BCC DS
RECEIVED
17/09/2026
APPLICATION REF
A007112525

Context Engineering

Proposed Multi-Residential Development 80 McGinn Road, Ferny Grove

Civil Engineering Report



Prepared For Stay Developments Pty Ltd

ABN 56 650 431 637

This Document Is Copyright. Other Than for The Purposes and Subject to The Conditions Prescribed Under the Copyright Act 1968 (Commonwealth), No Part of It May in Any Form or By Any Means (Electronic, Mechanical, Micro-Copying, Photocopying, Recording or Otherwise) Be Reproduced, Stored in A Retrieval System or Transmitted Without Prior Written Permission. This Report Has Been Prepared Solely for The Benefit of Our Client. We Do Not Accept Any Liability for Damage or Loss Resulting from Reliance on This Report, Or Any Part of It, By Any Party Other Than the Client (Named on The Front Page of This Report).

This Document Has Been Approved by The Following Appropriately Qualified and Experienced Professional Civil Engineer:



Nicholas Rees
BEng (Hons), MIEAust, CPEng, NER, Registered Professional Engineer of Queensland (RPEQ) No. 18700

Report Number: C_26072 - R001

Issue	Date	Details	Author	Checked	Approved
1	31.07.26	Issue for Approval	DT/JN	NR	NR

Contents

1. Introduction 5

1.1 Associated Applications 6

1.2 Pre-Lodgement Meeting 6

2. Site Characteristics 7

2.1 Site Location 7

2.2 Land Usage 7

2.3 Topography 7

2.4 Upstream Catchments 8

2.5 Existing Infrastructure 8

3. Proposed Drainage 9

3.1 Lawful Point of Discharge 9

3.2 Proposed Stormwater Infrastructure 9

4. Stormwater Quantity Management 10

4.1 Non-Worsening Strategy 10

4.2 Rational Method Peak Flows 10

4.2.1 Methodology 10

4.2.2 Catchment 10

4.2.3 C_{10} Value 10

4.2.4 Time of Concentration 10

4.2.5 Summarised Parameters 11

4.2.6 Flow Summary 11

4.3 Detention Design 12

4.3.1 Modifiable Inputs 12

4.3.2 Rainfall Data 12

4.3.3 DRAINS Calibration - Existing Case 12

4.3.4 Detention Design Parameters 13

4.3.5 DRAINS Hydrologic Modelling 13

4.3.6 Detention Tank Layout 14

5. Stormwater Quality Management 15

5.1 Construction Phase 15

5.2 Operational Phase 15

5.3 Catchment Source Area and Nodes 16

5.4 Proprietary Treatment Devices 16

5.4.1 Ocean Protect StormFilter Cartridge 16

5.4.2 Ocean Protect OceanGuard 17

5.5 MUSIC Modelling Diagram 17
5.6 Maintenance 18
6. Flood Assessment 19
7. Engineering Constraints 20
7.1 Earthworks 20
7.2 Acid Sulfate Soils 20
7.3 Erosion and Sediment Control 20
7.4 Water and Sewer 20
8. Conclusion 21
9. Disclaimer 21

Tables and Figures

Figure 1-1 Proposed Development Layout (Source: Blackburne Jackson 2026) 5
Figure 1-2 Concept Stormwater Drainage Plan (Source: Rodgers Consulting Services 2025) 6
Figure 2-1 Site Locality Plan (Source: Nearmap 2026) 7
Figure 2-2 Existing Topography (Source: 2019 Aerial LiDAR Survey) 8
Table 3-1 Lawful Point of Discharge Test 9
Table 4-1 Rational Method Input Parameters 11
Table 4-2 Existing vs. Developed Flows 11
Table 4-3 - DRAINS Modifiable Inputs 12
Table 4-4 DRAINS Calibration - Existing E1 12
Table 4-5 Detention Design Parameters 13
Figure 4-1 DRAINS Model 13
Table 4-6 Mitigated Peak Flows 13
Table 5-1 Typical Construction Phase Pollutants 15
Table 5-2 Brisbane City Council Trigger Questions 15
Table 5-3 Quality Catchment Areas 16
Figure 5-1 OceanProtect StormFilter Cartridge 16
Figure 5-3 MUSIC Model 17
Table 5-4 MUSIC Modelling Results 18

Appendices

Appendix A Schematic Design Drawings
Appendix B Survey
Appendix C Architectural Plans
Appendix D Before You Dig
Appendix E Property Flood Report
Appendix F Operations and Maintenance Manuals
Appendix G Code Response Report

1. Introduction

This Civil Engineering Report has been commissioned by Stay Developments Pty Ltd and forms part of a Material Change of Use (MCU) to be lodged with Brisbane City Council over the following parcels of land:

Property Address:	**80 McGinn Road, Ferny Grove**
Property Description:	**Lot 2 on RP77582**
Client:	**Stay Developments Pty Ltd**
Council:	**Brisbane City Council**
Allotment Area:	**10,117m²**
Area of Works:	**Approx. 4,910m²**

The proposed development involves the construction of 24 townhouse units, associated carparking and internal roadworks. This is represented in Figure 1-1 below, with the area of works shown in purple.



Figure 1-1 Proposed Development Layout (Source: Blackburne Jackson 2026)

This report describes the key stormwater management and civil engineering constraints associated with the proposed development, with the objectives of investigations listed below:

- Identify existing site conditions and drainage characteristics;
- Identify external catchments impacting the site;
- Identify a Lawful Point of Discharge in accordance with Council requirements;
- Demonstrate that the development can occur such that no actionable nuisance or adverse impact is created (Quantity Management);
- Demonstrate that appropriate water quality objectives for the site have been achieved (Quality Management);
- Identify flood restrictions;
- Provide a preliminary estimate of earthworks quantities;
- Determine the erosion and sediment control requirements and mitigation measures;
- Determine access requirements in accordance with Council requirements;
- Identify a water connection location; and
- Identify a sewer connection location.

Based on the outcomes of the above investigations, this report provides civil engineering recommendations to address compliance with Brisbane City Council requirements.

1.1 Associated Applications

Available documentation on the online BCC Development.i portal indicates that a MCU application was previously lodged over the neighbouring Lot 1 on RP81533 (78 McGinn Road) to the east of the subject site on 20 May 2025 and subsequently approved on 26 February 2026 under application number A006775078. The application included the following civil engineering documentation:

- *Site Based Stormwater Management Plan (Rev A)* by Rodgers Consulting Services.

The report and accompanying schematic civil engineering drawings detail the provision of a 500mm wide concrete lined swale along the western boundary of the neighbouring property. The swale is intended to intercept and convey stormwater runoff from the upstream catchment (Subject Site) toward McGinn Road. The location of the proposed swale relative to the subject site is illustrated in Figure 1-2 below.

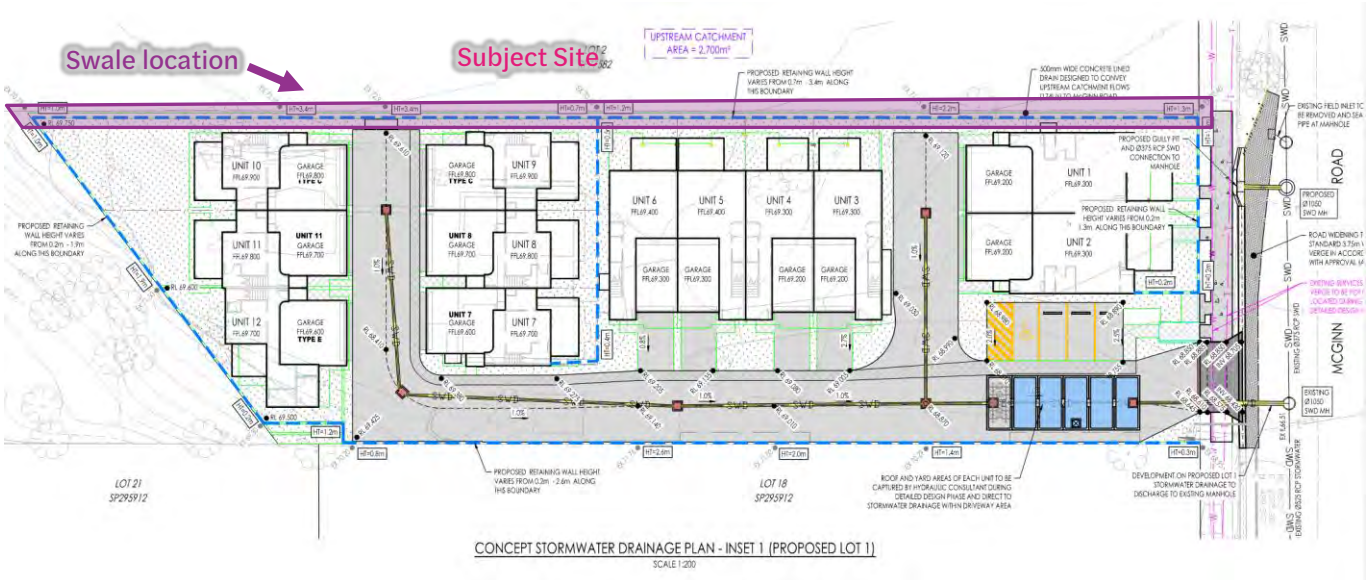


Figure 1-2 Concept Stormwater Drainage Plan (Source: Rodgers Consulting Services 2025)

The upstream catchment management strategy established within this approved documentation confirms that in the existing case, stormwater runoff from the subject site is conveyed to McGinn Road via the proposed swale. This established discharge regime has therefore been adopted as the basis for the developed drainage strategy presented in this report.

1.2 Pre-Lodgement Meeting

It is understood that a pre-lodgement meeting has not been held with Council for the proposed development.

2. Site Characteristics

2.1 Site Location

The proposed development is situated on an existing allotment at 80 McGinn Road, Ferny Grove, described as Lot 2 on RP77582. The lot is located within the Brisbane City Council local government area and is zoned as 'Emerging Community' under the Brisbane City Council Planning Scheme.

The subject allotment has an overall area of 10,117m^2 and is bounded by residential development to the west, south, and east, and McGinn Road to the north.

A general locality plan is presented in Figure 2-1 below, identifying the overall allotment in purple, the extent of works comprising the Subject Site in pink, and the downstream neighbouring property in orange, through which existing site-based flows are conveyed to McGinn Road in accordance with the drainage arrangement established under application A006775078, as detailed in Section 1.1.

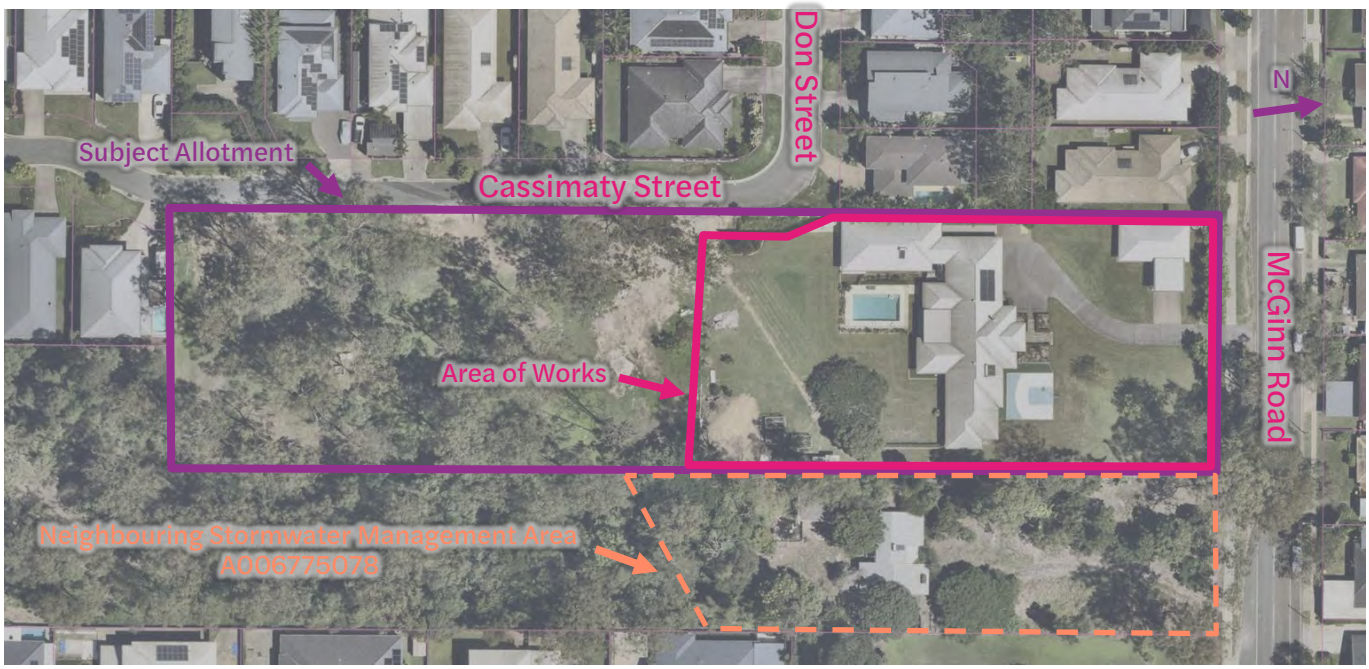


Figure 2-1 Site Locality Plan (Source: Nearmap 2026)

2.2 Land Usage

Aerial imagery indicates that the subject site is currently developed as a residential property and consists of a single dwelling house and associated hardstand and landscaping areas. The allotment is currently accessed via a vehicle crossover to McGinn Road.

2.3 Topography

2019 aerial LiDAR survey of the property (1m tiles accessed June 2026) indicates that levels across the area of works range from RL 74.5m AHD along the northern boundary to a low point of RL 70.5m AHD in the southeastern corner. The allotment generally grades southeast at an average grade of 5-6% from the high point to the low point.

2.4 Upstream Catchments

2019 aerial LiDAR survey (1m tiles access from ELVIS December 2024) indicates that area to the north of the area of works grades into the development area. The upstream catchment has been shown below in Figure 2-2.

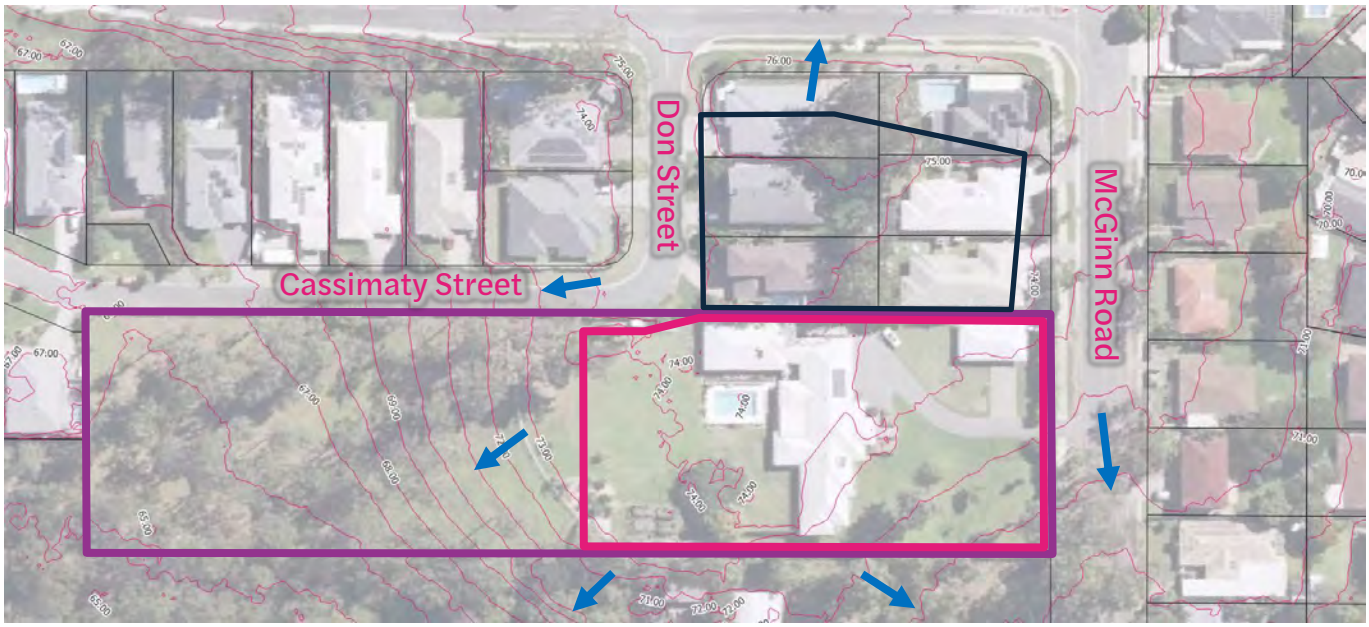


Figure 2-2 Existing Topography (Source: 2019 Aerial LiDAR Survey)

All lots within the identified upstream catchment demonstrate a fall to the kerb at each of the property frontages to their respective adjoining road reserve and therefore it has been assumed that each lot manages drainage to the kerb. Accordingly, it was determined that no additional infrastructure was required to accommodate upstream catchment flows.

2.5 Existing Infrastructure

Brisbane City Council Community Mapping identifies that there is existing council-owned underground stormwater infrastructure and Urban Utilities sewer and water infrastructure on or adjacent to the subject site, as shown in Figure 2-3 below.

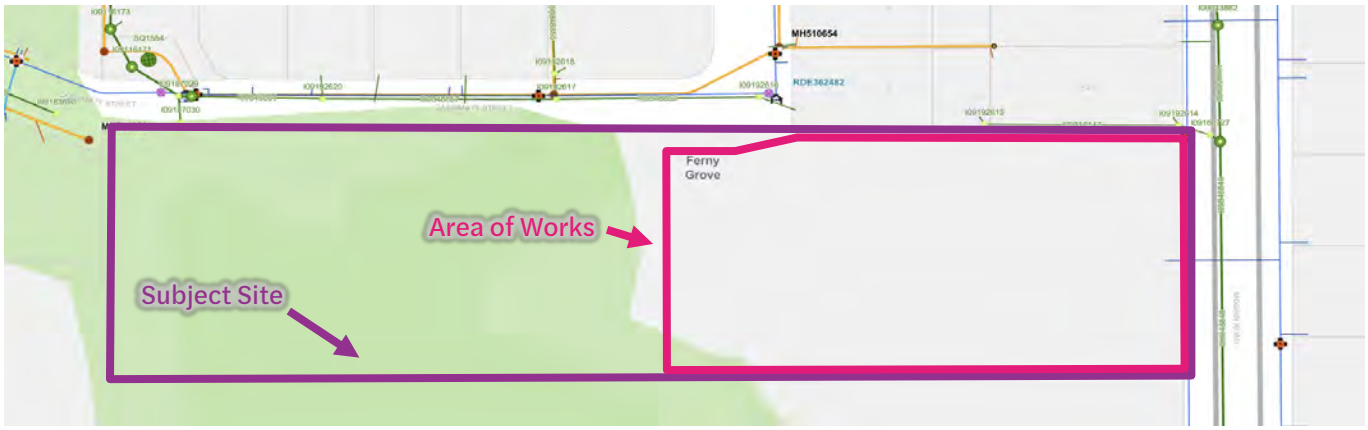


Figure 2-3 Existing Services Surrounding the Site (Source: BCC Community Mapping 2026)

It is expected that the services surrounding the site will provide connection to the development for water, sewer and stormwater.

3. Proposed Drainage

The proposed development will provide internal drainage and stormwater management in accordance with Brisbane City Council requirements and the Queensland Urban Drainage Manual (QUDM).

The proposed works involve the construction of a townhouse development and therefore require the following minimum drainage service standards in accordance with *SC6.16 Infrastructure design planning scheme policy Table 7.2.2.3.B (Brisbane City Council City Plan 2014)*:

- **Major Drainage System:** 2% AEP; and
- **Minor Drainage System:** 10% AEP.

The development is proposed to discharge both minor and major site-based stormwater flows to the nominated Lawful Point of Discharge.

3.1 Lawful Point of Discharge

The lawful point of discharge for the subject site has been identified as McGinn Road. In the developed case, stormwater will continue to be directed to this location, with minor flows discharging to the existing 375mm stormwater main within McGinn Road (Asset ID: I09848840) via a newly proposed manhole, and major flows exceeding the capacity of the piped system discharging as overland flow to the McGinn Road road reserve.

The proposed discharge of runoff from the site to this location is considered compliant with the test described in Section 3.9.1 of QUDM, as shown in Table 3-1 below.

Table 3-1 Lawful Point of Discharge Test

Criteria	Response
Will the proposed development alter the site's stormwater discharge characteristics in a manner that may substantially damage a third-party property?	Site discharge to be directed to existing infrastructure in McGinn Road. It is not expected that discharging to this location will cause an actionable nuisance as it will create a formalised Lawful Point of Discharge in Council land.

3.2 Proposed Stormwater Infrastructure

The following additional infrastructure is required for the development to ensure that the Lot 2 on RP77582 site-based flows are directed to the Lawful Point of Discharge:

- Proposed inlet pits to capture flows from the new internal roads;
- Pipe infrastructure including kerb adaptors and internal drainage;
- Propose manhole over existing stormwater main within McGinn Road (Asset ID: I09848840);
- Roof-water connection stub to building; and
- Surface grading to assist in conveyance.

Refer *C_26072 DA40_Stormwater Drainage Layout Plan* in Appendix A for further details.

4. Stormwater Quantity Management

The section of the report addresses peak stormwater discharging from the site and identifies whether additional infrastructure is required to ensure "non-worsening" of peak flows resulting from development on the allotment.

4.1 Non-Worsening Strategy

Non-worsening of site discharge will be achieved through:

- Mitigating peak flows discharging from the site from the existing to developed scenario.

These are deemed appropriate non-worsening objectives for the type, scale and location of the development.

4.2 Rational Method Peak Flows

4.2.1 Methodology

The Rational Method has been utilised to estimate the peak flow of event hydrographs for each catchment within the pre-developed and post-developed scenario. The results of the Rational Method calculations are used in the following sections to:

i. Evaluate the impact of the proposed development on the surrounding infrastructure, and;
ii. Quantify the stormwater flows to each discharge location to ensure non-worsening objectives are achieved.

4.2.2 Catchment

The pre-developed allotment does not have appear to have a piped lawful point of discharge. As such, two catchments were identified in the pre-developed case by following the surveyed contours of the allotment assuming all stormwater from the site is discharged as overland flow:

- E1 – Pre-developed area of works discharging to McGinn Road via the site frontage and the existing swale within the neighbouring Lot 1 RP81533 (as detailed in Section 1.1);

Refer drawing *C_26072 DA41_Existing Catchment Layout Plan* in Appendix A for further details.

The post-developed allotment is characterised by 24 allotments generally grading towards McGinn Road. Two catchments were identified in the developed case:

- D1 – Townhouses, adjoining driveway, and landscaped areas discharging to existing stormwater infrastructure within McGinn Road following attenuation; and
- D1b – Landscaped areas at site frontage bypassing attenuation and discharging to McGinn Road as overland flow.

Refer drawing *C_26072 DA42_Developed Catchment Layout Plan* in Appendix A for further details.

4.2.3 C_{10} Value

The C_{10} values for the site have been based on measured Fraction Impervious (fi) areas from the site survey and architectural layouts. Measured imperviousness on the site has been compared to the values in QUDM and interpolated for determination of the C_{10} value.

4.2.4 Time of Concentration

The time of concentration for each catchment was determined using methods in accordance with Section 4 of QUDM. These are conservative value representing the worst-case scenario of flow to the existing discharge location.

4.2.5 Summarised Parameters

The catchment area, fraction impervious and time of concentration of the development area have been summarised in Table 4-1 below.

Table 4-1 Rational Method Input Parameters

Catchment	Parameter	Value	Data Source/ Calculation Method
Existing E1[1,2]	Area	4,910m^2	Approximated from Nearmap aerial
	Fraction Impervious	32%	Approximated from Nearmap aerial
	Time of Concentration	11 min	QUDM Section 4.6
Developed D1	Area	4,630m^2	Approximated from architectural plans
	Fraction Impervious	76%	Approximated from architectural plans
	Time of Concentration	6 min	QUDM Section 4.6
Bypass D1b	Area	280m^2	Approximated from architectural plans
	Fraction Impervious	10%	Approximated from architectural plans
	Time of Concentration	5 min	QUDM Section 4.6

[1]Catchment E1 assumed to wholly discharge to McGinn Road as facilitated by existing swale provided in neighbouring Lot 1 RP81533 approved under application A006775078 and as detailed in Section 1.1 of this report.

[2]Refer to Drawing C_26072 DA41_Existing Catchment Plan by Context Engineering for detail on existing discharge arrangement.

Table 4-1 demonstrates that there will be an increase in fraction impervious and a decrease in time of concentration as a result of development on the site.

4.2.6 Flow Summary

The resultant flows for each storm event have been summarised in Table 4-2 below.

Table 4-2 Existing vs. Developed Flows

	$Q_{39\%}$ (m^3/s)	$Q_{18\%}$ (m^3/s)	$Q_{10\%}$ (m^3/s)	$Q_{5\%}$ (m^3/s)	$Q_{2\%}$ (m^3/s)	$Q_{1\%}$ (m^3/s)
E1 (Existing)	0.088	0.123	0.149	0.178	0.228	0.262
D1 (Developed)	0.119	0.168	0.204	0.245	0.313	0.361
Difference	**+0.032**	**+0.045**	**+0.055**	**+0.066**	**+0.085**	**+0.099**
Difference (%)	**+36%**	**+37%**	**+37%**	**+37%**	**+37%**	**+38%**

Table 4-2 demonstrates that there is an increase in flows across all storm events and therefore it will be necessary to provide the development with attenuation to satisfy the non-worsening objectives specified in Section 4.1.

4.3 Detention Design

DRAINS hydrologic software has been utilised to undertake the assessment of existing and developed stormwater discharge for the purposes of the on-site detention specification process. DRAINS version 2020.061 has been utilised in this assessment.

4.3.1 Modifiable Inputs

The DRAINS software package has several inputs that can be used to manipulate the hydraulic behaviour of the model. The values adopted in this model are all default values, and are presented in Table 4-3 below:

Table 4-3 - DRAINS Modifiable Inputs

Input	Modelled Value
Antecedent Moisture Condition	3
Paved Depression Storage (mm)	1
Supplementary Depression Storage (mm)	1
Grassed (Pervious) Depression Storage (mm)	5
Soil Type	3

Depression Storage values of 1mm for paved/supplementary and 5mm for grassed (pervious) areas were adopted in this model as recommended in the DRAINS user manual. An Antecedent Moisture Condition (AMC) of 3.0 has been adopted as a default value for this site. A soil type classification type of 3 is representative of soil with slow infiltration rates (may have layers that impede downward movement of water). This value is the default (conservative) value adopted by DRAINS and is considered to represent the existing site conditions well.

4.3.2 Rainfall Data

DRAINS modelling has been undertaken using the following input files for rainfall data:

- Bureau of Meteorology IFD Rainfall Depth File (2016); and
- ARR Data Hub Increment Temporal Pattern File (2016).

4.3.3 DRAINS Calibration - Existing Case

Table 4-4 below provides a summary of the process of calibration of the DRAINS model against Rational Method calculations for Catchment E1.

Table 4-4 DRAINS Calibration - Existing E1

	$Q_{39\%}$ (m^3/s)	$Q_{18\%}$ (m^3/s)	$Q_{10\%}$ (m^3/s)	$Q_{5\%}$ (m^3/s)	$Q_{2\%}$ (m^3/s)	$Q_{1\%}$ (m^3/s)
Rational Method	0.088	0.123	0.149	0.178	0.228	0.262
DRAINS	0.103	0.139	0.165	0.195	0.231	0.261
Difference (%)	**+17%**	**+13%**	**+11%**	**+9%**	**+1%**	**0%**

The results indicate that the DRAINS model is programmed with a satisfactory level of accuracy for the purposes of this exercise.

4.3.4 Detention Design Parameters

A process of iteration using a combination of detention system height, storage and outlet pipework arrangement have been used to determine the optimal design for the detention system.

Table 4-5 below provides the dimensions of the proposed detention system incorporated into the design model. This configuration is preliminary and is subject to refinement as part of a future details design stage.

Table 4-5 Detention Design Parameters

Feature	Modelled Value
Base Area	50m²
Peak Water Depth ($Q_{1\%}$)	1.25m
Low Flow Outlet	272mm orifice
High Flow Outlet	0.6m high internal weir @ 110mm wide
Total Detention Volume	63m³

These parameters were utilised to develop the DRAINS model.

4.3.5 DRAINS Hydrologic Modelling

The on-site stormwater detention arrangement described in Table 4-5 above has been designed to demonstrate that the proposed storage solution is effective in reducing developed peak stormwater discharge from the site. The DRAINs model can be seen below in Figure 4-1 for the proposed flow of the stormwater from the site. It is noted that a 280m² area (Catchment D1b) was included as bypass flow as this area is not anticipated to be directed to the tank.

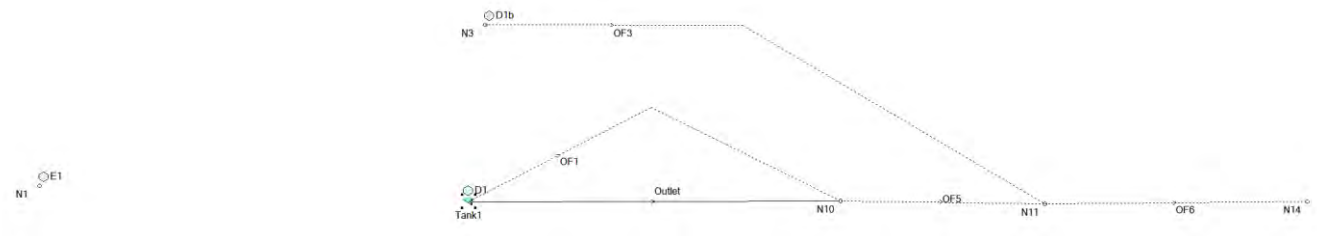


Figure 4-1 DRAINS Model

The results of this assessment and confirmation of the achievement of the on-site detention objectives are provided in Table 4-6 below.

Table 4-6 Mitigated Peak Flows

	$Q_{39\%}$ (m³/s)	$Q_{18\%}$ (m³/s)	$Q_{10\%}$ (m³/s)	$Q_{5\%}$ (m³/s)	$Q_{2\%}$ (m³/s)	$Q_{1\%}$ (m³/s)
Existing E1	0.103	0.139	0.165	0.195	0.231	0.261
Total Developed (Mitigated D1 + D1b)	0.103	0.127	0.157	0.188	0.229	0.260
Difference	**0.000**	**-0.012**	**-0.008**	**-0.007**	**-0.002**	**-0.001**
Difference (%)	**0%**	**-9%**	**-5%**	**-4%**	**-1%**	**0%**

The proposed detention mitigation will be adequate to achieve 'non worsening' objectives. Table 4-6 shows that for all design storms the peak flow of the developed case is less than the existing.

4.3.6 Detention Tank Layout

The detention tank will be located under the driveway at the site frontage to McGinn Road. Refer *C_26072 DA44_Stormwater Structure Details* in Appendix A for further details.

5. Stormwater Quality Management

The objectives for stormwater quality management are outlined in Brisbane City Council Planning Scheme Policies and the State Planning Policy (SPP). This section of the report identifies stormwater quality requirements and treatment devices to satisfy Council and SPP requirements.

5.1 Construction Phase

The development will comply with Construction Phase water quality objectives, and best practise measures will be utilised to minimise the potential impacts of pollutants generated during construction. The pollutants that would typically be generated during construction are outlined in Table 5-1 below.

Table 5-1 Typical Construction Phase Pollutants

Pollutants	Source
Litter	Paper, construction, food packaging, cement bags, off-cuts
Sediment	Unprotected exposed soils and stockpiles during earthworks and building
Hydrocarbons	Fuel and oil spills, leaks from construction equipment
Toxic Materials	Cement slurry, asphalt prime, solvents, cleaning agents, wash waters (eg. from tile works)
pH Altering Substance	Acid sulfate soils, cement slurry

The minimisation tactics during the construction phase may include erosion and sediment control measures in accordance with Internal Erosion Control Association documentation.

5.2 Operational Phase

An assessment has been undertaken to determine whether the new development necessitates compliance operational water quality objectives per the Brisbane City Council questions, as outlined in Table 5-2 below.

Table 5-2 Brisbane City Council Trigger Questions

Brisbane City Council Trigger Questions	Development Response
A Material Change of Use	
A material change of use for urban purpose which involves greater than 2,500m^2 of land that:	Yes
i. Will result in an impervious area greater than 25% of the net developable area; or	Yes
ii. Will result in 6 or more dwellings	Yes
Reconfiguring a Lot	
Reconfiguring a lot for an urban purpose that involves greater than 2,500m^2 of land and will result in 6 or more lots.	N/A
Operational Works	
Operational work for an urban purpose which involves disturbing greater than 2,500m^2 of land.	N/A

The above table indicates that the development triggers compliance with the Brisbane City Council water quality objectives. Therefore, the site requires additional operational water quality treatment devices.

5.3 Catchment Source Area and Nodes

For the purposes of stormwater quality assessment, the subject site was broken down into catchments using the 'split catchment' approach, as summarised in Table 5-3.

Table 5-3 Quality Catchment Areas

Catchment	Area (ha)
Roof	0.246
Driveway	0.095
Hardstand	0.021
Pervious Ground	0.101
Bypass (Pervious)	0.028

Further detail can be seen in C_26072 DA43_Quality Catchment Plan in Appendix A.

5.4 Proprietary Treatment Devices

The treatment devices within the treatment train include:

- 9 x Ocean Protect Tall (690) StormFilter PSORB (SQUIDEP) cartridges; and
- 2 x OceanGuard pit inserts.

5.4.1 Ocean Protect StormFilter Cartridge

The Ocean Protect StormFilter cartridge, shown in Figure 5-1 below, is a stormwater treatment device that absorbs and retains pollutants from stormwater runoff such as suspended solids, hydrocarbons, nutrients, metals and other common pollutants.

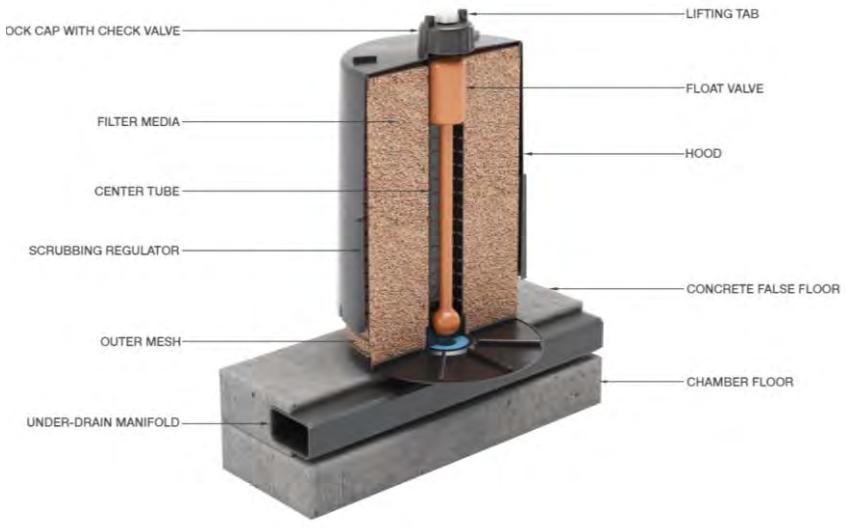


Figure 5-1 OceanProtect StormFilter Cartridge

5.4.2 Ocean Protect OceanGuard

The OceanGuard is a basket that is installed into field or kerb inlet gully pit. The flow diverter at the top of the unit has a rigid skirt that is installed against the walls directing all incoming stormwater flows into the filtration bag. Peak flows during large storm events are able to bypass through a flow diverter. The OceanGuard is typically designed to provide stormwater treatment in ultra-urban environment by meeting water quality standard whilst increasing yield and hence cost effectiveness for developers.

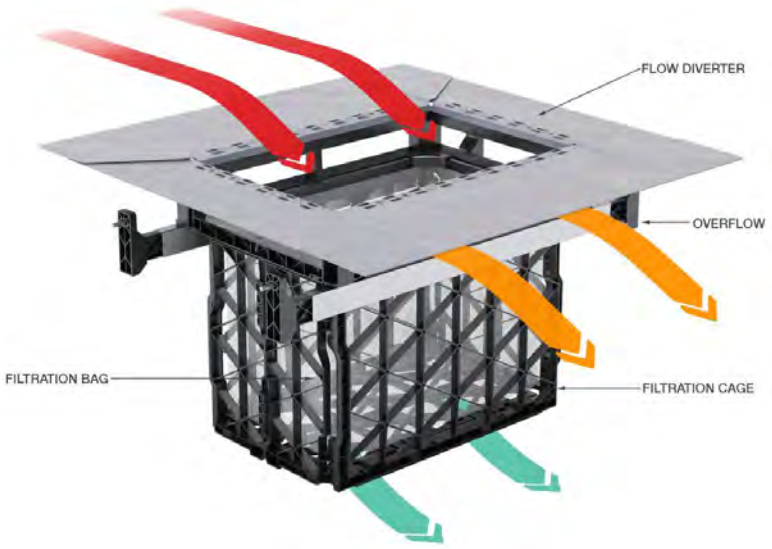


Figure 5-2 – Ocean Protect OceanGuard

5.5 MUSIC Modelling Diagram

A diagrammatic layout of the MUSIC configuration used to model the proposed development is presented below in Figure 5-3.

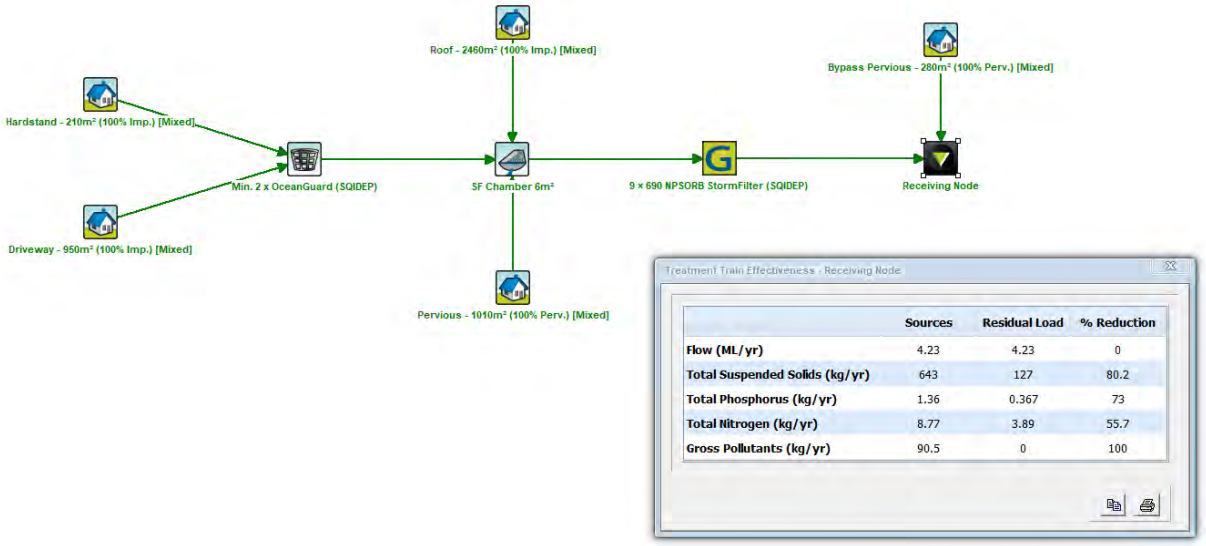


Figure 5-3 MUSIC Model

The MUSIC model was used to assess the performance of the proposed treatment train. The results of the proposed treatment train compared to the required water quality objectives are summarised in **Error! Reference source not found.** below.

Table 5-4 MUSIC Modelling Results

Pollutant	Minimum Reduction in Mean Load	% Reduction
Total Suspended Solids	80	80.2
Total Phosphorus	60	73
Total Nitrogen	45	55.7
Gross Pollutants	90	100

The results indicate that the proposed proprietary products are sufficient in achieving the water quality objectives and exceeds the minimum required pollutant reduction targets.

5.6 Maintenance

The maintenance of internal water quality treatment is the responsibility of the developer and/or future landowner. The maintenance of proprietary treatment is to be undertaken in accordance with manufacturer guidelines and specifications.

The Operations and Maintenance Manuals for the proposed stormwater quality devices can be seen in Appendix F.

6. Flood Assessment

The Brisbane City Council FloodWise Property Report for the site is shown in Appendix E. The report indicates that the subject allotment is not mapped within any high, moderate, low or very low flood risk areas, and as such, no further investigation was undertaken regarding flooding of the development.

7. Engineering Constraints

7.1 Earthworks

The earthworks associated with the development will predominantly involve filling the site. A preliminary earthworks volume for the internal site works estimated from the survey surface to the underside of the slab. This volume has been calculated as approximately 737m^3 of imported material. We note that these values are preliminary, based on conceptual design and is subject to change as part of refinements undertaken as part of the detailed design phase. See C_26072 DA10_Bulk Earthworks Layout Plan in Appendix A for further details.

7.2 Acid Sulfate Soils

The site is not mapped within the 'Potential and actual acid sulfate soils' overlay zone under BCC mapping, and as such no further investigation has been undertaken.

7.3 Erosion and Sediment Control

During earthworks, there will be an inevitable area of exposed earth, stripped areas and stockpiles. Appropriate methods to manage this process and ensure minimal impacts to surrounding properties, infrastructure and receiving water will therefore be required.

A conceptual Erosion and Sediment Control Plan is included in Appendix A. Further documentation will be prepared as part of the detailed design phase for this site in accordance with the Brisbane City Council requirements and to be included in the Construction Management Plan.

7.4 Water and Sewer

The water service for the site is proposed to utilise the 300mm main in the verge of McGinn Road (Asset ID: RS16966). The proposed water meter will be an above ground meter in accordance with SEQ-WAT-1111-6.

The sewer service for the site is proposed to utilise the existing sewer stub in the southeastern corner of the site connecting to an existing 160mm main in Don Street (Asset ID: LS909245). It is noted that the intended connection point of the sewer stub has been constructed as part of a previous approval, and is in the process of being accepted as an asset by Urban Utilities.

8. Conclusion

This Stormwater Management Plan has been commissioned by Stay Developments Pty Ltd for the Material Change of Use application at 80 McGinn Road, Ferny Grove. The proposed development involves the construction of 24 townhouse units, associated carparking and internal roadworks.

A summary of the investigation and outcomes presented in this report are as follows:

- **Proposed Drainage (Section 3):** Lawful Point of Discharge identified as McGinn Road. Site-based minor flows ultimately discharge to existing stormwater main within McGinn Road, with major flows discharging to McGinn Road as overland flow.
- **Stormwater Quantity Management (Section 4):** Development will require detention storage to achieve non-worsening objectives.
- **Stormwater Quality Management (Section 5):** Development triggers compliance with Brisbane City Council water quality objectives and will require additional operational water quality treatment devices.
- **Flood Assessment (Section 6):** The development is not mapped within any high, moderate, low or very low flood risk areas or impacted by overland flow flooding.
- **Engineering Constraints (Section 7):** Site is not mapped as within a potential acid sulfate soils area.

9. Disclaimer

This report has been prepared on behalf of and for the exclusive use of Stay Developments Pty Ltd and is subject to and issued in accordance with the agreement between Context Engineering.

Our investigation and analysis has been specifically catered for the particular requirements of Stay Developments Pty Ltd and may not be applicable beyond this scope. For this reason, any other third parties are not authorised to utilise this report without further input and advice from Context Engineering.

Context Engineering accepts no liability or responsibility whatsoever for the report in respect of any use of or reliance upon this report by any third party.

The investigation and analysis have relied on information provided by others. We accept no responsibility for the accuracy of material supplied by others. The accuracy of the investigation, analysis and report are dependent upon the accuracy of this information.

80 McGinn Road, Ferny Grove

Civil Engineering Report

Appendix A **Schematic Design Drawings**



Existing Features and Demolition Layout Plan

1:200 Scale

Existing Legend

- Property Boundary
- Surface Contour
- Fence
- Stormwater Drainage
- Stormwater Manhole
- Stormwater Inlet Pit
- Water Reticulation
- Underground Electrical
- Underground Telecomms
- Underground Telecomms Pit
- Overhead Electrical
- Electrical Pole
- Existing Tree
- Water Fire Hydrant

Proposed Legend

- Site Boundary
- Demolition Area
- Existing Fence to be Removed
- Tree to be Demolished
- Abandoned Service

BEFORE YOU DIG www.byda.com.au

Note:

This drawing is conceptual only and must be viewed in conjunction with C_26072 R001_Civil Engineering Report by Context Engineering. The proposed design is preliminary, based on available information at the time of issue and is subject to change as part of refinements undertaken within the detailed design phase.

Revision	Date	Issue Details	Drawn	Designed
1	28.07.26	Issued for Approval	PD	CG

QR Code

Status: **Issued for Approval**
Not for Construction

Scale: 1:200 / 1:400 — 2 0 2 4 6 8 10m — A1 / A3

Client: Stay Developments Pty Ltd

Project: 80 McGinn Road, Ferny Grove

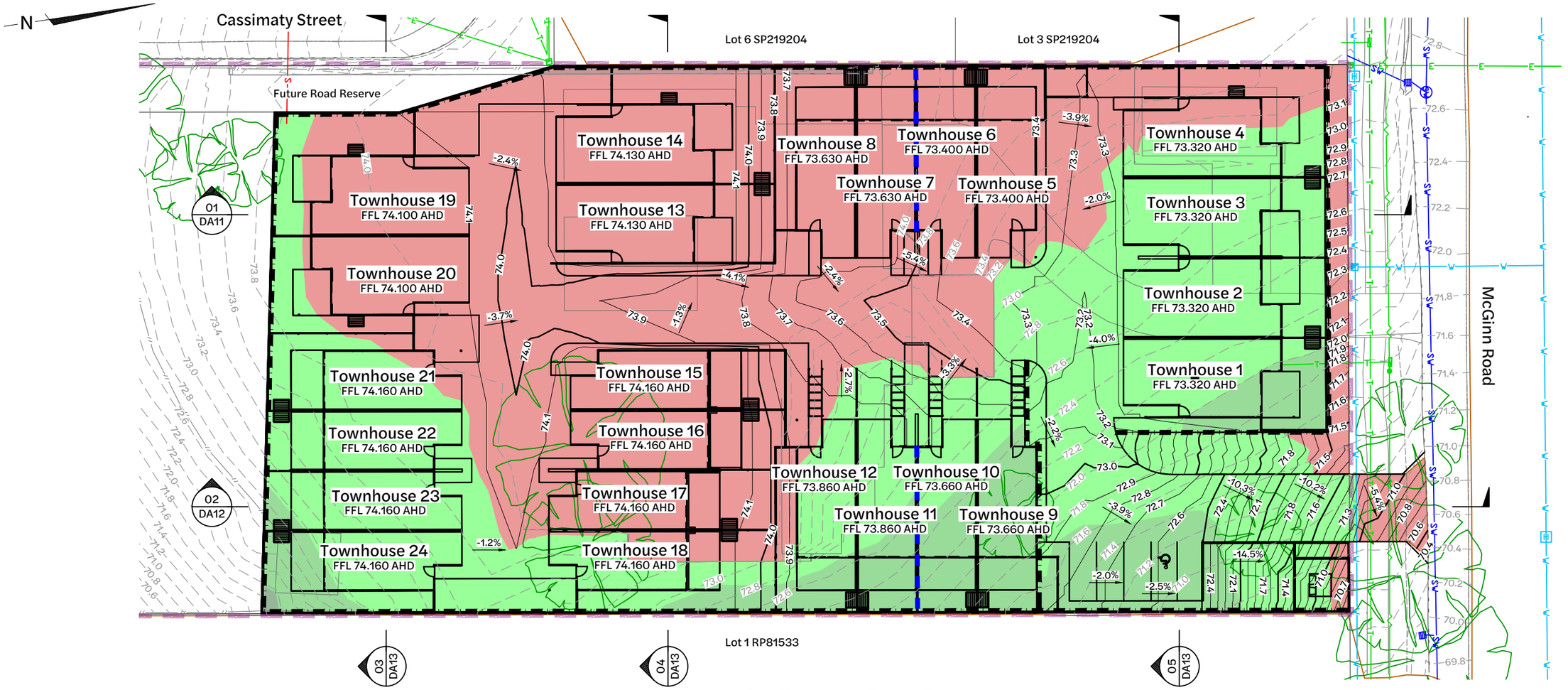
Disclaimer
All dimensions to be checked on site by contractor prior to construction. Use written dimensions only, do not scale.

Context Engineering

Drawing Title: Existing Features and Demolition Layout Plan

Project No.	Drawing No.	Revision
C_26072	DA01	1

FILE: Z:\PROJECTS\C_26072 - 80 MCGINN ROAD FERNY GROVE\IS_MODELS\AUTOCAD\C_26072 DA01_EXISTING FEATURES AND DEMOLITION LAYOUT PLAN.DWG LAST SAVED BY:CONTE



Bulk Earthworks Layout Plan
1:200 Scale

Existing Legend

- Property Boundary
- Surface Contour (0.2)
- Fence
- Stormwater Drainage (SW)
- Stormwater Manhole (SW)
- Stormwater Inlet Pit
- Water Reticulation (W)
- Underground Electrical (E)
- Underground Telecomms (T)
- Underground Telecomms Pit
- Overhead Electrical
- Electrical Pole
- Existing Tree
- Water Fire Hydrant (H)

Proposed Legend

- Site Boundary
- Design Surface Contour Major (0.5)
- Design Surface Contour Minor (0.1)
- Retaining Wall By Others
- Building Step Down

Bulk Earthworks Legend
Hatching from Existing surface to Bulk Earthworks surface

Cut		Fill	
> 5.0m		> 5.0m	
2.0 to 5.0m		2.0 to 5.0m	
1.0 to 2.0m		1.0 to 2.0m	
0.0 to 1.0m		0.0 to 1.0m	

Earthworks Schedule
Hatching from Existing surface to Bulk Earthworks surface

Type	Type
Cut	-752*
Fill	1,489*
Total Balance	737*

*Assume no strip and 200mm slab and pavement depth.

BEFORE YOU DIG www.byda.com.au

Note:
This drawing is conceptual only and must be viewed in conjunction with C_26072 R001_Civil Engineering Report by Context Engineering. The proposed design is preliminary, based on available information at the time of issue and is subject to change as part of refinements undertaken within the detailed design phase.

