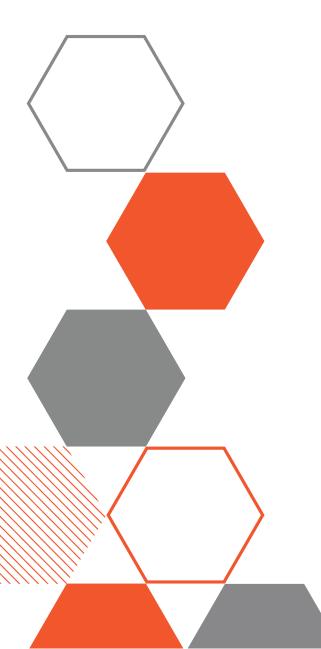
# **REPORT**

Mulpha Australia Limited

## **Norwest City**

Utilities Servicing Report for Redevelopment of Lot 2 DP 1213272 & Lot 5080 DP 1008602

28 September 2023







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## **TABLE OF CONTENTS**

1.	EXECUTIVE SUMMARY	4
2.	INTRODUCTION	1
2.1.	Norwest Marketown Indicative Reference Scheme	1
2.2.	Proposed Planning Controls	3
2.3.	Site Location, Description and Context	4
3.	UTILITIES	6
3.1.	Sewer	6
3.1.1	Existing Sewer	6
3.1.2	Proposed Sewer Servicing Strategy	7
3.2.	Potable Water	8
3.2.1	Existing Potable Water	8
3.2.2	Proposed Potable Water Servicing Strategy	9
3.3.	Recycled Water	10
3.3.1	Existing Recycled Water	10
3.3.2	Proposed Recycled Water Servicing	12
3.4.	Electricity	13
3.4.1	Network Locations	13
3.4.2	Electricity Supply Requirements	14
3.4.3	Funding & Reimbursements	15
3.4.4	Electricity – Additional considerations	15
3.5.	Gas	17
3.5.1	Existing Gas Network	17
3.5.2	Gas Servicing Strategy	17
3.6.	National Broadband Network (NBN - nbn)	18
3.6.1	Existing NBN	18
3.6.2	NBN Servicing	18
3.7.	Telstra	19
3.7.1	Existing Telstra Network	19
3.7.2	Use of Telstra network with redevelopment	20

ii

## **FIGURES**

Figure 1 – Norwest Marketown, Indicative Landscape Masterplan – Source: Realm	2
Figure 2 – Norwest Marketown – Indicative Lake Interface – Source: FJC	3
Figure 3 - Location of the site in its surrounding context. Source: Google maps. Edits by Ethos Urban	4
Figure 4 - Site aerial photograph, showing extent of the site. Source: Nearmap. edits by Ethos Urban	5
Figure 5 – Locations of Neighbouring Sewer to the site (BYDA October 2022)	6
Figure 6 – Approx alignment of additional sewer capacity	7
Figure 7 – Approx alignment and connection of additional sewer line	7
Figure 8 – Locations of the neighbouring Potable Water to the site (BYDA October 2022)	8
Figure 9 – Location of 450mm and 750mm dia. potable watermains (BYDA October 2022)	9
Figure 10 – Location of the nearest recycled water (BYDA October 2022)	10
Figure 11 – Rouse Hill Development Servicing Plan Boundary (Sydney Water)	11
Figure 12 – Recycled water supply alignments relative to the site	12
Figure 13 – Endeavour energy assets locations relative to site	13
Figure 14 – Location of Endeavour Energy High Voltage feeders	14
Figure 15 – Location of possible extra High Voltage feeder	16
Figure 16 – Location of existing gas main (BYDA October 2022)	17
Figure 17 – Location of existing NBN services (BYDA October 2022)	18
Figure 18 – Location of existing NBN services (BYDA October 2022)	19
Figure 19 – Location Telstra cables (copper & hybrid) (BYDA October 2022)	19
Figure 20 – Location Telstra Mains cables (fibre) (BYDA October 2022)	20
Figure 21 – Location Optus fibre optic cabling (BYDA September 2022)	21

## **APPENDICES**

APPENDIX A – SYDNEY WATER FEASIBILITY ADVICE LETTER

APPENDIX B - BYDA PLAN FOR WATER & SEWER

APPENDIX C - ENDEAVOUR ENERGY TECHNICAL REVIEW REQUEST RESPONSE

APPENDIX D – JEMENA RESPONSE

APPENDIX E - BYDA PLANS FOR TELSTRA

#### 1. EXECUTIVE SUMMARY

J. Wyndham Prince (JWP) was engaged by Mulpha to undertake a high-level utility servicing assessment for the redevelopment of Norwest Marketown and Carlisle Swim Centre sites at 4 Century Circuit and 6 Century Circuit, Norwest (Lot 2 DP 1213272 and Lot 5080 DP 1008602). The combined "site" is identified as "Norwest City".

Mulpha will be lodging a Planning Proposal with The Hills Shire Council as part of the plans for the ongoing redevelopment of the Norwest Business Park. The primary objective of the Planning Proposal is to establish the site as the strategic town centre. The indicative built form concept is shown in the image below (*Source: FJC.*)



This report has been prepared to provide a high-level assessment of:

- available utility services
- key utilities and augmentation needed for servicing the redevelopment.
- lead-in services that are likely to be required

This report has reviewed the existing infrastructure services for sewer (wastewater), potable and recycled water, electricity, telecommunications, and natural gas. These assessments were carried out based upon Before You Dig Australia (BYDA) plans, communications with utility authorities and input from accredited utility designers to understand the existing and possible new infrastructure that may be required to provide suitable services to the redevelopment.

Based on the findings of this assessment and limitations detailed within, the following conclusions are made:

- Sydney Water is the supplier of sewer, potable & recycled water infrastructure within the Norwest area.
- Wastewater services are available to the site. Some minor amplification would be required which can be achieved via an additional line to the northern side of the site.
- Potable water services are available to the site and could supply the development. As Sydney Water do
  not reserve capacity based on feasibility assessment, should additional supply be needed at time of
  redevelopment, this could be provided via a branch main from trunk mains which are approximately 380
  metres from the site.

- Recycled water services are near to the site, however, are part of the Rouse Hill Development Servicing Plan (DSP) Area. The site is not included as part of the Rouse Hill DSP. An application would need to be made to Sydney Water for the supply of recycled water from Rouse Hill DSP area. Supply would be over a distance of approximately 400m – 450m to site.
- Electrical supply is available via Endeavour Energy's existing network. The site is presently well serviced and has sufficient supply available at the time of this assessment. At the time of redevelopment, should additional supply be needed, this can be provided via a new feeder from Endeavour Energy's Bella Vista Zone Substation.
- Telecommunications are available via NBN Co. which already services the site. Business and residential
  grade NBN services can be easily provided. Telstra services are also presently available and servicing the
  site. NBN cables are in Telstra conduits. Optus services are adjacent and could be easily extended into
  the site if needed. There is mobile coverage from Telstra and Optus. Vodafone would also have some
  cover.
- Natural gas is available at Norwest Boulevard. Jemena can supply the site with gas which is expected to be used in restaurants, food and beverage.

The outcome of this assessment confirms the redevelopment for Norwest City can be adequately serviced with all essential utility infrastructure and the provision of utility services is not expected to be an impediment to redevelopment.

#### 2. INTRODUCTION

This report has been prepared, on behalf of Norwest City Trust (Mulpha Norwest), to support the submission and assessment of the Norwest Marketown Planning Proposal. The proposal seeks to amend *The Hills Local Environmental Plan 2019* (THLEP 2019) to insert revised planning controls for land situated at 4-6 Century Circuit, Norwest adjacent to the Norwest Metro Station and within the Norwest Strategic Centre.

The Norwest Marketown Planning Proposal aims to facilitate the long-planned transformation of 46,455m<sup>2</sup> of strategically important land presently containing the Norwest Marketown Shopping Centre and adjoining lands comprising the Carlile Swimming Centre. The site is situated along a major regional throughfare in Norwest Boulevarde, connecting to Old Windsor Road to the west.

This Planning Proposal will facilitate the appropriate planning controls to facilitate the site's future redevelopment for a contemporary transit-oriented and truly mixed-use precinct. The site has a capacity to deliver a range of employment generating uses in support of the surrounding Norwest Business Park, through commercial, retail, office, entertainment, tourist/visitor accommodation and community floorspace. These uses are further enhanced through the proposal's introduction of residential uses and the potential for a diversity of future emerging housing typologies. Mulpha's vision for sustainable development practices are at the heart of the concept for the site and a range of environmental sustainability initiatives and aspirations are sought, including renewable energy and building efficiencies.

