



Planning Proposal - Rowan Village, 7066 Holbrook Road, Rowan Existing Services Infrastructure Assessment

DevCore Developments Pty Ltd

19 April 2022

ROWAN RD

→ **The Power of Commitment**

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1. Introduction

1.1 Background

GHD have been engaged by Rowan Village Pty Ltd (via DevCore and Urbis) to conduct a review of existing services, and an investigation of the infrastructure servicing requirements, for the proposed development of the following lots (hereby referred to as the Site):

- Lot 18 in DP 1054800
- Lots 24, 26, 43, 65, 66 in DP 757246
- Lot 23 in DP 1063399
- Lots 1 and 2 DP 1171894

The existing cadastral plan showing the relationship between the lots within the Site is shown in Appendix A.

1.2 Location

The Site is located to the south of Lloyd Road, crossing the suburbs of Springvale and Rowan, within the Wagga Wagga City Council Local Government Area.

The Site is shown in Figure 1 below:



Figure 1 Relative location of the proposed development to the suburbs and City of Wagga Wagga

1.3 Development Context and Planning Inputs

Rowan Village Pty Ltd is in the preparation stage of proposing to rezone a 225.02 hectares site from RU1 (Primary Production) to R1 General Residential, R5 Large Lot Residential, B2 Local Centre and RE1 Public Recreation.

The site is currently vacant cropping and grazing land. Future development options for the site are being investigated, with a range of residential typologies including rural transition residential lots, neighbourhood residential lots and village residential lots.

The current Indicative Layout Plan (ILP) being developed for this site by Urbis, is shown in Figure 2 below and found in more detail in Appendix B.



Figure 2 *Indicative Layout Plan, developed by Urbis*

Based on a dwelling yield of 10 dwellings per hectare, the Planning Proposal master plan will enable the delivery of circa 2,100 dwellings across a 225-hectare site area, which importantly will encompass the delivery of a diverse mix of low-density residential housing typologies described as follows:

- Rural transition residential lots – These residential lots will be located along the southern boundary of the site and will be the largest residential lot typology. This lot typology will importantly provide an appropriate transition between the site and the adjacent rural context to the south of Rowan Road.
- Neighbourhood residential lots – A range of suitable low density residential lots will be accommodated within close proximity to open space provision and the riparian corridor network. This lot typology will provide the appropriate transition between the village residential lots and the rural transition lots. A diversity of lot sizes will be delivered through the neighbourhood residential lot typology.
- Village residential lots – These residential lots will leverage off the close proximity to the local centre and its associated amenities and offerings. Fundamentally, these residential lots will still uphold the low-density residential housing charter that the site will deliver, whilst ensuring that an appropriate diversity of housing choice is delivered.

1.4 Purpose of this report

The objective of this report is to collect and review the existing services infrastructure networks and provide an overview of each. Additionally, a potential strategy will outline what may be required for the proposed subdevelopment, to understand any constraints that may affect the development.

1.5 Scope

GHD have been engaged for the following scope of works, as documented throughout this report:

- Review current Indicative Layout Plan (ILP) developed by Urbis and provide initial high-level commentary and mark-up
- Complete a DBYD to confirm the location of services
- Complete an assessment of services infrastructure expected as part of this development, including an understanding of the location and capacity of existing networks, as well as an outline of the expected impacts of the proposed development (which would include sewer, gas, potable water supply, stormwater, electrical and telecommunications)
- Liaise with the relevant Local Service providers to confirm the closest and most appropriate location for connection for the development. Note that due to the size of the development, there could be significant time for liaison with Essential Energy
- A review of the requirements for the connection will be undertaken, including an assessment of existing capacity of the service, potential load for the subdivision and identification of any potential upgrade requirements for the existing networks

1.6 Limitations

This report has been prepared by GHD for DevCore Developments Pty Ltd and may only be used and relied on by DevCore Developments Pty Ltd for the purpose agreed between GHD and DevCore Developments Pty Ltd as set out in section 1.5 of this report.

GHD otherwise disclaims responsibility to any person other than DevCore Developments Pty Ltd arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report (refer section 1.7 of this report). GHD disclaims liability arising from any of the assumptions being incorrect.

1.7 Assumptions

The following assumptions are to be noted when reading this report:

- This report is based on information provided by relevant service providers. Accuracy associated with actual locations of infrastructure is limited to the information issued by the providers.
- Capacity of the services has been provided by the relevant service providers and GHD has not undertaken any verification to confirm its accuracy.
- It should be noted that it is likely for the concept plan to change prior to the detailed design being finalised which may impact the servicing strategy.

2. Electricity Servicing

GHD has undertaken this desktop assessment based on Essential Energy's limited available network information and Essential Energy's Distribution Annual Planning Report. An application for preliminary network information has been submitted to Essential Energy to validate our conclusions (Enquiry No. 57570247), though at the time of writing this report we are yet to receive a response.

2.1 Existing Services

2.1.1 Transgrid

Review of Transgrid's published data shows existing 132kV lines existing on the eastern and southern sides of the development area as seen in the figure below. These lines are not suitable for the purposes of servicing the proposed development but are noted here for context.

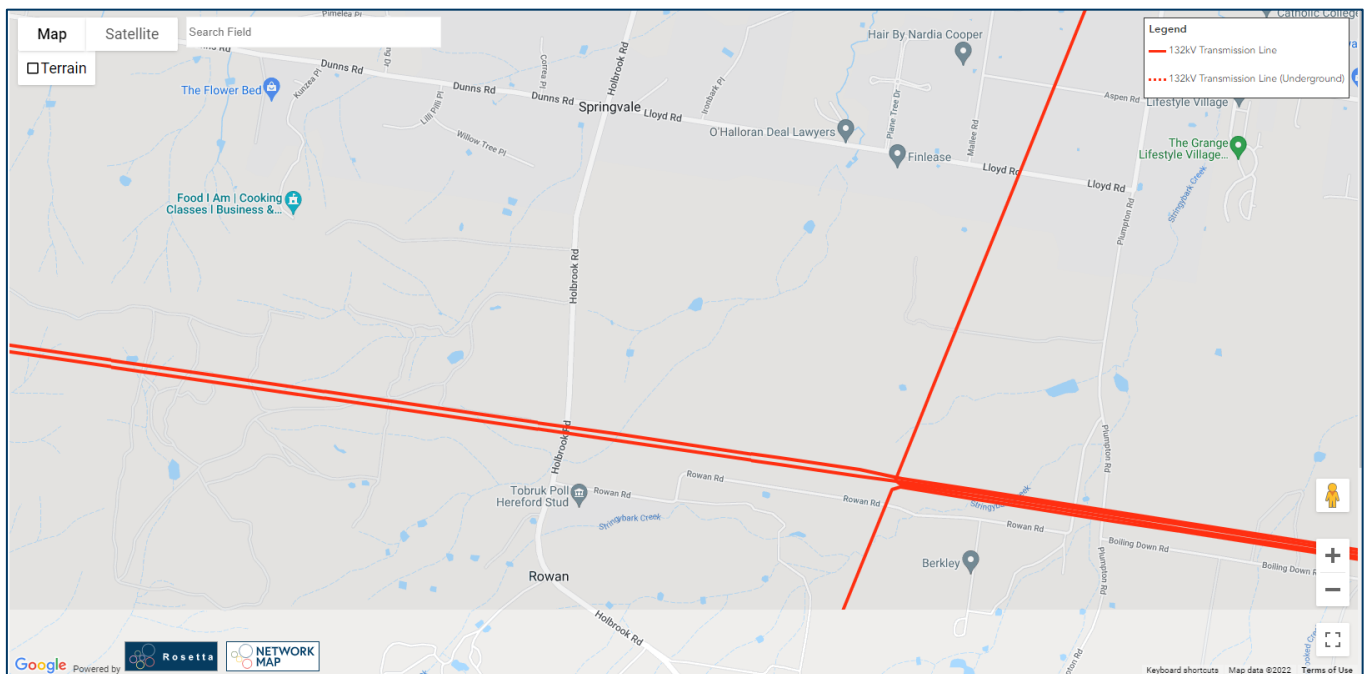


Figure 3 Transgrid Rosetta Portal showing lines adjacent to the Site

2.1.2 Essential Energy

The following is observed from the Essential Energy DBYD plans (contained in Appendix C)

- The DBYD from Essential Energy identified no existing overhead or underground transmission cable within the bounds of the Site area, or interfaces to adjoining lots

Additionally, the Essential Energy GIS mapping tool was reviewed. The following observations were made:

- There is an existing 66kV line along the southern edge of the Lloyd Road reserve. Impacting poles for this line should be avoided when making the northern entry road connections.
- Whilst there are no existing overhead or underground transmission lines within the site area, there are existing 11kV and LV overhead lines in the immediate surrounds. These 11kV feeders are fed from the Koorngal Zone Substation near the corner to Koorngal Road and Cochrane Street.
- No underground high voltage (HV) or low voltage (LV) cabling is documented within the proposed Site

A summary of the nearby poles and overhead lines is shown in Figure 4 below:



Figure 4 Essential Energy GIS showing poles and lines adjacent to the Site

Further information may be found at <https://essentialenergy.maps.arcgis.com/>

2.1.3 Service Provider Discussion

The timeframe of the desktop study did not allow for formal consultation with Essential Energy. It is recommended Essential Energy be consulted to provide greater confidence in the short term and future servicing strategy.

2.2 Servicing Strategy

2.2.1 Demand Assessment

The proposed development of nominally 2,100 lots is anticipated to require approximately 6MVA of electrical capacity to be installed. This assumes there are no major power users within the small commercial area, which is assumed to comprise of retail type business. 6MVA is approximately the nominal capacity of an 11kV feeder and it is unlikely existing infrastructure has 6MVA of spare capacity.

On this basis, it is anticipated that additional feeders would be required to service the development.

2.2.2 Potential Points of Supply

The development is likely to be supplied from one of two zone substations:

- Koorungal ZS, located on Koorungal Rd near the intersection with Cochrane Street
- Bourkelands ZS, located near the intersection of Bourke Street and Holbrook Road

Koorungal ZS, is approximately 6km to the north-east of the development, while Bourkelands ZS is approximate 3.5km due north. While Bourkelands ZS is closer, it does not currently appear to have adequate capacity to service the full extent of development identified, while Koorungal ZS does.

Figure 5 below shows the relative location of the site to these substations.

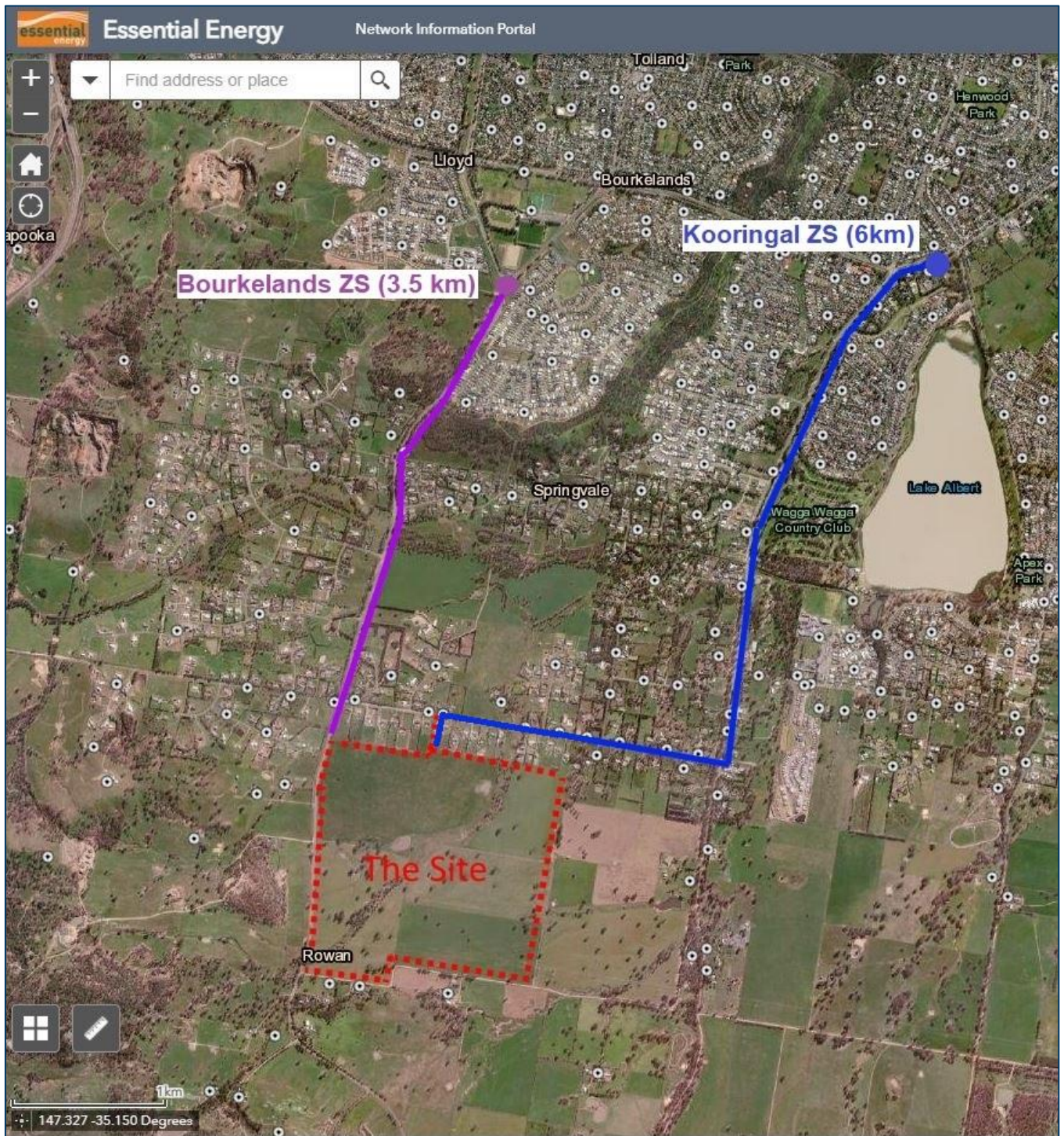


Figure 5 Proposed Development relative to nearest substation

2.2.3 Provision of Electricity for the subdivision

The proposed development is likely to be fed from existing high voltage lines in the short term until available capacity is exhausted, at which point a new feeder from either Koorungal ZS or Bourkelands ZS will be required. This new feeder is likely to be a predominately overhead line consistent with 11kV feeders in the area.

Reticulation through and within the development is likely to be underground distribution mains, with the rural transition lots in the southern area potentially serviced with overhead lines.

2.2.4 Commentary on risk to development

Based on the desktop assessment undertaken, we do not anticipate any significant impediments regarding electricity supply that would prevent the rezoning of the land.

While the site has existing easements for existing Transgrid assets, these have been considered in the preliminary planning designs. Roads and services intending to cross the easements should be coordinated to avoid existing poles and ensuring adequate clearances are maintained. This is considered a standard risk and should not be considered an impediment to development.

At this stage there is no reason to suspect the site cannot be serviced by Essential Energy. Confirmation of the extent of works required will require consultation with Essential Energy.

3. Telecommunications

3.1 Existing Service Review

It is a requirement for residential lots to have telecommunications available. The carrier of last resort refers to the telecommunications company that is required to provide the service to any customer that requests it regardless of the economic viability of providing it.

As the proposed development is large (i.e. nominally 2,100 lots), NBN would be considered the carrier of last resort. NBN would therefore be required to provide communications services to the lots within the development.

The NBN Co planning map (<https://www.nbnco.com.au/learn/rollout-map>) does not show any proposed installation of their fibre network scheduled for the immediate future, noting the area is currently serviced by fixed wireless services. Fibre to the Curb (FTTC) services are provided to the existing residential lots to the North of the site, along Lloyd Road.

As part of this proposed development, it would be recommended in discussing with NBN Co on extension of fixed, FTTC services to the new lots.

Further engagement with the service provider should occur during the DA phase of the project when lot layouts and exact demand is better understood.

3.1.1 Service Provider Map Review

The following is observed from the NBN Co Dial Before You Dig (DBYD) plans (contained in Appendix C)

- Fixed in ground Fibre Services run along Holbrook Rd to the northwest of the site, travelling North towards the centre of Wagga Wagga. Services then branch at the Dunns Road / Lloyd Road / Holbrook Road intersection, generally East and West to service existing lots.
- No other fixed in ground NBN Co telecommunications services are evident within the vicinity of the lot proposed for development.

In addition to the likely source of communications for the development, other telecommunications services within the area, that may impact on the design and / or development of the site were reviewed.

The following is observed from the AARNet (Australian Academic and Research Network) DBYD plans (contained in Appendix C)

- There is an AARNet Fibre Optic Cable that runs along the western and southern boundaries of the Site, along Holbrook Rd and Rowan Rd, respectively. This Fibre is for private use, and not eligible for use with this development.

There is also what appears to be Optus cabling, which runs along Holbrook Rd to the northwest of the site, travelling North towards the centre of Wagga Wagga. When it reaches the intersection of Dunns Road / Lloyd Road / Holbrook Roads, it travels to the South – West away from the proposed site. Based on available information, it is unlikely to impact on the proposed development of the nominated site.

3.2 Servicing Strategy

3.2.1 Provision of Telecommunications for Subdivision

As mentioned above, NBN Co is the carrier of last resort for a development of this size. Therefore, it is recommended that early consultation, application for a new development be undertaken with NBN Co, once the subdivision design has been resolved. This can be undertaken through the online process, explained on the NBN Co website: <https://www.nbnco.com.au/develop-or-plan-with-the-nbn/new-developments/submit-and-apply>

On review of the available DBYD data, it is likely that NBN Co would advocate for connection into the existing FTTC fixed network from a pit, located on the North-West corner of the intersection of Holbrooks, Dunns and Lloyd Roads. As part of the subdivision works, pit and pipe would have to be laid along the Western verge of Holbrooks Road, travelling South and under Holbrook Road into the development, running along the verge of the proposed new collector road.

This potential connection approach is visualised in Figure 6 below:



Figure 6 Potential reticulation path for communications into existing NBN Fibre to the Curb (FTTC) network

Within the development, a NBN Co compliant pit and pipe installation would have to be designed by a NBN Co trained supplier and submitted for approval. NBN Co note that a minimum of six months' notice is required prior to an active connection being installed onto any premises of a development of this size; assuming that the installation of infrastructure (pit and pipe) is compliant with their guidelines.

The developer is expected to contribute to the Local Network within the boundary of the Site. The demarcation points in the implementation of new infrastructure are shown in Figure 7 below:

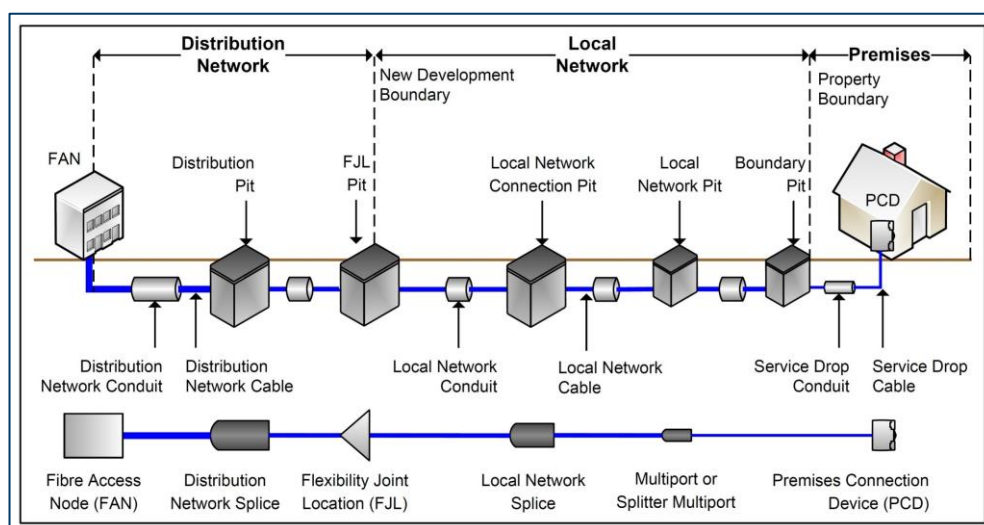


Figure 7 NBN FTTP Network delineation for new developments (image courtesy of NBN Co)

4. Gas

Information regarding the Rowan Village gas supply was provided by APA Group from a DBYD request dated 21st of February 2022. GHD received 2 responses from the APA Group dated 21st February and 1st of March 2022. GHD has undertaken a desktop assessment from this information.

4.1 Existing Services

4.1.1 APA Group Service Provider Maps

- DBYD from APA shows a 110mm P10 rated pipe running to the north of the site, along Lloyd Rd. Existing gas material is a medium density polyethylene (PE) pipe. The approximate pipe location is 600 m from the northern site boundary. The exact location would be confirmed on site prior to construction.
- There are no gas services currently passing through Holbrook Road, Rowan Road and Plumpton or adjacent to the proposed development area.

4.1.2 Service Provider Discussion

After discussion with an APA Gas representative, it was identified that the existing main transmission line would be unsuitable to connect directly into, as it is too far from the site location. The relative position of the gas transmission line to the Site is shown in Figure 8 below.

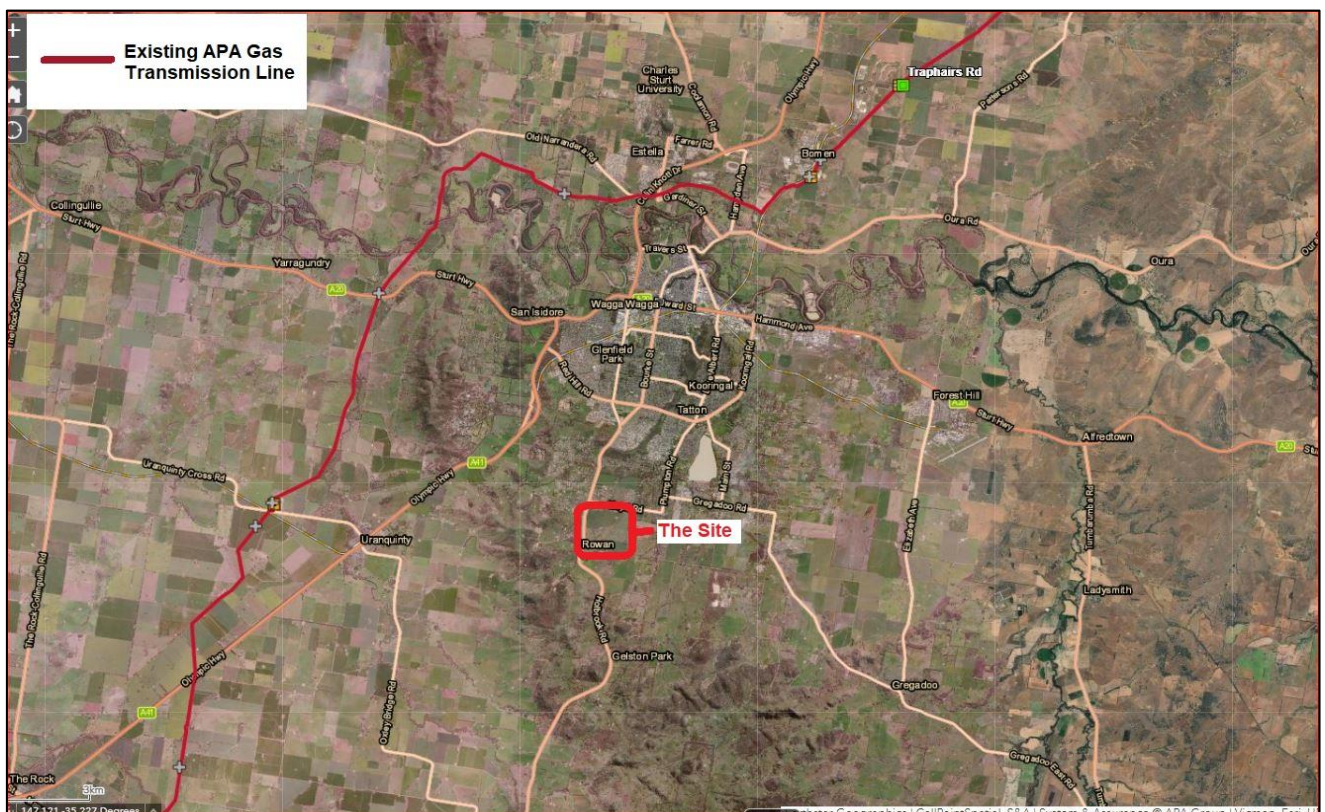


Figure 8 Existing APA Gas main transmission line

Further discussion with the Australian Gas Infrastructure Group (AGIG) on the 4th March 2022 revealed that the nearest domestic connection line suitable to interface with the proposed development is located at the junction of Dunns Road and Holbrook Road, to the northwest of the site. This location is only 250 metres from the development.

Figure 9 below shows the location of the Site relative to the nearest domestic pipe connection.

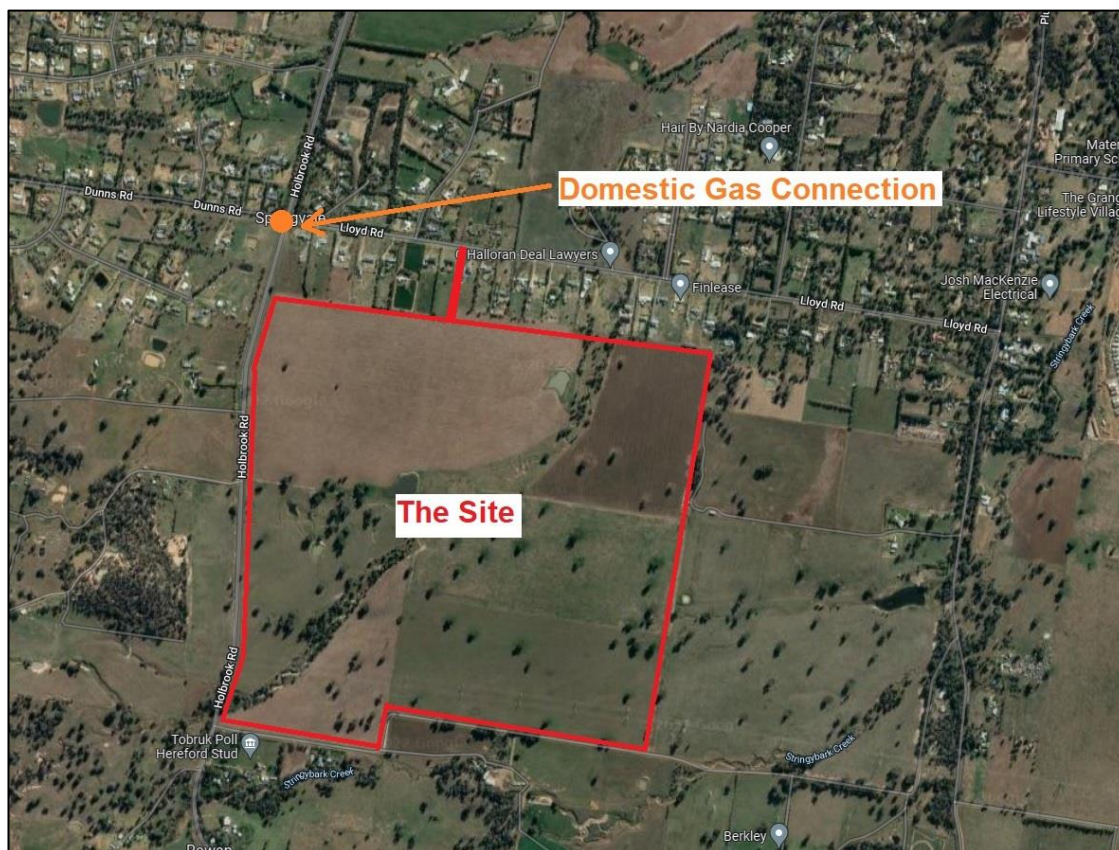


Figure 9 Proposed development location relative to the existing domestic gas network

In order to interface with the existing lines it is likely that under-boring of Holbrook Road will be required. Holbrook Road is classified as a Regional Road, and therefore the controlling authority for an under-bore approval would be Wagga Wagga City Council. Further engagement with the service provider should occur during the DA phase of the project when lot layouts and exact demand is better understood.

4.2 Servicing Strategy

4.2.1 Demand Assessment

The proposed development of nominally 2,100 lots will likely require approximately 3,689m³/h capacity. The estimated average gas demand of one lot is approximately 1.7m³/h capacity. The site will be serviced by a medium pressure gas mains at the junction of Dunns Road and Holbrook Road. The 110mm gas main is considered sufficient for the site. However, the pressure requirements of the main is questionable and needs to be coordinated further with the service provider for their approval, once the finalised total dwelling yield is known. Based on experience, a nominal service demand of 5,000m³/h may trigger the requirement to install a new large diameter higher pressure gas main.

4.2.2 Provision of Gas for Subdivision

In accordance with APA and AGIG discussions, the connection point for the gas services to supply the subdivision would be at the closest gas regulator, will be in the junction of Holbrook Road and Lloyd Road.

It is an industry standard that a consumer is not entitled to more than one network service to any one continuous property. However, if another network service is needed in a different location to that normally provided, the consumer must ask the service provided for approval. At this stage there is no reason to suspect the site cannot be serviced by AGIG, on behalf of APA Gas. Confirmation of the extent of works required will require consultation with APA Gas once the layout is complete and exact serviceable footprint is known.

5. Potable Water Supply

5.1 Existing Services

5.1.1 Service Provider Maps

The DBYD from Riverina Water shows a main pipeline running south along Holbrook Road, along the western boundary of Lot 18 of DP1054800, and Lots 43, 65 and 66 of DP 757246. The pipeline comprises a combination of 63mm Polyethylene (PE), and 80mm Unplasticized Polyvinyl Chloride (UPVC).

Refer to Figure 10 below for a plan view of the proposed Site in relation to the existing Riverina Water supply network.

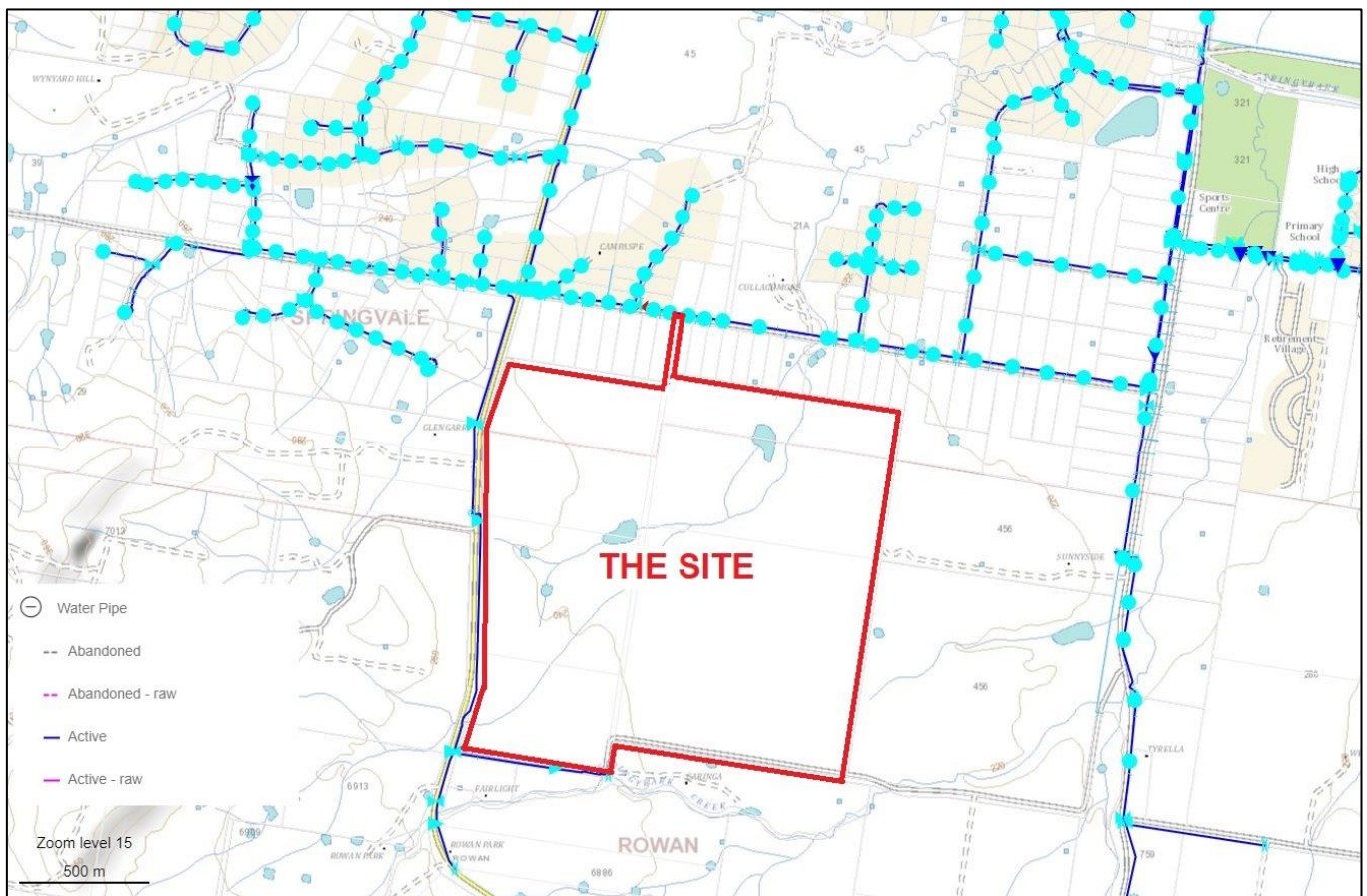


Figure 10 Proposed Site relative to existing potable water network

5.1.2 Service Provider Discussion

Discussion with a Development Officer at Riverina Water has indicated the following:

“The land is situated at an elevation (approx. 240m – 250m AHD) that is potentially serviceable from our existing Wagga Bellevue supply system. This system has a maximum serviceable elevation of 275m AHD.

The land is in the vicinity of existing water supply infrastructure located in Holbrook Rd but provision of supply is not currently available off existing infrastructure due to capacity limitations.”

From review of the Riverina Water Spectrum Spatial Analyst Software, the northwest corner of the site is indicatively 6,477 m south of the Bellevue Reservoir via the network. The relative location of the Site to these reservoirs is shown in Figure 11 below:



Figure 11 Riverina Water Bellevue Reservoir location relative to the Site

5.2 Servicing Strategy

5.2.1 Demand Assessment

The layout plan provided in Appendix B proposes a 2,100 lot development. This would result in the development requiring water supply capable of servicing 2,100 Equivalent Tenements.

Under *Section 64 Determinations of Equivalent Tenement Guidelines* an equivalent tenement for a single residential lot (house) is 230 kilolitres per annum of town water usage. This equates to 483,000 kilolitres (483 ML) per annum for the proposed layout plan.

The fire demand for a medium density housing is approximately 25 L/s. This needs to be included in the overall demand of the development including the pressure requirement of a hydrant.

5.2.2 Provision of Potable Water for Subdivision

The proposed development of 2,100 lots is significant enough that it will likely require upgrade to the existing watermain pipes, and also potentially additional reservoir capacity. The extent of upgrade would need to be designed in consultation with Riverina Water, to ensure upgraded capacity is cohesive with the rest of the network.

There is the potential that the development may occur over several years, with up to 200 lots expected to be released year-on-year.

Based on the DBYD information of the adjacent water supply network, the proposed Rowan Village development cannot be adequately serviced by the existing infrastructure. Due to the size of the proposed development, the existing water reticulation network will be required to be upgraded to ensure security of the water supply.