Revision	Date	Issue Details	Drawn	Designed
1	28.07.26	Issued for Approval	PD	CG

QR Code

Status: **Issued for Approval**
Not for Construction

Scale: 1:200 / 1:400 — 2 0 2 4 6 8 10m — A1 / A3

Client: Stay Developments Pty Ltd

Project: 80 McGinn Road, Ferny Grove

Disclaimer: All dimensions to be checked on site by contractor prior to construction. Use written dimensions only, do not scale.

Context Engineering

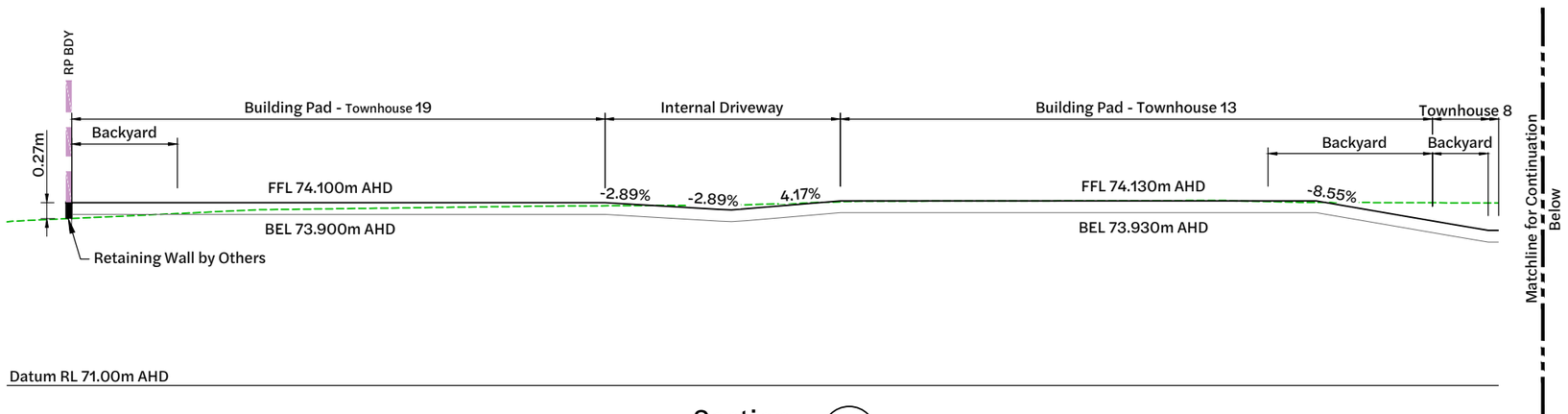
Drawing Title: Bulk Earthworks Layout Plan

Project No.	Drawing No.	Revision
C_26072	DA10	1

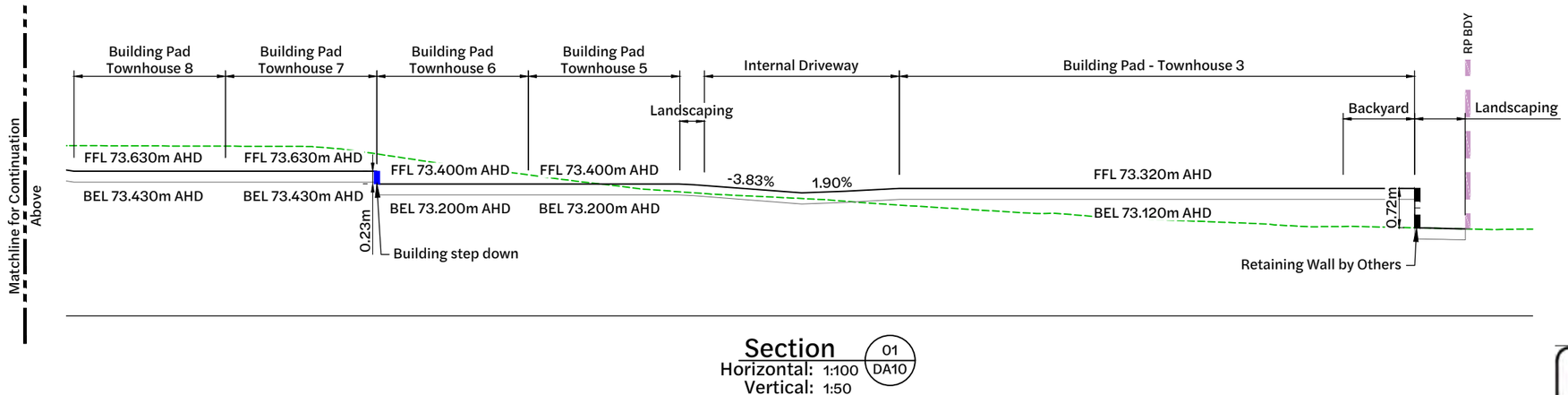
FILE: Z:\PROJECTS\C_26072 - 80 MCGINN ROAD FERNY GROVE\8_MODEL\AUTOCAD\C_26072 DA10_BULK EARTHWORKS LAYOUT PLAN.DWG LAST SAVED BY CONTE

Legend

- Existing Surface
- Design Surface
- Bulk Earthworks Surface
- Site Boundary
- Retaining Wall By Others
- Building Step Down



Section 01 / DA10
Horizontal: 1:100
Vertical: 1:50



Section 01 / DA10
Horizontal: 1:100
Vertical: 1:50

BEFORE YOU DIG www.byda.com.au

Note:
This drawing is conceptual only and must be viewed in conjunction with C_26072 R001_Engineering Services Report by Context Engineering. The proposed design is preliminary, based on available information at the time of issue and is subject to change as part of refinements undertaken within the detailed design phase.

Revision	Date	Issue Details	Drawn	Designed
1	28.07.26	Issued for Approval	PD	CG

QR Code

Status: **Issued for Approval**
Not for Construction

Scale
1:100 2 1 0 2 4m A1
1:200 A3
HORIZONTAL
1:50 1 0.5 0 1 2m A1
1:100 A3
VERTICAL

Client: Stay Developments Pty Ltd

Project: 80 McGinn Road, Ferny Grove

Disclaimer
All dimensions to be checked on site by contractor prior to construction. Use written dimensions only, do not scale.

Context Engineering

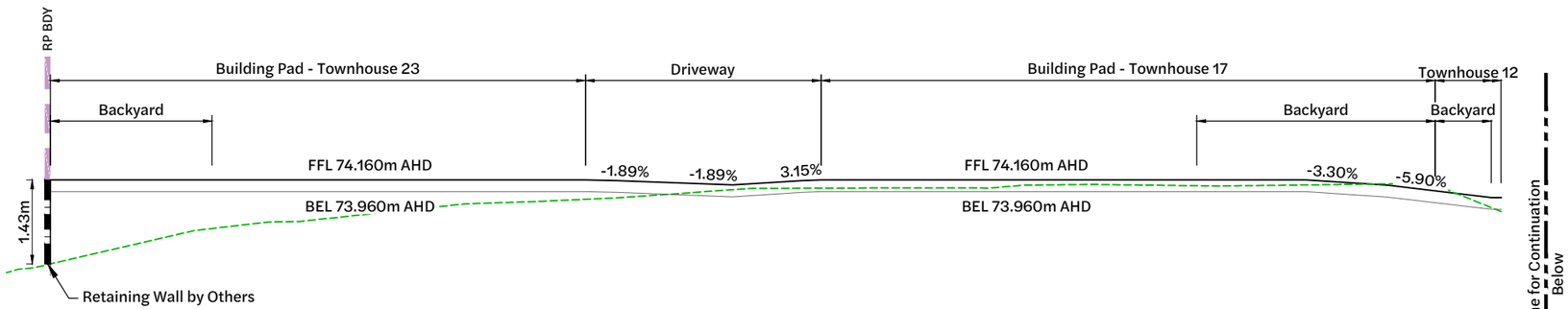
Drawing Title: Bulk Earthworks Sections (Sheet 1 of 3)

Project No.	Drawing No.	Revision
C_26072	DA11	1

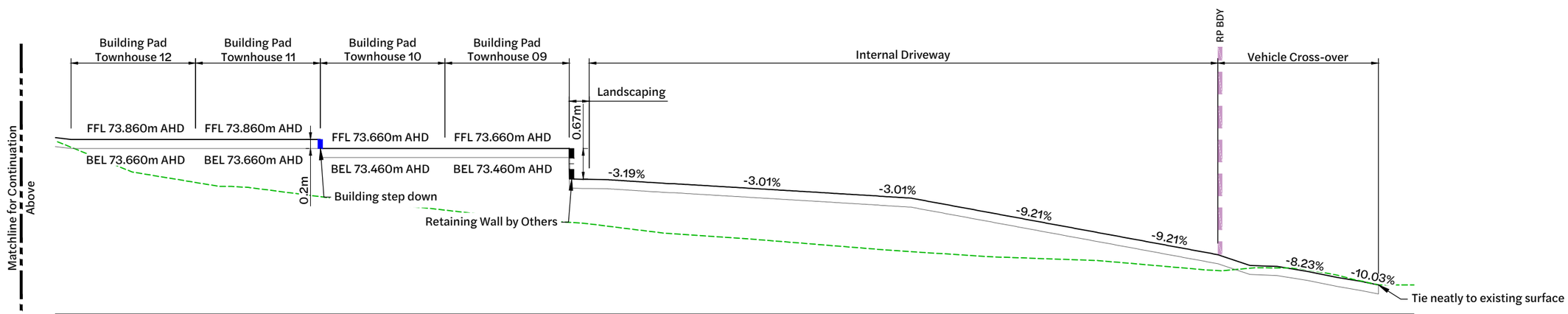
FILE: Z:\PROJECTS\C_26072 - 80 MCGINN ROAD FERNY GROVE\E_MODEL\AUTOCAD\C_26072 DA11_BULK EARTHWORKS SECTIONS.DWG LAST SAVED BY:CONTE

Legend

- Existing Surface
- Design Surface
- Bulk Earthworks Surface
- Site Boundary
- Retaining Wall By Others
- Building Step Down



Section
Horizontal: 1:100
Vertical: 1:50
02 / DA10



Section
Horizontal: 1:100
Vertical: 1:50
02 / DA10

BEFORE YOU DIG www.byda.com.au

Note:
This drawing is conceptual only and must be viewed in conjunction with C_26072 R001_Engineering Services Report by Context Engineering. The proposed design is preliminary, based on available information at the time of issue and is subject to change as part of refinements undertaken within the detailed design phase.

Revision	Date	Issue Details	Drawn	Designed
1	28.07.26	Issued for Approval	PD	CG

QR Code

Status: **Issued for Approval**
Not for Construction

Scale
1:100 2 1 0 2 4m A1
1:200 A3
HORIZONTAL
1:50 1 0.5 0 1 2m A1
1:100 A3
VERTICAL

Client: Stay Developments Pty Ltd

Project: 80 McGinn Road, Ferny Grove

Disclaimer
All dimensions to be checked on site by contractor prior to construction. Use written dimensions only, do not scale.

Context Engineering

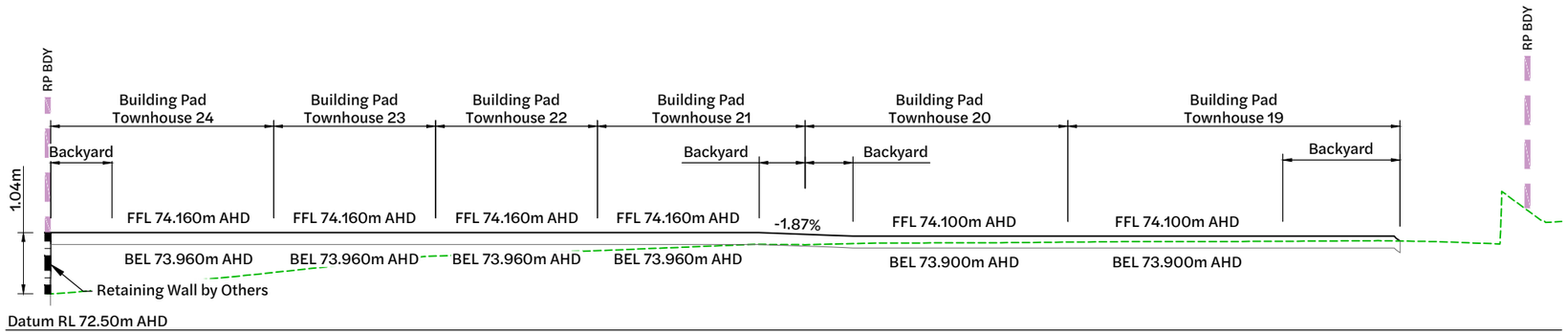
Drawing Title: Bulk Earthworks Sections (Sheet 2 of 3)

Project No.	Drawing No.	Revision
C_26072	DA12	1

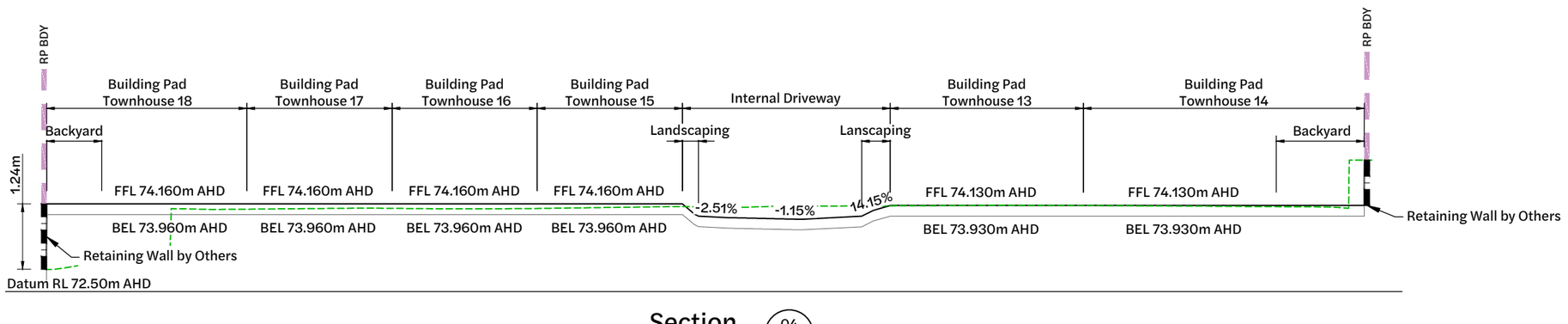
FILE: Z:\PROJECTS\C_26072 - 80 MCGINN ROAD FERNY GROVE\8_MODEL\AUTOCAD\C_26072 DA11_BULK EARTHWORKS SECTIONS.DWG LAST SAVED BY:CONTE

Legend

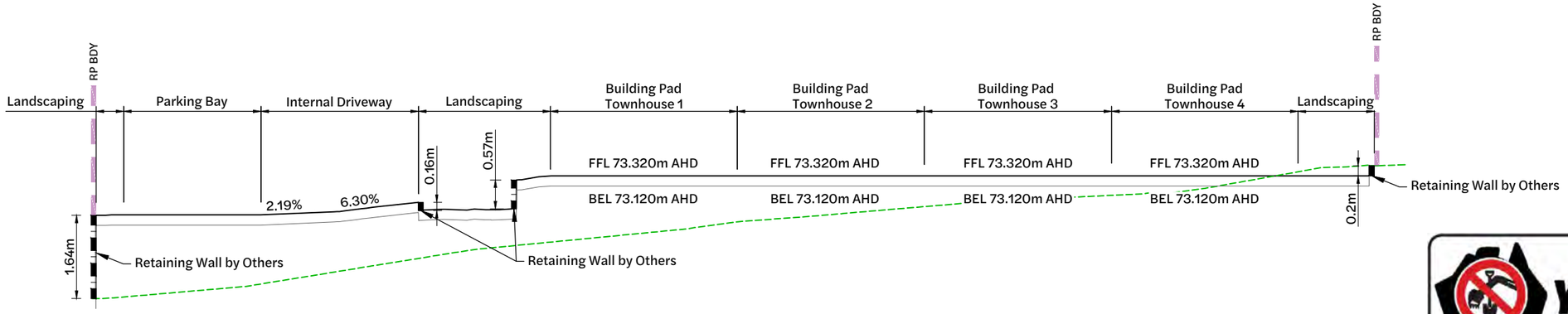
- Existing Surface
- Design Surface
- Bulk Earthworks Surface
- Site Boundary
- Retaining Wall By Others
- Building Step Down



Section 03 / DA10
Horizontal: 1:100
Vertical: 1:50



Section 04 / DA10
Horizontal: 1:100
Vertical: 1:50



Section 05 / DA10
Horizontal: 1:100
Vertical: 1:50

BEFORE YOU DIG www.byda.com.au

Note:
This drawing is conceptual only and must be viewed in conjunction with C_26072 R001_Engineering Services Report by Context Engineering. The proposed design is preliminary, based on available information at the time of issue and is subject to change as part of refinements undertaken within the detailed design phase.

Revision	Date	Issue Details	Drawn	Designed
1	28.07.26	Issued for Approval	PD	CG

QR Code

Status: **Issued for Approval** — Not for Construction

Scale:
1:100 2 1 0 2 4m A1
1:200 HORIZONTAL A3
1:50 1 0.5 0 1 2m A1
1:100 VERTICAL A3

Client: Stay Developments Pty Ltd

Project: 80 McGinn Road, Ferny Grove

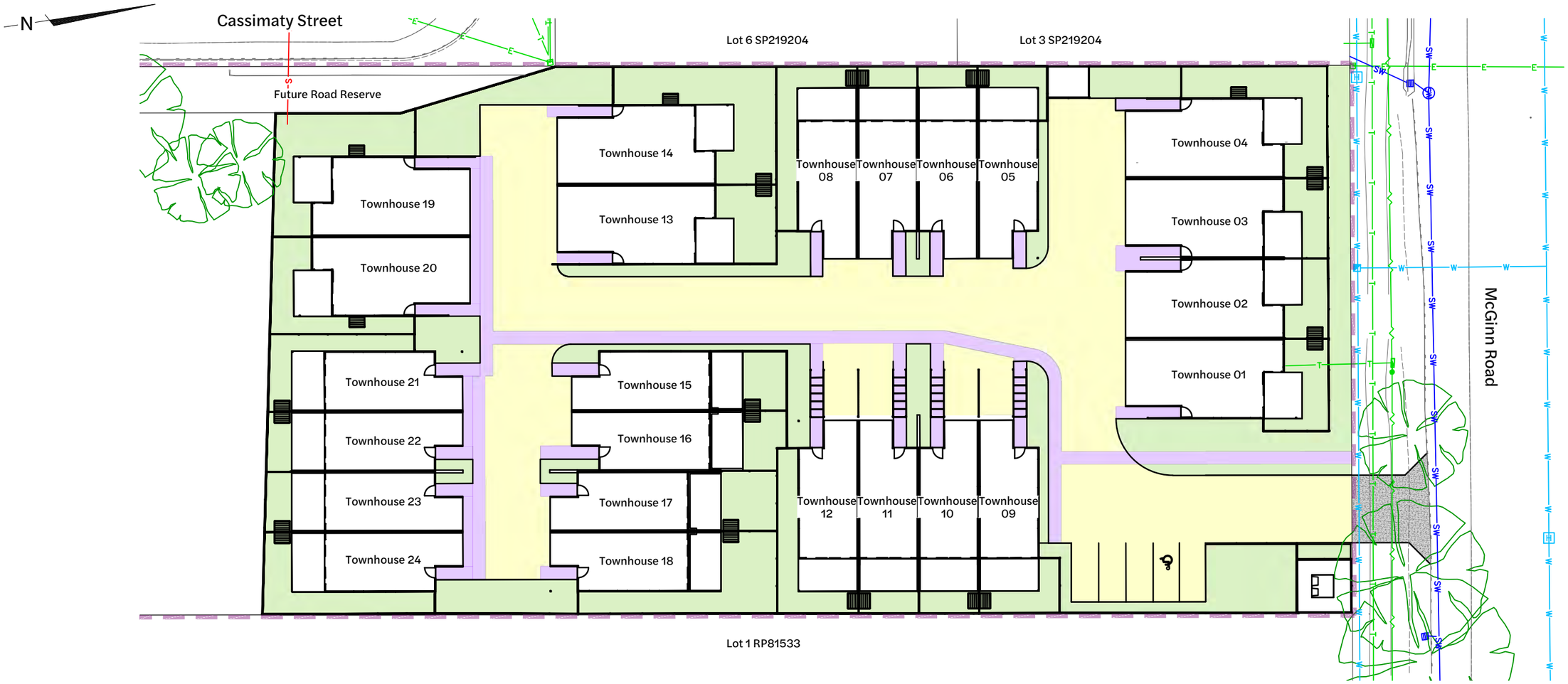
Disclaimer: All dimensions to be checked on site by contractor prior to construction. Use written dimensions only, do not scale.

Context Engineering

Drawing Title: Bulk Earthworks Sections (Sheet 3 of 3)

Project No.: C_26072
Drawing No.: DA13
Revision: 1

FILE: Z:\PROJECTS\C_26072 - 80 MCGINN ROAD FERNY GROVE\S_MODELS\AUTOCAD\C_26072 DA11_BULK EARTHWORKS SECTIONS.DWG LAST SAVED BY:CONTE



Internal Roadworks Layout Plan

1:200 Scale

Existing Legend

- Property Boundary
- Fence
- Stormwater Drainage
- Stormwater Manhole
- Stormwater Inlet Pit
- Water Reticulation
- Underground Electrical
- Underground Telecomms
- Underground Telecomms Pit
- Overhead Electrical
- Electrical Pole
- Existing Tree
- Water Fire Hydrant

Proposed Legend

- Site Boundary
- Internal Footpath
- Rigid Pavement
- Internal Grassed Area
- Vehicle Cross Over

BEFORE YOU DIG www.byda.com.au

Note:

This drawing is conceptual only and must be viewed in conjunction with C_26072 R001_Civil Engineering Report by Context Engineering. The proposed design is preliminary, based on available information at the time of issue and is subject to change as part of refinements undertaken within the detailed design phase.

Revision	Date	Issue Details	Drawn	Designed
1	28.07.26	Issued for Approval	PD	CG

QR Code

Status: **Issued for Approval**
Not for Construction

Scale: 1:200 / 1:400 — 2 0 2 4 6 8 10m — A1 / A3

Client: Stay Developments Pty Ltd

Project: 80 McGinn Road, Ferny Grove

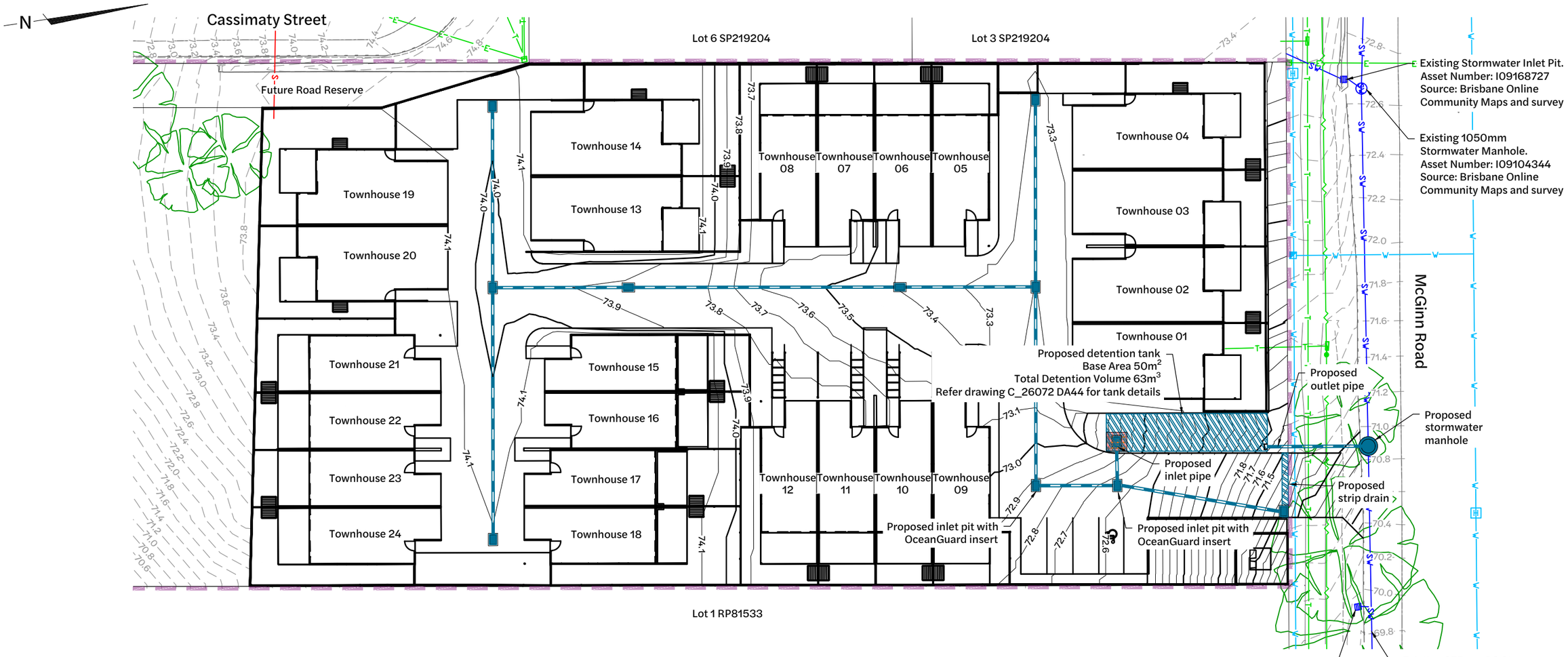
Disclaimer
All dimensions to be checked on site by contractor prior to construction. Use written dimensions only, do not scale.

Context Engineering

Drawing Title: Internal Roadworks Layout Plan

Project No.	Drawing No.	Revision
C_26072	DA30	1

FILE: Z:\PROJECTS\C_26072 - 80 MCGINN ROAD FERNY GROVE\6_MODEL\AUTOCAD\C_26072 DA30_INTERNAL ROADWORKS LAYOUT PLAN.DWG LAST SAVED BY:CONTE



Stormwater Drainage Layout Plan

1:200 Scale

Existing Legend

- Property Boundary
- Surface Contour
- Fence
- Stormwater Drainage
- Stormwater Manhole
- Stormwater Inlet Pit
- Water Reticulation
- Underground Electrical
- Underground Telecomms
- Underground Telecomms Pit
- Overhead Electrical
- Electrical Pole
- Existing Tree
- Water Fire Hydrant

Proposed Legend

- Site Boundary
- Design Surface Contour Major
- Design Surface Contour Minor
- Maintenance Hole
- Stormwater Field Pit
- Stormwater Drainage
- Strip Drain
- Roofwater Line

BEFORE YOU DIG www.byda.com.au

Note:

This drawing is conceptual only and must be viewed in conjunction with C_26072 R001_Stormwater Management Plan by Context Engineering. The proposed design is preliminary, based on available information at the time of issue and is subject to change as part of refinements undertaken within the detailed design phase.

Revision	Date	Issue Details	Drawn	Designed
1	28.07.26	Issued for Approval	PD	CG

QR Code

Status: **Issued for Approval**
Not for Construction

Scale: 1:200 / 1:400 — 2 0 2 4 6 8 10m — A1 / A3

Client: Stay Developments Pty Ltd

Project: 80 McGinn Road, Ferny Grove

Disclaimer
All dimensions to be checked on site by contractor prior to construction. Use written dimensions only, do not scale.

Context Engineering

Drawing Title: Stormwater Drainage Layout Plan

Project No.	Drawing No.	Revision
C_26072	DA40	-

FILE: Z:\PROJECTS\C_26072 - 80 MCGINN ROAD FERNY GROVE\E_MODEL\AU\TOCAD\C_26072 DA40_STORMWATER DRAINAGE LAYOUT PLAN.DWG LAST SAVED BY:DREWTIERNEY

N

Cassimaty Street

Future Road Reserve

Lot 6 SP219204

Lot 3 SP219204

Existing Building

Existing Pool

Existing Building

Existing Building

Existing Driveway

E1

Existing building

McGinn Road

Lot 1 RP81533

Existing Catchment Plan
1:200 Scale

Existing swale conveying flows from subject site to McGinn Road, approved under application A006775078.
Refer *Site Based Stormwater Management Plan (Rev A)* by Rodgers Consulting Services for detail.

Existing Legend

- Property Boundary
- Surface Contour
- Fence
- Stormwater Drainage
- Stormwater Manhole
- Stormwater Inlet Pit
- Water Reticulation
- Underground Electrical
- Underground Telecomms
- Underground Telecomms Pit
- Overhead Electrical
- Electrical Pole
- Existing Tree
- Water Fire Hydrant

Existing Legend

- Catchment Boundary
- Drainage Flow Arrow
- Discharge Flow Direction
- Catchment Label
- Swale Invert

Proposed Legend

- Site Boundary

Existing Catchment	
Catchment	E1
Area	4,910m²
Imperviousness	32%
Time of Concentration	11 minutes

BEFORE YOU DIG www.byda.com.au

Note:
This drawing is conceptual only and must be viewed in conjunction with C_26072 R001_Civil Engineering Report by Context Engineering. The proposed design is preliminary, based on available information at the time of issue and is subject to change as part of refinements undertaken within the detailed design phase.

Revision	Date	Issue Details	Drawn	Designed
1	28.07.26	Issued for Approval	PD	CG

QR Code

Status: **Issued for Approval**
Not for Construction

Scale: 1:200 / 1:400 — 2 0 2 4 6 8 10m — A1 / A3

Client: Stay Developments Pty Ltd

Project: 80 McGinn Road, Ferny Grove

Disclaimer: All dimensions to be checked on site by contractor prior to construction. Use written dimensions only, do not scale.

Context Engineering

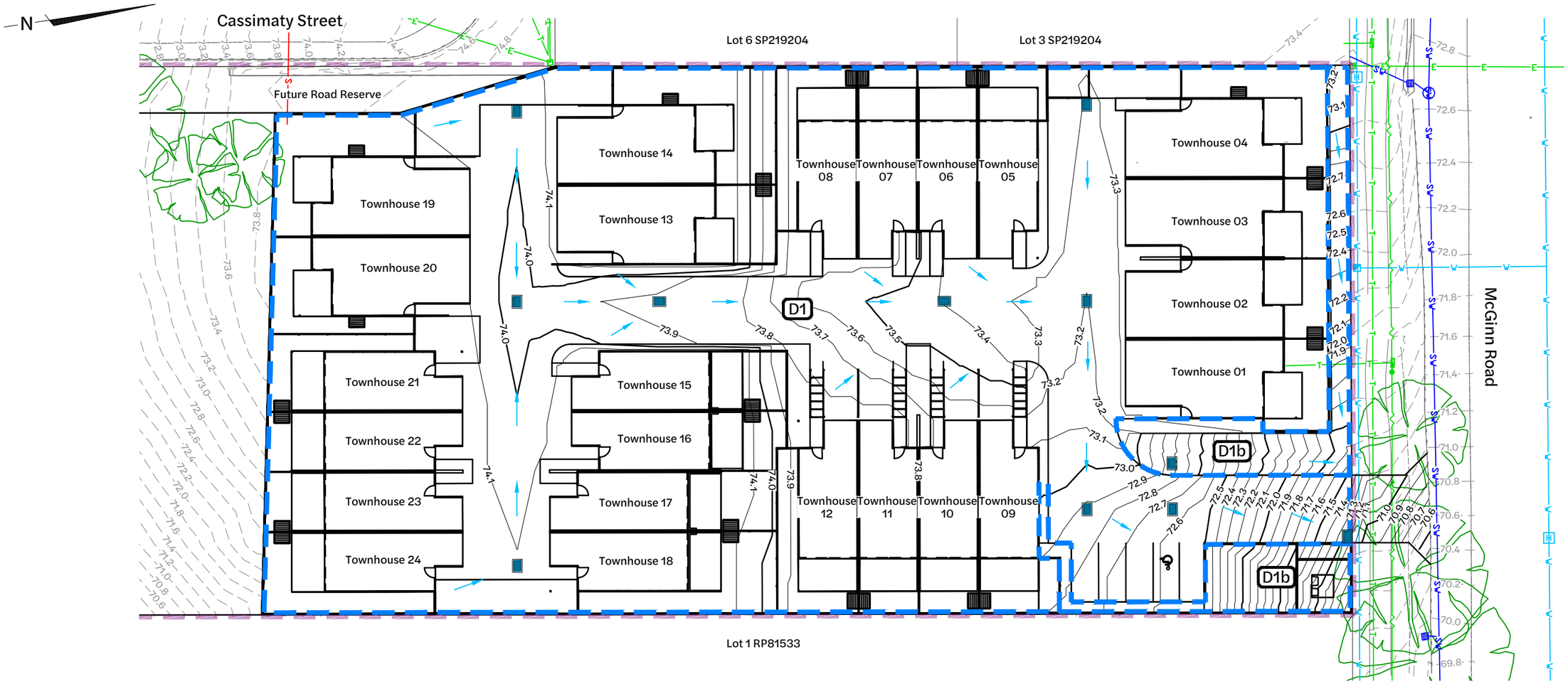
Drawing Title: Existing Catchment Plan

Project No.: C_26072

Drawing No.: DA41

Revision: -

FILE: Z:\PROJECTS\C_26072 - 80 MCGINN ROAD FERNY GROVE\S_MODEL\AUTOCAD\C_26072 DA41_EXISTING CATCHMENT PLAN.DWG LAST SAVED BY:DREWTIERNEY



Developed Catchment Plan

1:200 Scale

Existing Legend

- Property Boundary
- Surface Contour
- Fence
- Stormwater Drainage
- Stormwater Manhole
- Stormwater Inlet Pit
- Water Reticulation
- Underground Electrical
- Underground Telecomms
- Underground Telecomms Pit
- Overhead Electrical
- Electrical Pole
- Existing Tree
- Water Fire Hydrant

Proposed Legend

- Site Boundary
- Design Surface Contour Major
- Design Surface Contour Minor
- Catchment Boundary
- Drainage Flow Arrow
- Discharge Flow Direction
- Catchment Label

Developed Catchment		
Catchment	D1	D1b
Area	4,630m²	280m²
Imperviousness	76%	0%
Time of Concentration	6 minutes	5 minutes

BEFORE YOU DIG www.byda.com.au

Note:
This drawing is conceptual only and must be viewed in conjunction with C_26072 R001_Civil Engineering Report by Context Engineering. The proposed design is preliminary, based on available information at the time of issue and is subject to change as part of refinements undertaken within the detailed design phase.

Revision	Date	Issue Details	Drawn	Designed
1	28.07.26	Issued for Approval	PD	CG

QR Code

Status: **Issued for Approval**
Not for Construction

Scale: 1:200 / 1:400 — 2 0 2 4 6 8 10m — A1 / A3

Client: Stay Developments Pty Ltd

Project: 80 McGinn Road, Ferny Grove

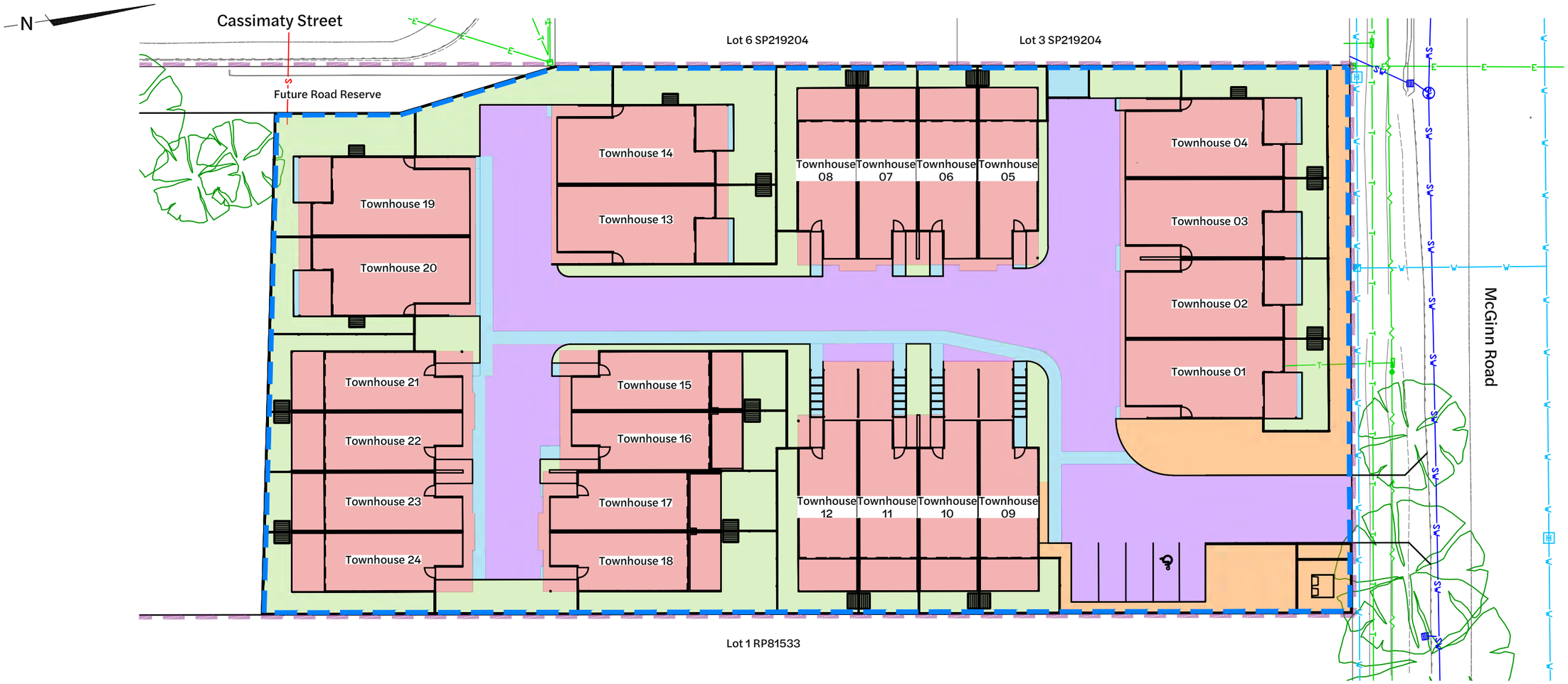
Disclaimer
All dimensions to be checked on site by contractor prior to construction. Use written dimensions only, do not scale.

Context Engineering

Drawing Title: Developed Catchment Plan

Project No.: C_26072
Drawing No.: DA42
Revision: 1

FILE: Z:\PROJECTS\C_26072 - 80 MCGINN ROAD FERNY GROVE\3_MODEL\AUTOCAD\C_26072 DA42_DEVELOPED CATCHMENT PLAN.DWG LAST SAVED BY: CONTE



Quality Catchment Plan
1:200 Scale

Existing Legend
- Property Boundary
- Fence
- Stormwater Drainage
- Stormwater Manhole
- Stormwater Inlet Pit
- Water Reticulation
- Underground Electrical
- Underground Telecomms
- Underground Telecomms Pit
- Overhead Electrical
- Electrical Pole
- Existing Tree
- Water Fire Hydrant

Proposed Legend
- Site Boundary
- Catchment Boundary

Quality Catchment Area

Legend	Description	Area (ha)
	Roof	0.246
	Hardstand	0.021
	Driveway	0.095
	Pervious	0.101
	Bypass (Pervious)	0.028

BEFORE YOU DIG www.byda.com.au

Note:
This drawing is conceptual only and must be viewed in conjunction with C_26072 R001_Stormwater Management Plan by Context Engineering. The proposed design is preliminary, based on available information at the time of issue and is subject to change as part of refinements undertaken within the detailed design phase.

Revision	Date	Issue Details	Drawn	Designed
1	28.07.26	Issued for Approval	PD	CG

QR Code

Status: **Issued for Approval**
Not for Construction

Scale: 1:200 / 1:400 — 2 0 2 4 6 8 10m — A1 / A3

Client: Stay Developments Pty Ltd

Project: 80 McGinn Road, Ferny Grove

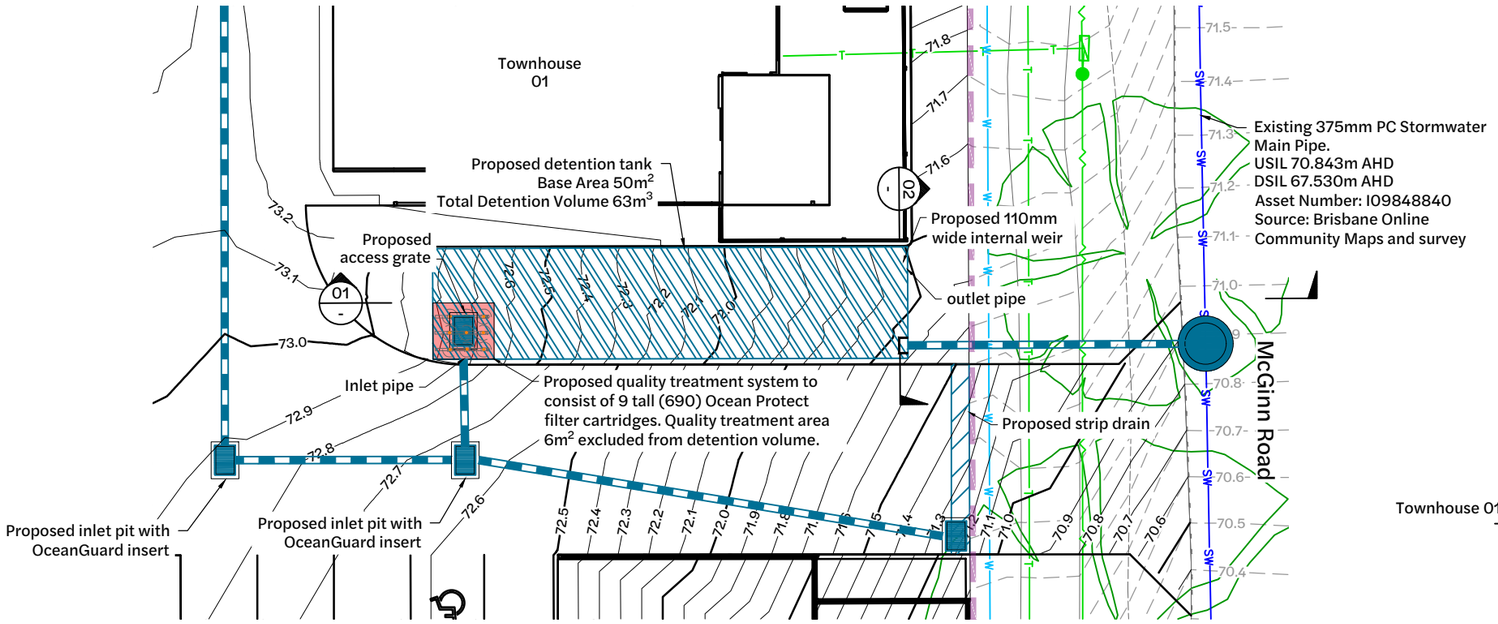
Disclaimer
All dimensions to be checked on site by contractor prior to construction. Use written dimensions only, do not scale.

Context Engineering

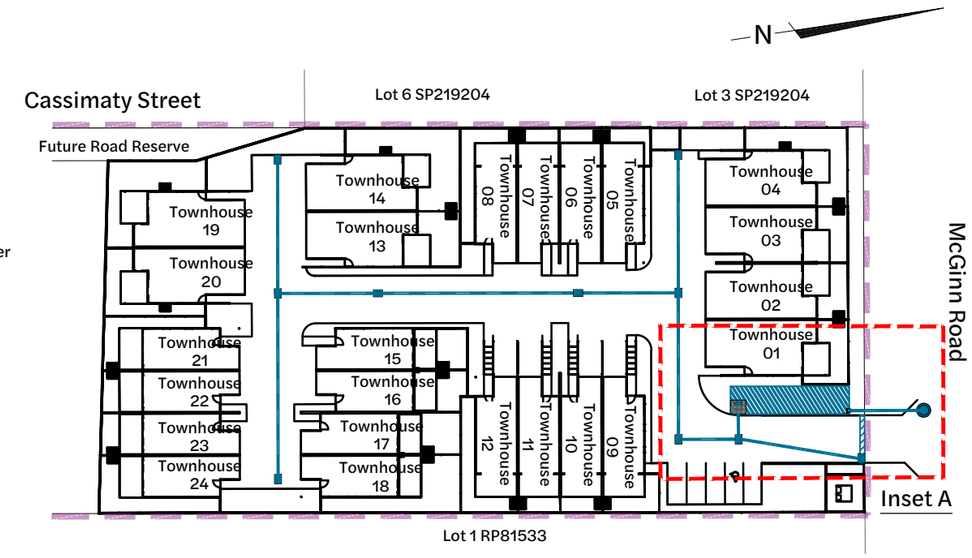
Drawing Title: Quality Catchment Plan

Project No.: C_26072
Drawing No.: DA43
Revision: 1

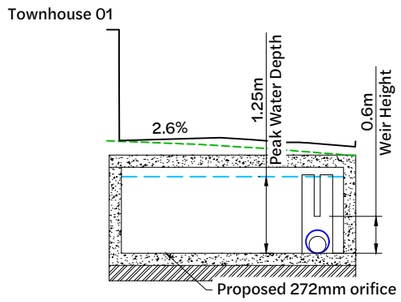
FILE: Z:\PROJECTS\C_26072 - 80 MCGINN ROAD FERNY GROVE\8_MODEL\AUTOCAD\C_26072 DA43_QUALITY CATCHMENT PLAN.DWG LAST SAVED BY:CONTE



Inset A - Detention Tank Plan View
1:100 Scale

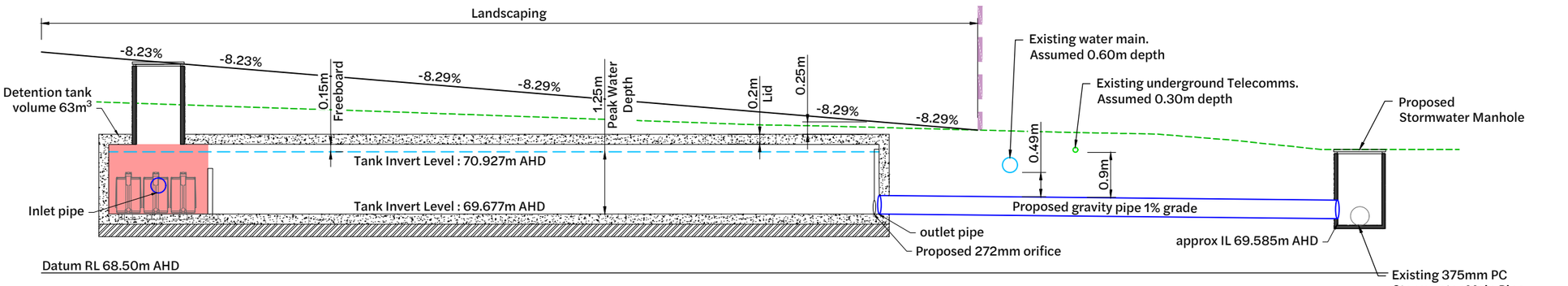


Locality Plan
1:400 Scale



Datum RL 68.50m AHD

Section 02 - Weir Notch Arrangement
1:50 Scale



Section 01 - Detention Tank Section View
1:50 Scale

Existing Legend

- Property Boundary
- Surface Contour
- Fence
- Stormwater Drainage
- Water Reticulation
- Underground Electrical
- Underground Telecomms
- Underground Telecomms Pit
- Overhead Electrical
- Electrical Pole
- Existing Tree

Proposed Legend

- Site Boundary
- Design Surface Contour Major
- Design Surface Contour Minor
- Maintenance Hole
- Stormwater Field Pit
- Stormwater Drainage
- Strip Drain

BEFORE YOU DIG www.byda.com.au

Note:
This drawing is conceptual only and must be viewed in conjunction with C_26072 R001_Stormwater Management Plan by Context Engineering. The proposed design is preliminary, based on available information at the time of issue and is subject to change as part of refinements undertaken within the detailed design phase.

Revision	Date	Issue Details	Drawn	Designed
1	28.07.26	Issued for Approval	PD	CG

QR Code

Status: **Issued for Approval**
Not for Construction

Scale
1:50 1 0.5 0 1 2m A1
1:100 A3
1:100 1 0 1 2 3 4 5m A1
1:200 A3
1:400 4 0 4 8 12 16 20m A1
1:800 A3

Client: Stay Developments Pty Ltd

Project: 80 McGinn Road, Ferny Grove

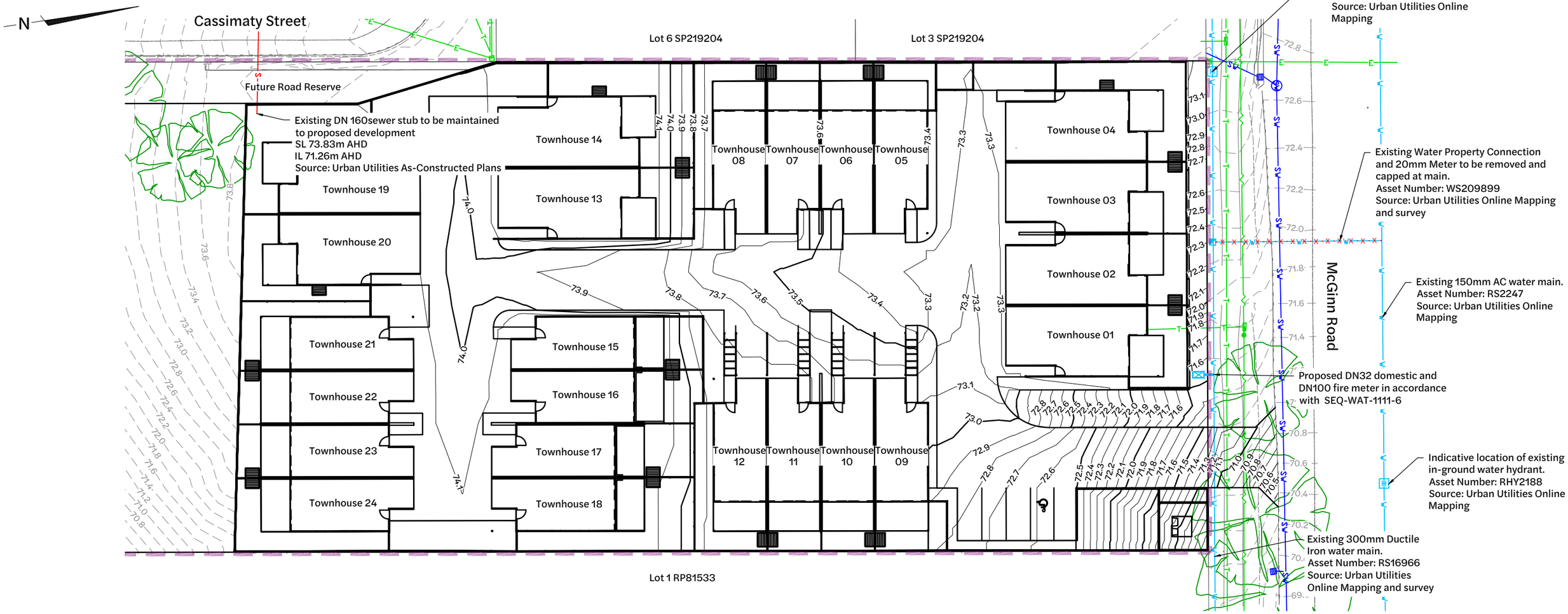
Disclaimer
All dimensions to be checked on site by contractor prior to construction. Use written dimensions only, do not scale.