Development planned for the site will be supported by a range of facilities that will benefit occupants of the site and the broader region, together with infrastructure improvements and upgrades and the delivery of generous plazas, public squares and open space, facilitating access to an enhanced Norwest Lake foreshore. Education and collaboration facilities are a primary focus of community life for Norwest Marketown.

#### 2.1. Norwest Marketown Indicative Reference Scheme

Mulpha's vision for the site is a revitalised and vibrant mixed-use precinct that increases the productivity of employment generating land, provides essential services and increases the provision of housing close to transport. The precinct will provide essential services and a range of new community facilities and open space areas that will benefit the broader community. This will enable the creation of a vibrant and rejuvenated centre that fosters an attractive place to live, work and play.

The Norwest Marketown Indicative Reference Scheme, as prepared by FJC Studio, represents an optimised and refined reference scheme, to guide best practice design and the preparation of detailed planning controls to achieve an attractive transit-oriented development precinct with high amenity.

Key features of the Norwest Marketown Indicative Reference Scheme are:

- A masterplanned urban design of new building blocks, public streets, squares and open spaces.
- A total development density of up to 232,375m<sup>2</sup> Gross Floor Area (GFA) comprising a Floor Space Ratio of 5.0:1. This includes the following components:
  - 117,330m² of employment generating floorspace comprising commercial, retail and hotel accommodation.
  - 102,523m<sup>2</sup> of residential floorspace comprising approximately 854 apartments; and
  - 12,523m<sup>2</sup> of community, indoor recreation, civic, entertainment and education floorspace.
- Building heights above ground ranging from 5 storeys to 36 storeys.
- A Lower Ground level providing a direct connection to Norwest Metro through to Norwest Lake at grade with retail and food and beverage opportunities.
- Basement parking, loading and servicing across 5 subterranean levels, with spaces for some 2,600 cars, which are intended to be allocated by way of a parking management system.
- Substantial open space provisions including:
  - Lake Avenue pedestrian linkage connecting Norwest Boulevarde to Norwest Lake
  - Garden Terrace cascading open space, providing an enhanced Norwest Lake Foreshore
  - Norwest Public Square local passive open space and alfresco dining.
- Community and civic buildings such as the Glass House.

- Significant enhancements to the existing Century Circuit, including intersections with Norwest Boulevarde, the provision of internalised local streets within a pedestrian priority environment and opportunity for a future connection to Fairway Drive.
- Complementary on and off-site infrastructure to be delivered by way of a future Planning Agreement.



Figure 1 – Norwest Marketown, Indicative Landscape Masterplan – Source: Realm



Figure 2 – Norwest Marketown – Indicative Lake Interface – Source: FJC

## 2.2. Proposed Planning Controls

The Planning Proposal Justification Report, as prepared by Ethos Urban, details the intention to insert new planning provisions covering Norwest Marketown, through the amendment of the THLEP 2019. Specifically, the Planning Proposal will:

- Seek a rezoning of the site from E1 Local Centre to MU1 Mixed Use.
- Seek an increase in overall height within the site from RL116 to RL216.
- Seek an increase to Floor Space Ratio from 1.49:1 to 5.0:1, comprising a minimum 'commercial premises' and 'entertainment facility' FSR of 2.5:1 and a maximum 'residential flat buildings', 'shop top housing' and 'boarding houses' FSR of 2.21:1 and 854 dwellings.
- Dwelling size and mix requirements consistent with THLEP 2019 and Council's strategic goals for housing.
- Car parking provisions in relation to dwellings, dwelling visitors, retail and commercial uses.
- Additional Permitted Uses (Schedule 1) to allow for the land uses of: recreation area, retail premises, recreation facility (outdoor), water recreation structure, waterbody (artificial) and wharf/boating facilities, within the land zoned SP2 Infrastructure within the site.
- Corresponding site-specific DCP which will address provisions such as:
  - Relationship to other Hills Shire DCP provisions
  - Urban Context
  - Desired Future Character and Principles

- Public Domain and Open Space
- Built Form
- Active Frontages
- Solar Access and Overshadowing
- Vehicular Access and Connectivity
- Landscape
- Design Excellence
- Sustainability
- Wind
- Staging and Implementation

The proposal is in response to the Draft Norwest Precinct Plan which was on exhibition from 2 May 2023 until 31 July 2023. According to the Draft Plan, Norwest Marketown is identified within 'Focus Area 2' was earmarked as being subject to 'market driven' change and that changes to the planning framework would be driven by landowner-initiated planning proposals, along with associated amendments to the DCP, Public Domain Plan and appropriate infrastructure contribution mechanisms.

## 2.3. Site Location, Description and Context

The site is located at 4-6 Century Circuit, Norwest within The Hills LGA. Norwest is approximately 12km north of the Parramatta CBD, and 35km northwest of the Sydney CBD. The site is strategically located within the northeastern portion of Norwest Business Park. The Park accommodates an extensive amount of employment land such as office and business premises and contains a range of facilities and amenities, including childcare centres, medical facilities, supermarkets, and a range of smaller retail tenants. It also incorporates recreational areas as well as pedestrian and bicycle linkages.

The site is also directly adjacent to the Norwest Metro railway station. Following its opening in 2019, surrounding each Metro station is an identified precinct that contributes to the Sydney Norwest Urban Renewal Corridor. In the context of this corridor, the site is situated within the Norwest Precinct.

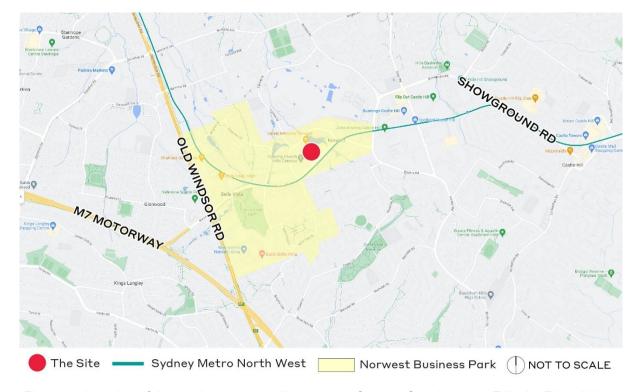


Figure 3 - Location of the site in its surrounding context. Source: Google maps. Edits by Ethos Urban

The worker population within Norwest Business Park includes around 30,000 workers, being one of Greater Sydney's major employment areas. The workforce includes a large portion of professionals and clerical/service workers. Health care and social assistance, retail trade, professional, scientific, and technical services are the largest employing industries in the locality.

The site is situated on the northern side of Norwest Boulevarde, between Brookhollow Avenue and Century Circuit. It comprises two allotments which are legally described as Lot 2 in DP 1213272 (4 Century Circuit) and Lot 5080 in DP1008602 (6 Century Circuit). Both allotments are owned by Mulpha. The site has a frontage of approximately 185m to Norwest Boulevard and incorporates Century Circuit which extends eastward within the southern portion of the site. This site was formerly part of the North Sydney Brick and Tile Company's Brick Works Holding and as noted previously now forms part of the Norwest Business Park. An aerial view of the site, the relevant allotments and the immediate locality is provided below.



Figure 4 - Site aerial photograph, showing extent of the site. Source: Nearmap. edits by Ethos Urban

This utilities servicing report provides a high-level assessment of:

- available utility services
- key utilities and capacities needed for servicing the redevelopment.
- lead-in items likely to be required.

Some guidance on utility constraints has been provided by subconsultants Powerline Design for electrical; and Water Services Coordinator, Qalchek for water and sewer. In addition, there are responses from Sydney Water from a Feasibility Assessment application (Appendix A) and Endeavour Energy as a result of a Technical Review Request (Appendix C)

The report also uses Before You Dig Australia (BYDA) information received on 18 October 2022, site inspection knowledge, and redevelopment information provided from Mulpha.

#### 3. UTILITIES

The combined site either has or is generally close to the key utilities needed for the redevelopment. These are potable water, sewer (wastewater), electricity, National Broadband Network (NBN), gas and mobile phone. The site includes excellent mobile coverage from Telstra and Optus which is beneficial for the redevelopment. There is also Telstra's underground network which extends into the site. Telstra conduits include NBN cables.

#### 3.1. Sewer

With assistance from Water Services Coordinator, Qalchek, a feasibility assessment application was lodged to Sydney Water in mid-October 2022. The assessment response dated 19 December 2022 is included in Appendix A. Qalchek has also provided some guidance with sewer servicing.

#### 3.1.1 Existing Sewer

There are two existing sewer mains directly adjoining the site which are currently being used to service the site and neighbouring lots relative to the present usage demands. These are:

- 1. 225mm dia. PVC main to the northwest of the site.
- 2. 150mm dia. PVC concrete encased sewer main to the northeast

Whilst not servicing the site there is also a 225mm dia. PVC sewer main along the southern side of Norwest Blvd. The alignments of these mains are shown in Figure 5 based on BYDA information (Appendix B).