The relative location of the development with the Riverina Water network can be seen as part of the Riverina Water Operational Plan, found at this link: <https://rwcc.nsw.gov.au/about-us/corporate-documents/operational-plans/>

6. Sewerage

6.1 Existing Services

The Wagga Wagga City Council sewer network is managed by 3 sewerage treatment plants, specifically:

- Forest Hill Catchment
- Koorinal Catchment
- Narrung Street Catchment

This sewerage network comprises both pressurised and conventional sewerage systems. The proposed development lies to the south of the Koorinal Catchment, as shown in Figure 12 below:

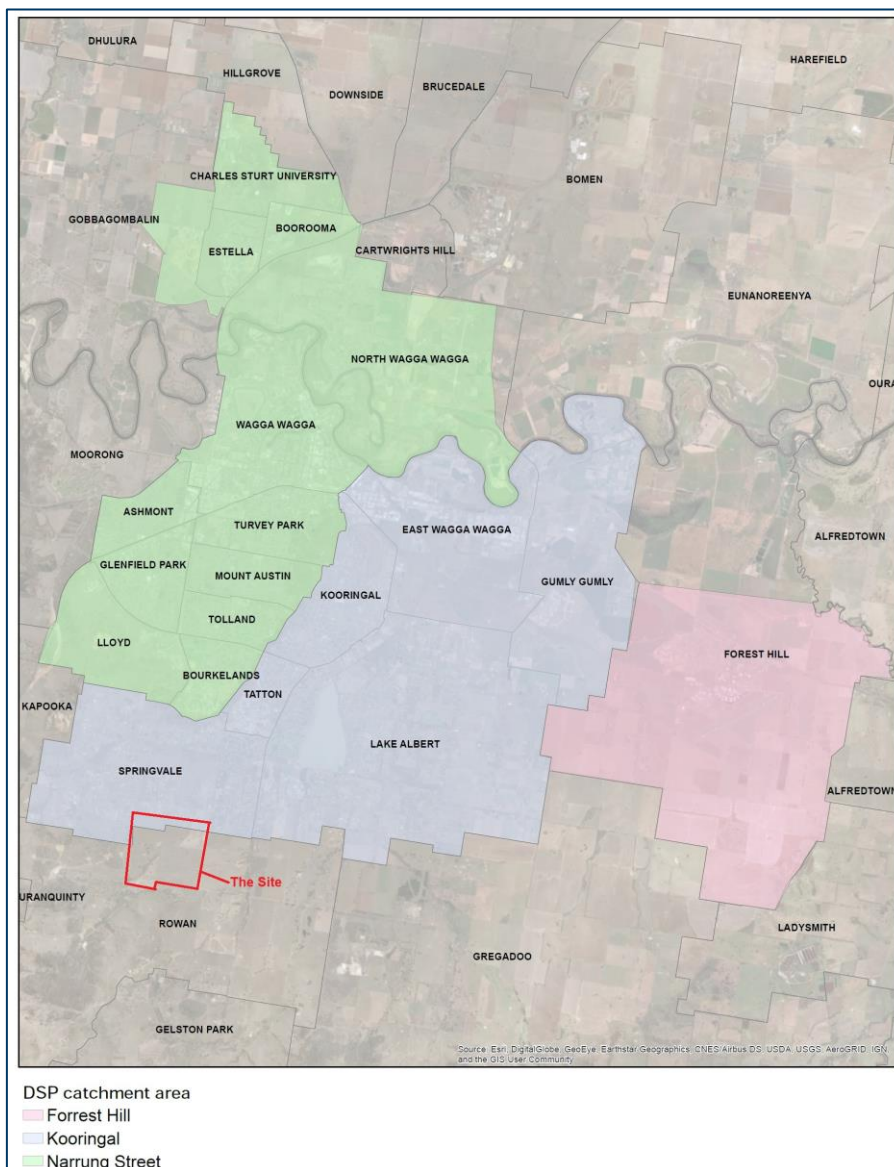


Figure 12 Sewer Catchment Areas – Wagga Wagga City Council

After discussion with Wagga Wagga City Council, it was confirmed that the Site lies beyond the extent of the existing sewer network. Figure 13 below shows the relative location of the proposed development to the existing sewer network.



Figure 13 Proposed development relative to nearby existing Sewer Network (image provided by WWCC)

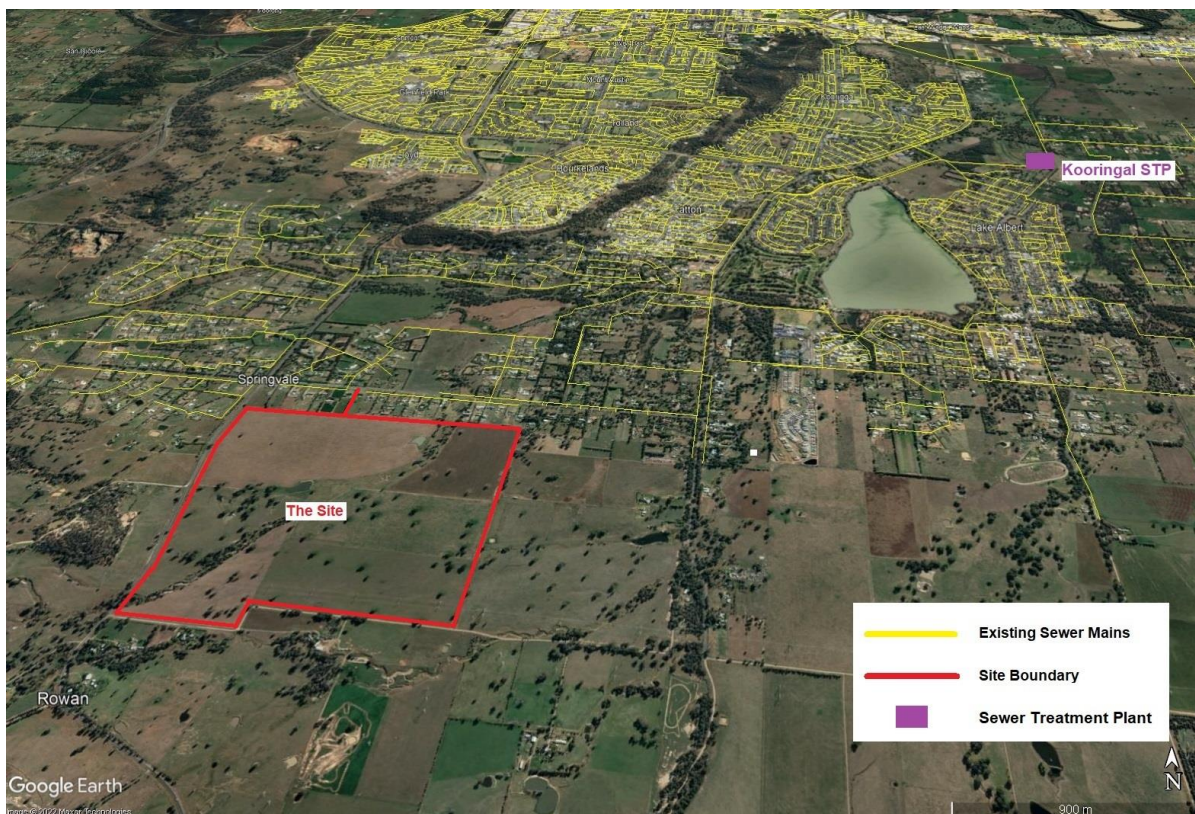


Figure 14 Proposed development relative to nearby Sewer Mains piping and Treatment Plant

The closest sewer to the proposed site is a 150mm dia. pipe to the North on Lloyds Rd, constructed in 2003 from Ultra-Rib PVC. Larger diameter 300mm (Ultra-Rib) and 375mm (Black Brute) sewer pipes may be found to the north-east along Plumpton Rd, enroute to the Koorngal Sewerage Treatment Plant at Vincent Rd. The Koorngal Sewerage Treatment plant lies 5300 metres north-east of the site.

6.2 Servicing Strategy

6.2.1 Demand Assessment

The layout plan provided in Appendix B proposes a nominal 2,100-lot development. This would result in the development producing indicatively 2,100 Equivalent Tenements (ET) of sewerage.

Under Section 64 Determinations of Equivalent Tenement Guidelines an equivalent tenement for a single residential lot (house) is 140 kilolitres per annum of sewerage. This equates to 294,000 kilolitres per annum for the proposed concept plan.

The proposed development is expected to require a capacity upward of DN300mm, however actual flowrates (L/s) and capacity would be calculated using WAS-02 (Sewerage Code of Australia) once dwelling numbers and layout are confirmed. Based on a new DN300mm line, this would need to reticulate into the existing network at Plumpton Rd near Nelson Rd (a distance of over 2,700 metres from the north-east corner of the site). Alternatively, if a larger capacity is required, the connection point would be further north, beyond Brindabella Drive (a distance of over 3,200 metres).

It is expected that this development will occur over several years, with early indications suggesting approximately 150-250 blocks released per year. In this situation, the peak sewer discharge would take 8-12 years to reach capacity.

6.2.2 Servicing Options

6.2.2.1 Wagga Wagga City Council Network

GHD have been advised that Wagga Wagga City Council (WWCC) is in the process of updating their Development Servicing Plan (DSP) for sewer services, which will outline a strategy for additions to the existing network throughout the city.

The level and details of augmentation to the existing sewer infrastructure along Lloyd Rd and/or Plumpton Rd to accommodate this development is recommended to occur as part of this strategic revision.

6.2.2.2 On-site Sewage Management System (OSMS)

The most common form of OSMS is a septic system. Septic systems require an irrigation area that will affect the minimum lot size of the development. The minimum lot size will depend upon the slope and soil characteristics of the land, and the relative location of the lot sizes on the concept plan.

For the current indicative layout plan, the 8,000 m² lots provisioned along the southern site boundary of Rowan Road may be suitable for OSMS. This alternative would minimise/remove the impact of sewer infrastructure on the electrical easement in this area also.

6.2.3 Provision of Sewerage for Subdivision

The existing data suggests that the redevelopment will potentially require upsizing of some existing sewer assets outside the Site to service the development, in particular, trunk sewer mains, sewer pump station upgrades, and new sewer pump stations.

A combination of both servicing options presented above may be relevant for this development. Further investigation and outcomes from Council will be required to determine the option best suited to the Client.

The following requirements are generally applicable to the servicing of new developments with water infrastructure:

- Lots of a size less than 4,000 m² should be provided with a reticulated sewer supply service.
- For both residential and industrial / commercial multiple unit developers, developers can choose to install common sewer supply infrastructure either to:
 - AS/NZS 3500 Acceptable Solutions, or AS/NZS 3500 Performance Requirements, with the Owners Corporation owning, operating and maintaining the works; or
 - WSAA MRWA standards with WWCC owning, operating and maintaining the assets.
- The Plan of Subdivision must establish easements to cover any new water service that is proposed to cross private land and all easements need to comply with Section 12 of the Subdivision Act 1988. Reserves need to be established where the proposed water service crosses land owned by another Government Authority.

6.2.4 Cost Allocation

The following principles are generally applicable to the allocation of cost for sewer infrastructure delivery, in accordance with the Wagga Wagga City Council Development Servicing Plan (DSP) No 1:

- Where an existing service is to be realigned due to development or changes to the subdivision of land, the property owner is liable for all associated costs.
- Where an existing service needs to be abandoned due to development or changes to the subdivision or land, the property owner is liable for all associated costs and may have to pay the undepreciated value of the service.
- The controlling authority is generally responsible for providing shared infrastructure assets (such as trunk mains, sewer pump stations, sewer treatment facilities, pressure sewer systems) with sufficient capacity in accordance with its asset development plan. Where proposed development will require the provision of shared distribution assets earlier than what has been planned by the controlling authority, developers will be responsible for the costs associated with bringing forward the provision of these assets ahead of the controlling authorities asset development sequence.
- Developers are responsible for providing reticulation assets within the development, and for the cost of connecting those assets to controlling authority's existing infrastructure. Reticulation assets are generally defined as sewer mains that are 225 mm or less in diameter.
- Generally, if a development requires extensions or upgrade works to the sewer network, the developer has to arrange and pay for construction. A reimbursement is payable by the controlling authority when shared distribution assets are required to be constructed for a development and the reimbursement provided varies with the type and value of the asset.
- Temporary works must be approved by the controlling authority and costs are generally attributable to the developer.
- If existing controlling authority assets require alteration as a result of a proposed development, the developer must pay the actual cost of this work.

7. Stormwater

7.1 Existing Site Conditions

There is an existing floodway running across the site, which facilitates the flow of surface water towards to the north and east and is a tributary of the Stringybark Creek. The surface water crosses Plumpton Road and discharges to Lake Albert.

In general terms, there is an average crossfall of 2% over the Site, with an indicative peak elevation of 256m AHD in the south-west corner, down to a trough of 223m in the north-east corner. An approximated sectional view of the elevation profile can be visualised in Figure 15 below:

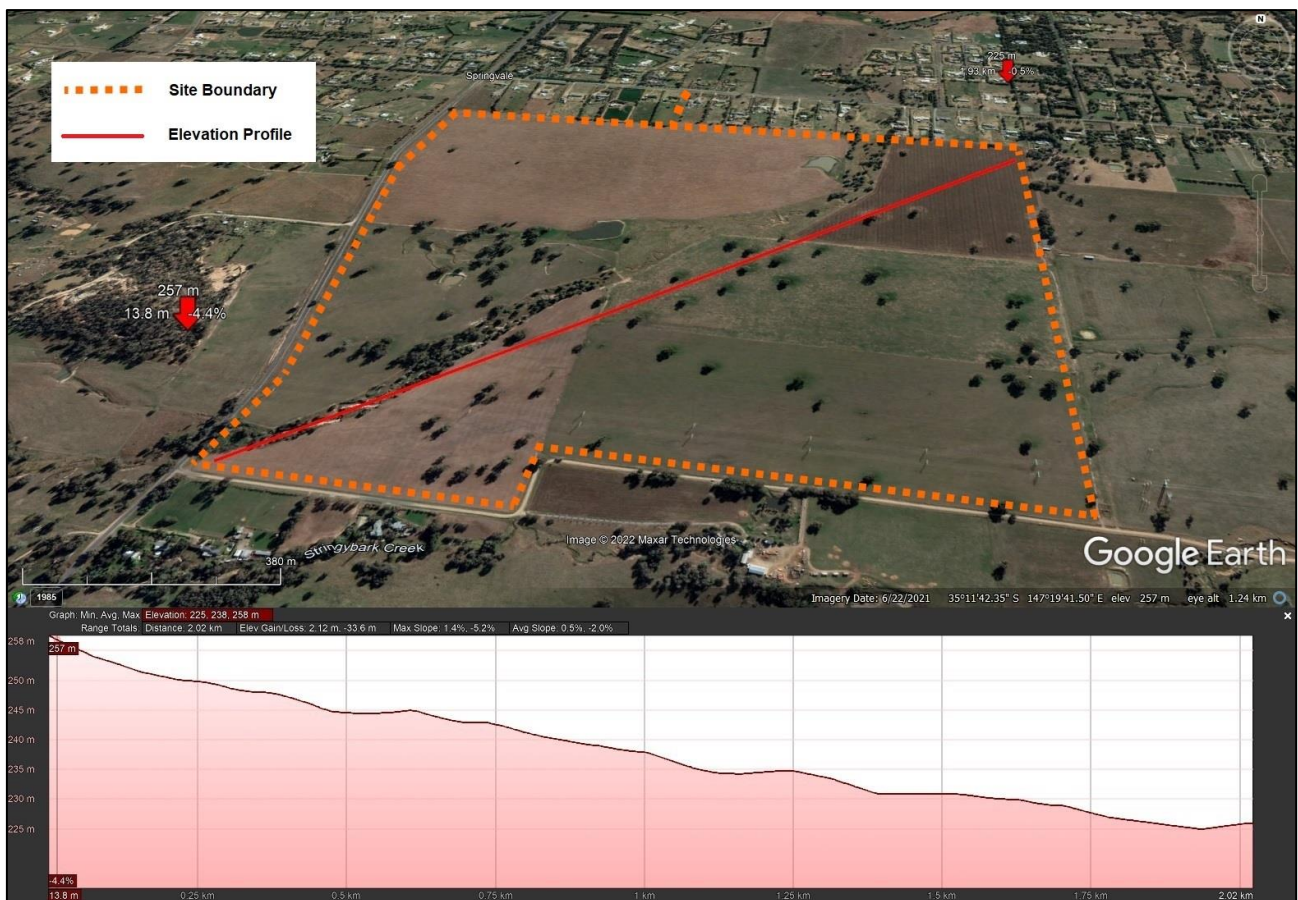


Figure 15 Elevation profile at the Site proposed for development

From survey data obtained by Wagga Surveyors Pty Ltd on 7th March 2022, it is shown that upstream stormwater is introduced into the site at 4 locations along Holbrook Road. These include the following:

- 2 x 375mm Reinforced Concrete Pipe (RCP) west of Lot 65 DP757246
- 525mm Reinforced Concrete Pipe (RCP) west of Lot 65 DP757246
- 450mm Reinforced Concrete Pipe (RCP) west of Lot 65 DP757246
- 2 x 1670mm Reinforced Concrete Pipe (RCP) west of Lot 43 DP757246

As the Site is currently zoned as RU1 (Primary Production) there is no formalised Stormwater Management Plan for this location. It is expected that a stormwater management strategy will be developed in accordance with the requirements of Wagga Wagga City Council prior to application approval, however that is beyond the scope of this review.

7.2 Flood Considerations

There have been a number of flood studies conducted in the area, including both riverine flood modelling and overland flow flood modelling. For both of the recent riverine flood models (from 2018 and 2012), the site lies beyond the defined flood impact zone.

For the most recent major overland flow flood study, conducted in 2021, the existing waterway in the Site begins to be partially impacted under the 1 in 20 year event, as shown in Figure 16 below:

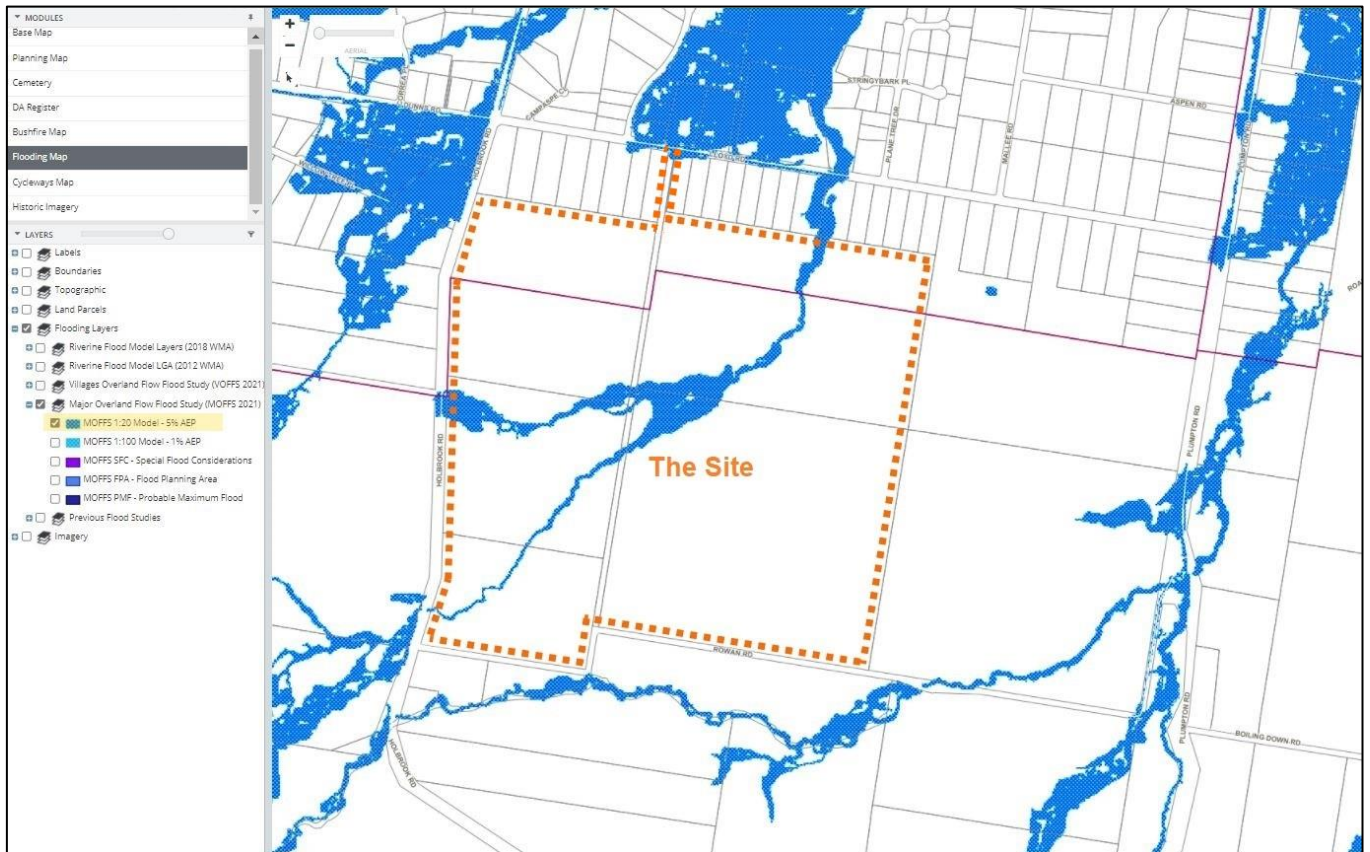


Figure 16 Flood impact for the 5% AEP Event on the Site proposed for development (image provided by Wagga Wagga Online Mapping)

7.3 Service Provider Discussion

The Wagga Wagga City Council Stormwater Development Servicing Plan (DSP) was updated in April 2020, and provides commentary on implementation requirements for new developments

As per section 1 of the implementation guide, there are 5 catchment areas for considered contribution charges, under Section 64. The Site of the proposed is located outside the existing south-western section of the “South Wagga Wagga” catchment area.

Figure 17 below shows the relative location of the site to the South Wagga Wagga Catchment area:

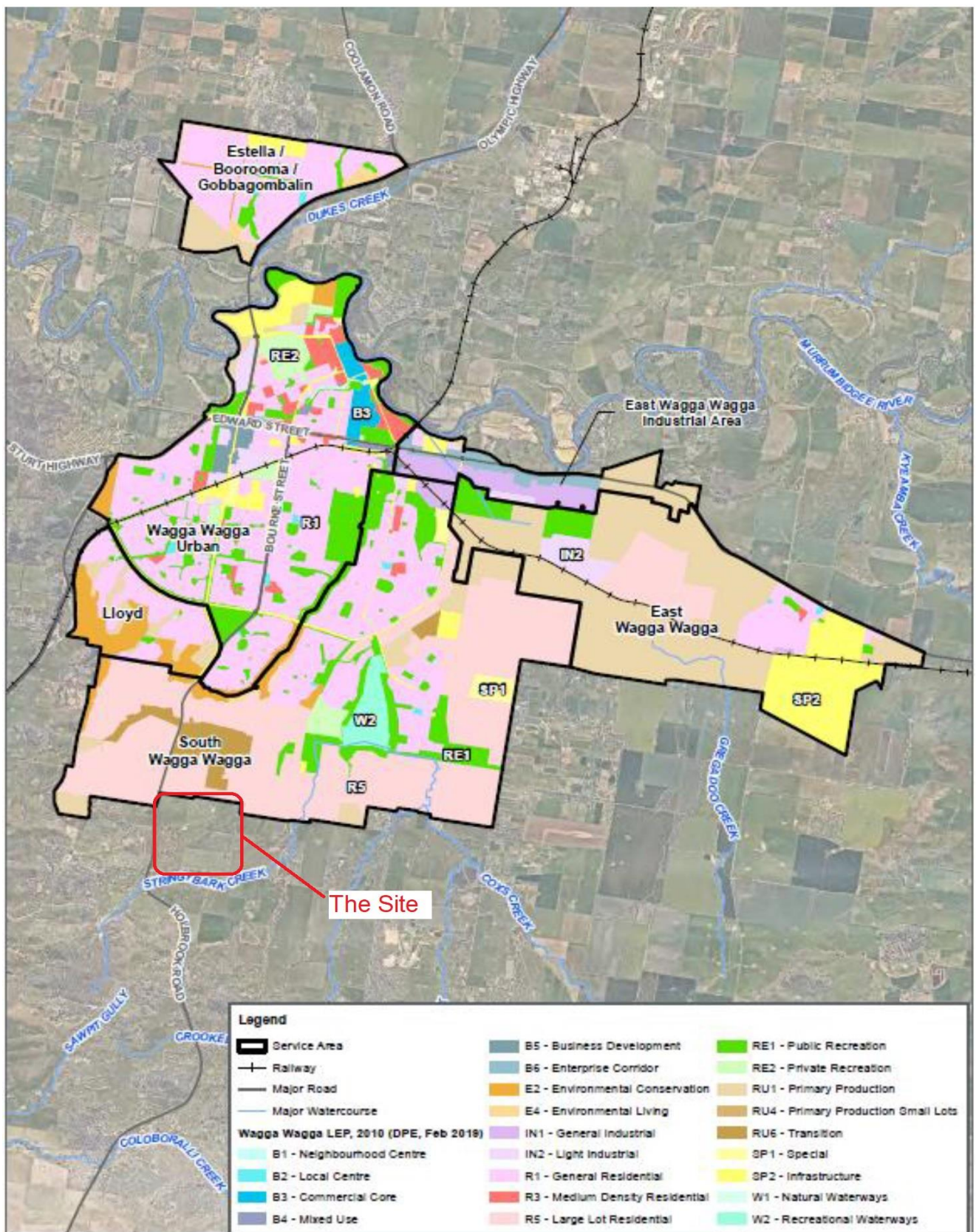


Figure 17 Stormwater catchment areas for the Wagga Wagga LGA service areas

As such, the Site does not fit clearly into the expected Development Contribution Guidelines of the current Stormwater DSP, however it is likely that the extends of the South Wagga Wagga catchment would be extended to include this development.

7.4 Servicing Strategy

7.4.1 Demand Assessment

Wagga Wagga City Council's Engineering Guidelines for Subdivision and Developments requires that post developed flowrates do not exceed undeveloped flowrates. This is typically accomplished by providing an on-site detention basin.

When considering the expected demand and development contribution of 1 Equivalent Tenement (ET), the costs and contributions borne by the developer are based on an average single block in Wagga Wagga being 800m², regardless of the true size of each lot.

The Council Development Servicing Plan (DSP) for stormwater may identify additional works required for the development.

7.4.2 Provision of Stormwater for Subdivision

To ensure acceptable post development outflow rates, a Stormwater Management Plan (SMP) will be required to adequately manage the additional flows. It is advised that this plan be developed with consideration of the land parcel to the east (Sunnyside) in order to achieve a cohesive outcome.

The Site falls towards the northern and eastern boundaries, and currently channel outflows towards the two existing creeks within the site area, which interface with Stringybark Creek, and continue to Lake Albert.

There are some existing dams within the site that provide a level of detention for the western part of the Site, but there is currently no stormwater management for the south-eastern portion of the Site.

Given the size of the site, it is expected that several basins will be constructed across the site, to address both water quality treatment, and regulate discharge rates. The volume and locations of these basins will be developed as a separate scope of works.

8. Conclusion

Initial investigations have confirmed it is possible to supply all key infrastructure required to support the proposed development at the Site. Key items to consider in the servicing strategy for this Site are as follows:

Electricity

- An additional two 11kV feeder lines are expected to be required, with the reticulation point for new electrical infrastructure expected to be at either the Bourkelands or Koorngal Zone Substations

Telecommunications

- NBN Co would be considered the 'carrier of last resort' because the subdivision is over 100 lots. As such it is likely that NBN Co will extend the network to include the Site
- The site reticulation into the NBN Fibre to the Curb (FTTC) network is anticipated to be at the corner of Dunns Rd and Holbrook Rd

Gas

- The site reticulation into the Australian Gas Infrastructure Group (AGIG) network is anticipated to be at the corner of Dunns Rd and Holbrook Rd
- The allowable pressure in the existing network may not be sufficient if the full yield is realised

Potable Water

- Riverina Water County Council early indications suggest connection to the existing Bellevue Reservoirs may be most practical to service all elevations across the site
- The site is expected to require upwards of 460 ML annually, which may require additional reservoir capacity, subject to discussion with Riverina Water Engineering team

Sewer

- The site will contribute into the Koorngal Sewage Treatment Catchment Area, located over 5km to the northeast
- Expected dwelling yield will likely require reticulation into the network at the northern end of Plumpton Road
- A hybrid system comprising both conventional and pressurised sewer mains is expected, noting the crossfall of the site to the North-East corner, but with expected discharge at this stage to occur via existing easements or road corridors

Stormwater

- The site lies beyond the current boundary of the Development Servicing Plan, so discussion to understand contribution requirements may be required
- The site is partially impacted during major overland flood events above the 5% AEP, so consideration of this will need to be given when finalising placement of dwellings, roads and key infrastructure
- As the site flow North and East, it would be advisable to develop a Stormwater Management Plan with consideration of adjoining sites (i.e. new Sunnyside Development)

Validation of the initial findings will require detailed analysis during subsequent phases, and further co-ordination with relevant Service Providers once an endorsed Layout Plan is complete.

Appendices

Appendix A

Existing Cadastral Plan

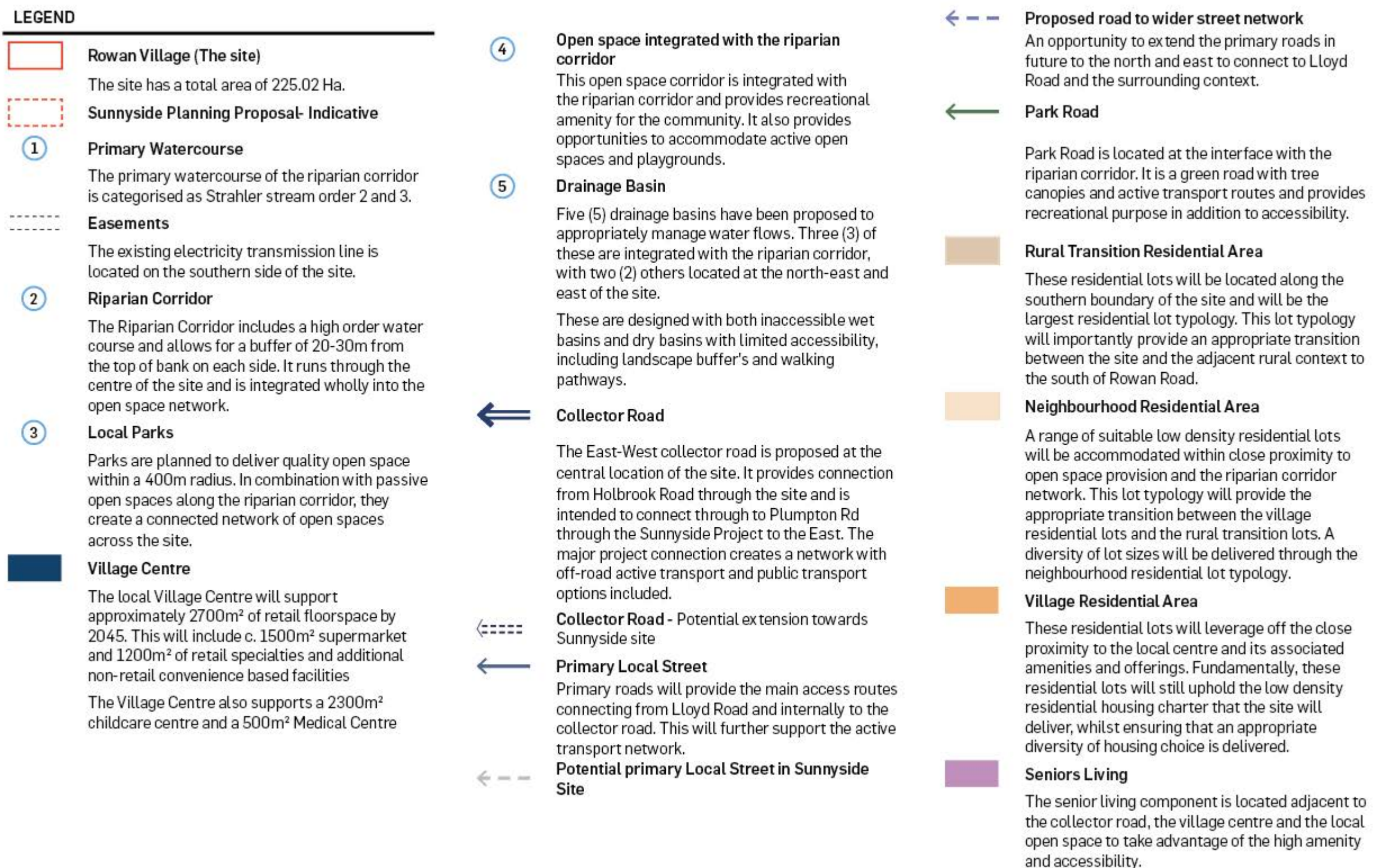


Appendix B

**Indicative Layout Plan – Developed by
Urbis Pty Ltd**



Figure 22 Indicative Master Plan



Appendix C

Dial Before You Dig Data



ghd.com

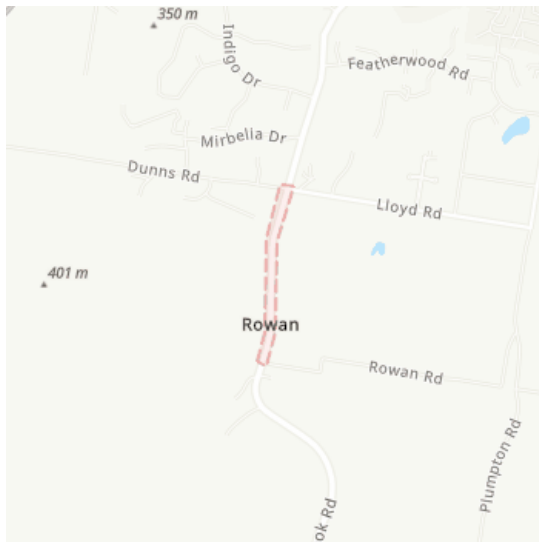
→ **The Power of Commitment**

Caller Details

Contact: Zeb Johnson	Caller Id: 3036439	Phone: 0438 345 916
Company: GHD		
Address: 161-169 Baylis Street Wagga Wagga NSW 2650	Email: zeb.johnson@ghd.com	

Dig Site and Enquiry Details

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



User Reference:	7045 Holbrook Road	
Working on Behalf of:	Private	
Enquiry Date:	Start Date:	End Date:
28/02/2022	04/03/2022	31/03/2022

Address:
7045 Holbrook Road
Springvale NSW 2650

Job Purpose:
Design

Location of Workplace:
Both

Onsite Activities:
Planning & Design
Location in Road:
Road, Nature Strip, Footpath

- Check that the location of the dig site is correct. If not you must submit a new enquiry.
- Should the scope of works change, or plan validity dates expire, you must submit a new enquiry.
- Do NOT dig without plans. Safe excavation is your responsibility. If you do not understand the plans or how to proceed safely, please contact the relevant asset owners.

Notes/Description of Works:
Not supplied

Your Responsibilities and Duty of Care

- The lodgement of an enquiry does not authorise the project to commence. You must obtain all necessary information from any and all likely impacted asset owners prior to excavation.
- If plans are not received within 2 working days, contact the asset owners directly & quote their Sequence No.
- ALWAYS perform an onsite inspection for the presence of assets. Should you require an onsite location, contact the asset owners directly. Please remember, plans do not detail the exact location of assets.
- Pothole to establish the exact location of all underground assets using a hand shovel, before using heavy machinery.
- Ensure you adhere to any State legislative requirements regarding Duty of Care and safe digging requirements.
- If you damage an underground asset you MUST advise the asset owner immediately.
- By using this service, you agree to Privacy Policy and the terms and disclaimers set out at www.1100.com.au
- For more information on safe excavation practices, visit www.1100.com.au

Asset Owner Details

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

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

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

Seq. No.	Authority Name	Phone	Status
208672276	AARNet Pty Ltd Nsw	1300 275 662	NOTIFIED
208672278	APA Group Networks (APT Management Services P L)	1800 085 628	NOTIFIED
208672274	Essential Energy	13 23 91	NOTIFIED
208672273	NBN Co NswAct	1800 687 626	NOTIFIED
208672275	Optus and or Ucomm Nsw	1800 505 777	NOTIFIED
208672277	Riverina Water County Council	(02) 6922 0661	NOTIFIED
208672272	Telstra NSW South	1800 653 935	NOTIFIED

END OF UTILITIES LIST

01/03/2022

To:
Zeb Johnson
GHD
161-169 Baylis Street
Wagga Wagga, 2650

Sequence No: 208672276

Job No: 31485738

Location: 7045 Holbrook Road
Springvale, NSW, 2650

Commencement Date: 04/03/2022

Dial Before You Dig Response – Underground Fibre Assets

Dear Zeb Johnson

This letter is in relation to the proposed work at location detailed above is in the vicinity and may impact AARNet fibre optic cable assets.

Attached is a map indicating the approximate location of the AARNet assets in relation to your enquiry area. A detailed Plan is normally attached to this response. There may be additional AARNet assets in this area contained within Telstra duct. No work is to take place until plans have been obtained from Telstra and reviewed as necessary

Any information provided is valid for 28 days from the date of issue of this document.

Please review the map and if you have any further concerns, contact the AARNet NOC on 1300 APL NOC (1300 275 662).

If you are proposing to carry out digging in the vicinity of AARNet underground infrastructure you will need to carry out these works in accordance with the guidelines below.

