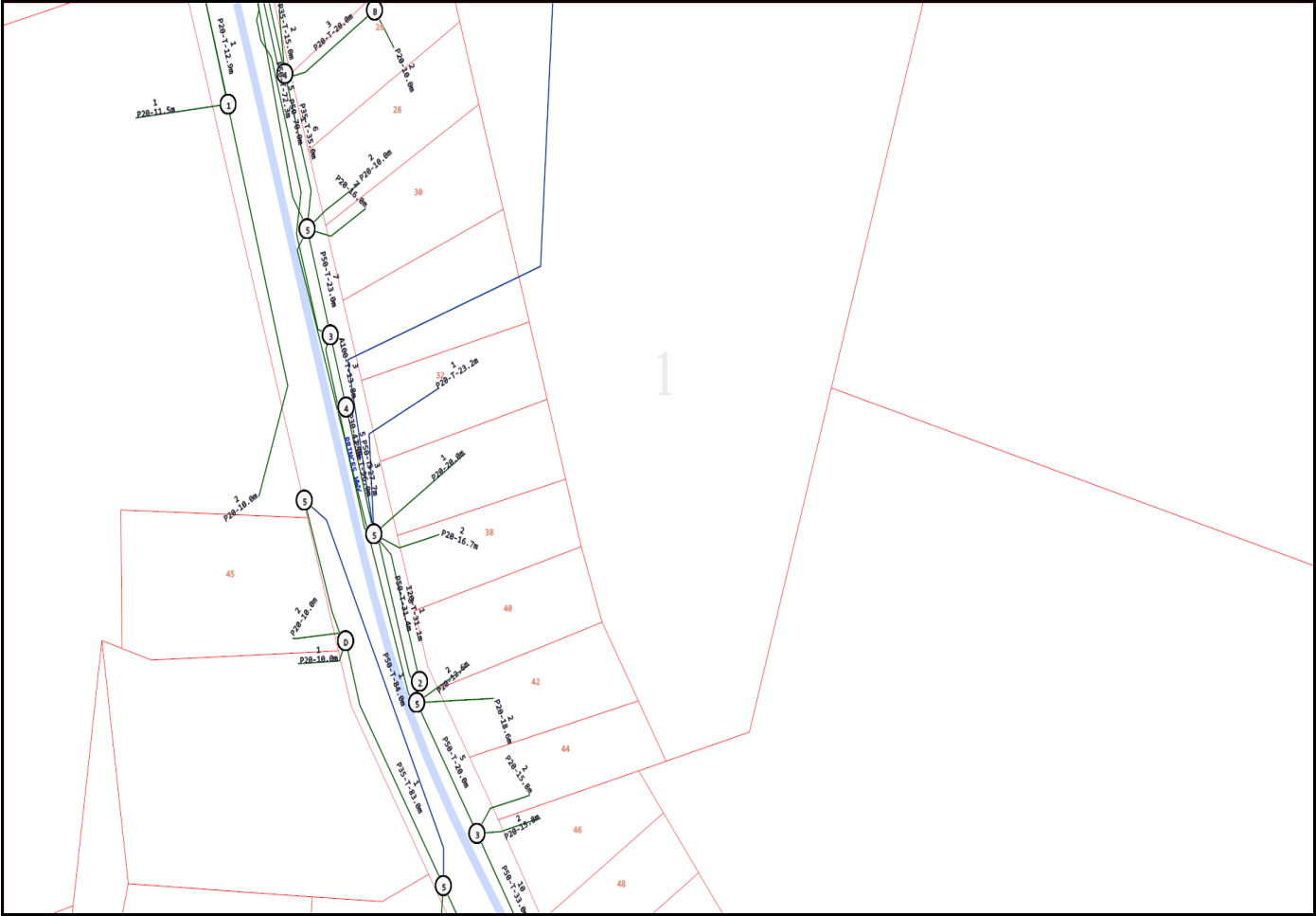
1	3
2	4

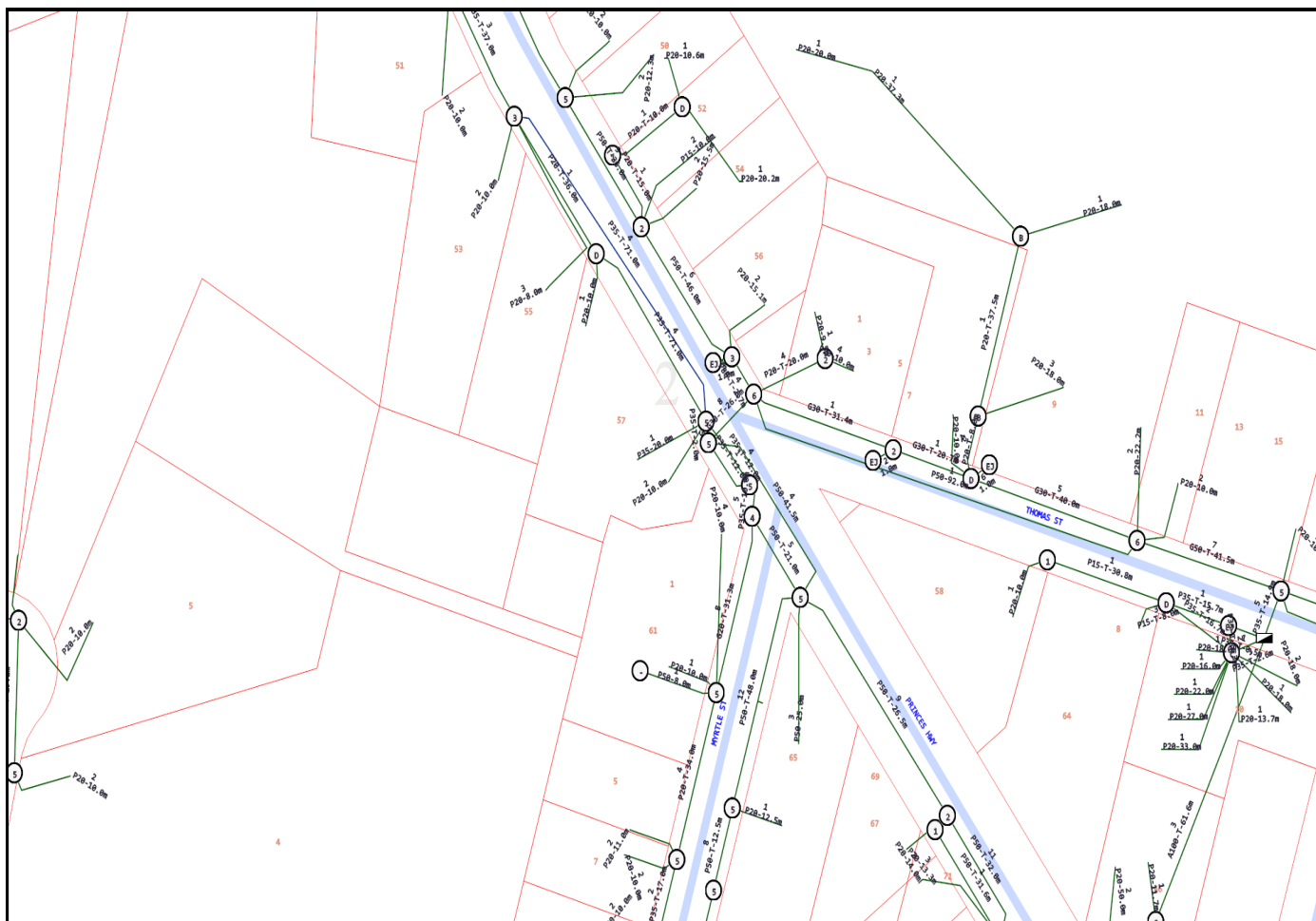


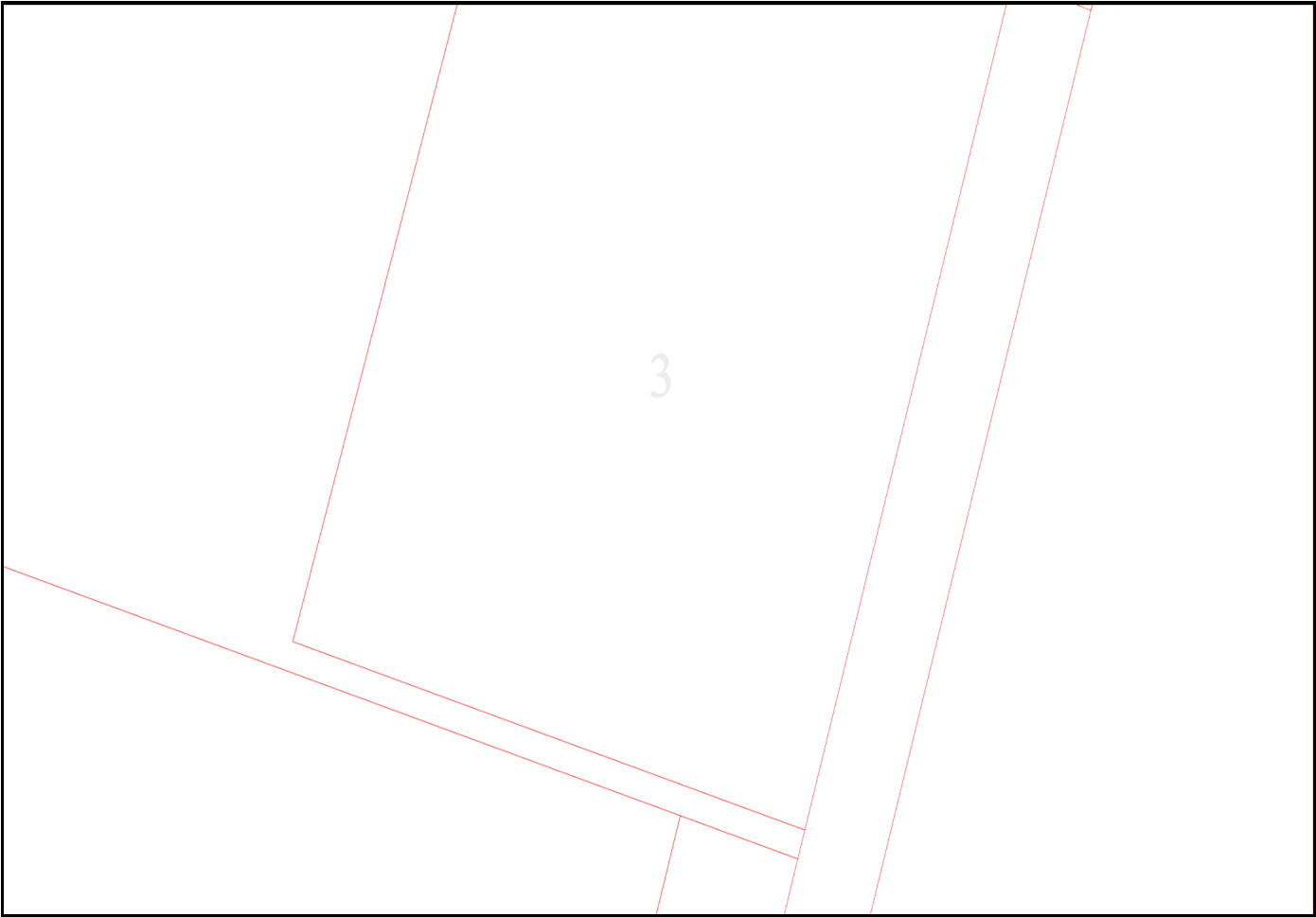
LEGEND



	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



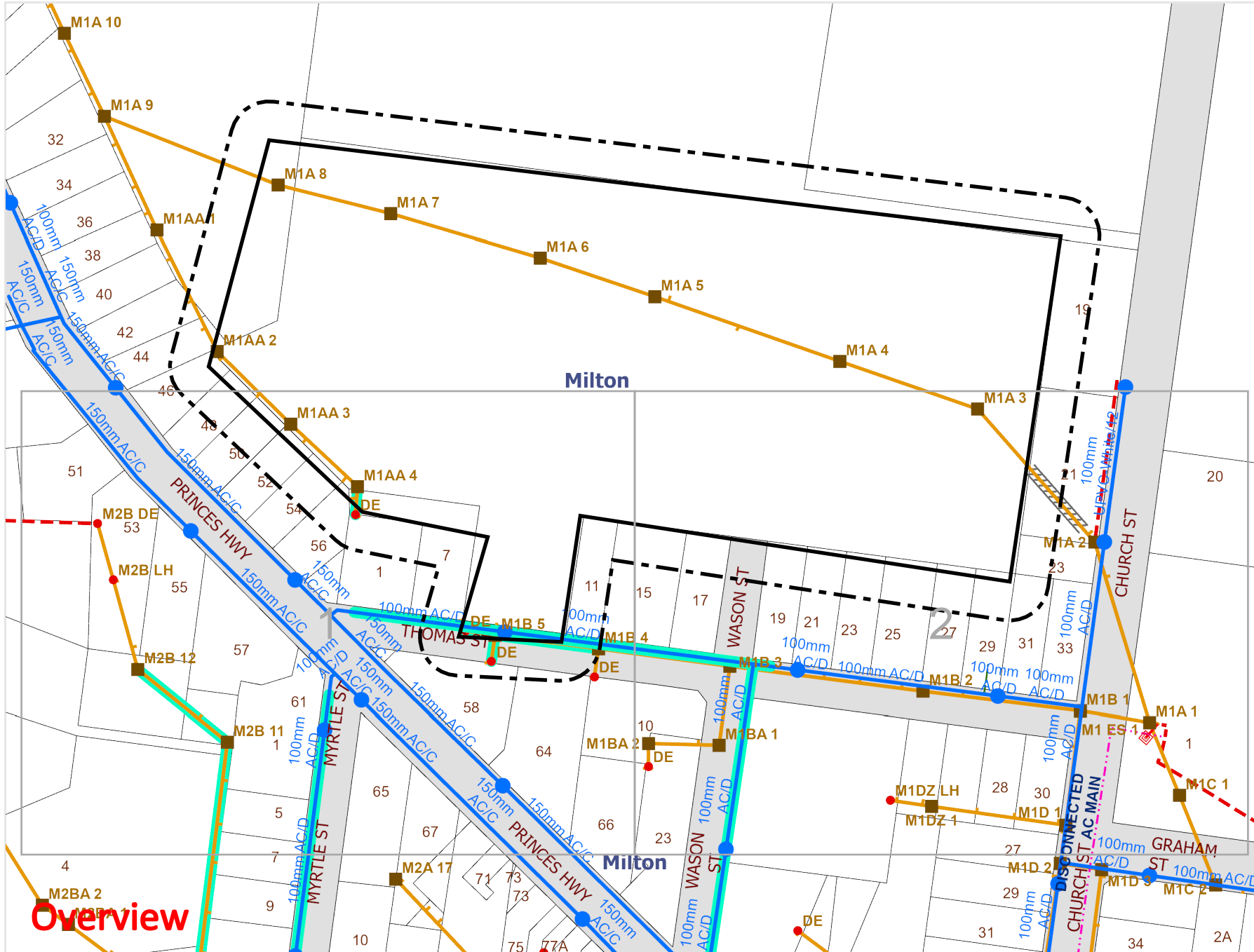






Emergency Contacts

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



Legend

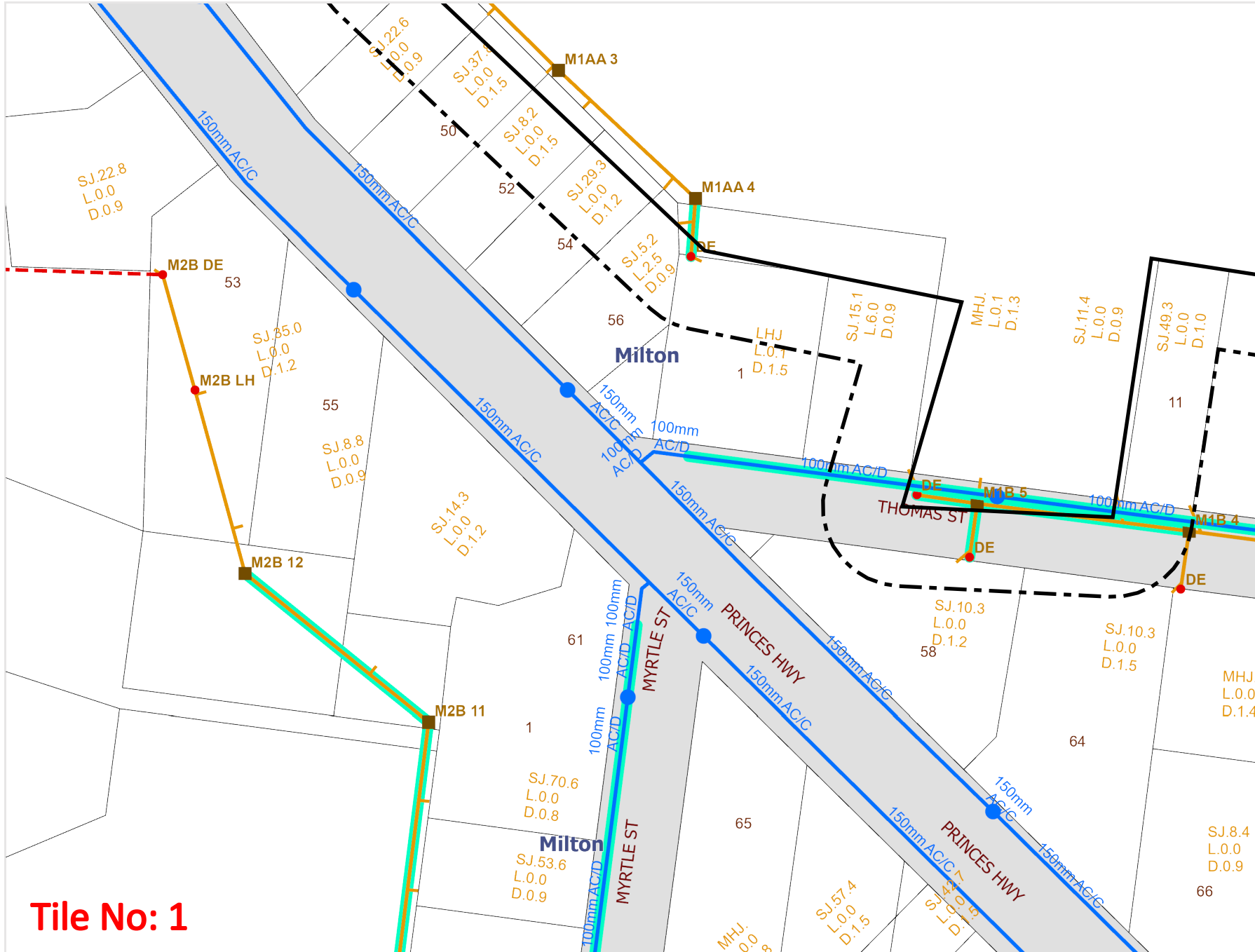
- Abandoned Main
- Critical
- Under Construction
- Concrete Encasement
- Pipe Encasement
- Under Road Conduit
- Pipe Sleeve
- REMS**
- Distribution Main
- Transfer Main
- Tertiary Treated Effluent Release Main