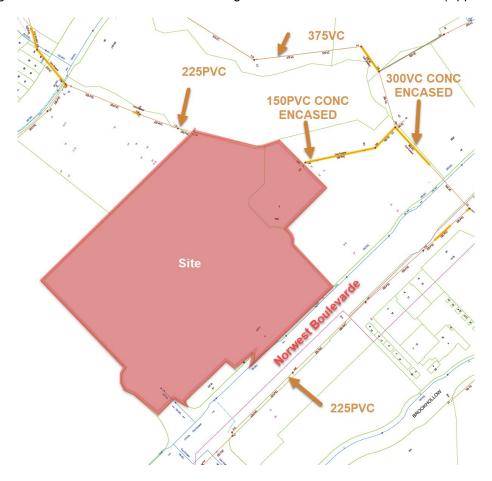


Figure 5 – Locations of Neighbouring Sewer to the site (BYDA October 2022)

#### 3.1.2 Proposed Sewer Servicing Strategy

The redevelopment would use both of the two existing adjoining live mains, but additional sewer capacity will be required. The existing 225 PVC line would be retained as it is under the newly constructed boulevard style walkway at lakeside which interfaces with a significant restaurant and outdoor dining area that has only recently been completed and is now used extensively. Augmentation on this alignment is not practical.

The logical location for sewer amplification relative to redevelopment architecture is to connect to the 300 mm dia carrier on the eastern side of the lake which transitions into a 375mm pipe further downstream and then a 450mm dia carrier. Due to the very difficult location of the adjoining 150 PVC line which is concrete encased, under a multideck car park and concrete areas and also servicing properties, a new separate line around 250mm dia could be installed on the approx. alignment as shown in Figure 6 below. The line would connect at the manhole at the 300mm carrier as seen in Figure 7.



Figure 6 – Approx alignment of additional sewer capacity

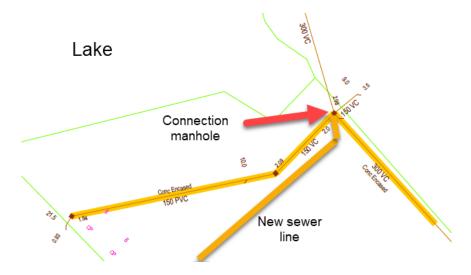


Figure 7 – Approx alignment and connection of additional sewer line

It is expected that the downstream 450mm dia. sewer carrier has sufficient capacity for the redevelopment. The final capacity confirmation would be determined through sewer network modelling undertaken by Sydney Water as part of a future S73 application. If downstream augmentation is required, this would be a Sydney Water responsibility at part of broader Norwest area servicing.

#### 3.2. Potable Water

The feasibility assessment response from Sydney Water (Appendix A) includes some potable water information. Qalchek has also provided some guidance with potable water servicing.

#### 3.2.1 Existing Potable Water

Currently, there is a 250mm DICL potable water main that runs along the northern side of Norwest Boulevard in front of the site. Figure 8 shows the potable water along the south-eastern boundary of the site. There is also potable water to the northwest along Solent Cct which would service the north west area properties.

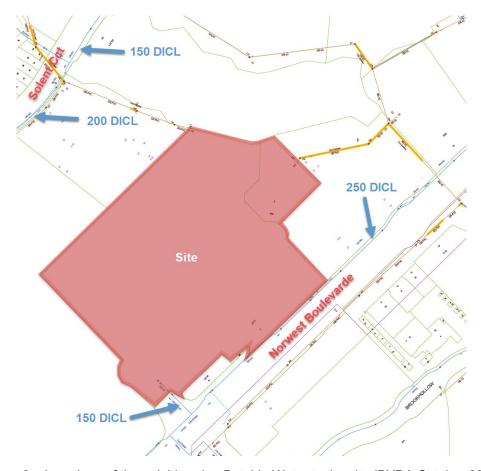


Figure 8 – Locations of the neighbouring Potable Water to the site (BYDA October 2022)

#### 3.2.2 Proposed Potable Water Servicing Strategy

For developments greater than 8 storeys in height, a minimum 250mm dia watermain is required which is available. This would supply the redevelopment. There would need to be booster pumping for the height of proposed buildings.

As part of the feasibility assessment, Sydney Water have indicated sufficient supply may be available through the 250mm main relative to surrounding uses. Should additional potable water be required at the time of redevelopment, this can be supplied by installing a supplementary main branching from either the existing 750mm or 450mm dia. trunk mains within Norwest Boulevarde at the nearby intersection of Solent Circuit & Reston Grange. Figure 9 from BYDA information (Appendix B) shows the location of the 750 SCL and 450 DICL which are approximately 380 metres from the site.



Figure 9 - Location of 450mm and 750mm dia. potable watermains (BYDA October 2022)

## 3.3. Recycled Water

## 3.3.1 Existing Recycled Water

There is no recycled water currently available at the site. Recycled water services are about 400m from the site along Spurway Drive as shown in Figure 10 (Sourced from BYDA - Appendix B). This supply line is part of the Rouse Hill Development Servicing Plan (DSP) Area as shown in Figure 11. The redevelopment site is not included as part of the Rouse Hill DSP.

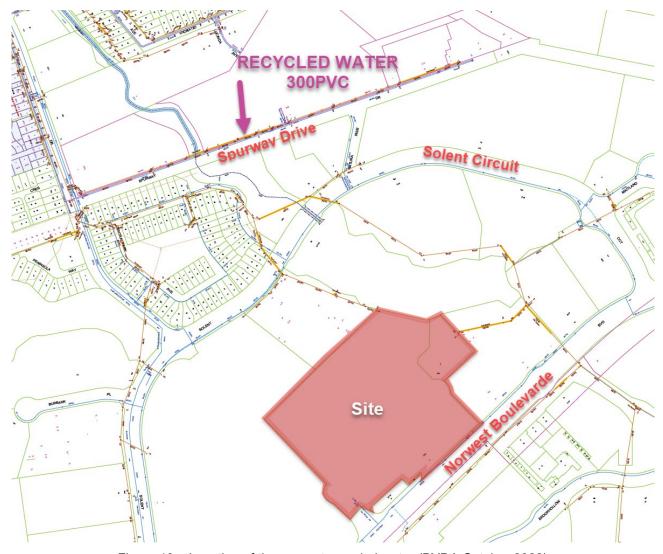


Figure 10 – Location of the nearest recycled water (BYDA October 2022)

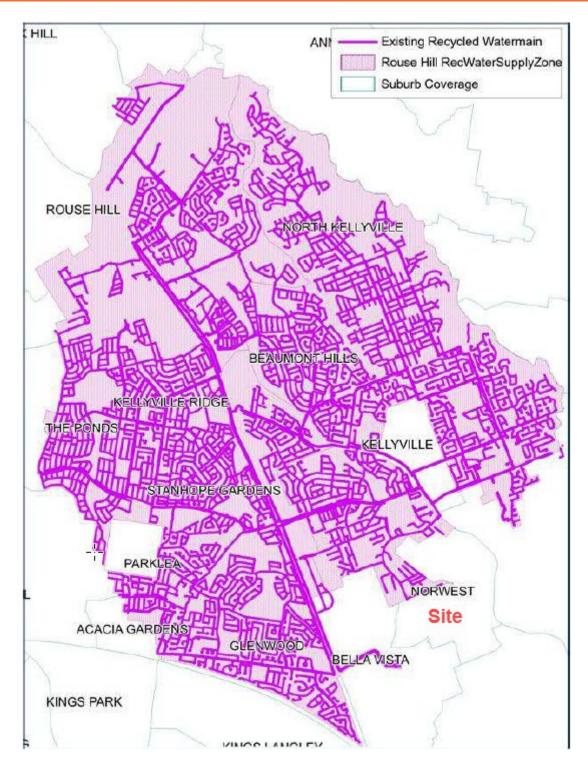


Figure 11 – Rouse Hill Development Servicing Plan Boundary (Sydney Water)

#### 3.3.2 Proposed Recycled Water Servicing

An application would need to be made to Sydney Water for the supply of recycled water from Rouse Hill DSP area. Should recycled water be adopted for use a supply main could be installed from Spurway Drive along Fairway Drive and either direct through the carpark of Hillsong Church, a distance of about 410m, or alternatively deviated partly along Solent Circuit and then along the rear of the Hillsong Church building, a distance of about 450m. The alignments are shown in Figure 12.