WARNING

Where AARNet plans have been attached, they are indicative of the position of AARNet Pty Ltd's (AARNet) fibre optic installation/s only. Services belonging to other third parties are not included on these plans.

These plans have been prepared solely for the use of AARNet and any reliance placed on these plans by you is entirely at your own risk. The plans may show the position of our assets relative to fences, buildings etc., as they existed at the time the fibre etc. was installed. The plans may not have been updated to take account of any subsequent change in the location or style of those features since the time at which the plans were initially prepared.



While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither AARNet or PelicanCorp shall have any liability whatsoever in relation to any loss, damage, cost or expense arising from the use of this plan response or the information contained in it or the completeness or accuracy of such information. Use of such information is subject to and constitutes acceptance of these terms.

General Enquires **1300 APL NOC (1300 275 662)**

To resubmit or change the nominated search area contact DBYD via Phone 1100 or www.1100.com.au

AARNet makes no warranty as to the accuracy or completeness of the enclosed plans and does not assume any duty of care to you nor any responsibility for the accuracy, adequacy, suitability or completeness of the plans or for any error, omission, lack of detail, transmission failure or corruption in the information provided. AARNet does not accept any responsibility for any loss that you or anyone else may suffer in connection with the provision of these plans, however that loss may arise (including whether or not arising from the negligence of AARNet, its employees, agents, officers or contractors).

The recipient of these plans must use their own care and diligence in carrying out their works and must carry out further surveys to locate services at their work site. Persons excavating or carrying out other earthworks will be held responsible for any damage caused to AARNet's fibre optic installations.

While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither AARNet or PelicanCorp shall have any liability whatsoever in relation to any loss, damage, cost or expense arising from the use of this plan response or the information contained in it or the completeness or accuracy of such information. Use of such information is subject to and constitutes acceptance of these terms.

All Areas

Under no circumstances shall construction, digging or excavating work entailing crossing AARNet plant be carried out without first exposing or locating the AARNet asset by an accredited locator and under the supervision of an accredited plant location contractor.

Manual pot-holing needs to be undertaken with extreme care, common-sense and employing techniques least likely to damage cables. For example, orientate shovel blades and trowels parallel to the cable rather than digging across the cable.

Visual location of asset must be carried out by hand digging or using non-destructive water jet method (pot holing) where construction activities may damage or interfere with AARNet assets.

The following minimum clearances must be maintained between mechanical construction activity and the located AARNet asset.

Jackhammers / Pneumatic Breakers	Not within 1.0m of actual location
Vibrating Plate or Wacker Packer Compactor	Not within 0.5m of actual location 300mm compact clearance before compactor can be used over AARNet conduits. 750mm compact clearance cover before compactor can be used Over AARNet Direct Buried cable
Boring Equipment (in-line, horizontal and vertical)	Not within 5.0m of actual location without supervision of accredited plant location contractor onsite OR AARNet asset must exposed via hand dig or nondestructive water jet method (pot holing). AND AARNet asset must not be crossed without first exposing the asset at the crossing point and not without an accredited plant location contractor representative onsite



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General Enquires **1300 APL NOC (1300 275 662)**

To resubmit or change the nominated search area contact DBYD via Phone 1100 or www.1100.com.au

Heavy vehicle Traffic (over 3 tonnes)	Not to be driven over AARNet conduits or assets with less than 600mm of cover. Depth to be verified via hand digging
Mechanical Excavators, Farm ploughing, Boring, Tree removal, fencing	Not within 1.0m of actual location. Constructor to hand dig or use non-destructive water jet method (pot holing) and expose asset

Urban Areas

Under no circumstances shall construction, digging or excavating work be carried out: within 1.5m of AARNet assets without first locating and identifying the AARNet asset by an accredited locator and under the supervision of an accredited plant location contractor.

Rural Areas

Under no circumstances shall construction, digging or excavating work be carried out within 10m of AARNet plant be carried out without first locating and identifying the AARNet asset by an accredited locator and under the supervision of an accredited plant location contractor.

ASSET RELOCATIONS

You are not permitted to relocate, modify or alter any AARNet assets under any circumstances. Please contact AARNet Infrastructure Development Group via email apl-dig@aarnet.edu.au for all enquiries relating to the relocation of AARNet assets.

DAMAGE

AARNet will seek Compensation for any loss caused by damage to its assets. Damage to any AARNet asset must be immediately reported to AARNet NOC on 1300 APL NOC (1300 275 662).

FURTHER ASSISTANCE

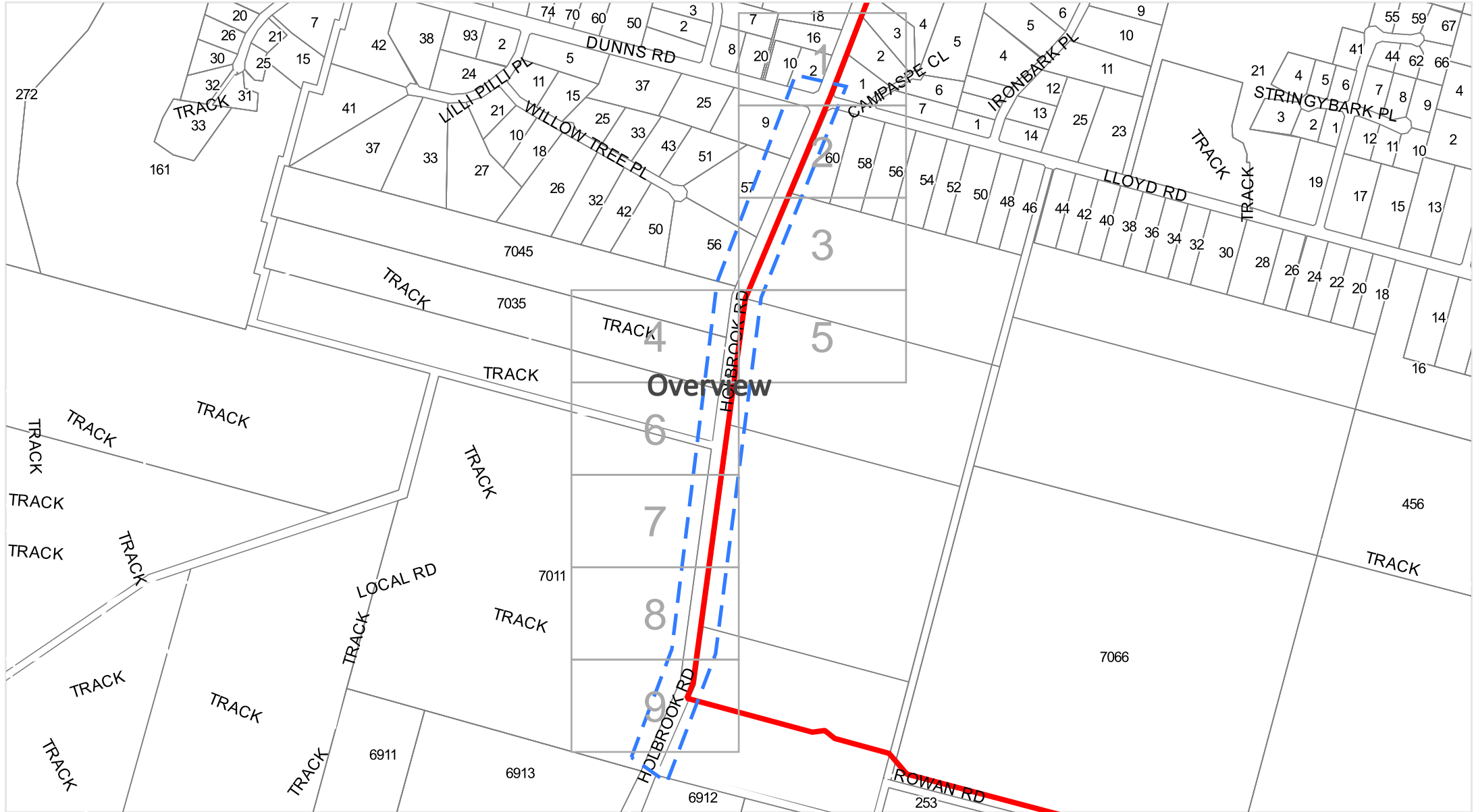
Assistance can be obtained by contacting AARNet NOC on 1300 APL NOC (1300 275 662) Where an on-site location is provided by an accredited locator, the owner is responsible for all costs associated with hand digging or use of non-destructive water jet method (pot holing) to visually locate AARNet assets. If plant location drawings or visual location of AARNet assets by digging reveals that the location of AARNet plant is situated wholly or partly within the owner work area, then AARNet Infrastructure Development Group apl-dig@aarnet.edu.au **must be contacted to discuss possible engineering solutions.**



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General Enquires **1300 APL NOC (1300 275 662)**

To resubmit or change the nominated search area contact DBYD via Phone 1100 or www.1100.com.au



Legend | Scale: 1:13129



- Enquiry Area
- AARNET Fibre Optic Assets
- AARNET Power Assets
- Cadastre

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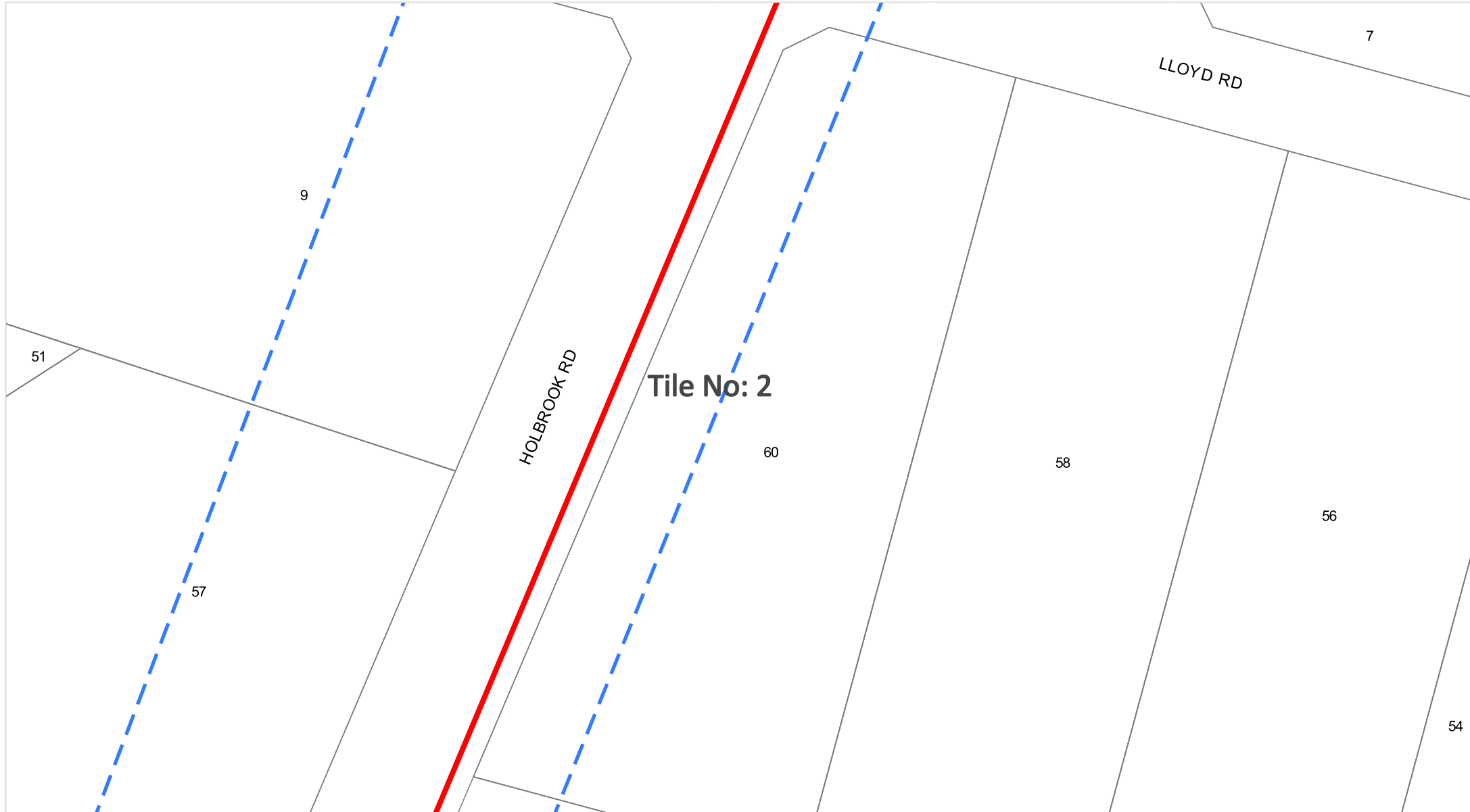


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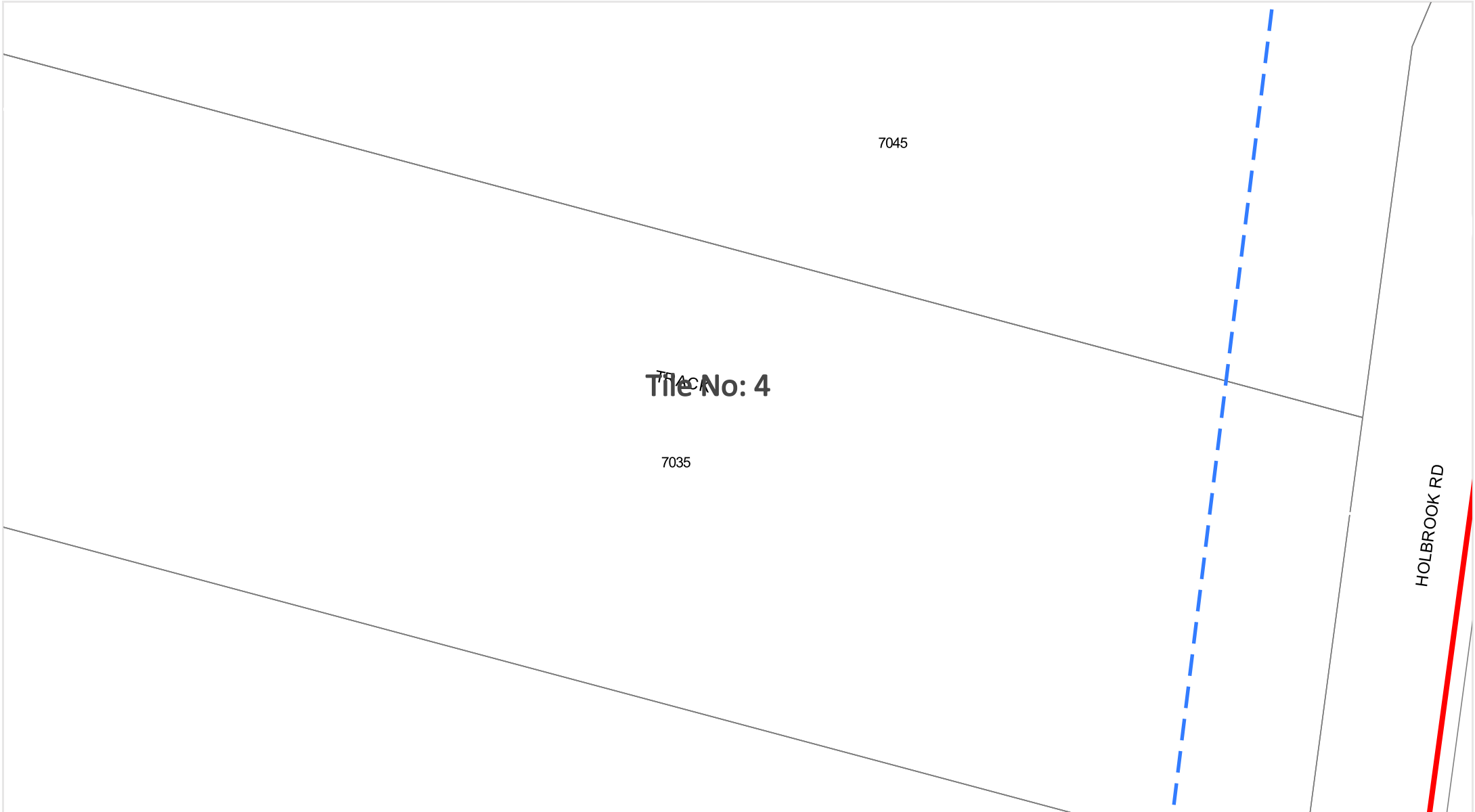


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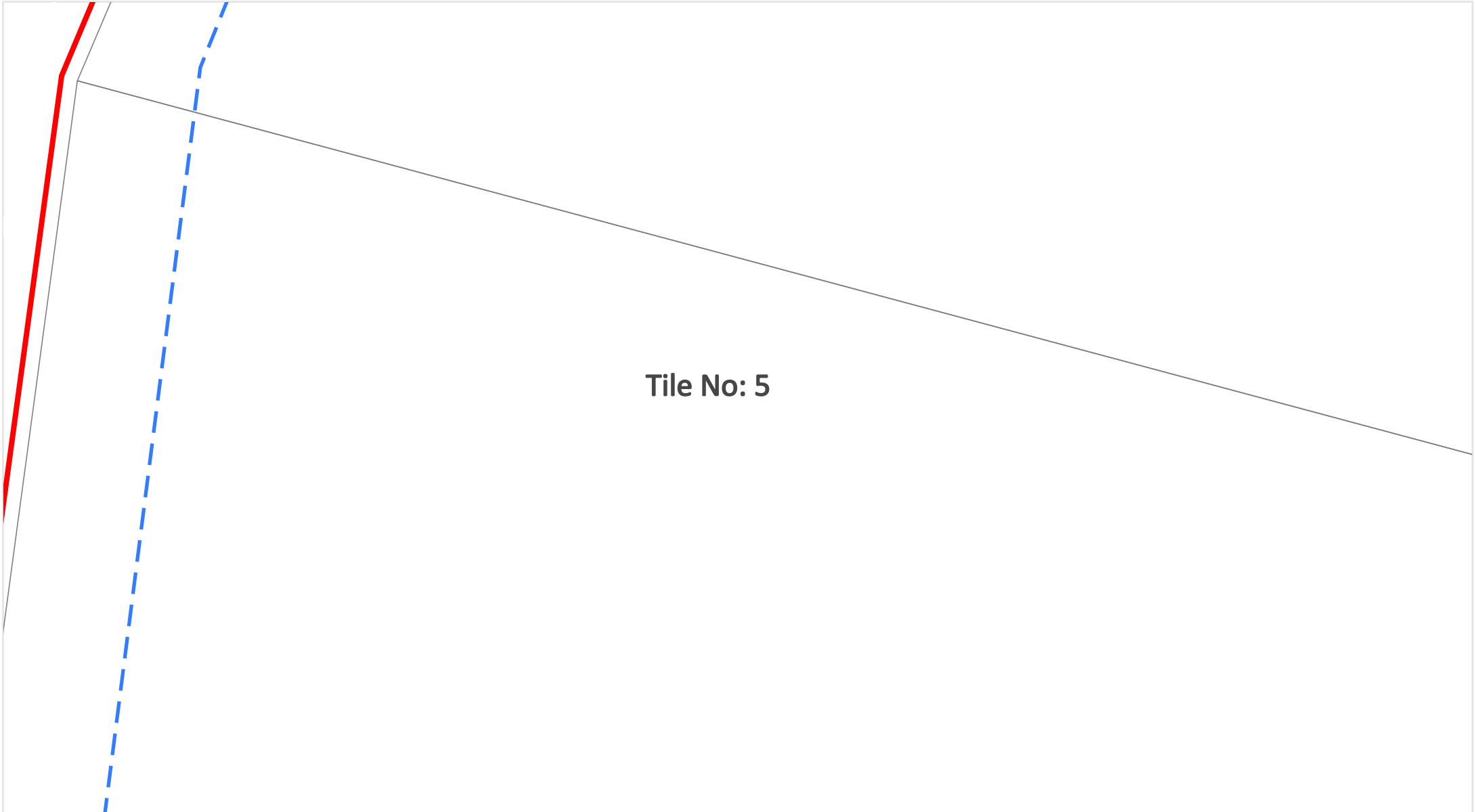


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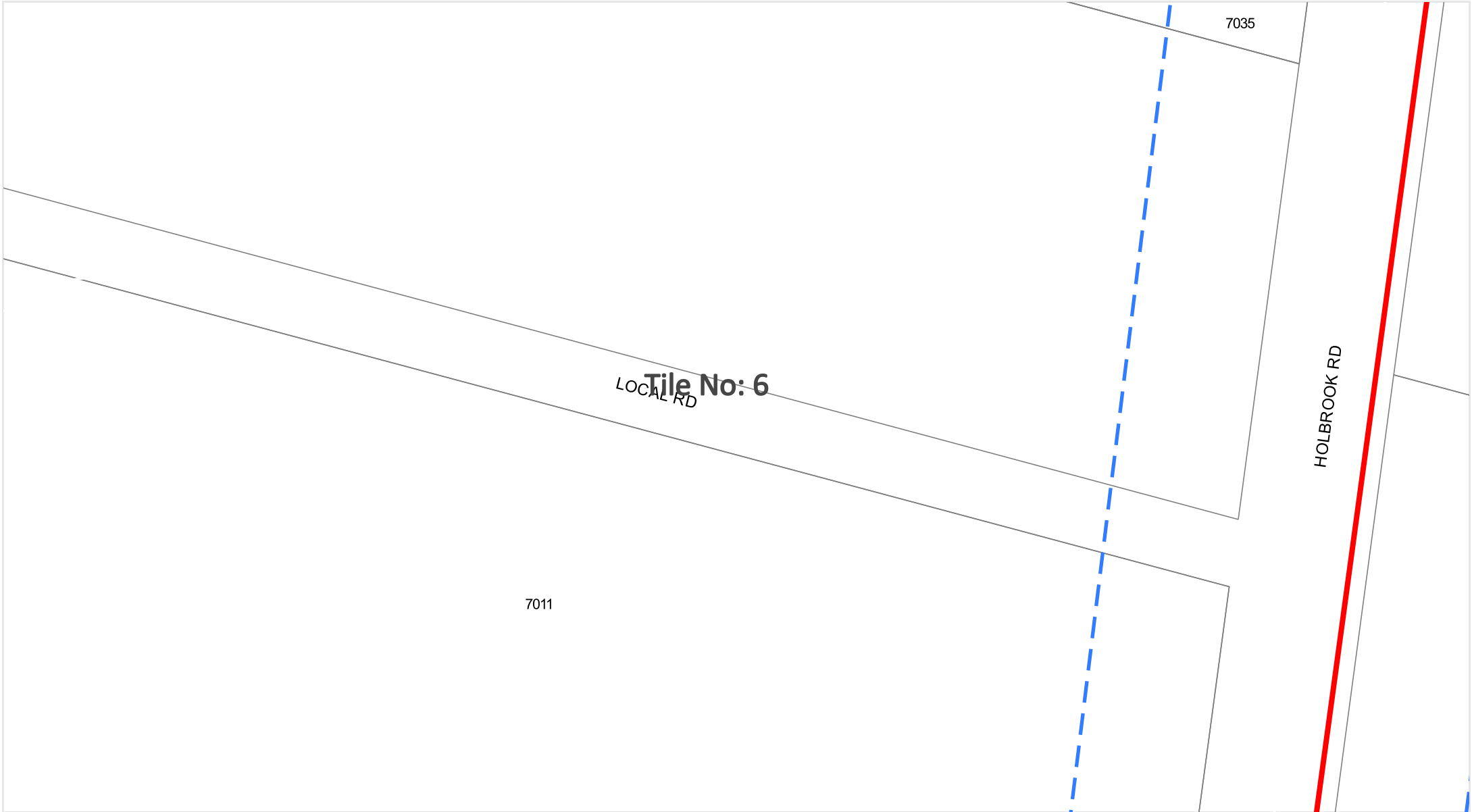


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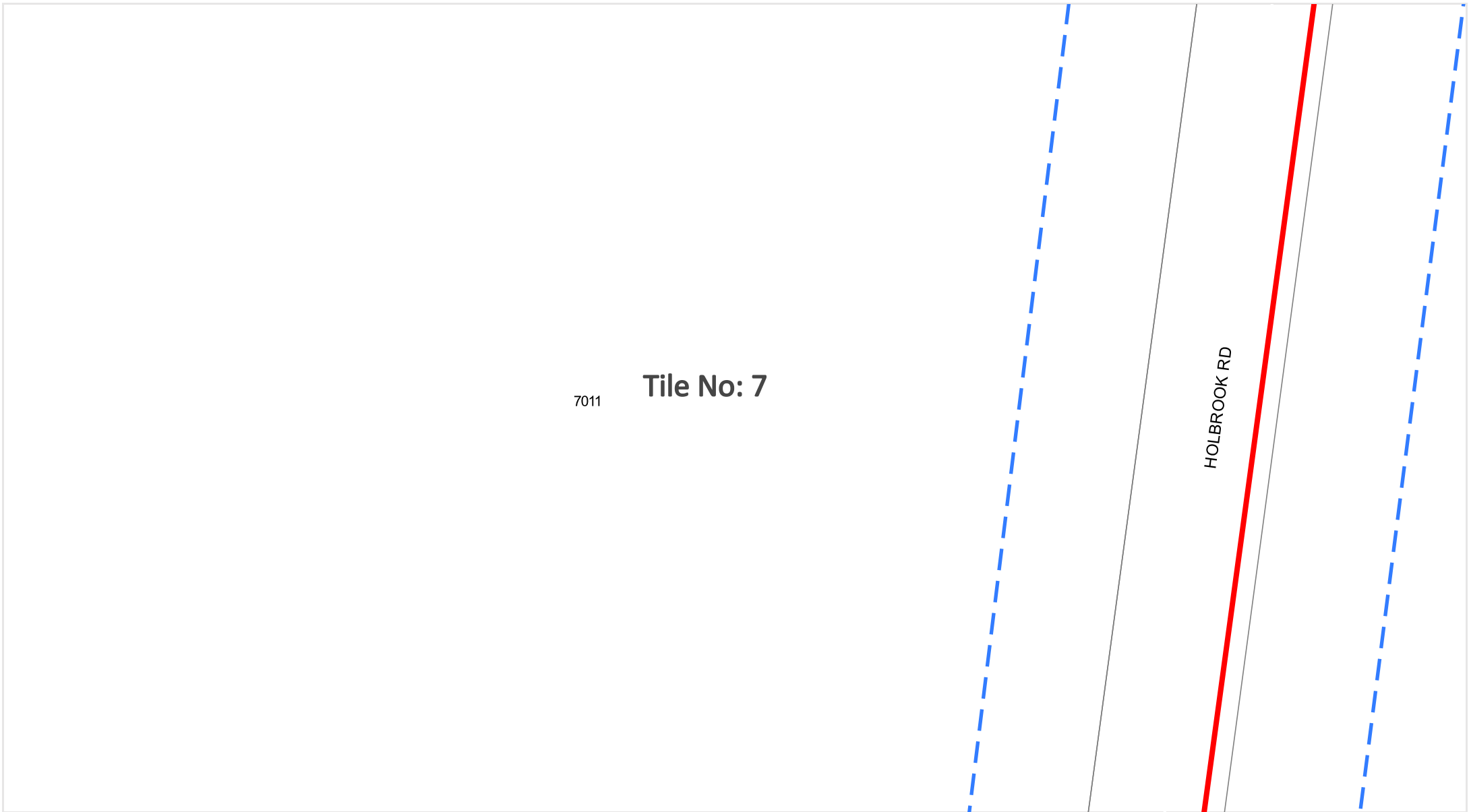


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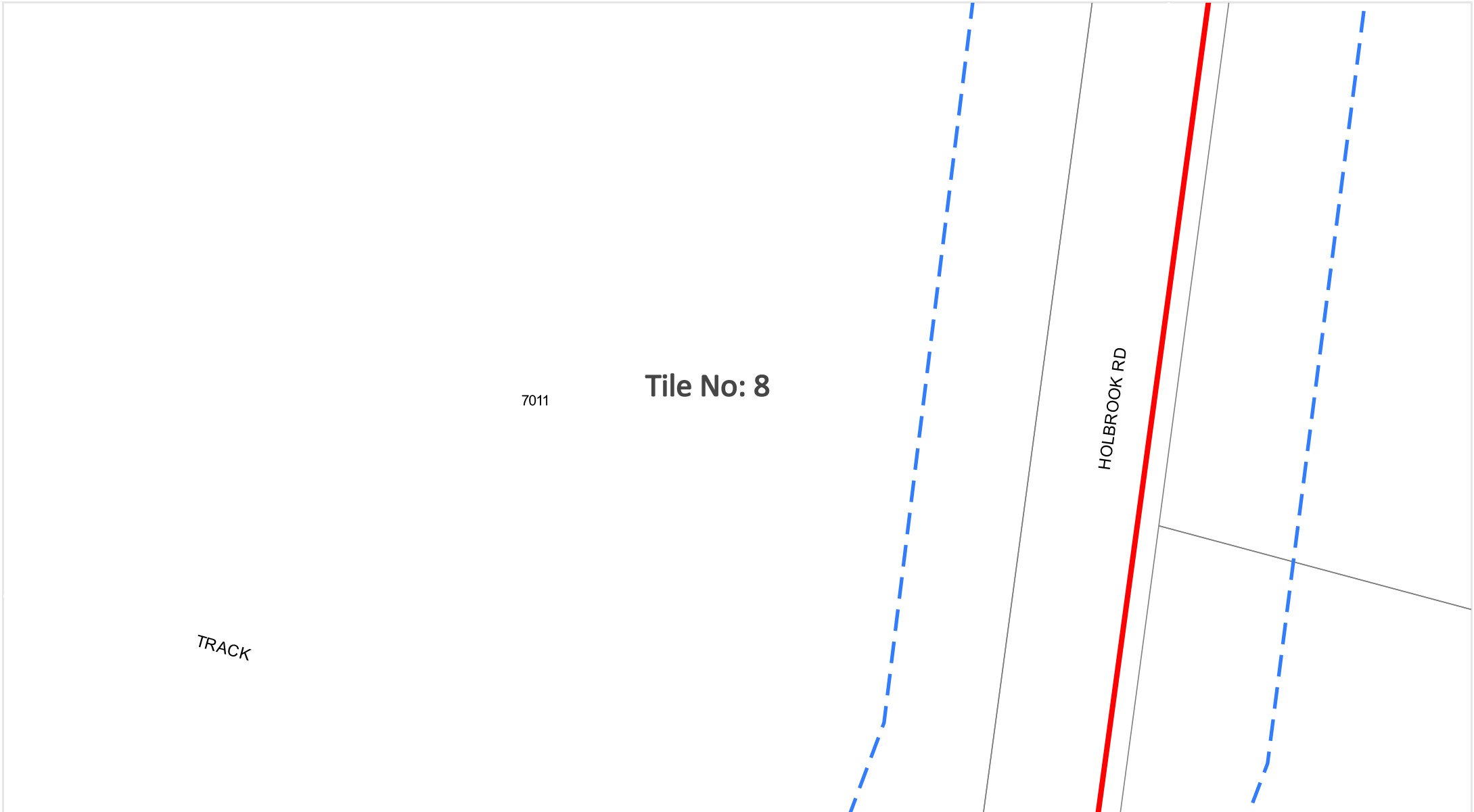


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- Enquiry Area
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- AARNet Power Assets
- Cadastral

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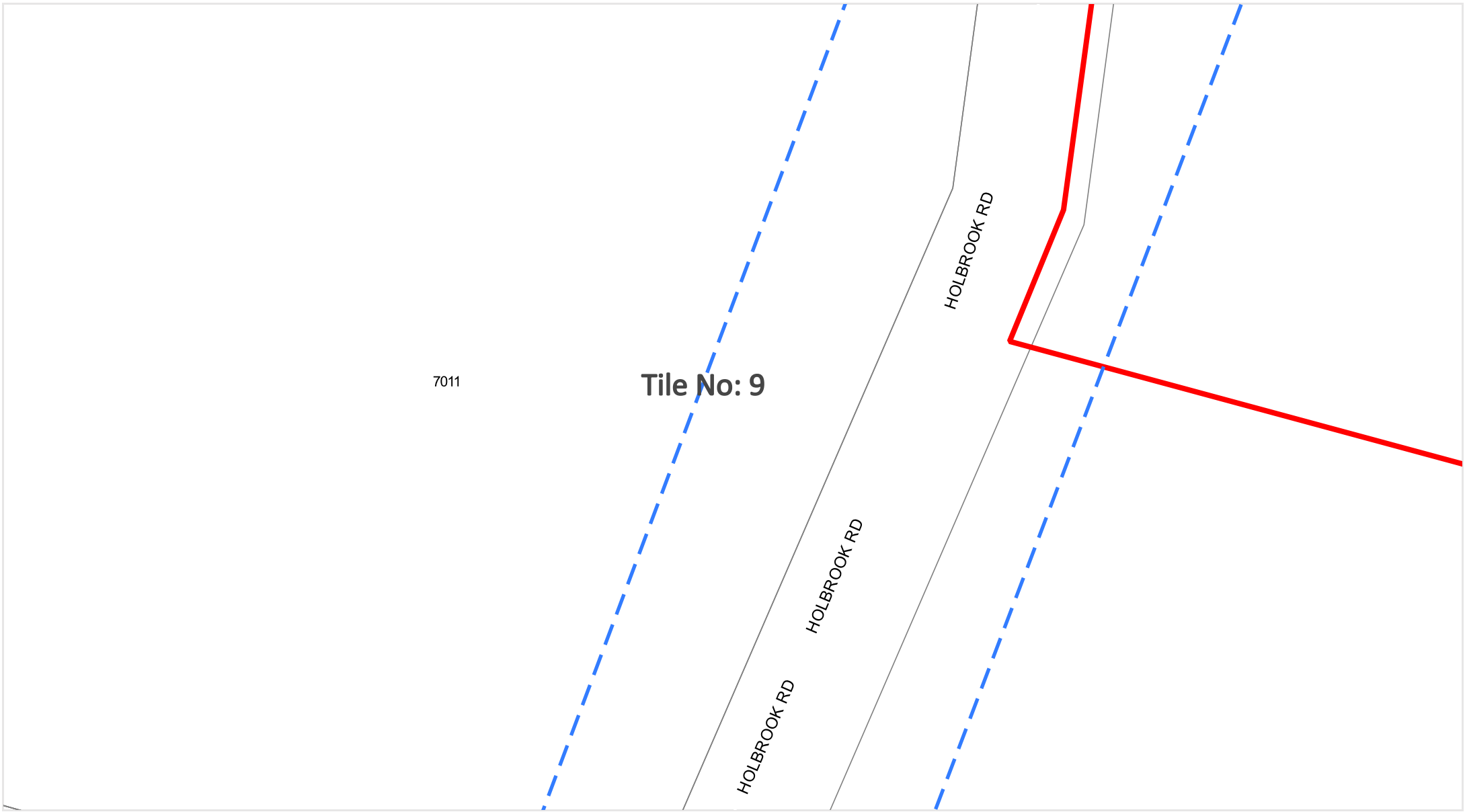


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APA Group
PO Box 6014 Halifax Street
South Australia 5000



For your immediate information THERE IS A GAS DISTRIBUTION PIPELINE AND/OR ASSOCIATED INFRASTRUCTURE in the area of your works.

01/03/2022

Company: GHD
Zeb Johnson
161-169 Baylis Street
Wagga Wagga
NSW 2650

zeb.johnson@ghd.com

Dear Zeb Johnson

Sequence Number: 208672278
Worksite Address: 7045 Holbrook Road
Springvale
NSW 2650

You are hereby notified that the attached Duty of Care requirements apply to any activity in the vicinity of Gas Assets operated by APA, please ensure you read and comply with all the relevant requirements.

Should you have any questions with regards to the attached information please contact our Dial Before You Dig officer - 1800 085 628.

Caution - Damage to gas assets could result in possible explosion and fire with the risk of personal injury.

For Gas Emergencies please call 1800 GAS LEAK (1800 427 532).

Please find enclosed the following information:

- APA's Duty of Care, If you are unclear of your obligations under these requirements please contact the APA Representative listed above immediately
- An overview map with your requested area highlighted to assist in identifying the location of APA's Gas Assets
- A map(s) showing APA's Gas Assets in the requested area, this information is valid for 30 days from the date of this response, **please check this represents the area you requested**, if it does not, please contact the APA Representative listed above immediately

Please Note: For some DBYD enquiries, you might receive 2 responses from the APA Group. Please read both responses carefully as they will relate to different assets. It is your responsibility to action all requirements set out in APA Group responses.

Please take some time to review the entire response document and check the information supplied and please let us have any feedback by sending an email to DBYDNetworksAPA@apa.com.au or contacting us direct on 1800 085 628.