- Short Service Main
- Long Service Main
- Water**
- Hydrant
- Reticulation Main
- Trunk Main
- Raw Water Main
- Private Main
- Service Mains
- Sewer**
- Manhole
- Gravity Main
- Outfall Main
- Unconnected Main
- Overflow Main
- Rising Main
- Surcharge Main
- Low Pressure Sewer Main
- Discharge Pipe
- Junction Line
- Side Line



Scale: 1:2050
Expires: 15/09/2023

DISCLAIMER: While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither Shoalhaven City Council or 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.

Overview



Legend

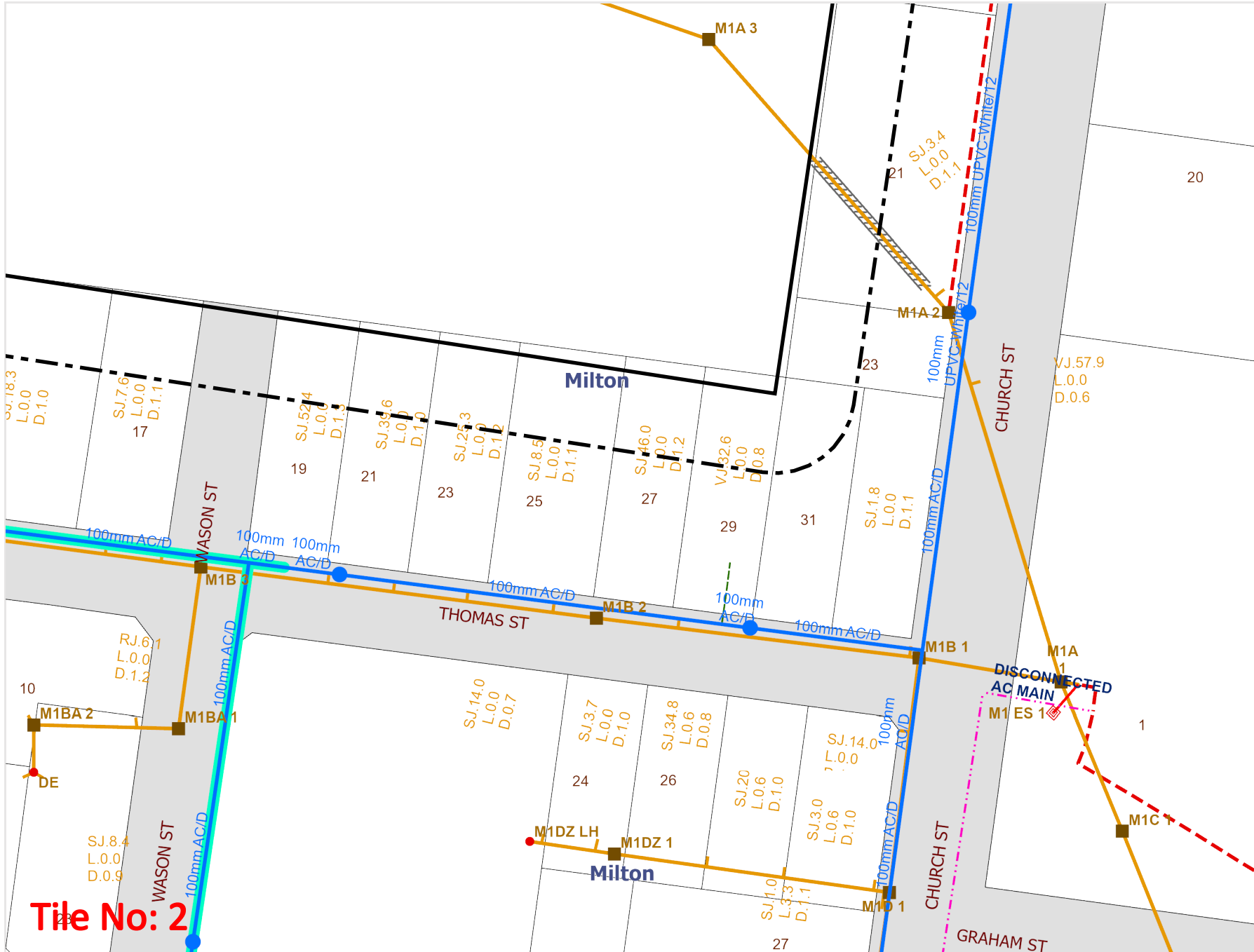
- Abandoned Main
- Critical
- Under Construction
- Concrete Encasement
- Pipe Encasement
- Under Road Conduit
- Pipe Sleeve
- REMS**
- Distribution Main
- Transfer Main
- Tertiary Treated Effluent Release Main
- Short Service Main
- Long Service Main
- Water**
- Hydrant
- Reticulation Main
- Trunk Main
- Raw Water Main
- Private Main
- Service Mains
- Sewer**
- Manhole
- Gravity Main
- Outfall Main
- Unconnected Main
- Overflow Main
- Rising Main
- Surcharge Main
- Low Pressure Sewer Main
- Discharge Pipe
- Junction Line
- Side Line