Context Engineering

Drawing Title: Stormwater Structure Details

Project No. C_26072 | Drawing No. DA44 | Revision 1

FILE: Z:\PROJECTS\C_26072 - 80 MCGINN ROAD FERNY GROVE\S_MODELS\AUTOCAD\C_26072 DA44_STORMWATER STRUCTURE DETAILS.DWG LAST SAVED BY:DREWTIERNEY



Water and Sewer Layout Plan

1:200 Scale

Existing Legend

- Property Boundary
- Surface Contour
- Fence
- Stormwater Drainage
- Stormwater Manhole
- Stormwater Inlet Pit
- Water Reticulation
- Underground Electrical
- Underground Telecomms
- Underground Telecomms Pit
- Overhead Electrical
- Electrical Pole
- Existing Tree
- Water Fire Hydrant

Proposed Legend

- Site Boundary
- Design Surface Contour Major
- Design Surface Contour Minor
- Water Meter

BEFORE YOU DIG www.byda.com.au

Note:
This drawing is conceptual only and must be viewed in conjunction with C_26072 R001_Civil Engineering Report by Context Engineering. The proposed design is preliminary, based on available information at the time of issue and is subject to change as part of refinements undertaken within the detailed design phase.

Revision	Date	Issue Details	Drawn	Designed
1	28.07.26	Issued for Approval	PD	CG

QR Code

Status: **Issued for Approval**
Not for Construction

Scale: 1:200 / 1:400 — 2 0 2 4 6 8 10m — A1 / A3

Client: Stay Developments Pty Ltd

Project: 80 McGinn Road, Ferny Grove

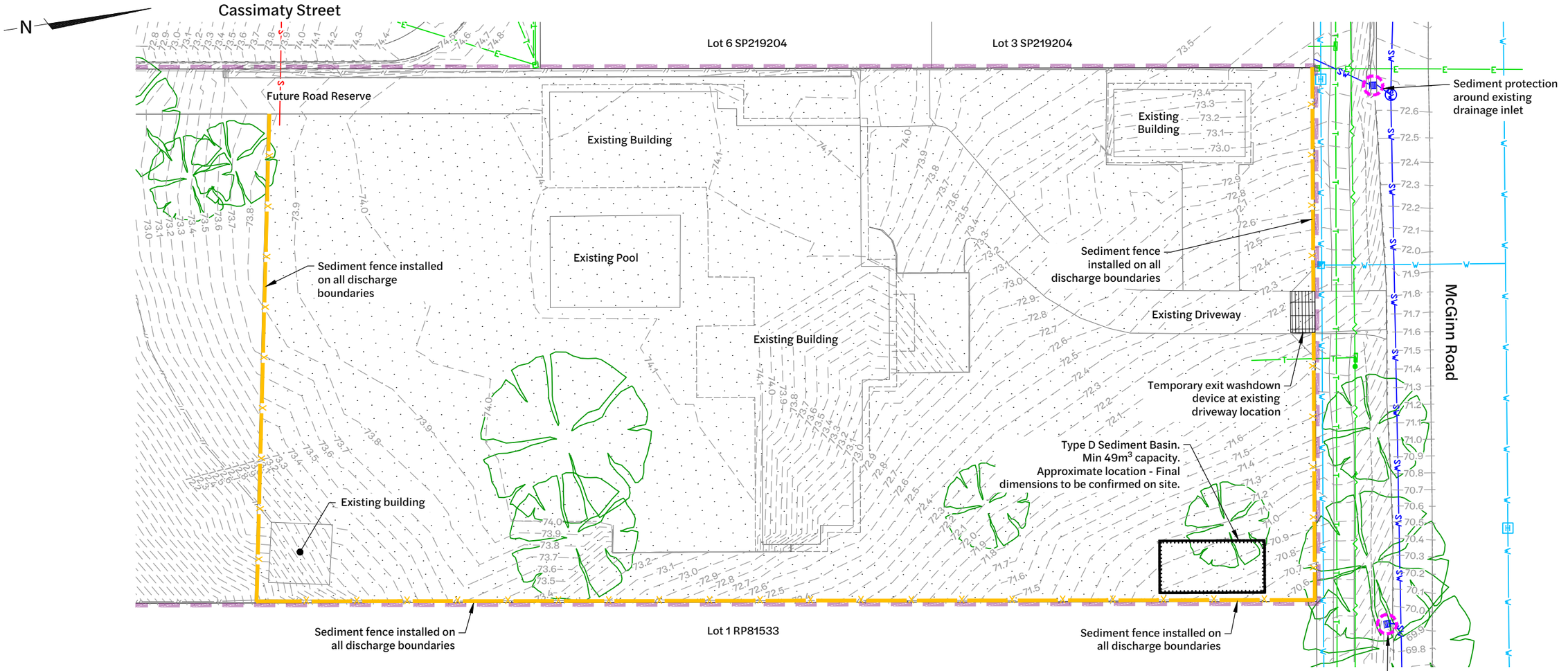
Disclaimer
All dimensions to be checked on site by contractor prior to construction. Use written dimensions only, do not scale.

Context Engineering

Drawing Title: Water & Sewer Layout Plan

Project No.	Drawing No.	Revision
C_26072	DA50	1

FILE: Z:\PROJECTS\C_26072 - 80 MCGINN ROAD FERNY GROVE\E_MODEL\AUTOCAD\C_26072 DA50_WATER & SEWER LAYOUT PLAN.DWG LAST SAVED BY:ERIKTIERNEY



Erosion and Sediment Control Layout Plan

1:200 Scale

Existing Legend

- Property Boundary
- Surface Contour
- Fence
- Stormwater Drainage
- Stormwater Manhole
- Stormwater Inlet Pit
- Water Reticulation
- Underground Electrical
- Underground Telecomms
- Underground Telecomms Pit
- Overhead Electrical
- Electrical Pole
- Existing Tree

Proposed Legend

- Site Boundary
- Proposed Sediment Fence (or as directed by Site Superintendent)
- Temporary Exit Washdown Grate
- Proposed Area of Disturbance
- Inlet Protection

Sediment Basin Calculations

1.	Sediment Basin		= "Type D"
2.	Settling Volume		= 400 * Cv * Area (Ha) = 98m³
	Where:	Cv	= 0.5 (Open Soil)
		Area	= 0.49ha
3.	Sediment Storage Volume		= 50% * Settling Volume = 49m³

BEFORE YOU DIG www.byda.com.au

Note:

This drawing is conceptual only and must be viewed in conjunction with C_26072 R001_Civil Engineering Report by Context Engineering. The proposed design is preliminary, based on available information at the time of issue and is subject to change as part of refinements undertaken within the detailed design phase.

Revision	Date	Issue Details	Drawn	Designed
1	28.07.26	Issued for Approval	PD	CG

QR Code

Status: **Issued for Approval**
Not for Construction

Scale: 1:200 / 1:400 — 2 0 2 4 6 8 10m — A1 / A3

Client: Stay Developments Pty Ltd

Project: 80 McGinn Road, Ferny Grove

Disclaimer
All dimensions to be checked on site by contractor prior to construction. Use written dimensions only, do not scale.

Context Engineering

Drawing Title: Erosion & Sediment Control Layout Plan

Project No.	Drawing No.	Revision
C_26072	DA80	1

FILE: Z:\PROJECTS\C_26072 - 80 MCGINN ROAD FERNY GROVE\8_MODEL\AUTOCAD\C_26072 DA80_EROSION & SEDIMENT CONTROL LAYOUT PLAN.DWG LAST SAVED BY:CONTE

80 McGinn Road, Ferny Grove

Civil Engineering Report

Appendix B **Survey**

Stay

Proposal Plan 80 McGinn Road, Ferny Grove RPD:Lot 2 on RP77582

GENERAL NOTES:

1. BOUNDARIES HAVE NOT BEEN SURVEYED OR REINSTATED
2. SUBJECT BOUNDARIES SHOWN ARE COMPILED FROM IS234702
3. ADJOINING BOUNDARIES SHOWN ARE COMPILED FROM DCDB DATA.
4. LIDAR CONTOUR INTERVAL SHOWN IS 1.0 METRE.

LEGEND

- MSES
- ENVIRONMENTAL PROTECTION ZONE (EPZ)/ Environmental Covenant
- PET EXCLUSION FENCING (with self closing pedestrian maintenance access gate)

MCALROY ROAD

CASSIMATY STREET

DON STREET

MCGINN ROAD

New Road (Verge widening to achieve 14m wide reserve width)

Min. 4.25m verge

Existing House to Remain

Granny Flat

Existing structures to remain within Lot 101

Existing cross-over to remain

Development Footprint

Timber Paling Fence

Timber Post & Rail Fence

102 4689m²

103 4910m²

2 RP77582

1 RP81533

47 SP291139 | 48 SP291139 | 13 SP219204 | 12 SP219204 | 11 SP219204 | 10 SP219204 | 9 SP219204 | 7 SP219204 | 8 SP219204 | 800 SP219204 | 4 SP219204 | 1 SP219204 | 5 SP219204 | 2 SP219204 | 6 SP219204 | 3 SP219204

50 SP291139 | 49 SP291139

30 SP295912 | 27 SP295912 | 24 SP295912 | 21 SP295912 | 29 SP295912 | 28 SP295912 | 26 SP295912 | 25 SP295912 | 23 SP295912 | 22 SP295912 | 20 SP295912 | 19 SP295912 | 18 SP295912 | 17 SP219265

IMPORTANT NOTE:

This Plan is prepared for the owner for lodgement with the relevant Council for an application under the Planning Act and should not be used for any other purpose. No reliance should be placed on this plan for financial dealings involving the land.

THE AREAS AND DIMENSIONS SHOWN ON THIS PLAN ARE APPROXIMATE ONLY AND ARE SUBJECT TO FINAL SURVEY AND LOCAL AUTHORITY APPROVALS AND CONDITIONS.

Scale 1:750 – Lengths are in Metres.

10 0 10 20 30 40 50 60 70 80 90 100 110

	Revisions	Surveyed	Drawn	Checked	Passed	Date
G	EPZ ALIGN	MH	MH	LA	LS	12/5/26
E	MINOR AMEND	–	LA	LA	LS	29/09/23
D	BLDG ENV	–	LA	LA	LS	04/09/23
C	DTM ADDED	–	LA	LA	LS	25/05/23
B	LAYOUT	–	LA	LA	LS	14/02/23
A	ORIGINAL PLAN	–	LA	LA	LS	23/01/23

LSD LAND SURVEYING DYNAMICS

PO Box 6334, Maroochydore BC QLD 4558
10/1 Newspaper Place, Maroochydore QLD 4558
Mobile: 0412 666 516
Email: mail@landsurveyingdynamics.com
Web: www.landsurveyingdynamics.com

Land Surveying Dynamics (LSD) Pty Ltd
ACN 154 593 870

Signed _____
Cadastral Surveyor/Director

Date _____

Horiz. Datum MGA2020 | Vert. Datum AHD
Origin DCDB

Locality: FERNY GROVE

Local Government: BRISBANE CITY COUNCIL

SHEET 1 OF 1 | Scale A3 1:750

FILE 13279 PRO Rev G.dwg | Date 12/5/26

DRAWING NUMBER 13279-PRO-01 | REV. G

D:\Dropbox\LSD2025\Jobs\Current\13279 Stay – 80 McGinn St, Ferny Grove\Data Survey\Drafting\Proposal\13279 PRO Rev G.dwg

80 McGinn Road, Ferny Grove

Civil Engineering Report

Appendix C **Architectural Plans**



01 SITE PLAN
1:200

PROPOSED MULTIRESIDENTIAL DEVELOPMENT, 80 McGINN ROAD, FERNY GROVE

STAY DEVELOPMENTS PTY LTD

SITE PLAN

PRELIMINARY

scale : 1:200@A1 1:400@A3

issue : 01 date : 28-05-26

7376-PD02

north

BLACKBURNEJACKSON
ARCHITECTURE | LANDSCAPE | INTERIOR | PROJECT MANAGEMENT

The designs, drawings and specification are copyright and always remain the property of Blackburne Jackson Design Pty Ltd.



01 FLOOR PLAN LEVEL 1
1:200

PROPOSED MULTIRESIDENTIAL DEVELOPMENT, 80 McGINN ROAD, FERNY GROVE

STAY DEVELOPMENTS PTY LTD

FLOOR PLAN - LEVEL 1

PRELIMINARY

scale : 1:200@A1 1:400 @A3

issue : 01 date : 29-05-26

7376-PD03

north

BLACKBURNEJACKSON
ARCHITECTURE | LANDSCAPE | INTERIOR | PROJECT MANAGEMENT

7376-28-McGinn Rd Stay.pln Friday, 29 May 2026 3:06pm

The designs, drawings and specification are copyright and always remain the property of Blackburne Jackson Design Pty Ltd.

80 McGinn Road, Ferny Grove

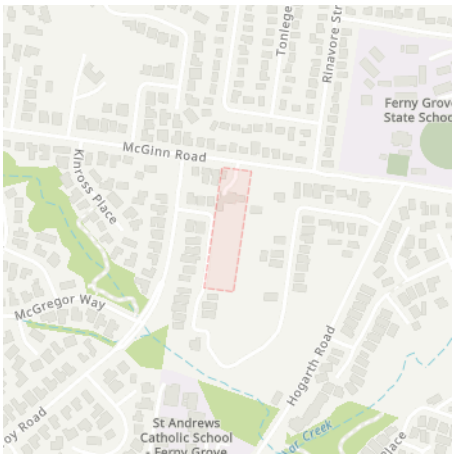
Civil Engineering Report

Appendix D **Before You Dig**

Job ID 53817382

80 McGinn Rd

Review responses online



Received 6 of 6 responses

All responses received

80 McGinn Rd, Ferny Grove QLD 4055

Job dates
05/08/2026 → 26/08/2026

These plans expire on
25 Aug 2026

Lodged by
Drew Tierney

Authority	Status	Page
BYDA Confirmation		2
APA Group Gas Networks (70710)	Received	4
Brisbane City Council	Received	15
Energex QLD	Received	20
NBN Co Qld	Received	67
Queensland Urban Utilities	Received	79
Telstra QLD South East	Received	86

Job No 53817382

byda.com.au

Zero damage - Zero harm - Zero disruption

Contact Details

Contact	Contact number	Company	Enquirer ID
Drew Tierney	0474 160 209	Context Engineering	3705233

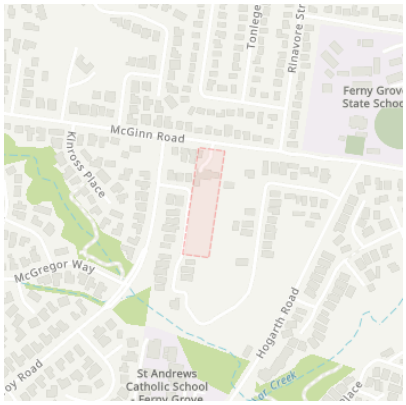
Email
drew.tierney@contexteng.com.au

Address
357 Logan Road
Stones Corner QLD 4120

Job Site and Enquiry Details

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

Enquiry date	Start date	End date	On behalf of	Job purpose	Locations	Onsite activities
29/07/2026	05/08/2026	26/08/2026	Private	Design	Both Road, Footpath, Nature Strip	Planning & Design



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

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

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

User Reference	Address	Notes/description
80 McGinn Rd	80 McGinn Rd Ferny Grove QLD 4055	-

Your Responsibility and Duty of Care

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

Asset Owner Details

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

Referral ID (Seq. no)	Authority Name	Phone	Status
276880631	APA Group Gas Networks (70710)	1800 085 628	NOTIFIED
276880627	Brisbane City Council	(07) 3403 8888	NOTIFIED
276880629	Energex QLD	13 12 53	NOTIFIED
276880626	NBN Co Qld	1800 687 626	NOTIFIED
276880628	Queensland Urban Utilities	13 26 57	NOTIFIED
276880630	Telstra QLD South East	1800 653 935	NOTIFIED

END OF UTILITIES LIST

The 5Ps of Safe Excavation

Plan

Plan your job. Use the BYDA service at least one day before your job is due to begin, and ensure you have the correct plans and information required to carry out a safe project.

Prepare

Prepare by communicating with asset owners if you need assistance. Look for clues onsite. Engage a skilled Locator.

Pothole

Potholing is physically sighting the asset by hand digging or hydro vacuum extraction.

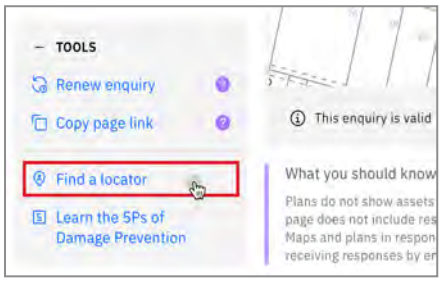
Protect

Protecting and supporting the exposed infrastructure is the responsibility of the excavator. Always erect safety barriers in areas of risk and enforce exclusion zones.

Proceed

Only proceed with your excavation work after planning, preparing, potholing (unless prohibited), and having protective measures in place.

Engage a skilled Locator



When you lodge an enquiry you will see skilled Locators to contact

Visit the Certified Locator website directly and search for a locator near you

certloc.com.au/locators

Get FREE Quotes for Contractors & Equipment Fast

GET QUOTE

Use iseekplant's FREE marketplace to get quotes for the equipment or services you need on your project. Compare quotes from trusted local contractors and get your project done on time and in budget.

1. Fill out your job details in our FREE quick quote form.
2. We send the request to trusted local contractors.
3. The local contractors will contact you directly with quotes

Use iseekplant to find trusted contractors near you today, visit:
blog.iseekplant.com.au/byda-isp-get-quotes

Book a FREE BYDA Session

BOOK NOW

BYDA offers free training sessions to suit you and your organisation's needs covering safe work practices when working near essential infrastructure assets. The free sessions are offered in two different formats - online and face-to-face.

To book a session, visit:
byda.com.au/contact/education-awareness-enquiry-form

Lodge your FREE enquiry online any time at byda.com.au

APA Group Gas Networks (70710)

Referral
276880631

Member Phone
1800 085 628

Responses from this member

Response received Wed 29 Jul 2026 9.09am

File name	Page
Response Body	5
276880631.pdf	6

PLEASE NOTE: This is an automated response. Please **DO NOT REPLY to this email**. If you require further information in relation to this Before You Dig response, please contact

BYDA_APA@apa.com.au

Enquiry Details:

Impact	not affected
Sequence Number	276880631
Enquirer Id	3705233
Activity	Planning and Design
Job Number	53817382
User Reference	80 McGinn Rd
Message	

Site Details:

Address	80 McGinn Rd Ferny Grove QLD 4055

Enquirers Details:

Contact	Drew Tierney
Company	Context Engineering
Email	drew.tierney@contexteng.com.au
Phone	+61474160209
Address	357 Logan Road Stones Corner QLD 4120

APA Group

APA
Australia's energy infrastructure partner

BEFORE YOU DIG
www.byda.com.au

Before You Dig Australia

Classification: Networks

Enquiry date	29/07/2026
Sequence number	276880631
Work site address	80 McGinn Rd Ferny Grove QLD 4055



Enquiry Date:	29/07/2026
Enquirer:	Drew Tierney
Sequence Number:	276880631
Work Site Address:	80 McGinn Rd
	Ferny Grove
	QLD 4055

Thank you for your Before You Dig enquiry regarding the location of gas assets.

We confirm there are NO Gas Assets located in close vicinity of the above location.

Caution: Damage to gas assets may result in explosion, fire and personal injury.

Please ensure you read and comply with all the relevant information contained in this response to your BYDA enquiry.

Before You Dig Checklist



1. Plan

- Review maps provided with this BYDA response and confirm the location of your work site is correct.



2. Prepare

- Electronically locate gas assets and mark locations.
- Note: Look for visible evidence of gas assets at the worksite which may not be shown on plans.



3. Pothole

- Not applicable where no gas assets present.



4. Protect

- Not applicable where no gas assets present.



5. Proceed

- Only proceed with your work once you are confident no gas assets are located in vicinity to your work location.
- APA BYDA response (including maps) are on site for reference at all times, and less than 30 days old.

Contacts

Contacts APA Group	
Enquiry	**Contact Numbers**
General enquiries or feedback regarding this information or gas assets.	APA – Before You Dig Officer Phone: 1800 085 628 Email: BYDA_APA@apa.com.au
Gas Emergencies	Phone: 1800 GAS LEAK (1800 427 532)

Site Watch

Site Watch is where an APA field officer attends your work site to monitor and ensure controls are in place to protect critical gas assets from damage during work.

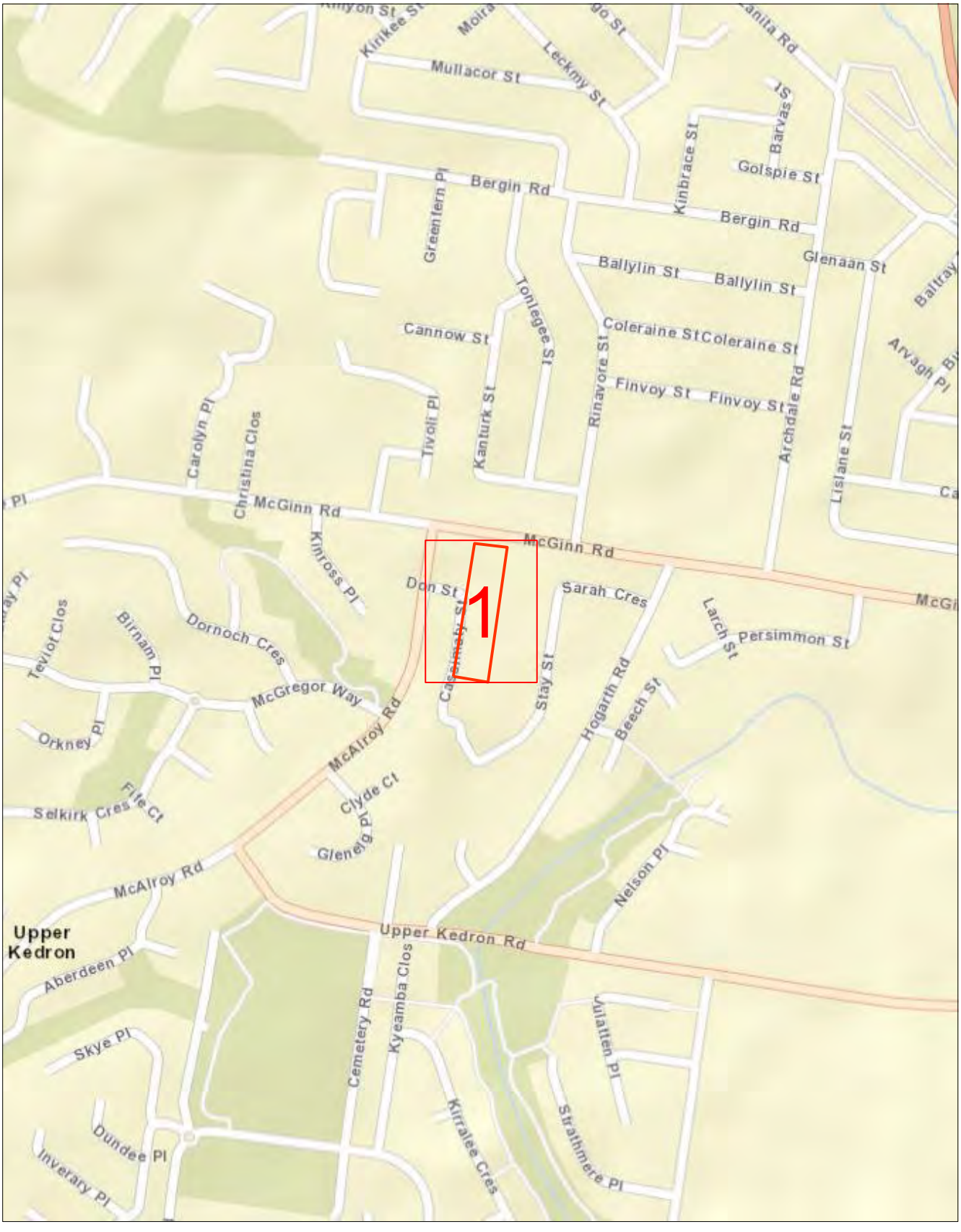
The following rates* apply for this service (1 hour minimum charge):

Item	Rate (excl. gst)
Site Watch – Business Hours	$143.42 per hour
Site Watch – After Hours	$175.06 per hour
Cancellation Fee *Fee applies where cancelations received after 12pm (midday), 1 business day prior to the booking*	$286.84

Contact APA – Before You Dig officer for state specific hours of business.

**The specified rates do not apply to Origin Energy LPG assets. All charges and invoicing related to these assets will be administered directly by Origin Energy. For further information contact Origin Energy.*

Site Address:	80 McGinn Rd Ferny Grove QLD 4055	**Sequence Number:**	276880631



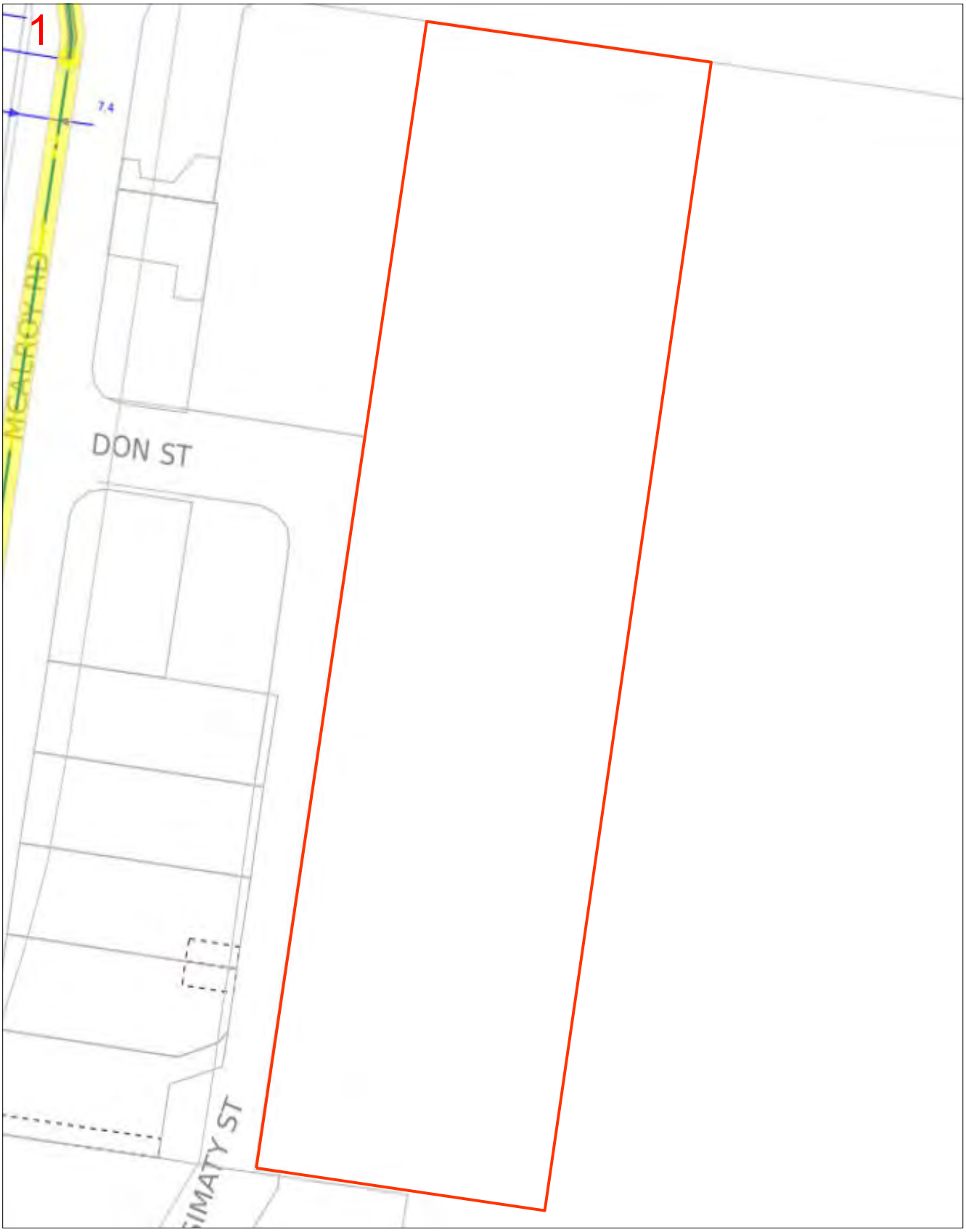
Scale 1: 6000

Map Sources: Esri, Garmin, HERE, FAO, NOAA, USGS,
© OpenStreetMap contributors, and the GIS User Community

Enquiry Area

Map Key Area

Site Address:	80 McGinn Rd Ferny Grove QLD 4055	**Sequence Number:**	276880631



Scale 1: 700

Map Sources: Esri, Garmin, HERE, FAO, NOAA, USGS,
© OpenStreetMap contributors, and the GIS User Community

Enquiry Area

Map Key Area

Legend

PIPE LEGEND: GAS TYPE AND PRESSURE

	Low pressure	Medium pressure	High pressure	Transmission
Natural gas				
Natural gas – proposed				
LPG (yellow dash)	*not applicable*			*not applicable*
Hydrogen blended (aqua dash)	*not applicable*			*not applicable*

PIPE LEGEND: SPECIAL DESIGNATION

	Low pressure	Medium pressure	High pressure	Transmission
Critical main (yellow highlight)				
Casing (grey highlight)				*not applicable*

These designations typically apply to any pipe type and pressure

PIPE LEGEND: OTHER STATUS

- Abandoned pipe
- Idle or inactive pipe

ABBREVIATION

BoK	Back of kerb
C	Depth of cover
CP	Cathodic protection
FoK	Front of kerb
NTI	Not tied in

OBJECT SYMBOLS

- Valve
- Buried valve
- Regulator station
- Gas connected property
- CP test station
- CP anode
- CP bond wire
- CP rectifier terminal
- Syphon
- Marker
- Part service^

^A live gas service terminated underground within the property boundary, available for future extension to the gas meter.

PIPE CODE AND MATERIAL

P*	Polyethylene (PE)
P3	Polyvinyl chloride (PVC)
S*	Steel
C*	Cast iron
CU	Copper
N2	Nylon
W2	Wrought galv iron
W3	PE coat wrought galv iron

INTERPRETATION EXAMPLE

40P6 in 80C2 — High pressure, 40 mm polyethylene in an 80 mm cast iron casing

63S8 — Medium pressure, 63 mm steel

Pipe diameter in millimetres is shown before pipe code.
40P6 = 40 mm nominal diameter

This map was created in colour and should be printed in colour

Important information

- Refer to requirements relating to construction, excavation and other work activities in the **APA Guidelines for Works Near Existing Gas Assets** document with this BYDA response.
- BYDA enquiries are valid for 30 days. If your works commence after 30 days from the date of this response a new enquiry is required to validate location information.
- **For some BYDA enquiries, you may receive two (2) responses from APA. Please read both responses carefully as they relate to different assets.**
- Gas (inlet) services connecting Gas Assets in the street to the gas meter on the property are not marked on the map. South Australia Only – if a meter box is installed on the property, a sketch of the gas service location may be found inside the gas meter box. APA does not guarantee the accuracy or completeness of these sketches.

Free Gas Pipeline Awareness Training and Information

PROFESSIONALS

APA offers online and in-person toolbox forums to support safe work near underground gas assets. Topics include distribution and transmission pipelines, the permit process, and gas emergencies, with content suited for companies of all sizes. A Continuing Professional Development certificate is available upon completion.

Scan the QR code to register for an online toolbox, or email **damageprevention@apa.com.au** to request an in-person presentation.

HOMEOWNERS

If you're working near your home's gas pipes stay safe and view APA's video guide **'Working Safely Near Gas Lines: A DIY Homeowner's Guide'** which offers simple tips to avoid damaging gas pipes.

Scan the QR code to view the video, or for more information email **damageprevention@apa.com.au**

Disclaimer and legal details

- This information is valid for 30 days from the date of this response.
- This information has been generated by an automated system based on the area highlighted in your BYDA request and has not been independently verified.
- Map location information is provided as AS5488-2022 Quality Level D, as such supplied location information is indicative only.
- Whilst APA has taken reasonable steps to ensure that the information supplied is accurate, the information is provided strictly on the condition that no assurance, representation, warranty or guarantee (express or implied) is given by APA in relation to the information (including without limitation quality, accuracy, reliability, completeness, currency, sustainability, or suitability for any particular purpose) except that the information has been disclosed in good faith.
- Any party who undertakes activities in the vicinity of APA operated assets has a legal duty of care that must be observed. This legal obligation requires all parties to adhere to a standard of reasonable care while performing any acts that could foreseeably harm these assets

APA

Australia's energy infrastructure partner

Brisbane City Council

Referral
276880627

Member Phone
(07) 3403 8888

Responses from this member

Response received Wed 29 Jul 2026 9.10am

File name	Page
Response Body	16
ASSET 276880627.pdf	17

Attention: Drew Tierney

Thank you for your enquiry with Brisbane City Council's Before You Dig service.

Job Number: **53817382**
Sequence Number: **276880627**

The attached .PDF file contains the location of Council's relevant services for your requested location. If you are having trouble viewing these files, it is recommended you upgrade your version of Adobe Reader. You can download the latest version of Adobe Reader for free at http://get.adobe.com/reader/

If you require more information, Council offers a convenient online mapping subscription service containing additional services data. The online service offers a wide variety of spatial information suitable for searches over large areas, including information previously available only by visiting Council's Customer Service Centres.

For more information on Council's online mapping services, visit http://www.brisbane.qld.gov.au/planning-building/planning-guidelines-and-tools/online-tools/ebimap/index.htm

Kind regards,

Brisbane City Council
Before You Dig

Job # 53817382
Seq # 276880627
Provider: Brisbane City Council
Telephone: (07) 3403 8888



Legend

BYDA Enquiry

Detailed map page

Disclaimer:
© Brisbane City Council [2020]
In consideration of Council, and the copyright owners listed below, permitting the use of this data, you acknowledge and agree that Council, and the copyright owners, give no warranty in relation to the data (including accuracy, reliability, completeness, currency or suitability) and accept no liability (including without limitation, liability in negligence) for any loss, damage or costs (including consequential damage), relating to any use of this data.
Data must not be used for direct marketing or be used in breach of the privacy laws.

Copyright of data is as follows:
Cadastre and Street Names © 2020 State of Queensland (Department of Natural Resources, Mines and Energy)

Caution: This map may contain the locations of abandoned underground asbestos pipes. Council gives no warranty to the completeness or accuracy of these records. Appropriate care needs to be taken in all cases.

In an emergency contact Brisbane City Council on 07 3403 8888

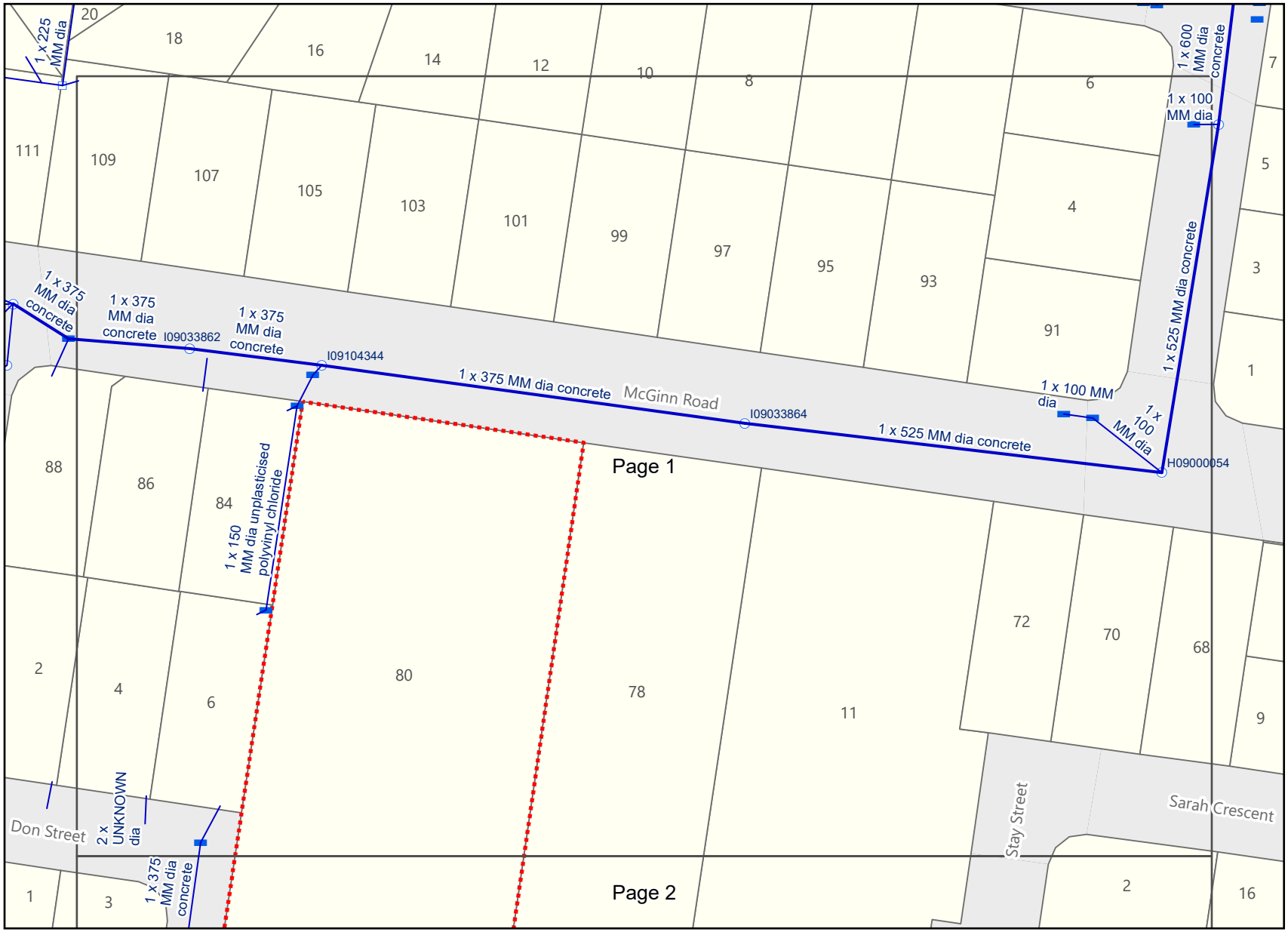
Index Sheet

0 25 50 100 m

Scale 1:2,500

Plans generated by SmarterWX™ Automate

Job # 53817382
Seq # 276880627
Provider: Brisbane City Council
Telephone: (07) 3403 8888



Legend

BYDA Enquiry

Stormwater Network

- Stormwater Drain
- Stormwater Gully / Roofwater Connection
- Stormwater Maintenance Hole
- Stormwater Roofwater Pit
- Stormwater Gully Pit

Disclaimer:
© Brisbane City Council [2020]
In consideration of Council, and the copyright owners listed below, permitting the use of this data, you acknowledge and agree that Council, and the copyright owners, give no warranty in relation to the data (including accuracy, reliability, completeness, currency or suitability) and accept no liability (including without limitation, liability in negligence) for any loss, damage or costs (including consequential damage), relating to any use of this data.
Data must not be used for direct marketing or be used in breach of the privacy laws.

Copyright of data is as follows:
Cadastre and Street Names © 2020 State of Queensland (Department of Natural Resources, Mines and Energy)

Caution: This map may contain the locations of abandoned underground asbestos pipes. Council gives no warranty to the completeness or accuracy of these records. Appropriate care needs to be taken in all cases.

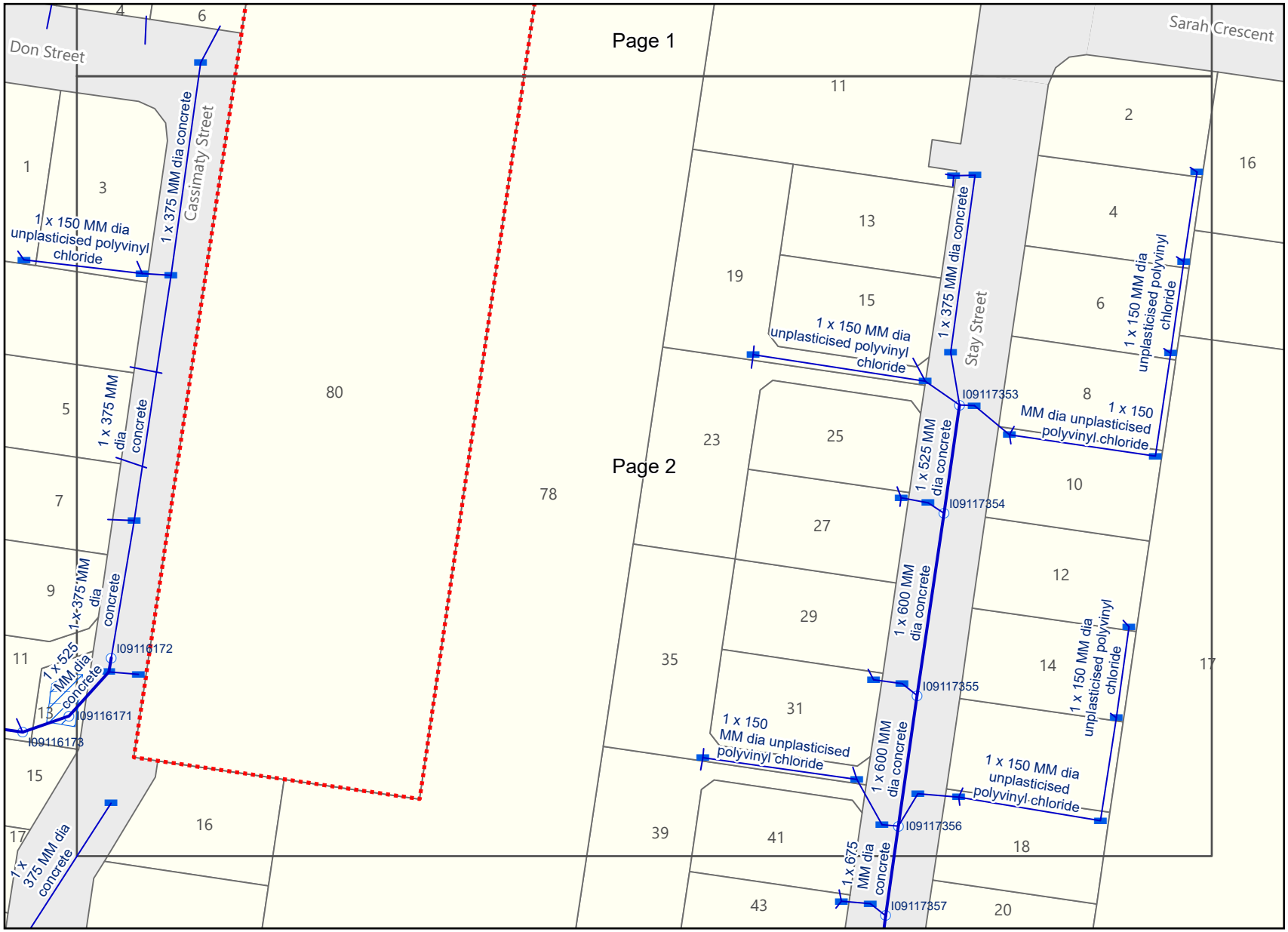
In an emergency contact Brisbane City Council on 07 3403 8888
29/07/26 (valid for 30 days)

0 10 20 40 m

Scale 1:1,000

Plans generated by SmarterWX™ Automate

Job # 53817382
Seq # 276880627
Provider: Brisbane City Council
Telephone: (07) 3403 8888



Legend

BYDA Enquiry

Stormwater Network

- Stormwater Drain
- Stormwater Gully / Roofwater Connection
- Stormwater Maintenance Hole
- Stormwater Gully Pit
- Stormwater Quality Improvment Device
- Stormwater Treatment Asset - Area

Disclaimer:
© Brisbane City Council [2020]
In consideration of Council, and the copyright owners listed below, permitting the use of this data, you acknowledge and agree that Council, and the copyright owners, give no warranty in relation to the data (including accuracy, reliability, completeness, currency or suitability) and accept no liability (including without limitation, liability in negligence) for any loss, damage or costs (including consequential damage), relating to any use of this data.
Data must not be used for direct marketing or be used in breach of the privacy laws.

Copyright of data is as follows:
Cadastre and Street Names © 2020 State of Queensland (Department of Natural Resources, Mines and Energy)

Caution: This map may contain the locations of abandoned underground asbestos pipes. Council gives no warranty to the completeness or accuracy of these records. Appropriate care needs to be taken in all cases.

In an emergency contact Brisbane City Council on 07 3403 8888
29/07/26 (valid for 30 days)

0 10 20 40 m

Scale 1:1,000

Plans generated by SmarterWX™ Automate

Energex QLD

Referral
276880629

Member Phone
13 12 53

Responses from this member

Response received Wed 29 Jul 2026 9.11am

File name	Page
Response Body	21
276880629 - Energex Plan.pdf	24
Energex BYDA Terms and Conditions.pdf	31
Working Near Overhead and Underground Electric Lines.pdf	36

Assets found

Before You Dig Australia (BYDA) Request

Please DO NOT SEND A REPLY to this email as it has been automatically generated and replies are not monitored.

The attached Plan details ENERGEX's Assets in relation to Your nominated search area.

Ensure You read and understand the important notes outlined below.

You:	**BYDA Enquiry No:**
Drew Tierney	276880629
Company:	**Date of Response:**
Context Engineering	29 Jul 2026
Search Location:	**Period of Plan Validity:**
80 McGinn Rd Ferny Grove, QLD 4055	4 Weeks

External Comments (if any):

WARNING: When working in the vicinity of Energex's Assets You have a legal *Duty of Care* that must be observed.

It is important that You note:

1. Immediately report life threatening emergencies to Emergency Services on **000** or to ENERGEX on **13 19 62**.
2. Please read and understand all the information and disclaimers provided - including the Terms and Conditions on the attached pages.
3. We have only searched the area which has been nominated in the request. If this nominated area is not what You require, please resubmit another enquiry with BYDA.
4. Plans provided by ENERGEX are only an indication of the presence of underground Assets within the nominated area. Locations provided are approximate and the plans are not suitable for scaling purposes, as exact ground cover and alignments cannot be provided. You must confirm the exact location of Assets by use of an electronic cable locator followed by careful, non-mechanical excavation (i.e. potholing).
5. Plans provided by ENERGEX do not encompass ENERGEX's overhead Assets.
6. ENERGEX, its servants or agents shall not be liable for any loss or damage caused or occasioned by the use of plans and details supplied pursuant to the BYDA Request and You agree to indemnify ENERGEX against any claim or demand for any such loss or damage to You, Your servants or Your agents.
7. You are responsible for any damage to underground Assets caused by works pursuant to or in any way connected with this BYDA Request.

8. In addition to underground cables marked on attached plan, there could be underground earth conductors, underground substation earth conductors, Multiple Earthed Networks (MEN) conductors, Single Wire Earth Return (SWER) Substation Earth Conductors, Air Break Switch (ABS) Earth Mats or Consumer Mains in the vicinity or private underground cables (inc. consumers' mains that may run from ENERGEX mains onto private property) in the vicinity of the nominated work area(s) that are not marked on the plans.
9. To locate underground assets, independent Certified Locators may be sourced using the 'Find a Locator' tool available within the BYDA enquiry response on the BYDA website.
10. The ENERGEX Before You Dig Australia (BYDA) information map(s) provide the vicinity of underground cable and will not be adequate for conveyancing purposes. A Request for Search (Property Search) can be arranged through ENERGEX.
11. The attached plans are only valid for a period of four weeks from receipt. If excavation does not commence within four weeks, a new plan should be obtained.
12. The ENERGEX BYDA map (named maps.pdf) may contain shaded area(s), indicating the location of planned work(s). Should You find planned works that You believe may affect Your planned work(s), please contact the ENERGEX BYDA team on the details listed below.
13. ENERGEX may contact You to discuss Your proposed excavation in the vicinity of feeders identified on the attached plan(s).
14. Do not access Assets, for example, conduits, cables, pits or cabinets.
15. Your work will need to comply with:
    - Working near overhead and underground electric lines - Electrical safety code of practice 2020
    - Managing Electrical Risk in Workplace Electrical Safety Code of Practice (2013)
    - Excavation Work Code of Practice (2021)

NOTE: Where Your proposed work location contains Energex 33kV or greater Underground cables please access the Energex before you dig Website for more information.