Yours Faithfully,

Dial Before You Dig Officer
APA Group
Email: DBYDNetworksAPA@apa.com.au

Duty of Care - Working Around Gas Assets

General Conditions

- This location enquiry is valid for 30 days from the date of this response
- Expired locations, i.e., over 30 days from the date of this response, require a new Dial Before You Dig request to validate location information
- The location information supplied in this document shall be used as a guide only. APA Group shall not be liable or responsible for the accuracy of any such information supplied pursuant to this request
- It is the responsibility of the excavator to expose all Gas Assets, including Gas Service pipes (see below), **by hand**. Gas Asset depths may vary according to ground conditions
- Gas Service (inlet service) connecting Gas Assets in the street to the gas meter on the property are typically **not** marked on the map
- Generally, a map of the inlet service connection installation may be found inside the gas meter box
- The use of Non Destructive Digging (hydro-excavation) is permitted only if the following are adhered to:
 - a) maximum water pressure of 1000psi
 - b) impacting the gas asset must be prevented at all times
 - c) vertical movements in the vicinity of the gas asset such as pushing the pressure wand nozzle or vacuum tube into the soil to break it up is prohibited
 - d) the use of root cutting heads/turbo nozzles is prohibited at all times
 - e) a minimum distance of 100mm shall be maintained between the end of the pressure wand nozzle and the gas asset. Aiming directly at the gas asset shall be avoided at all times
 - f) a dead man trigger or similar, shall be installed on the wand
 - g) once a gas asset has been exposed via hydro-excavation methods, a visual check must be undertaken to ensure no damage has occurred to the pipe or its coating
- This information has been generated by an automated system based on the area highlighted in your DBYD request and has not been independently verified. **It is your responsibility** to ensure that the information supplied in this response matches the dig site you defined when submitting your Dial Before You Dig enquiry. If the information does not match the dig site or you have any question, please contact APA immediately using the details listed on the first page and / or please resubmit your enquiry
- For **Gas Emergencies** please call 1800 GAS LEAK (1800 427 532).

APA CHANGE NOTIFICATION

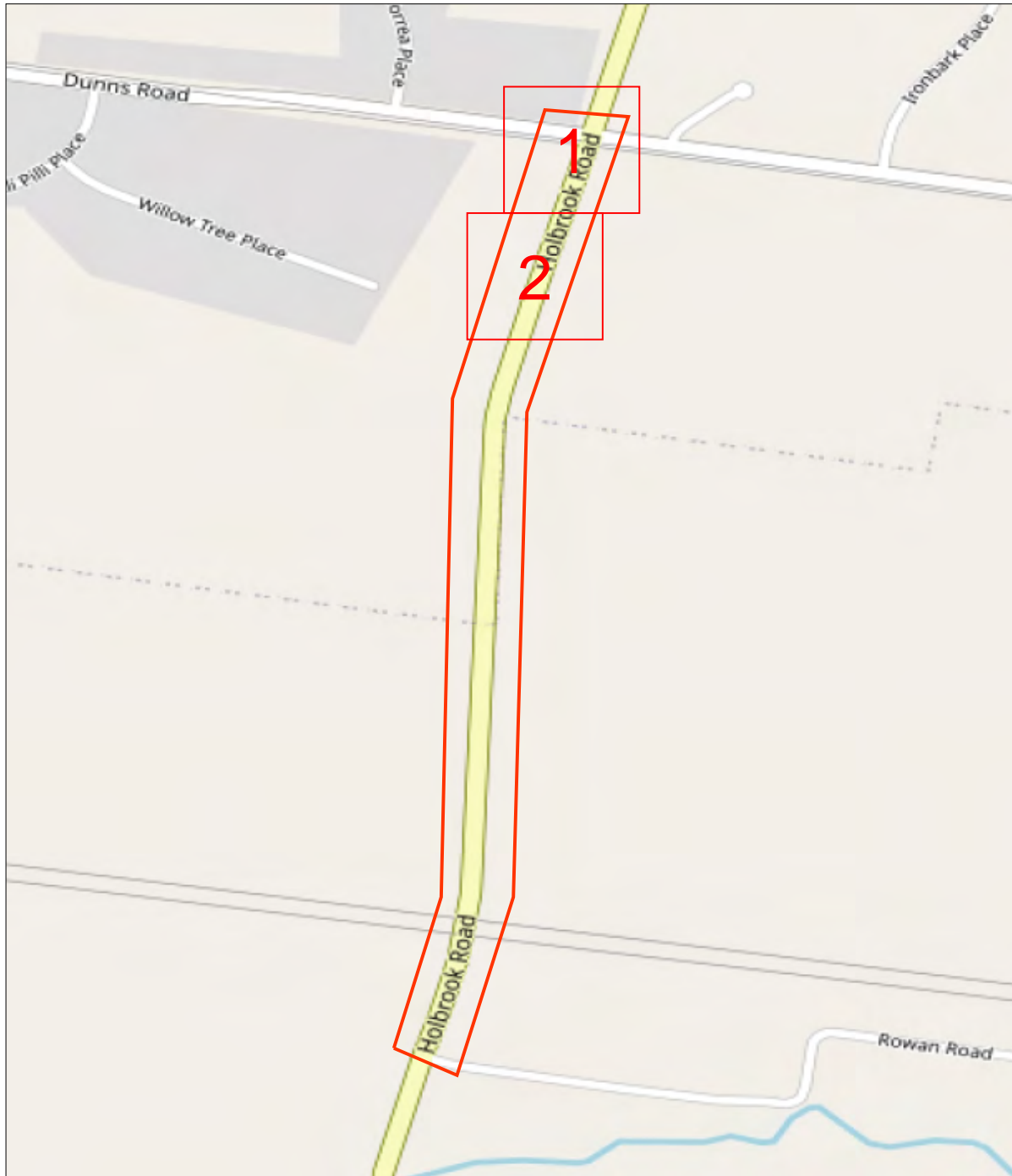
The map below may have different symbols to those you are familiar with.

APA recently upgraded the asset mapping software utilised for Dial Before You Dig requests.

To avoid confusion, please carefully review the legend along with the map.

Please direct any questions to DBYDNetworksAPA@apa.com.au

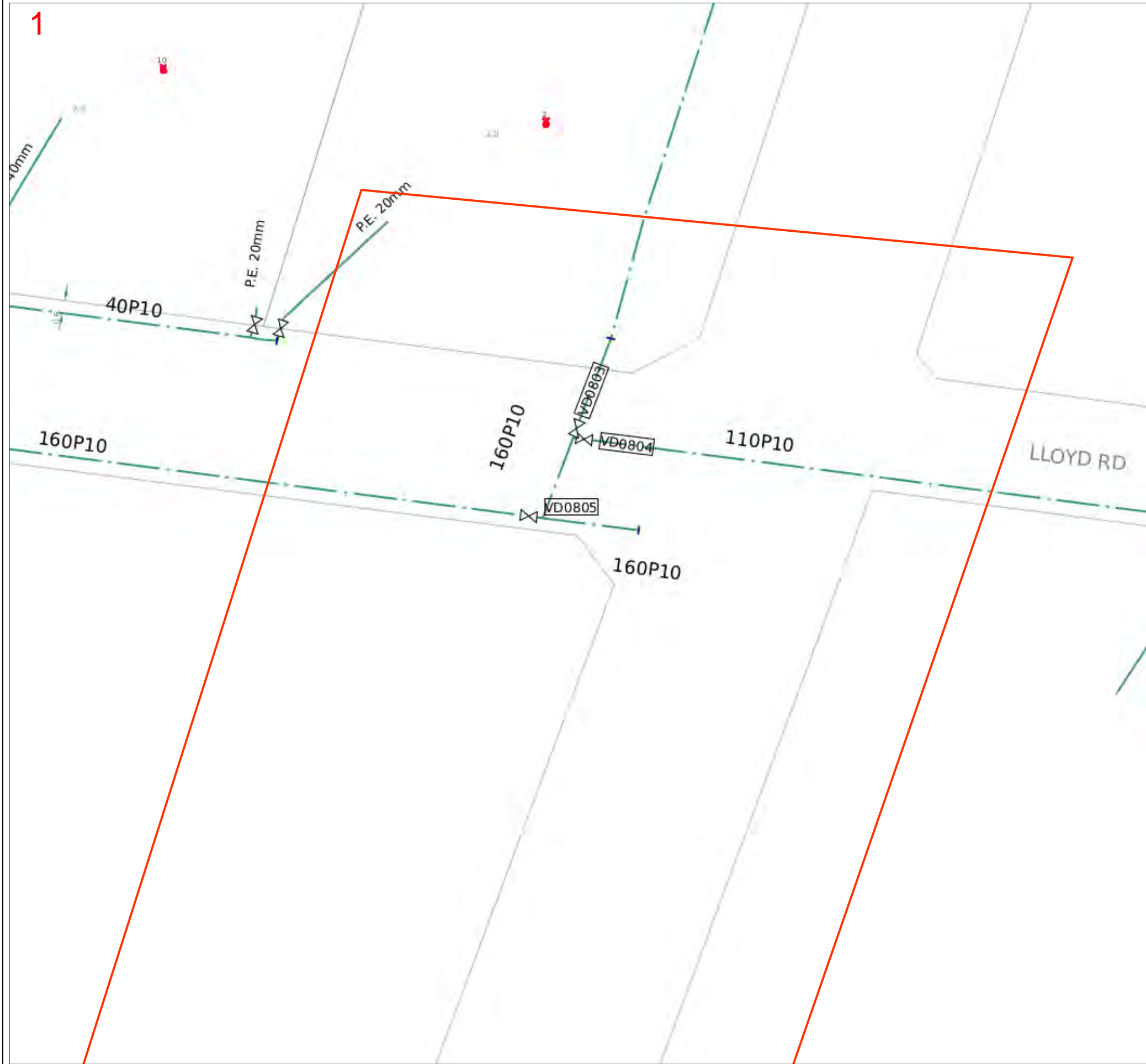
Site Address	7045 Holbrook Road Springvale 2650	Sequence No	208672278
Name	Zeb Johnson		
Email	zeb.johnson@ghd.com		



Scale 1: 9000		Enquiry Area	Map Key Area
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APA Group does not guarantee the accuracy or completeness of the map and does not make any warranty about the data. APA Group is not under any liability to the user for any loss or damage (including consequential loss or damage) which the user may suffer resulting from the use of this map.

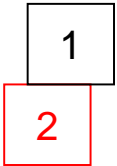
Site Address	7045 Holbrook Road Springvale 2650	Sequence No	208672278
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LEGEND

PIPE AND BOUNDARIES		PIPE CODE / MATERIALS		OBJECTS or TERMS	
SERVICE (COLOUR BY PRESSURE)		C# (e.g. C2)	Cast Iron	VALVES	
LOW PRESSURES		CU	Copper	BURIED VALVES	
MEDIUM PRESSURES		N2	Nylon	REGULATORS	
HIGH PRESSURES		P# (e.g. P6)	Polyethylene (PE)	GAS SUPPLIED = YES	
TRANSMISSION PRESSURES		P6,P7,P9-P12	Medium Density PE	CP RECTIFIER UNIT	
PRIORITY MAIN (BEHIND PIPE)		P2,P4,P8	High Density PE	CP TEST POINT/ ANODE	
PROPOSED (COLOUR BY PRESSURE)		S# (e.g. S8)	Steel	SYPHON	
ABANDONED		W2	Wrought Galv. Iron	TRACE WIRE POINT	
IDLE		W3	Poly Coat Wrought Galv. Iron	PIPELINE MARKER	
SLEEVE		Pipe diameter in millimetres is shown before pipe code e.g. 40P6 = 40mm nominal diameter		NOT TIED IN	N.T.I.
CASING / SPLIT (BEHIND PIPE)				DEPTH	(###)
EASEMENT/ JURISDICTION				BACK / FRONT OF KERB	Bok Fok
EXAMPLES		40P6 in 80C2	40mm High Pressure Medium Density Polyethylene in an 80mm Cast Iron Casing		
		63S8	63mm Medium Pressure Steel		
		Line / Polygon Request			

Map Key



This map is created in colour and shall be printed in colour

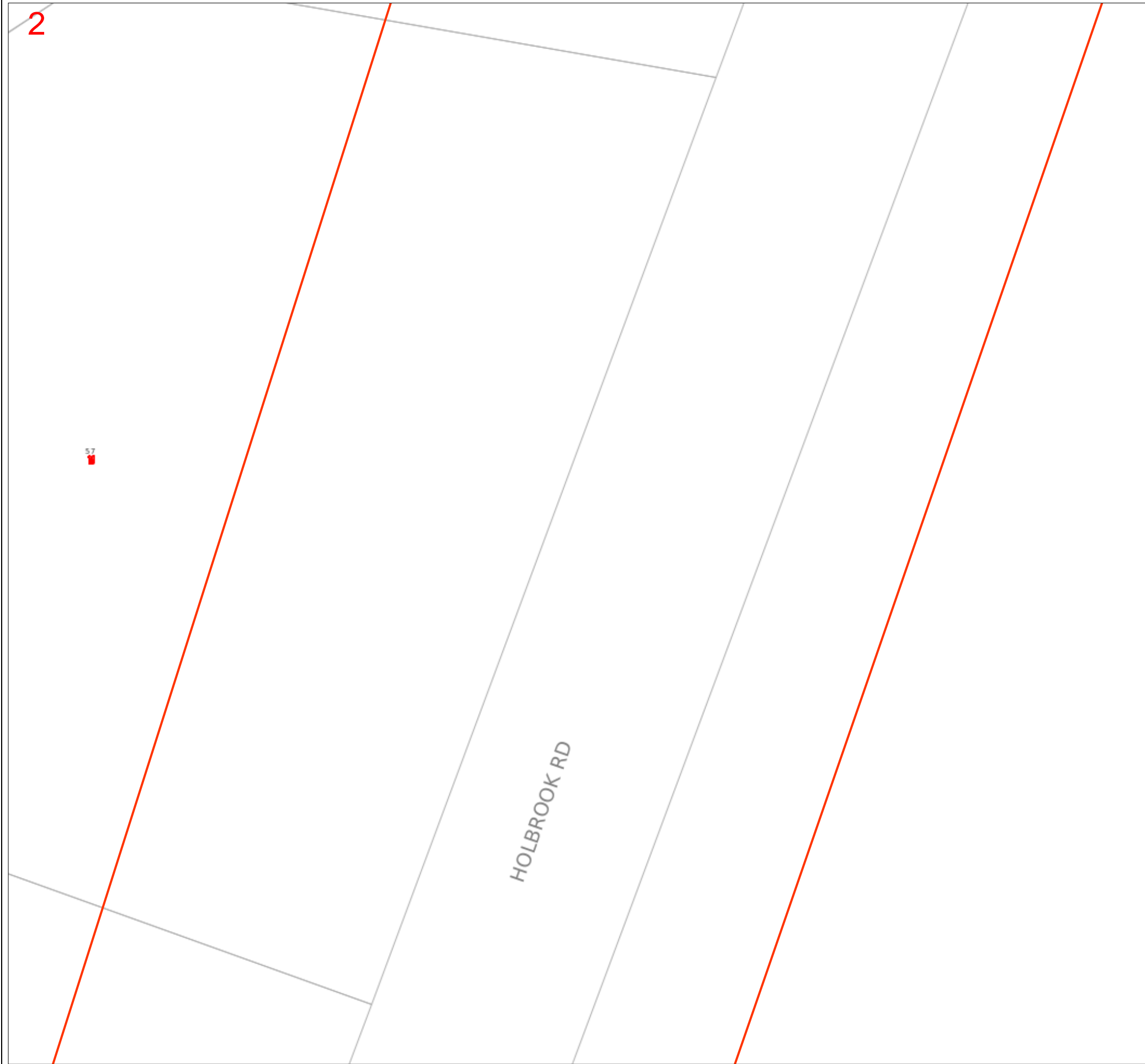
Scale 1:700

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APA Group does not guarantee the accuracy or completeness of the map and does not make any warranty about the data. APA Group is not under any liability to the user for any loss or damage (including consequential loss or damage) which the user may suffer resulting from the use of this map

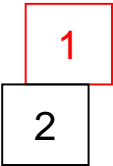
Site Address	7045 Holbrook Road Springvale 2650	Sequence No	208672278
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LEGEND

PIPE AND BOUNDARIES		PIPE CODE / MATERIALS		OBJECTS or TERMS	
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HIGH PRESSURES		P# (e.g. P6)	Polyethylene (PE)	GAS SUPPLIED = YES	
TRANSMISSION PRESSURES		P6,P7,P9-P12	Medium Density PE	CP RECTIFIER UNIT	
PRIORITY MAIN (BEHIND PIPE)		P2,P4,P8	High Density PE	CP TEST POINT/ ANODE	
PROPOSED (COLOUR BY PRESSURE)		S# (e.g. S8)	Steel	SYPHON	
ABANDONED		W2	Wrought Galv. Iron	TRACE WIRE POINT	
IDLE		W3	Poly Coat Wrought Galv. Iron	PIPELINE MARKER	
SLEEVE		Pipe diameter in millimetres is shown before pipe code e.g. 40P6 = 40mm nominal diameter		NOT TIED IN	N.T.I.
CASING / SPLIT (BEHIND PIPE)				DEPTH	(###)
EASEMENT/ JURISDICTION				BACK / FRONT OF KERB	Bok Bok
EXAMPLES					
		40mm High Pressure Medium Density Polyethylene in an 80mm Cast Iron Casing			
		63mm Medium Pressure Steel			
		Line / Polygon Request			

Map Key



This map is created in colour and shall be printed in colour

Scale 1:700

0 0.008km



APA Group does not guarantee the accuracy or completeness of the map and does not make any warranty about the data. APA Group is not under any liability to the user for any loss or damage (including consequential loss or damage) which the user may suffer resulting from the use of this map

Date: Tuesday, 1 March 2022

To: Zeb Johnson

Company: GHD

Address: 161-169 Baylis Street Wagga Wagga NSW 2650

ELECTRICAL CABLE / WATER PIPE LOCATION

Dear Zeb Johnson

With reference to your enquiry:

- Location: 7045 Holbrook Road Springvale NSW 2650
- Sequence No: 208672274
- Dial Before You Dig Job No: 31485738
- Dial Before You Dig Customer No: 3036439

Your specified area of interest is too large for automatic response. Please consider whether you need the full area and submit smaller request(s), each no longer than 1.6 km or contact Technical Enquiries on 13 23 91 for locations longer than 10 km only.

Note: the excavator must not assume that there may not be assets owned by other network operators in the area of interest.

When working near underground electrical infrastructure

NSW legislation requires people who are planning to do excavation work to obtain copies of underground electricity cable plans through Dial Before you Dig (Phone 1100) and to make sure that the plans are no more than 30 days old when excavation commences.

The aim of the legislation is to ensure that when workers dig or drive items near underground electricity cables, ducting, and pipes, they will establish the exact location of the cables and thus avoid coming into contact with them or damaging them. These items carry vital services such as electricity, water, gas and communications, and establishing their location before digging will help ensure worker safety and prevent damage to the network which may cause disruption of essential services to local communities.

Excavate safely and protect underground assets

Dial Before You Dig (DBYD) is the first step to excavating safely. You should use DBYD when you will be undertaking (but not restricted to) the following:

- > Any excavation using machinery digging deeper than 150mm. This includes but is not restricted to back hoes, excavators, borers & kanger hammers (ploughing or ripping activities)
- > Any excavation using hand tools deeper than 300mm which includes shovels, spades and crow bars
- > Any vertical or horizontal boring.

Note: The above examples are general and may not cover all situations in the regulations where a DBYD would be required e.g. driving metal posts in the ground.

Regardless of the size of your project you should lodge an enquiry with DBYD before commencing work. This applies to small tasks like backyard landscaping, driving items into the ground as well as heavy work such as directional boring or directional drilling. DBYD strive to respond to enquiries within two business days.

Dial Before You Dig

- > Phone 1100
- > Web www.1100.com.au
- > Download the DBYD iPhone app



The Essential First Step

When a DBYD has been obtained, contact Essential Energy on **13 23 91** to identify any underground pipes and/or cables in the vicinity of excavation works to be carried out. Allow at least **two weeks or 10 working days advance notice** in your construction program to permit Essential Energy time to allocate the necessary field resources to carry out an onsite inspection if required. This service may incur a fee & should be stated at the time of making the appointment.

In the event the excavation does not commence within 28 days of receipt of a plan, a new plan should be obtained. The excavator **must** retain the plans on site for the duration of the excavation works.

Your responsibility

All individuals have a duty of care they must observe when working in the vicinity of underground cables, ducts and pipes. Be aware of the requirement set out in the latest WorkCover Codes of Practice 'Work near Underground Assets Guideline' and 'Work near Overhead Powerlines' which can be viewed at www.workcover.nsw.gov.au or you can purchase a copy of the Code of Practice by contacting WorkCover on 1300 799 003.

You should also be familiar with Essential Energy's operational procedures 'Work near Essential Energy's underground assets' CEOP8041 and 'Construction work near electricity network' CEOP1116, which can be found at essentialenergy.com.au/construction

- > **Employers:** If you're an employer or employing someone to excavate, complete construction or drive items into the ground even at home you have a legal obligation to ensure their safety
- > **Excavators:** It is the excavator's responsibility to visually expose the underground pipes and cables manually before any construction begins.

Note – when excavating involving high pressure water or compressed air to break up the ground, which is then removed by a powerful vacuum unit to expose critical utilities after they have been electronically located to confirm identity, size, number of services and depth, checks should be carried out to ensure the pressure is acceptable for all cables and other assets which may be found prior to commencing pot holing by this method. Warning: CONSAC cables shouldn't be potholed by this method and must be de-energised before any work carried out near them. It's recommended to only use air/vacuum equipment to pot hole that operates at or less than 13,790Kpa (2000psi).

Be safe, because they need you



No Go Zone for powered excavation

Extract from WorkCover "Work near Underground Assets"

TABLE 1: Types of assets and limits of underground approach

Assets	Clearances	No Go Zone for Powered Excavation	Controls	Typical Depths
Low voltage electricity cables – voltages less than or equal to 1000V (1kV)	Close proximity with the use of hand tools	300 mm	Must contact asset owner for specific conditions	450 – 750 mm
Electricity conductors from 11,000V (11kV) up to 33,000V (33 kV)	Close proximity with the use of hand tools	600 mm	Must contact asset owner for specific conditions	900 mm
Underground sub-transmission cables 33,000V up to 132,000V (132 kV)	Must contact asset owner	Must contact asset owner	Must be carried out under the supervision of the asset owner	900 mm
High Voltage Electricity cables – voltages from 1000V (1kV) up to (33 kV)	Close proximity with the use of hand tools	Must contact asset owner	Must contact asset owner for specific conditions	600 – 1000 mm
Extra High Voltage Electricity Transmission cables – voltages above (132 kV) and 330,000V (330 kV)	Must contact asset owner	Must contact asset owner	Work must be carried out under the supervision of the asset owner	800 – 1200 mm

How to expose cables or pipes

Location plans provide an indication of the presence of underground assets only; they do not pinpoint the exact location. This is why manual exposure is required, which can be done by potholing. Underground assets must first be exposed by pot-holing with non-conductive tools to identify their location. Excavation with hand tools shall be carried out carefully up to, but not closer than, the minimum distances specified in Table 1. Several potholes may need to be dug manually to determine and satisfy yourself of the exact locations of cables or pipes to avoid any mishaps. Manual pot-holing needs to be undertaken with extreme care, common sense and while employing techniques least likely to damage cables. For example, orientate shovel blades and trowels parallel to the cable rather than digging across the cable. Look out for sand, plastic strips or specially marked bricks when excavating, which signal the presence of underground cables.

Only once all underground assets have been located, marked and protected against damage can the excavation proceed with caution.

No Go Zone for powered excavation

Directional boring is powered excavation and contact with the asset owner must be made before excavation takes place. For directional boring across the line of an asset a minimum clearance of **300 mm** from the asset shall be maintained. When boring across the line of an underground asset, the location of the asset/s shall be positively proven by hand digging (pot-holing) or by another approved method and a safety observer appointed.

Note: Where the risk assessment identifies a potential risk of making contact with either underground assets, safety observer/s would be required. The safety observer's

responsibility is to ensure that approach distances from underground and overhead assets are maintained.

For boring under electricity cables, the only true way of knowing where the directional drill is, is to "see" it. It is necessary to excavate a slit trench at right angles to the approaching drill and 500mm deeper than the asset being protected and beside the cables to confirm the depth of the cables and ensure the drill is not within the minimum approach distance of the cable (specified in Table 1).

For directional boring parallel to the asset and at the level of the asset, a clearance of **500 mm** shall be maintained from the edge of the nearest asset and pot holed at 10m intervals to ensure clearances are maintained with a safety observer appointed.

The four Ps of safe excavation

- Plan** – Plan your job. Use the Dial Before You Dig service before your job is due to begin to help keep your project safe. Contact Essential Energy on 13 23 91 to identify any underground pipes and/or cables in the vicinity
- Pothole** – Potholing (digging by hand) is a method to assist in establishing the exact location of all underground infrastructure. Only use air/vacuum equipment to pot hole that operates at or less than 13,790Kpa (2000psi)
- Protect - Protecting and supporting exposed infrastructure is the excavator's responsibility.** Always erect safety barriers in areas at risk to protect underground networks
- Proceed** – But ONLY when you have planned, potholed and put the protective measures in place.

Be safe, because they need you



Digging safely

You cannot be too careful when it comes to safe excavation. Avoiding underground ducting pipe and cable damage is as simple as having the right tools, the right skills and the right information.

- > Study the plans you receive from asset owners thoroughly
- > Check to see if they relate to the area you requested and make sure you understand them. If you are unclear about what the symbols mean or how to proceed, contact the relevant network owner
- > Check the work area for other forms of electrical equipment, including street lights, ground substations, phone boxes or traffic lights – all good indicators that underground cables will be present
- > Remember underground cables can also be present even if overhead powerlines have been identified
- > Never assume the depth or alignment of pipes and cables. Installed networks assets may not have been installed in a straight line
- > Always observe any instructions stated on the plans provided by the asset owner
- > Remember, plans and maps identifying the location of underground cables and depths can alter after road upgrades or developments and underground assets may be as little as a few millimetres below the surface
- > Other service lines (for example gas mains (pipes) and communication cables) can also be present. Shared trenches are frequently used on underground runs to premises
- > New electrical cables are sometimes laid using existing old conduits
- > Various methods of protecting underground cables may be utilised (for example electrical bricks, conduits, concrete or flat PVC barriers) or may be direct buried or installed by under-boring methods which may have no visual disturbance of the ground
- > Ensure overhead & electrical structures aren't undermined during excavation.

Earth cables

Earth cables are an important part of all electrical installations and have two main purposes:

- > To safeguard against the possibility of danger to life
- > To maintain the good working order of the electrical network.

They can have potentially dangerous electrical current flowing through them. Usually they have a green and yellow covering but could be a bare cable buried directly in the ground.

Even if the map provided does not show underground cables, earth cables may be present. These earth cables are usually associated with electrical equipment located

on the pole such as transformers, switching equipment, permanent earthing points or Padmount / kiosk subs.

It's recommended that if any excavation is to take place within **10m** of a power pole with a cable running down it into the ground, contact is made with Essential Energy on **13 23 91** to have the earthing system located. While an effort is made to install the earthing under the powerline and guy if installed, sometimes circumstances may require a variation to this, so don't assume where they are installed. The distance and configuration that the earthing cable is installed varies due to the soil conditions and system type (e.g. Single wire earth return (SWER)).

Additional earthing electrodes stakes may be installed to ensure the required earthing reading is obtained.

WARNING:SWER installations

- > Contacting SWER earthing can be deadly
- > Voltage is present on SWER transformer earthing systems either at 12.7 kV or 19.1kV
- > NO excavation is allowed within 10 metres of a SWER transformer pole.

Excavating around electrical poles

Anyone intending to excavate around any electrical item risks serious injury or death as a result of contact with underground cables or the earthing system.

Assets around poles

For excavation depths greater than 250mm near power poles and stays you must arrange for an Essential Energy representative to attend the worksite 2 weeks prior to work commencing. Call Essential Energy on **13 23 91**. More information is available in Essential Energy's operational procedure, 'Work near Essential Energy's underground assets: CEOP8041' which can be found at essentialenergy.com.au/construction

Unless otherwise agreed, underground assets and other obstructions around poles are to be kept a minimum distance of 300mm from the periphery of the pole, to allow inspections by the asset owner employees.

No excavation within 10 metres of a SWER transformer pole is to occur without the approval of the local electricity asset owner. It should be noted that the NSW Service and Installation Rules require a sketch of the underground service/consumers mains to be marked inside the switchboard.

The risks are higher for those earthing systems of the SWER constructions as the earthing is utilised as the return path.

Be safe, because they need you



Typically any electrical item installed on a pole will have an earth wire running down the pole into the ground, which includes:

- > Transformers in urban and rural situations
- > Isolation, protection and regulation items.

Transformers located on the ground (padmount and kiosk), besides having underground electrical cables, will have an earthing system installed around them.

Damaged earthing

If an earth cable has been damaged, maintain a clearance of eight (8) meters and contact Essential Energy on **13 23 91**. **DONT ATTEMPT** to re-join the cable - this will place you at serious risk.

Operating near underground cables and earths

- > Underground cables should never be moved or relocated unless under the express authority of the organisation or person responsible for the powerlines
- > The excavator shall report all damage made to Essential Energy assets immediately. Damage includes: gouges, dents, holes and gas escapes
- > Never undermine poles, cables, earthing cable, pad-mount and kiosk substations.



Above: Poles with become unstable if undermined

Make sure it can't go wrong

You should ensure that people at work, their equipment (tools and plant) or materials do not come within close proximity to underground powerlines unless:

- > A written risk assessment has been completed and a safe system of work implemented
- > The relevant safety precautions and worker training requirements, including WorkCover Codes of Practice and Essential Energy's requirements, have been implemented and complied with.

If working in close proximity to underground cables is unavoidable and the risk assessment has been completed, the following should be considered to control the risks and ensure work safety:

- > Have the power switched off by Essential Energy
- > Consider all conductors as live unless it is positively known they have been de-energised
- > Where appropriate, provide ground markings to identify location and warn workers of the presence of underground power and other assets.

Emergency situations

In the event that contact with an underground powerline occurs or cables are exposed or damaged, remembering the following points could help save a life:

- > If the situation is at all life threatening, immediately contact the Emergency Services on 000 (triple zero)
- > Call Essential Energy's 24-hour supply interruptions line – **13 20 80** to switch off the power if required or report damage or exposure cables / conduits
- > If any other underground assets are damaged you should contact the affected asset owners immediately
- > Treat underground cables as alive, even if they appear to be dead
- > Keep everyone at least eight metres away from the incident site, the person or any machinery making contact with underground cable
- > Don't panic or touch the person receiving the electric shock – this could place you at risk
- > Untrained, unequipped persons should not attempt to rescue a person receiving an electric shock. All too often secondary deaths occur when others go to the aid of earlier victims
- > Remain on/inside the machinery until the supply is disconnected
- > If possible, break contact between the machinery and underground cable.



For more information

Essential Energy's Public Safety team is available to facilitate Electrical Awareness sessions and discuss any questions relating to electrical safety. For more information on electrical safety please call

- > Essential Energy General Enquiries 13 23 91
- > Essential Energy Supply Interruptions 13 20 80
- > WorkCover NSW 13 10 50
- > Dial Before You Dig www.1100.com.au 1100

- > Follow us  
- > or visit essentialenergy.com.au/safety

Safety first: Before you dig or drive items into the ground

1. Contact DBYD
2. DO NOT attempt to excavate within 10m of any power pole or electrical item
3. Contact Essential Energy on 13 23 91 for assistance to locate cables and earthing
4. Locate asset: Pot-hole
5. Proceed only if you have satisfied yourself it is safe.

Be safe, because they need you





Working near **nbn**TM 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.



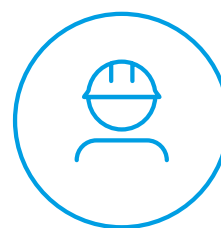
Plan: Plan your job by ensuring the plans received are current and apply to the work to be performed. Also check for any visual cues that may indicate the presence of services not covered in the DBYD plans.



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.