Scale: 1:1000
Expires: 15/09/2023

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Tile No: 1



Legend

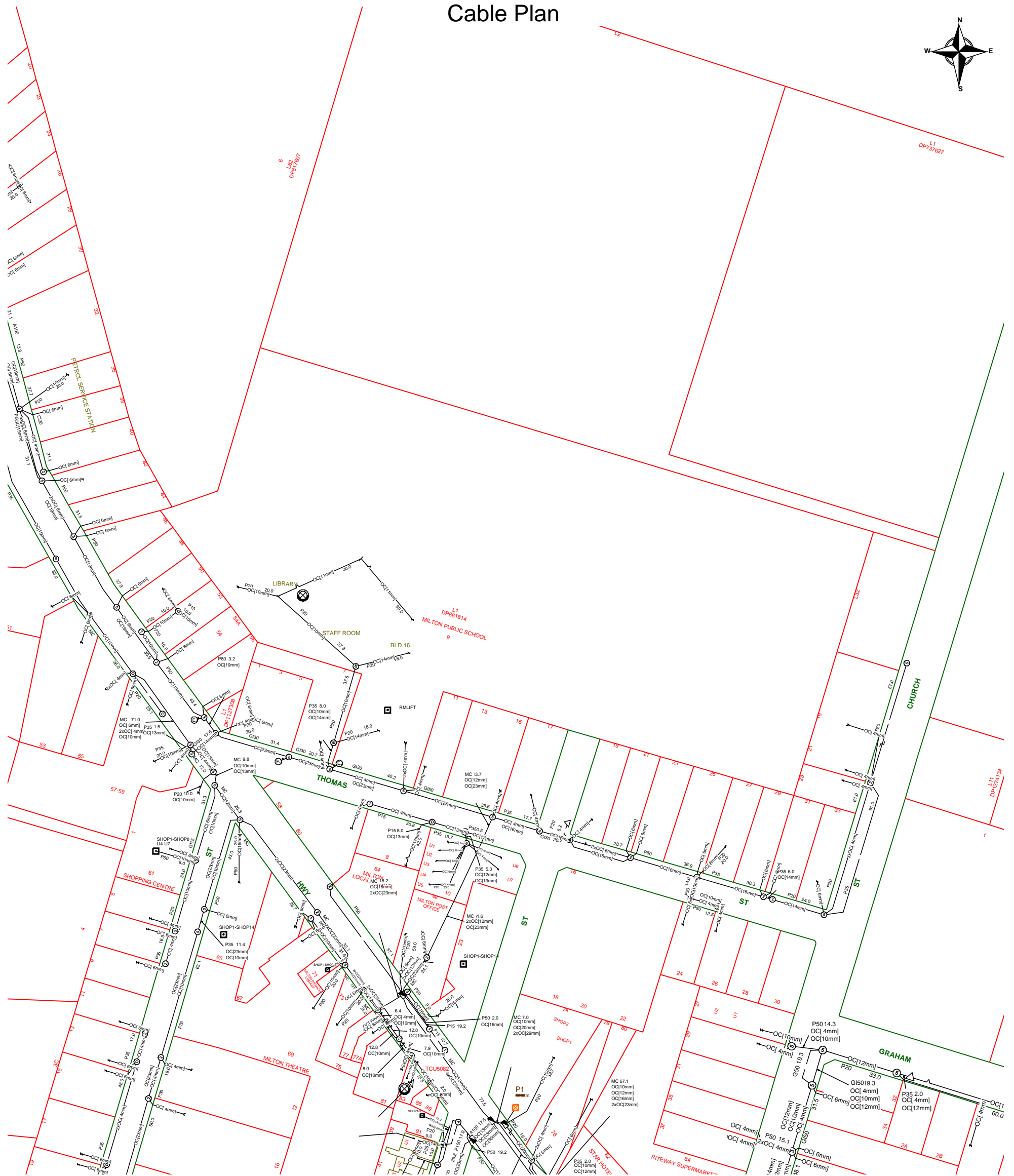
- Abandoned Main
- Critical
- Under Construction
- Concrete Encasement
- Pipe Encasement
- Under Road Conduit
- Pipe Sleeve
- REMS**
 - Distribution Main
 - Transfer Main
 - Tertiary Treated Effluent Release Main
 - Short Service Main
 - Long Service Main
- Water**
 - Hydrant
 - Reticulation Main
 - Trunk Main
 - Raw Water Main
 - Private Main
 - Service Mains
- Sewer**
 - Manhole
 - Gravity Main
 - Outfall Main
 - Unconnected Main
 - Overflow Main
 - Rising Main
 - Surcharge Main
 - Low Pressure Sewer Main
 - Discharge Pipe
 - Junction Line
 - Side Line



Scale: 1:1000
Expires: 15/09/2023

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Tile No: 2



Generated On 18/08/2023 14:40:28

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.

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.

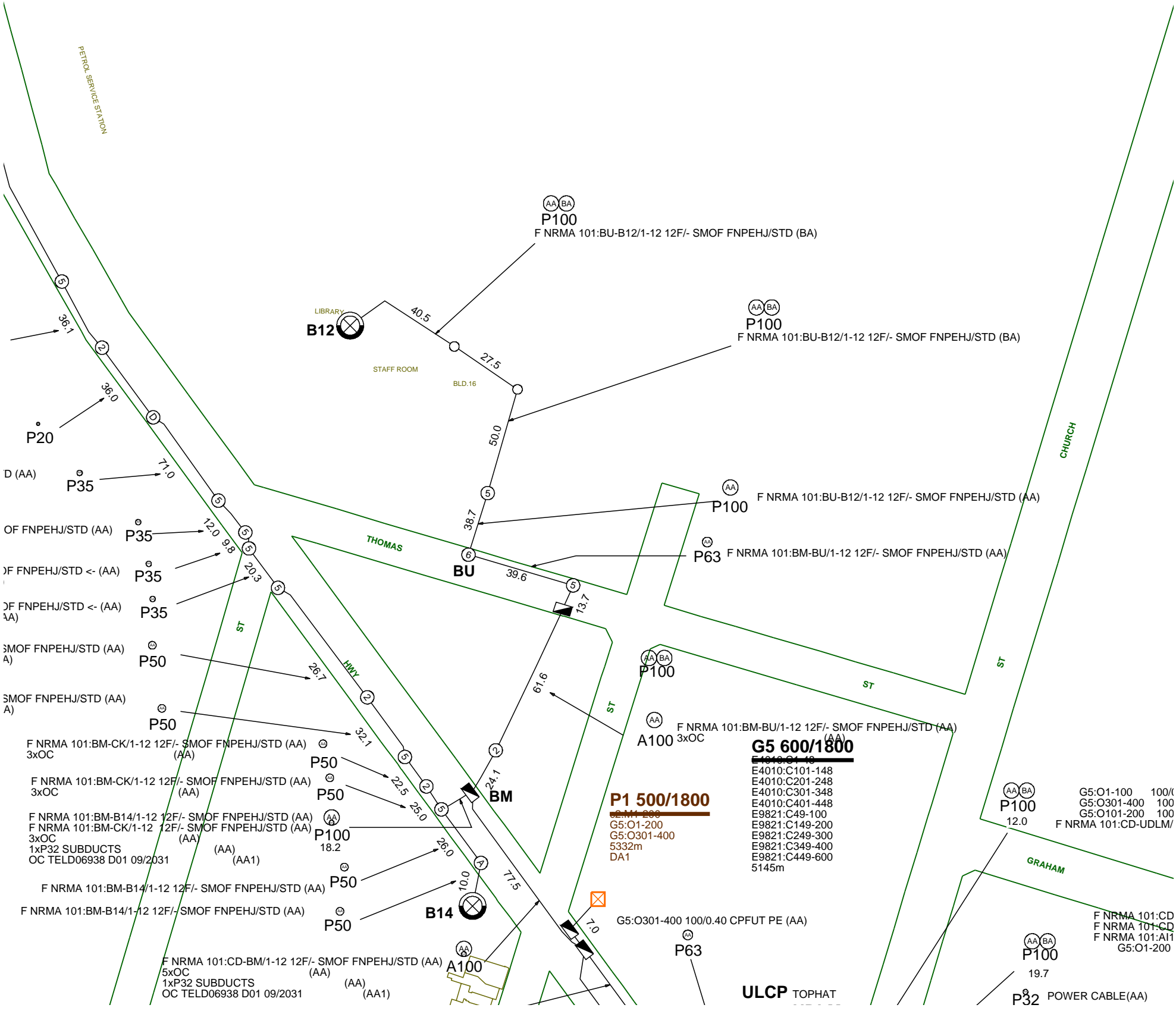
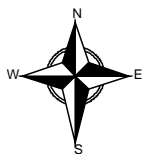
Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy.