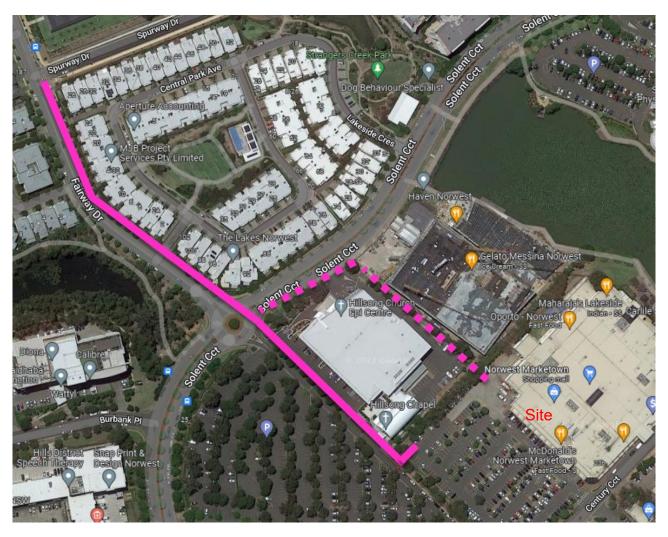


Figure 12 - Recycled water supply alignments relative to the site

## 3.4. Electricity

This preliminary information on the likely electrical infrastructure to supply the redevelopment has been provided by electrical consultants Powerline Design combined with a response from Endeavour Energy from a Technical Review request (Appendix C). Some minor refinement is included from JWP.

The information provides an overview of Endeavour Energy's current network assets in the vicinity of the site, and the process indication to have the Endeavour Energy's electrical network extended to supply the proposed new commercial and residential premises.

#### 3.4.1 Network Locations

The site is approximately 2.3km from Endeavour Energy's Bella Vista Zone Substation which is located between Elizabeth MacArthur Drive and Old Windsor Road on Lot 6004 DP1063031. Endeavour Energy's current network assets in the vicinity of the site are shown in Figures 13 & 14.



Figure 13 - Endeavour energy assets locations relative to site

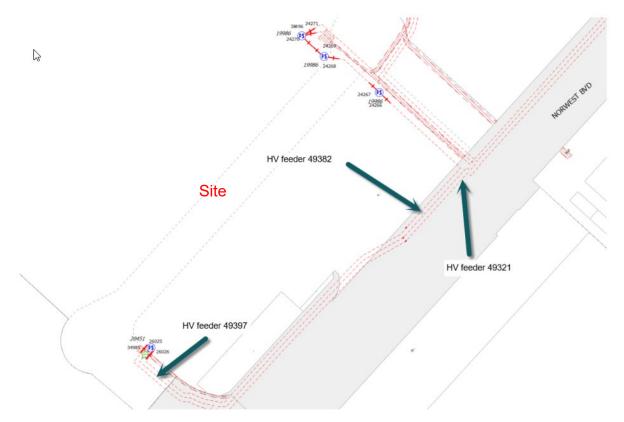


Figure 14 – Location of Endeavour Energy High Voltage feeders

#### 3.4.2 Electricity Supply Requirements

Endeavour Energy presently have 4 x Pad Mount Substations supplying the site;

- Pad mount Substation 20451: Rated at 315kva and is a cross Feeder tie between Endeavour Energy Feeders 49382 and 49397.
- Pad Mount Substation 19986 (x3): Rated at 3000kva (3mva), supplied by feeder 49382.

A Technical Review Request was submitted to Endeavour Energy. The response received is in Appendix C. Endeavour Energy have assessed the proposed electrical load of the new development based on the below inclusions to be **8.5mva** which includes diversity factor of the load calculations.

The redevelopment will include:

- 26,000m2 of mixed-use retail This includes "restaurants"
- Community facilities which include a library, childcare facilities, indoor recreation/swim centre.
- 900 private apartments -. Units areas will vary between 80-130+sqm.
- Hotel/serviced apartments 200 room hotel (9,856sqm). These are separate to private apartments.
- Commercial offices (110,000sqm)
- 20,000sqm of public, pedestrian open space including a public carpark Car Parks are underground

Based on the existing buildings on the site being demolished, and all assets removed, Endeavour Energy will have the capacity based on present day demands to supply the site with **9.7mva** from Feeders 49382, 49397 and 49321.

Supply to the proposed new buildings will be dependent on the electrical requirements for each building. A 36-storey tower will most likely have an electrical requirement exceeding 1000kva. This level of load could be supplied from a dedicated pad mount substation located on the same site as the building or from its own indoor substation located on the ground floor of the building. Allowance for indoor substations and pad mount substations should be considered as part of the general planning for the site.

Endeavour Energy will not allow private mains to be installed across public roads, the maximum load that can be drawn from an Endeavour Energy Low Voltage Pillar is 320amps (approximately 200kva).

Maintaining the existing pad mount substations in their present locations may not be a feasible option due to site works, the final layout of the development and the proximity of the substations to the proposed load centres.

The existing substations and underground High Voltage Feeder Cables within the site are shown as being contained within easements in favour of Endeavour Energy. Removing or relocating these cables and substations to redevelop the site will require adjustments to be made to these easements via negotiation with Endeavour Energy's Property Department. Endeavour Energy have recently updated their application process, and now have an upfront charge for any application submitted.

Further information on Endeavour Energy's "Land Interest Guidelines for Network Connection Works" can be found at:

## https://www.endeavourenergy.com.au/\_\_data/assets/pdf\_file/0026/7892/Land-Interests-for-Network-Connection-Works.pdf

Endeavour Energy also have their Transmission, Pilot, Communication and Optical Fibre Cables in close proximity to the site. These are not electrical cables and as part of the redevelopment process would need to be located and protected to avoid damage to them during redevelopment works.

#### 3.4.3 Funding & Reimbursements

Endeavour Energy's Customer Connection Policy requires that all distribution works are Customer Funded. The design and construction of a new High Voltage mains, augmentation works, and the creation of easements will be customer funded.

Endeavour Energy's 3 existing High Voltage Feeders, 49382, 49397 and 49321 are readily accessible to the site being located nearby in Norwest Boulevard. Minimal costs will be incurred to extend these feeders into the site should this be required for supply of electricity to buildings. Endeavour Energy have indicated that automated High Voltage Switchgear will be required in any new substations installed on the site.

#### 3.4.4 Electricity – Additional considerations

Endeavour Energy Technical review response is only valid for a limited time (typically 1 month) and as it is only a review, they have advised they will not reserve capacity in their Network for future projects based on this. Generally, Endeavour Energy will earmark (reserve) capacity to a proposed development once an application has been submitted and the Contestable Works Process is underway.

Should the available spare capacity in Endeavour Energy's Network be taken up by another customer before an application for load for the Norwest Marketown redevelopment is submitted, a new feeder may need to be installed to the site over a distance of 2.2km from Endeavour Energy's Bella Vista Zone Substation. It would run west from the site along Norwest Boulevard then into Elizabeth MacArthur Drive and into the Endeavour Energy Bella Vista Zone Substation.

Endeavour Energy High Voltage feeders already run along this route to the Bella Vista Zone Substation with cables located on both sides of Norwest Boulevard and Elizabeth MacArthur Drive. Minimal spare electrical ducts exist along this route however further investigation and onsite excavation will be required to confirm if the spare ducts are continuous. Sections of these spare ducts could be used at any time by other developments along the route. Figure 15 shows the expected alignment of the feeder.

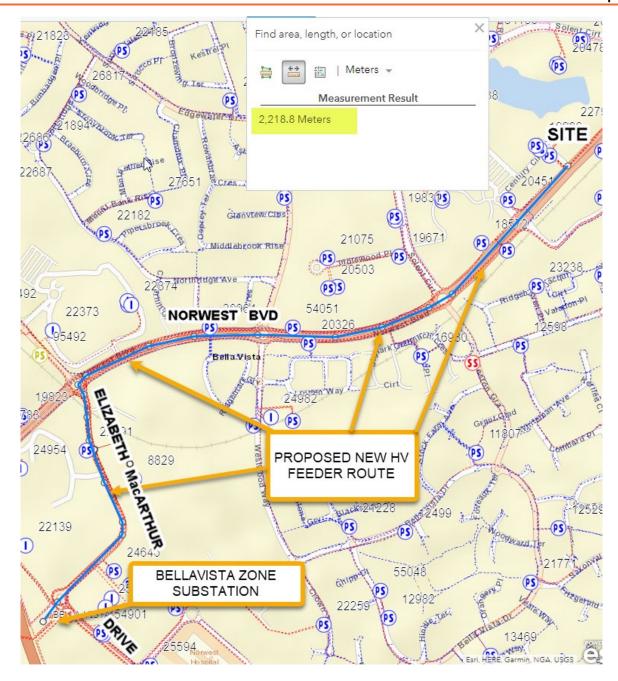


Figure 15 – Location of possible extra High Voltage feeder

The electrical information in this utilities servicing report is based on available data in Endeavour Energy's response and Powerline Design's many years of experience in the electrical distribution industry. Closer to the time of redevelopment the electrical servicing detail would need to be re-examined. There may also be alterations based on Endeavour Energy's network requirements at the time of the design and construction.