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To: Zeb Johnson
Phone: Not Supplied
Fax: Not Supplied
Email: zeb.johnson@ghd.com

Dial before you dig Job #:	31485738	 DIAL BEFORE YOU DIG www.1100.com.au
Sequence #	208672273	
Issue Date:	01/03/2022	
Location:	7045 Holbrook Road , Springvale , NSW , 2650	

Indicative Plans

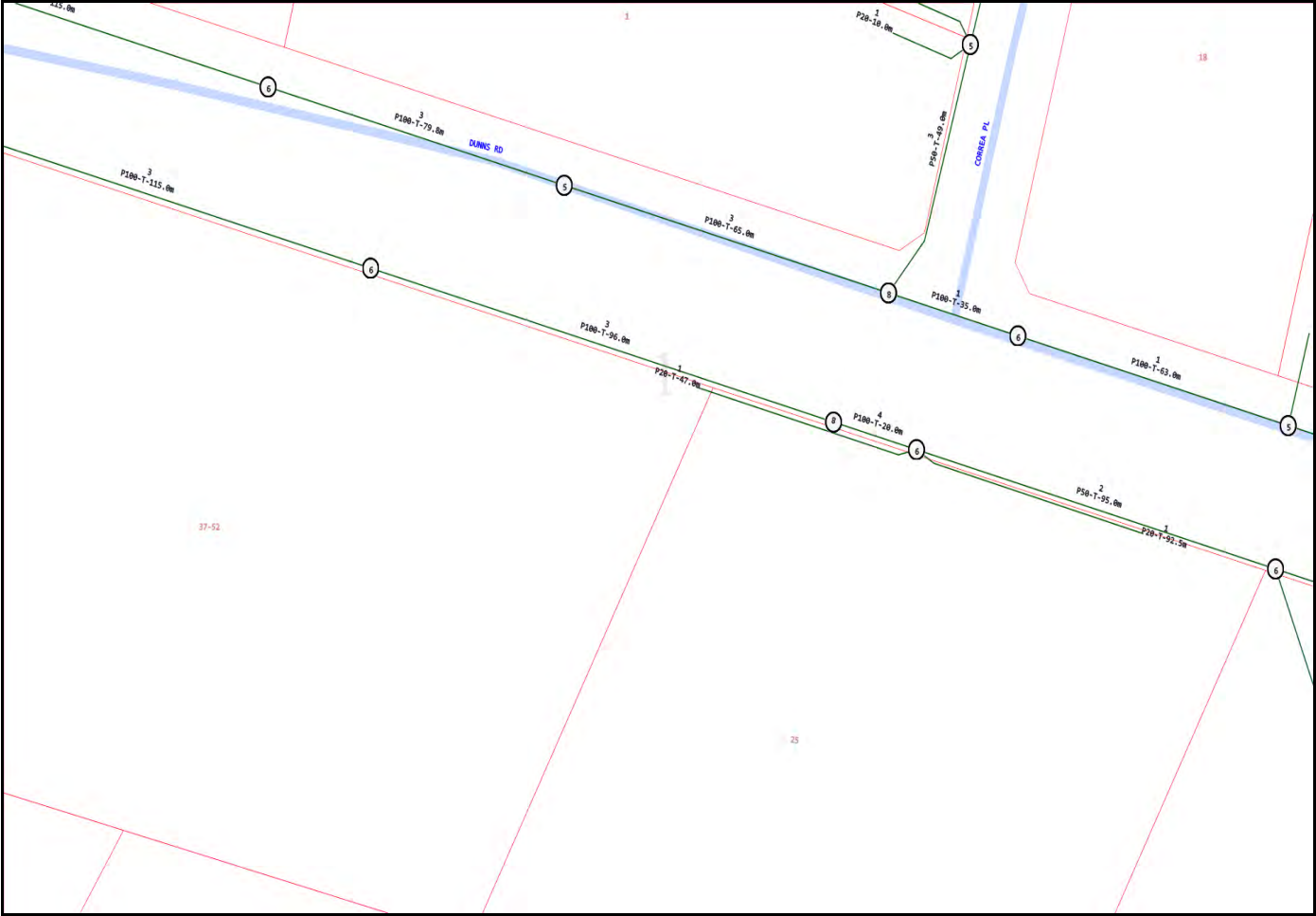
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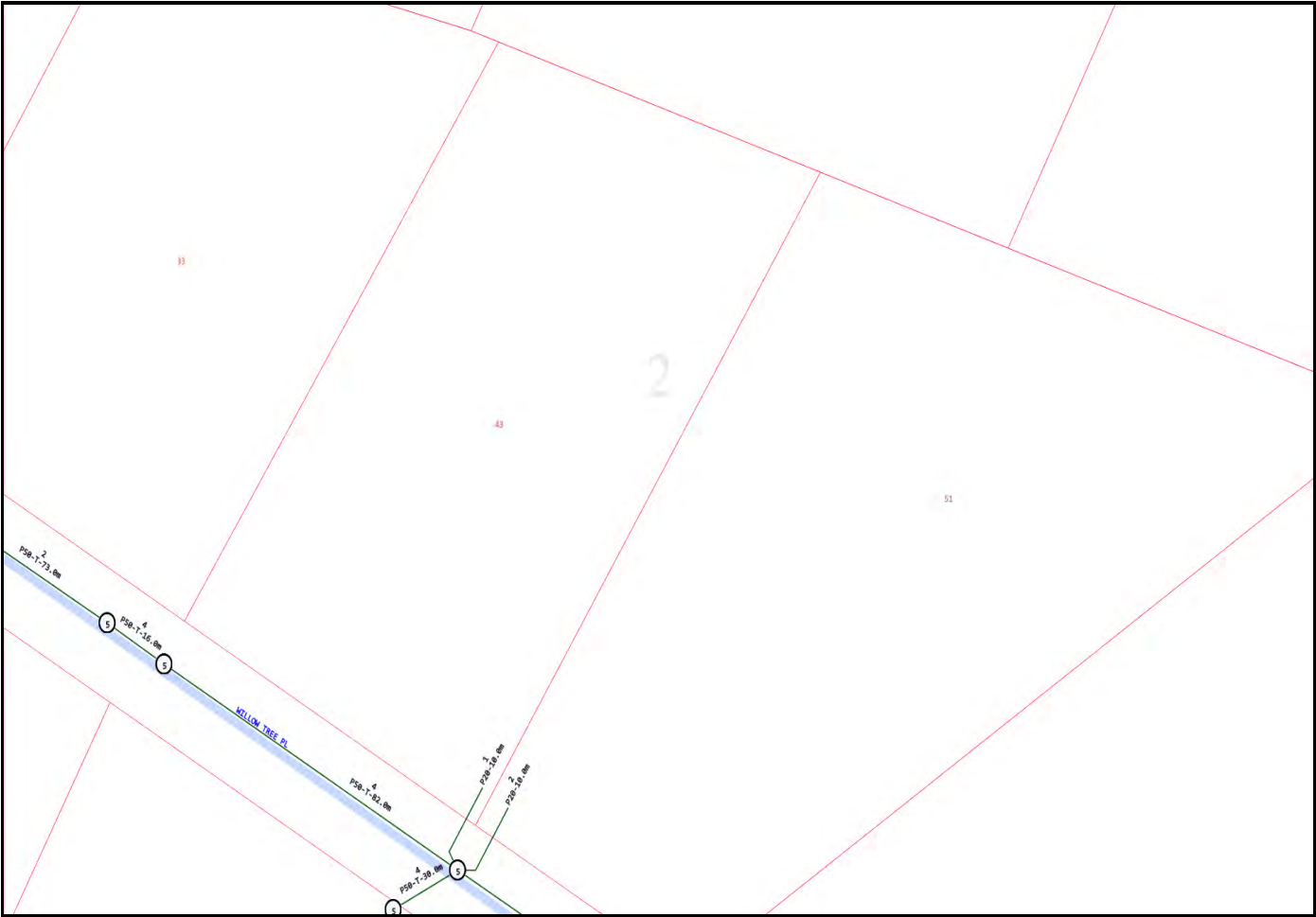


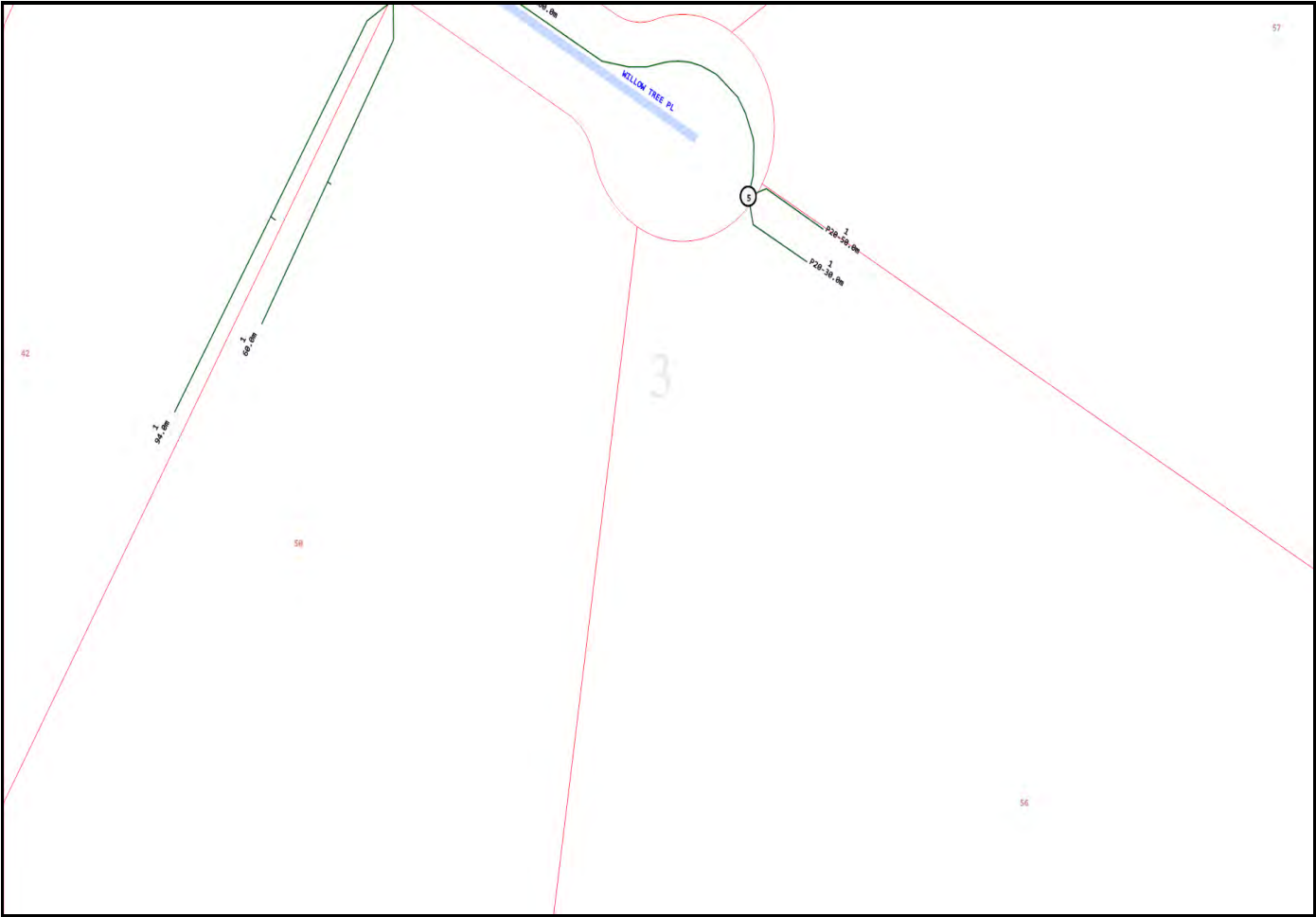
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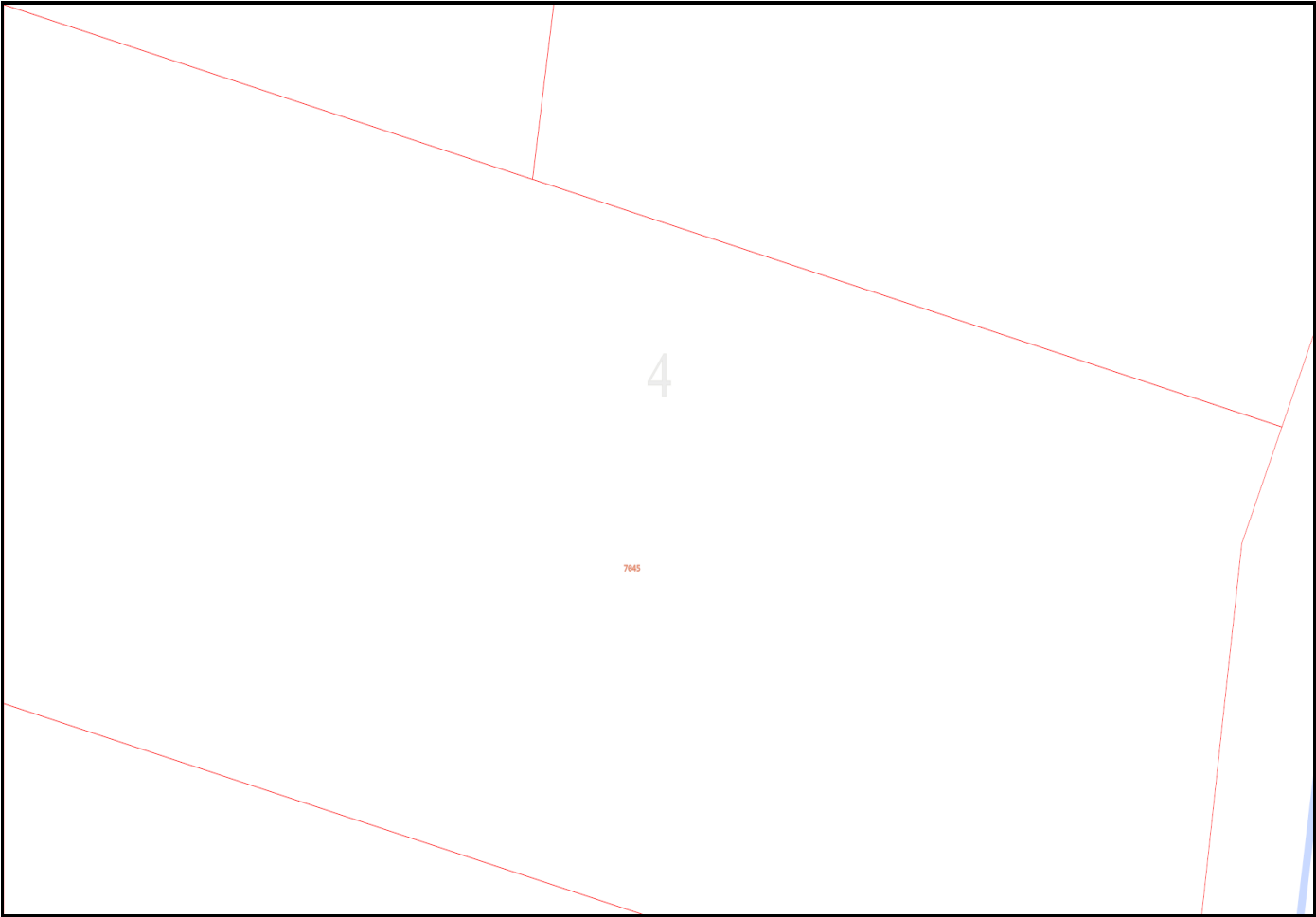


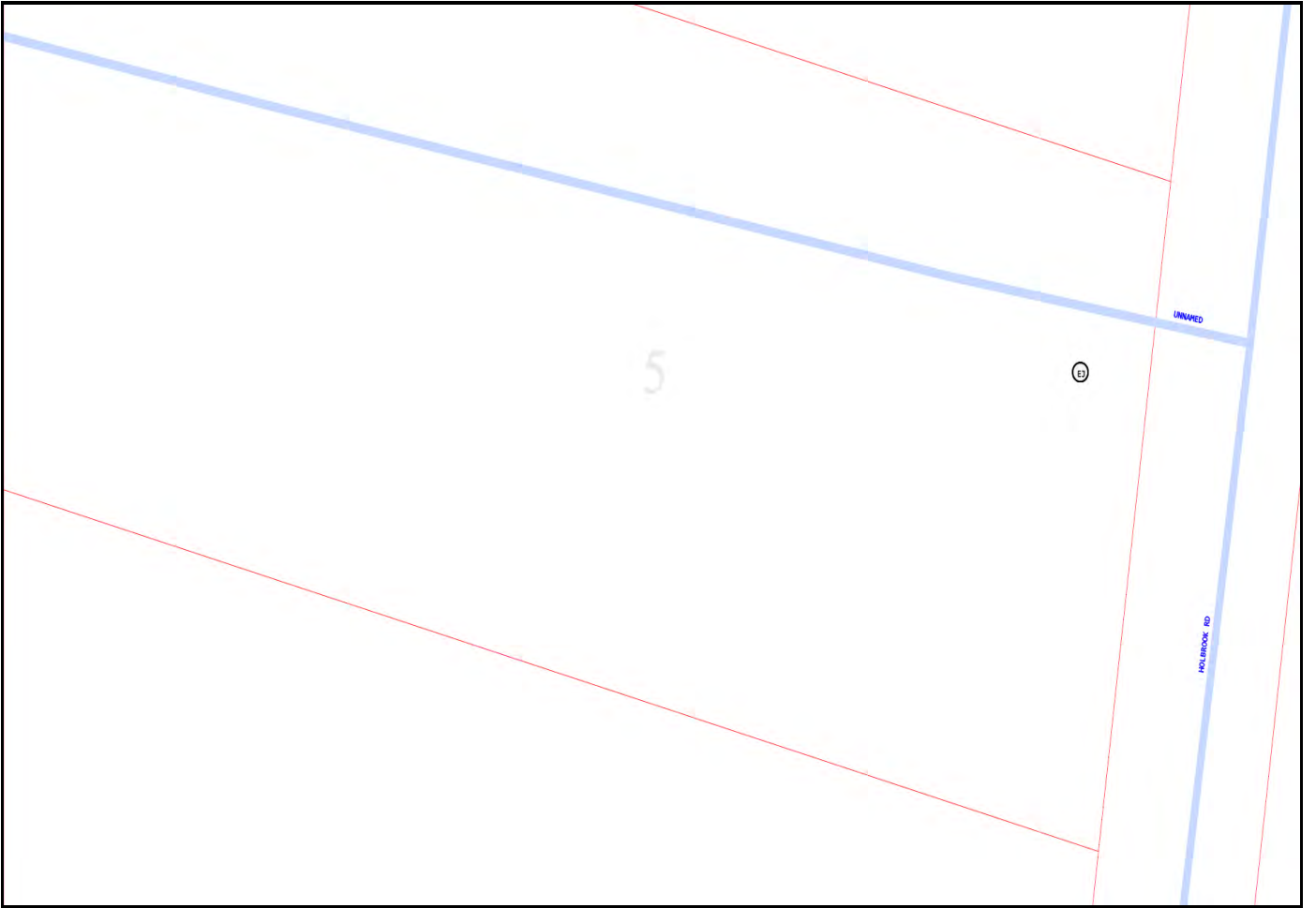
	Parcel and the location
	Pit with size "5"
	Power Pit with size "2E". Valid PIT Size: e.g. 2E, 5E, 6E, 8E, 9E, E, null.
	Manhole
	Pillar
	Cable count of trench is 2. One "Other size" PVC conduit (PO) owned by Telstra (-T-), between pits of sizes, "5" and "9" are 25.0m apart. One 40mm PVC conduit (P40)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

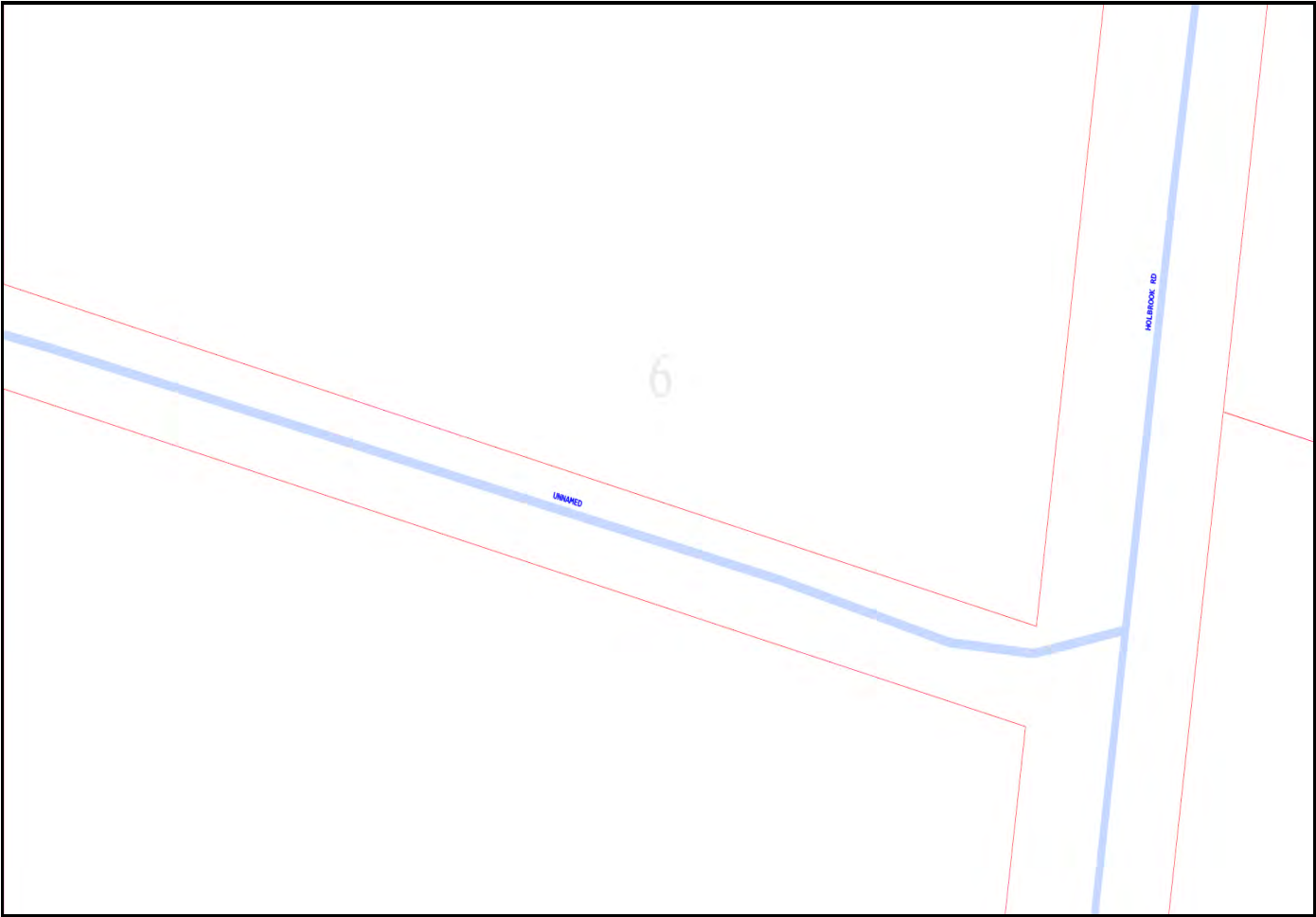






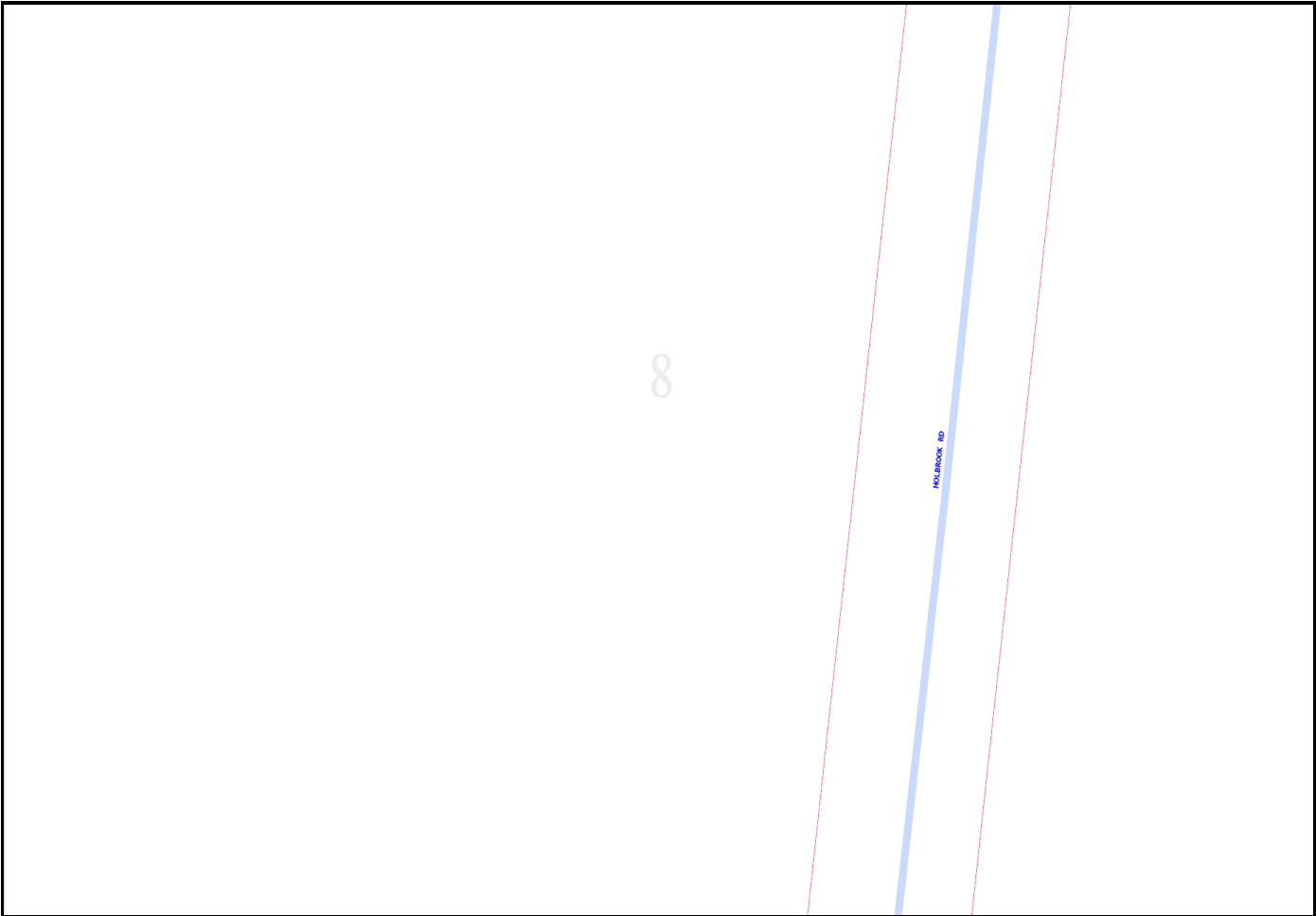


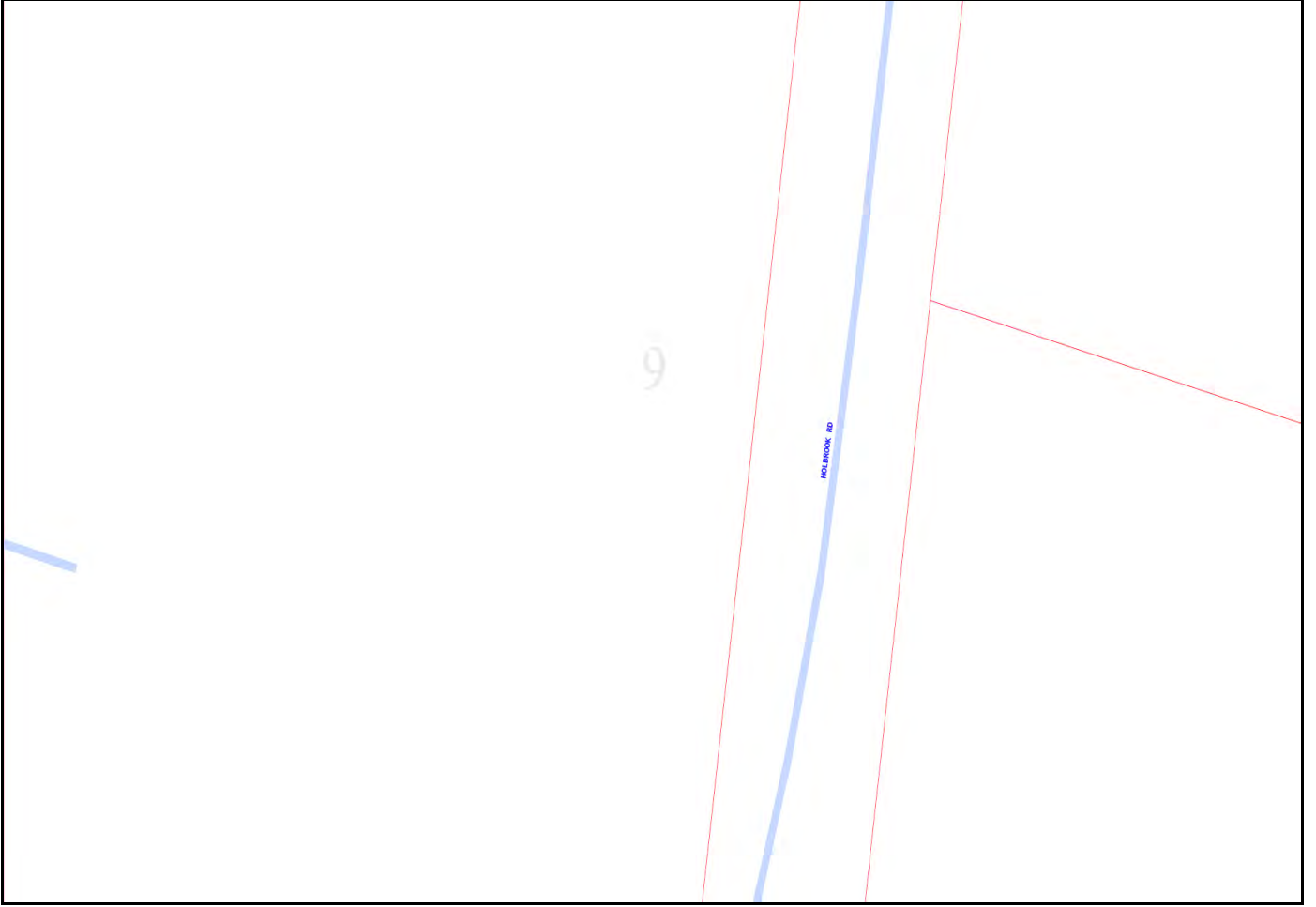


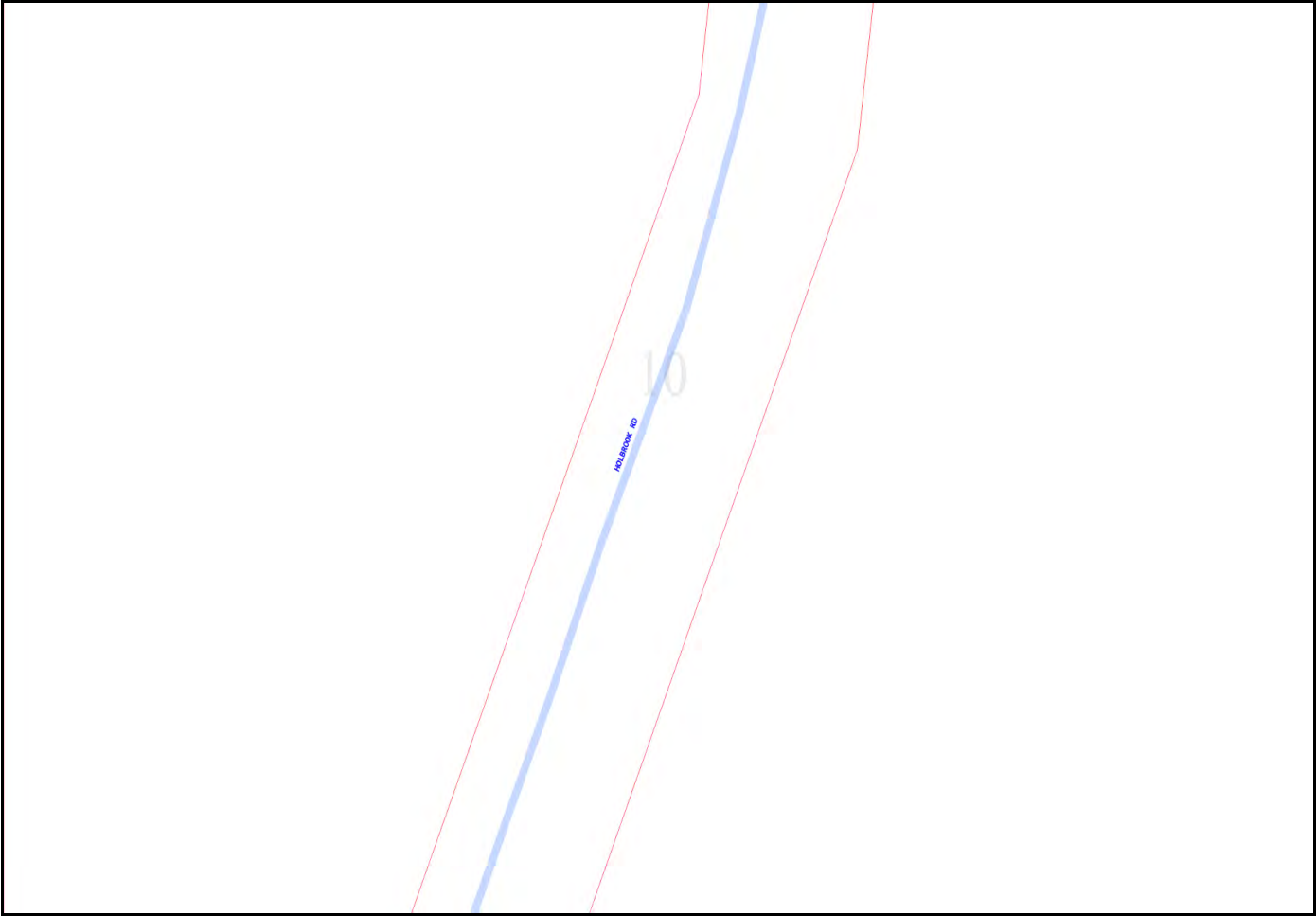


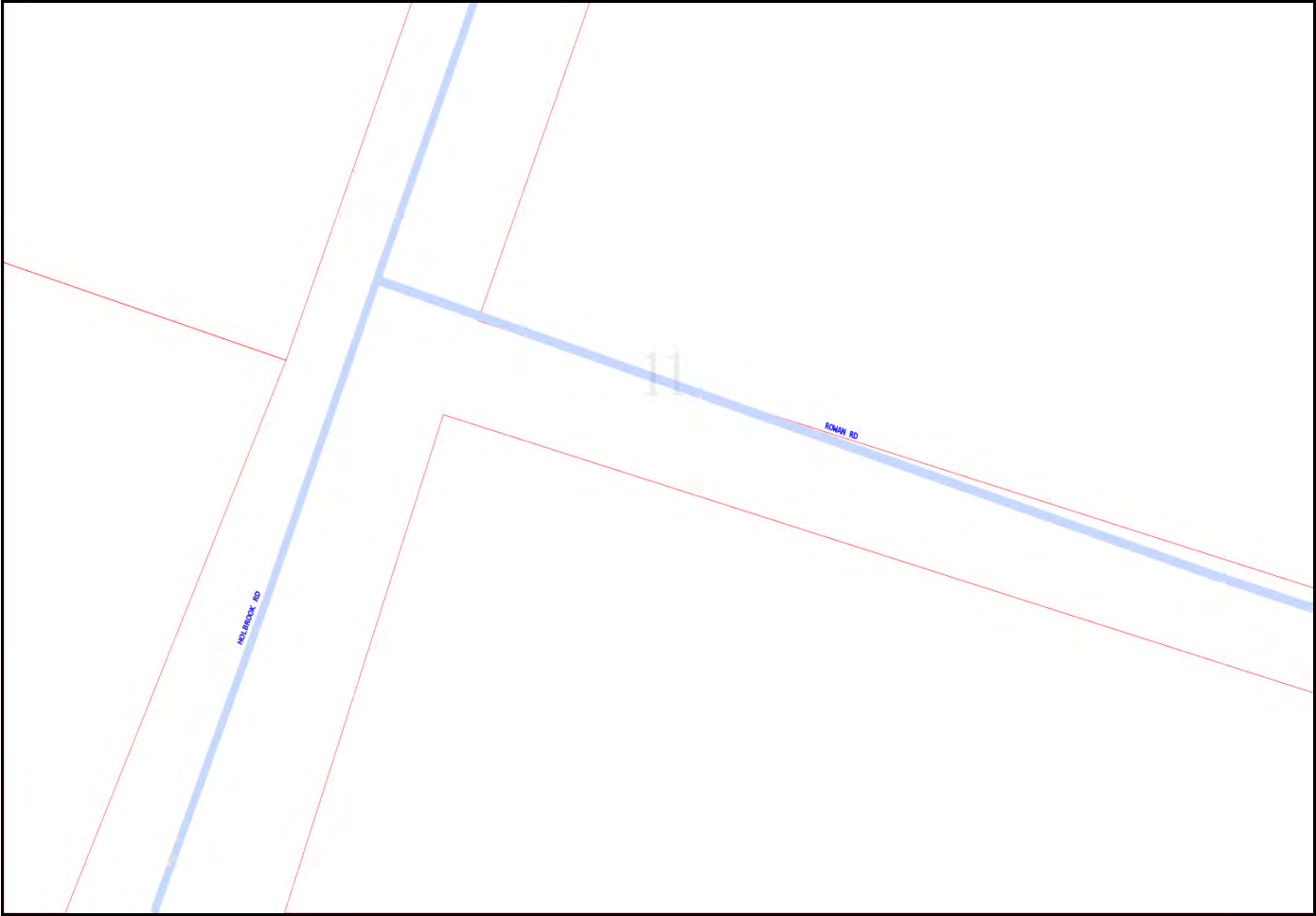
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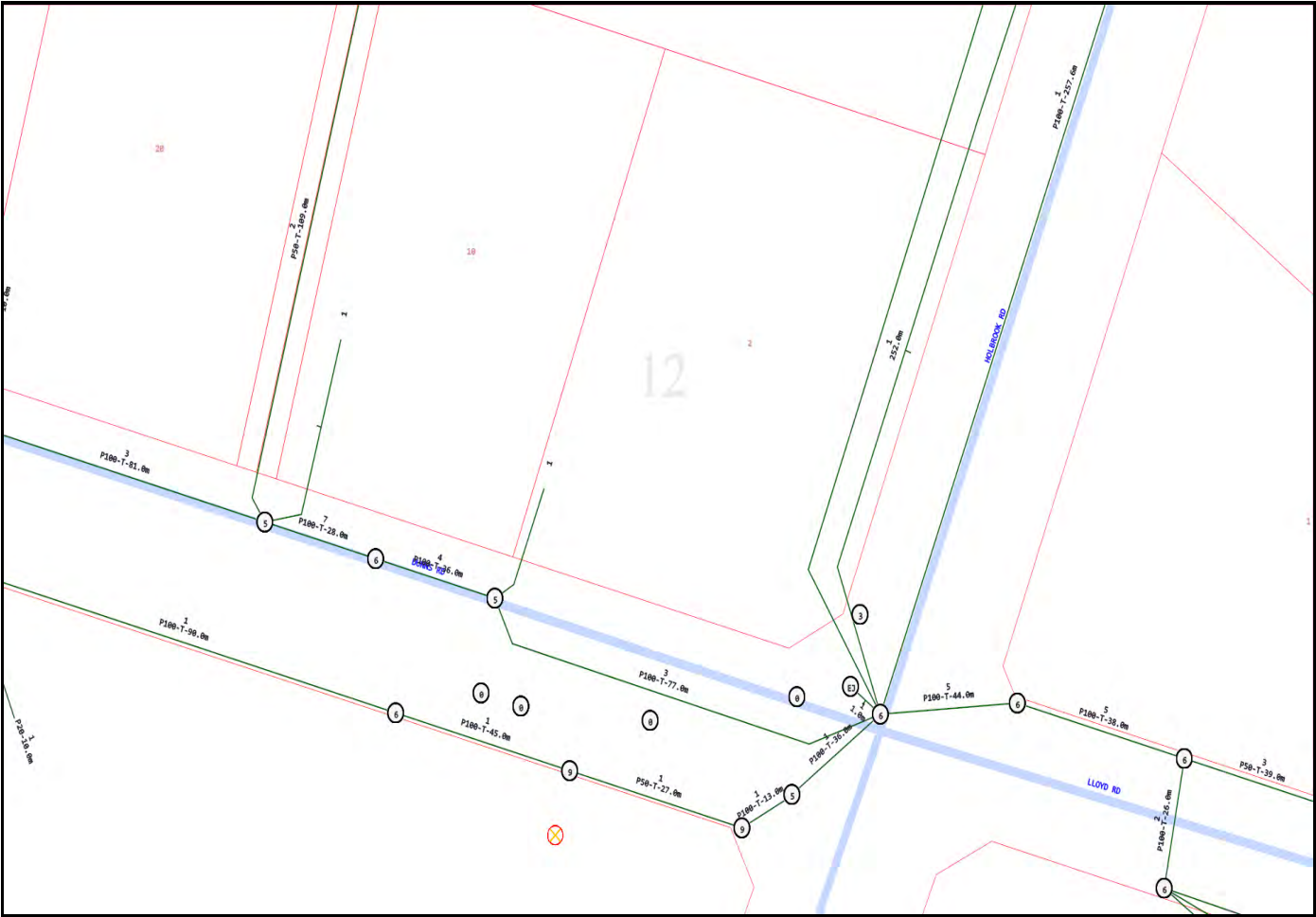
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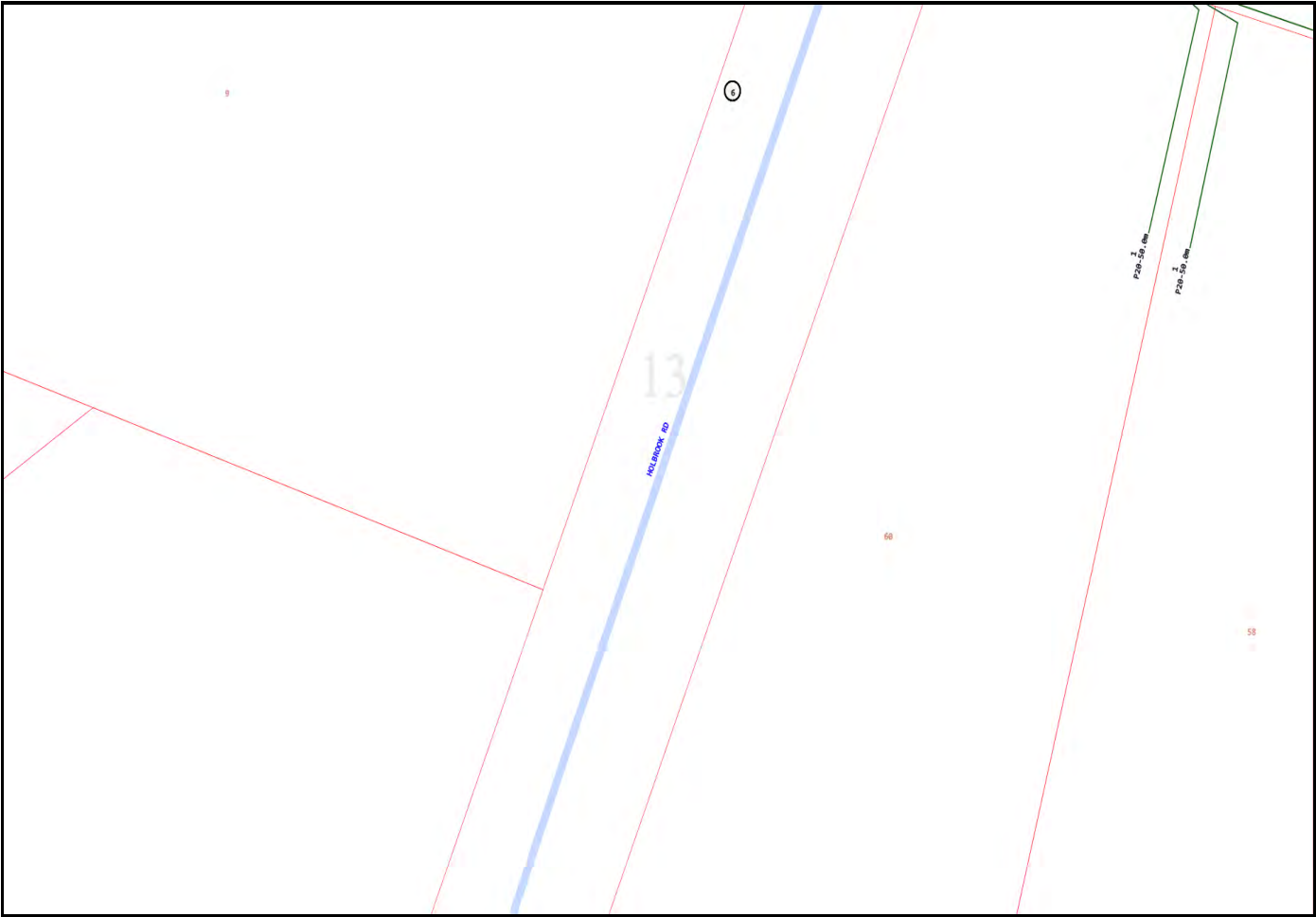