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.

Mains Cable Plan



	<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: 228546320</p>
<p>TELSTRA LIMITED A.C.N. 086 174 781 Generated On 18/08/2023 14:40:31</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
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.

APPENDIX C – SHEETED DETAIL SITE SURVEY



A1

UTILITY ASSETS LEGEND	
ELECTRICITY	
COMMS TELEPHONE LINE	— T — T —
COMMS OPTICAL FIBRE	— OU — OU —
COMMS HOUSE CONNECTION	— TH — TH —
WATER MAIN	
RECYCLED WATER MAIN	— WR — WR —
WATER HOUSE CONNECTION	— WH — WH —
LOW PRESSURE GAS	
GAS HOUSE CONNECTION	— GH — GH —
SEWER MAIN	
STORMWATER PIPE	— SW — SW — SW —
OVERHEAD ELECTRICITY	

UTILITY MAPPING NOTES:

- Subsurface utility investigation was undertaken by Atrea Pty Ltd, the plan is to be read in conjunction with the subsurface utility investigation report.
- Positions are based on Astrea Class A & B point surface indicator(s) located during field survey. Confirmation of the exact position should be made to the relevant authorities prior to any excavation work. Other services may still exist.
- This plan shows a representation of the dwg model. This model should be viewed in a cadd environment to interpret this information.
- This utility plan is valid for 28 days starting from the date of the issue, as underground utility works are often updated.
- Electricity cables are not necessarily enclosed in conduits and are not necessarily covered with markers, tape or other indicators of their presence.
- All services have been electronically traced in the field and are shown here for diagrammatic purposes only. Depths shown are approximate only and should be verified prior to works.
- This plan includes information describing the location of subterranean features, which were purported to exist at the time of the survey. This information was compiled from a combination of field techniques and available data from cooperating utility authorities. Whilst all care has been taken in the preparation of this plan of survey, we cannot guarantee that the plan is without flaw of any kind.

SUBSURFACE UTILITY INFORMATION (SUI) AS4588 LOCATION CLASS

Labelling utility information by a classification code allows the user of this information to understand clearly how the information was collected and then place an appropriate amount of reliance on it. Project risks related to underground utilities can then be managed.

GENERAL SURVEY LEGEND:

DP - DRAINAGE PIT
FQJM - DRAINAGE JUNCTION MANHOLE
PMH - SEWER MANHOLE
PWHV - HYDRANT
PWSV - STOP VALVE
PQL - GULLY PIT
PQPM - GAS MARKER
PQTP - GAS TEST POINT
PPPL - POWER POLE
PTSP - TELSTRA PIT
TK - TOP OF KERB LP - UP OF GLITTER
PO - PRAM RAMP DW - DRIVEWAY
FP - FOOTPATH TW - TOP OF WALL

CLASS A: Information is the highest possible level of accuracy and is obtained by exposing the underground utility using a on-destructive excavation (pot holing) technique. The vertical information for this locating method is to the top or shallowest part of the located service. The 3D location is recorded by survey as an X, Y, Z coordinate.

CLASS B: Information is collected by designating the horizontal and vertical location of underground utilities by using electromagnetic pipe and cable locators, sondes or flexi-trace, ground penetrating radar and acoustic pulse equipment. This is the most common form of utility locating and although an X, Y and Z axis can be established it is not always entirely accurate due to differing electromagnetic fields, soil conditions and multiple banks of cables affecting the locating signal.

CLASS C: Information is collected by correlating the survey of visible utility surface features such as marker plates or water hydrants and acquired Dial-Before-You-Dig plans to "draw" a string which shows the approximate position of services. This method does not usually show multiple banks of cables and does not always show three dimensional information. Electronically traced locate marks with poor scratchy signals are represented as QL-C.

CLASS D: Information is the most basic level of utility locations using only information based on existing Dial-Before-You-Dig plans and by measuring boundary offsets etc. This method of utility locations should always be treated as an indication of the presence of a service only and should not be used for design. GPR scans are also represented as QL-D as the GPR image cannot be confirmed to its origin point. Depths on GPR scan must be treated as indicative only.



GENERAL SURVEY NOTES:	
• THIS TITLER/LOOK IS AN INTEGRAL PART OF THIS DWG AND SHOULD NOT BE REMOVED	
• COORDINATE SYSTEM MGA 2020	
• LEVEL DATUM IS AHD	
• IT IS THE RESPONSIBILITY OF ANY USER OF THIS DATA TO ENSURE ANY OTHER DATA BEING INTEGRATED IS ON THE SAME COORDINATE SYSTEM	
• REFER TO THE FACE OF THE PLAN FOR TITLE NOTATIONS	
• BOUNDARIES HAVE BEEN DEFINED BY SURVEY	
• CONTOURS ARE INDICATIVE OF LAND FORM. SPOT LEVELS TAKE PRECEDENCE.	

SCALE 1:600	
0	10 20 30 40 50 60
ORIGIN	SS14194
ORIENTATION	E 266758.984 N 6088996.644
AHD ORIGIN	SS14194-AA153069
	SS14194 RL80.856

CLIENT : SCHOOLS INFRASTRUCTURE
PLAN IN RELATION TO : MILTON PUBLIC SCHOOL
SHOWING : TOPOGRAPHICAL SURVEY AND UTILITY MAPPING IN ACCORDANCE WITH AS4588.1-2019
PURPOSE: ENGINEERING DESIGN
SHEET 01 OF 05

DIGITAL SURVEY SOLUTIONS
UTILITY MAPPING

SUITE 6.01, TRINITY II, TRINITY BUSINESS PARK
39 DELHI ROAD, NORTH RYDE 2113
SCOTT DEVERIDGE 0425 285 270
www.astrea.com.au

Astrea

JOB REFERENCE : A4065	I/D 7453
DWG No. A4065-TOP&UTIL	
SURVEYOR: BD	SCOTT DEVERIDGE
DATE OF SURVEY: OCT 2023	REGISTERED LAND SURVEYOR
UTILITY LOCATOR: LB	UNDER THE SURVEYING AND SPATIAL INFORMATION ACT, 2002
© ASTREA 2023 - UNAUTHORISED USE IS PROHIBITED	
REV	AMENDMENTS
	DATE



UTILITY ASSETS LEGEND

- UTILITY MAPPING NOTES:**
- 1. Subsurface utility investigation was undertaken by Arco Pro, LLC. The plan is to be read in conjunction with the subsurface utility investigation report.
 - 2. Positions are based on Assessor Class A & B spot position indicators (s) located during field survey. Confirmation of exact position should be made to the landowner/utility prior to any excavation work. Other services may still exist. This plan is not representative of the actual location of the utility and should be viewed in a closed environment to interpret this information.
 - 3. This utility plan is valid for 28 days starting from the date of the issue, as understood by the utility.
 - 4. Electricity cables are not necessarily enclosed in conduits and are not necessarily covered with markers, tape or other indicators of their presence.
 - 5. All services have been electronically traced in the field and are shown here for diagnostic purposes only. Depths shown are approximate only and should be verified prior to works.
- This plan includes information describing the location of subterranean features, which were purposed to exist at the time of the survey. This information has been combined with a combination of field and historical data from cooperating utility providers. Whilst all care has been taken in the preparation of this plan of survey, we cannot guarantee that the plan is without fault of any kind.
- SUBSURFACE UTILITY INFORMATION (US) ASSHAB LOCATION CLASS:**
- Labelling utility information by a classification code allows the user of this information to understand the relative importance of the utility and the appropriate amount of reliance on it. Project risks related to underground utilities can then be managed.