General enquiries (7:00am - 5:30pm Mon to Fri)	**13 12 53**
Life threatening emergencies only triple zero (000) or	**13 19 62**

To re-submit or change the nominated search area please visit **BYDA.com.au**

E: **custserve@energex.com.au**

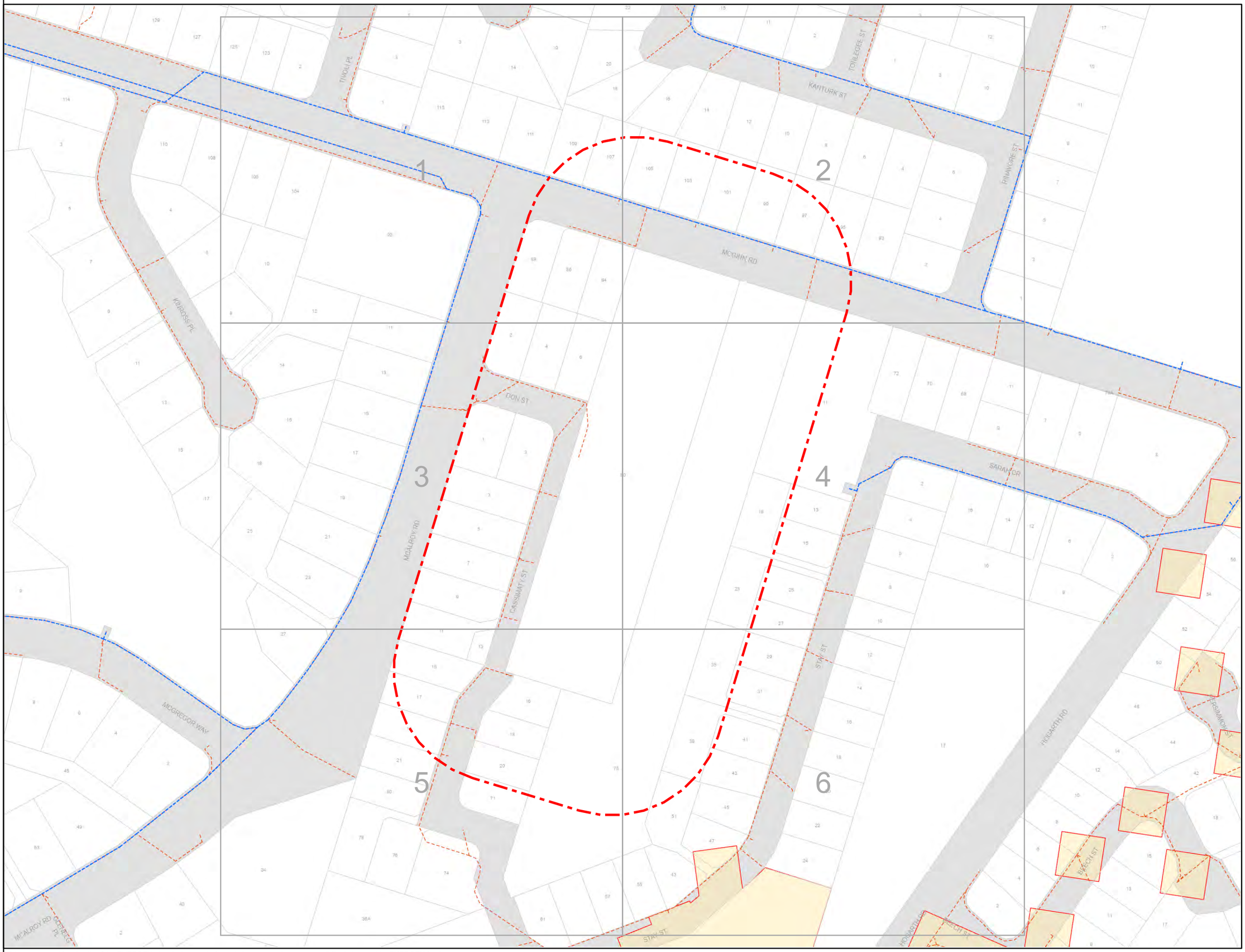
E: **byda@energyq.com.au** ABN: 40 078 849 055

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

If you are unable to launch any of the files for viewing and printing, you may need to download and install free viewing and printing software such as Adobe Acrobat Reader (for PDF files)

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

For Emergency Situations
Please Call 13 19 62



BYDA

Sequence: 276880629
Date: 29/07/2026

Scale: 1:1538
Tile No: **OVERVIEW**

CAUTION - HIGH VOLTAGE

LEGEND

- Substation
- Cable Marker
- Pit
- Pole
- Pillar
- LV Cable (up to 1kV)
- HV Cable (1kV – <33kV)
- HV Cable (33kV and over)
- Pit Boundary
- Planned Work Area

AS5488 Category “D” Plan

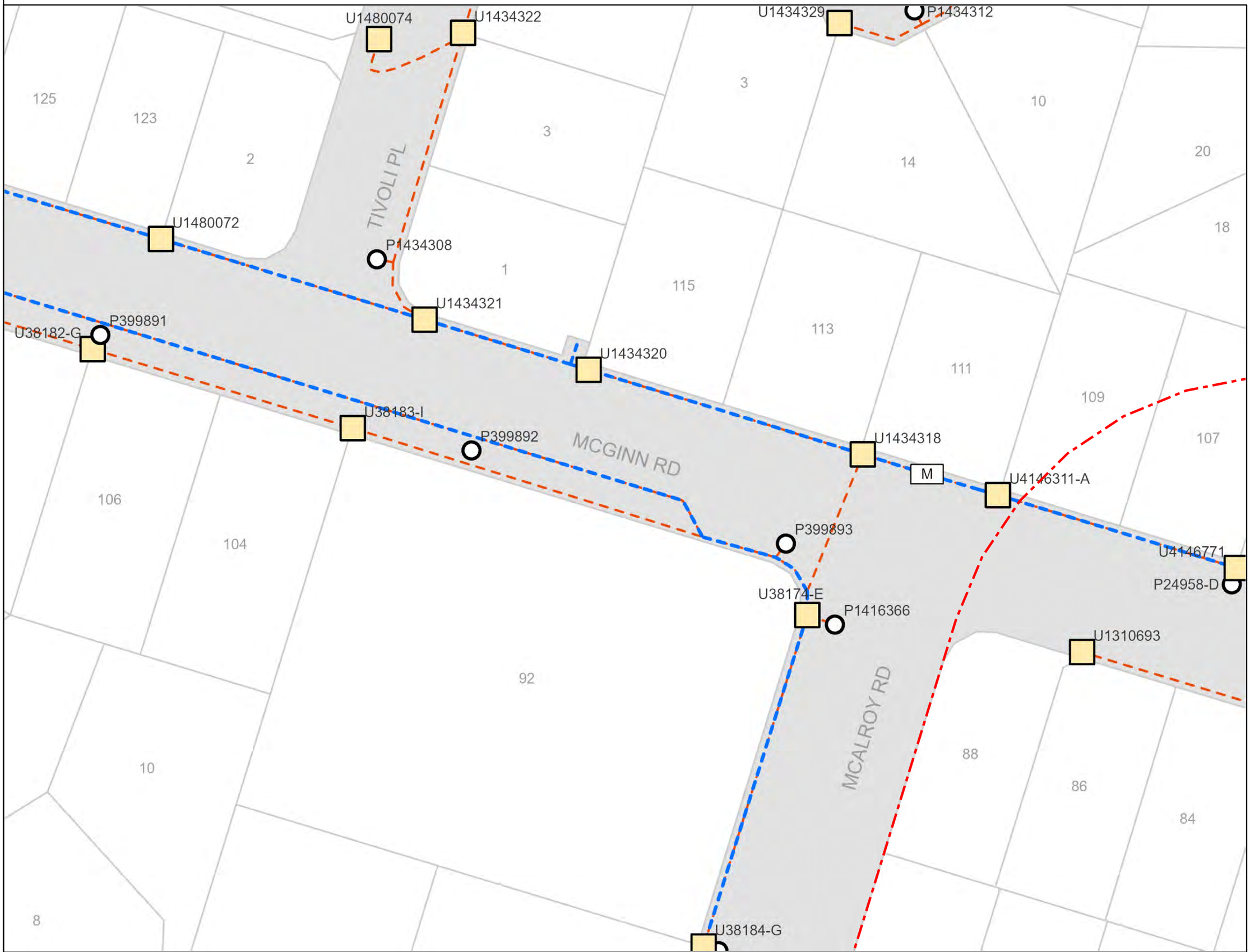
N
W E
S

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

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

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

For Emergency Situations
Please Call 13 19 62



energex

BYDA

Sequence: 276880629
Date: 29/07/2026

Scale: 1:500
Tile No: **Tile No: 1**

CAUTION - HIGH VOLTAGE

LEGEND

- Substation
- Cable Marker
- Pit
- Pole
- Pillar
- LV Cable (up to 1kV)
- HV Cable (1kV – <33kV)
- HV Cable (33kV and over)
- Pit Boundary
- Planned Work Area

AS5488 Category “D” Plan

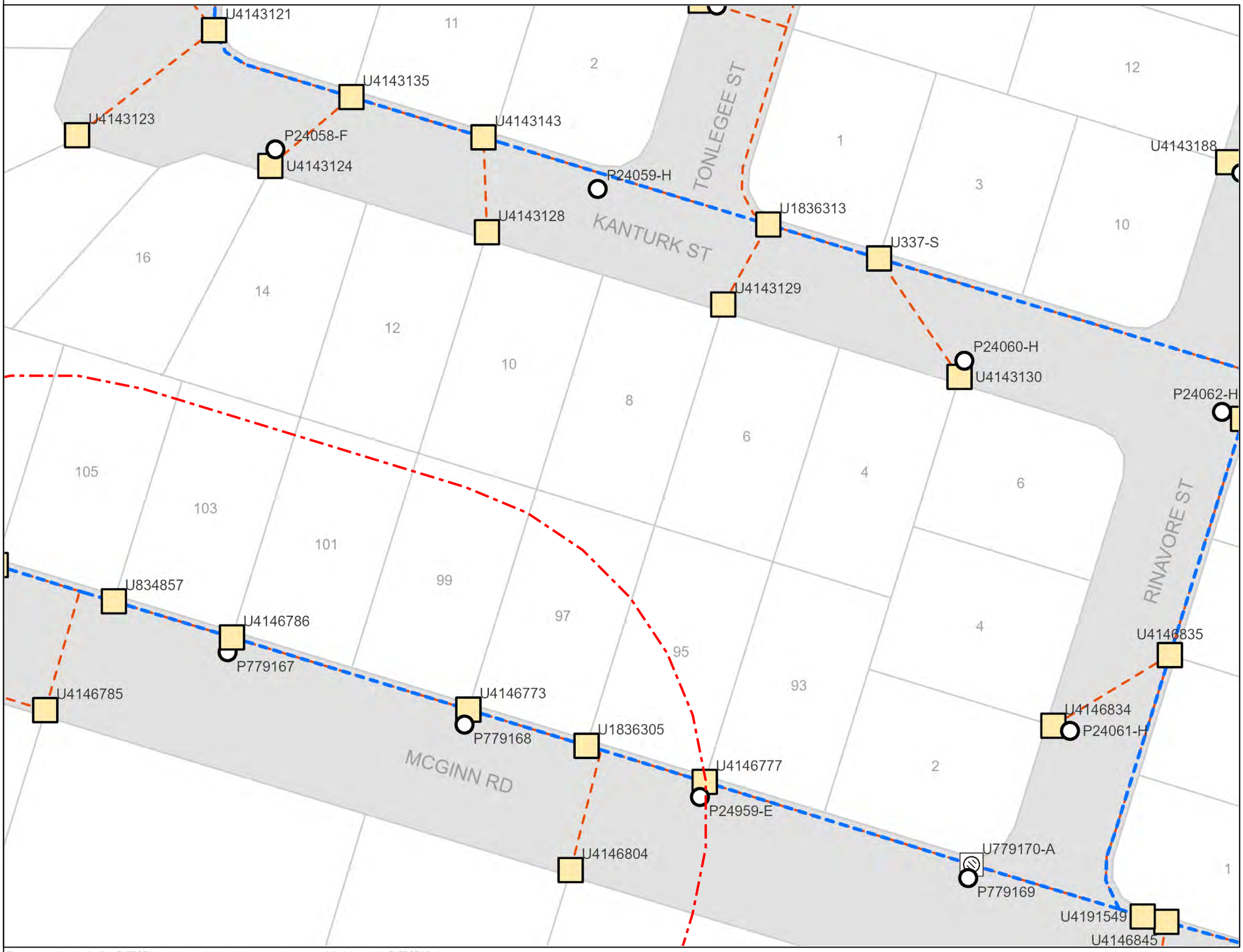
N
W E
S

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

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

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

For Emergency Situations
Please Call 13 19 62



BYDA

Sequence: 276880629
Date: 29/07/2026

Scale: 1:500
Tile No: **Tile No: 2**

CAUTION - HIGH VOLTAGE

LEGEND

- Substation
- Cable Marker
- Pit
- Pole
- Pillar
- LV Cable (up to 1kV)
- HV Cable (1kV – <33kV)
- HV Cable (33kV and over)
- Pit Boundary
- Planned Work Area

AS5488 Category “D” Plan

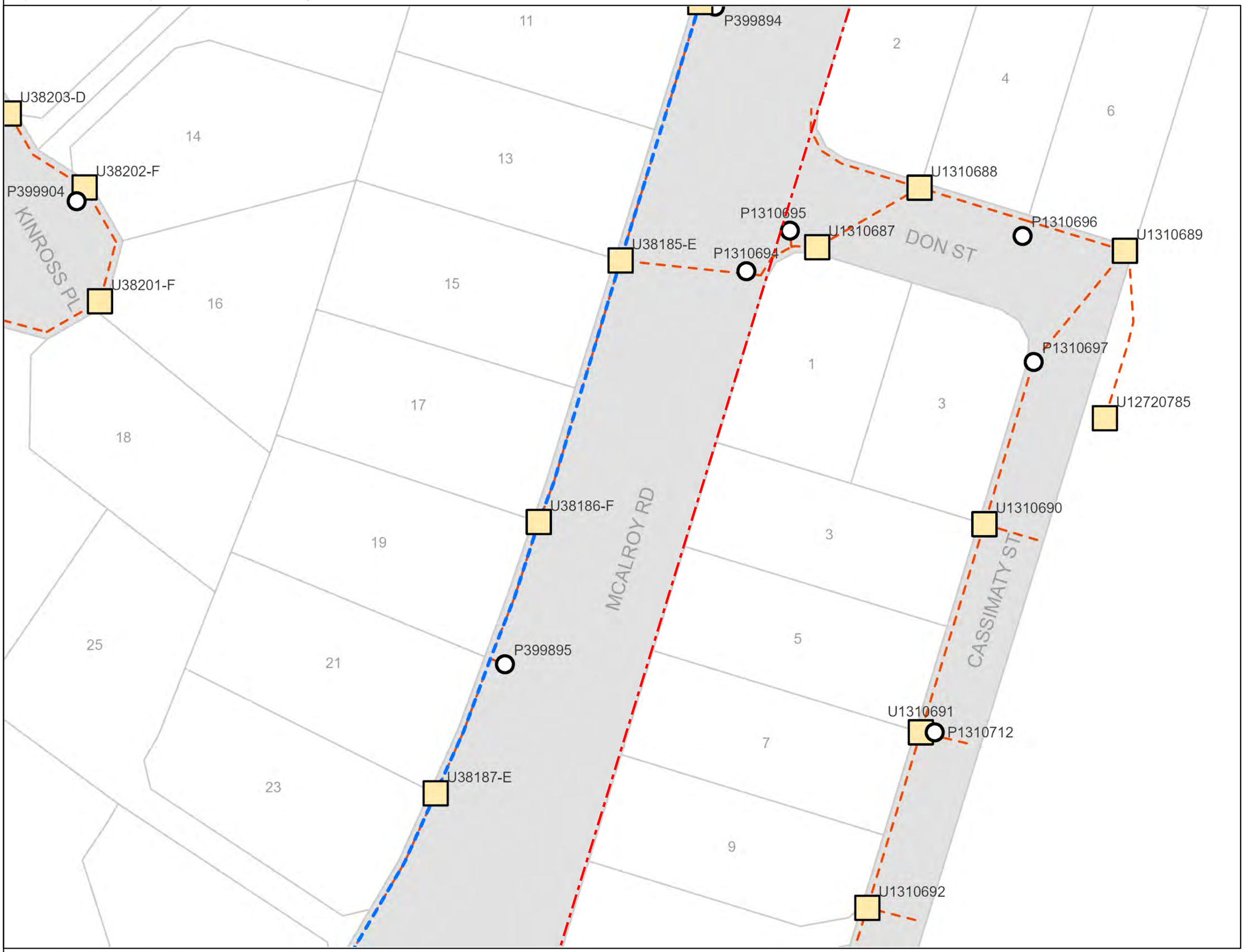
N
W E
S

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

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

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

For Emergency Situations
Please Call 13 19 62



energex

BYDA

Sequence: 276880629
Date: 29/07/2026

Scale: 1:500
Tile No: **Tile No: 3**

CAUTION - HIGH VOLTAGE

LEGEND

- Substation
- Cable Marker
- Pit
- Pole
- Pillar
- LV Cable (up to 1kV)
- HV Cable (1kV – <33kV)
- HV Cable (33kV and over)
- Pit Boundary
- Planned Work Area

AS5488 Category “D” Plan

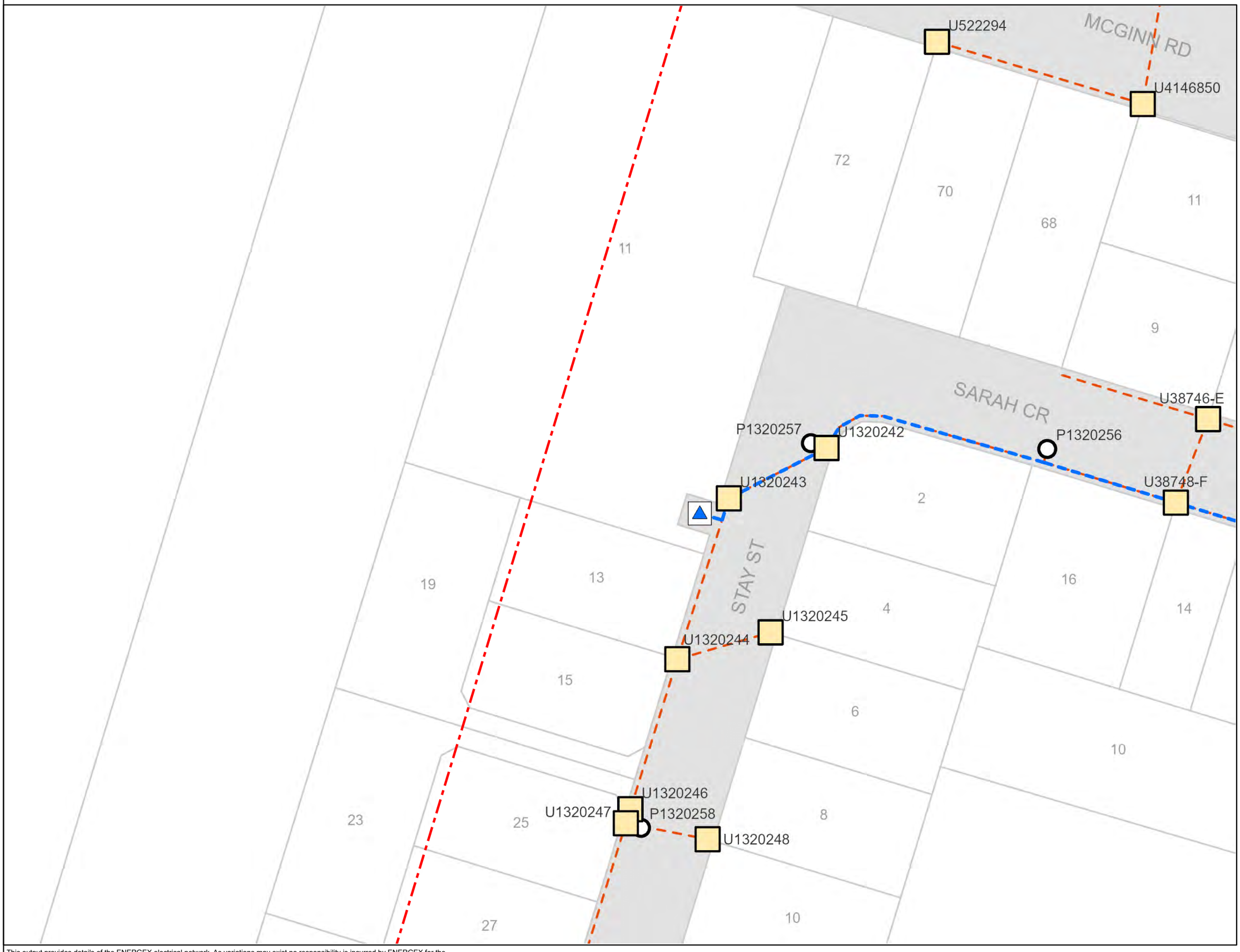
N
W E
S

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

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

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

For Emergency Situations
Please Call 13 19 62



BYDA

Sequence: 276880629
Date: 29/07/2026

Scale: 1:500
Tile No: **Tile No: 4**

CAUTION - HIGH VOLTAGE

LEGEND

- Substation
- Cable Marker
- Pit
- Pole
- Pillar
- LV Cable (up to 1kV)
- HV Cable (1kV – <33kV)
- HV Cable (33kV and over)
- Pit Boundary
- Planned Work Area

AS5488 Category “D” Plan

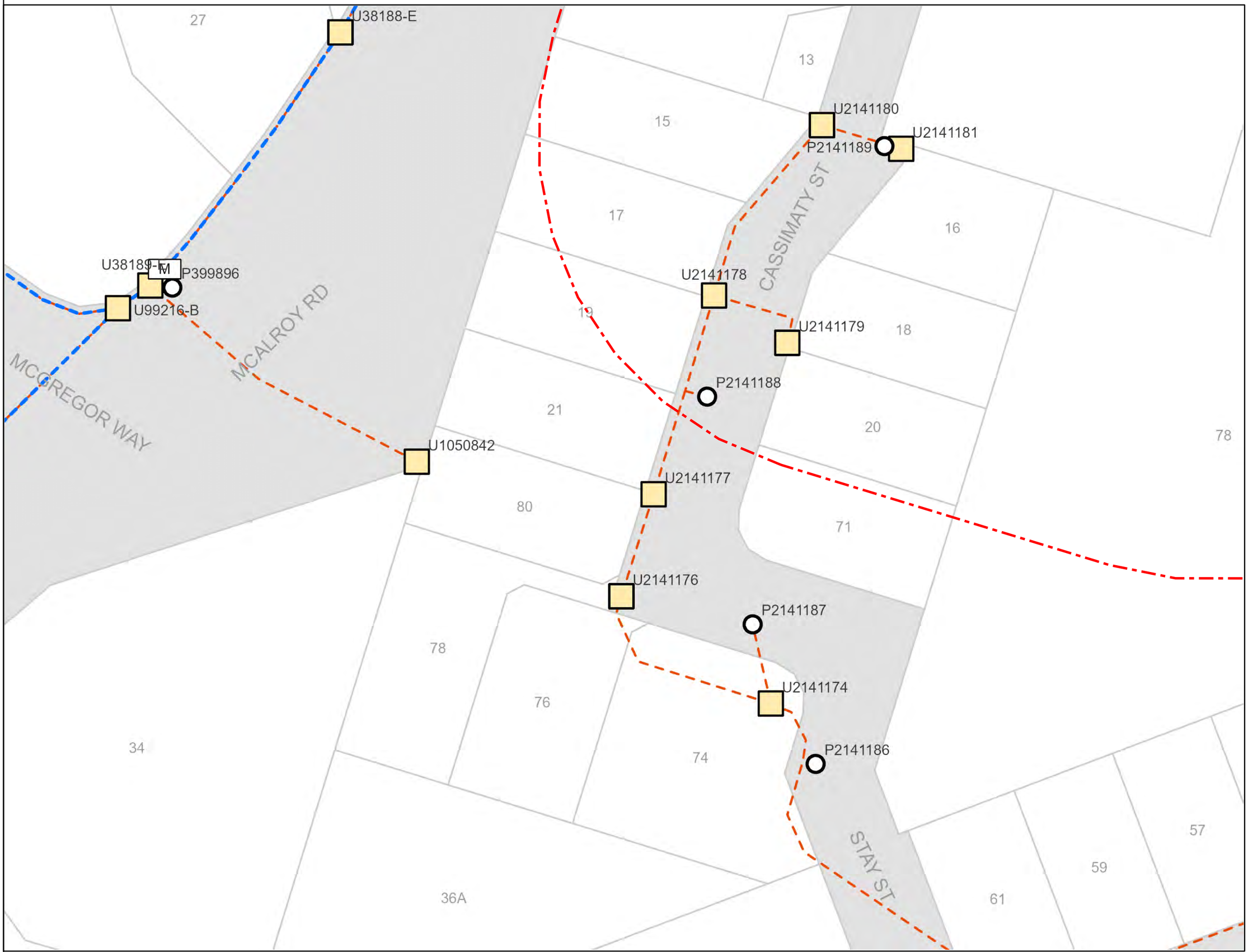
N
W E
S

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

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

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

For Emergency Situations
Please Call 13 19 62



BYDA

Sequence: 276880629
Date: 29/07/2026

Scale: 1:500
Tile No: **Tile No: 5**

CAUTION - HIGH VOLTAGE

LEGEND

- Substation
- Cable Marker
- Pit
- Pole
- Pillar
- LV Cable (up to 1kV)
- HV Cable (1kV – <33kV)
- HV Cable (33kV and over)
- Pit Boundary
- Planned Work Area

AS5488 Category “D” Plan

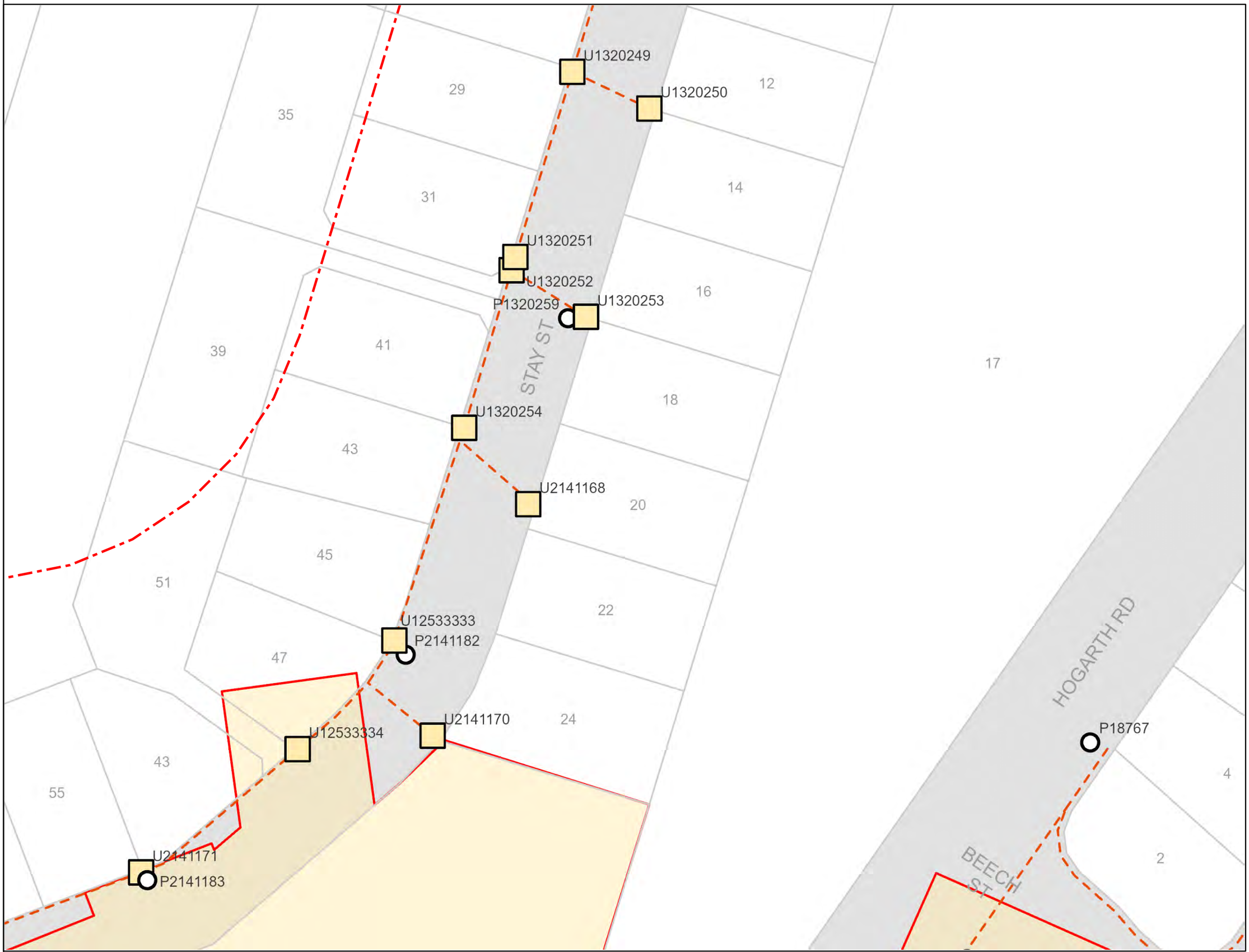
N
W E
S

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

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

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

For Emergency Situations
Please Call 13 19 62



energex

BYDA

Sequence: 276880629
Date: 29/07/2026

Scale: 1:500
Tile No: **Tile No: 6**

CAUTION - HIGH VOLTAGE

LEGEND

- Substation
- Cable Marker
- Pit
- Pole
- Pillar
- LV Cable (up to 1kV)
- HV Cable (1kV – <33kV)
- HV Cable (33kV and over)
- Pit Boundary
- Planned Work Area

AS5488 Category “D” Plan

N
W E
S

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

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



Responsibilities – (When Working in the Vicinity of Energex Assets)

Extreme care must be taken during non-mechanical or mechanical excavation as damage to Energex Assets can lead to injury or death of workers or members of the public. Assets include underground cables, conduits and other associated underground Asset used for controlling, generating, supplying, transforming or transmitting electricity.

In accordance with the Electrical Safety Act 2002, a Person Conducting a Business or Undertaking (**PCBU**) must ensure the person's business or undertaking is conducted in a way that is electrically safe. This includes:

a) ensuring that all Assets used in the conduct of the person's business or undertaking are electrically safe;

b) if the person's business or undertaking includes the performance of electrical work, ensuring the electrical safety of all persons and property likely to be affected by the electrical work; and

c) if the person's business or undertaking includes the performance of work, whether or not electrical work, involving contact with, or being near to, exposed parts, ensuring persons performing the work are electrically safe.

In addition, a PCBU at a workplace must ensure, so far as is reasonably practicable, that no person, Asset or thing at the workplace comes within an unsafe distance of an underground electric line.

Workers and other persons must also take reasonable care for their own and other person's electrical safety. This includes complying, so far as is reasonably able, with any reasonable instructions given by Energex to ensure compliance with the Electrical Safety Act 2002

General enquiries (7:00am - 5:30pm Mon to Fri) 13 12 53
Life threatening emergencies only triple zero (000) or 13 19 62

To re-submit or change the nominated search area please visit BYDA.com.au

E: custserve@energex.com.au
E: byda@energyq.com.au ABN: 40 078 849 055

The following matters must be considered when working near Energex Assets:

The PCBU must ensure, so far as is reasonably practicable, that no person, Asset or thing at the workplace comes within an unsafe distance of an underground electric line (see section 68 of the Electrical Safety Regulation 2013)

1. It is the responsibility of the architect, consulting engineer, developer and head contractor in the project planning stages to design for minimal impact and protection of Energex Assets.
2. It is the constructor's responsibility to:
   a) Anticipate and request plans of Energex Assets for a location at a reasonable time before construction begins.
   b) Visually locate Energex Assets by hand or vacuum excavation where construction activities may damage or interfere with Energex Assets.
   c) notify Energex if the information provided is found to be not accurate or Assets are found on site that are not recorded on the Energex BYDA plans.
   d) Read and understand all the information and disclaimers provided.

   Note: A constructor may include but not limited to a PCBU, Designer, Project Manager, Installer, Contractor, Electrician, Builder, Engineer or a Civil Contractor

3. Comply with applicable work health and safety and electrical safety codes of practice including but not limited to:
   a) Working near Assets – Electrical safety codes of practice 2020
   b) Managing electrical risk in the workplace – Managing Electrical Risks in the workplace Code of Practice 2021
   c) Excavation work – Code of practice 2021

IMPORTANT NOTES:

- As the alignment and boundaries of roadways with other properties (and roads within roadways) frequently change, the alignments and boundaries contained within Energex plans and maps will frequently differ from present alignments and boundaries "on the ground". Accordingly, in every case where it appears that alignments and boundaries have shifted, or new roadways have been added, the constructor should obtain confirmation of the actual position of Energex cables and pipelines under the roadways. In no case should the constructor rely on statements of third parties in relation to the position of Energex cables and pipelines. It is the applicant's responsibility to accurately locate all services as part of the design and/or prior to excavation.
- Energex does not provide information on private underground installations, including consumers' mains that may run from Energex mains onto private property. Assets located on private property are the responsibility of the owner for identification and location.
- Energex plans are circuit diagrams or pipe indication diagrams only and indicate the presence of Asset in the general vicinity of the geographical area shown. Exact ground cover and alignments cannot be given with any certainty; as such levels can change over time.
- All underground conduits are presumed to contain asbestos. Refer to the:
  - Electrical safety codes of practice 2020
  - Model Code of Practice: How to manage and control asbestos in the workplace | Safe Work Australia
  - How to manage and control asbestos in the workplace code of practice 2021 (Workplace Health and Safety Queensland (WHSQ)
  - How to safely remove asbestos code of practice 2021 (WHSQ)
- Plans provided by Energex are not guaranteed to show the presence of above ground Assets.
- In addition to underground cables marked on attached plan there could be underground substation, underground earth conductors, Multiple Earthed Neutral(MEN) conductors, Single Wire Earth Return(SWER), substation Earth Conductors, ABS Earth Mats or Consumer Mains in the vicinity or private underground cables (inc. consumers' mains that may run from Energex mains onto private property) in the vicinity of the nominated work area(s) that are not marked on the plans.
- Being aware of Your obligations including but not limited to [ss 304, 305] Excavation work— underground essential services information under the Work Health and Safety Regulation 2011 , Chapter 6 Construction work, Part 6.3 Duties of person conducting business or undertaking. This includes but is not limited to taking reasonable steps to obtain the current information & providing this information to persons engaged to carry out the excavation work. For further information please refer to: - http://www.legislation.qld.gov.au/LEGISLTN/SLS/2011/11SL240.pdf
- Energex plans are designed to be printed in colour and as an A3 Landscape orientation.

General enquiries (7:00am - 5:30pm Mon to Fri) 13 12 53
Life threatening emergencies only triple zero (000) or 13 19 62

To re-submit or change the nominated search area please visit BYDA.com.au

E: custserve@energex.com.au
E: byda@energyq.com.au ABN: 40 078 849 055

Conditions – (When Working in the Vicinity of Energex Assets)

Records:
The first step before any excavation commences is to obtain records of Energex Assets in the vicinity of the work. For new work, records should be obtained during the planning and design stage. The records provided by Energex must be made available to all construction groups on site. Where Asset information is transferred to plans for the proposed work, care must be exercised to ensure that important detail is not lost in the process.

Plans and or details provided by Energex are current for four weeks from the date of dispatch and should be disposed of by shredding or any other secure disposal method after use. A new BYDA enquiry must be made for proposed works/activities to be undertaken outside of the four-week period.

Energex retains copyright of all plans and details provided in connection with Your request.

Energex plans or other details are provided for the use of the applicant, its servants, or agents, and shall not be used for any unauthorised purpose.

On receipt of BYDA plans and before commencing excavation work or similar activities near Energex's Assets check to see that it relates to the area You have requested and carefully locate this Asset first to avoid damage. If You are unclear about any information contained in the plan, You must contact Energex on the General Enquiries number listed below for further advice.

Energex, its servants or agents shall not be liable for any loss or damage caused or occasioned by the use of plans and or details so supplied to the applicant, its servants and agents, and the applicant agrees to indemnify Energex against any claim or demand for any such loss or damage.

The contractor is responsible for all Asset damages when works commence prior to obtaining Energex plans, or failure to follow agreed instructions, or failure to demonstrate all reasonable measures were taken to prevent the damage once plans were received from Energex.

Energex reserves all rights to recover compensation for loss or damage caused by interference or damage, including consequential loss and damages to its Assets, or other property.

NOTE: Where Your proposed work location contains Energex 33kV or greater Underground cables please access the Energex BYDA website for more information.

Location of Assets:
Examining the records is not sufficient, as reference points may change from the time of installation. Records must also be physically proven when working in close proximity to them. The exact location of Assets likely to be affected shall be confirmed by use of an electronic cable and pipe locater followed by **careful hand or vacuum excavation to the level of cable protection cover strips or conduits.** When conducting locations, please be aware that **no** unauthorised access is permitted to Energex Assets– including Pits, Low Voltage Disconnection Boxes, Low Voltage Pillars or High Voltage Link Boxes.

Hand or vacuum excavation must be used in advance of excavators. In any case, where any doubt exists with respect to interpretation of cable records, You must contact Energex on the General Enquires number listed below for further advice.

If the constructor is unable to locate Energex underground Assets within 5 metres of nominal plan locations, they must contact the Energex General Enquires number listed below for further advice.

If unknown cables or conduits (i.e. not shown on issued BYDA plans) are located during excavation:
1. Call the ELECTRICITY EMERGENCIES number listed below
2. Treat Assets as if alive, post a person to keep all others clear of the excavation until Energex crew attend to make safe.
3. All work in the vicinity of damaged Asset must cease and the area must be vacated until a clearance to continue work has been obtained from an Energex officer.

General enquiries (7:00am - 5:30pm Mon to Fri) 13 12 53
Life threatening emergencies only triple zero (000) or 13 19 62

To re-submit or change the nominated search area please visit BYDA.com.au

E: custserve@energex.com.au
E: byda@energyq.com.au ABN: 40 078 849 055

Asset Installation Methods:
Energex Assets are installed with a variety of protection devices including:

1. Clay paving bricks or tiles marked “Electricity” or similar (also unmarked)
2. Concrete or PVC cover slabs
3. PVC, A/C or fibro conduit, fibre reinforced concrete, iron or steel pipe
4. Concrete encased PVC or steel pipe
5. Thin plastic marker tape
6. Large pipes housing multiple ducts
7. Multiple duct systems, including earthenware or concrete 2, 4, and 6-way ducts and shamrocks

Note: Some Assets are known to be buried without covers and may change depth or alignment along the route.

Excavating Near Assets:
For all work within 2.5 m of nominal location, the constructor is required to hand or vacuum excavate (pothole) and expose the Assett, hence proving its exact location before work can commence.

Cable protection cover strips shall not be disturbed. Excavation below these cover strips, or into the surrounding backfill material is not permitted.

Excavating Parallel to Assets:
If construction work is parallel to Energex cables, then hand or vacuum excavation (potholing) at least every 4m is required to establish the location of all cables, hence confirming nominal locations before work can commence. *Generally, there is no restriction to excavations parallel to Energex cables to a depth not exceeding that of the cable.* ***Note: Cable depths & alignment may change suddenly***.

Separation from Assets:
Any service(s) must be located at the minimum separation as per the tables below:

Table 1. Minimum Separation Requirements for Underground Services Running Parallel with Energex Assets

(Minimum Separation required in mm)							
Voltage Level	**Gas**	**Communication or TV**	**Water**		**Sanitary drainage**		**Storm Water**
			≤DN 200	**>DN200**	**≤DN 200**	**>DN 200**	
LV	250	100	500	*1000	500	1000	500
HV		300					
*Contact Energex/council to obtain specific separation distances							

Table 2. Minimum Separation Requirements for Underground Services Crossing Energex Assets

(Minimum Separation required in mm)					
Voltage Level	**Gas**	**Communication or TV**	**Water**	**Sanitary drainage**	**Storm Water**
LV & HV	100	100	300	300	100

Where the above table does not list a separation requirement for a particular underground service then 300mm shall be used.

Excavating Across Assets:
The standard clearance between services shall be maintained as set down in Table 2 above. If the width or depth of the excavation is such that the Asset will be exposed or unsupported, then Energex shall be contacted to determine whether the Assets should be taken out of service, or whether they need to be protected or supported. In no case shall an Asset cover be removed without approval. An Asset cover may only be removed under the supervision of an Energex authorised representative. Protective cover strips when removed must be replaced under Energex supervision. Under no circumstances shall they be omitted to allow separation between Energex Assets and other services.

Heavy Machinery Operation Over Assets:
Where heavy "Crawler" or "Vibration" type machinery is operated over the top of Assets, a minimum cover of 450 mm to the cable protective cover mains must be maintained using load bearing protection whilst the machinery is in operation. For sensitive cables (i.e. 33 and 110kV fluid and gas filled cables), there may be additional constraints placed on vibration and settlement by Energex.

Directional Boring Near Assets:
When boring parallel to Assets, it is essential that trial holes are carefully hand or vacuum excavated at regular intervals to prove the actual location of the Asset before using boring machinery. Where it is required to bore across the line of Assets, the actual location of the Asset shall first be proven by hand or vacuum excavation. A trench shall be excavated 1m from the side of the Asset where the auger will approach to ensure a minimum clearance of 500mm above and below all LV, 11kV, 33kV & 110/132kV Asset shall be maintained.

Explosives:
Explosives must not be used within 10 metres of Assets, unless an engineering report is provided indicating that no damage will be sustained. Clearances should be obtained from Energex's Planning Engineer for use of explosives in the vicinity of Energex cables.

Damage Reporting:
All damage to Assets must be reported no matter how insignificant the damage appears to be. Even very minor damage to Asset protective coverings can lead to eventual failure of Assets through corrosion of metal sheaths and moisture ingress.

If any Damaged Asset is found:
1. Call the ELECTRICITY EMERGENCIES number listed below
2. Treat Assets as if alive, post a person to keep all others clear of the excavation until Energex crew attend to make safe.
3. All work in the vicinity of damaged Asset must cease and the area must be vacated until a clearance to continue work has been obtained from an Energex officer.

Solutions and Assistance:
If Asset location plans or visual location of Asset by hand or vacuum excavation reveals that the location of Energex Asset is situated wholly or partly where the developer or constructor plans to work, then Energex shall be contacted to assist with Your development of possible engineering solutions.

If Energex relocation or protection works are part of the agreed solution, then payment to Energex for the cost of this work shall be the responsibility of the, PCBU, principal developer or constructor. Energex will provide an estimated quotation for work on receipt of the PCBU's, developer's or constructor's order number before work proceeds.

It will be necessary for the developer or constructor to provide Energex with a written Safe Work Method Statement for all works in the vicinity of or involving Energex Assets. This Safe Work Method Statement should form part of the tendering documentation and work instruction. Refer Interactive Tool on Safe Work Australia site: Interactive SWMS guidance tool - Overview (safeworkaustralia.gov.au)

Vacuum Excavations (Hydro Vac)

When operating hydro vac equipment to excavate in vicinity of Assets fitted with:

- Nonconductive (neoprene rubber or equivalent) vacuum (suction) hose
- Oscillating nozzle on pressure wand with water pressure adjusted to not exceeding 2000 Pound force per Square Inch(PSI).

Maintain a minimum distance of 200mm between end of pressure wand and underground electrical Assets. DO NOT insert the pressure wand jet directly into subsoil.

Ensure pressure wand is not directly aimed at underground electrical Assets (cables/conduits).

Safety Notices (Underground Work)

It is recommended that You obtain a written Safety Advice from Energex when working close to Energex Assets. For Safety Advice please contact custserve@energex.com.au

Further information on Working Safely around Energex Assets: Working near powerlines | Energex

Thank You for Your interest in maintaining a safe and secure Electricity Distribution network. Energex welcomes Your feedback on this document via email to byda@energyq.com.au.

General enquiries (7:00am - 5:30pm Mon to Fri) 13 12 53
Life threatening emergencies only triple zero (000) or 13 19 62

To re-submit or change the nominated search area please visit BYDA.com.au

E: custserve@energex.com.au
E: byda@energyq.com.au ABN: 40 078 849 055



Part of Energy Queensland

Electricity Entity Requirements - Working Near Overhead and Underground Electric Lines

CONTENTS

1. Purpose and Scope 3
2. Definitions, Abbreviations and Acronyms 3
3. References 4
4. About This Guide 5
4.1. Who does the Electrical Safety Code of Practice 2020 - Working Near Overhead and Underground Electric Lines and Electricity Entity Requirements apply to? 5
4.2. Are you working or planning to work near overhead or underground electric lines? 6
4.3. Obtaining Safety Advice 8
4.4. Authorised Person and how to become one? 9
4.5. Contacting Electricity Entity for Safety Advice or Authorised Person Enquiries 10
5. Overhead Electric Lines 10
5.1. Isolation of supply to customer installation to eliminate exclusion zone around LV service line 13
5.2. Operating Plant 13
5.3. Scaffolding Requirements 14
5.4. High Load transport under Overhead Electric Lines 16
5.5. Additional Details and Fact Sheets on Electricity Entity Requirements 17
6. Underground Electrical Assets 17
6.1. Responsibilities When Working in the Vicinity of Electricity Entity Underground Electrical Assets 17
6.2. Conditions of Supply of Information 18
6.3. When Working in the Vicinity of Electricity Entity Underground Electrical Assets, You Must Observe the Following Conditions 19
6.4. Additional Details and Fact Sheets on Electricity Entity Requirements 21
7. Excavation 22
7.1. Excavating near Poles and Stay Wires 22
7.2. Excavating Near Underground Electrical Assets 24
7.3. Blasting 25
8. Reporting Damage Caused to Overhead or Underground Electric Lines 25
9. Infrastructure near Electric Lines 26
9.1. Easements and Wayleaves 26
9.2. Contact Electricity Entity when planning construction work near electric lines 27
9.3. What clearances must be maintained once construction work is completed? 28
9.4. What about Electric and Magnetic Fields? 31

1. PURPOSE AND SCOPE

The purpose of this document is to set out the Electricity Entity requirements for anyone who may be contemplating working or operating plant near any Ergon Energy or Energex's overhead or underground electric lines.

2. DEFINITIONS, ABBREVIATIONS AND ACRONYMS

Term	Definition
Applicant	A person contacting or submitting an application to the Electricity Entity for Safety Advice.
Authorised Person	For work near an electrical line, means a person who has enough technical knowledge and experience to do work that involves being near to the electrical line; and has been approved by the person in control of the electrical line (Electricity Entity) to do work near to the electrical line.
Authorised Person (Electrical)	An Electrical Mechanic or Electrical Linesperson (holding current Queensland Licence) working on behalf of an electrical contractor, an Electrical Contractor, or a person who holds an electrical mechanic licence and is performing work for the person or a relative of the person at premises owned or occupied by the person or relative, and accredited with the Electricity Entity who is permitted to remove and replace LV service fuse(s) when isolation of customer LV service line is required to eliminate the exclusion zone around the LV service line, or to work on the customer's mains and / or switchboard.
Earthworks	Any digging, penetration or disturbance of ground including but not limited to post hole digging, excavating, trenching, directional boring, bore hole sinking, driving pickets/posts into ground, cut and fill, dam or levee bank construction, blasting.
Electricity Entity	Where Electricity Entity appears throughout this document, it relates to either Energex or Ergon Energy area of responsibility. Refer to respective contact details below. **Energex:** • General Enquiries - ph 13 12 53 • Loss of Supply - ph 13 62 62 • Emergencies - ph 13 19 62 **Ergon Energy:** • General Enquiries - ph 13 74 66 • Loss of Supply - ph 13 22 96 • Emergencies - ph 13 16 70
Exclusion Zone	A safety envelope around an electric line as specified by the Electrical Safety Regulation 2013.
RPA (Drone)	Australia's safety laws for remotely piloted aircraft (RPA) / drones are defined under the Civil Aviation Safety Authority. Under this definition the use of RPA's are not classified as Operating plant (section 5.2) as prescribed in this document.

Term	Definition
Instructed Person	For an electrical line, means a person who is acting under the supervision of an Authorised Person for the electrical line.
Safety Advice	A written notice identifying the known electrical hazards at a specific site and advising the control measures required to be implemented by Responsible Person (person responsible for worksite) to reduce the likelihood of harm to person, plant or vehicle at site.
Safety Observer	A safety observer or "spotter", for the operation of operating plant, means a person who: (a) observes the operating plant; and (b) advises the operator of the operating plant if it is likely that the operating plant will come within an exclusion zone for the operating plant for an overhead electric line. This is a person who has undergone specific training and is competent to perform the role in observing, warning and communicating effectively with the operator of the operating plant.
Untrained Person	For an electrical line, means a person who is not an Authorised Person or an Instructed Person for the electrical line.

3. REFERENCES

Electrical Safety Regulation 2013: Part 5 - Overhead and Underground Electric Lines

Electrical Safety Code of Practice 2020 - Working Near Overhead and Underground Electric Lines

Work Health and Safety Act 2011

Work Health and Safety Regulation 2011

Energex: Safety Advice Request Form

Ergon Energy: Safety Advice Request Form

Copies of the relevant Acts, Regulation and Codes of Practice and any other relevant legislation can be found on the Queensland Government web site - https://www.worksafe.qld.gov.au/.

Disclaimer

This document refers to various standards, guidelines, calculations, legal requirements, technical details and other information and is not an exhaustive list of all safety matters that need to be considered.

Over time, changes in industry standards and legislative requirements, as well as technological advances and other factors relevant to the information contained in this document, may affect the accuracy of the information contained in this document. Whilst care is taken in the preparation of this material, Energex and Ergon Energy do not guarantee the accuracy and completeness of the information. Accordingly, caution should be exercised in relation to the use of the information in this document.

To the extent permitted by law, Energex and Ergon Energy will not be responsible for any loss, damage or costs incurred as a result of any errors, omissions or misrepresentations in relation to the material in this document or for any possible actions ensuing from information contained in the document.

4. ABOUT THIS GUIDE

This guide to working near the Electricity Entity network is designed to assist any person working, contemplating work or operating plant near any Electricity Entity overhead or underground electric lines to meet their duties under the Work Health and Safety Act 2011, Electrical Safety Act 2002, Electrical Safety Regulation 2013 and relevant Codes of Practice including Electrical Safety Code of Practice 2020 Working Near Overhead and Underground Electric Lines and help to identify the steps needed to ensure risks are minimised for all who work or are likely to be affected by the work in these situations.

"The Electrical Code of Practice 2020 Working Near Overhead and Under Ground Electric Lines" provides practical advice on ways to manage electrical risk when working near electric lines including the exclusion zones that apply. An electronic copy of this Code of Practice as well as, Electrical Safety Act and Regulation is available at the Queensland Government Electrical Safety Office web site at https://www.worksafe.qld.gov.au/electricalsafety. You should obtain a copy and read this material, to enable you to fully understand your obligations, and prospective means of complying with them.

4.1. Who does the Electrical Safety Code of Practice 2020 - Working Near Overhead and Underground Electric Lines and Electricity Entity Requirements apply to?

A person, worker or Person Conducting a Business or Undertaking (PCBU) at a workplace is required to comply with the Electricity Entity Requirements and the requirements of Electrical Safety Regulation 2013 Part 5 Overhead and Underground Electric Lines and Electrical Safety Code of Practice 2020 Working Near Overhead and Underground Electric Lines to ensure that no person, plant or thing comes within an unsafe distance (exclusion zone) of an overhead electric line. Compliance with these regulatory requirements is essential to reduce the risk of electric shock and contact with Electricity Entity electric lines and other assets which can have deadly consequences.