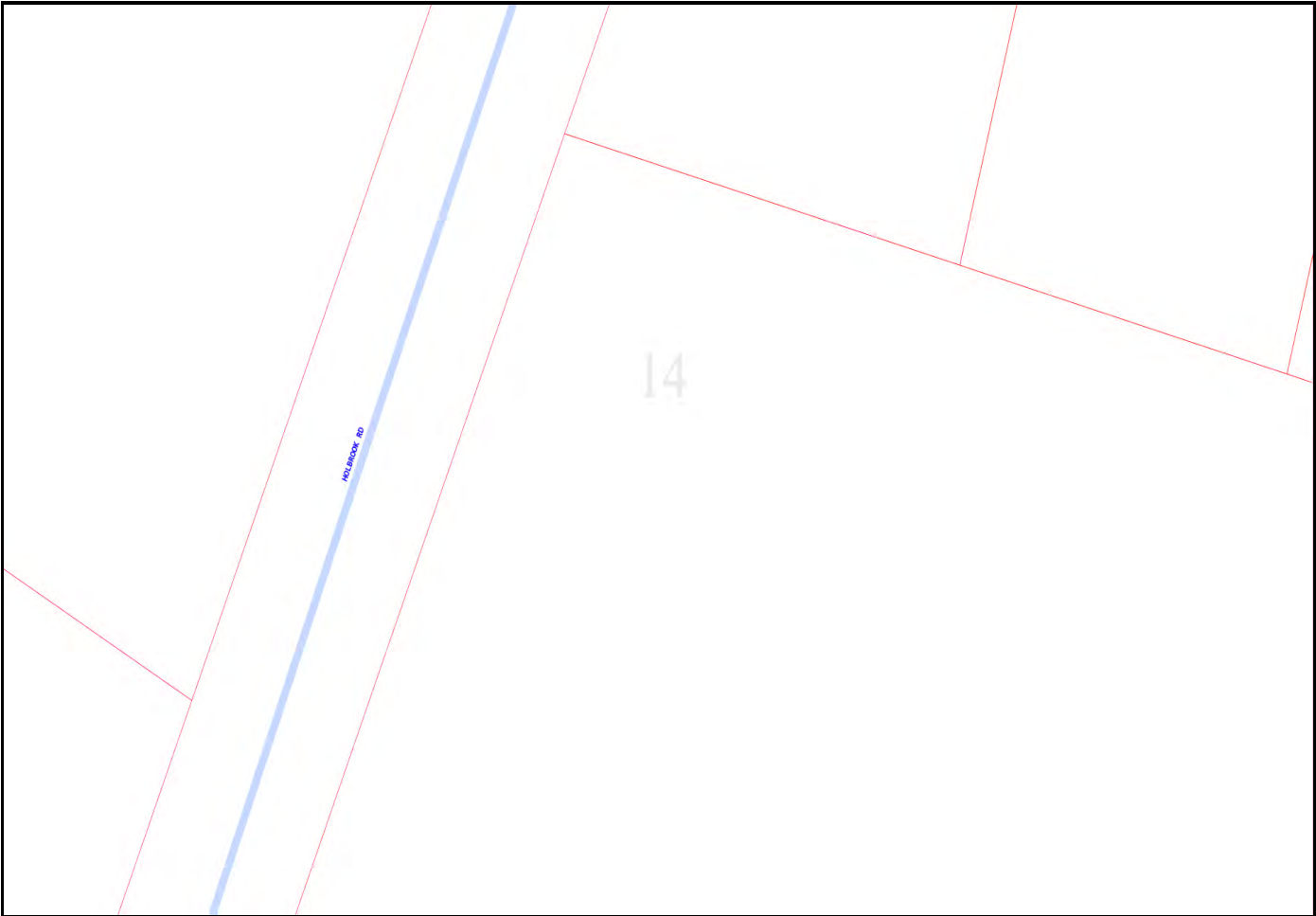


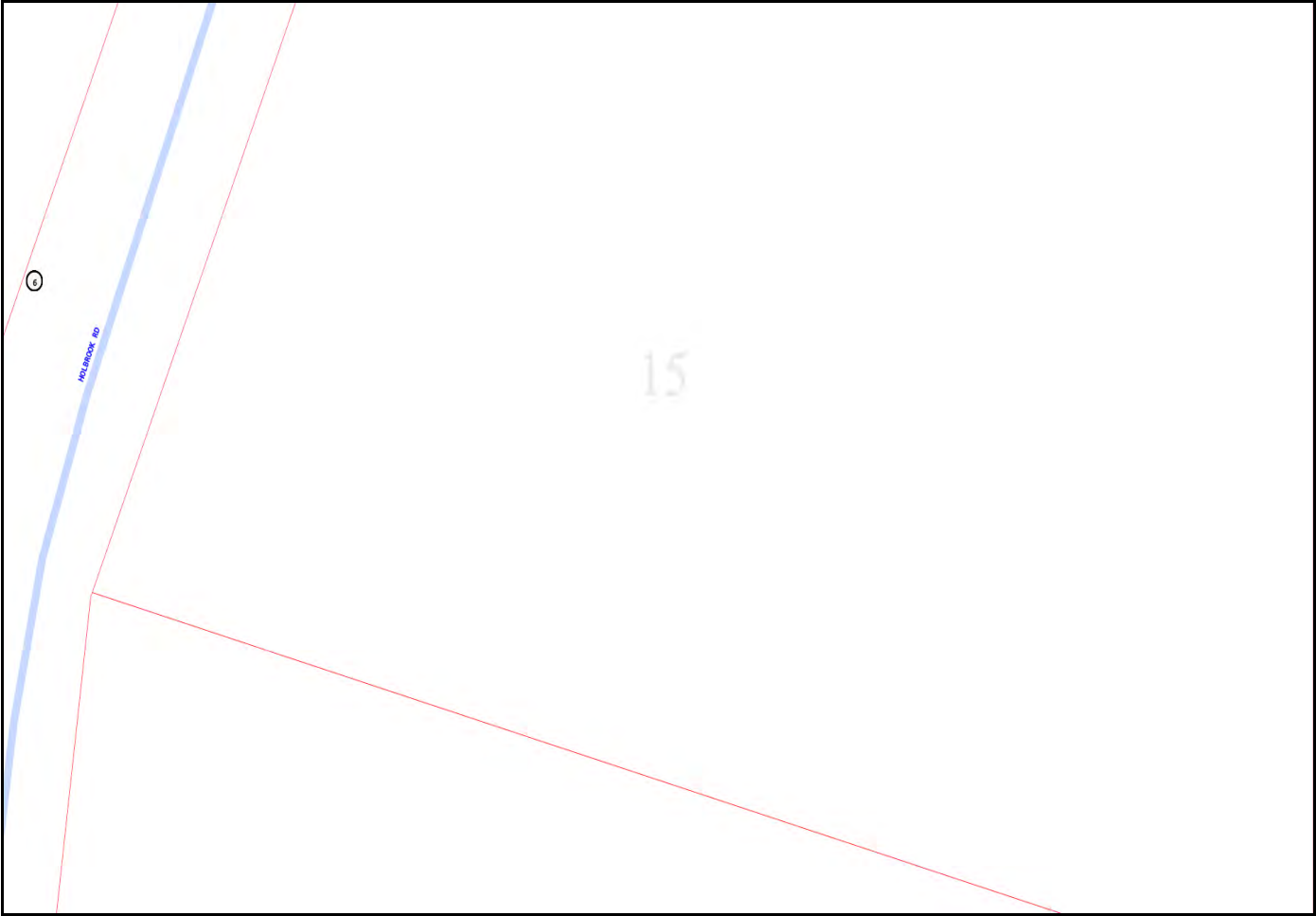




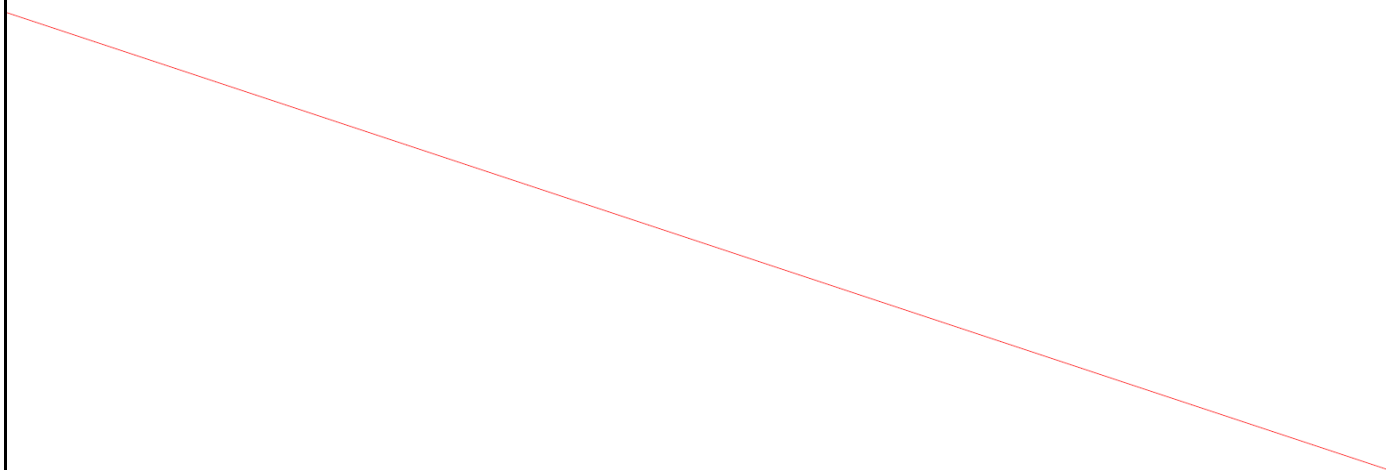




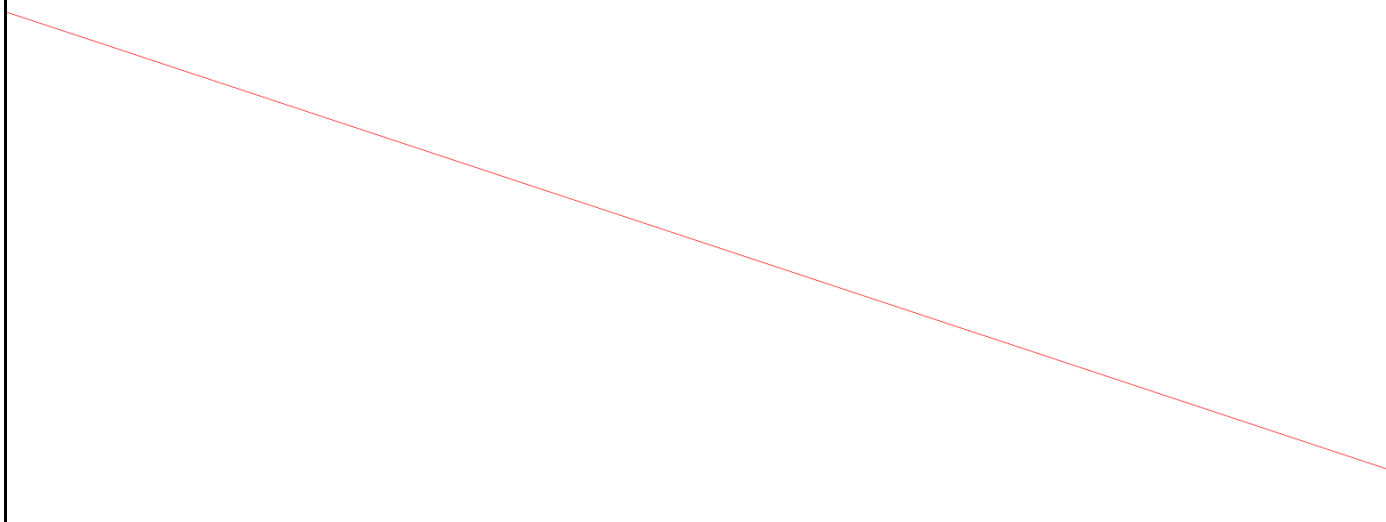




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Emergency Contacts

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

To: Zeb Johnson
Phone: Not Supplied
Fax: Not Supplied
Email: zeb.johnson@ghd.com

Dial before you dig Job #:	31485738	
Sequence #	208672273	
Issue Date:	01/03/2022	
Location:	7045 Holbrook Road , Springvale , NSW , 2650	

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 DBYD 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 Dial Before You Dig 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**TM 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 DBYD Certified Locators, at your cost to locate **nbn**TM 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**TM 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**TM 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**TM fibre optic, copper and coaxial cables, and power cable feed to **nbn**TM 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**TM 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**TM 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**TM 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

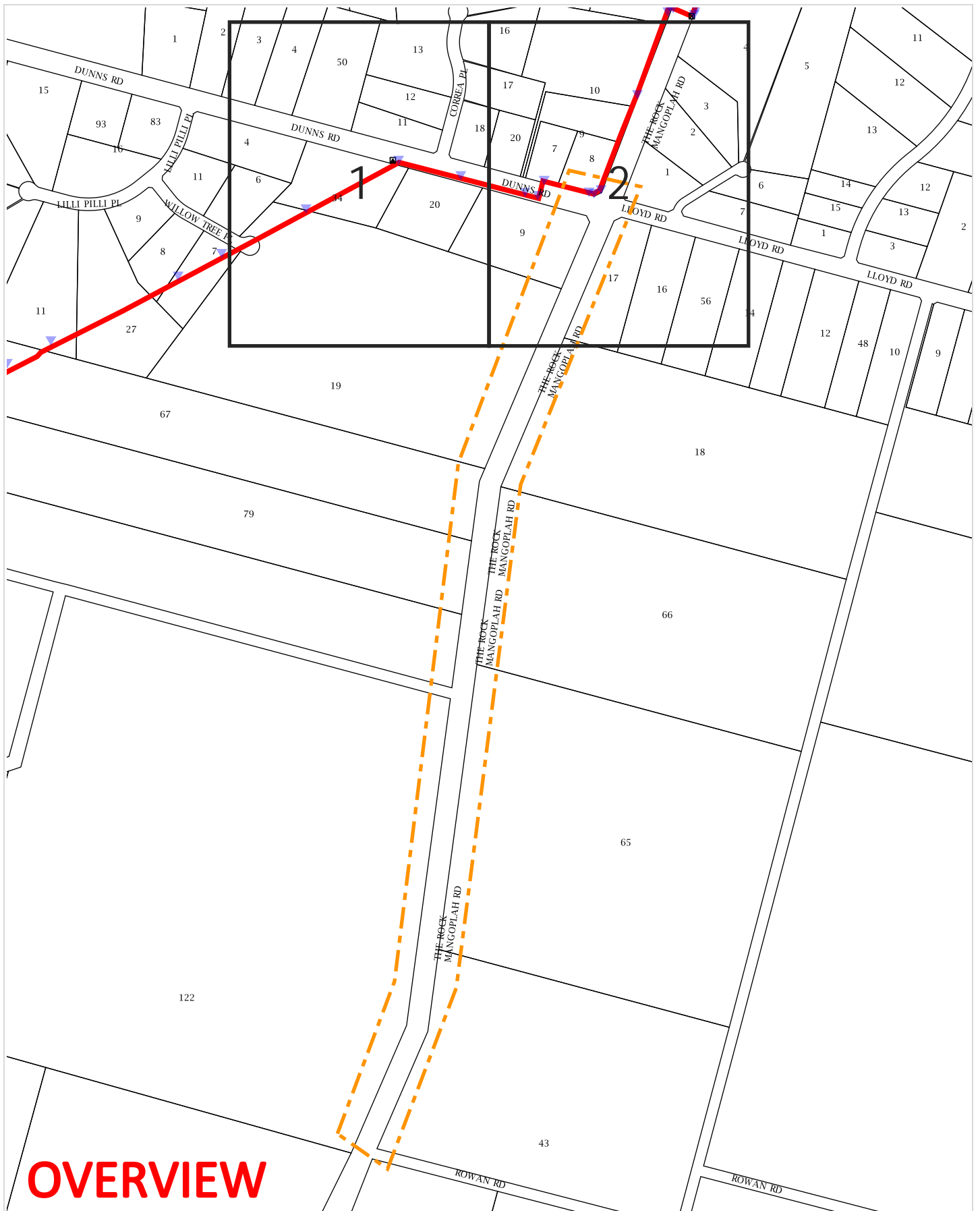
Thank You,

nbn DBYD

Date: 01/03/2022

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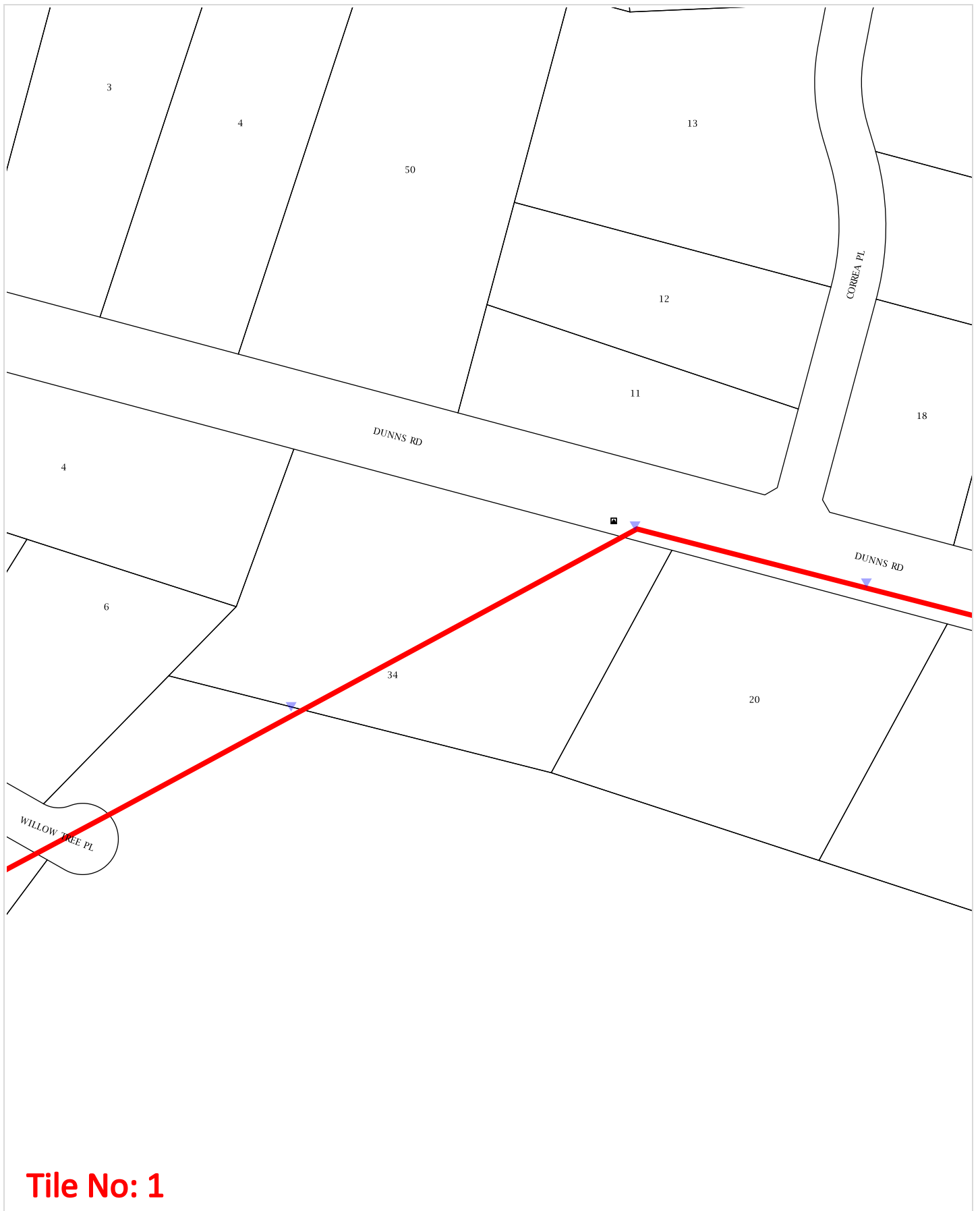
Sequence Number: 208672275

Date Generated: 01 Mar 2022



For all Optus DBYD plan enquiries –
Email: Fibre.Locations@optus.net.au
For urgent onsite assistance contact 1800 505 777
Optus Limited ACN 052 833 208





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For urgent onsite assistance contact 1800 505 777
Optus Limited ACN 052 833 208



Date: 01 Mar 2022
To: Zeb Johnson
Company: GHD
Address: 161-169 Baylis Street
Wagga Wagga, NSW 2650

ENQUIRY DETAILS

Location: 7045 Holbrook Road, Springvale, NSW 2650
Sequence No.: 208672275
DBYD Reference: 31485738

In relation to your enquiry concerning the above location, Optus advises as follows:

Optus records indicate that there ARE underground Optus FIBRE OPTIC TELECOMMUNICATIONS ASSETS in the vicinity of the above location as per the attached drawing(s).

PLEASE NOTE THAT THE ASSETS IN THIS AREA ARE OF NATIONAL SIGNIFICANCE. Any interference with these assets has the potential to significantly disrupt communications in Australia and may be considered an offence under the Criminal Code Act 1995 (Cth). Optus reserves the right to seek compensation for loss or damage to its assets including consequential loss.

This reply is valid for a period of 30 days from the date above.

IMPORTANT INFORMATION

Asset location drawings provided by Optus are reference diagrams and are provided as a guide only. The completeness of the information in these drawings cannot be guaranteed. Exact ground cover and alignments cannot be provided with any certainty as these may have altered over time. Depths of telecommunications assets vary considerably as do alignments. It is essential to identify the location of any Optus assets in the vicinity prior to engaging in any works.

All Optus assets in the vicinity of any planned works will need to be electronically located to ascertain their general location. Depending on the scope of planned works in the vicinity, the assets may also need to be physically located.

YOU MUST ENGAGE THE SERVICES OF ONE OF THE OPTUS ASSET ACCREDITED LOCATORS TO CARRY OUT ASSET LOCATION (REFER LIST OF ACCREDITED LOCATORS AT THE END OF THIS OPTUS RESPONSE).

Unless otherwise agreed with Optus, where an on-site asset location is required, the requestor is responsible for all costs associated with the locating service including (where required) physically exposing the Optus asset.

DUTY OF CARE

When working in the vicinity of telecommunications assets you have a legal "Duty of Care" and non-interference that must be observed.

It is your responsibility as the requesting party (as a landowner or any other party involved in the planned works) to design for minimal impact to any existing Optus asset. Optus can assist at the design stage through consultation.

It is also your, as the requesting party (or your representative's), responsibility to:

- Obtain location drawings (through the Dial Before You Dig process) of any existing Optus assets at a reasonable time before any planned works begin;
- Have an Optus Accredited Asset Locator identify the general location of the Optus asset and physically locate the asset where planned works may encroach on its alignment; and
- Contact Optus for further advice where requested to do so by this letter.

DAMAGE TO ANY OPTUS ASSET MUST BE REPORTED TO 1800 500 253 IMMEDIATELY

You, your head contractor and any relevant subcontractor are all responsible for any Optus asset damage as a result of planned activities in the vicinity of Optus assets.

This applies where works commence prior to obtaining Optus drawings, where there is failure to follow instructions or during any construction activities.

Optus reserves the right to seek compensation for loss or damage to its assets including consequential loss. Also, you, your head contractor and any relevant subcontractor may also be liable for prosecution under the Criminal Code Act 1995 (Cth).

ASSET RELOCATIONS

You are not permitted by law to relocate, alter or interfere with any Optus asset under any circumstance. Any unauthorised interference with an Optus asset may lead to prosecution under the Criminal Code Act 1995 (Cth). Enquiries relating to the relocation of Optus assets must be referred to the relevant Optus Damages and Relocations Team (refer to "FURTHER ASSISTANCE").

APPROACH DISTANCES

On receipt of Optus asset location drawings and prior to commencing any planned works near an Optus asset, engage an Optus Accredited Locator to undertake a general location of the Optus asset.

Physical location of the Optus asset by an Optus Accredited Locator will also be required where planned works are within the following approach distances of the general location of the Optus asset:

- In built up metropolitan areas where road and footpaths are well defined by kerbs or other features a minimum clear distance of 1 meter must be maintained from the general location of the Optus asset.
- In non-established or unformed metropolitan areas, a minimum clear distance of 3 meters must be maintained from the general location of the Optus asset.
- In country or rural areas where wider variations may exist between the general and actual location of an Optus asset may exist, then a minimum clear distance of 5 meters must be maintained from the general location of the Optus asset.

If planned works are parallel to the Optus asset, then the Optus asset must be physically located by an Optus Accredited Locator at a minimum of 5 meter intervals along the length of the parallel works prior to work commencing.

Under no circumstances is crossing of any Optus asset permitted without physical location of the asset being carried out by an Optus Accredited Locator. Depending on the asset involved an Optus representative may be required onsite.

The minimum clearances to the physical location of Optus assets for the following specific types of works must be maintained at all times.

Note: Where the clearances in the following table cannot be maintained or where the type of work differs from those listed then advice must be sought from the relevant Optus Damages and Relocations Team (refer to "FURTHER ASSISTANCE").

Type of Works	Clearance to Physical Location of Optus Asset
Jackhammers / Pneumatic Breakers	Not within 1 meter.
Light duty Vibrating Plate or Wacker Packer type compactors (not heavy road construction vibrating rollers etc.)	500mm compact clearance cover before a light duty compactor can be used over any Optus conduit. No compaction permitted over Optus direct buried cable without prior approval from Optus.
Boring Equipment (in-line, horizontal and vertical)	Not within 5 meters parallel of the Optus asset location without an Accredited Optus Asset Locator physically exposing the Optus asset and with an Optus representative onsite. Not to cross the Optus asset without an Accredited Optus Asset Locator physically exposing the Optus asset and with an Optus representative onsite.

Type of Works	Clearance to Physical Location of Optus Asset
Heavy vehicle Traffic (over 3 tonnes)	<p>Not to be driven across Optus conduits with less than 600mm of cover.</p> <p>Not to be driven across Optus direct buried cable with less than 1.2 meters of cover.</p> <p>Once off crossings permitted, multiple crossing (e.g. road construction or logging) will require Optus approval.</p> <p>Accredited Optus Asset Locator to physically expose the Optus asset to verify actual depth.</p>
Mechanical Excavators, Farm Ploughing, Vertical Hole installation for water bore or fencing etc.	<p>Not within 1 meter.</p> <p>Accredited Optus Asset Locator to physically expose the Optus asset to verify actual location.</p>

ASSET CLEARANCES AFTER COMPLETION OF WORKS

All Optus pits and manholes must be a minimum of 1 meter from the back of any kerb, 3.5 meters of the road surface without a kerb or not within 15 meters of street intersection.

In urban areas Optus conduit must have the following minimum depth of cover:

- Footway 600mm;
- Roadway 1 meter at drain invert and at road centre crown.

In rural areas Optus conduit must have a minimum depth of cover of 1 meter and direct buried cable 1.2 meters.

In cases where it is considered that the above clearances cannot be maintained at the completion of works, advice must be sought from the relevant Optus Damages and Relocations Team (refer "Further Assistance").

















FURTHER ASSISTANCE


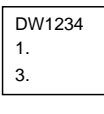

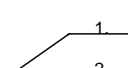
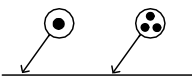
Further assistance on asset clearances, protection works or relocation requirements can be obtained by contacting the relevant Optus Damages and Relocations Team on the following email address:

NFODamages&RelocationsDropbox@optus.com.au

Further assistance relating to asset location drawings etc. can be obtained by contacting the Optus Network Operations Asset Analysis Team on 1800 505 777.