UTILITY MAPPING NOTES

necessarily covered with markers, tape or other indicators of their presence. All services have been electronically traced in the field and are shown here for diagrammatic purposes only. Depths shown are approximate only and should be verified prior to works.

This plan includes information describing the location of subterranean features, which were purported to exist at the time of the survey. This information was compiled from a combination of field techniques and available data from cooperating utility authorities. Whilst all care has been taken in the preparation of this plan of survey, we cannot guarantee that the plan is without flaw of any kind.

SUBSURFACE UTILITY INFORMATION (SUI) ASS448 LOCATION CLASS

labelling utility information by a classification code allows the user of this information to understand clearly how the information was collected and then place an appropriate

CLASS A: Information is the highest possible level of accuracy and is obtained by exposing the underground utility using an on-destructive excavation (pot holing) technique. The vertical information for this locating method is at the top or shallowest part of the located service. The 3D location is recorded by survey as its X, Y, Z coordinate.

CLASS B: Information collected by designating the horizontal and vertical location of underground utilities using a ground penetrating radar (GPR) or ground penetrating radar, non-destructive ground penetrating radar and acoustic pulse equipment. This is the most common form of utility locating and although an X, Y and Z axis can be established it is not always entirely accurate due to differing electromagnetic fields, soil conditions and variable backscatter.

CLASS C: Information is collected by conducting the survey of visible utility surface features such as marker pipes or water hydrants and acquiring above-Debris-Yug pipes to "draw" a string which shows the approximate position of services. This method does not usually show multiple banks of cables and does not always show three dimensional information. Electronically traced location marks with poor accuracy signals are represented as Q-L-C.

CLASS D: Information is the most basic level of utility locations using only information based on existing Debris-Yug-Debris and by measuring boundary offsets only. This method of utility locations should always be treated as an indication of the presence of a service only and should not be used for design. GPR scans are also represented as Q-L-D and are not always confirmed to the origin point. Depths on GPR scan may be treated as indicative only.

GENERAL SURVEY LEGEND:


DP - DRAINAGE PIT
DPJM - DRAINAGE JUNCTION MANHOLE
PSMH - SEWER MANHOLE
FWHY - HYDROKAT
PWVS - STOP VALVE
PGLA - GULLY PIT
PGPM - GAS MARKER
PGTP - GAS TEST POINT
PPPL - POWER POLE
PTSP - TELSTRA PIT
TK - TOP OF KERB / LP - LIP OF GUTTER
PC - PAVI RAMP DW - DRIVEWAY
FP - FOOTPATH TW - TOP OF WALL

SERVICE TIE
EXISTING QUALITY LAYED PIPE MATERIAL

TINIA A100
33.15

SERVICES LOCATION
LOCATION OF CENTER OF PIPE
LEVEL AT THE TOP OF PIPE

®



**DIAL BEFORE
YOU DIG**
www.1100.com.au

GENERAL SURVEY NOTES :

- * THIS TITLEBLOCK IS AN INTEGRAL PART OF THIS DWG AND SHOULD NOT BE REMOVED
- * COORDINATE SYSTEM MGA 2020
- * LEVEL, DATUM IS AHD
- * IT IS THE RESPONSIBILITY OF ANY USER OF THIS DATA TO ENSURE ANY OTHER DATA BEING INTEGRATED IS ON THE SAME COORDINATE SYSTEM
- * REFER TO THE FACE OF THE PLAN FOR TITLE NOTATIONS
- * BOUNDARIES HAVE BEEN DEFINED BY SURVEY
- * CONTOURS ARE INDICATIVE OF LAND FORM. SPOT LEVELS TAKE PRECEDENCE.

SCALE 1:200

0 5 10 15 20

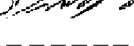
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	ORIENTATION	SS14194-AA153069
	AHD ORIGIN	SS14194 RL80.856

ED	CLIENT : SCHOOLS INFRASTRUCTURE
	PLAN IN RELATION TO : MILTON PUBLIC SCHOOL
	SHOWING : TOPOGRAPHICAL SURVEY AND UTILITY MAPPING IN ACCORDANCE WITH AS4588.1-2019
14	PURPOSE: ENGINEERING DESIGN
	SHEET 02 OF 05

**DIGITAL SURVEY SOLUTIONS
UTILITY MAPPING**

SUITE 6.01, TRINITI II, TRINITI BUSINESS PARK
39 DELHI ROAD, NORTH RYDE 2113
SCOTT DEVERIDGE 0425 285 270
www.astrea.com.au

Astrea

JOB REFERENCE :	A4065	I/D
DWG No.	A4065-TOP&UTIL	7453
SURVEYOR:	BD	 SCOTT DEVERIDGE REGISTERED LAND SURVEYOR UNDER THE SURVEYING AND SPATIAL INFORMATION ACT, 2002
DATE OF SURVEY:	OCT 2023	
UTILITY LOCATOR:	LB	



- TITLE NOTATIONS:**
1. RESERVATIONS AND CONDITIONS IN THE CROWN GRANT
 2. EASEMENT TO DRAIN WATER 1 WIDE APPURTENANT TO THE SUBJECT LAND (VIDE DP 1007477)
 3. RESTRICTION ON THE USE OF LAND (A) (VIDE DP 1120833)
 4. EASEMENT FOR PADMOUNT SUBSTATION 2.75 WIDE AFFECTING THE SUBJECT LAND (DP 1120833) (B)
 5. EASEMENT FOR UNDERGROUND CABLES 1 WIDE AFFECTING THE SUBJECT LAND (DP 1120833) (C)

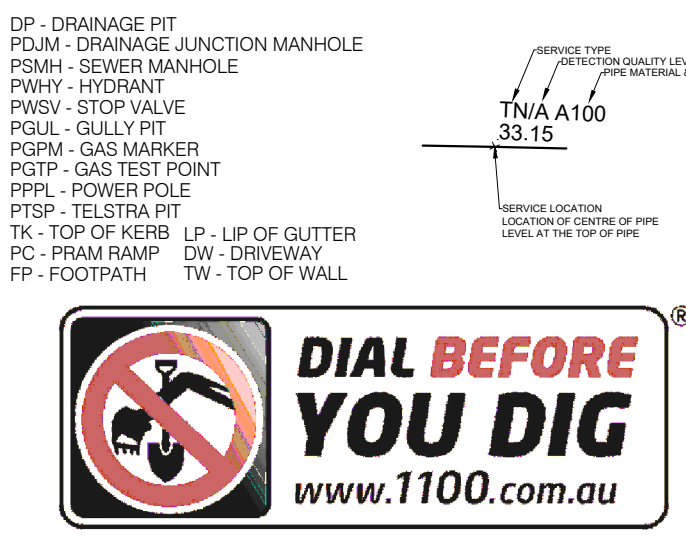
A1

UTILITY ASSETS LEGEND	
ELECTRICITY	
COMMS TELEPHONE LINE	— T — T —
COMMS OPTICAL FIBRE	— OU — OU —
COMMS HOUSE CONNECTION	— TH — TH —
WATER MAIN	
RECYCLED WATER MAIN	— WR — WR —
WATER HOUSE CONNECTION	— WH — WH —
LOW PRESSURE GAS	
GAS HOUSE CONNECTION	— GH — GH —
SEWER MAIN	
STORMWATER PIPE	— SW — SW —
OVERHEAD ELECTRICITY	— OH — OH —

- UTILITY MAPPING NOTES:**
1. Subsurface utility investigation was undertaken by Atrea Pty Ltd. the plan is to be read in conjunction with the subsurface utility investigation report.
 2. Positions are based on Astrea Class A & B point surface indicator(s) located during field survey. Confirmation of the exact position should be made to the relevant authorities prior to any excavation work. Other services may still exist.
 3. This plan shows a representation of the dwg model. This model should be viewed in a cadd environment to interpret this information.
 4. This utility plan is valid for 28 days starting from the date of the issue, as underground utility works are often updated.
 5. Electricity cables are not necessarily enclosed in conduits and are not necessarily covered with markers, tape or other indicators of their presence.
 6. All services have been electronically traced in the field and are shown here for diagrammatic purposes only. Depths shown are approximate only and should be verified prior to works.
 7. This plan includes information describing the location of subterranean features, which were purported to exist at the time of the survey. This information was compiled from a combination of field techniques and available data from cooperating utility authorities. Whilst all care has been taken in the preparation of this plan of survey, we cannot guarantee that the plan is without flaw of any kind.
- SUBSURFACE UTILITY INFORMATION (SUI) AS488 LOCATION CLASS**
- Labelling utility information by a classification code allows the user of this information to understand clearly how the information was collected and then place an appropriate amount of reliance on it. Project risks related to underground utilities can then be managed.