Examples of work activities where risk of person, plant or equipment coming near or into contact with overhead electric lines include but are not limited to:

- Pruning or felling trees or vegetation near overhead electric lines, including the service wire into a building.
- Carrying out building work, scaffolding or demolition adjacent to overhead electric lines.
- Painting fascia, replacing roofing, guttering or external cladding near service line point of entry to a building.
- Operating cranes, tip trucks, cane harvesters, elevated work platforms, fork lifts, grain augers, excavators, irrigators, etc near OH electric lines.
- Erecting or maintaining advertising signs or billboards near overhead electric lines.
- Dam or levee bank construction.

Examples of work activities that could involve risk of damage to underground cables or earthing systems include but are not limited to:

- Digging holes, excavating, sawing, trenching, under boring, sinking bore holes, earthworks or laying cables, pipes, etc or driving implements into the ground (e.g. star pickets, fence posts) near where underground cables or earthing systems may be located.

4.2. Are you working or planning to work near overhead or underground electric lines?

Electrical Safety Regulation Section 68 requires that before carrying out any work at a workplace where there is a risk of any person, plant or thing encroaching the exclusion zone of overhead electric lines, the person, worker or PCBU is required to ensure that the potential hazards are identified, a risk assessment conducted and the necessary control measures implemented to minimise electrical safety risks to ensure the safety of all workers and other persons at the workplace. The Electrical Safety Regulation 2013 and Electrical Safety Code of Practice 2020 - Working Near Overhead and Underground Electric Lines detail the Exclusion Zones that must be maintained.

4.2.1 Work near overhead electric lines

Where a risk assessment has been conducted and control measures implemented in accordance with requirement of Electrical Safety Code of Practice 2020 - Working Near Overhead and Underground Electric Lines and Electricity Entity Requirements (this document) and it has identified that exclusion zones from overhead electric lines cannot be maintained, the person, worker or PCBU is then required to contact Electricity Entity and request written Safety Advice (refer Section 4.3 below).

The person, worker or PCBU shall be required to maintain exclusion zones until such times as the Electricity Entity has provided written Safety Advice.

A person, worker or PCBU would not be required to contact the Electricity Entity and request a written Safety Advice where their risk assessment and implemented control measures ensure that exclusion zones from overhead electric lines will be maintained throughout performance of work to be undertaken at a particular site.

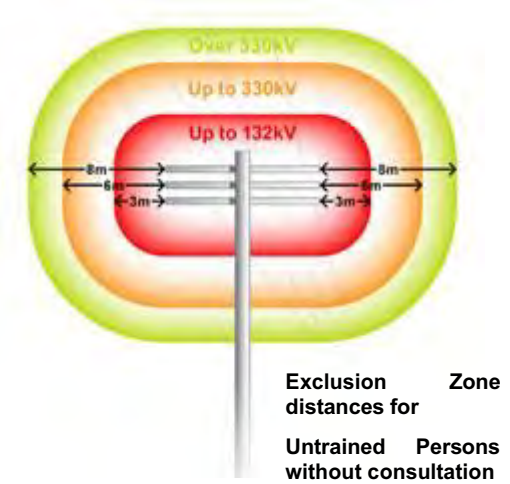
4.2.2 Exclusion Zones

An exclusion zone is a safety envelope around an overhead electric line. No part of a worker, operating plant or vehicle should enter an exclusion zone while the overhead electric line is energised (live).

Exclusion zones keep people, operating plant and vehicles a safe distance from energised overhead lines.

You must keep yourself and anything associated with the work activity out of the exclusion zone (e.g. a safe distance) unless it is not reasonably practicable to do so; and the person conducting a business or undertaking complies with the requirements of Section 68(2) of the Electrical Safety Regulation in relation to:

- conducting a risk assessment.
- implementing control measures
- adhering to any requirements of an Electricity Entity responsible for the line



Exclusion Zone - Untrained Person (distances in mm)

Nominal phase to phase voltage of electric line	Untrained Person		
	Person	Operating Plant	Operating Vehicles
Insulated LV: Consultation with and verified by the Entity	No exclusion zone prescribed	1000	300
LV with NO consultation with Electricity Entity	3000	3000	600
LV With consultation with Electricity Entity	1000		
>LV up to 33 kV with NO consultation with Electricity Entity	3000		900
LV up to 33 kV with consultation with Electricity Entity	2000		
>33 kV up to 132 kV	3000		2100
>132 kV up to 220 kV	4500	6000	2900
>220 kV up to 275 kV	5000		
>275 kV up to 330 kV	6000		3400

(information extracted from Electrical Safety Regulation 2013 Schedule 2)

Exclusion Zone - Instructed Person and Authorised Person (distances in mm)

Nominal phase to phase Voltage of electric line	Instructed Person (IP) & Authorised Person (AP)		
	AP and IP	Operating Plant with Safety Observer or another Safe System of work	Operating of Vehicles
Insulated LV: Consultation with and verified by the Entity	No exclusion zone prescribed	No exclusion zone prescribed	No exclusion zone prescribed
LV	No exclusion zone prescribed	1000	600
>LV up to 33 kV	700	1200	700
>33 kV up to 50 kV	750	1300	750
>50 kV up to 66 kV	1000	1400	1000
>66 kV up to 110 kV		1800	
>110 up to 132	1200		1200
>132 kV up to 220 kV	1800	2400	1800
>220 kV up to 275 kV	2300	3000	2300
>275kV up to 330kV	3000	3700	3000

(information extracted from Electrical Safety Regulation 2013 Schedule 2)

4.2.3 Work near underground electrical lines (underground electrical assets)

Before carrying out any earthworks at a location, the person, worker or PCBU is required to ensure that the potential hazards are identified, a risk assessment conducted, and the necessary control measures implemented to minimise the risk of damaging identified or unidentified underground electrical assets and to ensure the safety of all workers and other persons at the workplace. The Electrical Safety Regulation 2013 and Electrical Safety Code of Practice 2020 - Working Near Overhead and Underground Electric Lines and Electricity Entity Requirements detail the requirement for work near underground electric lines.

4.3. Obtaining Safety Advice

To obtain written Safety Advice where identified as being required in Section 4.2.1 above, complete the Safety Advice Request Form which is accessible via the Electricity Entity website:

Energex: Safety Advice Request Form

Ergon Energy: Safety Advice Request Form

On receipt, the Electricity Entity will contact the Applicant to advise date and time to meet at site to provide written Safety Advice. It is advisable to bring to the meeting your copy of the Electrical Safety Code of Practice 2020 Working Near Overhead and Underground Electric Lines (and Before You Dig Australia Plan for location of underground assets where required), as reference to this will be necessary during the meeting. Control measures provided by the Electricity Entity may incur a fee.

Failure to adhere to the Electrical Safety Regulation Section 68 requirements and mandatory control measures as documented on written Safety Advice as issued will result in written non-compliance advice being sent to the Electrical Safety Office.

Where this work is required to occur on a regular basis at a workplace, the PCBU may consider arranging to have one or more employees trained and subsequently accredited with the Electricity Entity as Authorised Persons.

4.4. Authorised Person and how to become one?

Under the Electrical Safety Regulation 2013, the exclusion zones for working near or operating plant or vehicles near exposed, low voltage or high voltage electric lines vary depending on whether a person is classed as an “Untrained Person”, “Authorised Person” or “Instructed Person”. An Authorised Person is permitted to carry out work closer to the electric lines than an Untrained Person (refer Electrical Safety Code of Practice 2020 Working Near Overhead and Underground Electric Lines Appendix B Exclusion Zones for Overhead Electric Lines).

To become an Authorised Person, the employer / self-employed person must first satisfy the “person in control” of the electric line, in this case the Electricity Entity, that their Applicants possess the required competencies. They must then apply in writing to Electricity Entity for approval.

Removal or replacement of LV service fuse to permit work on consumers’ mains, installation switchboard, consumer’s terminals or eliminate an exclusion that would exist requires the Electrical Mechanic to hold a current Queensland Electrical Mechanic Licence and perform the work in accordance with their documented safe system of work.

An ’Authorised Person’ Electrical **must not**:

a. confirm the insulation properties of Ergon Energy Network or Energex electric lines;

b. work on or have direct contact with the works of an electricity entity (the works of Ergon Energy Network or Energex) including the entities’ electrical lines, electrical installations, electrical equipment or other entity infrastructure unless specifically approved;

c. replace a blown low voltage (**LV**) fuse after loss of supply to a customer’s connection;

d. reinstate an LV service fuse that has been removed by Ergon Energy Network or Energex;

e. alter, remove or relocate an Ergon Energy Network or Energex overhead LV service line or LV pillar connection;

f. perform LV isolation within locked Ergon Energy Network or Energex assets;

g. perform unauthorised work within locked Ergon Energy Network or Energex assets; or

h. climb Ergon Energy Network or Energex electricity poles or other infrastructure.

An Authorised Person’ Electrical **is approved** to undertake the following activities:

i. work on or near the point of attachment of Ergon Energy’s or Energex’s termination;

j. remove and replace LV service fuses when required to isolate a service line to eliminate the exclusion zone around the LV service line, or to work on the Customer’s consumer mains or switchboard;

k. isolate a Customer's LV service line at an underground pillar or service pole by removing a fuse wedge(s) from a service line, in accordance with electricity industry practices; or

l. Safety Observing under schedule 2 of the *Electrical Safety Regulation* 2013 (Qld) for the operation of operating plant, after receiving appropriate training to perform the role.

An 'Authorised Person' Non-Electrical **must not**:

a. confirm the insulation properties of Ergon Energy Network or Energex electric lines;

b. work on or have direct contact with the works of an electricity entity (the works of Ergon Energy Network or Energex) including the entities' electrical lines, electrical installations, electrical equipment or other entity infrastructure unless specifically approved; or

c. climb Ergon Energy Network or Energex electricity poles or other infrastructure.

An 'Authorised Person Non-Electrical' **is approved** to undertake the following activities:

d. Safety Observing under schedule 2 of the *Electrical Safety Regulation 2013 (Qld) for the operation of operating plant*, after receiving appropriate training to perform the role.

Websites

Energex: Authorised person | Energex

Ergon Energy: Authorised person | Ergon Energy

4.5. Contacting Electricity Entity for Safety Advice or Authorised Person Enquiries

By phone: Call Electricity Entity on General Enquiries phone number:

Energex:

- General Enquiries - ph 13 12 53

Ergon Energy:

- General Enquiries - ph 13 74 66

By email

Authorised Persons: AuthorisedPerson@energyq.com.au

Safety Advice: SafetyAdvice@energyq.com.au

Websites

Energex: Safety advice | Energex

Ergon Energy: Safety advice | Ergon Energy

5. OVERHEAD ELECTRIC LINES

The following table sets out preparatory work options that may be required to be performed by the Electricity Entity (or electrical contractor where identified as being permitted who is an Authorised Person - Electrical) to assist a person, worker or PCBU in minimising the electrical safety risks of, encroaching within the exclusion zone or, contact with electric lines.

Category of work		Description	Costing arrangement
Safety Advice	Base information	Provide Safety Advice (Can only be performed by the Entity)	**Nil cost to customer.**

Category of work		Description	Costing arrangement
LV Service isolation	1. Isolation carried out by customer's electrical contractor	Isolation of overhead or underground service by removal of the service fuse(s). (Preferred option to isolate supply and eliminate the exclusion zone).	No involvement by the Electricity Entity. May be a cost charged by the customer's electrical contractor.
	2. Isolation carried out by Electricity Entity	Customer requested isolation of overhead or underground service by removal of the service fuse(s) or Customer requested physical disconnection and reconnection of overhead or underground service.	**Cost to customer.**
Insulation integrity verification	3. Verification of insulation integrity to reduce exclusion zone to no exclusion zone prescribed e.g. no contact permitted	Verification of insulation integrity to classify as insulated service - Insulation integrity can only be verified at the time of inspection - visual inspection is required before confirmation in all cases. When service insulation integrity verified - no exclusion zone prescribed e.g. no contact permitted. (Can only be performed by the Entity)	**Cost to customer.**
Service replacement	4. Open wire service, service fuse(s) at house/building	Replacement of service with new XLPE service cable and service fuse(s) installed at origin (pole end) of service to allow isolation of service. Insulation integrity can be verified for new XLPE services at the time of installation - visual inspection is required before confirmation.	**Nil cost to customer** for service replacement. Customer responsible for necessary installation, Mains Connection Box and service support bracket upgrade and associated costs if required.

Category of work		Description	Costing arrangement
		Service installations where: a. the consumer's mains cannot be insulated and an exclusion zone must be maintained, and b. the service cannot be isolated at the service fuse. Service to be isolated by breaking the service cable connection to the LV mains at the pole. Service fuse(s) to be installed at origin (pole end) of service prior to reconnection.	**Nil cost to customer** for first disconnection and reconnection. **Cost to customer** for subsequent requests.
	5. All other service replacements	Customer requested replacement of existing service with new XLPE service cable to classify as insulated service, in lieu of isolation, to allow work close (no exclusion zone prescribed e.g. no contact permitted). Service fuse(s) to be installed at origin (pole end) of service.	**Cost to customer** for service replacement. Customer responsible for necessary installation, Mains Connection Box and service support bracket upgrade and associated costs if required.
Tiger Tails	Installation of Tiger Tails (for visual indication only - not for providing electrical insulation of LV mains)	Customer requested coverage of LV mains for visual indication only (not permitted on HV mains). The Entity may also fit tiger tails to LV service line for visual indication only.	**Cost to customer**.
Aerial Markers	Installation of aerial marker flags or rota markers (for visual indication only)	Customer requested temporary or permanent installation of appropriate aerial marker devices on LV or HV mains.	**Cost to customer**.
Switching	Customer requested switching	Customer requested switching to allow customer/contractor to work close (no exclusion zone prescribed e.g. no contact permitted).	**Cost to customer**.

5.1. Isolation of supply to customer installation to eliminate exclusion zone around LV service line

An Electrical Mechanic (holding current Queensland Licence) working on behalf of an electrical contractor and accredited with the Electricity Entity as an Authorised Person (Electrical) is permitted to remove and replace LV service fuse(s) when isolation of customer LV service line is required to eliminate the exclusion zone around the LV service line, or to work on the customer's mains and/or switchboard. Isolation of the customer's LV service line by an Authorised Person (Electrical) is only permitted at an underground service pillar or service pole by removing a fuse wedge(s) from a service line, in accordance with Electricity Industry practices e.g. from ground level using appropriate insulated tools, PPE and insulating mats. In those situations where the service fuse/circuit breaker is not located at supply end of the LV service, contact the Electricity Entity to arrange for Safety Advice where elimination of exclusion zone around LV service line is required.

Any controls used by the Authorised Person (Electrical) to identify and confirm isolation and ensure supply to the customer's installation is not inadvertently re-energised shall comply with Electrical Safety Regulation 2013 Section 14 and 15 requirements.

NOTE: **The Authorised Person (Electrical) will not be permitted to replace a blown LV service fuse(s) after loss of supply to a customer's installation or to alter the Electricity Entity overhead LV services. The low voltage pole top service fuse shall only be removed by use of an approved, in test, insulated telescopic pole device while standing at ground level and wearing class 00 insulating gloves. At no time is it permissible for an Authorised Person (Electrical) to climb or work aloft on the Electricity Entity's poles or assets unless approved by the Electricity Entity.**

5.2. Operating Plant

It can be extremely difficult for operating plant operators to see overhead lines and to judge distances from them. Contact with overhead lines can pose a risk of grounding live conductors and electrocution.

In many cases the likelihood of damage or injury can be reduced by setting up and operating the machinery well clear of overhead electric lines.

In situations where operating plant is operated by an Authorised Person or Instructed Person without a Safety Observer or another safe system, the exclusion zone requirements (refer Section 1) for an Untrained Person applies (refer Electrical Safety Regulation 2013 Schedule 2 or Electrical Safety Code of Practice 2020 Working Near Overhead and Underground Electric Lines).



For an Authorised or Instructed Person and their Operating Plant to approach overhead electric lines closer than the exclusion zone distances for an Untrained Person, a Safety Observer or another safe system shall be used. Refer to the Electrical Safety Regulation 2013 and the Electrical Safety Code of Practice 2020 - Working Near Overhead and Underground Electric Lines for exclusion zone distances for Authorised and Instructed Persons operating plant with a Safety Observer or another safe system.

Where a Safety Observer is used, the Safety Observer shall:

- Be trained to perform the role.
- Not be required to carry out any other duties at the time, and
- Not be required to observe more than one item of plant operating at a time, and
- Attend all times when the item of plant is operating.

Other control measures for operating plant may include, but are not restricted to:

- Constructing physical barriers or height warning indicators either side of the overhead electric line that are lower than the maximum travel height permissible without encroaching within the exclusion zone of the overhead electric line.
- Applying appropriate signage at least 8 to 10 m either side of overhead electric lines.
- Arrange for visual indicators such as Rota Markers, Tiger Tails or aerial markers to fitted to the overhead electric lines - only erected by the Electricity Entity (tiger tails are only permitted on LV mains).
- Ground barriers, where appropriate.
- Informing workers of required work practices.
- Ensuring operators are aware of the height and reach of their machinery in both stowed and working positions.
- Lowering all machinery to the transport position when relocating.
- Providing workers with maps or diagrams showing the location of underground and overhead electric lines, and
- Where possible, directing work away from overhead electric lines not towards them.

5.3. Scaffolding Requirements

The following information provided is for guidance only and shall be read in conjunction with the Electrical Safety Regulation 2013, Electrical Safety Code of Practice 2020 - Working Near Overhead and Underground Electric Lines and AS/NZS 4576:1995: Guidelines for Scaffolding.

Requirements shall be complied with where scaffolding is required to be erected within 4 m of nearby overhead electric lines:

- The scaffolding shall not be erected before contacting and obtaining Safety Advice from the Electricity Entity.
- Erection of scaffolding to comply with requirements of AS/NZS 4576:1995: Guidelines for Scaffolding.

The scaffolding can be either:

- nonconductive material scaffolding; or
- metallic scaffolding with solid nonconductive barriers (with no gaps, holes or cuts) securely fixed to the outside and/or top of the scaffolding to prevent encroachment within exclusion zones or contact with the energised mains.

Where scaffolding is erected within 3 m of nearby overhead electric lines:

- It shall be fitted with fully enclosed non-conductive solid barriers to prevent encroachment within exclusion zones or contact with the energised mains fully enclosed.
- The person required to erect and/or disassemble scaffolding as well as the required solid barrier affixed to the scaffolding should be an Authorised Person (approved in writing by the Electricity Entity - refer requirements of Section 1.4 of this Reference).
- A Safety Observer shall be used during performance of this work where there is a risk of encroachment within 3 m of nearby energised overhead electric lines for voltages up to 33 kV. Additional requirements may apply for voltage levels above 33 kV, contact the Electricity Entity for consultation.

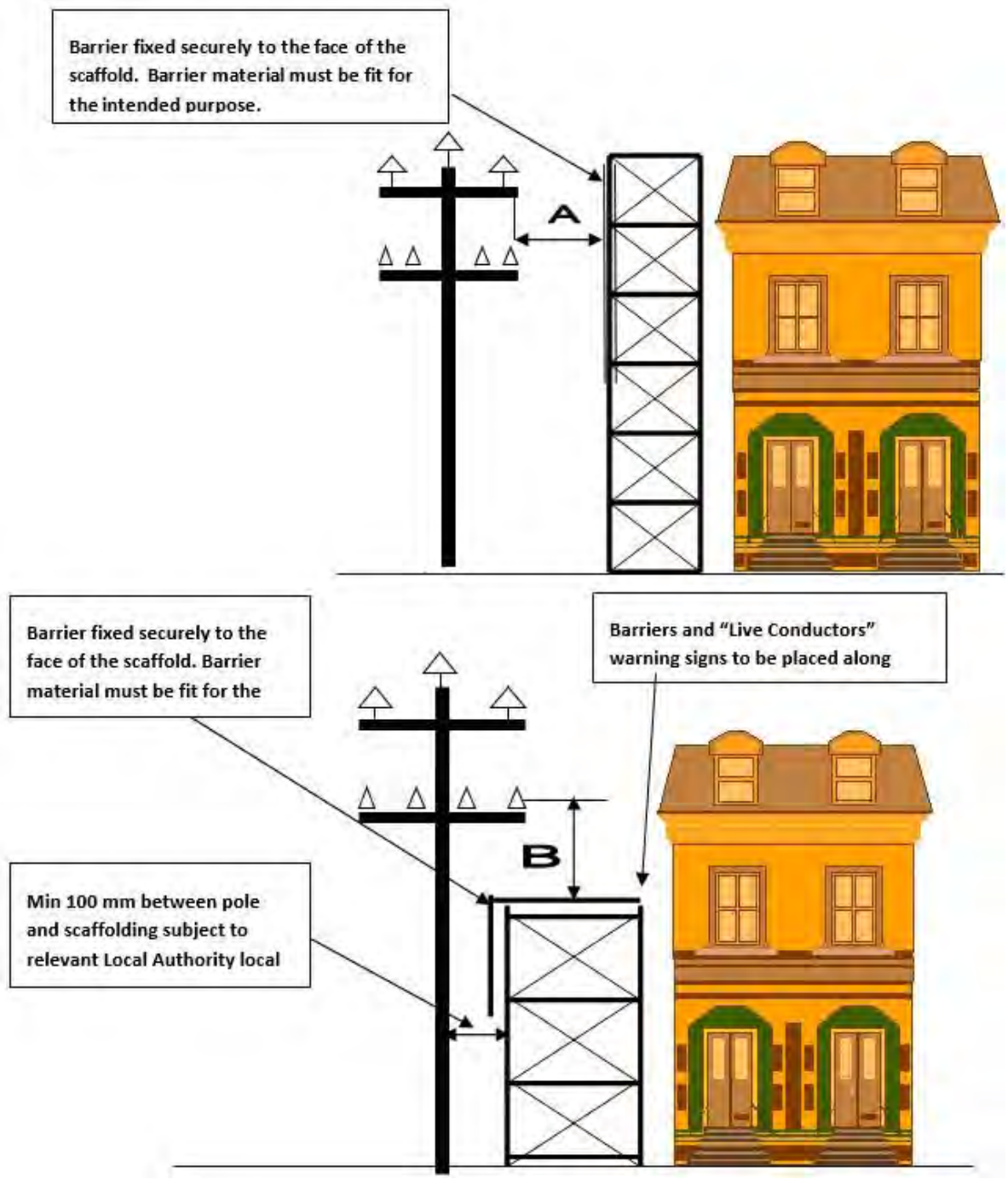
- Alternatively, consideration should be given to the de-energisation of the nearby electric lines where possible for the duration of this work. Additional requirements may apply for voltage levels above 33 kV, contact the Electricity Entity for consultation.
- Comply with the horizontal and vertical statutory clearances from overhead electric lines as set out in Electrical Safety Regulation 2013 Schedule 4.
- Persons are not permitted to go outside of or climb on top of the solid barrier fixed on the outside and/or top of the scaffolding.

Where an insulated low voltage service line passes through the scaffolding, it should either be de-energised for duration of work or be fully enclosed by non-conductive material (e.g. form ply).

Minimum statutory clearances from nearby overhead electric lines for scaffolding erected with barriers affixed.

Voltage Level	Horizontal Distance "A" (in metres)	Vertical Distance "B" (in metres)
Low voltage conductors (uninsulated)	1.5m	2.7m
Low voltage conductors (insulated) - these distances can only be applied after the integrity of the insulation has been verified by the Electricity Entity	0.3m	0.6m
Above LV and up to 33 kV (uninsulated)	1.5m	3.0m
Above LV and up to 33 kV (insulated)	Contact Electricity Entity for consultation.	
Above 33 kV (uninsulated)	Additional requirements may apply for voltage levels above 33 kV, contact the Electricity Entity for consultation.	

NOTE: **Dimensions "A" and "B" is between the scaffolding and the closest conductor of the overhead electric line. Dimension B is also taken from the lowest part of the mid span sag adjacent to the scaffolding.**



5.4. High Load transport under Overhead Electric Lines

Any person or company transporting a High Load (load in excess of 4.6 m high) under overhead electric lines must comply with Electrical Safety Code of Practice 2020 - Working Near Overhead and Underground Electric Lines and is required to submit a Notification to Transport High Load form to the relevant Electricity Entity of the intended route and details of the high load involved. Before any person or company can transport a high load (load in excess of 4.6 m high), authorisation to travel must be received in writing from the Electricity Entity. Refer details below to contact the Electricity Entity for high load enquiries or to submit Notification to Transport High Load form:

Email: highloads@energyq.com.au

Phone: (07) 4932 7566 (7:30am to 3:00pm, Monday to Friday)

Energex: Vehicles with high loads | Energex

Ergon Energy: Vehicles with high loads | Ergon Energy

The Road Transport Operator has the overarching responsibility of transporting the load and is required to comply with the directions of the police, pilot, High Load Escort, and Energex / Ergon Energy Network.

When arranging the transporting of the high load, the Road Transport Operator shall determine the lowest practicable height that the load can be reduced to.

The Road Transport Operator is to have a Safe System of Work in place that supports the safe transportation of the High Load so as not to breach any exclusion zone to Entity powerlines or assets along the travel route.

5.5. Additional Details and Fact Sheets on Electricity Entity Requirements

Additional details and Fact Sheets on Electricity Entity requirements for working near overhead electric lines are located on the following internet sites

Energex: Working near powerlines | Energex

Ergon Energy: Working near powerlines | Ergon Energy

6. UNDERGROUND ELECTRICAL ASSETS

6.1. Responsibilities When Working in the Vicinity of Electricity Entity Underground Electrical Assets

Everyone has a legal "Duty of Care" that must be observed when working in the vicinity of underground electrical assets which includes underground cables, conduits and other associated underground equipment. When discharging this "Duty of Care" in relation to Electricity Entity underground electrical assets, the following points must be considered:

1. It is the responsibility of the architect, consulting Engineer, developer, and principal contractor in the project planning stages to design for minimal impact and protection of Electricity Entity underground electrical assets. The Electricity Entity will provide plans on request via BYDA showing the presence of the underground electrical assets to assist at this design stage.
2. It is the constructor's responsibility to:
    a. Anticipate and request BYDA plans of Electricity Entity underground electrical assets for a particular location at a reasonable time before earthworks begins.
    b. Visually locate Electricity Entity underground electrical assets by use of an electronic cable locator followed by careful non-mechanical excavation (potholing using hydrovac or hand tools) when earthworks activities may damage or interfere with Electricity Entity plant.
    c. After completion of steps (a) and (b) above, if there is a risk of the Electricity Entity underground electrical assets being damaged or its structural integrity compromised by your planned earthworks activities, contact the Electricity Entity (General Enquiries phone number - refer page 3) for further advice.

    A constructor may include but not limited to designer, project manager, installer, contractor, civil contractor.
3. The alignments and boundaries contained within BYDA plans and maps will sometimes differ from present alignments and boundaries "on the ground". Accordingly, in every case, the constructor should obtain confirmation of the actual position of Electricity Entity cables and pipelines under the roadways by non-mechanical excavation (potholing using hydrovac or

hand tools) when earthworks activities may damage or interfere with Electricity Entity underground electrical assets. In no case should the constructor rely on statements of third parties in relation to the position of Electricity Entity underground electrical assets.

6.2. Conditions of Supply of Information

- Plans and details of Electricity Entity underground electrical assets provided by BYDA are only current for 4 weeks from the date of dispatch and should not be referred to after this period, if you go past this time, please re-apply to BYDA as underground services may have been updated.

- The Electricity Entity agrees to provide plans if an Electricity Entity underground electrical assets location request is made to Before You Dig Australia (BYDA) , online at https://www.byda.com.au or the free iPhone Application, only on the basis that at least 2 business day notice is given and the BYDA applicant agrees to the terms of this agreement.

Note that the Electricity Entity only provides information on underground electrical assets it owns. Contact the owner of any privately owned underground electrical assets for details of their assets located at site.

- The Electricity Entity retains copyright of all plans and details provided in connection to your request.

- BYDA plans or other details are provided for the use of the BYDA applicant, its servants, or agents, for the sole purpose of the applicant's responsibilities in relation to the Electricity Entity underground electrical assets and shall not be used for any other purpose.

- BYDA plans are diagrams only and indicate the presence of Electricity Entity underground electrical assets in the general vicinity of the geographical area shown. Exact ground cover and alignments cannot be given with any certainty as such levels can change over time.

- On receipt of BYDA plans and before commencing excavation work or similar activities near Electricity Entity's underground electrical assets, carefully locate this plant first to avoid damage.

- The Electricity Entity, its servants or agents shall not be liable for any loss or damage caused or occasioned by the use of plans and of details so supplied to the BYDA applicant, its servants or agents, and the BYDA applicant agrees to indemnify the Electricity Entity against any claim or demand for any such loss or damage to the BYDA applicant, its servants, or agents or to any third party.

- The constructor is responsible for all damages to the Electricity Entity underground electrical assets when work commences prior to obtaining BYDA plans, or at any time after that for failure to follow agreed instructions contained in this document or any other advice provided by the Electricity Entity.

- By undertaking any work, you acknowledge that the Electricity Entity reserves all rights to recover compensation for loss or damage to the Electricity Entity caused by interference or damage, including consequential loss and damage to its cable network, or other property.

- Be aware that some underground conduits may contain asbestos. Refer to "Code of Practice for the Management and Control of Asbestos in Workplace [NOHSC: 2018 (2005)]" for guidance.

6.3. When Working in the Vicinity of Electricity Entity Underground Electrical Assets, You Must Observe the Following Conditions

6.3.1 Records

The first step before any excavation commences is to obtain BYDA plans of Electricity Entity underground electrical assets in the vicinity of the work. For new work, records should be obtained during the planning and design stage. The records provided by BYDA must be made available to all relevant work groups on site. Where underground electrical asset information is transferred to plans for the proposed work, care must be exercised that important detail is not lost in the process.

6.3.2 Location of underground electrical assets

Examining the records is not sufficient, as reference points may change from the time of installation. Records must also be physically proven when working in close proximity to underground electrical assets. The exact location of underground electrical assets likely to be affected shall be confirmed by use of an electronic cable locator followed by careful non mechanical excavation to the level of concrete slabs or conduits. Non mechanical excavation (potholing using hydrovac or hand tools) must be used in advance of excavators. In any case, where doubt exists with respect to interpretation of cable records, contact the Electricity Entity (General Enquiries phone number - refer page 3) for further advice.

If during excavation, cables or conduits are damaged:

- call Electricity Entity (Emergencies phone number - refer page 3) to report damaged cables or conduits.
- treat cables as if alive, post a person to keep all others clear of the excavation until the Electricity Entity crew attend to make safe.

If **unknown** cables or conduits (e.g. not shown on issued BYDA plans) are located during excavation:

- call Electricity Entity (Emergencies phone number - refer page 3) to report.
- treat cables as if alive, post a person to keep all others clear of the excavation until the Electricity Entity crew attend to make safe.

If the constructor is unable to locate Electricity Entity underground electrical assets within 2.5 m of nominal plan locations, they should contact the Electricity Entity (General Enquiries phone number - refer page 3) for further advice.

6.3.3 Remote or On-Site Cable Location conducted by Electricity Entity

This service shall only be provided at Electricity Entity's discretion:

- The Electricity Entity may provide this site visit only when underground cables (33 kV or above) are present.
- Due to remote locations where external cable locator or hydro vac service providers are not readily available, Electricity Entity may attend site and assist with cable location (fees may apply for this service).
- The Electricity Entity may provide either remote over the phone or on-site cable location advice to assist in the location of Electricity Entity underground electrical assets, including how to visually locate and protect the plant when excavating.
- Where the Electricity Entity provides on-site cable location advice, any markings provided for the purpose of identifying cable location are for general guidance only, and the constructor

is still responsible for non-mechanical excavation (potholing using hydrovac or hand tools) to visually locate Electricity Entity underground electrical assets.

- If the constructor is unable to locate Electricity Entity underground electrical assets within 2.5 m of nominal plan locations, they should contact Electricity Entity (General Enquiries phone number - refer page 3) to request further advice.

6.3.4 Electrical Cables

Electricity Entity cables may have warning covers e.g.:

- Clay paving bricks or tiles marked “Electricity” or similar (also unmarked)
- Concrete or PVC cover slabs
- PVC, asbestos or fibro conduit, fibre reinforced concrete, iron or steel pipe
- Concrete encased PVC or steel pipe
- Thin plastic marker tape
- Large pipes housing multiple ducts
- Multiple duct systems, including earthenware or concrete

NOTE: Some cables are known to be buried without covers.

6.3.5 Separation from Electricity Entity underground electrical assets

If location plans or visual location of Electricity Entity underground electrical assets by non-mechanical excavation (potholing using hydrovac or hand tools) reveals that the location of Electricity Entity underground electrical assets is situated where the developer or constructor plans to work, then contact the Electricity Entity (General Enquiries phone number - refer page 3) for further advice.

The developer or constructor shall ensure that minimum separation distance from Electricity underground electrical assets (refer Minimum Separation Requirements tables below) is complied with when installing, altering or repairing other underground services located in the vicinity.

If the Electricity Entity relocation or protection works are part of the agreed solution, then payment to the Electricity Entity for the cost of this work shall be the responsibility of the principal developer or constructor. The Electricity Entity will provide an estimate for work on receipt of the developer’s or constructor’s order number before work proceeds.

It will be necessary for the developer or constructor to provide the Electricity Entity with a written Work Method Statement for all works in the vicinity of, or involving Electricity Entity underground electrical assets. This Work Method Statement should form part of the tendering documentation and work instruction. All Work Method Statements shall be submitted to the Electricity Entity prior to the commencement of site earthworks.

Minimum Separation Requirements

Underground Services Running Parallel with Electricity Entity Electrical Assets (Minimum Separation required in mm)							
Voltage Level	Gas	Communication or TV	Water		Sanitary drainage		Storm Water
			≤DN 200	>DN200	≤DN 200	>DN 200	
LV	300 (Ergon)	100	500	*1000	500	1000	500
HV	250 (Energex)	300					
*Contact your local utility/council to obtain specific separation distances							

Underground Services Crossing Electricity Entity Electrical Assets (Minimum Separation required in mm)					
Voltage Level	Gas	Communication or TV	Water	Sanitary drainage	Storm Water
LV	100	100	300	300	100
HV					

Notes:

- These clearances are each Electricity Entity's minimum requirements, additional separation may be required by the Service Owner. The greater of the separation requirements shall apply.
- Where the above tables do not list a separation requirement for a particular underground service type, the following minimum separation from electricity entity electrical assets shall apply:
- LV = 100 mm
- HV = 300 mm
- Compliance with these minimum separation requirements does not guarantee that issues such as Earth Potential Rise (EPR) and Low Frequency Induction (LFI) are managed, where these issues need to be managed, advice will need to be sought from an RPEQ Engineer
- All separation distances are measured from the exterior surface of the conduit / cable not centrelines or inner wall surfaces.

6.4. Additional Details and Fact Sheets on Electricity Entity Requirements

Additional details and Fact Sheets on Electricity Entity requirements for working near underground electrical assets are located on the following internet sites.

Energex: Working near powerlines | Energex

Ergon Energy: Working near powerlines | Ergon Energy

7. EXCAVATION

7.1. Excavating near Poles and Stay Wires

The following requirements are to be compiled with to minimise the risk of compromising the structural integrity of the Electricity Entity poles and stay foundations when excavation or trenching work is performed nearby that could result in the failure of one or more poles and grounding of supported electric lines.

- Excavation and trenching work undertaken by a person, worker or PCBU in the vicinity of poles and stay foundations shall:
- only be commenced after requirements of Section 3 have been complied with for any underground electrical assets located within the work site.
- upon completion of excavation and site earthworks do not restrict the Electricity Entity vehicle access to pole site for purpose of carrying out maintenance activities.
- comply with exclusion zones as detailed in the Electrical Safety Code of Practice 2020 - Working Near Overhead and Underground Electric Lines.
- not be attempted:
  - within 5 m (horizontal distance) of **pole stays** where the excavation depth is greater than 250 mm before contacting the Electricity Entity to determine requirements.
  - within 5 m (horizontal distance) of Electricity Entity poles with earth leads or cables running down into the ground before contacting the Electricity Entity to determine requirements.
  - within “Do Not Disturb” zone of pole prior to a certified engineering assessment having been completed by a Registered Professional Engineer Queensland, and then reviewed and approved by the Electricity Entity before proceeding with work. Approval by the Electricity Entity shall not relieve the PCBU of its duties to perform the work in a safe and proper manner and in accordance with all applicable legislation.
  - if the soil is exceedingly wet (saturated) or there is more than minimal wind loading unless additional pole support is provided in accordance with certified engineering assessment and approved by Electricity Entity.
  - when a severe weather event is occurring or expected (e.g. severe weather warning has been issued by Bureau of Meteorology).
- be backfilled as soon as possible (within same day where pole is required to be supported) soil mechanically compacted in layers of 150 mm and all rock and vegetable material excluded from the backfill.
- be backfilled and pole stabilised before removal of additional support required by a certified engineering assessment are permitted to be removed.

The PCBU shall be responsible for arrangement and costs of required certified engineering assessments, approvals by other regulatory bodies (eg councils, Main Roads, pipeline owners, telecommunication owners) and placement and removal of associated pole supporting equipment.

Electricity Entity poles must not be fitted with non-approved pole holding devices.

Only approved mechanical holding devices (e.g. Proline, Borer Lifter, etc) used in accordance with a certified engineering assessment are permitted and shall be:

- only attached and removed by the Electricity Entity or persons approved by the Electricity Entity.

- used to restrain both the pole head and foot to maintain pole stability during nearby excavation work.
- set up and positioned to maximise support effectiveness and minimise impact on traffic, pedestrian, excavation and machinery at site; and maintain exclusion zone from overhead lines. If insufficient clearance exists to maintain exclusion zones to pole supporting equipment, arrangements may be required for de-energising the electric line.

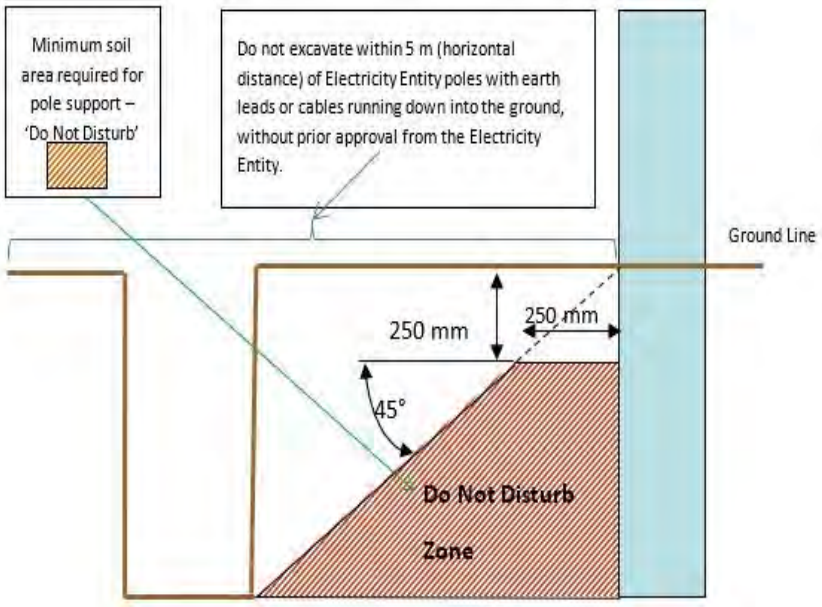


Figure 1 - Do Not Disturb Zone requirements when excavating near poles

Maximum Trench Depth	Minimum Distance from pole without pole support
Not more than 0.25 m (250 mm)	Can trench or hand dig (where cables and leads exist) right up to pole
1.0 m	1.0 m
1.5 m	1.5 m
2.0 m	2.0 m
2.5 m	2.5 m
3.0 m	3.0 m

7.1.1 Certified Engineering Assessment

Where required to be provided by the PCBU, a Certified Engineering Assessment shall:

- Ensure the stability of the Electricity Entity poles and foundations is maintained during and as a result of excavation work completed within the 'Do Not Disturb' zone.
- Include detailed design drawing of pole support method.
- Be completed and certified by a Registered Professional Engineer Queensland.
- Consider and address the following key points as a minimum:
  - Pole loading (vertical and lateral) including line deviation angles, direction of lean (towards or away from resultant loading)

- Direction of pole lean.
- Pole inspection (conducted to meet the Electricity Entity's requirements at customer cost)
- Pole foundation depth
- Proximity of excavation in relation to pole
- Soil condition
- Proposed shoring methods as well as installation and removal process
- Duration and staging of work
- Requirement to independently support pole during work
- Proximity of existing adjacent underground services and excavations
- Proposed backfilling and reinstatement method
- Monitoring and engineering/ geotechnical supervision during excavation work progress
- Other equipment attached to pole (e.g. underground cables, transformer, ACR, ABS.) must be taken into consideration and in some circumstances will prevent the pole being supported.

7.2. Excavating Near Underground Electrical Assets

For all work within 2.5 m of nominal location, the constructor is required to use non-mechanical excavation (potholing using hydrovac or hand tools) and expose the underground electrical assets, hence proving its exact location before earthworks can commence.

7.2.1 Excavating Parallel to Underground Electrical Assets

If excavation work is parallel to the Electricity Entity underground electrical cables, then non mechanical excavation (potholing using hydrovac or hand tools) at least every 4 m is required to establish the location of all cables, hence confirming nominal locations before work can commence. If an excavation exceeds the depth of the cables and it is likely that that the covers or bedding material around the cables/pipes will move causing Electricity Entity cables or conduits to be unsupported, contact Electricity Entity (General Enquiries phone number - refer page 3) for further advice.

NOTE: Be aware that cable depths and directions may change suddenly along the route.

7.2.2 Excavating Across Underground Electrical Assets

Refer Minimum Separation Requirements table in Section 6.3.5 of this document for distances that shall be maintained to prevent inadvertent contact with or damage to underground electrical assets. If the width or depth of excavation is such that the Electricity Entity cables will be unsupported, contact Electricity Entity (General Enquiries phone number - refer page 3) for further advice. In no case shall a cable cover be removed without approval. A cable cover may only be replaced under the supervision of an Electricity Entity officer. Protective cover strips when removed must be replaced under Electricity Entity supervision. Under no circumstances shall protective cover strips be omitted to achieve the minimum separation distance required between Electricity Entity cables and other underground services.

7.2.3 Heavy Machinery Operation Over Underground Electrical Assets

Where heavy "crawler" or "vibration" type machinery is operated over the top of cables, a minimum cover of 450 mm to the cable protective cover must be maintained. Alternatively, subject to a Certified Engineering Assessment, use load bearing protection whilst the machinery is in operation.

7.2.4 Directional Boring Near Underground Electrical Assets

When boring parallel to cables, it is essential that trial holes are carefully dug using non mechanical excavation (pot holing using hydrovac or hand tools) at regular intervals to prove the actual location of the conduits/cables before using boring machinery. Where it is required to bore across the line of cables/conduits, the actual location of the cables/conduits shall be proven by non-mechanical excavation (pot holing using hydrovac or hand tools). A trench shall be excavated 1 m from the side of the cables where the auger will approach to ensure a minimum clearance of 500 mm from cables/conduits can be maintained.

7.2.5 Hydro Vac Operation

When operating hydro vac equipment to excavate in vicinity of underground electrical assets (cables/conduits):

- Fitted with:
  - nonconductive (neoprene rubber or equivalent) vacuum (suction) hose.
  - oscillating nozzle on pressure wand with water pressure adjusted to not exceeding 2000 psi.
- Maintain a minimum distance of 200 mm between end of pressure wand and underground electrical assets. DO NOT insert the pressure wand jet directly into subsoil.
- Ensure pressure wand is not directly aimed at underground electrical assets (cables / conduits).

7.3. Blasting

Explosives must not be used within 5 m of cables/conduits, unless an engineering report is provided indicating that no damage will be sustained. Clearances shall be obtained from the Electricity Entity for use of explosives in the vicinity of cables/conduits. Contact Electricity Entity (General Enquiries phone number - refer page 3) for further advice.

The Electricity Entity will accept the level of 25 mm / sec as a peak component particle velocity upper limit as defined in AS 2187.2 Appendix J for blasting operations in the vicinity of these power lines.

Electric line insulators and conductors are particularly susceptible to damage from fly rock and adequate control measure including the use of blast mats shall be used to manage this. Contact Electricity Entity for consultation and application.

8. REPORTING DAMAGE CAUSED TO OVERHEAD OR UNDERGROUND ELECTRIC LINES

Any damage caused to the Electricity Entity overhead electric lines, poles, stays, underground cables, conduits and pipes must be reported no matter how insignificant the damage appears to be. Even very minor damage to cable protective coverings can lead to eventual failure of cables through corrosion of metal sheaths and moisture ingress.

All work in the vicinity of damaged overhead or underground electric lines shall cease and the area be made safe and vacated until clearance to continue earthworks has been obtained from the Electricity Entity. Call Electricity Entity (Emergencies phone number - refer page 3).

9. INFRASTRUCTURE NEAR ELECTRIC LINES

9.1. Easements and Wayleaves

This information, whilst not a legal document, has been developed to assist the community in answering some commonly asked questions about our easements and wayleaves, and briefly outlines what you can do where land is affected by an easement or where consent to installing electrical infrastructure has been given.

9.1.1 What is an Electricity Easement?

An electricity easement is the authority held by the Electricity Entity to use your land near overhead and underground electric lines and substations (electrical assets). Electricity Entity holds this authority for your own safety and to allow employees access to electrical assets at all times. Whilst it will depend on the terms of the particular grant of easement, electrical easements generally give the Electricity Entity the right to access, maintain, repair, rebuild and to restrict development within a defined area.

The easement, which is registered on the property's title, contains a plan showing the dimensions of the easement and its location on the property together with the rights and restrictions over the easement area. The Department of Natural Resources and Mines https://www.resources.qld.gov.au/ or your solicitor will be able to provide this information. Easements may also exist for telephone lines, water and sewage mains and natural gas supply lines.

9.1.2 Why are easements necessary?

Easements are also created to allow the Electricity Entity clear, 24 hour access to the electric lines. It is important to keep the easement clear at all times so regular maintenance, line upgrades, damage or technical faults can be attended to immediately to provide a safe and reliable supply of electricity. Interference with Electricity Entity's rights and electrical equipment may compromise safety of the public and the occupiers of the property. Therefore, it is essential that Electricity Entity's rights are understood and observed.

9.1.3 How do I know if there are easements on my property?

Contact your solicitor or The Department of Natural Resources and Mines to obtain a Title Search that shows all registered easements on the property.

9.1.4 Who owns the land the easement is on?

The ownership of that land encumbered with the easement remains with the property owner.

9.1.5 How does an easement affect what I can do with my property?

An easement controls what you can build, what size trees you can plant and what outdoor activities you can carry out in the easement area.

An easement affects the use of the property by limiting the development that can be undertaken within the easement area. The exact rights granted to an Electricity Entity under an electricity easement will depend on the wording used in the grant of easement. Property owners and occupiers should also be aware that an Electricity Entity has the right of access to land to undertake certain works (including reading meters and disconnecting supply). These rights of access are granted by Queensland legislation not the easement and so may not be registered on the property's title and therefore may not be revealed in a Title Search.

9.1.6 Who is responsible for maintenance of easement area?

You must provide a continuous, unobstructed area along the full length of the easement to allow an Electricity Entity access to electric lines, transformers, underground cables and other equipment at all times. A width of 4.5 m is typically required for the safe passage of vehicles and heavy plant.

You must NOT place obstructions in the easement within 5 m of any electric lines, transformer, power pole, equipment or supporting wire.

Maintenance of the easement area is generally the responsibility of the property owner and/or occupier, however, complying with regulatory and safety requirements associated with Electricity Entity's electrical assets within the easement area is the responsibility of the Electricity Entity.

9.1.7 What type of maintenance work does Electricity Entity undertake on easements?

To enable Electricity Entity to construct, maintain, repair and rebuild electric lines on some properties, access roads and tracks are required on or adjacent to the easement area. As required, Electricity Entity is able to construct access tracks, retain the right of use of these tracks and maintain them to a suitable level to permit access for its vehicles. Where gates are installed within the easement area, an Electricity Entity lock may be required to enable continual access along the easement corridor.

In addition, periodic vegetation management works are also undertaken by Electricity Entity to ensure that a specified minimum clearance between vegetation and the electric lines is maintained.

Where possible, property owners will be contacted prior to easement maintenance and vegetation works commencing.

9.1.8 Where consent (Wayleave) to installing Electricity Entity infrastructure has been given

Much of Electricity Entity's above ground electricity network is constructed without easements. Instead, the consent of the owner of the affected land is obtained and the electrical infrastructure is installed. Historically this consent has been in the form of a document known as a Wayleave.

This consent (or Wayleave) is a document evidencing the agreement from a particular owner, but it is not registered on the title of the land like an easement.

Once consent is obtained from an owner, Queensland legislation (the Electricity Act 1994) says that the consent of all future owners to the electrical infrastructure is not required.

Queensland legislation grants Electricity Entity rights to access, maintain, repair and replace electrical assets installed with consent.

9.2. Contact Electricity Entity when planning construction work near electric lines

When planning and before commencement (regardless of whether or not local council approval is required), it is essential to confirm that the proposed construction work (e.g. building, structure, sign, crane, scaffold) does not breach the minimum statutory clearance distances that must be maintained from nearby Electricity Entity overhead or underground electric lines. Refer Electrical Safety Regulation 2013, Schedule 4 and 5 for information on statutory clearance distances that must be complied with.

It is extremely dangerous and potentially life threatening to allow anything to come in close proximity to the conductors of an electric line.

We advise not to build **under** or **near** powerlines or add to a structure under or near powerlines. This can cause exclusion zones to be encroached, which may endanger others now and in the future. Please note obligations under section 30 of the Electrical Safety Act 2002 and sections 68 of the Electrical Safety Regulation 2013.

There is an obligation to notify the Electricity Entity, before any work starts, where work is likely to involve a building or other structure coming within clearance requirements for an overhead or underground electric line.

Where it is necessary for an Electricity Entity to relocate electric lines due to statutory clearance breach caused by work performed nearby, the Electricity Entity may be entitled to recover costs from the PCBU, property owner or occupier who caused the breach. Refer Electrical Safety Regulation 2013, Section 209 Building or adding to structure near electric lines.