OPTUS ENGINEERING DRAWING SYMBOLS

	Optus underground cable		Optus manhole/pit
	Optus underground IOF cable		Other Utility manhole/pit
	Optus conduit		Optus marker post
 OR 	Optus cable in Other Utility conduit		Railway / Tram line
	Southern Cross conduit		Highway / Major Road
	Indigo conduit		Arterial Road
	Uecomm conduit		Council Road - minor
	Optus aerial fibre cable		

	Optus underground cable		Optus marker post number Depth of Optus cable Offset to Optus cable
	Optus cable buried jointly with third party utility		Optus cable depth (approx) Optus cable offset (approx)
	Optus cable in conduit with subducts		



Optus Accredited Asset Locators

Name	Company Name	Phone	Email	State	Region/Service Area
Alan Cordner	Alcom Fibre Services Pty Ltd	0400 300 337	alcomfibre@bigpond.com	NSW/ACT	Sydney
Brad McCorkindale	Bradmac Locating Services	0434 157 409	brad.mac@bigpond.com	NSW/ACT	All
Troy Redden	On Point Utility Locating	1300 6676 468	troy@onpointlocating.com.au	NSW	Sydney Only
Shane Buckley	Cable & Pipe Locations	0408 730 430	sabuckley@bigpond.com	NSW/QLD	Armidale, Casino, Coffs Harbour, Dorrigo, Glenn Innes, Grafton, Inverell, Kempsey, Lismore, Nambucca, Port Macquarie, Tamworth, Taree, Tenterfield, Yamba
Philip Pegler	Down Under Detection Services (DUDS)	0418 267 964	apegler@duds.net.au	NSW	All
Tina Stanhope	SureSearch Underground Services	1300 884 520 0418 920 245	tina.stanhope@suresearch.com.au	NSW/ACT QLD	NSW, Sydney, Northern NSW, Canberra, QLD, South East QLD.
Leonard McGowan	Pipesure Australia	1300 411 811	len@pipesure.com.au	NSW	Sydney
Bruce Whittaker	Optical Fibre Technologies	0402 354 322	opticaltek1@aol.com	NSW	Sydney/Wollongong
Darryl Smith	Darryl Smith Electrical	02 6642 3731	office@dsmithelectrical.com.au	NSW	Grafton
George Koenig	Downunder Locations NSW Pty	0438 243 856	Downunderlocations@gmail.com	NSW	Tweed Heads, Gold Coast, Brisbane
Michael Grant	M&K Grant Bega Bobcats Pty Ltd	0427 260 423	zzbobcat@bigpond.net.au	NSW	Bega, Far South Coast
Antony Critcher	Geotrace Pty Ltd	0417 147 945	antony@geotrace.com.au	NSW	All Areas, Sydney, Wollongong, Newcastle, ACT
Anthony Lane	Hydro Digga	0447 774 000	locator@hydrodigga.com	NSW	All of NSW, ACT & South East Qld
Joshua Payne	Australian Utilities Management Pty Ltd	0427 833 222	aine@ausutilities.net.au	NSW	Sydney Metro
Nathan Ellis	Utility Locating Services	0404 087 555	nathan@utilitylocatingservices.com.au	NSW	Sydney

Rodney Pullen	Provac	0450 268 012	rod@provac.net.au	NSW /QLD	South East QLD, Northern NSW
Rodney Pullen	One Find Cables	0451 268 012	rod@provac.net.au	NSW /QLD	South East QLD, Northern NSW
Drew Misko	Australian Subsurface Pty Ltd	0427 879 600	admin@australiansubsurface.com	NSW/ACT	All of NSW/ACT
Scott O'Malley	Coastal Cable Locators Pty Ltd	0427 975 777	skomalley@bigpond.com	NSW	South Coast- Snowy Mountains-Southern Highlands
Liam Bolger	Brandon Construction Services	0438 044 008	liam.bolger@hotmail.com	NSW	Sydney
Brett Pickup	All About Pipes	02 8763 4200	Brett.Pickup@allaboutpipes.com.au	NSW / VIC	All
Karen Joyce	Durkin Construction Pty Ltd	02 9712 0308	karen@durkinconstruction.com.au	NSW	Sydney
Timothy Laidler	Locate & Map	0431 191 669	tim@locateandmap.com.au	NSW	Sydney, Central Coast
Ken Brown	Riteway Traffic Control Pty Ltd	0419 212 969	kbrowne@ritewaytc.com.au	NSW	Central Coast, Hunter
Walter R Johansen	Steger & Associates	02 6296 4089	enquiries@steger.com.au	ACT/NSW	Canberra
Jean-Max Monty	Civilscan	0416 068 060	civilscan@bigpond.com	NSW	Sydney – Central Coast – Newcastle – Wollongong – Hunter Valley – Blue Mountains
Alan Hunter	Hunter Ground Search	02 4953 1244 0418 684 819	huntergroundsearch@bigpond.com	NSW	Newcastle, Central Coast, Hunter Valley, Mid North Coast, Liverpool Plains, Central West NSW.
Gilbert J Cook	Datateks Communications Specialists	0408 693 660	datateks@datateks.com.au	NSW	Southern NSW
Damien Black	Mid North Coast Hydro Digging	0418 409 465	dblack1@bigpond.com	NSW	Newcastle- foster-Taree- Wauchope -Port Macquarie - Kempsey -Coffs harbour
Neil Blenkinsop	Utility Mapping Pty Ltd	0427 318 681	nblenkinsop@utilitymapping.com.au	NSW	Sydney
Daniel Fox	Epoca Environmental Pty Ltd	02 4739 2465 0433 100 642	daniel@epocaenvironmental.com.au	NSW	All NSW, ACT
Rod Shaw	Cable Find	0478 887 073	rod@cablefind.com.au	NSW	Northern Rivers
Danny Carter	Online Pipe & Cable Locating	1300 665 384	danny@onlinepipe.com.au	NSW	Sydney, Newcastel, Canberra, Blue Mountains
Sam Romano	Locating Services	0403 065 510	sam.romano@locatingservices.com.au	NSW	NSW All
Scott Allison	Crux Surveying Australia	02 9540 9940	sydneyoffice@cruxsurveying.com.au	NSW	Sydney Metro & Surrounding Areas

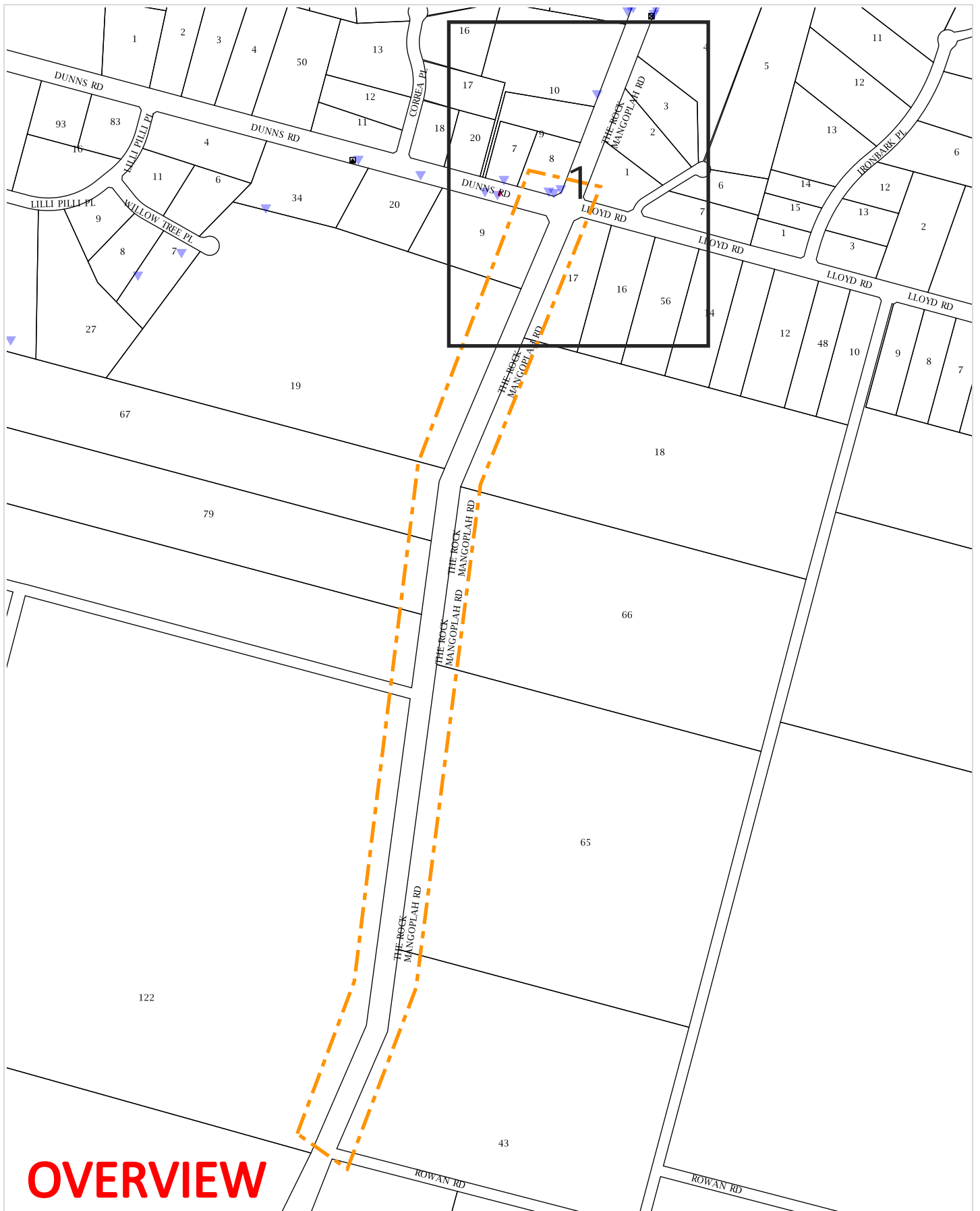
Ian Brown	Peter Ellsmore & Associates	0439 423 708	ian.brown@ellsmore.com.au	NSW	Wollongong, Illawarra, South Coast, Southern Highlands, Macarthur & Sydney
Donna Wullaert	Commence Communications Pty Ltd	02 6226 3869 0428 595 620	admin@commencecomms.com.au	NSW	Canberra, Yass, Bungendore, Goulburn and Surrounding regional Areas
Stephen Fraser	Advanced Ground Locations	02 4930 3195 0412 497 488	steve_agl@hotmail.com	NSW	Newcastle, Hunter Valley, Central Coast, Taree & Surrounding Areas
Andrew Findlay	LiveLocates	0429 899 777	info@livelocates.com.au	NSW	South Coast/ACT, Snowy Mountains
Graeme Teege	Armidale Electrical	02 6772 3702	office@armidale-electrical.com.au	NSW	Armidale
Myles Green	Australian Locating Services	1300 761 545	myles@locating.com.au	NSW	Sydney
Brett Wallin	Utility Scan	0426 354 051	brett@utilityscan.net	NSW	Sydney CBD and Regional areas
Daniel Hudson	One Search Locators	1300 530 420	daniel@onesearchlocators.com.au	NSW	All NSW, ACT
Tim Galaz	Utec Solutions	02 9389 0040	office@utecsolutions.com.au	NSW/QLD/VIC	All areas, NSW, QLD, VIC
Gary Laneyrie	Laneyrie Electrical	0412 079 079 0413 048 048	bindy@laneyrielectrical.com.au	NSW	Illawarra, South Coast, Hunter Region
Reece Gainsford	East Coast Locating Services	0431 193 111	eastcoastlocating@hotmail.com	NSW	Sydney, Maitland, Newcastle, Hunter, Port Stephens, Central Coast
Allan Clarke	The Control Group Pty Ltd	0421 960 017	allan@thecontrolgroup.com.au	NSW	Northern NSW
Simon Cook	Douglas Partners	0431 507 667	simon.cook@douglaspartners.com.au	NSW	NSW All
Samual Boesen	Rubicof Cable & Pipe Locators	0403 285 352 0418 103 369	rubicof@optusnet.com.au	NSW	Cessnock
Craig Vallely	Aqua Freeze & Locate Pty Ltd	0458 774 440	service@aquafreeze.com.au	NSW	Sydney
Josiah Chapman-Hunter	Suk Truk Services Pty Ltd	0419 125 551 0478 004 606	services@suktruk.com.au	NSW	Hunter / Newcastle
Laurence Mead	Veris Australia	0419 770 560	i.mead@veris.com.au	NSW	Sydney
Jason Vane	Smartscan Locators PTY Ltd	0498 025 210	Admin@sslocators.com.au	NSW	Sydney
Alex Farcash	Newcastle Locating Services Pty Ltd	0410 698 599	Admin@newcastlelocatingservices.com.au		Newcastle, Hunter Valley, Central Coast, Taree & Surrounding Areas
Amer El Chami	Site Scan Pty Ltd	0449 992 520	office@sitescan.net.au	NSW	Sydney
Kaisar sefian	Australian Utility Search Pty Ltd	0424 841 888	kaisar@aususearch.com.au	NSW/ACT	All NSW, ACT

Ian Brown	A1 Locate Services	0400 484 828	ian.brown@a1locate.com.au	NSW/ACT	All NSW, ACT
Alexander Bogdanoff	Expert Service Locating	0420 346 477	info@expertservicelocating.com.au	NSW/QLD	Brisbane, Gold Coast, Sunshine Coast Northern Rivers NSW
Justin Joseph S. Martinez	FJA Locating	0401 749 007	j.martinez@fjalocating.com.au	NSW, ACT, QLD, VIC	All regions
Rhiannon Kemps	Geoscope Utility Detection Services Pty Ltd	0432 296 323	simon@geoscopelocating.com.au	NSW	All regions
Laurence Mead	Astrea Pty Ltd	0413 849 666	admin@astrea.com.au	NSW	Sydney Metro & Surrounding Areas
Bobby Friesz	VAC Group Operations (T/A Earth Radar)	0447 837 267	Bobby.Friesz@vacgroup.com.au	NSW	Sydney
Chris Hall	D C Locators Pty Ltd	0419 679 741	dcloc@powerup.com.au	QLD	Brisbane, Ipswich
Jeff Trackson	J.R & L.M Trackson Pty Ltd	0417 600 978	jtrackson@tracavoid.com.au	QLD	All
Benji Lee	LADS	0478 915 237	benji@ladsqld.com.au	QLD	South East QLD
Andrew Watson	Lambert Locations Pty Ltd	07 5562 8400	admin@lambertlocations.com.au	QLD	South East QLD & Northern NSW
Ross Clarke	FNQ Cable Locators Pty Ltd	0428 775 655	onlineco@bigpond.net.au	QLD	Far North QLD, Cape York & Peninsula
Col Greville	Bsure Locators	0488 520 688	admin@bsurelocators.com.au	QLD	Wide Bay Burnett and Central Qld
Mikael White	All Asset Locations	0478 846 025	allassetlocations@gmail.com	QLD	Sunshine Coast
Simon Griffin	Pensar Utilities	0458 800 267	sgriffin@pensar.com.au	QLD	Brisbane, Gold Coast, Sunshine Coast
Andrew Cowan	VAC Group Operations (T/A Earth Radar)	0447 008 806	andrew.cowan@vacgroup.com.au	QLD	South East and Central QLD
Jimmy Wilkins	GeoRadar Australia	0425 677 227	jimmy@georadar.net.au	QLD	Emerald, Bundeaberg
Beaumont Blake	PipeHawk CCTV	0435 558 533	accounts@pipehawkcctv.com.au	QLD	South East QLD & Northern NSW
Craig Waite	C Locate	0437 808 444	clocate@bigpond.com	QLD	South East QLD
QLD Operations	Utility Location Services	0499 775 095 07 3807 3552	qldops@utilitylocationservices.com.au	QLD	SouthEast QLD, Northern NSW
Andrew Watson	RPS AUS East	0408 839 723	andrew.watson@rpsgroup.com.au	QLD	Brisbane
Luke Steadman	Utility Mapping Pty Ltd	0472 867 197	lsteadman@utilitymapping.com.au	QLD	All
Robert Reed	All Asset Locations Pty Ltd	0478 846 025	allassetlocations@gmail.com	QLD	Sunshine Coast
Jenny Dziduch	1300 Locate Pty Ltd	1300 562 283	admin@1300locate.com.au	QLD	All Queensland, Northern NSW

Sam Hazel	Utility ID Underground Service Locators	0401 202 515	sam@utilityid.com.au	QLD	Southern QLD
Brendon Smith	Dynamic Hydro Excavations	1300 822 878	admin@dynamicexcavation.com.au	QLD	QLD, NSW, VIC
Marty Carlson	Surveywerx Pty Ltd	0488 842 110	mike@surveywerx.com	QLD	South East QLD
Ran Gledhill	Safe Dig Services	0408 944 228	rgsafedig@gmail.com	QLD	Brisbane / North Queensland
Ben Stephens	Electroscan (DTS Group)	0434 140 556	ben.s@electroscanqld.com.au	QLD	All
Adam Lloyd	Aussie HydroVac Services	07 3287 7818	adam.lloyd@aussiehydrovac.com.au	QLD	All
Gary Poppi	Ace Cable Locations	0431 517 837	garypoppi@bigpond.com	QLD	Wide Bay Burnett
Andrew McKenna	Taylros Development Strategists	03 95012800	a.mckenna@taylorsds.com.au	VIC/SA/TAS	Victoria
Olivier Davies	Central Locating PTY LTD	0439 995 894	Ollie@centrallocating.com.au	VIC/SA/TAS	Melbourne Surfcoast Ballarat
Tina Brereton	D-Tech Ground & Overhead Services	0421 697 090	tina@d-tech.net.au	VIC	Victoria
Josh Taylor	Advanced Locations Victoria	0427 846 716	josh@advancedlocationsvic.com.au	VIC	All
Ben Minutoli	Geelong Cable Locations	1800 449 543	ben@geelongcablelocations.com.au	VIC	Melbourne, Geelong, Country Victoria
Mick McGoldrick	Cavan Constructions	0404 241 679	mick@locatecables.com	VIC	Western Victoria
David Kelleher	Construction Sciences	03 9553 7236	utilities@constructionsciences.net	VIC	Victoria
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Darren Dean	Asset Survey Solutions	1300 035 796	darren.dean@assetsurvey.com.au	VIC	Victoria
Alex Jones	Utility Mapping Pty Ltd	0417 413 353	ajones@utilitymapping.com.au	VIC	Victoria
Adam Linford	Gippsland Pipe & Cable Locations	0409 386 817	gippspac@hotmail.com	VIC	Gippsland
Thomas Pitt	Access Utility Engineering (AUE)	03 9580 0440	info@accessue.com.au	VIC	Victoria
Bernie Acabal	Taylors Development Strategists	03 9501 2800 0419 758 794	b.acabal@taylorsds.com.au	VIC	Victoria
Philong Nguyen	Asset Detection Services Pty Ltd	0413 949 400	phi.nguyen@assetdetection.com.au	VIC	VIC, NSW, TAS All areas
Maurice Tobin	Drain Solutions	1300 546 348	info@drainsolutions.com.au	VIC	Melbourne Metro
Nathan Kelleher	Seeker Utility Engineering	0439 691 840	nathan.kelleher@seekerutility.com.au	VIC	Melbourne
Jeffrey Ramos	VAC Group Operations (T/A Earth Radar)	0436 635 011	Jeffrey.ramos@earthradar.com.au	VIC	All

Ben Zurak	Veris Australia	03 7019 8400	melbourne@veris.com.au	VIC	All
Courtney Marson	CSA Specialised Service Pty Ltd	1300 859 829	courtney@csasepcialised.com.au	VIC/SA/TAS	All
Paul Murray	Able Pipe, Cable & Leak Location Services	0418 318 186	paul.murray6@bigpond.com	VIC	All
Infrastructure Civil Services	Trenchless Pipelaying Contractors (TPC)	08 8376 5911	tpc@trenchlesspipelaying.com.au	SA	All
Sean Nemeth	Enerven Energy Infrastructure Pty Ltd	0488 167 772	sean.nemeth@enerven.com.au	SA	Adelaide
SADB	SADB Civil Construction & Trenchless	08 8168 7200	reception@sadb.com.au	SA	Adelaide
Tony Simpson	Utility Mapping Pty Ltd	0438 630 146	tsimpson@utilitymapping.com.au	SA	All
Deninis Stray	Pinpoint Services Mapping	0428 917 020	dstray@pinpointsm.com.au	SA	All
JohnnyMcGlynn	Pinpoint Services Mapping	0447 185 231	jmcglynn@alexander.com.au	SA	All
Liam Gill	Michael Grear Surveys	08 8278 8732	ugsl@mgsurveys.com.au	SA	SA
Stefan Forsyth	Adelaide Pipeline Maintenance Services	08 8427 2525	stefan@streamlinesa.com.au	SA	all NT, WA, QLD
Galen Shanahan	VAC Group Operations (T/A Earth Radar)	0447 837 000	Galen.Shanahan@vacgroup.com.au	SA	All
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Lisa Scofield	Abaxa	08 9256 0100	accounts@abaxa.com.au	WA	All
Derek McShane	Subterranean Service Locations	0420 862 426	Derek@sslwa.com.au	WA	Midwest/Gascoyne
Ben Upton	TerraVac Vacuum Excavation	0427 531 119	locations@terravac.com.au	WA	All
Dale Shearsmith	Subtera Subsurface Locating	1300 046 636	dale@subtera.com.au	WA	All
Liam Davies	Bunbury Telecom Service Pty Ltd	08 9726 0088	liam@btswa.com.au	WA	South West WA
Tammy Thorp	B.C.E Spatial	08 9364 6408	admin@bcespatial.com.au	WA	Perth Metro & Regional
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Chris Lee	Pulse Locating	0437 289 861	enquiries@pulselocating.com.au	WA	Perth
Morgan O'Connor	Kier Contracting	1300 543 728	morgan@kier.com.au	WA	Perth Metro & Greater region, Regional WA
Nigel Nunn	CCS Group / Utility Locating Solutions	08 9385 5000	enquiry@ccswa.com.au	WA	Perth
Paul Stevenson	Geographe Underground Services	0427 523 811	paul.stevenson@geographeunderground.com.au	WA	All

Jeremy Brown	Spotters Asset Locations Pty Ltd	0459 130 677	jeremy@spottersassetlocations.com.au	WA	All
Reece Topham	Prime Locate	0400 888 406	reece@primelocate.com.au	WA	All
Mark Docherty	RM Surveys	08 9457 7900	mark.docherty@rmsurveys.com.au	WA	All
Jonathon Sylva	Advance Scanning Services	1300 738 118	bookings@advancescanning.com.au	WA	All
Tim Daws	Award Contracting	0411 878 895	info@awardcontracting.com.au	WA	City & Regional
Dave Turner	Anywair Pipe & Cable	0418 890 071	dave@anywair.com.au	NT	All NT, WA, QLD
Steve Gault	Northern Comms	0407 904 319	steve@northerncomms.net.au	NT	All
Wayne Parslow	Danisam	0417 089 865	danisam@westnet.com.au	NT	Darwin NT and Surrounds
Elizabeth Young	Archers Underground Services Locations (AUS Locations)	03 6245 1298	admin@auslocations.com.au auslocations@bigpond.com	TAS	All
Patrick Monaghn	Paneltec Group	0447 797 544	patrick@paneltec.com.au	TAS	All
Scott Richardson	AJ Water & Leak Detection	0457 710 680	admin@ajwater.com.au	TAS	All



OVERVIEW

WARNING: This document is confidential and may also be privileged. Confidentiality nor privilege is not waived or destroyed by virtue of it being transmitted to an incorrect addressee. Unauthorised use of the contents is therefore strictly prohibited. Any information contained in this document that has been extracted from our records is believed to be accurate, but no responsibility is assumed for any error or omission. Optus Plans and information supplied are valid for 30 days from the date of issue. If this timeline has elapsed, please raise a new enquiry.

Sequence Number: 208672275

Date Generated: 01 Mar 2022



For all Optus DBYD plan enquiries –
Email: Fibre.Locations@optus.net.au
For urgent onsite assistance contact 1800 505 777
Optus Limited ACN 052 833 208





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Optus Limited ACN 052 833 208



Date: 01 Mar 2022
To: Zeb Johnson
Company: GHD
Address: 161-169 Baylis Street
Wagga Wagga, NSW 2650

ENQUIRY DETAILS

Location: 7045 Holbrook Road, Springvale, NSW 2650
Sequence No.: 208672275
DBYD Reference: 31485738

In relation to your enquiry concerning the above location, Optus advises as follows:

Optus records indicate that there ARE underground Optus FIBRE OPTIC TELECOMMUNICATIONS ASSETS in the vicinity of the above location as per the attached drawing(s).

PLEASE NOTE that any interference with these assets may be considered an offence under the Criminal Code Act 1995 (Cth). Optus reserves the right to seek compensation for loss or damage to its assets including consequential loss.

This reply is valid for a period of 30 days from the date above.

IMPORTANT INFORMATION

Asset location drawings provided by Optus are reference diagrams and are provided as a guide only. The completeness of the information in these drawings cannot be guaranteed. Exact ground cover and alignments cannot be provided with any certainty as these may have altered over time. Depths of telecommunications assets vary considerably as do alignments. It is essential to identify the location of any Optus assets in the vicinity prior to engaging in any works.

All Optus assets in the vicinity of any planned works will need to be electronically located to ascertain their general location. Depending on the scope of planned works in the vicinity, the assets may also need to be physically located.

YOU MUST ENGAGE THE SERVICES OF ONE OF THE OPTUS ASSET ACCREDITED LOCATORS TO CARRY OUT ASSET LOCATION (REFER LIST OF ACCREDITED LOCATORS AT THE END OF THIS OPTUS RESPONSE).

Unless otherwise agreed with Optus, where an on-site asset location is required, the requestor is responsible for all costs associated with the locating service including (where required) physically exposing the Optus asset.

DUTY OF CARE

When working in the vicinity of telecommunications assets you have a legal "Duty of Care" and non-interference that must be observed.

It is your responsibility as the requesting party (as a landowner or any other party involved in the planned works) to design for minimal impact to any existing Optus asset. Optus can assist at the design stage through consultation.

It is also your, as the requesting party (or your representative's), responsibility to:

- Obtain location drawings (through the Dial Before You Dig process) of any existing Optus assets at a reasonable time before any planned works begin;
- Have an Optus Accredited Asset Locator identify the general location of the Optus asset and physically locate the asset where planned works may encroach on its alignment; and
- Contact Optus for further advice where requested to do so by this letter.

DAMAGE TO ANY OPTUS ASSET MUST BE REPORTED TO 1800 500 253 IMMEDIATELY

You, your head contractor and any relevant subcontractor are all responsible for any Optus asset damage as a result of planned activities in the vicinity of Optus assets.

This applies where works commence prior to obtaining Optus drawings, where there is failure to follow instructions or during any construction activities.

Optus reserves the right to recover compensation for loss or damage to its assets including consequential loss. Also, you, your head contractor and any relevant subcontractor may also be liable for prosecution under the Criminal Code Act 1995 (Cth).

ASSET RELOCATIONS

You are not permitted by law to relocate, alter or interfere with any Optus asset under any circumstance. Any unauthorised interference with an Optus asset may lead to prosecution under the Criminal Code Act 1995 (Cth). Enquiries relating to the relocation of Optus assets must be referred to the relevant Optus Damages and Relocations Team (refer to "FURTHER ASSISTANCE").

APPROACH DISTANCES

On receipt of Optus asset location drawings and prior to commencing any planned works near an Optus asset, engage an Optus Accredited Locator to undertake a general location of the Optus asset.

Physical location of the Optus asset by an Optus Accredited Locator will also be required where planned works are within the following approach distances of the general location of the Optus asset:

- In built up metropolitan areas where road and footpaths are well defined by kerbs or other features a minimum clear distance of 1 meter must be maintained from the general location of the Optus asset.
- In non-established or unformed metropolitan areas, a minimum clear distance of 3 meters must be maintained from the general location of the Optus asset.
- In country or rural areas where wider variations may exist between the general and actual location of an Optus asset may exist, then a minimum clear distance of 5 meters must be maintained from the general location of the Optus asset.

If planned works are parallel to the Optus asset, then the Optus asset must be physically located by an Optus Accredited Locator at a minimum of 5 meter intervals along the length of the parallel works prior to work commencing.

Under no circumstances is crossing of any Optus asset permitted without physical location of the asset being carried out by an Optus Accredited Locator. Depending on the asset involved an Optus representative may be required onsite.

The minimum clearances to the physical location of Optus assets for the following specific types of works must be maintained at all times.

Note: Where the clearances in the following table cannot be maintained or where the type of work differs from those listed then advice must be sought from the relevant Optus Damages and Relocations Team (refer to "FURTHER ASSISTANCE").

Type of Works	Clearance to Physical Location of Optus Asset
Jackhammers / Pneumatic Breakers	Not within 1 meter.
Light duty Vibrating Plate or Wacker Packer type compactors (not heavy road construction vibrating rollers etc.)	500mm compact clearance cover before a light duty compactor can be used over any Optus conduit. No compaction permitted over Optus direct buried cable without prior approval from Optus.
Boring Equipment (in-line, horizontal and vertical)	Not within 5 meters parallel of the Optus asset location without an Accredited Optus Asset Locator physically exposing the Optus asset and with an Optus representative onsite. Not to cross the Optus asset without an Accredited Optus Asset Locator physically exposing the Optus asset and with an Optus representative onsite.

Type of Works	Clearance to Physical Location of Optus Asset
Heavy vehicle Traffic (over 3 tonnes)	<p>Not to be driven across Optus conduits with less than 600mm of cover.</p> <p>Not to be driven across Optus direct buried cable with less than 1.2 meters of cover.</p> <p>Once off crossings permitted, multiple crossing (e.g. road construction or logging) will require Optus approval.</p> <p>Accredited Optus Asset Locator to physically expose the Optus asset to verify actual depth.</p>
Mechanical Excavators, Farm Ploughing, Vertical Hole installation for water bore or fencing etc.	<p>Not within 1 meter.</p> <p>Accredited Optus Asset Locator to physically expose the Optus asset to verify actual location.</p>

ASSET CLEARANCES AFTER COMPLETION OF WORKS

All Optus pits and manholes must be a minimum of 1 meter from the back of any kerb, 3.5 meters of the road surface without a kerb or not within 15 meters of street intersection.

In urban areas Optus conduit must have the following minimum depth of cover:

- Footway 600mm;
- Roadway 1 meter at drain invert and at road centre crown.

In rural areas Optus conduit must have a minimum depth of cover of 1 meter and direct buried cable 1.2 meters.

In cases where it is considered that the above clearances cannot be maintained at the completion of works, advice must be sought from the relevant Optus Damages and Relocations Team (refer "Further Assistance").







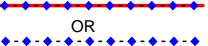








FURTHER ASSISTANCE

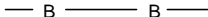
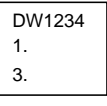


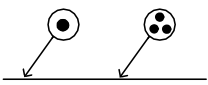
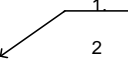
Further assistance on asset clearances, protection works or relocation requirements can be obtained by contacting the relevant Optus Damages and Relocations Team on the following email address:

NFODamages&RelocationsDropbox@optus.com.au

Further assistance relating to asset location drawings etc. can be obtained by contacting the Optus Network Operations Asset Analysis Team on 1800 505 777.

OPTUS ENGINEERING DRAWING SYMBOLS

	Optus underground cable		Optus manhole/pit
	Optus underground IOF cable		Other Utility manhole/pit
	Optus conduit		Optus marker post
	Optus cable in Other Utility conduit		Railway / Tram line
	Southern Cross conduit		Highway / Major Road
	Indigo conduit		Arterial Road
	Uecomm conduit		Council Road - minor
	Optus aerial fibre cable		

	Optus underground cable		Optus marker post number Depth of Optus cable Offset to Optus cable
	Optus cable buried jointly with third party utility		
	Optus cable in conduit with subducts		Optus cable depth (approx) Optus cable offset (approx)



Optus Accredited Asset Locators

Name	Company Name	Phone	Email	State	Region/Service Area
Alan Cordner	Alcom Fibre Services Pty Ltd	0400 300 337	alcomfibre@bigpond.com	NSW/ACT	Sydney
Brad McCorkindale	Bradmac Locating Services	0434 157 409	brad.mac@bigpond.com	NSW/ACT	All
Troy Redden	On Point Utility Locating	1300 6676 468	troy@onpointlocating.com.au	NSW	Sydney Only
Shane Buckley	Cable & Pipe Locations	0408 730 430	sabuckley@bigpond.com	NSW/QLD	Armidale, Casino, Coffs Harbour, Dorrigo, Glenn Innes, Grafton, Inverell, Kempsey, Lismore, Nambucca, Port Macquarie, Tamworth, Taree, Tenterfield, Yamba
Philip Pegler	Down Under Detection Services (DUDS)	0418 267 964	apegler@duds.net.au	NSW	All
Tina Stanhope	SureSearch Underground Services	1300 884 520 0418 920 245	tina.stanhope@suresearch.com.au	NSW/ACT QLD	NSW, Sydney, Northern NSW, Canberra, QLD, South East QLD.
Leonard McGowan	Pipesure Australia	1300 411 811	len@pipesure.com.au	NSW	Sydney
Bruce Whittaker	Optical Fibre Technologies	0402 354 322	opticaltek1@aol.com	NSW	Sydney/Wollongong
Darryl Smith	Darryl Smith Electrical	02 6642 3731	office@dsmithelectrical.com.au	NSW	Grafton
George Koenig	Downunder Locations NSW Pty	0438 243 856	Downunderlocations@gmail.com	NSW	Tweed Heads, Gold Coast, Brisbane
Michael Grant	M&K Grant Bega Bobcats Pty Ltd	0427 260 423	zzbobcat@bigpond.net.au	NSW	Bega, Far South Coast
Antony Critcher	Geotrace Pty Ltd	0417 147 945	antony@geotrace.com.au	NSW	All Areas, Sydney, Wollongong, Newcastle, ACT
Anthony Lane	Hydro Digga	0447 774 000	locator@hydrodigga.com	NSW	All of NSW, ACT & South East Qld
Joshua Payne	Australian Utilities Management Pty Ltd	0427 833 222	aine@ausutilities.net.au	NSW	Sydney Metro
Nathan Ellis	Utility Locating Services	0404 087 555	nathan@utilitylocatingservices.com.au	NSW	Sydney

Rodney Pullen	Provac	0450 268 012	rod@provac.net.au	NSW /QLD	South East QLD, Northern NSW
Rodney Pullen	One Find Cables	0451 268 012	rod@provac.net.au	NSW /QLD	South East QLD, Northern NSW
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Liam Bolger	Brandon Construction Services	0438 044 008	liam.bolger@hotmail.com	NSW	Sydney
Brett Pickup	All About Pipes	02 8763 4200	Brett.Pickup@allaboutpipes.com.au	NSW / VIC	All
Karen Joyce	Durkin Construction Pty Ltd	02 9712 0308	karen@durkinconstruction.com.au	NSW	Sydney
Timothy Laidler	Locate & Map	0431 191 669	tim@locateandmap.com.au	NSW	Sydney, Central Coast
Ken Brown	Riteway Traffic Control Pty Ltd	0419 212 969	kbrowne@ritewaytc.com.au	NSW	Central Coast, Hunter
Walter R Johansen	Steger & Associates	02 6296 4089	enquiries@steger.com.au	ACT/NSW	Canberra
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Alan Hunter	Hunter Ground Search	02 4953 1244 0418 684 819	huntergroundsearch@bigpond.com	NSW	Newcastle, Central Coast, Hunter Valley, Mid North Coast, Liverpool Plains, Central West NSW.
Gilbert J Cook	Datateks Communications Specialists	0408 693 660	datateks@datateks.com.au	NSW	Southern NSW
Damien Black	Mid North Coast Hydro Digging	0418 409 465	dblack1@bigpond.com	NSW	Newcastle- foster-Taree- Wauchope -Port Macquarie - Kempsey -Coffs harbour
Neil Blenkinsop	Utility Mapping Pty Ltd	0427 318 681	nblenkinsop@utilitymapping.com.au	NSW	Sydney
Daniel Fox	Epoca Environmental Pty Ltd	02 4739 2465 0433 100 642	daniel@epocaenvironmental.com.au	NSW	All NSW, ACT
Rod Shaw	Cable Find	0478 887 073	rod@cablefind.com.au	NSW	Northern Rivers
Danny Carter	Online Pipe & Cable Locating	1300 665 384	danny@onlinepipe.com.au	NSW	Sydney, Newcastel, Canberra, Blue Mountains
Sam Romano	Locating Services	0403 065 510	sam.romano@locatingservices.com.au	NSW	NSW All
Scott Allison	Crux Surveying Australia	02 9540 9940	sydneyoffice@cruxsurveying.com.au	NSW	Sydney Metro & Surrounding Areas

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Donna Wullaert	Commence Communications Pty Ltd	02 6226 3869 0428 595 620	admin@commencecomms.com.au	NSW	Canberra, Yass, Bungendore, Goulburn and Surrounding regional Areas
Stephen Fraser	Advanced Ground Locations	02 4930 3195 0412 497 488	steve_agl@hotmail.com	NSW	Newcastle, Hunter Valley, Central Coast, Taree & Surrounding Areas
Andrew Findlay	LiveLocates	0429 899 777	info@livelocates.com.au	NSW	South Coast/ACT, Snowy Mountains
Graeme Teege	Armidale Electrical	02 6772 3702	office@armidale-electrical.com.au	NSW	Armidale
Myles Green	Australian Locating Services	1300 761 545	myles@locating.com.au	NSW	Sydney
Brett Wallin	Utility Scan	0426 354 051	brett@utilityscan.net	NSW	Sydney CBD and Regional areas
Daniel Hudson	One Search Locators	1300 530 420	daniel@onesearchlocators.com.au	NSW	All NSW, ACT
Tim Galaz	Utec Solutions	02 9389 0040	office@utecsolutions.com.au	NSW/QLD/VIC	All areas, NSW, QLD, VIC
Gary Laneyrie	Laneyrie Electrical	0412 079 079 0413 048 048	bindy@laneyrielectrical.com.au	NSW	Illawarra, South Coast, Hunter Region
Reece Gainsford	East Coast Locating Services	0431 193 111	eastcoastlocating@hotmail.com	NSW	Sydney, Maitland, Newcastle, Hunter, Port Stephens, Central Coast
Allan Clarke	The Control Group Pty Ltd	0421 960 017	allan@thecontrolgroup.com.au	NSW	Northern NSW
Simon Cook	Douglas Partners	0431 507 667	simon.cook@douglaspartners.com.au	NSW	NSW All
Samual Boesen	Rubicof Cable & Pipe Locators	0403 285 352 0418 103 369	rubicof@optusnet.com.au	NSW	Cessnock
Craig Vallely	Aqua Freeze & Locate Pty Ltd	0458 774 440	service@aquafreeze.com.au	NSW	Sydney
Josiah Chapman-Hunter	Suk Truk Services Pty Ltd	0419 125 551 0478 004 606	services@suktruk.com.au	NSW	Hunter / Newcastle
Laurence Mead	Veris Australia	0419 770 560	i.mead@veris.com.au	NSW	Sydney
Jason Vane	Smartscan Locators PTY Ltd	0498 025 210	Admin@sslocators.com.au	NSW	Sydney
Alex Farcash	Newcastle Locating Services Pty Ltd	0410 698 599	Admin@newcastlelocatingservices.com.au	NSW	Newcastle, Hunter Valley, Central Coast, Taree & Surrounding Areas
Amer El Chami	Site Scan Pty Ltd	0449 992 520	office@sitescan.net.au	NSW	Sydney
Kaisar sefian	Australian Utility Search Pty Ltd	0424 841 888	kaisar@aususearch.com.au	NSW/ACT	All NSW, ACT