- CLASS A:** Information is the highest possible level of accuracy and is obtained by exposing the underground utility using a on-destructive excavation (pot holing) technique. The vertical information for this locating method is to the top or shallowest part of the located service. The 3D location is recorded by survey as an X, Y, Z coordinate.
- CLASS B:** Information is collected by designating the horizontal and vertical location of underground utilities by using electromagnetic pipe and cable locators, sondes or flexi-trace, ground penetrating radar and acoustic pulse equipment. This is the most common form of utility locating and although an X, Y and Z axis can be established it is not always entirely accurate due to differing electromagnetic fields, soil conditions and multiple banks of cables affecting the locating signal.
- CLASS C:** Information is collected by correlating the survey of visible utility surface features such as marker plates or water hydrants and acquired Dial-Before-You-Dig plans to "draw" a string which shows the approximate position of services. This method does not usually show multiple banks of cables and does not always show three dimensional information. Electronically traced locate marks with poor scratchy signals are represented as QL-C.
- CLASS D:** Information is the most basic level of utility locations using only information based on existing Dial-Before-You-Dig plans and by measuring boundary offsets etc. This method of utility locations should always be treated as an indication of the presence of a service only and should not be used for design. GPR scans are also represented as QL-D as the GPR image cannot be confirmed to its origin point. Depths on GPR scan must be treated as indicative only.

GENERAL SURVEY LEGEND:



GENERAL SURVEY NOTES:	
* THIS TITLER LOCK IS AN INTEGRAL PART OF THIS DWG AND SHOULD NOT BE MOVED	
* COORDINATE SYSTEM MGA 2020	
* LEVEL DATUM IS AHD	
* IT IS THE RESPONSIBILITY OF ANY USER OF THIS DATA TO ENSURE ANY OTHER DATA BEING INTEGRATED IS ON THE SAME COORDINATE SYSTEM	
* REFER TO THE FACE OF THE PLAN FOR TITLE NOTATIONS	
* BOUNDARIES HAVE BEEN DEFINED BY SURVEY	
* CONTOURS ARE INDICATIVE OF LAND FORM. SPOT LEVELS TAKE PRECEDENCE.	

SCALE 1:200	
0	5 10 15 20
ORIGIN	SS14194
ORIENTATION	E 266758 984 N 6088996.644
AHD ORIGIN	SS14194-AA153069
	SS14194 RL80.856

CLIENT : SCHOOLS INFRASTRUCTURE
PLAN IN RELATION TO : MILTON PUBLIC SCHOOL
SHOWING : TOPOGRAPHICAL SURVEY AND UTILITY MAPPING IN ACCORDANCE WITH AS4588.1-2019
PURPOSE: ENGINEERING DESIGN
SHEET 03 OF 05

DIGITAL SURVEY SOLUTIONS
UTILITY MAPPING
SUITE 6.01, TRINITI II, TRINITI BUSINESS PARK
39 DELHI ROAD, NORTH RYDE 2113
SCOTT DEVERIDGE 0425 285 270
www.astrea.com.au

Astrea

JOB REFERENCE : A4065	I/D 7453
DWG No. A4065-TOPO&UTIL	
SURVEYOR: BD	SCOTT DEVERIDGE
DATE OF SURVEY: OCT 2023	REGISTERED LAND SURVEYOR
UTILITY LOCATOR: LB	UNDER THE SURVEYING AND SPATIAL INFORMATION ACT, 2002
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REV	AMENDMENTS
	DATE



TITLE NOTATIONS:
1. RESERVATIONS AND CONDITIONS IN THE CROWN GRANT
2. EASEMENT TO DRAIN WATER 1 WIDE APPURTENANT TO THE SUBJECT LAND (VIDE DP 1007477)
3. RESTRICTION ON THE USE OF LAND (A) (VIDE DP 1120833)
4. EASEMENT FOR PADMOUNT SUBSTATION 2.75 WIDE AFFECTING THE SUBJECT LAND (DP 1120833) (B)
5. EASEMENT FOR UNDERGROUND CABLES 1 WIDE AFFECTING THE SUBJECT LAND (DP 1120833) (C)

UTILITY ASSETS LEGEND	
ELECTRICITY	
COMMS TELEPHONE LINE	— T — T —
COMMS OPTICAL FIBRE	— OU — OU —
COMMS HOUSE CONNECTION	— TH — TH —
WATER MAIN	
RECYCLED WATER MAIN	— WR — WR —
WATER HOUSE CONNECTION	— WH — WH —
LOW PRESSURE GAS	
GAS HOUSE CONNECTION	— GH — GH —
SEWER MAIN	— S — S —
STORMWATER PIPE	— SW — SW — SW —
OVERHEAD ELECTRICITY	— OH — OH — OH —

UTILITY MAPPING NOTES:
1. Subsurface utility investigation was undertaken by Atrea Pty Ltd, the plan is to be read in conjunction with the subsurface utility investigation report.
2. Positions are based on Astrea Class A & B point surface indicator(s) located during field survey. Confirmation of the exact position should be made to the relevant authorities prior to any excavation work. Other services may still exist.
3. This plan shows a representation of the dwg model. This model should be viewed in a cadd environment to interpret this information.
4. This utility plan is valid for 28 days starting from the date of the issue, as underground utility works are often updated.
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CLASS A: Information is the highest possible level of accuracy and is obtained by exposing the underground utility using a on-destructive excavation (pot holing) technique. The vertical information for this locating method is to the top or shallowest part of the located service. The 3D location is recorded by survey as an X, Y, Z coordinate.
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GENERAL SURVEY LEGEND:
DP - DRAINAGE PIT
FJUM - DRAINAGE JUNCTION MANHOLE
PSMH - SEWER MANHOLE
PWHV - HYDRANT
PWSV - STOP VALVE
PQUL - GULLY PIT
PQPM - GAS MARKER
PQTP - GAS TEST POINT
PPPL - POWER POLE
PTSP - TELSTRA PIT
TK - TOP OF KERB LP - LIP OF GUTTER
PO - PRAM RAMP DW - DRIVEWAY
FP - FOOTPATH TW - TOP OF WALL

SCALE 1:200

0 5 10 15 20

ORIGIN SS14194
E 266758 984 N 6088996.644
ORIENTATION SS14194-AA153069
AHD ORIGIN SS14194 RL80.856

DIAL BEFORE YOU DIG
www.1100.com.au

GENERAL SURVEY NOTES:
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• COORDINATE SYSTEM MGA 2020
• LEVEL DATUM IS AHD
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• REFER TO THE FACE OF THE PLAN FOR TITLE NOTATIONS
• BOUNDARIES HAVE BEEN DEFINED BY SURVEY
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CLIENT : SCHOOLS INFRASTRUCTURE
PLAN IN RELATION TO : MILTON PUBLIC SCHOOL
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SHEET 04 OF 05