There may be alterations depending on any adjacent developments superseding the proposed development, developer planning and design alterations, or changes to relevant standards once the electrical reticulation design is submitted for certification or during the construction phase.

#### 3.5. Gas

#### 3.5.1 Existing Gas Network

Based on BYDA information and contact with Jemena a 160mm dia PE 210 kPa medium pressure gas main is present at the south-east boundary of the site on Norwest Boulevard. The location is shown in Figure 16.

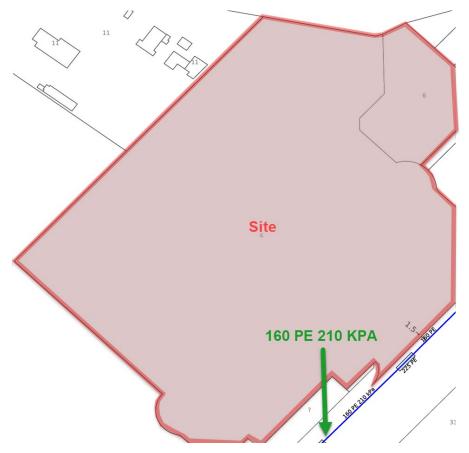


Figure 16 – Location of existing gas main (BYDA October 2022)

#### 3.5.2 Gas Servicing Strategy

Jemena was contacted for gas servicing and their response in provided in Appendix D. Gas is available and could be extended into the redevelopment for supply to restaurants, food and beverage. Details of supply would be assessed at time of application through a commercial agreement.

#### 3.6. National Broadband Network (NBN - nbn)

#### 3.6.1 Existing NBN

NBN Co's existing fibre optic network is housed within the existing Telstra ducts. The network is schematically shown in Figures 17 and 18.

#### 3.6.2 NBN Servicing

The Norwest Marketown site is within the existing NBN Fibre network footprint and can be serviced with Fibre to the Premises via the NBN New Development program subject to Mulpha entering into a Master Developer Agreement with NBN Co.

The existing NBN Business Fibre Zone at Castle Hill – Bella Vista can provide businesses with speeds up to 10Gb symmetrical. All 150 NBN retail service providers are operating in this area.

NBN Co's Smart Places product allows for the extension of the NBN network to 'non premises' locations within Norwest City and would support the integrated technology requirements for the redevelopment.

Due to NBN's extensive network in the area, NBN could accommodate a lead in for each building at a location that is most convenient to Mulpha.

Should any Telstra ducts need to be moved to accommodate the proposed development, the NBN network assets may need to be relocated as well and either place in Telstra conduits or separately placed in NBN conduits.

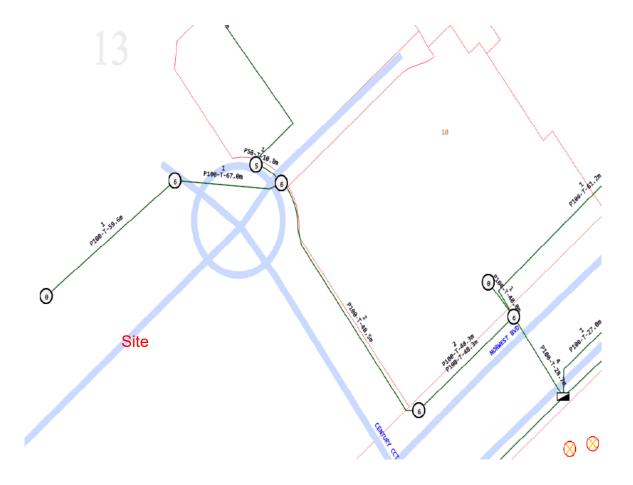


Figure 17 – Location of existing NBN services (BYDA October 2022)

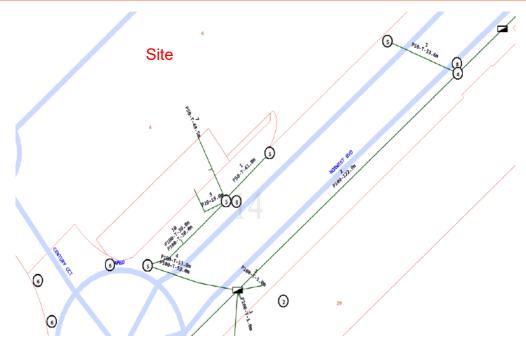


Figure 18 – Location of existing NBN services (BYDA October 2022)

#### 3.7. Telstra

#### 3.7.1 Existing Telstra Network

Based on BYDA information the Telstra underground network of cables (copper and hybrid) and Mains cables (fibre) is shown in extracts in Figures 19 & 20. Full copies of diagrams are contained in Appendix E. The network extends into the existing site. The network of conduits also contains cables from NBN Co. There is very good mobile coverage from Telstra throughout the site.

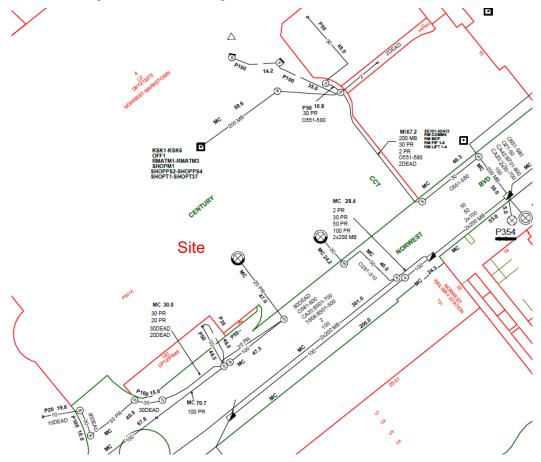


Figure 19 - Location Telstra cables (copper & hybrid) (BYDA October 2022)

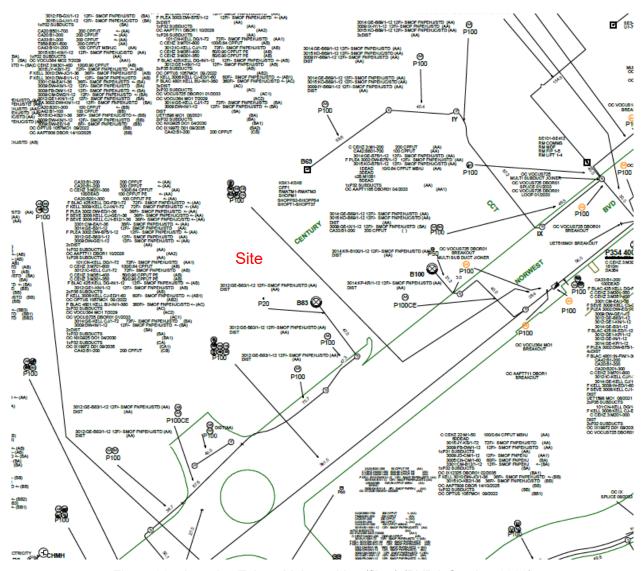


Figure 20 - Location Telstra Mains cables (fibre) (BYDA October 2022)

#### 3.7.2 Use of Telstra network with redevelopment

Telstra's underground network is available for use within the redevelopment with the extent of use determined at time of application for development approval. This use would be balanced against use of NBN and the consideration that NBN Co cables are in Telstra conduits.

It is expected there would be significant use of Telstra's mobile network which covers the whole site.

#### 3.8 Other Telecommunications

Other telecommunications networks are present in the area but are not essential for the redevelopment with utility servicing. There is Optus underground cabling along Norwest Boulevard as shown in Figure 21 which has convenient access pits. Optus services could be easily extended into the site where needed. It is expected there would be notable use of Optus mobile network which covers the whole site.

There are sections of TPG Telecom. Networks associated with Metro North West Line are present but would not be utilised. In addition, satellite services can be obtained if required.