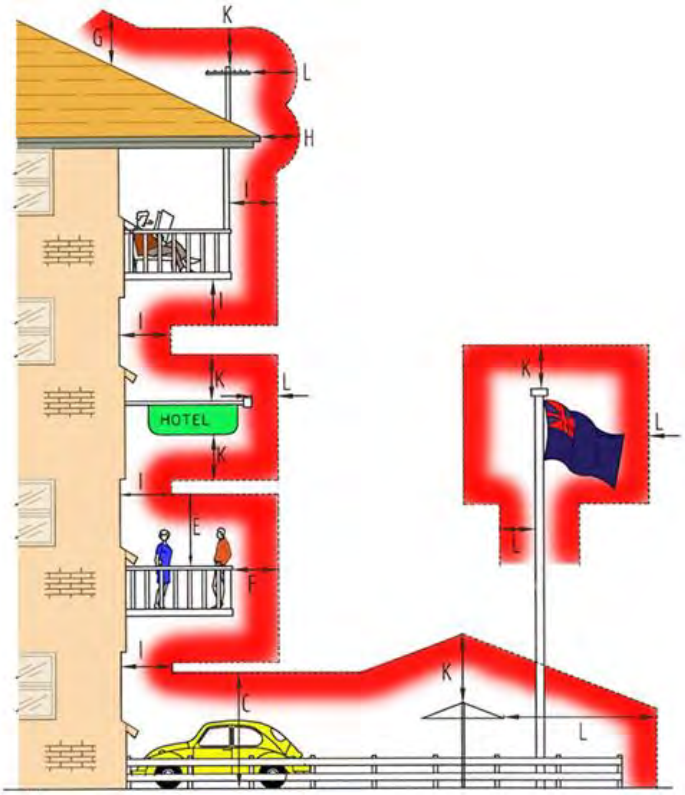
Although it is preferred that the area around Electricity Entity electrical assets (including within an Easement area) is free of development, the following examples provide property owners and occupiers with an indication of what type of development is acceptable and what is not.

NOTE: **Do not assume that your local council approval is sufficient approval for you to proceed with your work. The local council may not check whether or not your proposed construction work will comply with the Electricity Entity's statutory clearance requirements.**

9.3. What clearances must be maintained once construction work is completed?

Electrical Safety Regulation 2013, Schedule 4 - Clearance of overhead electric lines and Schedule 5 - Clearance of low voltage overhead service lines detail the statutory clearances that must be maintained from overhead electric lines for completed buildings and structures. These statutory clearances will need to be taken into consideration during the planning phase of determining the location for a building or structure. The table below sets out the minimum statutory clearances required for voltage levels up to 33 kV. Additional requirements may apply for voltage levels above 33 kV, contact the Electricity Entity for consultation.

Where the Electricity Entity has identified a breach of statutory clearance resulting from erection of a building or structure, the statutory breach will be reportable to the Electrical Safety Office as a Dangerous Electrical Event and any costs incurred in subsequent remedial work to achieve required statutory clearances may be recovered from the person or company who caused the breach of statutory clearance.



CODE	LOCATION	DIRECTION	INSULATED CABLE (ABC) (Note 1)	BARE	MORE THAN 1000 VOLTS BUT NOT MORE THAN 33kV
MINIMUM CLEARANCE FROM ROADS, GROUND, OR BOUNDARIES					
A	Crossing the carriageway, roadway	VERTICALLY	5.5m	5.5m	6.7m
A1	Designated "Over Dimension Routes"	VERTICALLY	7.0m	7.0m	7.5m
B	At other positions, footpath	VERTICALLY	5.5m	5.5m	5.5m
C	Other than roads but trafficable	VERTICALLY	5.5m	5.5m	5.5m
C1	Areas totally inaccessible to traffic or mobile machinery	VERTICALLY	4.5m	4.5m	4.5m
D	Cuttings, embankments, easement boundaries	HORIZONTALLY	1.5m	1.5m	2.1m
X	Real Property Boundaries	HORIZONTALLY	0.0m	0.0m	0.0m
MINIMUM CLEARANCE FROM STRUCTURES AND BUILDINGS					
E F	Unroofed terraces, balconies, sun-decks, paved areas, etc, subject to pedestrian traffic only. A hand rail or wall surrounding such an area and on which a person may stand. (Note)	VERTICALLY AND HORIZONTALLY (Note)	2.7m 1.2m	3.7m 1.5m	4.6m 2.1m
G H	Roofs or similar structures not used for traffic or resort but on which a person may stand. A parapet surrounding such a roof and on which a person may stand. (Note)	VERTICALLY AND HORIZONTALLY (Note)	2.7m 0.9m	3.7m 1.5m	3.7m 2.1m
I	Covered places of traffic or resort such as windows which are capable of being opened, roofed open verandahs and covered balconies.	IN ANY DIRECTION	1.2m	1.5m	2.1m
J	Blank walls, windows which cannot be opened. (Note)	HORIZONTALLY	0.6m	1.5m	1.5m
K L	Other structures not normally accessible to persons. (Note)	VERTICALLY HORIZONTALLY (Note)	0.6m 0.3m	2.7m 1.5m	3.0m 1.5m

NOTE:
The vertical clearance and the horizontal clearance specified shall be maintained.

Electricity Entity Requirements - Working Near Overhead and Underground Electric Lines

The following list of examples is not exhaustive, and it may be necessary to contact the Electricity Entity if doubt exists as to what is permitted around electricity assets.

What is PERMITTED around Electricity Entity overhead or underground electric lines	***What is NOT PERMITTED around Electricity Entity overhead or underground electric lines***
✓ Erection of fences to a maximum height of 2.4 m is generally acceptable, provided they do not affect access to, and work on, the poles, electric lines and/or cables. Trees, shrubs and plants should be located clear of vehicle access. **Note:** Maximum Growth Height of 3 m. ✓ Clothes hoists and barbecues should be located clear of the vehicle access way. **Note:** Maximum Height 2.5 m. ✓ Installation of underground utility services, such as low voltage electricity, gas, telephone and water, is generally acceptable, subject to clearances from Electricity Entity poles and supporting structures, and underground electric mains. ✓ Excavating, filling and altering of nearby land may be acceptable but full details need to be provided to the Electricity Entity for assessment. ✓ Vehicles, mobile plant and equipment within the easement area need to maintain the minimum statutory clearances distances from overhead electric lines. Normal farming, grazing and other agricultural activities can be carried out. Take care when ploughing or operating mobile machinery or irrigation equipment near Electricity Entity's equipment. ✓ Parking of vehicles, trucks, trailers, etc. is normally allowed. **Note:** Maximum Load and Aerial Height of 4 m. Barriers of an approved design (e.g. bollards) may be required to protect poles from vehicle contact damage. Heavy vehicle or operating plant crossings may need a protective concrete cover to ensure underground cables are not damaged.	✗ Build houses, sheds, garages or other large structures. Building of roofed/ unroofed verandas, swimming pools and pergolas are generally not acceptable. ✗ Flying kites or model aircraft within the easement. ✗ Driving fence posts or stakes into ground within easements where there is underground cabling. ✗ Storing liquids such as petrol, diesel fuel, or any flammable or combustible material that will burn. ✗ Installing lighting poles. ✗ Stockpiling soil or garbage within the easement. ✗ Planting trees in large quantities that could create a fire hazard or that grow in excess of the approved maximum height of 3 m. ✗ Storing or using explosives. ✗ Residing in or occupying any caravan or mobile home within an easement. ✗ Placing obstructions within the vicinity of any Electricity Entity assets (e.g. power pole, overhead electric line, equipment or pole stay) that impede access to or work on these assets.

9.4. What about Electric and Magnetic Fields?

The Electricity Entity operates its electric lines within the current guidelines set by the National Health and Medical Research Council for exposure to 50/60 hertz electric and magnetic fields (EMF) and is mindful of some community concern about such fields and health. Contact the Electricity Entity (General Enquiries phone number - refer page 3). Alternatively, further information can be sourced from:

Energy Networks Association (ENA) brochure - "Electric and Magnetic Fields - What We Know", January 2014

http://www.ena.asn.au/sites/default/files/emf-what-we-know-jan-2014-final_1_1.pdf

Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) brochure - "Electricity and Health", May 2011

http://www.arpansa.gov.au/RadiationProtection/Factsheets/is_electricity.cfm

Referral
276880626

Member Phone
1800 687 626

Responses from this member

Response received Wed 29 Jul 2026 9.11am

File name	Page
Response Body	68
276880626_20260728_231029486444_1.pdf	69
4678_NBN_Dial_Before_You_Dig_Poster_20170517.pdf	73
Disclaimer_276880626_20260728_231029486444.pdf	75

Hi Drew Tierney,

Please find attached the response to your DBYD referral for the address mentioned in the subject line.
The location shown in our DBYD response is assumed based off the information you have provided. If the location shown is different to the location of the excavation then this response will consequently be rendered invalid.
Take the time to read the response carefully and note that this information is only valid for 28 days after the date of issue.
If you have any further enquiries, please do not hesitate to contact us.

Regards,
Network Services and Operations
NBN Co Limited
P: 1800626329
E: dbyd@nbnco.com.au
www.nbnco.com.au

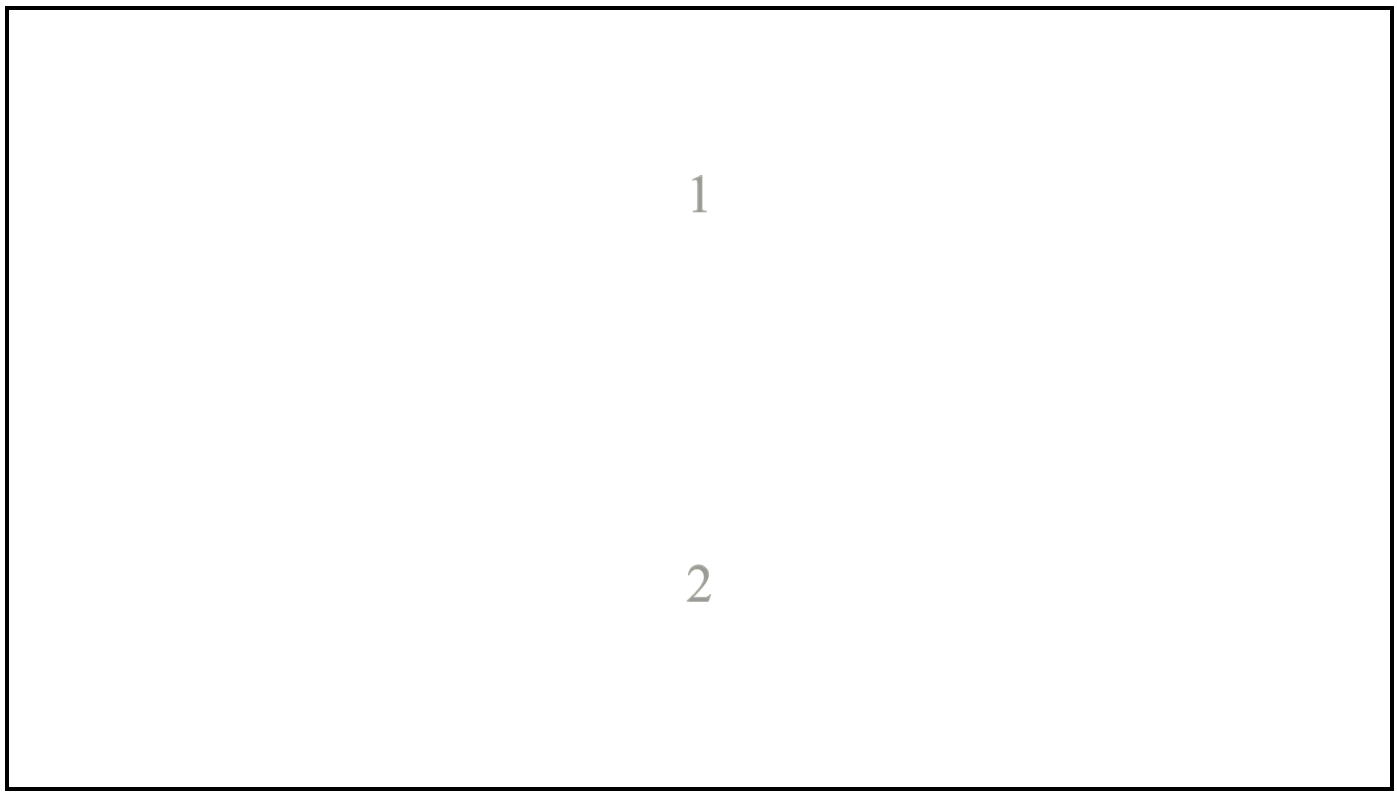
Confidentiality and Privilege Notice
This e-mail is intended only to be read or used by the addressee. It is confidential and may contain legally privileged information. If you are not the addressee indicated in this message (or responsible for delivery of the message to such person), you may not copy or deliver this message to anyone, and you should destroy this message and kindly notify the sender by reply e-mail. Confidentiality and legal privilege are not waived or lost by reason of mistaken delivery to you. Any views expressed in this message are those of the individual sender, except where the sender specifically states them to be the views of NBN Co Limited

Please Do Not Reply To This Mail

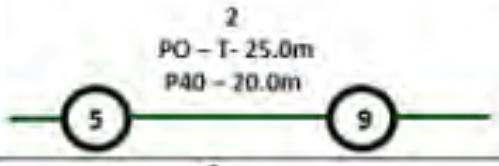
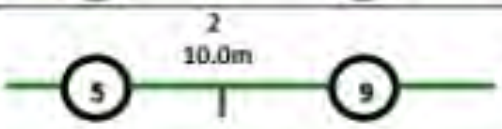
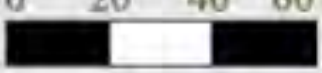
To:	Drew Tierney
Phone:	Not Supplied
Fax:	Not Supplied
Email:	drew.tierney@contexteng.com.au

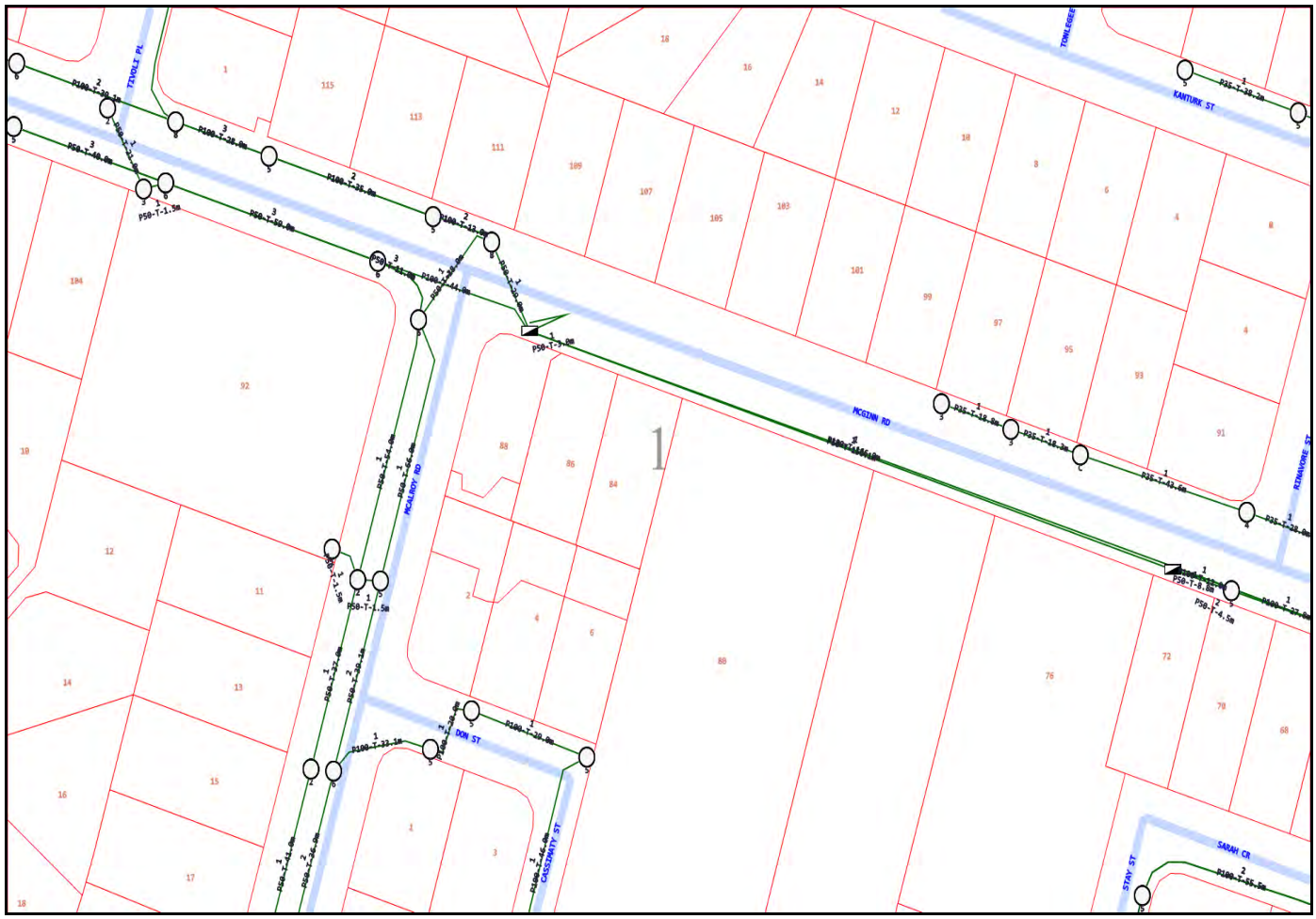
Dial before you dig Job #:	53817382
Sequence #	276880626
Issue Date:	28/07/2026
Location:	80 McGinn Rd , Ferny Grove , QLD , 4055

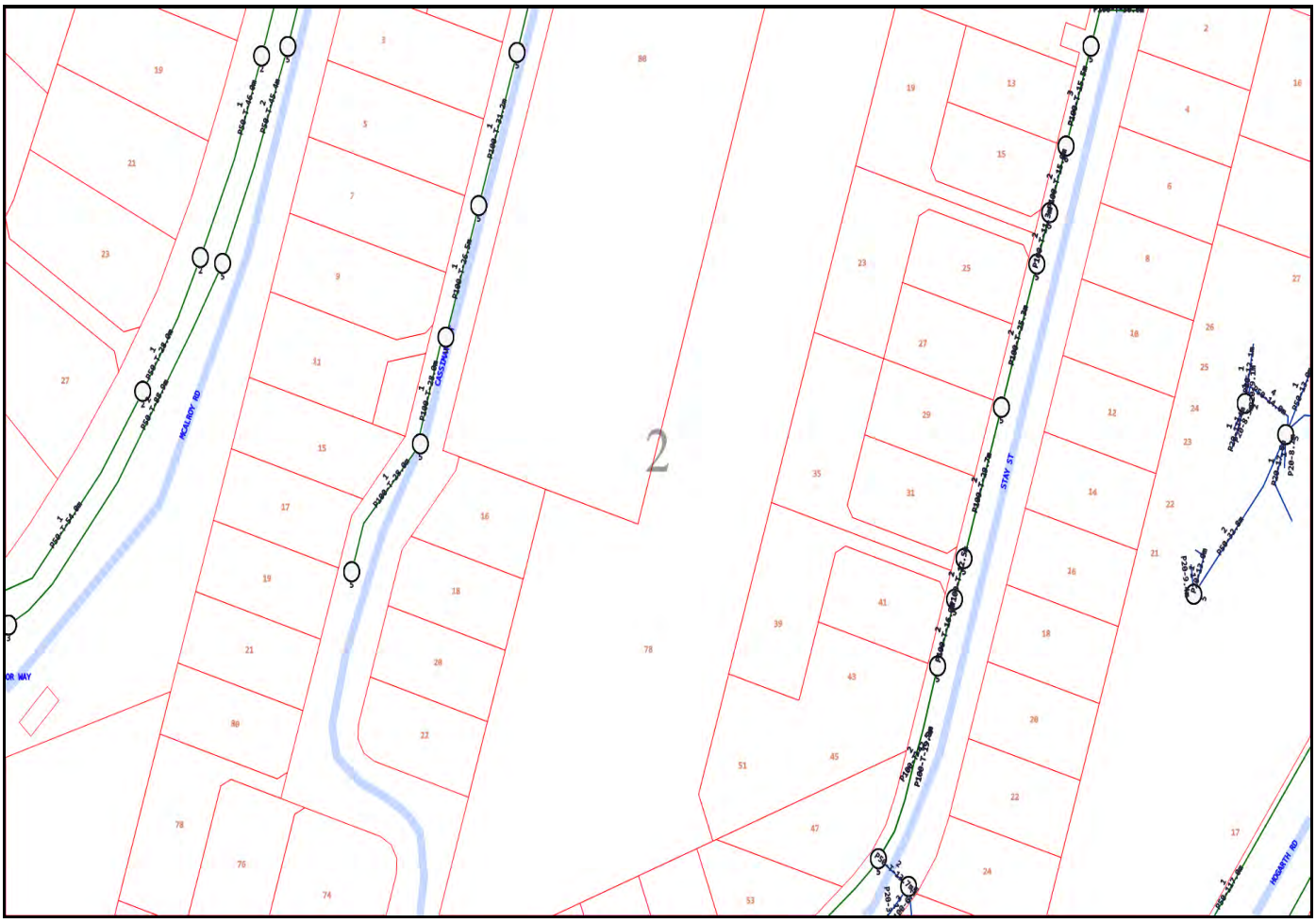
Indicative Plans are tiled below to demonstrate how to layout and read nbn asset plans



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	 1:2000 1 cm equals 20 m


TIVOLI PL
TONLEGEE
KANTURK ST
MCGINN RD
MCALROY RD
RINAVORE ST
DON ST
CASSIMATY ST
SARAH CR
STAY ST
1



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.



Working near nbn™ cables

nbn has partnered with Dial Before You Dig to give you a single point of contact to get information about **nbn** underground services owned by **nbn** and other utility/service providers in your area including communications, electricity, gas and other services. Contact with underground power cables and gas services can result in serious injury to the worker, and damage and costly repairs. You must familiarise yourself with all of the Referral Conditions (meaning the referral conditions referred to in the DBYD Notice provided by **nbn**).

Practice safe work habits

Once the DBYD plans are reviewed, the Five P's of Excavation should be adopted in conjunction with your safe work practices (which must be compliant with the relevant state Electrical Safety Act and Safe Work Australia "Excavation Work Code of Practice", as a minimum) to ensure the risk of any contact with underground **nbn** assets are minimised.

Plan: Plan your job by ensuring the plans received are current and apply to the work to be performed. Also check for any visual cues that may indicate the presence of services not covered in the DBYD plans.

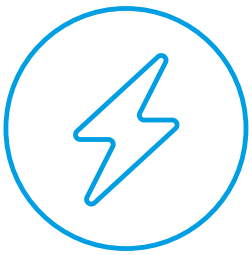
Prepare: Prepare for your job by engaging a DBYD Certified Plant Locator to help interpret plans and identify on-site assets. Contact **nbn** should you require further assistance.

Pothole: Non-destructive potholing (i.e. hand digging or hydro excavation) should be used to positively locate **nbn** underground assets with minimal risk of contact and service damage.

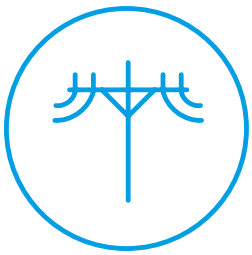
Protect: Protecting and supporting the exposed **nbn** underground asset is the responsibility of the worker. Exclusion zones for **nbn** assets are clearly stated in the plan and appropriate controls must be implemented to ensure that encroachment into the exclusion zone by machinery or activities with the potential to damage the asset is prevented.

Proceed: Proceed only when the appropriate planning, preparation, potholing and protective measures are in place.

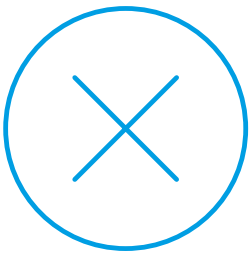
Working near nbn™ cables



Identify all electrical hazards, assess the risks and establish control measures.



When using excavators and other machinery, also check the location of overhead power lines.



Workers and equipment must maintain safety exclusion zones around power lines.

Once all work is completed, the excavation should be re-instated with the same type of excavated material unless specified by **nbn**. Please note:

- Construction Partners of **nbn** may require additional controls to be in place when performing excavation activities.
- The information contained within this pamphlet must be used in conjunction with other material supplied as part of this request for information to adequately control the risk of potential asset damage.

Contact

All nbn™ network facility damages must be reported online here.
For enquiries related to your DBYD request please call 1800 626 329.

Disclaimer

This brochure is a guide only. It does not address all the matters you need to consider when working near our cables. You must familiarise yourself with other material provided (including the Referral Conditions) and make your own inquiries as appropriate.

nbn will not be liable or responsible for any loss, damage or costs incurred as a result of reliance on this brochure.

This document is provided for information purposes only. This document is subject to the information classification set out on this page. If no information classification has been included, this document must be treated as UNCLASSIFIED, SENSITIVE and must not be disclosed other than with the consent of nbn co. The recipient (including third parties) must make and rely on their own inquiries as to the currency, accuracy and completeness of the information contained herein and must not use this document other than with the consent of nbn co. Copyright © 2021 nbn co limited. All rights reserved.

DIAL BEFORE YOU DIG
www.1100.com.au

To:	Drew Tierney
Phone:	Not Supplied
Fax:	Not Supplied
Email:	drew.tierney@contexteng.com.au

Before You Dig Australia Job #:	53817382	
Sequence #	276880626	
Issue Date:	28/07/2026	
Location:	80 McGinn Rd , Ferny Grove , QLD , 4055	

Information

The area of interest requested by you contains one or more assets.

nbn™ Assets	Search Results
Communications	Asset identified
Electricity	No assets

In this notice **nbn™ Facilities** means *underground fibre optic, telecommunications and/or power facilities, including but not limited to cables, owned and controlled by* ***nbn™***

Location of **nbn™** Underground Assets

We thank you for your enquiry. In relation to your enquiry at the above address:

- **nbn's** records indicate that there **ARE nbn™** Facilities in the vicinity of the location identified above ("Location").
- **nbn** indicative plan/s are attached with this notice ("Indicative Plans").
- The Indicative Plan/s show general depth and alignment information only and are not an exact, scale or accurate depiction of the location, depth and alignment of **nbn™** Facilities shown on the Plan/s.
- In particular, the fact that the Indicative Plans show that a facility is installed in a straight line, or at uniform depth along its length cannot be relied upon as evidence that the facility is, in fact, installed in a straight line or at uniform depth.
- You should read the Indicative Plans in conjunction with this notice and in particular, the notes below.
- You should note that, at the present time, the Indicative Plans are likely to be more accurate in showing location of fibre optics and telecommunications cables than power cables. There may be a variation between the line depicted on the Indicative Plans and the location of any power cables. As such, consistent with the notes below, particular care must be taken by you to make your own enquiries and investigations to precisely locate any power cables and manage the risk arising from such cables accordingly.
- The information contained in the Indicative Plan/s is valid for 28 days from the date of issue set out above.You are expected to make your own inquiries and perform your own investigations (including engaging appropriately qualified plant locators, e.g BYDA Certified Locators, at your cost to locate **nbn™** Facilities during any activities you carry out on site).

We thank you for your enquiry and appreciate your continued use of the Before You Dig Australia Service. For any enquiries related to moving assets or Planning and Design activities, please visit the **nbn** Commercial Works website to complete the online application form. If you are planning to excavate and require further information, please email dbyd@nbnco.com.au or call 1800 626 329.

Notes:

1. You are now aware that there are **nbn™** Facilities in the vicinity of the above property that could be damaged as a result activities carried out (or proposed to be carried out) by you in the vicinity of the Location.
2. You should have regard to section 474.6 and 474.7 of the *Criminal Code Act 1995* (CoA) which deals with the consequences of interfering or tampering with a telecommunications facility. Only persons authorised by **nbn** can interact with **nbn's** network facilities.
3. Any information provided is valid only for **28 days** from the date of issue set out above.

Referral Conditions

The following are conditions on which **nbn** provides you with the Indicative Plans. By accepting the plans,you are agreeing to these conditions. These conditions are in addition, and not in replacement of, any duties and obligations you have under applicable law.

1. **nbn** does not accept any responsibility for any inaccuracies of its plans including the Indicative Plans. You are expected to make your own inquiries and perform your own investigations (including engaging appropriately qualified plant locators, e.g BYDA Certified Locators, at your cost to locate **nbn™** Facilities during any activities you carry out on site).
2. You acknowledge that **nbn** has specifically notified you above that the Indicative Plans are likely to be more accurate in showing location of fibre optics and telecommunications cables than power cables. There may be a variation between the line depicted on the Indicative Plans and the location of any power cables.
3. You should not assume that **nbn™** Facilities follow straight lines or are installed at uniformed depths

along their lengths, even if they are indicated on plans provided to you. Careful onsite investigations are essential to locate the exact position of cables.

4. In carrying out any works in the vicinity of **nbn™** Facilities, you must maintain the following minimum clearances:
   - 300mm when laying assets inline, horizontally or vertically.
   - 500mm when operating vibrating equipment, for example: jackhammers or vibrating plates.
   - 1000mm when operating mechanical excavators.
   - Adherence to clearances as directed by other asset owner's instructions and take into account any uncertainty for power cables.
5. You are aware that there are inherent risks and dangers associated with carrying out work in the vicinity of underground facilities (such as **nbn™** fibre optic,copper and coaxial cables,and power cable feed to **nbn™** assets).Damage to underground electric cables may result in:
   - Injury from electric shock or severe burns, with the possibility of death.
   - Interruption of the electricity supply to wide areas of the city.
   - Damage to your excavating plant.
   - Responsibility for the cost of repairs.
6. You must take all reasonable precautions to avoid damaging **nbn™** Facilities. These precautions may include but not limited to the following:
   - All excavation sites should be examined for underground cables by careful hand excavation. Cable cover slabs if present must not be disturbed. Hand excavation needs to be undertaken with extreme care to minimise the likelihood of damage to the cable, for example: the blades of hand equipment should be aligned parallel to the line of the cable rather than digging across the cable.
   - If any undisclosed underground cables are located, notify **nbn** immediately.
   - All personnel must be properly briefed, particularly those associated with the use of earth-moving equipment, trenching, boring and pneumatic equipment.
   - The safety of the public and other workers must be ensured.
   - All excavations must be undertaken in accordance with all relevant legislation and regulations.
7. You will be responsible for all damage to **nbn™** Facilities that are connected whether directly, or indirectly with work you carry out (or work that is carried out for you or on your behalf) at the Location. This will include, without limitation, all losses expenses incurred by **nbn** as a result of any such damage.
8. You must immediately report any damage to the **nbn™** network that you are/become aware of. Notification may be by telephone - 1800 626 329.
9. Except to the extent that liability may not be capable of lawful exclusion, **nbn** and its servants and agents and the related bodies corporate of **nbn** and their servants and agents shall be under no liability whatsoever to any person for any loss or damage (including indirect or consequential loss or damage) however caused (including, without limitation, breach of contract negligence and/or breach of statute) which may be suffered or incurred from or in connection with this information sheet or any plans(including Indicative Plans) attached hereto. Except as expressly provided to the contrary in this information sheet or the attached plans(including Indicative Plans), all terms, conditions, warranties, undertakings or representations (whether expressed or implied) are excluded to the fullest extent permitted by law.

All works undertaken shall be in accordance with all relevant legislations, acts and regulations applicable to the particular state or territory of the Location. The following table lists all relevant documents that shall be considered and adhered to.

State/Territory	Documents
National	Work Health and Safety Act 2011
	Work Health and Safety Regulations 2011
	Safe Work Australia - Working in the Vicinity of Overhead and Underground Electric Lines (Draft)

	Occupational Health and Safety Act 1991
NSW	Electricity Supply Act 1995
	Work Cover NSW - Work Near Underground Assets Guide
	Work Cover NSW - Excavation Work: Code of Practice
VIC	Electricity Safety Act 1998
	Electricity Safety (Network Asset) Regulations 1999
QLD	Electrical Safety Act 2002
	Code of Practice for Working Near Exposed Live Parts
SA	Electricity Act 1996
TAS	Tasmanian Electricity Supply Industry Act 1995
WA	Electricity Act 1945
	Electricity Regulations 1947
NT	Electricity Reform Act 2005
	Electricity Reform (Safety and Technical) Regulations 2005
ACT	Electricity Act 1971

Thank You,

nbn BYDA

Date: 28/07/2026

This document is provided for information purposes only. This document is subject to the information classification set out on this page. If no information classification has been included, this document must be treated as UNCLASSIFIED, SENSITIVE and must not be disclosed other than with the consent of nbn co. The recipient (including third parties) must make and rely on their own inquiries as to the currency, accuracy and completeness of the information contained herein and must not use this document other than with the consent of nbn co.

Copyright © 2021 nbn co Limited. All rights reserved.

Queensland Urban Utilities

Referral
276880628

Member Phone
13 26 57

Responses from this member

Response received Wed 29 Jul 2026 9.09am

File name	Page
Response Body	80
276880628 - Urban Utilities Plan.pdf	82
Urban Utilities Important Information.pdf	85

GPO Box 2765
Brisbane QLD 4001

Date: 29 Jul 2026

Before You Dig Australia Response

Please DO NOT SEND A REPLY to this email as it has been automatically generated and replies are not monitored.

Dear Drew Tierney

We appreciate your diligence in contacting the Before You Dig Australia service (**BYDA**) prior to engaging in work or activities which may affect the water and sewerage infrastructure of Urban Utilities.

Job Number:	53817382
Sequence Number:	276880628
Enquiry Date:	29/7/2026 9:08:00 am
Enquiry Location:	80 McGinn Rd Ferny Grove QLD 4055

WARNING: When working in the vicinity of Urban Utilities' assets you have a legal *Duty of Care* that must be observed.

Our records indicate the presence of infrastructure owned by Urban Utilities within your nominated search area, as shown on the attached plan.

Please note that you may be liable for any loss or damage to our infrastructure which is caused by any works or activities which you undertake over or near such infrastructure. Additionally, your works or activities may conflict with other works scheduled in your nominated search area. To avoid any unnecessary impacts, before any undertaking you must obtain the following approvals:

- And/or a Urban Utilities Network Access Permit for self assessable works or activities that are within two metres of our infrastructure (refer to Urban Utilities Network Access Permit Webpage)
- Either a Build Over Asset (BOA) Approval for assessable building works undertaken within specified distances of our infrastructure (refer to DHPW BOA Factsheet)

We have provided additional information about your responsibilities in relation to our infrastructure in the Important Information sheet attached to this letter. By accessing BYDA to obtain our records about our infrastructure, you warrant that you have read the sheet and agree to the terms and conditions set out therein.

For further enquiries or assistance with interpretation of plans and search content please contact our BYDA Support Team by email networkaccess@urbanutilties.com.au. Alternatively, you can write to us at Urban Utilities, PO Box 2765, Brisbane QLD 4001.

Thank you for taking the time to consult the BYDA service.

Yours sincerely

Before You Dig Australia Support Team
Urban Utilities
networkaccess@urbanutilties.com.au

To best manage the risk of damage and liabilitiy, we recommend that you engage the services of a BYDA Certified Locator

---

Important Notice

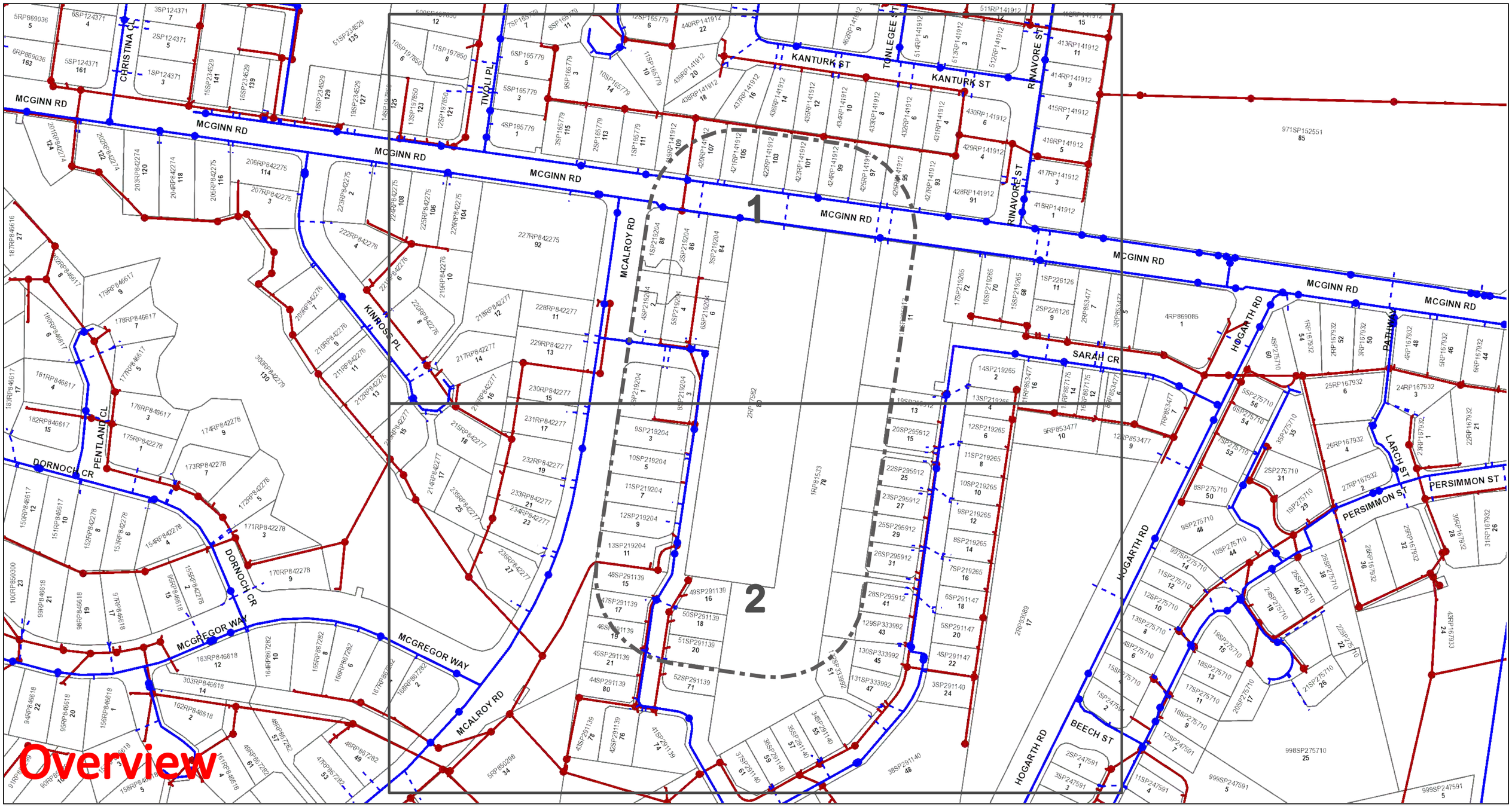
This enquiry response, including any associated documentation, has been assessed and compiled from the information detailed within the BYDA enquiry outlined above. **Please ensure that the BYDA enquiry details and this response accurately reflect your proposed works.**

This response is intended for use only by the addressee. If you have received the enquiry response in error, please let us know by telephone and delete all copies; you are advised that copying, distributing, disclosing or otherwise acting in reliance on the response is expressly prohibited.

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

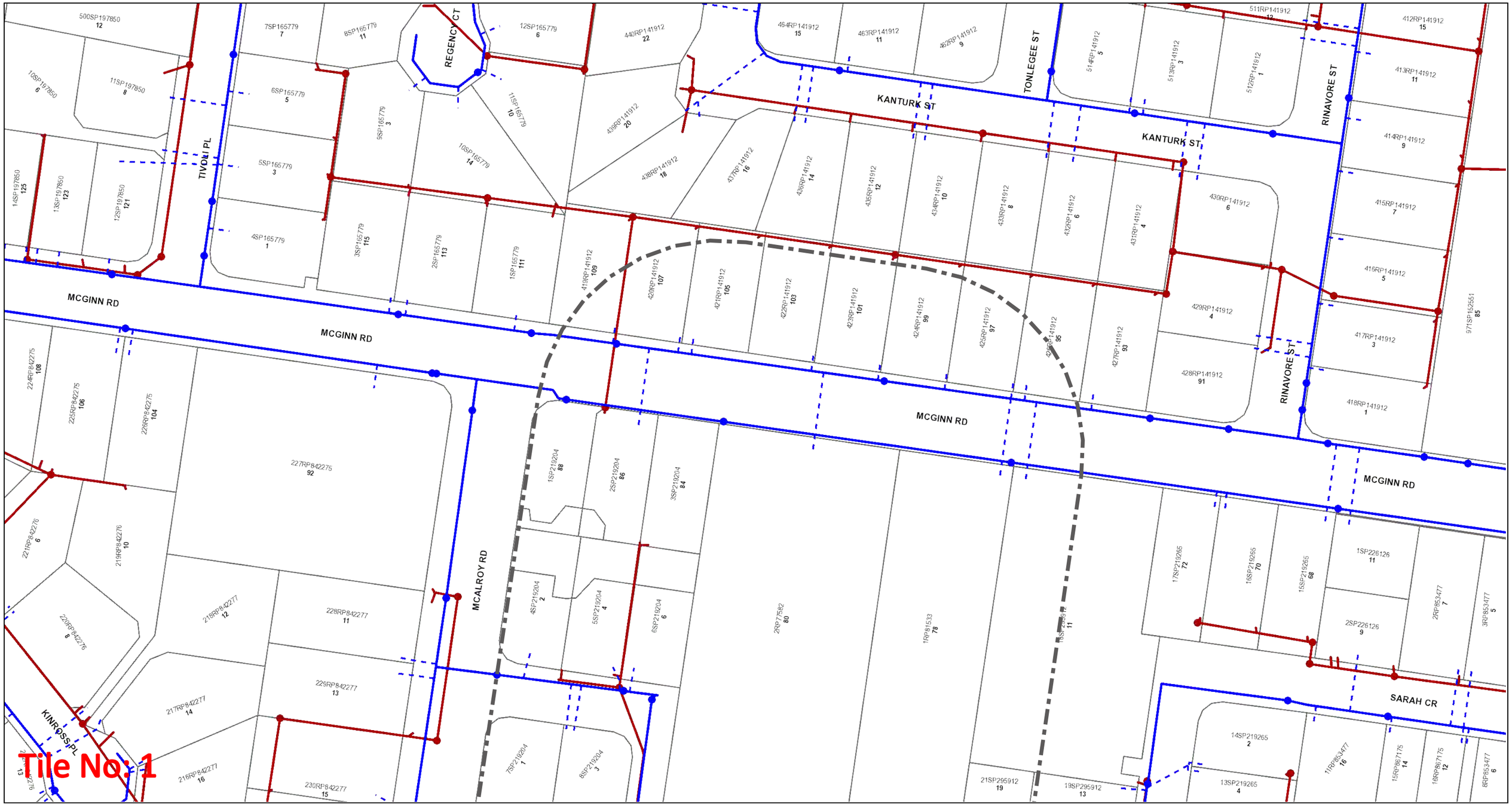
If you are unable to launch any of the files for viewing and printing, you may need to download and install free viewing and printing software such as Adobe Acrobat Reader (for PDF files)

Urban Utilities - Water, Recycled Water and Sewer Infrastructure



UrbanUtilities N Map Scale 1:2050	**Before You Dig Australia- Urban Utilities Water, Recycled Water and Sewer Infrastructure** **BYDA Reference No: 276880628** Date BYDA Ref Received: 29/07/2026 Date BYDA Job to Commence: 05/08/2026 Date BYDA Map Produced: 29/07/2026 This Map is valid for 30 days Produced By: Urban Utilities	**Sewer** Infrastructure Major Infrastructure Network Pipelines Network Structures **Water** Infrastructure Major Infrastructure Network Pipelines Network Structures Water Service (Indicative only) **Recycled Water** Infrastructure Major Infrastructure Network Pipelines Network Structures	While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither Urban Utilities nor PelicanCorp shall have any liability whatsoever in relation to any loss, damage, cost or expense arising from the use of this plan response or the information contained in it or the completeness or accuracy of such information. Use of such information is subject to and constitutes acceptance of these terms. The plans are indicative and approximate only and provided without warranties of any kind, express or implied including in relation to accuracy, completeness, correctness, currency or fitness for purpose. Urban Utilities takes no responsibility and accepts no liability for any loss, damage, costs or liability that may be incurred by any person acting in reliance on the information provided on the plans. This plan should be used as guide only. Any dimensions should be confirmed on site by the relevant authority. Based on or contains data provided by the State of Queensland (Department of Natural Resources and Mines) [2020]. In consideration of the State permitting the use of this data you acknowledge and agree that the State gives no warranty in relation to the data (including accuracy, liability in negligence) for any loss, damage or costs (including consequential damage) relating to any use of the data. Data must not be used for direct marketing or be used in breach of the privacy laws. © State of Queensland Department of Natural Resources and Mines [2020] For further information, please call Urban Utilities on 13 26 57 (8am-6pm weekdays). Faults and emergencies 13 23 64 (24/7). www.urbanutilities.com.au ABN 86 673 835 011

Urban Utilities - Water, Recycled Water and Sewer Infrastructure



UrbanUtilities

N

Map Scale
1:1000

Before You Dig Australia- Urban Utilities Water, Recycled Water and Sewer Infrastructure

BYDA Reference No: 276880628

Date BYDA Ref Received: 29/07/2026

Date BYDA Job to Commence: 05/08/2026

Date BYDA Map Produced: 29/07/2026

This Map is valid for 30 days

Produced By: Urban Utilities

Sewer	Water	Recycled Water
Infrastructure	Infrastructure	Infrastructure
Major Infrastructure	Major Infrastructure	Major Infrastructure
Network Pipelines	Network Pipelines	Network Pipelines
Network Structures	Network Structures	Network Structures
	Water Service (Indicative only)	

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

The plans are indicative and approximate only and provided without warranties of any kind, express or implied including in relation to accuracy, completeness, correctness, currency or fitness for purpose.

Urban Utilities takes no responsibility and accepts no liability for any loss, damage, costs or liability that may be incurred by any person acting in reliance on the information provided on the plans.

This plan should be used as guide only. Any dimensions should be confirmed on site by the relevant authority.

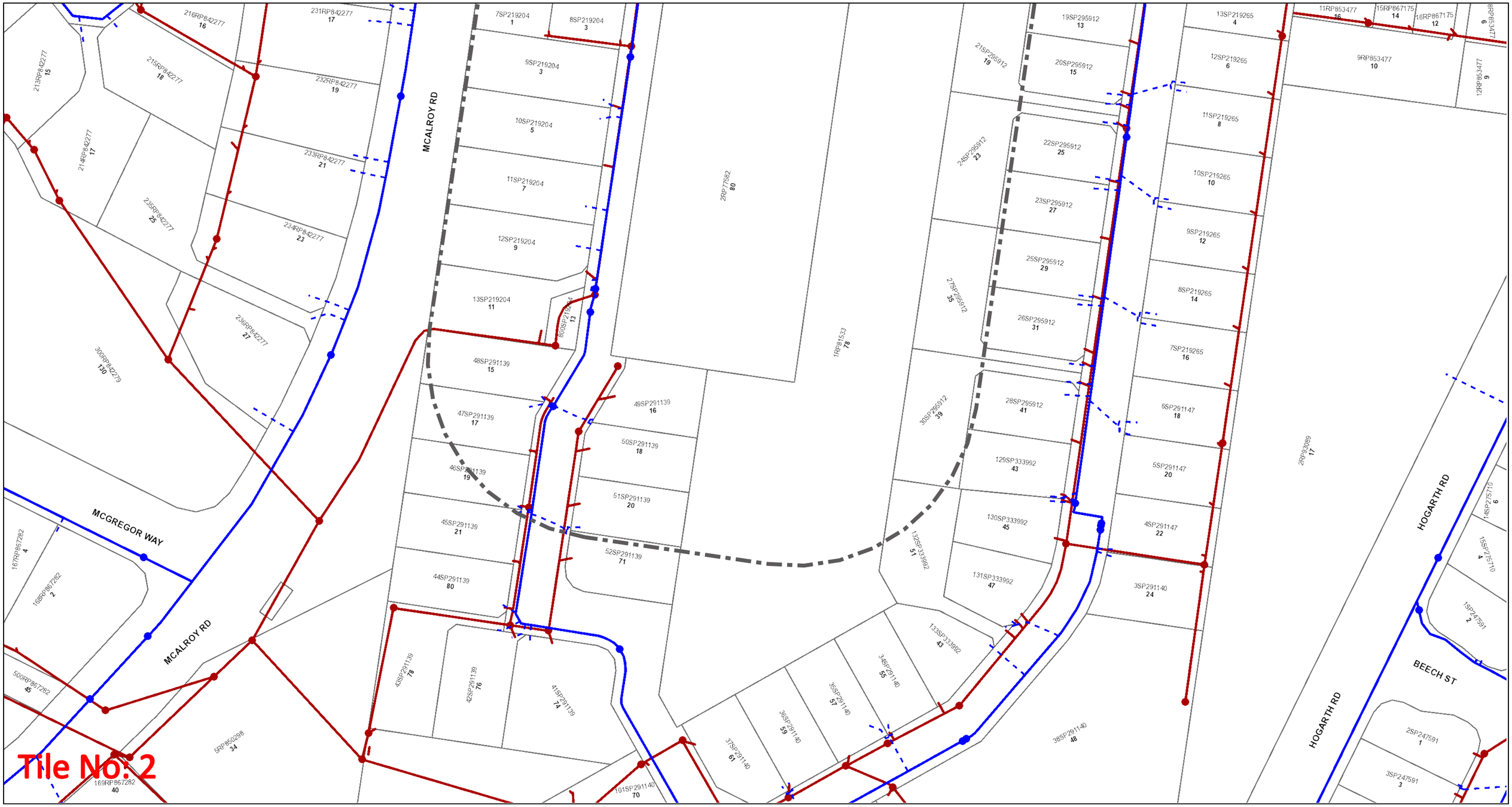
Based on or contains data provided by the State of Queensland (Department of Natural Resources and Mines) [2020]. In consideration of the State permitting the use of this data you acknowledge and agree that the State gives no warranty in relation to the data (including accuracy, liability in negligence) for any loss, damage or costs (including consequential damage) relating to any use of the data. Data must not be used for direct marketing or be used in breach of the privacy laws. © State of Queensland Department of Natural Resources and Mines [2020]

For further information, please call Urban Utilities on 13 26 57 (8am-6pm weekdays). Faults and emergencies 13 23 64 (24/7).

www.urbanutilities.com.au

ABN 86 673 835 011

Urban Utilities - Water, Recycled Water and Sewer Infrastructure



UrbanUtilities

N

Map Scale
1:1000

Before You Dig Australia- Urban Utilities Water, Recycled Water and Sewer Infrastructure

BYDA Reference No: 276880628

Date BYDA Ref Received: 29/07/2026

Date BYDA Job to Commence: 05/08/2026

Date BYDA Map Produced: 29/07/2026

This Map is valid for 30 days

Produced By: Urban Utilities

Sewer	Water	Recycled Water
Infrastructure	Infrastructure	Infrastructure
Major Infrastructure	Major Infrastructure	Major Infrastructure
Network Pipelines	Network Pipelines	Network Pipelines
Network Structures	Network Structures	Network Structures
	Water Service (Indicative only)	

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

The plans are indicative and approximate only and provided without warranties of any kind, express or implied including in relation to accuracy, completeness, correctness, currency or fitness for purpose.