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JOB REFERENCE : A4065
DWG No. A4065-TOPO&UTIL
SURVEYOR: BD
DATE OF SURVEY: OCT 2023
UTILITY LOCATOR: LB

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REV AMENDMENTS DATE

SCOTT DEVERIDGE
REGISTERED LAND SURVEYOR
UNDER THE SURVEYING AND SPATIAL INFORMATION ACT, 2002

I/D 7453



A1

UTILITY ASSETS LEGEND	
ELECTRICITY	
COMMS TELEPHONE LINE	— T — T —
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COMMS HOUSE CONNECTION	— TH — TH —
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GAS HOUSE CONNECTION	— GH — GH —
SEWER MAIN	
STORMWATER PIPE	— SW — SW — SW —
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UTILITY MAPPING NOTES:

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FJUM - DRAINAGE JUNCTION MANHOLE
PSMH - SEWER MANHOLE
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PTSP - TELSTRA PIT
TK - TOP OF KERB LP - UP OF GUTTER
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FP - FOOTPATH TW - TOP OF WALL

GENERAL SURVEY NOTES:

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- COORDINATE SYSTEM MGA 2020
- LEVEL DATUM IS AHD
- IT IS THE RESPONSIBILITY OF ANY USER OF THIS DATA TO ENSURE ANY OTHER DATA BEING INTEGRATED IS ON THE SAME COORDINATE SYSTEM
- REFER TO THE FACE OF THE PLAN FOR TITLE NOTATIONS
- BOUNDARIES HAVE BEEN DEFINED BY SURVEY
- CONTOURS ARE INDICATIVE OF LAND FORM. SPOT LEVELS TAKE PRECEDENCE.

SCALE 1:200

GDA 2020

DIAL BEFORE YOU DIG
www.1100.com.au

GENERAL SURVEY NOTES:	
THIS TITLER LOCK IS AN INTEGRAL PART OF THIS DWG AND SHOULD NOT BE REMOVED	
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SCALE 1:200	
ORIGIN	SS14194 E 266758 984 N 6088996 644
ORIENTATION	SS14194-AA153069
AHD ORIGIN	SS14194 RL80 856

CLIENT : SCHOOLS INFRASTRUCTURE
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JOB REFERENCE : A4065	I/D 7453
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REV	AMENDMENTS
	DATE

APPENDIX D – Underground Service Locator Field Report.

SUBSURFACE UTILITY INVESTIGATION REPORT FOR

Schools Infrastructure

Milton Public School



1300 009 346

astrea.com.au

info@astrea.com.au

COMPILED BY: LB

INVESTIGATION DATE: 25-Sep-2023

CLIENT:	Schools Infrastructure	DATE:	25-Sep-2023
SITE CONTACT:	Glenn Fransis	MOBILE:	
EMAIL:	Glenn.francis@det.nsw.edu.au		
WORK LOCATION:	Milton Public School		

INVESTIGATION BY:	LB	DBYD REF. NO:	34866501
SITE SPECIFIC PLANS:	NA	DBYD ENQUIRY DATE:	18-Aug-2023
SWMS NO:	COMPLETED: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		
CLIENT SITE REVIEW:	COMPLETED: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	ASTREA SITE SUPERVISOR:	LB

LOCATING QUALITY LEVELS PURSUANT TO AS5488-2019

Quality Level A QL-A	<i>Visualisation / Confirmation of a Service, position and depth, by non- destructive digging (NDD) methods or points of entry to pits or manholes. Recommended Quality Level prior to construction or excavation.</i>
Quality Level B QL-B	<i>Locating of Services using Radio Detection methods. Acceptable range of accuracy for Quality Level B is 300mm for position and 500mm in Depth.</i>
Quality Level C QL-C	<i>Services Marked out using only surface features in the field. Such surface features include, Hydrants, Gas Markers, Pits etc. No indication of service location or depth can be attained from Quality Level C.</i>
Quality Level D QL-D	<i>Services marked up using DBYD plans only. Offsets on plans can be used to obtain such indication of services in field but no indication of service confirmation can be given.</i>

SERVICE:	QUALITY LEVEL:				COMMENT:	TRACE METHOD:		
TELECOMMUNICATIONS	QL-A <input type="checkbox"/>	QL-B <input checked="" type="checkbox"/>	QL-C <input type="checkbox"/>	QL-D <input type="checkbox"/>		GPR <input type="checkbox"/>	EM <input type="checkbox"/>	
OPTICAL FIBRE	QL-A <input type="checkbox"/>	QL-B <input checked="" type="checkbox"/>	QL-C <input type="checkbox"/>	QL-D <input type="checkbox"/>		GPR <input type="checkbox"/>	EM <input type="checkbox"/>	
ELECTRICITY	QL-A <input type="checkbox"/>	QL-B <input checked="" type="checkbox"/>	QL-C <input type="checkbox"/>	QL-D <input type="checkbox"/>		GPR <input type="checkbox"/>	EM <input type="checkbox"/>	
WATER	QL-A <input type="checkbox"/>	QL-B <input checked="" type="checkbox"/>	QL-C <input type="checkbox"/>	QL-D <input type="checkbox"/>		GPR <input type="checkbox"/>	EM <input type="checkbox"/>	
GAS	QL-A <input type="checkbox"/>	QL-B <input checked="" type="checkbox"/>	QL-C <input type="checkbox"/>	QL-D <input checked="" type="checkbox"/>		GPR <input type="checkbox"/>	EM <input type="checkbox"/>	
SEWER	QL-A <input checked="" type="checkbox"/>	QL-B <input checked="" type="checkbox"/>	QL-C <input checked="" type="checkbox"/>	QL-D <input checked="" type="checkbox"/>		GPR <input type="checkbox"/>	EM <input type="checkbox"/>	
STORMWATER	QL-A <input checked="" type="checkbox"/>	QL-B <input checked="" type="checkbox"/>	QL-C <input checked="" type="checkbox"/>	QL-D <input type="checkbox"/>		GPR <input type="checkbox"/>	EM <input type="checkbox"/>	
UNKNOWN	QL-A <input type="checkbox"/>	QL-B <input type="checkbox"/>	QL-C <input type="checkbox"/>	QL-D <input type="checkbox"/>		GPR <input type="checkbox"/>	EM <input type="checkbox"/>	

Site Notes

Inspection openings have been opened and measured. These have been connected sonically or traced using a flex rod. Some inspection lines could not be traced as plumbing features were sealed shut or trace rods became stuck in pipes.

Shoal Haven pits could not be matched to the plan, these may not exist or they may be buried, recommend using a CCTV to determine if these exist.

Plumbing features in the demountable toilets were PVC and could not be traced.

Scope of Works



Colour Legend

Telstra/Comms	
Electricity	
Water	
Gas	
Stormwater	
Sewer	
Unknown	

Linestyle Legend

Class A,B,C	
-------------	--

EOT = END OF TRACE

Code Legend

EU - Electricity Underground	LG - Low Pressure Gas Main	WM - Water Main
TN - Telstra Network underground	HG - High Pressure Gas Main	RWM - Recycled Water
OU - Optic Fibre Underground	SM - Sewer Main	UP - Unknown Service
CN - Other Comms Network	RSM - Rising Sewer Main	SW - Drainage Network

Class D (not identified)

UTL = UNABLE TO LIFT FOD = FULL OF DEBRIS FOW = FULL OF WATER















DISCLAIMERS

This plan includes information describing the location of subterranean features, which were purported to exist at the time of the survey. This information was compiled from a combination of field techniques and available data from cooperating utility authorities. Whilst all care has been taken in the preparation of this plan of survey, Astrea cannot guarantee that the plan is without flaw of any kind. Therefore, Astrea expressly disclaims all liability for errors or omissions of any kind whatsoever or from any loss, damage or other consequences, which may arise from any person relying on anything, stated on this plan. In particular, it is recommended that users satisfy themselves as to the location of subterranean features such as utilities, which may or may not be shown on this plan by deploying vacuum excavation techniques.

REPORTED BY: LB

DATE: 25-Sep-2023

SIGNATURE:



**CERTIFIED
LOCATOR**
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ACCREDITED
PLANT
LOCATOR