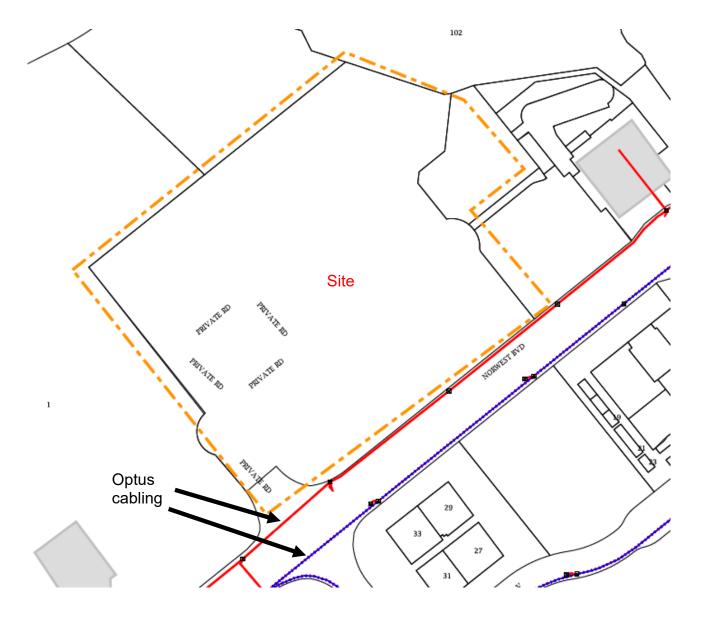


Figure 21 – Location Optus fibre optic cabling (BYDA September 2022)

## 4. CONCLUSIONS

J. Wyndham Prince has undertaken a review of the utility infrastructure in and surrounding the proposed Norwest City site. All service reviews undertaken indicate the proposed development can be serviced by essential service infrastructure to support the redevelopment of the site.

In summary, the findings are:

Sewer (Wastewater)	Sewer is available to the site. Sydney Water is the supplier of sewer, potable & recycled water infrastructure within the Norwest area. Wastewater services are available to the site. Some minor amplification would be required which can be achieved via an additional 250mm dia. line to the northern side of the site.
Potable Water	Potable water is available to the site. Potable water services in a 250mm dia. main are adjacent to the site and could supply the development. Some booster pumping would be required for height of buildings. As Sydney Water do not reserve capacity based on feasibility assessment, should additional supply be needed at time of redevelopment, this could be provided via a branch main from trunk mains which are approximately 380 metres from the site.
Recycled water	Recycled water services are near to the site, however are part of the Rouse Hill Development Services Plan (DSP) Area. The site is not included as part of the Rouse Hill DSP. An application would need to be made to Sydney Water for the supply of recycled water from Rouse Hill DSP area. Supply would be over a distance of approximately 400m – 450m to site.
Electrical	Electrical supply is available via Endeavour Energy's existing network. The site presently well serviced and has sufficient supply available at the time of this assessment. At the time of redevelopment, should additional supply be needed this can be provided via a new feeder over a distance of 2.2km from Endeavour Energy's Bella Vista Zone Substation. This does not include any offsets from Solar power generation on buildings.
Telecommunications	Telecommunications are available via NBN Co. which already services the site. Business and residential grade NBN services can be easily provided. Telstra services are also presently available and servicing the site. NBN cables are in Telstra conduits. Optus services are adjacent and could be easily extended into the site if needed. There is mobile coverage from Telstra and Optus. Vodafone would also have some cover.
Natural Gas	Natural gas is available at Norwest Boulevard. Jemena can supply to the site with gas which is expected to be used in restaurants, food and beverage.

The outcomes of the investigation conclude the availability of essential utility services for the redevelopment. Utility authority requirements for supply will be subject to the relevant applications being lodged during the development process.





Case Number: 203558

December 19, 2022

MULPHA NORWEST PTY LTD c/- QALCHEK PTY LTD

## **Feasibility Letter**

Developer: MULPHA NORWEST PTY LTD

Your reference: PM 31687

Development: Lot 2 DP1213272 NORWEST BVD, Norwest

Development Description: Norwest Marketown Redevelopment including Retail, Office,

Residential, Cinema, Library, Childcare Centre, Supermarket,

Swimming Pool/Gym and a 200 Room Hotel

Your application date: November 16, 2022

Dear Applicant

This Feasibility Letter (Letter) is a guide only. It provides general information about what our requirements could be if you applied to us for a Section 73 Certificate (Certificate) for your proposed development. **The information is accurate at today's date only.** 

We have not allocated any system capacity to your proposal from the investigation into this Feasibility advice. This advice is only an indication of our systems and possible requirements as of today. Where there is system capacity, it may have been fully utilised by the time you obtain a Consent. The requirements applied to any approved Development proposal may differ significantly in the future since the original advice was issued.

If you obtain development consent for that development from your consent authority (this is usually your local Council) they will require you to apply to us for a Section 73 Certificate. You will need to

submit a new application (and pay another application fee) to us for that Certificate by using your current or another Water Servicing Coordinator (WSC).

We'll then send you either a:

- Notice of Requirements (Notice) and Developer Works Deed (Deed) or
- Certificate.

These documents will be the definitive statement of our requirements.

There may be changes in our requirements between the issue dates of this Letter and the Notice or Certificate. The changes may be:

- if you change your proposed development eg the development description or the plan/site layout, after today, the requirements in this Letter could change when you submit your new application
- if you decide to do your development in stages then you must submit a new application (and pay another application fee) for each stage.

#### What You Must Do To Get A Section 73 Certificate In The Future.

To get a Section 73 Certificate you must do the following things. You can also find out about this process by visiting <a href="Plumbing">Plumbing</a>, <a href="building">building</a> & developing</a> page on our website.

- 1. Obtain Development Consent from the consent authority for your development proposal.
- 2. Engage a Water Servicing Coordinator (WSC).

You must engage your current or another authorised WSC to manage the design and construction of works that you must provide, at your cost, to service your development. If you wish to engage another WSC (at any point in this process) you must write and tell us.

You'll find a list of WSC's at Listed providers on our website.

The WSC will be your point of contact with us. They can answer most questions that you might have about the process and developer charges and can give you a quote or information about costs for services/works (including our costs).

#### 3. Water and Sewer Works

#### 3.1 Water

Your development must have a frontage to a water main that is the right size and can be used for connection.

We've assessed your application and found that:

The proposed development is within the Rogans Hill WSZ.

- High level assessment suggests the trunk system may have the capacity to service the development.
- Local reticulation may require augmentation, and this will be further reviewed in the S73
  application.



Figure 1 – Drinking Water Location Map

#### 3.2 Sewer

Your development must have a sewer main that is the right size and can be used for connection. That sewer must also have a connection point within your development's boundaries.

We've assessed your application and found that:

The development is located in Rouse Hill catchment. There is existing DN225 at the northern side of the development and existing DN225 main at the south-eastern side in Norwest Blvd.

- The natural catchment drains to existing DN225 at the northern side of the development.

  Hence, it is recommended to connect to this main.
- Preliminary investigation shows the main has capacity for peak dry weather flow but may
  hay capacity constraints for peak wet weather flow. Hence, amplification may be required.
- Full details of amplification requirements will be provided after detailed investigation during Section 73 application.

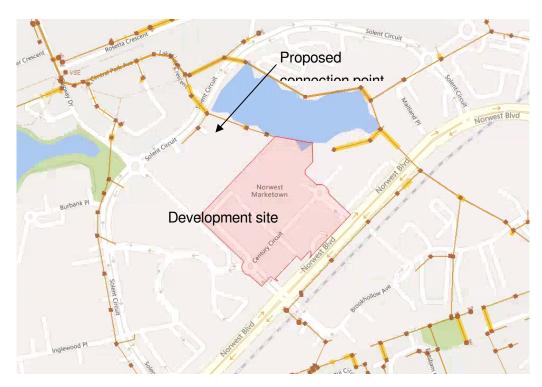


Figure 2 – Wastewater Location Map

#### 4. Ancillary Matters

#### 4.1 Asset adjustments

After we issue this Notice (and more detailed designs are available), we may require that the water main/sewer main/stormwater located in the footway/your property needs to be adjusted/deviated. If this happens, you'll need to do this work as well as the extension we have detailed above at your cost. The work must meet the conditions of this Notice and you will need to complete it **before we can issue the Certificate**. We'll need to see the completed designs for the work, and we'll require you to lodge a security. The security will be refunded once the work is completed.

#### 4.2 Entry onto neighbouring property

If you need to enter a neighbouring property, you must have the written permission of the relevant property owners and tenants. You must use our **Permission to Enter** form(s) for this. You can get copies of these forms from your WSC or on our website. Your WSC can also negotiate on your behalf. Please make sure that you address all the items on the form(s) including payment of compensation and whether there are other ways of designing and constructing that could avoid or reduce their impacts. You will be responsible for all costs of mediation involved in resolving any disputes. Please allow enough time for entry issues to be resolved.

#### OTHER THINGS YOU MAY NEED TO DO

Shown below are other things you need to do that are NOT a requirement for the Certificate. They may well be a requirement from us in the future because of the impact of your development on our assets. You must read them before you go any further.