Urban Utilities takes no responsibility and accepts no liability for any loss, damage, costs or liability that may be incurred by any person acting in reliance on the information provided on the plans.

This plan should be used as guide only. Any dimensions should be confirmed on site by the relevant authority.

Based on or contains data provided by the State of Queensland (Department of Natural Resources and Mines) [2020]. In consideration of the State permitting the use of this data you acknowledge and agree that the State gives no warranty in relation to the data (including accuracy, liability in negligence) for any loss, damage or costs (including consequential damage) relating to any use of the data. Data must not be used for direct marketing or be used in breach of the privacy laws. © State of Queensland Department of Natural Resources and Mines [2020]

For further information, please call Urban Utilities on 13 26 57 (8am-6pm weekdays). Faults and emergencies 13 23 64 (24/7).

www.urbanutilities.com.au ABN 86 673 835 011

GPO Box 2765
Brisbane QLD 4001

Important Information

Disclaimer

All Urban Utilities' records, data and information supplied via BYDA ("**Data**") is **indicative** only. You agree that any Data supplied to you has been or will be provided only for your convenience and has not been and will not be relied upon by you for any purpose.

You also agree that Urban Utilities does not assume any responsibility or duty of care in respect of, or warrant, guarantee or make any representation as to the Data (including its accuracy, reliability, currency or suitability).

Because the location of Urban Utilities' infrastructure shown on the Data is approximate only, you must first physically locate the infrastructure by utilising relevant site detection methodologies prior to performing any works or undertaking any activities near or adjacent to infrastructure. Possible site detection methodologies include hand digging, potholing, trenching and/or probing. You are solely responsible for the selection of appropriate site detection methodologies at all times.

To the fullest extent permitted by law, Urban Utilities will not be liable to you in contract, tort, equity, under statute or otherwise arising from or in connection with the provision of any Data to you via BYDA.

Compliance with laws

There may be both indicated and unmarked hazards, dangers or encumbrances, including underground asbestos pipes and abandoned mains within your nominated search area. You are solely responsible for ensuring that appropriate care is taken at all times and that you comply with all mandatory requirements relating to such matters, including in relation to workplace health and safety.

Damaged Infrastructure

Please note that it is an offence under Section 192 of the *Water Supply (Safety and Reliability) Act 2008* to interfere with our infrastructure without Urban Utilities' written consent.

You may be liable to Urban Utilities for any loss of or damage to our infrastructure, together with any consequential or indirect loss or damage (including without limitation, loss of use, loss of profits or loss of revenue) arising from or in connection with any interference with Urban Utilities' infrastructure by you or any other person for which you are legally responsible.

Any damage to Urban Utilities' Infrastructure must be reported immediately to the (24 Hours) Faults and Emergencies Team on 13 23 64.

Links

Technical Standards: https://urbanutilities.com.au/development/help-and-advice/standards-and-guidelines

Copyright

All Data is copyright.

Telstra QLD South East

Referral
276880630

Member Phone
1800 653 935

Responses from this member

Response received Wed 29 Jul 2026 9.14am

File name	Page
Response Body	87
276880630.pdf	89
AccreditedPlantLocators 2026-07-20a.pdf	91
Telstra Duty of Care v32.0c.pdf	92
Telstra Map Legend v4_0c.pdf	94

Attention: Drew Tierney

Site Location: 80 McGinn Rd, Ferny Grove, QLD 4055

Your Job Reference: 80 McGinn Rd

Please do not reply to this email, this is an automated message -

Thank you for requesting Telstra information via Before You Dig Australia (BYDA).

This response contains Telstra information relating to your recent BYDA request.

Please refer to all enclosed attachments for more information.
Information for opening Telstra Asset Plans as well as some other useful contact information is noted in the attached documents.

Report Damage to Telstra Equipment: Report damages to Telstra equipment - Telstra

Please note:
When working in the vicinity of telecommunications plant you have a 'Duty of Care' that must be observed.
Ensure you read all documents (attached) - they contain important information.
Please also refer to the **Before you Dig Australia - BEST PRACTISE GUIDES and The five Ps of safe excavation** https://www.byda.com.au/before-you-dig/best-practice-guides/, The essential steps that must be undertaken prior to commencing construction activities.

WARNING - MAJOR CABLES and/or OPTIC FIBRE IN THE AREA.
Phone 1800 653 935 for further assistance.

Note: In some areas Telstra fibre routes may be marked as "Amcom", as Telstra has purchased much of this infrastructure. If in doubt, please contact Telstra Plan services on the number above. Telstra plans and information are only valid for 60 days from the date of issue.

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 them. 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 assets prior to commencing work. A Certified Locating Organisation is an essential part of the process to validate the exact location of Telstra assets and to ensure the assets are protected during construction works. See the **Before You Dig Australia - BEST PRACTISE GUIDES and The five Ps of safe excavation** https://www.byda.com.au/before-you-dig/best-practice-guides/.

Please note that:
- it is a criminal offence under the *Criminal Code Act* 1995 (Cth) to tamper or interfere with telecommunications infrastructure.
- Telstra will take action to recover compensation for damage caused to property and assets, and for interference with the operation of Telstra's networks and customers' services.

Telstra's plans contain Telstra's confidential information and are provided on the basis that they are used solely for identifying the location or vicinity of Telstra's infrastructure to avoid damage to this infrastructure occurring as part of any digging or other excavation activity. You must not use Telstra's plans for any other purpose or in a way that will cause Telstra loss or damage and you must comply with any other terms of access to the data that have been provided to you by Telstra (including Conditions of Use or Access).

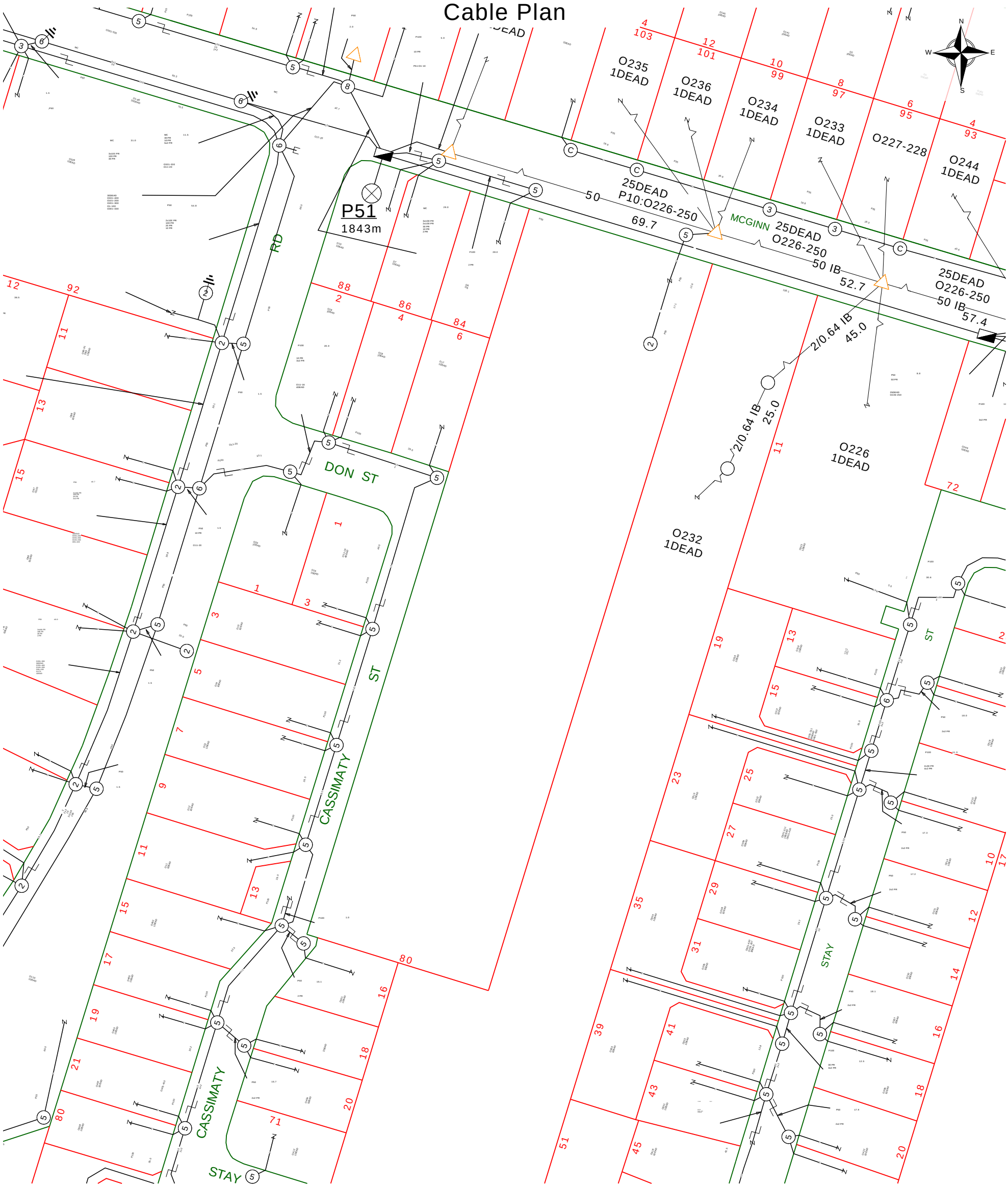
(See attached file: Telstra Duty of Care v32.0c.pdf)

(See attached file: Telstra Map Legend v4_0c.pdf)

(See attached file: AccreditedPlantLocators 2026-07-20a.pdf)

(See attached file: 276880630.pdf)

Cable Plan



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

TELSTRA LIMITED A.C.N. 086 174 781

Generated On 29/07/2026 09:13:25

Sequence Number: 276880630

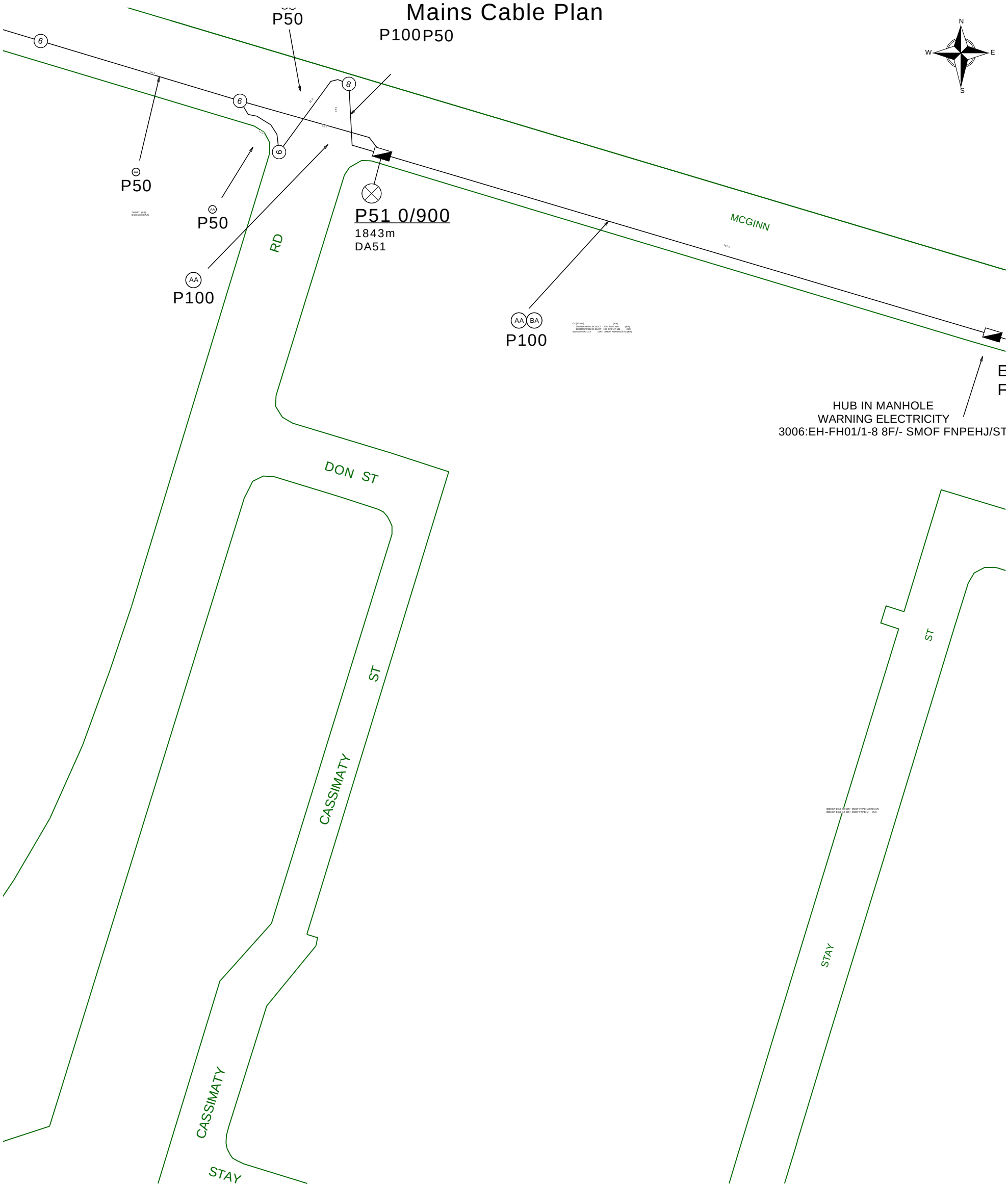
CAUTION: Fibre optic and/ or major network present in plot area. Please read the Duty of Care and contact InfraCo Plan Services should you require any assistance.

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

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

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

Mains Cable Plan



Report Damage:https://service.telstra.com.au/customer/general/forms/report-damage-to-telstra-c Ph - 13 22 03 Email - Telstra.Plans@team.telstra.com Planned Services - ph 1800 653 935 (AEST bus hrs only) General Enquiries	Sequence Number: 276880630
TELSTRA LIMITED A.C.N. 086 174 781	CAUTION: Fibre optic and/ or major network present in plot area. Please read the Duty of Care and contact InfraCo Plan Services should you require any assistance.
Generated On 29/07/2026 09:13:28	

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

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

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

General Information

Telstra highly recommends using Certified Locators.

For more info contact a CERTLOC Certified Locating Organisation (CLO) or Telstra Location Intelligence Team 1800 653 935

Before you Dig Australia – BEST PRACTISE GUIDES
https://www.byda.com.au/before-you-dig/best-practice-guides/

OPENING ELECTRONIC MAP ATTACHMENTS –

Telstra Cable Plans are generated automatically in either PDF or DWF file types.
Dependent on the site address and the size of area selected.
You may need to download and install free viewing software from the internet e.g.

DWF Map Files (all sizes over A3)
Autodesk Viewer (Internet Browser) https://viewer.autodesk.com/ or
Autodesk Design Review http://usa.autodesk.com/design-review/ for DWF files.
(Windows PC)

PDF Map Files (max size A3)
Adobe Acrobat Reader http://get.adobe.com/reader/

Telstra New Connections / Disconnections
13 22 00

Telstra Protection & Relocation: 1800 810 443 (AEST business hours only).
Email
Telstra Protection & Relocation Fact Sheet: Link
Telstra Protection & Relocation Home Page Link

Telstra Aerial Assets Group (overhead network)
1800 047 909

Protect our Network:

by maintaining the following distances from our assets:

- **1.0m Mechanical Excavators, Farm Ploughing, Tree Removal**
- **500mmVibrating Plate or Wacker Packer Compactor**
- **600mm Heavy Vehicle Traffic (over 3 tonnes) not to be driven across Telstra ducts or plant.**
- **1.0mJackhammers/Pneumatic Breakers**
- **2.0m Boring Equipment (in-line, horizontal and vertical**



Before You Dig Australia

Think before you dig

This document has been sent to you because you requested plans of the Telstra network through Before You Dig Australia (BYDA).

If you are working or excavating near telecommunications cables, or there is a chance that cables are located near your site, you are responsible to avoid causing damage to the Telstra network.

Please read this document carefully. Taking your time now and following the BYDA's Best Practices and 5 Ps of Safe Excavation https://www.byda.com.au/before-you-dig/best-practice-guides/

can help you avoid damaging our network, interrupting services, and potentially incurring civil and criminal penalties.

Our network is complex and working near it requires expert knowledge. Do not attempt these activities if you are not qualified to do so.

Disclaimer and legal details

*Telstra advises that the accuracy of the information provided by Telstra conforms to Quality Level D as defined in AS5488-2013.

It is a criminal offence under the Criminal Code Act 1995 (Cth) to tamper or interfere with telecommunications infrastructure.

Telstra will also take action to recover costs and damages from persons who damage assets or interfere with the operation of Telstra's networks.

By receiving this information including the indicative plans that are provided as part of this information package you confirm that you understand and accept the risks of working near Telstra's network and the importance of taking all the necessary steps to confirm the presence, alignments and various depths of Telstra's network. This in addition to, and not in replacement of, any duties and obligations you have under applicable law.

When working in the vicinity of a telecommunications plant you have a "Duty of Care" that must be observed. Please read and understand all the information and disclaimers provided below.

The Telstra network is complex and requires expert knowledge to interpret information, to identify and locate components, to pothole underground assets for validation and to safely work around assets without causing damage. If you are not an expert and/or qualified in these areas, then you must not attempt these activities. Telstra will seek compensation for damages caused to its property and losses caused to Telstra and its customers. Construction activities and/or any activities that potentially may impact on Telstra's assets must not commence without first undertaking these steps. Construction activities can include anything that involves breaking ground, potentially affecting Telstra assets.

If you are designing a project, it is recommended that you also undertake these steps to validate underground assets prior to committing to your design.

This Notice has been provided as a guide only and may not provide you with all the information that is required for you to determine what assets are on or near your site of interest. You will also need to collate and understand all information received from other Utilities and understand that some Utilities are not a part of the BYDA program and make your own enquiries as appropriate. It is the responsibility of the entities undertaking the works to protect Telstra's network during excavation / construction works.

Telstra owns and retains the copyright in all plans and details provided in conjunction with the applicant's request. The applicant is authorised to use the plans and details only for the purpose indicated in the applicant's request. The applicant must not use the plans or details for any other purpose.

Telstra plans or other details are provided only for the use of the applicant, its servants, agents, or CERTLOC Certified Locating Organisation (CLO). The applicant must not give the plans or details to any parties other than these and must not generate profit from commercialising the plans or details.

Telstra, its servants or agents shall not be liable for any loss or damage caused or occasioned by the use of plans and or details so supplied to the applicant, its servants and agents, and the applicant agrees to indemnify Telstra against any claim or demand for any such loss or damage.

Please ensure Telstra plans and information provided always remains on-site throughout the inspection, location, and construction phase of any works.

Telstra plans are valid for 60 days after issue and must be replaced if required after the 60 days.

Data Extraction Fees

In some instances, a data extraction fee may be applicable for the supply of Telstra information. Typically, a data extraction fee may apply to large projects, planning and design requests or requests to be supplied in non-standard formats. For further details contact Telstra Location Intelligence Team.

Telstra does not accept any liability or responsibility for the performance of or advice given by a CERTLOC Certified Locating Organisation (CLO). Certification is an initiative taken by Telstra towards the establishment and maintenance of competency standards. However, performance and the advice given will always depend on the nature of the individual engagement.

Neither the Certified Locating Organisation nor any of its employees are an employee or agent for Telstra. Telstra is not liable for any damage or loss caused by the Certified Locating Organisation or its employees.

Once all work is completed, the excavation should be reinstated with the same type of excavated material unless specified by Telstra.

The information contained within this pamphlet must be used in conjunction with other material supplied as part of this request for information to adequately control the risk of potential asset damage.

When using excavators and other machinery, also check the location of overhead power lines.

Workers and equipment must maintain safety exclusion zones around power lines

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. Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy shown on the plans. FURTHER ON SITE INVESTIGATION IS REQUIRED TO VALIDATE THE EXACT LOCATION OF TELSTRA PLANT PRIOR TO COMMENCING CONSTRUCTION WORK. A plant location service is an essential part of the process to validate the exact location of Telstra assets and to ensure the assets are protected during construction works. The exact position of Telstra assets can only be validated by physically exposing them. Telstra will seek compensation for damages caused to its property and losses caused to Telstra and its customers.

Privacy Note

Your information has been provided to Telstra by BYDA to enable Telstra to respond to your BYDA request. Telstra keeps your information in accordance with its privacy statement. You can obtain a copy at www.telstra.com.au/privacy or by calling us at 1800 039 059 (business hours only).

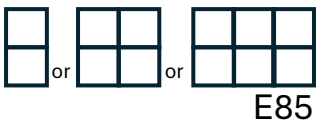
LEGEND

Leadin terminates at a Customer Address	Cable Jointing Pit Number / Letter indicating Pit type/size
Exchange Major Cable Present	Elevated Joint (above ground joint on buried cable)
Pillar / Cabinet Above ground Free Standing	Telstra Plant in shared Utility trench
Above ground Complex Equipment Please note: Powered by 240v electricity	Aerial cable / or cable on wall
OC — Other Carrier Telecommunication Cable/ Asset. Not Telstra Owned	Aerial cable (attached to joint use Pole e.g., Power Pole)
DIST — Distribution cables in Main Cable Ducts	Marker Post Installed
MC — Main Cable ducts on a Distribution Plan	Buried Transponder
Blocked or Damaged Duct	Marker Post & Transponder
Footway Access Chamber (can vary between 1-lid to 12-lid	Optical Fibre Cable Direct Buried
NBN Pillar	Direct Buried Cable
Third Party Owned Network Non-Telstra	nbn owned network



Single to Multiple Round Conduit Configurations 1,2,4,9 respectively

(attached text denotes conduit type and size)



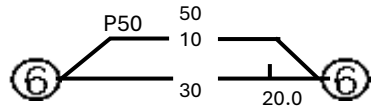
Multiple Square Conduit configurations 2,4,6 respectively

(attached text denotes conduit type and size)

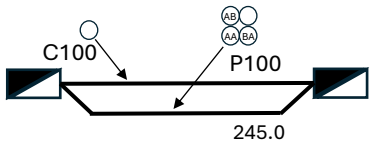
Some examples of conduit type and size:

A - Asbestos cement, P - PVC / Plastic, C - Concrete,
GI - Galvanised Iron, E - Earthenware
Conduit sizes nominally range from 20mm to 100mm
P50 50mm PVC conduit
P100 100mm PVC conduit
A100 100mm asbestos cement conduit

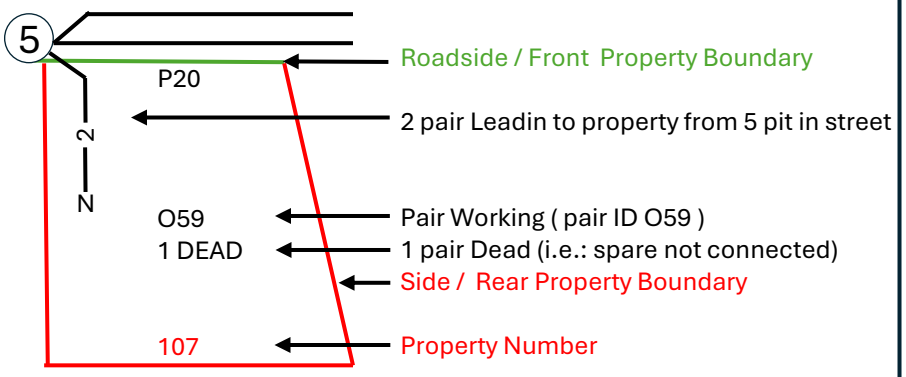
Some Examples of how to read Telstra Plans



One 50mm PVC conduit (P50) containing a 50-pair and a 10-pair cable between two 6 pits. approximately 20.0m apart, with a direct buried 30-pair cable along the same route.



Two separate conduit runs between two footway access chambers (manholes) approximately 245m apart A nest of four 100mm PVC conduits (P100) containing assorted cables in three ducts (one being empty) and one empty 100mm concrete duct (C100) along the same route.



The 5 Ps of Safe Excavation

https://www.byda.com.au/before-you-dig/best-practice-guides/

Plan

Plan your job. Use the BYDA service at least one day before your job is due to begin, and ensure you have the correct plans and information required to carry out a safe project.

Prepare

Prepare by communicating with asset owners if you need assistance. Look for clues onsite. Engage a Certified Locator.

Pothole

Potholing is physically sighting the asset by hand digging or hydro vacuum extraction.

Protect

Protecting and supporting the exposed infrastructure is the responsibility of the excavator. Always erect safety barriers in areas of risk and enforce exclusion zones.

Proceed

Only proceed with your excavation work after planning, preparing, potholing (unless prohibited), and having protective measures in place.

End of document

This document may exclude some files (eg. DWF or ZIP files)

This document was automatically generated at a point-in-time. Be aware that the source information from which this document was created may have changed since it was produced. This document may contain incomplete or out-of-date information. Always check your enquiry details in the BYDA Referral Service for the most recent information. For copyright information refer to individual responses.

80 McGinn Road, Ferny Grove

Civil Engineering Report

Appendix E **Property Flood Report**

FloodWise Property Report

80 MCGINN RD, FERNY GROVE 4055
Lot 2 on RP77582

Dedicated to a better Brisbane

THE PURPOSE OF THIS REPORT IS FOR BUILDING AND DEVELOPMENT

Brisbane City Council's FloodWise Property Report **provides technical flood planning information** including estimated flood levels, habitable floor level requirements and more. **This report uses the adopted flood planning information in Brisbane City Plan 2014**, that guides how land in Brisbane is used and developed for the future. Find out more about planning and building. To understand how to be **resilient and prepare for floods**, visit Council's Be Prepared webpage. Find more information about how to read a FloodWise Property Report.

This property has no flood levels

Brisbane City Council has not assigned flood level information for this property however it may be affected by one or more flood or property development flags. Please refer to the Flood Planning and Development Information below for details. The property may have 0.2% AEP flood level which will appear on the Flood Planning Information table if applicable. For professional advice or detailed assessment of a property contact a Registered Professional Engineer of Queensland.

Visit the Be Prepared page to find more information on how to prepare your home or business for potential flooding.

Combined 1% AEP for river, creek and storm tide flood extent (if applicable) from the adopted Brisbane City Plan 2014.
Read more about Brisbane City Plan 2014.





Are you resilient and ready for flood?

- Sign up to the Brisbane Severe Weather Alert at **brisbane.qld.gov.au/beprepared**
- Visit bom.gov.au for the latest weather updates.
- Have an evacuation plan, emergency kit and important phone numbers ready.
- Observe where water flows from and to during heavy rain.
- Consider how flood-resilient building techniques will have you home faster and with less damage.

Life threatening emergencies **000** Police/fire/ambulance (mobiles **000** and **112**)	State Emergency Service (SES) **132 500** Energex **13 19 62** Brisbane City Council **3403 8888**

Technical Summary

This section of the FloodWise Property Report contains more detailed flood information for this property so **surveyors, builders, certifiers, architects, and engineers can plan and build** in accordance with Council's planning scheme.

Find more information about planning and building in Brisbane or talk to a Development Services Planning Information Officer via Council's Contact Centre on (07) 3403 8888.

Flood Planning and Development Information

This section of the FloodWise Property Report contains information about Council's planning scheme overlays. Overlays identify areas within the planning scheme that reflect distinct themes that may include constrained land and/or areas sensitive to the effects of development.

Flood overlay code

The Flood overlay code of Council's planning scheme uses the following information to provide guidelines when developing properties. The table below summarises the flood planning areas (FPAs) that apply to this property. Development guidelines for the FPAs are explained in **Council's planning scheme**.

Flood planning areas (FPA)		
River	**Creek / waterway**	**Overland flow**
		Not Applicable

To find more information about Council's flood planning areas (FPAs) for Brisbane River and Creek/waterway flooding to guide future building and development in flood prone areas, please review **Council's Flood Planning Provisions**.

Coastal hazard overlay code

The Coastal hazard overlay code of Council's planning scheme uses the following information to provide guidelines when conducting new developments. The table below summarises the coastal hazard categories that apply to this property. Development guidelines for the following Coastal hazard overlay sub-categories are explained in Council's **planning scheme**.

Coastal hazard overlay sub-categories
There are currently no Coastal hazard overlay sub-categories that apply to this property.

Note: Where land is identified within one for more flood planning areas on the Flood overlay or is identified within one of the Storm tide inundation area sub-categories on the Coastal hazard overlay, the assessment criteria that provides the highest level of protection from any source of flooding applies.

Property development flags
Large allotment - This property is either a Large Allotment of over 1000 square metres or is located within a Large Allotment. Flood levels may vary significantly across allotments of this size. Further investigations may be warranted in determining the variation in flood levels and the minimum habitable floor level across the site. For more information or advice, please consult a Registered Professional Engineer of Queensland (RPEQ).

Useful Flood Information Definitions

Australian Height Datum (AHD) - The reference level for defining ground levels in Australia. The level of 0.0m AHD is approximately mean sea level.

Annual Exceedance Probability (AEP) - The probability of a flood event of a given size occurring in any one year, usually expressed as a percentage annual chance.

- **0.2% AEP** - A flood event of this size is considered rare but may still occur. A flood of size or larger has a 1 in 500 chance or a 0.2% probability of occurring in any year.
- **1% AEP** - A flood of this size or larger has a 1 in 100 chance or a 1% probability of occurring in any year.
- **2% AEP** - A flood of this size or larger has a 1 in 50 chance or a 2% probability of occurring in any year.
- **5% AEP** - A flood of this size or larger has a 1 in 20 chance or a 5% probability of occurring in any year.
- **20% AEP** - A flood of this size or larger has a 1 in 5 chance or a 20% probability of occurring in any year.

Data quality

- **Data Quality Code A** - Level data based on recent surveyor report or approved as-constructed drawings.
- **Data Quality Code B** - Level data based on ground-based mobile survey or similar.
- **Data Quality Code C** - Level data derived from Airborne Laser Scanning or LiDAR information.

Defined Flood Level (DFL) - The DFL is used for commercial and industrial development. The Defined flood level (DFL) for Brisbane River flooding is a level of 3.7m AHD at the Brisbane City Gauge based on a flow of 6,800 m/s. DFL is only applicable for non-residential uses affected by Brisbane River flooding.

Flood planning area (FPA) - Council has developed five Flood planning areas (FPAs) as part of Brisbane City Plan 2014 Flood overlay mapping for Brisbane River, Creek/waterway flooding and Overland flow to guide future building and development in flood prone areas. Storm tide flooding is mapped separately. The FPAs are designed to recognise the flood hazard for different flooding types. Flood hazard is a combination of frequency of flooding, the flood depth, and the speed at which the water is travelling. **Find more information here**.

Maximum and minimum ground level - Highest and lowest ground levels on the property based on available ground level information. A Registered Surveyor can confirm exact ground levels.

Minimum habitable floor level (dwelling house) - The minimum level in metres AHD at which habitable areas of development (generally induding bedrooms, living rooms, kitchen, study, family, and rumpus rooms) must be constructed as required by the Brisbane City Plan 2014.

Indicative existing floor level - The approximate level in metres AHD of the lowest habitable floor in the existing building (exduding apartments). The data is sourced from a range of sources with varying accuracy levels.

Property - A property will contain 1 or more lots. The multiple lot warning is shown if you have selected a property that contains multiple lots.

Residential flood level (RFL) - This flood level for the Brisbane River equates to the 1% annual exceedance probability (AEP) flood level.

To learn more, visit **Brisbane City Council's Flood Information Hub**

Brisbane City Council's Online Flood Tools

Council provides several online flood tools:

- to guide planning and development
- to help residents and businesses understand their flood risk and prepare for flooding.

Council's online flood tools for planning and development purposes indude:

- **FloodWise Property Report**
- **Flood Overlay Code**

For more information on Council's planning scheme and online flood tools for planning and development:

- phone (07) 3403 8888 and ask to talk to a Development Services Planning Information Officer

- visit brisbane.qld.gov.au/planning-building

Council's Planning Scheme - The Brisbane City Plan 2014 (planning scheme) has been prepared in accordance with the Sustainable Planning Act as a framework for managing development in a way that advances the purpose of the Act. In seeking to achieve this purpose, the planning scheme sets out the Council's intention for future development in the planning scheme area, over the next 20 years.

Disclaimer

1. Defined flood levels and residential flood levels, minimum habitable floor levels and indicative existing floor levels are determined from the best available information to Council at the date of issue. These levels, for a particular property, may change if more detailed information becomes available or changes are made in the method of calculating levels.
2. Council makes no warranty or representation regarding the accuracy or completeness of a FloodWise Property Report. Council disdaims any responsibility or liability in relation to the use or reliance by any person on a FloodWise Property Report.



Planning to build or renovate?

For information, guidelines, tools and resources to help you track, plan or apply for your development visit brisbane.qld.gov.au/planning-building

You can also find the Brisbane City Plan 2014 and Neighbourhood Plans as well as other information and training videos to help, with your building and development plans.

80 McGinn Road, Ferny Grove

Civil Engineering Report

Appendix F **Operations and Maintenance Manuals**

OCEAN PROTECT

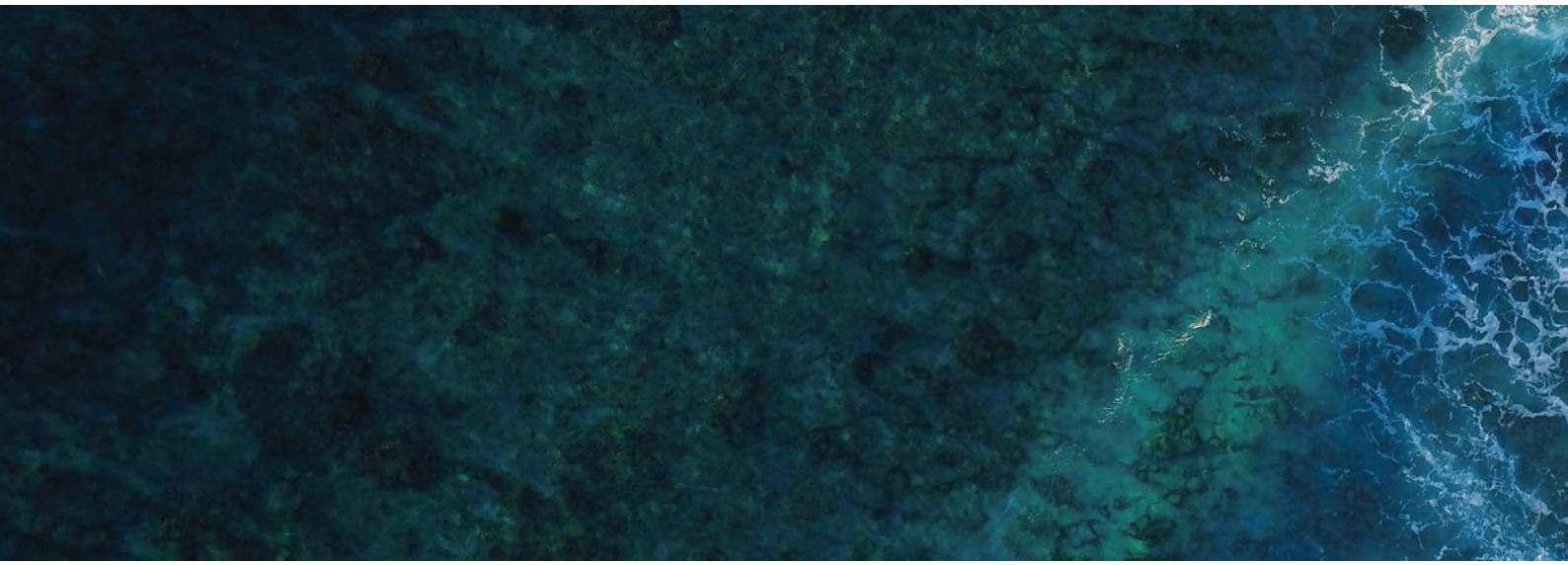
StormFilter®

Operations & Maintenance Manual



Stopping Pollution Entering Waterways

11/24



www.oceanprotect.com.au

Introduction	3
Health and Safety	4
How does it work?	5
Maintenance Procedures	6
Maintenance Services	8



Introduction

The primary purpose of stormwater treatment devices is to capture and prevent pollutants from entering waterways, maintenance is a critical component of ensuring the ongoing effectiveness of this process. The specific requirements and frequency for maintenance depends on the treatment device and pollutant load characteristics of each site. This manual has been designed to provide details on the cleaning and maintenance processes for the StormFilter®, as recommended by us.

The StormFilter® is designed and sized to meet stringent regulatory requirements. It removes the most challenging target pollutants (including total suspended solids, soluble heavy metals, oil, particulate and soluble nutrients) using a variety of media. For more than two decades, StormFilter® has helped clients meet their regulatory needs and, through ongoing product enhancements, the design continues to be refined for ease of use and improved performance.

Why do I need to perform maintenance?

Adhering to the inspection and maintenance schedule of any stormwater treatment device is essential to ensuring that it functions properly throughout its design life.

During each inspection and clean, details of the mass, volume and type of material that has been collected by the device should be recorded. This data will assist with the revision of future management plans and help determine maintenance interval frequency. It is also essential that qualified and experienced personnel carry out all maintenance (including inspections, recording and reporting) in a systematic manner.

Maintenance of your stormwater management system is essential to ensuring ongoing at-source control of stormwater pollution. Maintenance also helps prevent structural failures (e.g. prevents blocked outlets) and aesthetic failures (e.g. debris build up), but most of all ensures the long term effective operation of the StormFilter®.

Health and Safety

Access to a StormFilter® system requires removing access covers/grates, and it is necessary to enter a confined space. Pollutants collected by the StormFilter® will vary depending on the nature of your site. There is potential for these materials to be harmful. For example, sediments may contain heavy metals, carcinogenic substances or objects such as broken glass and syringes. For these reasons, all aspects of maintaining and cleaning your StormFilter® require careful adherence to Occupational Health and Safety (OH&S) guidelines.

It is important to note that the same level of care needs to be taken to ensure the safety of non-work personnel. As a result, it may be necessary to employ traffic/pedestrian control measures when the device is situated in, or near areas with high vehicular/pedestrian activity.

Personnel health and safety

Whilst performing maintenance on the StormFilter®, precautions should be taken in order to minimise (or, if possible, prevent) contact with sediment and other captured pollutants by maintenance personnel. The following personal protective equipment (PPE) is subsequently recommended (but not limited to):

- Puncture resistant gloves
- Steel capped safety boots
- Long sleeve clothing, overalls or similar skin protection
- Eye protection
- High visibility clothing or vest

During maintenance activities, it may be necessary to implement traffic control measures. Ocean Protect recommend that a separate site-specific traffic control plan is implemented as required to meet the relevant governing authority guidelines.

Whilst some aspects of StormFilter® maintenance can be performed from surface level, there will be a need to enter the StormFilter® system (confined space) during a major service. It is recommended that all maintenance personnel evaluate their own needs for confined space entry and compliance with relevant industry regulations and guidelines. Ocean Protect maintenance personnel are fully trained and carry certification for confined space entry applications.

How does it work?

During a storm, runoff percolates through the filtration media and starts filling the cartridge central tube. The air inside the hood is purged through a one-way check valve as the water rises. When water reaches the top of the float, buoyant forces pull the float free and allow filtered water to exit the cartridge.

A siphon is established within each cartridge that draws water uniformly across the full height of the media profile ensuring even distribution of pollutants and prolonged media longevity.

As the storm subsides and the water level in the structure starts falling, a hanging water column remains under the cartridge hood until the water level reaches the scrubbing regulators at the bottom of the hood. Air then rushes through the regulators breaking the siphon and creating air bubbles that agitate the surface of the filter media causing accumulated sediment to settle on the treatment chamber floor. This unique surface-cleaning mechanism helps prevent surface blinding and further extends cartridge life.

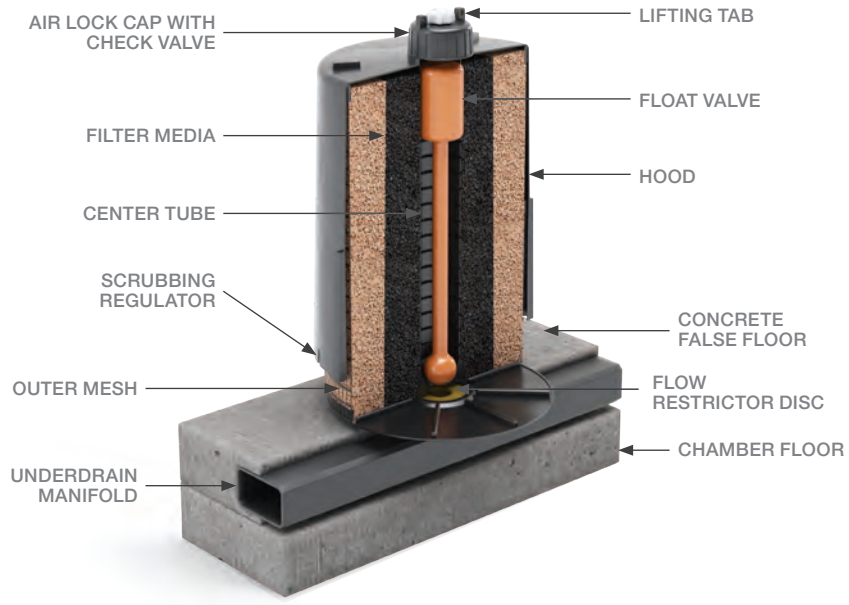


Figure 1: StormFilter® components

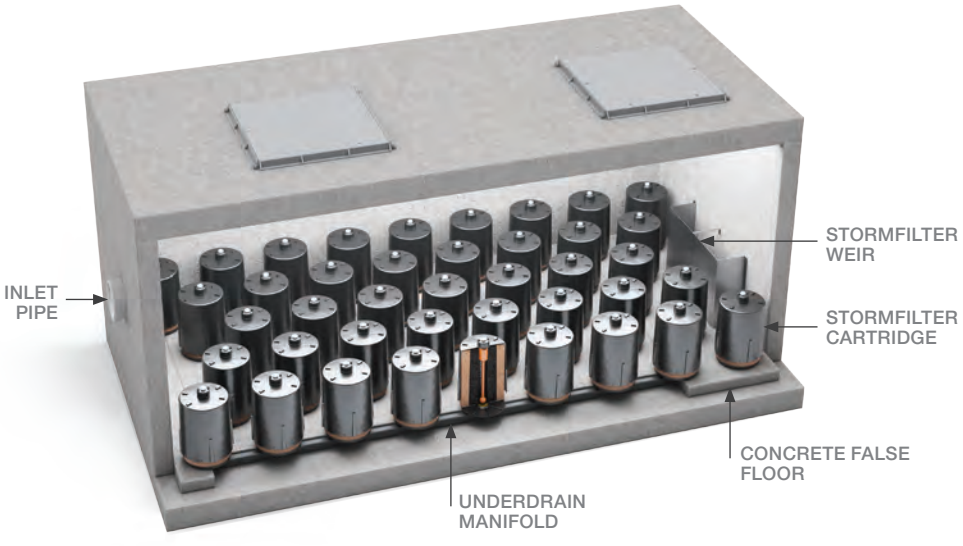


Figure 2: Example conceptual diagram of a StormFilter® system

Maintenance Procedures

To ensure optimal performance, it is advisable that regular maintenance is performed. Typically, the StormFilter® requires an inspection every 6 months with a minor service at 12 months. Additionally, as the StormFilter® cartridges capture pollutants the media will eventually become occluded and require replacement (expected media life is 1-3 years).

Primary types of maintenance

The table below outlines the primary types of maintenance activities that typically take place as part of an ongoing maintenance schedule for the StormFilter®.

Service Type	Description of Typical Activities	Frequency
Inspection	Visual Inspection of cartridges & chamber Remove larger gross pollutants Perform minimal rectification works (if required)	Every 6 Months
Minor Service	Evaluation of cartridges and media Removal of accumulated sediment (if required) Wash-down of StormFilter® chamber (if required)	Every 12 Months
Major Service	Replacement of StormFilter® cartridge media	As required

Maintenance requirements and frequencies are dependent on the pollutant load characteristics of each site. The frequencies provided in this document represent what the manufacturer considers to be best practice to ensure the continuing operation of the device is in line with the original design specification.

Inspection

The purpose of the inspecting the StormFilter® system is to assess the condition of the StormFilter® chamber and cartridges. When inspecting the chamber, particular attention should be taken to ensure all cartridges are firmly connected to the connectors. It is also an optimal opportunity to remove larger gross pollutants and inspect the outlet side of the StormFilter® weir.

Minor Service

This service is designed to ensure the ongoing operational effectiveness of the StormFilter® system, whilst assessing the condition of the cartridge media.

1. Establish a safe working area around the access point(s)
2. Remove access cover(s)
3. Evaluate StormFilter® cartridge media (if exhausted schedule major service within 6 months)
4. Measure and record the level of accumulated sediment in the chamber (if sediment depth is less than 100 mm skip to step 9)
5. Remove StormFilter® cartridges from the chamber
6. Use vacuum unit to removed accumulated sediment and pollutants in the chamber
7. Use high pressure water to clean StormFilter® chamber
8. Re-install StormFilter® cartridges
9. Replace access cover(s)

Major Service (Filter Cartridge Replacement)

For the StormFilter® system a major service is reactionary process based on the outcomes from the minor service, specifically the evaluation of the cartridge media.

Trigger Event	Maintenance Action
Cartridge media is exhausted[1]	Replace StormFilter® cartridge media[2]

[1] Multiple assessment methods are available, contact Ocean Protect for assistance

[2] Replacement filter media and components are available for purchase from Ocean Protect

This service is designed to return the StormFilter® device back to optimal operating performance.

1. Establish a safe working area around the access point(s)
2. Remove access cover(s)
3. By first removing the head cap, remove each individual cartridge hood to allow access to the exhausted media
4. Utilise a vacuum unit to remove exhausted media from each cartridge
5. Use vacuum unit to remove accumulated sediment and pollutants in the chamber
6. Use high pressure water to clean StormFilter® chamber
7. Inspect each empty StormFilter® cartridges for any damage, rectify damage as required
8. Re-fill each cartridge with media in line with project specifications
9. Re-install replenished StormFilter® cartridges
10. Replace access cover(s)

Additional Types of Maintenance

Occasionally, events on site can make it necessary to perform additional maintenance to ensure the continuing performance of the device.

Hazardous Material Spill

If there is a spill event on site, the StormFilter® unit should be inspected and cleaned. Specifically, all captured pollutants and liquids from within the unit should be removed and disposed in accordance with any additional requirements that may relate to the type of spill event. Additionally, it will be necessary to inspect the filter cartridges and assess them for contamination – and, depending on the type of spill event, it may be necessary to replace the filtration media.

Blockages

In the unlikely event that flooding occurs upstream of the StormFilter® system, the following steps should be undertaken to assist in diagnosing the issue and determining the appropriate response.

1. Inspect the upstream diversion structure (if applicable) ensuring that it is free of debris and pollutants
2. Inspect the StormFilter® unit checking the underdrain manifold as well as both the inlet and outlet pipes for obstructions (e.g. pollutant build-up, blockage), which if present, should be removed

Major Storms and Flooding

In addition to the scheduled activities, it is important to inspect the condition of the StormFilter® after a major storm event. The focus is to inspect for damage and abnormally high sediment accumulation that may result from localised erosion. Where necessary damaged components should be replaced and accumulated pollutants should be removed and disposed

.

Disposal of Waste Materials

The accumulated pollutants found in the StormFilter® must be handled and disposed of in a manner that is in accordance with all applicable waste disposal regulations. When scheduling maintenance, consideration must be made for the disposal of solid and liquid wastes. If the filter media has been contaminated with any unusual substance, there may be additional special handling and disposal methods required to comply with relevant government/authority/industry regulations.

Maintenance Services

With over a decade and a half of maintenance experience, Ocean Protect has developed a systematic approach to inspecting, cleaning and maintaining a wide variety of stormwater treatment devices. Our fully trained and professional staff are familiar with the characteristics of each type of system, and the processes required to ensure its optimal performance.

Ocean Protect has several stormwater maintenance service options available to help ensure that your stormwater device functions properly throughout its design life. In the case of StormFilter®, we offer long term pay-as-you-go contracts, pre-paid once off servicing and replacement media for cartridges.

For more information please visit www.oceanprotect.com.au

Ocean Protect supplies and maintains a complete range of filtration, hydrodynamic separation, screening and oil/water separation technologies.