Ian Brown	A1 Locate Services	0400 484 828	ian.brown@a1locate.com.au	NSW/ACT	All NSW, ACT
Alexander Bogdanoff	Expert Service Locating	0420 346 477	info@expertservicelocating.com.au	NSW/QLD	Brisbane, Gold Coast, Sunshine Coast Northern Rivers NSW
Justin Joseph S. Martinez	FJA Locating	0401 749 007	j.martinez@fjalocating.com.au	NSW, ACT, QLD, VIC	All regions
Rhiannon Kemps	Geoscope Utility Detection Services Pty Ltd	0432 296 323	simon@geoscopelocating.com.au	NSW	All regions
Laurence Mead	Astrea Pty Ltd	0413 849 666	admin@astrea.com.au	NSW	Sydney Metro & Surrounding Areas
Bobby Friesz	VAC Group Operations (T/A Earth Radar)	0447 837 267	Bobby.Friesz@vacgroup.com.au	NSW	Sydney
Chris Hall	D C Locators Pty Ltd	0419 679 741	dcloc@powerup.com.au	QLD	Brisbane, Ipswich
Jeff Trackson	J.R & L.M Trackson Pty Ltd	0417 600 978	jtrackson@tracavoid.com.au	QLD	All
Benji Lee	LADS	0478 915 237	benji@ladsqld.com.au	QLD	South East QLD
Andrew Watson	Lambert Locations Pty Ltd	07 5562 8400	admin@lambertlocations.com.au	QLD	South East QLD & Northern NSW
Ross Clarke	FNQ Cable Locators Pty Ltd	0428 775 655	onlineco@bigpond.net.au	QLD	Far North QLD, Cape York & Peninsula
Col Greville	Bsure Locators	0488 520 688	admin@bsurelocators.com.au	QLD	Wide Bay Burnett and Central Qld
Mikael White	All Asset Locations	0478 846 025	allassetlocations@gmail.com	QLD	Sunshine Coast
Simon Griffin	Pensar Utilities	0458 800 267	sgriffin@pensar.com.au	QLD	Brisbane, Gold Coast, Sunshine Coast
Andrew Cowan	VAC Group Operations (T/A Earth Radar)	0447 008 806	andrew.cowan@vacgroup.com.au	QLD	South East and Central QLD
Jimmy Wilkins	GeoRadar Australia	0425 677 227	jimmy@georadar.net.au	QLD	Emerald, Bundeaberg
Beaumont Blake	PipeHawk CCTV	0435 558 533	accounts@pipehawkcctv.com.au	QLD	South East QLD & Northern NSW
Craig Waite	C Locate	0437 808 444	clocate@bigpond.com	QLD	South East QLD
QLD Operations	Utility Location Services	0499 775 095 07 3807 3552	qldops@utilitylocationservices.com.au	QLD	SouthEast QLD, Northern NSW
Andrew Watson	RPS AUS East	0408 839 723	andrew.watson@rpsgroup.com.au	QLD	Brisbane
Luke Steadman	Utility Mapping Pty Ltd	0472 867 197	lsteadman@utilitymapping.com.au	QLD	All
Robert Reed	All Asset Locations Pty Ltd	0478 846 025	allassetlocations@gmail.com	QLD	Sunshine Coast
Jenny Dziduch	1300 Locate Pty Ltd	1300 562 283	admin@1300locate.com.au	QLD	All Queensland, Northern NSW

Sam Hazel	Utility ID Underground Service Locators	0401 202 515	sam@utilityid.com.au	QLD	Southern QLD
Brendon Smith	Dynamic Hydro Excavations	1300 822 878	admin@dynamicexcavation.com.au	QLD	QLD, NSW, VIC
Marty Carlson	Surveywerx Pty Ltd	0488 842 110	mike@surveywerx.com	QLD	South East QLD
Ran Gledhill	Safe Dig Services	0408 944 228	rgsafedig@gmail.com	QLD	Brisbane / North Queensland
Ben Stephens	Electroscan (DTS Group)	0434 140 556	ben.s@electroscanqld.com.au	QLD	All
Adam Lloyd	Aussie HydroVac Services	07 3287 7818	adam.lloyd@aussiehydrovac.com.au	QLD	All
Gary Poppi	Ace Cable Locations	0431 517 837	garypoppi@bigpond.com	QLD	Wide Bay Burnett
Andrew McKenna	Taylros Development Strategists	03 95012800	a.mckenna@taylorsds.com.au	VIC/SA/TAS	Victoria
Olivier Davies	Central Locating PTY LTD	0439 995 894	Ollie@centrallocating.com.au	VIC/SA/TAS	Melbourne Surfcoast Ballarat
Tina Brereton	D-Tech Ground & Overhead Services	0421 697 090	tina@d-tech.net.au	VIC	Victoria
Josh Taylor	Advanced Locations Victoria	0427 846 716	josh@advancedlocationsvic.com.au	VIC	All
Ben Minutoli	Geelong Cable Locations	1800 449 543	ben@geelongcablelocations.com.au	VIC	Melbourne, Geelong, Country Victoria
Mick McGoldrick	Cavan Constructions	0404 241 679	mick@locatecables.com	VIC	Western Victoria
David Kelleher	Construction Sciences	03 9553 7236	utilities@constructionsciences.net	VIC	Victoria
Stuart Miles	ELS Environmental Location Systems	03 8795 7461	accounts@radiodetection.com.au	VIC	Victoria
Darren Dean	Asset Survey Solutions	1300 035 796	darren.dean@assetsurvey.com.au	VIC	Victoria
Alex Jones	Utility Mapping Pty Ltd	0417 413 353	ajones@utilitymapping.com.au	VIC	Victoria
Adam Linford	Gippsland Pipe & Cable Locations	0409 386 817	gippspac@hotmail.com	VIC	Gippsland
Thomas Pitt	Access Utility Engineering (AUE)	03 9580 0440	info@accessue.com.au	VIC	Victoria
Bernie Acabal	Taylors Development Strategists	03 9501 2800 0419 758 794	b.acabal@taylorsds.com.au	VIC	Victoria
Philong Nguyen	Asset Detection Services Pty Ltd	0413 949 400	phi.nguyen@assetdetection.com.au	VIC	VIC, NSW, TAS All areas
Maurice Tobin	Drain Solutions	1300 546 348	info@drainsolutions.com.au	VIC	Melbourne Metro
Nathan Kelleher	Seeker Utility Engineering	0439 691 840	nathan.kelleher@seekerutility.com.au	VIC	Melbourne
Jeffrey Ramos	VAC Group Operations (T/A Earth Radar)	0436 635 011	Jeffrey.ramos@earthradar.com.au	VIC	All

Ben Zurak	Veris Australia	03 7019 8400	melbourne@veris.com.au	VIC	All
Courtney Marson	CSA Specialised Service Pty Ltd	1300 859 829	courtney@csasepcialised.com.au	VIC/SA/TAS	All
Paul Murray	Able Pipe, Cable & Leak Location Services	0418 318 186	paul.murray6@bigpond.com	VIC	All
Infrastructure Civil Services	Trenchless Pipelaying Contractors (TPC)	08 8376 5911	tpc@trenchlesspipelaying.com.au	SA	All
Sean Nemeth	Enerven Energy Infrastructure Pty Ltd	0488 167 772	sean.nemeth@enerven.com.au	SA	Adelaide
SADB	SADB Civil Construction & Trenchless	08 8168 7200	reception@sadb.com.au	SA	Adelaide
Tony Simpson	Utility Mapping Pty Ltd	0438 630 146	tsimpson@utilitymapping.com.au	SA	All
Deninis Stray	Pinpoint Services Mapping	0428 917 020	dstray@pinpointsm.com.au	SA	All
JohnnyMcGlynn	Pinpoint Services Mapping	0447 185 231	jmcglynn@alexander.com.au	SA	All
Liam Gill	Michael Grear Surveys	08 82788732	ugsl@mgsurveys.com.au	SA	SA
Stefan Forsyth	Adelaide Pipeline Maintenance Services	08 84272525	stefan@streamlinesa.com.au	SA	all NT, WA, QLD
Galen Shanahan	VAC Group Operations (T/A Earth Radar)	0447 837 000	Galen.Shanahan@vacgroup.com.au	SA	All
Marilyn Dentice	Cable Locates & Consulting	08 9524 6600	admin@cablelocates.com.au	WA	Metro & Country
Lisa Scofield	Abaxa	08 9256 0100	accounts@abaxa.com.au	WA	All
Derek McShane	Subterranean Service Locations	0420 862 426	Derek@sslwa.com.au	WA	Midwest/Gascoyne
Ben Upton	TerraVac Vacuum Excavation	0427 531 119	locations@terravac.com.au	WA	All
Dale Shearsmith	Subtera Subsurface Locating	1300 046 636	dale@subtera.com.au	WA	All
Liam Davies	Bunbury Telecom Service Pty Ltd	08 9726 0088	liam@btswa.com.au	WA	South West WA
Tammy Thorp	B.C.E Spatial	08 9364 6408	admin@bcespatial.com.au	WA	Perth Metro & Regional
Alex Jones	Utility Mapping Pty Ltd	0417 413 353	ajones@utilitymapping.com.au	WA	All
Chris Lee	Pulse Locating	0437 289 861	enquiries@pulselocating.com.au	WA	Perth
Morgan O'Connor	Kier Contracting	1300 543 728	morgan@kier.com.au	WA	Perth Metro & Greater region, Regional WA
Nigel Nunn	CCS Group / Utility Locating Solutions	08 9385 5000	enquiry@ccswa.com.au	WA	Perth
Paul Stevenson	Geographe Underground Services	0427 523 811	paul.stevenson@geographeunderground.com.au	WA	All

Jeremy Brown	Spotters Asset Locations Pty Ltd	0459 130 677	jeremy@spottersassetlocations.com.au	WA	All
Reece Topham	Prime Locate	0400 888 406	reece@primelocate.com.au	WA	All
Mark Docherty	RM Surveys	08 9457 7900	mark.docherty@rmsurveys.com.au	WA	All
Jonathon Sylva	Advance Scanning Services	1300 738 118	bookings@advancescanning.com.au	WA	All
Tim Daws	Award Contracting	0411 878 895	info@awardcontracting.com.au	WA	City & Regional
Dave Turner	Anywair Pipe & Cable	0418 890 071	dave@anywair.com.au	NT	All NT, WA, QLD
Steve Gault	Northern Comms	0407 904 319	steve@northerncomms.net.au	NT	All
Wayne Parslow	Danisam	0417 089 865	danisam@westnet.com.au	NT	Darwin NT and Surrounds
Elizabeth Young	Archers Underground Services Locations (AUS Locations)	03 6245 1298	admin@auslocations.com.au auslocations@bigpond.com	TAS	All
Patrick Monaghn	Paneltec Group	0447 797 544	patrick@paneltec.com.au	TAS	All
Scott Richardson	AJ Water & Leak Detection	0457 710 680	admin@ajwater.com.au	TAS	All

91 Hammond Avenue
Wagga Wagga, NSW, 2650
Ph: (02) 6922 0608 Fax: (02) 6921 2241
www.rwcc.nsw.gov.au

To:

GHD - Zeb Johnson
161-169 Baylis Street
Wagga Wagga NSW 2650

Enquiry Details	
Utility ID	90329
Sequence Number	208672277
Enquiry Date	01/03/2022 09:40
Response	AFFECTED
Address	7045 Holbrook Road Springvale
Location in Road	Road,Nature Strip,Footpath
Activity	Planning and Design

Enquirer Details	
Customer ID	3036439
Contact	Zeb Johnson
Company	GHD
Email	zeb.johnson@ghd.com
Phone	+61438345916

Disclaimer

Plans issued by Riverina Water are valid for 60 days unless otherwise stated. If this timeframe has elapsed, you will be required to reapply via Dial Before You Dig. Riverina Water plans are provided for the use of the applicant only and must not be distributed to any third parties. Please contact Riverina Water if assets are identified that are not shown on the plans. Riverina Water shall not be liable for any loss or damage caused by the use of its plans and/or information supplied to the applicant. Please ensure Riverina Water plans and information provided remains on-site at all times during construction

Your Enquiry has fallen within 25m of one or more of RWCC's assets

IMPORTANT:

- The attached plan/s shows Riverina Water assets within the specified search area.
- Schematic plans supplied depict locations of Riverina Water's assets in the general vicinity of the search area. Exact depths and alignments are not supplied.
- Plans have been prepared for Riverina Water's own use. Riverina Water supplies them at no cost with the objective of reducing the risk of accidental damage occurring to its network. **Riverina Water does not accept any liability for inaccuracies or any lack of information on the plans, or any damage to Riverina Water assets resulting from, or in connection with the information provided.**

CONCERNING Riverina Water PLANS:

- Plans issued by Riverina Water are valid for 60 days unless otherwise stated. If this timeframe has elapsed, you will be advised to reapply via Dial Before You Dig.
- Riverina Water plans are provided for the use of the applicant only and must not be distributed to any third parties.
- Please contact Riverina Water if assets are identified that are not shown on the plans.
- Riverina Water shall not be liable for any loss or damage caused by the use of its plans and/or information supplied to the applicant.
- Please ensure Riverina Water plans and information provided remains on-site at all times during construction.

DUTY OF CARE:

When working in the vicinity of Riverina Water assets, the applicant has a duty of care to:

- Request plans of Riverina Water assets in the affected work area before commencing work.
- Visually locate Riverina Water assets prior to commencing excavation.
- Maintain safe clearances when constructing in the vicinity of Riverina Water assets.
- Ensure that any construction does not have a negative impact on any Riverina Water asset. **Where there is a potential for conflict with Riverina Water assets, please contact Riverina Water before construction or excavation commences to discuss options before approval is granted.**

DAMAGE:

IN CASE OF EMERGENCY OR TO REPORT DAMAGE

PHONE (02) 6922 0608

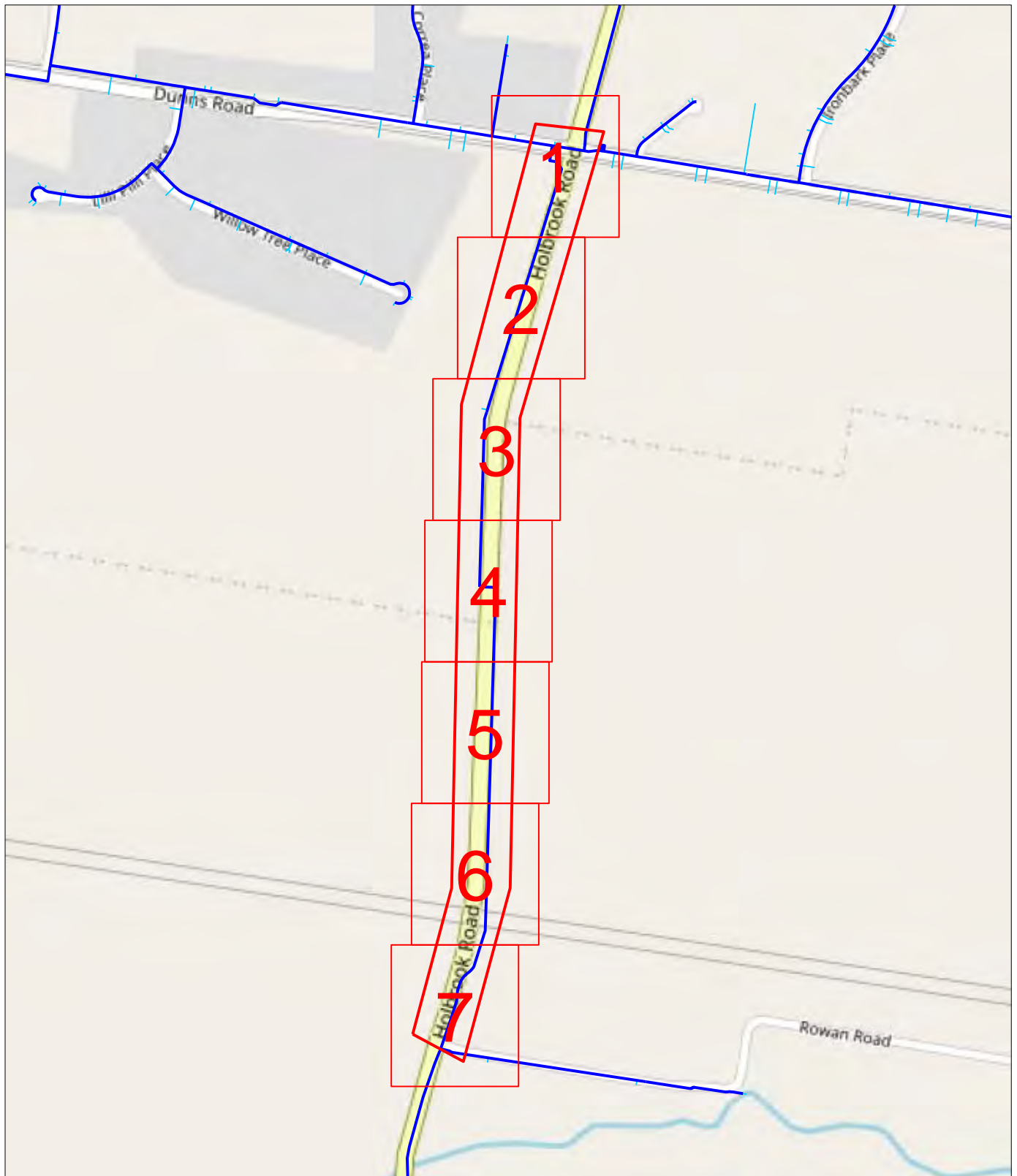
IMMEDIATELY

- The contractor, or other agency, is liable for all damage to Riverina Water assets when works commence prior to obtaining plans, or failure to follow agreed instructions.
- All damage, regardless of severity, must be reported to Riverina Water immediately.
- Riverina Water reserves the right to recover compensation for costs associated with repairing damage due to careless or negligent practices carried out by the applicant.
- **Riverina Water does not accept any liability for loss or damage occurring due to inaccuracy or lack of information on the plans provided.**

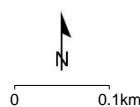
FURTHER ASSISTANCE:

Riverina Water offers further assistance where more information is required as detailed below:

- **Work as Executed Plans** - Riverina Water can supply WAE plans if they are available to assist in locating any assets in our network. Not all assets have WAE plans available. For further assistance please contact Riverina Water on (02) 6922 0608.
- **On-site Assistance** - Riverina Water offers on-site assistance to help identify the location of its assets. On-site location/detection is a free service which will help identify our asset to the best of our knowledge. If potholing/excavation of the site is required, it will be costed out at the required rate and applicant billed accordingly. To arrange an on-site location contact Riverina Water on (02) 6922 0608. **Please note that a minimum of 24 hours notice is required in advance for on-site assistance.**








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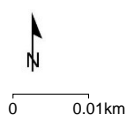
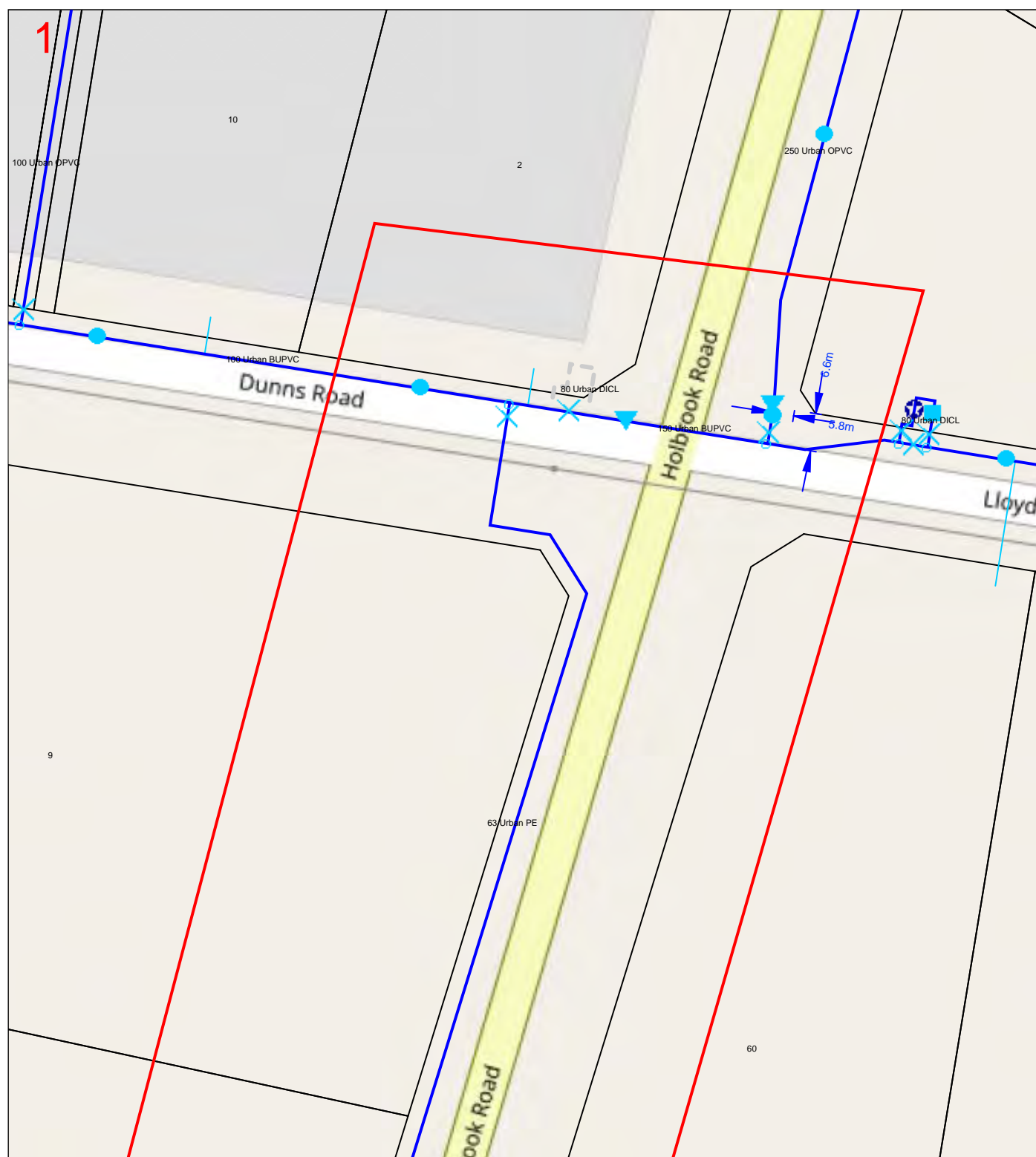


Imagery sourced from Open StreetMaps

LEGEND:

1 Detail




-  Water Main
-  Service Connection Pipe
- 
-  Proposed Construction Area
-  Affected DBYD Work Area



























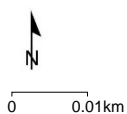
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Imagery sourced from Open StreetMaps

LEGEND:

-  Property Boundary
-  Proposed Construction Area
-  Affected DBWD Work Area

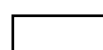


-  Nodes - Air_Release_Valve
-  Nodes - Borehole
-  Nodes - Butterfly_Valve
-  Nodes - Check_Valve
-  Nodes - Cleaning_Port
-  Nodes - Closed_Valve
-  Nodes - Endcap
-  Nodes - Gate_Valve
-  Nodes - Hydrant_Single
-  Nodes - Junction
-  Nodes - Meter
-  Nodes - Pres_Reducing_Valve
-  Nodes - Pres_Sustain_Valve
-  Nodes - Pump
-  Nodes - Reducer
-  Nodes - Reservoir
-  Nodes - Scour_Valve
-  Nodes - Standpipe
-  Nodes - Tower
-  Nodes - Treatment_Plant
-  Pipes - Raw
-  Pipes - Abandoned
-  Pipes
-  Services - Service Connection Pipe



























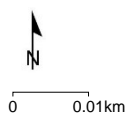
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Imagery sourced from Open StreetMaps

LEGEND:

-  Property Boundary
-  Proposed Construction Area
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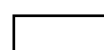


-  Nodes - Air_Release_Valve
-  Nodes - Borehole
-  Nodes - Butterfly_Valve
-  Nodes - Check_Valve
-  Nodes - Cleaning_Port
-  Nodes - Closed_Valve
-  Nodes - Endcap
-  Nodes - Gate_Valve
-  Nodes - Hydrant_Single
-  Nodes - Junction
-  Nodes - Meter
-  Nodes - Pres_Reducing_Valve
-  Nodes - Pres_Sustain_Valve
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-  Nodes - Reducer
-  Nodes - Reservoir
-  Nodes - Scour_Valve
-  Nodes - Standpipe
-  Nodes - Tower
-  Nodes - Treatment_Plant
-  Pipes - Raw
-  Pipes - Abandoned
-  Pipes
-  Services - Service Connection Pipe



























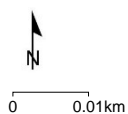
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Imagery sourced from Open StreetMaps

LEGEND:

-  Property Boundary
-  Proposed Construction Area
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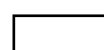


-  Nodes - Air_Release_Valve
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-  Nodes - Endcap
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-  Nodes - Reservoir
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-  Nodes - Standpipe
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-  Pipes - Abandoned
-  Pipes
-  Services - Service Connection Pipe



























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Imagery sourced from Open StreetMaps

LEGEND:

-  Property Boundary
-  Proposed Construction Area
-  Affected DBWD Work Area

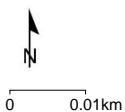
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-  Nodes - Endcap
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-  Nodes - Tower
-  Nodes - Treatment_Plant
-  Pipes - Raw
-  Pipes - Abandoned
-  Pipes
-  Services - Service Connection Pipe

5

Holbrook Road

Holbrook Road

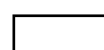


63 Urban PE



























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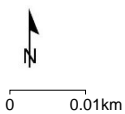
Imagery sourced from Open StreetMaps

LEGEND:

-  Property Boundary
-  Proposed Construction Area
-  Affected DBYD Work Area

-  Nodes - Air_Release_Valve
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-  Nodes - Endcap
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-  Nodes - Pump
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-  Nodes - Reservoir
-  Nodes - Scour_Valve
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-  Nodes - Tower
-  Nodes - Treatment_Plant
-  Pipes - Raw
-  Pipes - Abandoned
-  Pipes
-  Services - Service Connection Pipe

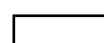


6



























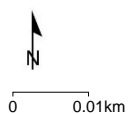
Riverina Water does not accept any liability for inaccuracies or any lack of information on the plans, or any damage to Riverina Water County Council assets resulting from, or in connection with the information provided.

Imagery sourced from Open StreetMaps

LEGEND:

-  Property Boundary
-  Proposed Construction Area
-  Affected DBYD Work Area

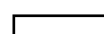


-  Nodes - Air_Release_Valve
-  Nodes - Borehole
-  Nodes - Butterfly_Valve
-  Nodes - Check_Valve
-  Nodes - Cleaning_Port
-  Nodes - Closed_Valve
-  Nodes - Endcap
-  Nodes - Gate_Valve
-  Nodes - Hydrant_Single
-  Nodes - Junction
-  Nodes - Meter
-  Nodes - Pres_Reducing_Valve
-  Nodes - Pres_Sustain_Valve
-  Nodes - Pump
-  Nodes - Reducer
-  Nodes - Reservoir
-  Nodes - Scour_Valve
-  Nodes - Standpipe
-  Nodes - Tower
-  Nodes - Treatment_Plant
-  Pipes - Raw
-  Pipes - Abandoned
-  Pipes
-  Services - Service Connection Pipe



























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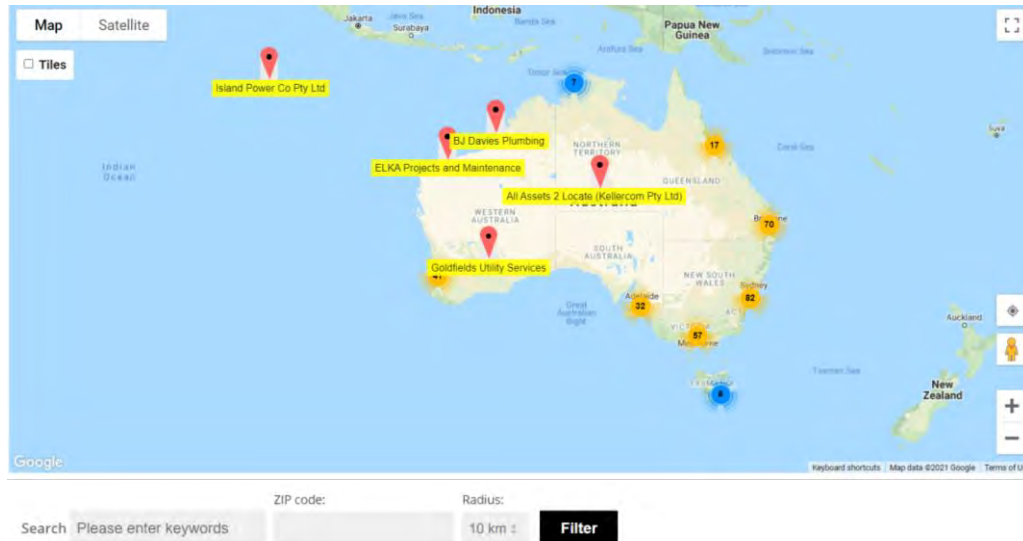
Certified Locating Organisations (CLO)


Find the closest CLO to your worksite on: <https://dbydlocator.com/certified-locating-organisation/>

Read the disclaimer and click:


Accept and Search Now

A national map and an A-Z list of Certified Locating Organisations is displayed.



Use the map to zoom to your work area and choose the closest  Locator indicated.

OR search by entering the **postcode** of your work area.

1. Enter the post/zip code
2. Choose your search radius
3. Click filter (If there is no result, you may have to increase the search radius)
4. Click on the closest  for CLO details or view the results displayed below the map



Locator skills have been tested, and the Organisation has calibrated location and safety equipment.

Telstra is aware of each Certified Locating Organisation and their employee locators.

Only a DBYD Certified Locator registered with a Certified Locating Organisation is authorised to access Telstra network for locating purposes.

Each Certified Locator working for a CLO is issued with a photo ID Card, authorising them to access Telstra pits and manholes for the purpose of cable and plant locations.

Please ask to see your Locators' CLO ID Card.

Dial Before You Dig

Think before you dig

This document has been sent to you because you requested plans of the Telstra network through Dial Before You Dig.

If you are working or excavating near telecommunications cables, or there is a chance 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 steps below 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.



1. Plan

Plan your work with the latest plans of our network.

Plans provided through the DBYD process are indicative only*.

This means the actual location of our asset may differ substantially from that shown on the plans.

Refer to steps 2 and 3 to determine actual location prior to proceeding with construction.



2. Prepare

Engage a DBYD Certified Locating Organisation (CLO) via dbydlocator.com to identify, validate and protect Telstra assets before you commence work.



3. Pothole

Validate underground assets by potholing by hand or using non-destructive vacuum extraction methods.

Electronic detection alone (step 2) is not deemed to validate underground assets and must not be used for construction purposes.

If you cannot validate the Telstra network, you must not proceed with construction.



4. Protect

Protect our network by maintaining the following distances from our assets:

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



5. Proceed

You can proceed with your work only once you have completed all the appropriate preparation, potholing and protection.

Report any damage immediately



<https://service.telstra.com.au/customer/general/forms/report-damage-to-telstra-equipment>



13 22 03

If you receive a message asking for an account or phone number say "I Don't have one"
Then say "Report Damage" then press 1 to speak to an operator.

Relocating assets

If your project requires the relocation of a Telstra asset, please contact the Telstra Network Integrity Group:



1800 810 443 (AEST business hours only)



NetworkIntegrity@team.telstra.com

Never try to move or alter our network infrastructure without authorisation. By law, only authorised people can work on our assets or enter a facility owned or operated by us. Any interference, including unauthorised entry or tampering, may result in legal action.

Further information

Plan enquiries



1800 653 935 (AEST business hours only)



Telstra.Plans@team.telstra.com

Information on how to find cables and request asset relocations:

<https://www.telstra.com.au/consumer-advice/digging-construction>

Asset Plan Readers

PDF [Adobe Acrobat Reader DC Install for all versions](#)

DWF [Download Design Review](#) | [DWF Viewer](#) | [Autodesk](#)

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 of 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. The 5 **P's** to prevent damage to Telstra assets are listed above. 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 of the information received from other Utilities and understand that some Utilities are not a part of the DBYD 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 Certified Locating Organisation. 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 Planned Services.

Telstra does not accept any liability or responsibility for the performance of or advice given by a Certified Locating Organisation. 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

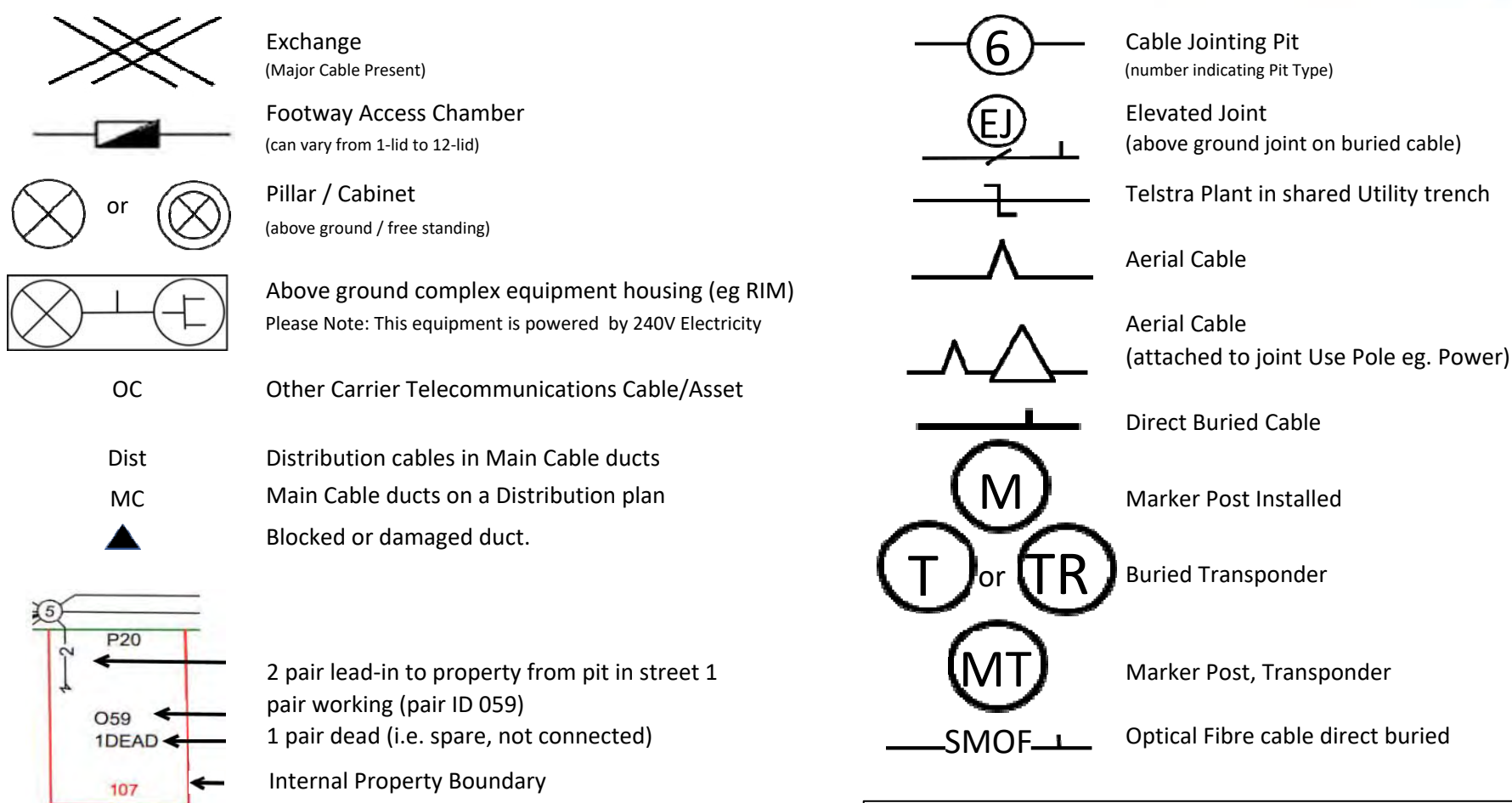
Your information has been provided to Telstra by DBYD to enable Telstra to respond to your DBYD request. Telstra keeps your information in accordance with its privacy statement. You can obtain a copy at www.telstra.com.au/privacy or by calling us at 1800 039 059 (business hours only).

LEGEND

IT'S HOW
WE CONNECT



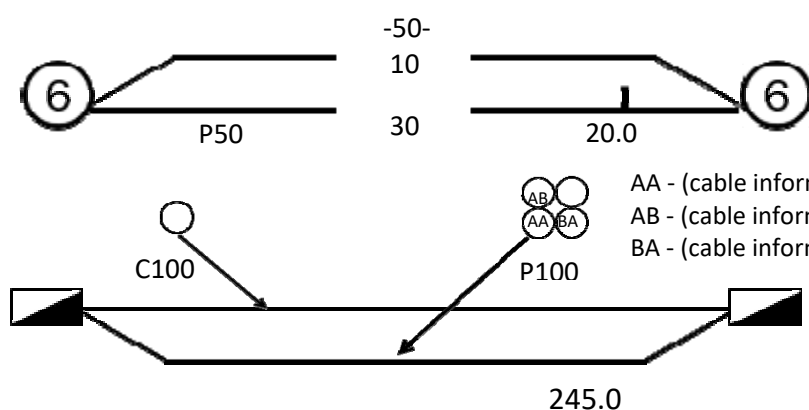
For more info contact a Certified Locating Organisation or Telstra Plan Services 1800 653 935



Some examples of conduit type and size:

A - Asbestos cement, P - PVC / Plastic, C - Concrete,
GI - Galanised 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

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