#### Approval of your building plans

Please note that the building plans must be approved when each lot is developed. This can be done at in our Tap in<sup>TM</sup> system Sydney Water Tap in <sup>TM</sup>.

This is not a requirement for the Certificate, but the approval is needed because the construction/building works may affect our assets (e.g. water, sewer, and stormwater mains).

If our stormwater channel, pipe, or culvert is located within ten (10) metres of your development site it must be referred to us for a detailed review.

Your Coordinator can tell you about the approval process including:

- Possible requirements
- Their costs
- Timeframes.

If your building plans need to be referred to us for detailed review you will be required to pay us for the costs associated with the detailed review.

(OR: use following only for building development (whether or not subdivision included) as a general warning where it appears there is no impact or is unlikely to be an impact on our services.)

Please note that your building plans must be approved. This can be done on our Tap in<sup>™</sup> system Sydney Water Tap in <sup>™</sup> or call 13 20 92.

This is not a requirement of the Certificate, but the approval is needed because construction/building works may impact on our existing assets (e.g. water and sewer mains). In any case, these works MUST NOT commence until we have granted approval.

Your WSC can tell you about the approval process including:

- Possible requirements
- Their costs
- Timeframes.

We recommend that you apply for Building Plan Approval early as in some instances your WSC may need to refer your building plans to us for detailed review. You'll be required to pay us for the costs associated with the detailed review.

Note: You must obtain our written approval before you do any work on our systems. We'll take action to have work stopped on the site if you do not have that approval. We will apply Section 44 of the *Sydney Water Act 1994*.

#### **Disused Sewerage Service Sealing**

Please do not forget that you must pay to disconnect all disused private sewerage services and seal them at the point of connection to our sewer main. This work must meet our standards in the Plumbing Code of Australia (the Code) and be done by a licensed drainer. The licensed drainer must arrange for an inspection of the work by a NSW Fair Trading Plumbing Inspection Assurance Services (PIAS) officer. After that officer has looked at the work, the drainer can issue the Certificate of Compliance. The Code requires this.

#### Soffit Requirements

Please be aware that floor levels must be able to meet our soffit requirements for property connection and drainage.

## Requirements for Business Customers for Commercial and Industrial Property Developments

If this property is to be developed for Industrial or Commercial operations, it may need to meet the following requirements:

#### **Trade Wastewater Requirements**

If this development is going to generate trade wastewater, the property owner must submit an application requesting permission to discharge trade wastewater to Sydney Water's sewerage system. You must wait for approval of this permit before any business activities can commence.

The permit application should be emailed to Sydney Water's <u>Business Customer Services</u> at <u>businesscustomers@sydneywater.com.au</u>

It is illegal to discharge Trade Wastewater into the Sydney Water sewerage system without permission.

A **Boundary Trap** is required for all developments that discharge trade wastewater where arrestors and special units are installed for trade wastewater pre-treatment.

If the property development is for Industrial operations, the wastewater may discharge into a sewerage area that is subject to wastewater reuse. Find out from Business Customer Services if this is applicable to your development.

#### **Backflow Prevention Requirements**

Backflow is when there is unintentional flow of water in the wrong direction from a potentially polluted source into the drinking water supply.

All properties connected to Sydney Water's supply must install a testable **Backflow Prevention Containment Device** appropriate to the property's hazard rating. Property with a high or medium hazard rating must have the backflow prevention containment device tested annually. Properties identified as having a low hazard rating must install a non-testable device, as a minimum.

Separate hydrant and sprinkler fire services on non-residential properties, require the installation of a testable double check detector assembly. The device is to be located at the boundary of the property.

Before you install a backflow prevention device:

- 1. Get your hydraulic consultant or plumber to check the available water pressure versus the property's required pressure and flow requirements.
- Conduct a site assessment to confirm the hazard rating of the property and its services. Contact PIAS at NSW Fair Trading on 1300 889 099.

For installation you will need to engage a licensed plumber with backflow accreditation who can be found on the Sydney Water website:

http://www.sydneywater.com.au/Plumbing/BackflowPrevention/

# **Water Efficiency Recommendations**

Water is our most precious resource and every customer can play a role in its conservation. By working together with Sydney Water, business customers are able to reduce their water consumption. This will help your business save money, improve productivity and protect the environment.

Some water efficiency measures that can be easily implemented in your business are:

- Install water efficiency fixtures to help increase your water efficiency, refer to WELS (Water Efficiency Labelling and Standards (WELS) Scheme, <a href="http://www.waterrating.gov.au/">http://www.waterrating.gov.au/</a>
- Consider installing rainwater tanks to capture rainwater runoff, and reusing it, where cost effective. Refer to <a href="http://www.sydneywater.com.au/Water4Life/InYourBusiness/RWTCalculator.cfm">http://www.sydneywater.com.au/Water4Life/InYourBusiness/RWTCalculator.cfm</a>
- Install water-monitoring devices on your meter to identify water usage patterns and leaks.
- Develop a water efficiency plan for your business.

It is cheaper to install water efficiency appliances while you are developing than retrofitting them later.

### **Contingency Plan Recommendations**

Under Sydney Water's <u>customer contract</u> Sydney Water aims to provide Business Customers with a continuous supply of clean water at a minimum pressure of 15meters head at the main tap. This is equivalent to 146.8kpa or 21.29psi to meet reasonable business usage needs.

Sometimes Sydney Water may need to interrupt, postpone or limit the supply of water services to your property for maintenance or other reasons. These interruptions can be planned or unplanned.

Water supply is critical to some businesses and Sydney Water will treat vulnerable customers, such as hospitals, as a high priority.

Have you thought about a **contingency plan** for your business? Your Business Customer Representative will help you to develop a plan that is tailored to your business and minimises productivity losses in the event of a water service disruption.

For further information please visit the Sydney Water website at: <a href="http://www.sydneywater.com.au/OurSystemsandOperations/TradeWaste/">http://www.sydneywater.com.au/OurSystemsandOperations/TradeWaste/</a> or contact Business Customer Services on **1300 985 227** or <a href="mailto:businesscustomers@sydneywater.com.au">businesscustomers@sydneywater.com.au</a>

## Fire Fighting

Definition of fire fighting systems is the responsibility of the developer and is not part of the Section 73 process. It is recommended that a consultant should advise the developer regarding the fire fighting flow of the development and the ability of our system to provide that flow in an emergency. Sydney Water's Operating Licence directs that our mains are only required to provide domestic supply at a minimum pressure of 15 m head.

A report supplying modelled pressures called the Statement of Available pressure can be purchased through <a href="Sydney Water Tap in">Sydney Water Tap in</a> TM and may be of some assistance when defining the fire fighting system. The Statement of Available pressure may advise flow limits that relate to system capacity or diameter of the main and pressure limits according to pressure management initiatives. If mains are required for fire fighting purposes, the mains shall be arranged through the water main extension process and not the Section 73 process.

## **Large Water Service Connection**

A water main are available to provide your development with a domestic supply. The size of your development means that you will need a connection larger than the standard domestic 20 mm size.

To get approval for your connection, you will need to lodge an application with <u>Sydney Water Tap</u> <u>in TM</u>. You, or your hydraulic consultant, may need to supply the following:

- a plan of the hydraulic layout
- a list of all the fixtures/fittings within the property
- a copy of the fireflow pressure inquiry issued by us
- a pump application form (if a pump is required)
- all pump details (if a pump is required).

You'll have to pay an application fee.

We don't consider whether a water main is adequate for fire fighting purposes for your development. We can't guarantee that this water supply will meet your Council's fire fighting requirements. The Council and your hydraulic consultant can help.