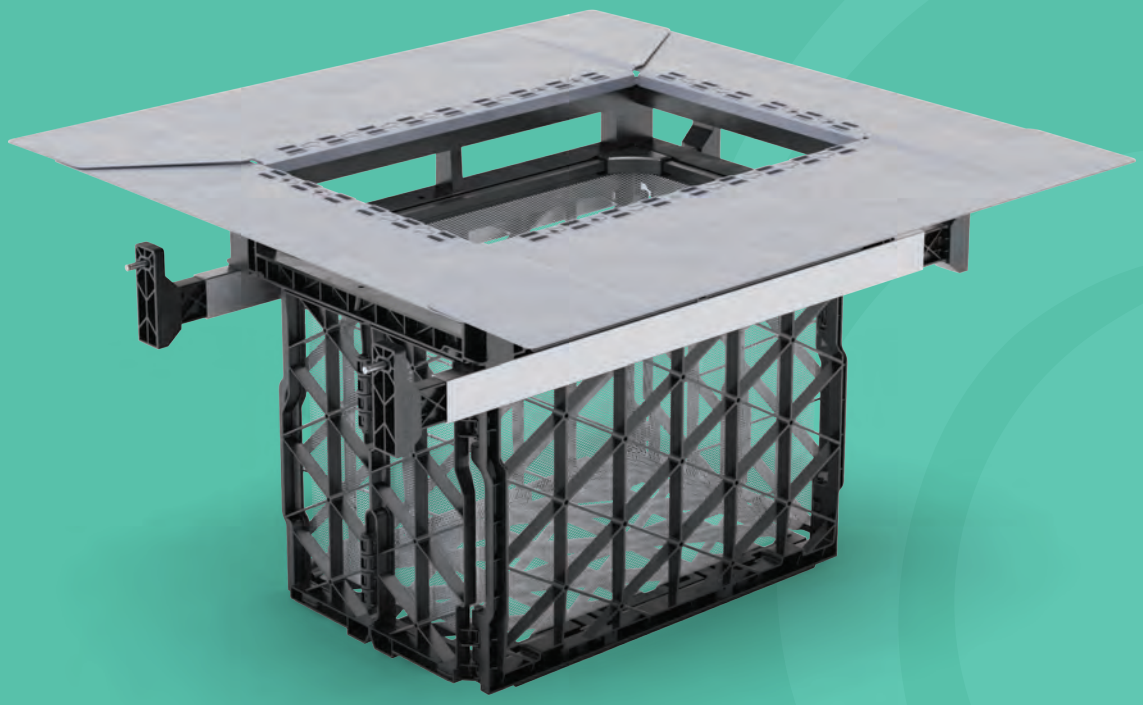
Call 1300 354 722

www.oceanprotect.com.au

OCEAN PROTECT

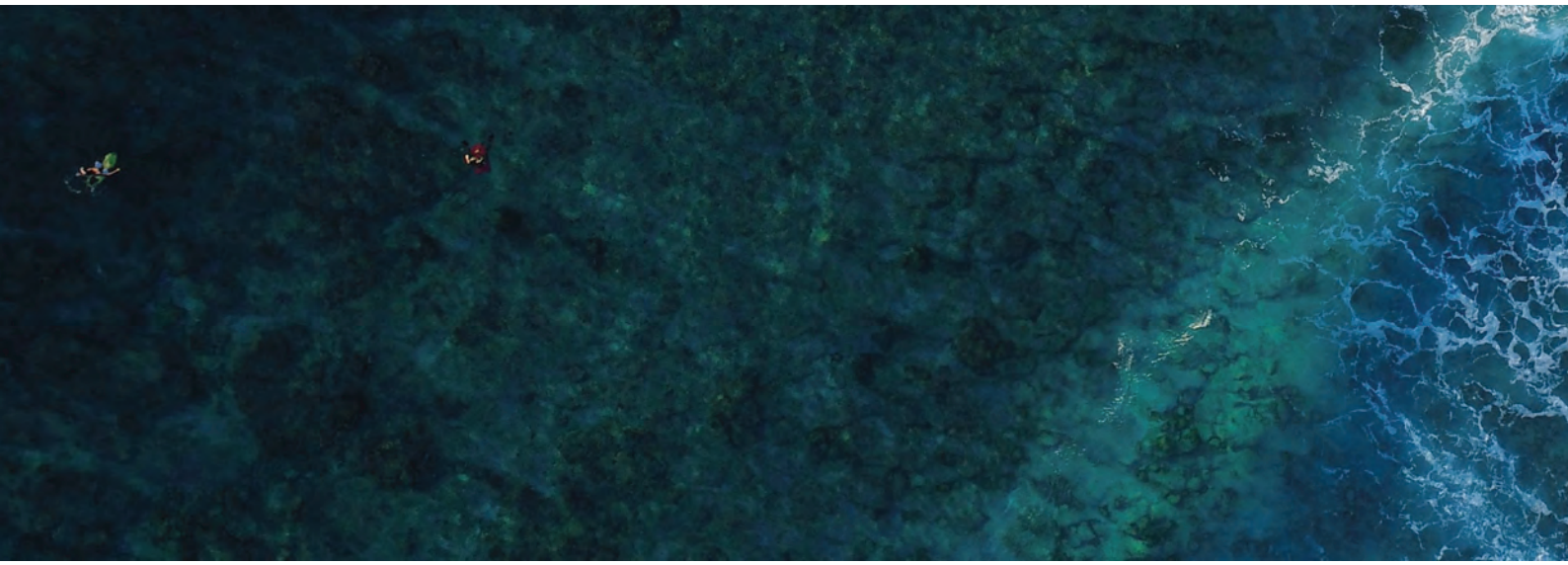
OceanGuard®

Operations & Maintenance Manual



Stopping Pollution Entering Waterways

09/22



www.oceanprotect.com.au

Introduction	3
Health and Safety	4
How does it work?	5
Maintenance Procedures	6
Maintenance Services	7



Introduction

The primary purpose of stormwater treatment devices is to capture and prevent pollutants from entering waterways, maintenance is a critical component of ensuring the ongoing effectiveness of this process. The specific requirements and frequency for maintenance depends on the treatment device and pollutant load characteristics of each site. This manual has been designed to provide details on the cleaning and maintenance processes for the OceanGuard® as recommended by the manufacturer (Ocean Protect).

The OceanGuard® technology is a gully pit basket designed to fit within new and existing gully pits to remove pollution from stormwater runoff. The system has a choice of filtration liners, designed to remove gross pollutants, solids, and other attached pollutants as either a standalone technology or as part of a 'treatment train' (e.g. with StormFilter®, Jellyfish® or biofiltration). OceanGuards are highly effective, easy to install and simple to maintain.

Stormwater professionals should note that Ocean Protect is not permitted to supply OceanGuard® technologies to provide pre-treatment to proprietary stormwater treatment assets that are not provided by Ocean Protect.

Why do I need to perform maintenance?

Adhering to the inspection and maintenance schedule of any stormwater treatment device is essential to ensuring that it functions properly throughout its design life.

During each inspection and clean, details of the mass, volume and type of material that has been collected by the device should be recorded. This data will assist with the revision of future management plans and help determine maintenance interval frequency. It is also essential that qualified and experienced personnel carry out all maintenance (including inspections, recording and reporting) in a systematic manner.

Maintenance of your stormwater management system is essential to ensuring ongoing at-source control of stormwater pollution. Maintenance also helps prevent structural failures (e.g. prevents blocked outlets) and aesthetic failures (e.g. debris build up), but most importantly ensures the long term effective operation of the OceanGuard®.

Health and Safety

Access to pits containing an OceanGuard® typically requires removing (heavy) access covers/grates, but typically it is not necessary to enter into a confined space. Pollutants collected by the OceanGuard® will vary depending on the nature of your site. There is potential for these materials to be harmful. For example, sediments may contain heavy metals, carcinogenic substances or sharp objects such as broken glass and syringes. For these reasons, there should be no primary contact with the waste collect and all aspects of maintaining and cleaning your OceanGuard® require careful adherence to Occupational Health and Safety (OH&S) guidelines.

It is important to note that the same level of care needs to be taken to ensure the safety of non-work personnel, as a result it may be necessary to employ traffic/pedestrian control measures when the device is situated in, or near areas with high vehicular/pedestrian activity.

Personnel health and safety

Whilst performing maintenance on the OceanGuard®, precautions should be taken in order to minimise (or when possible prevent) contact with sediment and other captured pollutants by maintenance personnel. In order to achieve this the following personal protective equipment (PPE) is recommended:

- Puncture resistant gloves
- Steel capped safety boots
- Long sleeve clothing, overalls or similar skin protection
- Eye protection
- High visibility clothing or vest

During maintenance activities it may be necessary to implement traffic control measures. Ocean Protect recommend that a separate site specific traffic control plan is implemented as required to meet the relevant governing authority guidelines.

The OceanGuard® is designed to be maintained from surface level, without the need to enter the pit. However depending on the installation configuration, location and site specific maintenance requirements it may be necessary to enter a confined space occasionally. It is recommended that all maintenance personnel evaluate their own needs for confined space entry and compliance with relevant industry regulations and guidelines. Ocean Protect maintenance personnel are fully trained and carry certification for confined space entry.

How does it work?

OceanGuard® is designed to intercept stormwater as it enters the stormwater pits throughout a site. The OceanGuard® has diversion panels that sit flush with the pit walls, this ensures that as stormwater enters at the top of the pit it is directed to the middle of the insert where the Filtration bag is situated. The filtration bag allows for screening to occur removing 100% of pollutants greater than the opening of the filtration material (200micron, 1600micron bags available).

During larger rain events the large flows overflow slots in the flow diverter of the OceanGuard® ensure that the conveyance of stormwater is not impeded thus eliminating the potential for surface flooding. As the flow subsides, the captured pollutants are held in the OceanGuard® filtration bag. The waste then starts to dry which reduces the magnitude of organic material decomposition transitioning between maintenance intervals.

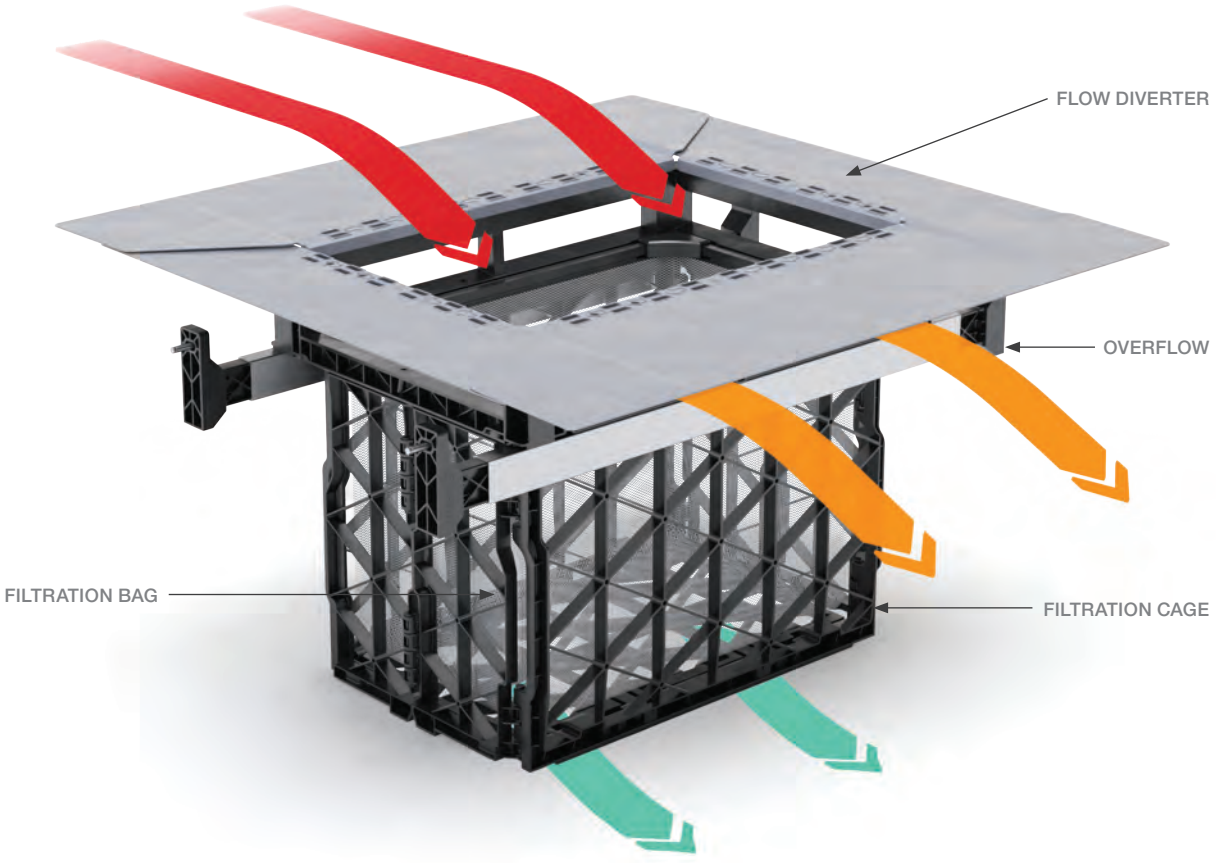


Figure 1: OceanGuard® components

Maintenance Procedures

To ensure that each OceanGuard® achieves optimal performance, it is advisable that regular maintenance is performed. The OceanGuard® requires 1-6 minor services annually (3 to 4 typical). Pending the outcome of these inspections, additional maintenance servicing may be required.

Primary types of maintenance

The table below outlines the primary types of maintenance activities that typically take place as part of an ongoing maintenance schedule for the OceanGuard®.

Service Type	Description of Typical Activities	Frequency
Minor Service	Filter bag inspection and evaluation Removal of capture pollutants Disposal of material	1-6 Times Annually
Major Service	Filter Bag Replacement Support frame rectification	As required

Maintenance requirements and frequencies are dependent on the pollutant load characteristics of each site. The frequencies provided in this document represent what the manufacturer considers to be best practice to ensure the continuing operation of the device is in line with the original design specification.

Minor Service

This service is designed to return the OceanGuard® back to optimal operating performance. This type of service can be undertaken either by hand or with the assistance of a Vacuum unit.

Hand Maintenance

1. Establish a safe working area around the OceanGuard®
2. Remove access cover/grate
3. Use two lifting hooks to remove the filtration bag
4. Empty the contents of the filtration bag into a disposal container
5. Inspect and evaluate the filtration bag
6. Inspect and evaluate remaining OceanGuard® components (i.e. flow diverter, filtration cage and supporting frame)
7. Rejuvenate filtration bag by removing pollutant build up with a stiff brush, additionally the filtration bag can be washed using high pressure water
8. Re-install filtration bag and replace access cover/grate

Vacuum Maintenance

1. Establish a safe working area around the OceanGuard®
2. Remove access cover/grate
3. Vacuum captured pollutants from the filtration bag
4. Remove filtration bag
5. Inspect and evaluate the filtration bag
6. Inspect and evaluate remaining OceanGuard® components (i.e. flow diverter, filtration cage and supporting frame)
7. Rejuvenate filtration bag by removing pollutant build up with a stiff brush, additionally the filtration bag can be washed using high pressure water
8. Re-install filtration bag and replace access cover/grate

Major Service (Filter Bag Replacement)

For the OceanGuard®, a major service is a reactionary process based on the outcomes from the minor service.

Trigger Event from Minor Service	Maintenance Action
Filtration bag inspection reveals damage	Replace the filtration bag[1]
Component inspection reveals damage	Perform rectification works and if necessary replace components[1]

[1] Replacement filtration bags and components are available for purchase from Ocean Protect

Additional Types of Maintenance

Occasionally, events on site can make it necessary to perform additional maintenance to ensure the continuing performance of the device.

Hazardous Material Spill

If there is a spill event on site, all OceanGuard® pits that potentially received flow should be inspected and cleaned. Specifically, all captured pollutants from within the filtration bag should be removed and disposed in accordance with any additional requirements that may relate to the type of spill event. All filtration bags should be rejuvenated (replaced if required) and re-installed.

Blockages

The OceanGuard's internal high flow bypass functionality is designed to minimise the potential of blockages/ flooding and this configuration has been field proven for over twenty years. Flooding caused by an OceanGuard® style of pit basket is extremely rare and in the unlikely event that flooding occurs around the stormwater pit the following steps should be undertaken to assist in diagnosing the issue and implementing the appropriate response.

1. Inspect the OceanGuard® flow diverter, ensuring that they are free of debris and pollutants
2. Perform a minor service on the OceanGuard®
3. Remove the OceanGuard® to access the pit and inspect both the inlet and outlet pipes, ensuring they are free of debris and pollutants

Major Storms and Flooding

In addition to the scheduled activities, it is important to inspect the condition of the OceanGuard® after a major storm event. The inspection should focus on checking for damage and higher than normal sediment accumulation that may result from localised erosion. Where necessary damaged components should be replaced and accumulated pollutants disposed.

Disposal of Waste Materials

The accumulated pollutants found in the OceanGuard® must be handled and disposed of in a manner that is in accordance with all applicable waste disposal regulations. When scheduling maintenance, consideration must be made for the disposal of solid and liquid wastes. If the filtration bag has been contaminated with any unusual substance, there may be additional special handling and disposal methods required to comply with relevant government/authority/industry regulations.

Maintenance Services

With over a decade and a half of maintenance experience Ocean Protect has developed a systematic approach to inspecting, cleaning and maintaining a wide variety of stormwater treatment devices. Our fully trained and professional staff are familiar with the characteristics of each type of system, and the processes required to ensure its optimal performance.

Ocean Protect has several stormwater maintenance service options available to help ensure that your stormwater device functions properly throughout its design life. In the case of our OceanGuard®, we offer long term pay-as-you-go contracts, pre-paid once off servicing and replacement filter bags.

For more information please visit www.oceanprotect.com.au

Ocean Protect supplies and maintains a complete range of filtration, hydrodynamic separation, screening and oil/water separation technologies.

Call 1300 354 722

www.oceanprotect.com.au

80 McGinn Road, Ferny Grove

Civil Engineering Report

Appendix G **Code Response Report**

Context Engineering



Proposed Multi-Residential Development 80 McGinn Road, Ferny Grove

Code Response Report

Prepared For Stay Developments

This Document Is Copyright. Other Than for The Purposes and Subject to The Conditions Prescribed Under the Copyright Act 1968 (Commonwealth), No Part of It May in Any Form or By Any Means (Electronic, Mechanical, Micro-Copying, Photocopying, Recording or Otherwise) Be Reproduced, Stored in A Retrieval System or Transmitted Without Prior Written Permission. This Report Has Been Prepared Solely for The Benefit of Our Client. We Do Not Accept Any Liability for Damage or Loss Resulting from Reliance on This Report, Or Any Part of It, By Any Party Other Than the Client (Named on The Front Page of This Report).

This Document Has Been Approved by The Following Appropriately Qualified and Experienced Professional Civil Engineer:

Nicholas Rees

BEng (Hons), MIEAust, CPEng, NER, Registered Professional Engineer of Queensland (RPEQ) No. 18700

Report Number: C_26072 - R002

Issue	Date	Details	Author	Checked	Approved
1	31.07.26	Issue for Approval	DT	NR	NR

1. Introduction

This Code Response Report has been commissioned by Stay Developments and forms part of 'Material Change of Use' (MCU) application to be lodged with Brisbane City Council for the proposed development located at 80 McGinn Road, Ferny Grove.

The proposed development involves the construction of 24 townhouse units, associated carparking and internal roadworks.

As summary of the investigation and outcomes presented in this report are as follows:

- **Section 9.4.3 Filling and Excavation Code -** Development complies with acceptable outcomes or presents performance solutions;
- **Section 9.4.4 Infrastructure Design Code -** Development complies with acceptable outcomes or presents performance solutions; and
- **Section 9.4.9 Stormwater Code -** Development complies with acceptable outcomes or presents performance solutions.

2. Filling and Excavation Code

2.1 General

Performance Outcomes	Acceptable Outcomes	Does the proposal meet the acceptable outcomes?	Council Use
PO1 Development for filling or excavation minimises visual impacts from retaining and earthworks.	**AO1** Development ensures that the total height of any cut and fill, whether or not retained, does not exceed: a) 2.5m in a zone in the Industry zones category; b) 1m in all other zones, or if adjoining a sensitive zone.	☐ **Complies** ☒ **Performance Solution** ☐ **Not Applicable** Areas of the development incorporate fill above 1.0m to facilitate site based grading and to ensure the provision of a safe, trafficable driveway. See *C_26072 DA10 Bulk Earthworks Plan* by Context Engineering for further detail.	
PO2 Development of a retaining wall proposed as a result of filling or excavation: a) Is design and constructed to be fit for purpose; b) Does not impact adversely on significant vegetation; c) Is capable of easy maintenance.	**AO2.1** Development of a retaining structure, including footings, subsurface drainage and subsoil drainage: a) Is wholly contained within the site; b) If the total heigh to be retained is greater than 1m, then: i. The retaining wall at the property boundary is no	☐ **Complies** ☐ **Performance Solution** ☐ **Not Applicable** PO2 is deemed to be the responsibility of the relevant structural consultant and contractor. The development is expected to readily comply.	

Performance Outcomes	Acceptable Outcomes	Does the proposal meet the acceptable outcomes?	Council Use
	greater than 1m above the ground level; ii. All further terracing from the 1m high boundary retaining wall is 1 vertical: 1 horizontal unit; iii. The distance between each successive retaining wall (back of lower wall to face of higher wall) is no less than 1m horizontally to incorporate planting area. **AO2.2** Development of a retaining wall over 1m in heigh protects significant vegetation on the site and on adjoining land and is design and constructed in accordance with the structures standards in the Infrastructure design planning scheme policy and is certified by a Registered Professional Engineer Queensland. **AO2.3** Development provides retaining wall finish that presents to adjoining land that is maintenance free if the setback is less than 750mm from the boundary. **AO2.4**		

Performance Outcomes	Acceptable Outcomes	Does the proposal meet the acceptable outcomes?	Council Use
	Development for filling only uses clean fill that does not include any construction rubble, debris, weed seed or viable parts of plant species listed as an undesirable plant species in the Planting species planning scheme policy.		
PO3 Development ensures that rock anchor is designed and constructed to be fit for purpose.	**AO3** Development ensures that a rock anchor: a) Is constructed in accordance with the standards in the Infrastructure design planning scheme policy; b) Where is extends beyond the property boundary, is supported by a letter or consent from the adjoining land and building owners.	☐ **Complies** ☐ **Performance Solution** ☐ **Not Applicable** PO3 is deemed to be the responsibility of the relevant structural consultant and contractor. The development is expected to readily comply.	
PO4 Development protects all services and public utilities.	**AO4** Development protects services and public utilities and ensures that any alteration or relocation of services or public utilities meets the standard design specifications of the responsible service authorities.	☒ **Complies** ☐ **Performance Solution** ☐ **Not Applicable** AO4 applies. Earthworks within the bounds of the subject site is to be undertaken with particular care for existing services at	

Performance Outcomes	Acceptable Outcomes	Does the proposal meet the acceptable outcomes?	Council Use
		the frontage of the site to McGinn Road.	
PO5 Development provides surface and sub-surface drainage to prevent water seepage, concentration of run-off or ponding of stormwater on adjacent land.	**AO5** Development ensures all flows and subsoil drainage are directed to a lawful point of discharge of a surface water diversion drain, including to the top or toe of a retaining wall in accordance with the stormwater drainage section of the Infrastructure design planning scheme policy.	☒ **Complies** ☐ **Performance Solution** ☐ **Not Applicable** AO5 applies. Refer C_26072 DA80 Erosion and Sediment Control Layout Plan for further details.	
PO6 Development ensures that the design and construction of all open drainage works is undertaken in accordance with natural channel design principles, being the development of a stormwater conveyance system for major flow, by using a vegetated open channel or drain that approximates the features and functions of a natural waterway to enhance or improve riparian values of those stormwater conveyance systems.	**AO6** Filling or excavation does not involve the construction of open drainage.	☐ **Complies** ☐ **Performance Solution** ☒ **Not Applicable** P06 does not apply. The development does not propose open drains.	
PO7 Development for filling or excavation: a) Does not degrade water quality or adversely affect environmental values in receiving waters;	**AO7.1** Development for filling or excavation provides water quality treatment that complies with the stormwater drainage	☒ **Complies** ☐ **Performance Solution** ☐ **Not Applicable**	

Performance Outcomes	Acceptable Outcomes	Does the proposal meet the acceptable outcomes?	Council Use
b) Ensures site sediment and erosion control standards are best practice.	section of the Infrastructure design planning scheme policy. **AO7.2** Development provides erosion and sediment control standards that are in accordance with the stormwater drainage section of the Infrastructure design planning scheme policy.	AO7.2 applies. Refer C_26072 DA80 Erosion and Sediment Control Layout Plan for further details.	
PO8 Development for filling or excavation is conducted such that adverse impacts at a sensitive use due to noise and dust are prevented or minimised.	**AO8.1** Development ensures that no dust emissions extend beyond the boundary of the site, including dust from construction vehicles entering and leaving the site. **AO8.2** Development for filling or excavation activity only occurs between the hours of 6:30am and 6:30pm Montay to Saturday, excluding public holidays.	☐ **Complies** ☐ **Performance Solution** ☐ **Not Applicable** PO8 is deemed to be the responsibility of the contractor. The development is expected to readily comply.	
PO9 Development ensures that vibration generated by the filling or excavation operation does not exceed the vibration criteria in Table 9.4.3.3.B, Table 9.4.3.3.C, Table 9.4.3.3.D and Table 9.4.3.3.E.	**AO9** Development involving filling or excavation does not cause a ground-borne vibration beyond the boundary of the site.	☐ **Complies** ☐ **Performance Solution** ☐ **Not Applicable** PO9 is deemed to be the responsibility of the contractor. The development is expected to readily comply.	

Performance Outcomes	Acceptable Outcomes	Does the proposal meet the acceptable outcomes?	Council Use
PO10 Development ensures that heavy trucks hauling material to and from the site do not adversely affect the amenity of established areas and limits environmental nuisance impact on adjacent land.	**AO10** Development ensures that heavy trucks hauling material to and from the site: a) Occur for a maximum of 3 weeks; b) Use a major road to access the site; c) Only use a minor road for the shortest-most-direct-route that has the least amount of environmental nuisance if there is no major road alternative.	☐ **Complies** ☐ **Performance Solution** ☐ **Not Applicable** PO10 is deemed to be the responsibility of the contractor. The development is expected to readily comply.	
PO11 Development for filling or excavation protects the environment and community health and wellbeing form exposure to contaminated land and contaminated material.	**AO11** Development does not involve: a) Excavation on land previously occupies by a notifiable activity or on land listed on the Environmental Management Register or the Contaminated Land Register; b) Filling with material containing a contaminant.	☒ **Complies** ☐ **Performance Solution** ☐ **Not Applicable** AO11 applies. The subject site is not listed on the Environmental Management Register or Contaminated Land Register prior to development.	
PO12 Development provides for: a) Landscaping for water conservation purposes;	**AO12.1** Development provides drainage for artificial growth environments which is connected to the stormwater drain. **AO12.2**	☒ **Complies** ☐ **Performance Solution** ☐ **Not Applicable**	

Performance Outcomes	Acceptable Outcomes	Does the proposal meet the acceptable outcomes?	Council Use
b) Water sensitive urban design measures which are employed within the landscape design to maximise stormwater use; c) Drainage and stormwater measures to reduce any adverse impacts on the landscape; d) Stormwater harvesting to be maximised and any adverse impacts of stormwater minimised; e) Reticulated irrigation to all artificial growing environments.	Development ensures that the maximum site stormwater harvest capacity is utilised to meet the irrigation demand of the development before alternative irrigation sources are utilised and is in compliance with the standards in the Landscape design planning scheme policy. **AO12.3** Development provides areas of pavement, turf, landscaping and mulched garden beds which are drained. **AO12.4** Development provides a reticulated irrigation system to all landscaping areas in accordance with the Landscape design planning scheme policy.	PO12 applies. The development provides a stormwater management system that diverts minor flows from within the defined catchment "D1"to the nominated Lawful Point of Discharge of the existing stormwater main in McGinn Road. This diversion ensures a reduction of overland flow discharging directly to the neighbouring allotment, thereby reducing adverse impacts on the landscape. Refer Section 3 of *C_26072 R001_Civil Engineering Report* by Context Engineering for further details.	
PO13 Development ensures cutting and filling for the development of canals or artificial waterways avoids adverse impacts on coastal resources and processes.	**AO13** Development does not involve the creation of canals or artificial waterways.	☐ **Complies** ☐ **Performance Solution** ☒ **Not Applicable** AO13 does not apply. The development does not	

Performance Outcomes	Acceptable Outcomes	Does the proposal meet the acceptable outcomes?	Council Use
		propose canals or artificial waterways.	

3. Infrastructure Design Code

3.1 General

Performance Outcomes	Acceptable Outcomes	Does the proposal meet the acceptable outcomes?	Council Use
PO1 Development provides roads, pavement, edging and landscaping which: a) are designed and constructed in accordance with the road hierarchy; b) provide for safe travel for pedestrians, cyclists and vehicles; c) provide access to properties for all modes; d) provide utilities; e) provide high levels of aesthetics and amenity, improved liveability and future growth; f) provide for the amelioration of noise and other pollution; g) provide a high-quality streetscape; h) provide a low-maintenance asset with a minimal whole-of-life cost.	**AO1** Development provides roads and associated pavement, edging and landscaping which are designed and constructed in compliance with the road corridor design standards in the Infrastructure design planning scheme policy.	☐ **Complies** ☐ **Performance Solution** ☒ **Not Applicable** PO1 does not apply. The development does not propose works pertaining to pavements, edging, landscaping or roads within the verge or road corridor of McGinn Road.	
PO2 Development provides road pavement surfaces which: a) are well designed and constructed; b) durable enough to carry the wheel loads of the intended types and numbers of travelling and parked vehicles; c) ensures the safe passage of vehicles, pedestrians and cyclists, the discharge of	**AO2** Development provides road pavement surfaces which are designed and constructed in compliance with the road corridor design standards in the Infrastructure design planning scheme policy	☐ **Complies** ☐ **Performance Solution** ☒ **Not Applicable** PO2 does not apply. The development does not propose works pertaining to pavements, edging,	

Performance Outcomes	Acceptable Outcomes	Does the proposal meet the acceptable outcomes?	Council Use
stormwater run-off and the preservation of all-weather access; d) Allows for reasonable travel comfort.		landscaping or roads within the verge or road corridor of McGinn Road.	
PO3 Development provides a pavement edge which is designed and constructed to: a) control vehicle movements by delineating the carriageway for all users; b) provide for people with disabilities by allowing safe passage of wheelchairs and other mobility aids.	**AO3** Development provides pavement edges which are designed and constructed in compliance with the road corridor design standards in the Infrastructure design planning scheme policy.	☐ **Complies** ☐ **Performance Solution** ☒ **Not Applicable** PO3 does not apply. The development does not propose works pertaining to pavements, edging, landscaping or roads within the verge or road corridor of McGinn Road.	
PO4 Development provides verges which are designed and constructed to: a) provide safe access for pedestrians clear of obstructions and access areas for vehicles onto properties; b) provide a sufficient area for public utility services; c) be maintainable by the Council.	**AO4** Development provides verges which are designed and constructed in compliance with the road corridor design and streetscape locality advice standards in the Infrastructure design planning scheme policy.	☐ **Complies** ☐ **Performance Solution** ☒ **Not Applicable** PO4 does not apply. The development does not propose works pertaining to pavements, edging, landscaping or roads within the verge or road corridor of McGinn Road.	

Performance Outcomes	Acceptable Outcomes	Does the proposal meet the acceptable outcomes?	Council Use
PO5 Development provides lane or laneway identified on the Streetscape hierarchy overlay map or in a neighbourhood plan which: a) allows for equitable access for all modes; b) is safe and secure; c) has 24-hour access; d) is low-speed shared zone environment; e) has a high quality streetscape.	**AO5** Development provides a lane or laneway identified on the Streetscape hierarchy overlay map or in a neighbourhood plan which is embellished in compliance with the streetscape locality advice standards in the Infrastructure design planning scheme policy.	☐ **Complies** ☐ **Performance Solution** ☒ **Not Applicable** PO5 does not apply. The development does not propose works pertaining to pavements, edging, landscaping or roads within the verge or road corridor of McGinn Road.	
PO6 Development of an existing premises provides at the frontage to the site, if not already provided, the following infrastructure to an appropriate urban standard: a) an effective, high-quality paved roadway; b) an effective, high-quality roadway kerb and channel; c) safe, high-quality vehicle crossings over channels and verges; d) safe, accessible, high-quality verges compatible and integrated with the surrounding environment; e) safe vehicle access to the site that enables ingress and egress in a forward gear; f) provision of and required alterations to public utilities; g) effective drainage;	**AO6** Development of an existing premises provides at the frontage of the site, if not already existing, the following infrastructure to the standard that would have applied if the development involved new premises as stated in the road corridor design standards in the Infrastructure design planning scheme policy: a) concrete kerb and channel; b) forming and grading to verges; c) crossings over channels and verges; d) a constructed bikeway; e) a constructed verge or reconstruction of any damaged verge;	☐ **Complies** ☐ **Performance Solution** ☐ **Not Applicable** PO6 is deemed to be the responsibility of the relevant consultant. Refer relevant documentation.	

Performance Outcomes	Acceptable Outcomes	Does the proposal meet the acceptable outcomes?	Council Use
h) appropriate conduits to facilitate the provision of required street-lighting systems and traffic signals.	f) construction of the carriageway; g) payment of costs for required alterations to public utility mains, services or installations; h) construction of and required alterations to public utility mains, services or installations; i) drainage works; j) installation of electrical conduits.		
PO7 Development provides both cycle and walking routes which: a) are located, designed and constructed to their network classification (where applicable); b) provide safe and attractive travel routes for pedestrians and cyclists for commuter and recreational purposes; c) provide safe and comfortable access to properties for pedestrians and cyclists; d) incorporate water sensitive urban design into stormwater drainage; e) provide for utilities; f) provide for a high level of aesthetics and amenity, improved liveability and future growth; g) are a low-maintenance asset with a minimal whole-of-life cost; h) minimise the clearing of significant native vegetation.	**AO7** Development provides cycle and walking routes which are located, designed and constructed in compliance with the road corridor design and off-road pathway design standards in the Infrastructure design planning scheme policy.	☐ **Complies** ☐ **Performance Solution** ☒ **Not Applicable** PO7 does not apply. The development does not propose cycle or walking routes.	

Performance Outcomes	Acceptable Outcomes	Does the proposal meet the acceptable outcomes?	Council Use
PO8 Development provides refuse and recycling collection, separation and storage facilities that are located and managed so that adverse impacts on building occupants, neighbouring properties and the public realm are minimised.	**AO8.1** Development provides refuse and recycling collection and storage facilities in accordance with the Refuse planning scheme policy. **AO8.2** Development ensures that refuse and recycling collection and storage location and design do not have any adverse impact including odour, noise or visual impacts on the amenity of land uses within or adjoining the development.	☒ **Complies** ☐ **Performance Solution** ☐ **Not Applicable** PO8 applies. Refer Architectural Plans by Blackburne Jackso for detail.	
PO9 Development ensures that: a) land used for an urban purpose is serviced adequately with regard to water supply and waste disposal; b) the water supply meets the stated standard of service for the intended use and fire-fighting purposes.	**AO9.1** Development ensures that the reticulated water and sewerage distribution system for all services is in place before the first use is commenced. **AO9.2** Development provides the lot with reticulated water supply and sewerage to a standard acceptable to the distributor–retailer.	☒ **Complies** ☐ **Performance Solution** ☐ **Not Applicable** PO9 applies. The subject site is currently serviced by water and sewer. The development proposes to upsize the existing infrastructure to meet the post-developed land usage demands. See Section 7.4 *C_26072 R001_Civil Engineering Report* by	

Performance Outcomes	Acceptable Outcomes	Does the proposal meet the acceptable outcomes?	Council Use
		Context Engineering for further details.	
P10 Development provides public utilities and street lighting which are the best current or alternative technology and facilitate accessibility, easy maintenance, minimal whole-of-life costs, and minimal adverse environmental impacts.	**AO10.1** Development provides public utilities and street lighting which are located and aligned to: a) avoid significant native vegetation and areas identified within the Biodiversity areas overlay map; b) minimise earthworks; c) avoid crossing waterways, waterway corridors and wetlands or if a crossing is unavoidable, tunnel-boring techniques are used to minimise disturbance, and a disturbed area is reinstated and restored on completion of the work. **AO10.2** Development provides compatible public utility services and street-lighting services which are co-located in common trenching for underground services.	☐ **Complies** ☐ **Performance Solution** ☒ **Not Applicable** PO10 does not apply. The development does not propose the provision of street lighting or public utilities.	

Performance Outcomes	Acceptable Outcomes	Does the proposal meet the acceptable outcomes?	Council Use
PO11 Development ensures that land used for urban purposes is serviced adequately with telecommunications and energy supply.	**AO11** Development provides land with the following services to the standards of the approved supplier: a) electricity; b) telecommunications services; c) gas service where practicable.	☒ **Complies** ☐ **Performance Solution** ☐ **Not Applicable** PO11 applies. The subject allotment is adequately serviced by telecommunication and electrical services.	
PO12 Development ensures that major public projects promote the provision of affordable, high-bandwidth telecommunications services throughout the city.	**AO12** Development provides conduits which are provided in all major Council and government works projects to enable the future provision of fibre optic cabling, if: a) the additional expense is unlikely to be prohibitive; or b) further major work is unlikely or disruption would be a major concern, such as where there is a limited capacity road; or c) there is a clear gap in the telecommunications network; or d) there is a clear gap in the bandwidth available to the area.	☐ **Complies** ☐ **Performance Solution** ☒ **Not Applicable** PO12 does not apply. The development is not deemed to be a major public project.	
PO13 Development provides public art identified in a neighbourhood plan or park concept plan which:	**AO13** Development provides public art identified in a neighbourhood plan or park	☐ **Complies** ☐ **Performance Solution**	

Performance Outcomes	Acceptable Outcomes	Does the proposal meet the acceptable outcomes?	Council Use
a) is provided commensurate with the status and scale of the proposed development; b) is sited and designed: c) as an integrated part of the project design; d) as conceptually relevant to the context of the location; e) to reflect and respond to the cultural values of the community; f) to promote local character in a planned and informed manner.	concept plan which is sited and designed in compliance with the public art standards in the Infrastructure design planning scheme policy.	☒ **Not Applicable** PO13 does not apply. The development does not propose public art.	
PO14 Development provides signage of buildings and spaces which promote legibility to help users find their way.	**AO14** Development provides public signage: a) at public transport interchanges and stops, key destinations, public spaces, pedestrian linkages and at entries to centre developments; b) which details the location of the key destinations, public spaces and pedestrian linkages in the vicinity, the services available within the development and where they are located.	☐ **Complies** ☐ **Performance Solution** ☒ **Not Applicable** PO14 does not apply. The development does not propose signage.	
PO15 Development that provides community facilities which form part of the development is functional, safe, low maintenance, and fit for purpose.	**AO15** Development that provides community facilities which form part of the development is designed in compliance	☐ **Complies** ☐ **Performance Solution** ☒ **Not Applicable**	

Performance Outcomes	Acceptable Outcomes	Does the proposal meet the acceptable outcomes?	Council Use
	with the community facilities standards in the Infrastructure design planning scheme policy.	PO15 does not apply. The development does not propose the provision of community facilities.	
PO16 Development provides public toilets which: a) are required as part of a community facility or park; b) are located, designed and constructed to be: c) safe; d) durable; e) resistant to vandalism; f) able to service expected demand; g) fit for purpose.	**AO16** Development that provides public toilets is designed and constructed in compliance with the public toilets standards in the Infrastructure design planning scheme policy.	☐ **Complies** ☐ **Performance Solution** ☒ **Not Applicable** PO16 does not apply. The development does not propose the provision of public toilets.	
PO17 Development provides bridges, tunnels, elevated structures and water access structures that are designed and constructed using proven methods, materials and technology to provide for: a) safe movement of intended users; b) an attractive appearance appropriate to the general surroundings and any adjacent structures; c) functionality and easy maintenance; d) minimal whole-of-life cost; e) longevity;	**AO17** Development that provides bridges, tunnels, elevated structures and water access structures is designed and constructed in compliance with the standards in the Infrastructure design planning scheme policy.	☐ **Complies** ☐ **Performance Solution** ☒ **Not Applicable** PO17 does not apply. The development does not propose the listed infrastructure.	

Performance Outcomes	Acceptable Outcomes	Does the proposal meet the acceptable outcomes?	Council Use
f) current and future services.			
PO18 Development provides culverts which are designed and constructed using proven methods, materials and technology to provide for: a) safety; b) an attractive appearance appropriate to the general surroundings; c) functionality and easy maintenance; d) minimal whole-of-life cost; e) longevity; f) future widening; g) current and future services; h) minimal adverse impacts, such as increase in water levels or flow velocities, and significant change of flood patterns.	**AO18** Development that provides culverts is designed and constructed in compliance with the structures standards in the Infrastructure design planning scheme policy.	☐ **Complies** ☐ **Performance Solution** ☒ **Not Applicable** PO18 does not apply. The development does not propose culverts.	
PO19 Development provides batters, retaining walls, and seawalls and river walls which are designed and constructed using proven methods, materials and technology to provide for: a) safety; b) an attractive appearance appropriate to the surrounding area; c) easy maintenance; d) minimal whole-of-life cost; e) longevity;	**AO19** Development that provides batters, retaining walls, seawalls and river walls is designed and constructed in compliance with the structures standards in the Infrastructure design planning scheme policy.	☐ **Complies** ☐ **Performance Solution** ☐ **Not Applicable** The development is expected to readily comply. Retaining and batter design will be in accordance with the infrastructure design policies of the BCC City Plan during	

Performance Outcomes	Acceptable Outcomes	Does the proposal meet the acceptable outcomes?	Council Use
f) minimal water seepage.		the detailed design phase of the development.	

5.0 Stormwater Code

4.1Section A (If for a material change of use, reconfiguring a lot, operational work or building work)

Performance Outcomes	Acceptable Outcomes	Does the proposal meet the acceptable outcomes?	Council Use
PO1 Development provides a stormwater management system which achieves the integrated management of stormwater to: a) minimise flooding; b) protect environmental values of receiving waters; c) maximise the use of water sensitive urban design; d) minimise safety risk to all persons; e) maximise the use of natural waterway corridors and natural channel design principles.	**AO1** Development provides a stormwater management system designed in compliance with the **Infrastructure design planning scheme policy**	☒ **Complies** ☐ **Performance Solution** ☐ **Not Applicable** PO1 applies. Refer *C_26072 R001_Civil Engineering Report* by Context Engineering for detail.	
PO2 Development ensures that the stormwater management system and site work does not adversely impact flooding or drainage characteristics of premises which are up slope, down slope or adjacent to the site.	**AO2.1** Development does not result in an increase in flood level or flood hazard on up slope, down slope or adjacent premises. **AO2.2** Development provides a stormwater management system which is designed in compliance with the standards in the Infrastructure design planning scheme policy.	☐ **Complies** ☐ **Performance Solution** ☒ **Not Applicable** PO2 does not apply. The subject site is not affected by flooding.	

Performance Outcomes	Acceptable Outcomes	Does the proposal meet the acceptable outcomes?	Council Use
PO3 Development ensures that the stormwater management system does not direct stormwater run-off through existing or proposed lots and property where it is likely to adversely affect the safety of, or cause nuisance to properties.	**AO3.1** Development ensures that the location of the stormwater drainage system is contained within a road reserve, drainage reserve, public pathway, park or waterway corridor. **AO3.2** Development provides a stormwater management system which is designed in compliance with the standards in the Infrastructure design planning scheme policy. **AO3.3** Development obtains a lawful point of discharge in compliance with the standards in the Infrastructure design planning scheme policy. **AO3.4** Where on private land, all underground stormwater infrastructure is secured by a drainage easement.	☐ **Complies** ☒ **Performance Solution** ☐ **Not Applicable** The development proposes a to divert minor flows away from adjoining properties and instead discharge to the nominated LPOD of McGinn Road. Refer Section 4 of *C_26072 R001_Civil Engineering Report* by Context Engineering for detail.	
PO4 Development provides a stormwater management system which has sufficient capacity to safely convey run-off taking into account increased run-off from impervious surfaces and flooding in local catchments.	**AO4.1** Development provides a stormwater conveyance system which is designed to safely convey flows in compliance with the	☒ **Complies** ☐ **Performance Solution** ☐ **Not Applicable**	

Performance Outcomes	Acceptable Outcomes	Does the proposal meet the acceptable outcomes?	Council Use
	standards in the Infrastructure design planning scheme policy. **AO4.2** Development provides sufficient area to convey run-off which will comply with the standards in the Infrastructure design planning scheme policy.	PO4 applies. The stormwater conveyance system has been designed in accordance with the Infrastructure design planning scheme policy and QUDM.	
PO5 Development designs stormwater channels, creek modification works, bridges, culverts and major drains to protect and enhance the value of the waterway corridor or drainage path for fauna movement.	**AO5** Development ensures the design of stormwater channels, creek modifications or other infrastructure, permits terrestrial and aquatic fauna movement.	☐ **Complies** ☐ **Performance Solution** ☒ **Not Applicable** PO5 does not apply. The development does not propose channels or waterway modifications	
PO6 Development ensures that location and design of stormwater detention and water quality treatment: a) minimises risk to people and property; b) provides for safe access and maintenance; c) minimises ecological impacts to creeks and waterways.	**AO6.1** Development locates stormwater detention and water quality treatment: a) outside of a waterway corridor; b) offline to any catchment not contained within the development. **AO6.2** Development providing for stormwater detention and water quality treatment devices are designed in compliance with	☒ **Complies** ☐ **Performance Solution** ☐ **Not Applicable** PO6 applies. Refer Section 4 of *C_26072 R001_Civil Engineering Report* by Context Engineering for detail.	

Performance Outcomes	Acceptable Outcomes	Does the proposal meet the acceptable outcomes?	Council Use
	the standards in the Infrastructure design planning scheme policy.		
PO7 Development is designed, including any car parking areas and channel works to: a) reduce property damage; b) provide safe access to the site during the defined flood event.	**AO7.1** Development (including any ancillary structures and car parking areas) is located above minimum flood immunity levels in **Table 9.4.9.3.B**, **Table 9.4.9.3.C**, **Table 9.4.9.3.D**, **Table 9.4.9.3.E** and **Table 9.4.9.3.F**. **AO7.2** Development including the road network provides a stormwater management system that provides safe pedestrian and vehicle access in accordance with the standards in the **Infrastructure design planning scheme policy**.	☐ **Complies** ☐ **Performance Solution** ☒ **Not Applicable** PO7 does not apply. The subject site is not mapped within a flood affected zone and therefore has no applicable DFL.	
PO8 Development designs stormwater channels, creek modification works and the drainage network to protect and enhance the environmental values of the waterway corridor or drainage path.	**AO8.1** Development ensures natural waterway corridors and drainage paths are retained. **AO8.2** Development provides the required hydraulic conveyance of the drainage channel and floodway, while maximising its potential to maximise environmental benefits and minimise scour. **AO8.3**	☐ **Complies** ☐ **Performance Solution** ☒ **Not Applicable** PO8 does not apply. The development does not propose open channels or creek modifications.	

Performance Outcomes	Acceptable Outcomes	Does the proposal meet the acceptable outcomes?	Council Use
	Development provides stormwater outlets into waterways, creeks, wetlands and overland flow paths with energy dissipation to minimise scour in compliance with the standards in the Infrastructure design planning scheme policy. **AO8.4** Development ensures that the design of modifications to the existing design of new stormwater channels, creeks and major drains is in compliance with the standards in the Infrastructure design planning scheme policy.		
PO9 Development is designed to manage run-off and peak flows by minimising large areas of impervious material and maximising opportunities for capture and re-use.	**AO9** No acceptable outcome is prescribed.	☐ **Complies** ☒ **Performance Solution** ☐ **Not Applicable** The development is designed to achieve a non-worsening outcome for neighbouring properties by reducing peak flows discharging to the property as overland flow. Minor flows generated by the development will be captured and conveyed to the existing	

Performance Outcomes	Acceptable Outcomes	Does the proposal meet the acceptable outcomes?	Council Use
		stormwater infrastructure of McGinn Road.	
PO10 Development ensures that there is sufficient site area to accommodate an effective stormwater management system.	**AO10** No acceptable outcome is prescribed.	☒ **Complies** ☐ **Performance Solution** ☐ **Not Applicable** PO10 applies. The stormwater management network adequately fits within the bounds of the subject allotment.	
PO11 Development provides for the orderly development of stormwater infrastructure within a catchment, having regard to the: a) existing capacity of stormwater infrastructure within and external to the site, and any planned stormwater infrastructure upgrades; b) safe management of stormwater discharge from existing and future up-slope development; c) implication for adjacent and down-slope development.	**AO11.1** Development with up-slope external catchment areas provides a drainage connection sized for ultimate catchment conditions that is directed to a lawful point of discharge. **AO11.2** Development ensures that existing stormwater infrastructure that is undersized is upgraded in compliance with the Local government infrastructure plan and the standards in the Infrastructure design planning scheme policy.	☒ **Complies** ☐ **Performance Solution** ☐ **Not Applicable** PO11 applies. The proposed stormwater infrastructure has been designed to match existing conditions of discharge to ensure that the capacity of existing infrastructure can adequately accommodate developed flows.	

Performance Outcomes	Acceptable Outcomes	Does the proposal meet the acceptable outcomes?	Council Use
PO12 Development provides stormwater infrastructure which: a) remains fit for purpose for the life of the development and maintains full functionality in the design flood event; b) can be safely accessed and maintained cost effectively; c) ensures no structural damage to existing stormwater infrastructure.	**AO12.1** The stormwater management system is designed in compliance with the Infrastructure design planning scheme policy. **AO12.2** Development provides a clear area with a minimum of 2m radius from the centre of an existing manhole cover and with a minimum height clearance of 2.5m.	☒ **Complies** ☐ **Performance Solution** ☐ **Not Applicable** PO12 applies. The proposed drainage solution has been designed in accordance with Infrastructure design planning scheme policy as well as QUDM. Refer Section 3-5 of *C_26072 R001 Civil Engineering Report* by Context Engineering for further detail.	
PO13 Development ensures that all reasonable and practicable measures are taken to manage the impacts of erosion, turbidity and sedimentation, both within and external to the development site from construction activities, including vegetation clearing, earthworks, civil construction, installation of services, rehabilitation, revegetation and landscaping to protect: a) the environmental values and water quality objectives of waters; b) waterway hydrology;	**AO13** No acceptable outcome is prescribed.	☒ **Complies** ☐ **Performance Solution** ☐ **Not Applicable** PO13 applies. Refer *C_26072 DA80 Erosion and Sediment Control Layout Plan* by Context Engineering for further detail.	

Performance Outcomes	Acceptable Outcomes	Does the proposal meet the acceptable outcomes?	Council Use
c) the maintenance and serviceability of stormwater infrastructure.			
PO14 Development ensures that: a) unnecessary disturbance to soil, waterways or drainage channels is avoided; b) all soil surfaces remain effectively stabilised against erosion in the short and long term.	**AO14** No acceptable outcome is prescribed.	☒ **Complies** ☐ **Performance Solution** ☐ **Not Applicable** PO14 applies. Refer *C_26072 DA80 Erosion and Sediment Control Layout Plan* by Context Engineering for further detail.	
PO15 Development does not increase: a) the concentration of total suspended solids or other contaminants in stormwater flows during site construction; b) run-off which causes erosion either on site or off site.	**AO15** No acceptable outcome is prescribed.	☒ **Complies** ☐ **Performance Solution** ☐ **Not Applicable** PO15 applies. Refer *C_26072 DA80 Erosion and Sediment Control Layout Plan* by Context Engineering for further detail.	

5. Disclaimer

This report has been prepared on behalf of and for the exclusive use of Stay Developments and is subject to and issued in accordance with the agreement between Context Engineering.

Our investigation and analysis has been specifically catered for the particular requirements of Stay Developments and may not be applicable beyond this scope. For this reason, any other third parties are not authorised to utilise this report without further input and advice from Context Engineering.

Context Engineering accepts no liability or responsibility whatsoever for the report in respect of any use of or reliance upon this report by any third party.

The investigation and analysis have relied on information provided by others. We accept no responsibility for the accuracy of material supplied by others. The accuracy of the investigation, analysis and report are dependent upon the accuracy of this information.

80 McGinn Road, Ferny Grove
Code Response Report