## **Disused Water Service Sealing**

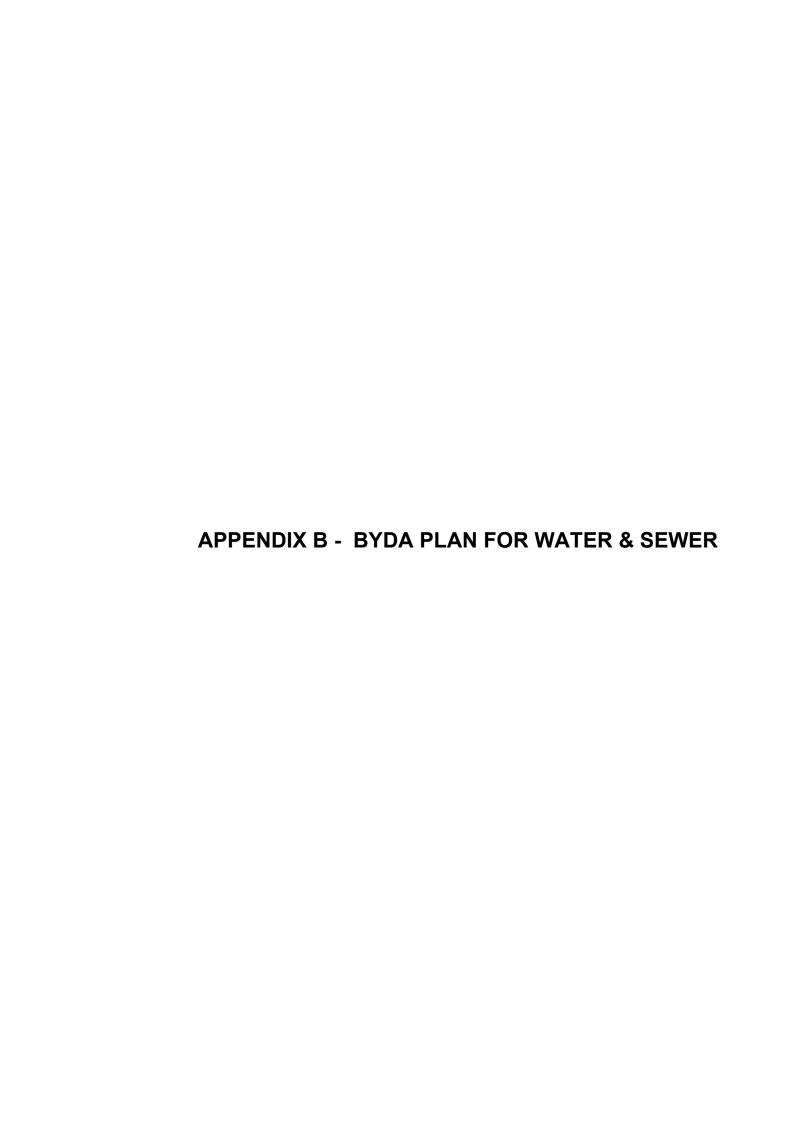
You must pay to disconnect all disused private water services and seal them at the point of connection to our water main. This work must meet our standards in the Plumbing Code of Australia (the Code) and be done by a licensed plumber. The licensed plumber must arrange for an inspection of the work by a NSW Fair Trading Plumbing Inspection Assurance Services (PIAS) officer. After that officer has looked at the work, the drainer can issue the Certificate of Compliance. The Code requires this.

### Other fees and requirements

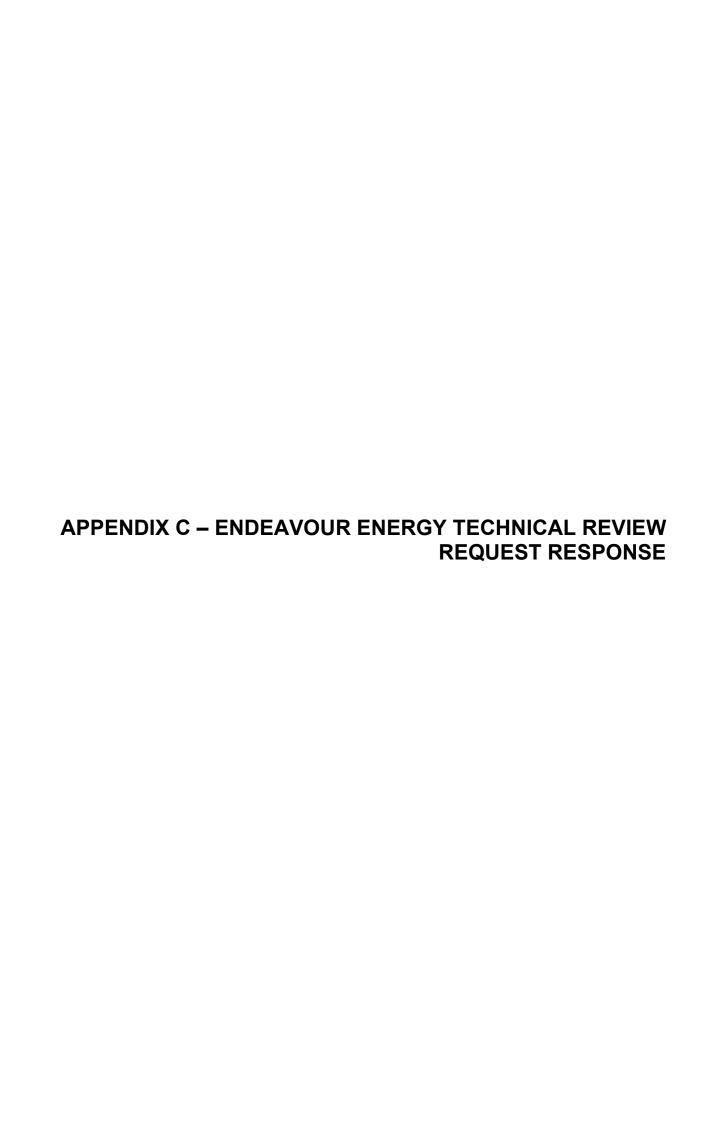
The requirements in this Notice relate to your Certificate application only. We may be involved with other aspects of your development and there may be other fees or requirements. These include:

- plumbing and drainage inspection costs
- the installation of backflow prevention devices;
- trade waste requirements
- large water connections and
- council firefighting requirements. (It will help you to know what the firefighting requirements are for your development as soon as possible. Your hydraulic consultant can help you here.)

No warranties or assurances can be given about the suitability of this document or any of its provisions for any specific transaction. It does not constitute an approval from us and to the extent that it is able, we limit its liability to the reissue of this Letter or the return of your application fee. You should rely on your own independent professional advice.







28 November 2022

**Endeavour Energy Ref: ENL4544** 



Power Line Design Pty Ltd PO BOX 338 MITTAGONG NSW 2575

**Attention: Laurence McKinnon** 

#### **CONNECTION OFFER - STANDARD CONNECTION SERVICE**

ENL4544 – LOT 2,5080, DP 1213272,1008602, Connection of Load Application: 4 Century Circuit, NORWEST

Thank you for your application providing information of the proposed development at the above location. Your application has been registered under the above reference number. Please quote this reference number on all future correspondence. Below are the requirement from capacity planner for the site.

"As no m2 of office space was given in the enquiry, I used information from the Indicative Yield Schedule (see below screenshot) to estimate the total load.

RETAIL	19,800.0
COMMERCIAL/ NON RESIDENTIAL	89,717.5
RESIDENTIAL	90,486.8

Summing together all the "Office" loads in the Indicative Yield Schedule document, the total m2 is 89,294m2 with 85% 'efficiency' for a final m2 of 75,900m2. Assuming this has now been increased to 110,000m2 with the same efficiency of 85% for a final m2 of 93,500m2, I have updated the "Commercial/Non-residential" value from 89,717.5m2 to 107,317.6m2.

In addition my apologies but I found an error in my initial calculation which has also increased the expected maximum demand.

With both of the above factors, the site's maximum demand is now expected to be **8.5MVA**. Feeder 49382 will have 3.5MVA of spare capacity assuming all existing load on the site is removed. There are 3 nearby feeders 49397, 49321 and S330 which may be extended to the site to supply the development. Altogether, the 4 feeders currently have 9.7MVA of capacity.

However if this capacity is taken up by other applications or the applicant requires more load, there may not be sufficient capacity from nearby feeders to supply this development. Depending on the remaining capacity and size of load, they may need to extend existing feeders from some distance away or run a new feeder from Bella Vista ZS approximately 2.2km away. Note that 1 feeder has 4.5MVA of capacity."

51 Huntingwood Drive, Huntingwood, NSW 2148 PO Box 811, Seven Hills, NSW 1730 T: 133 718

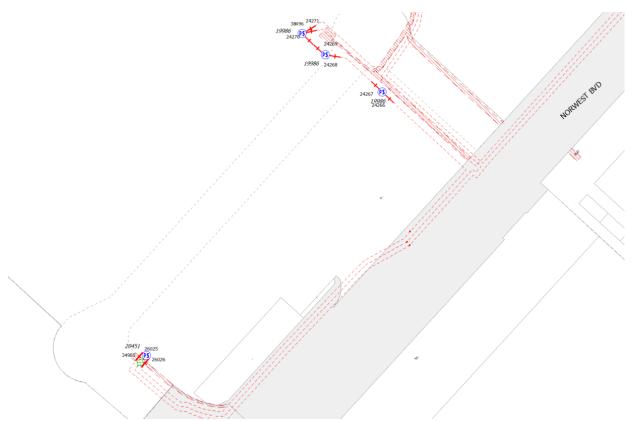
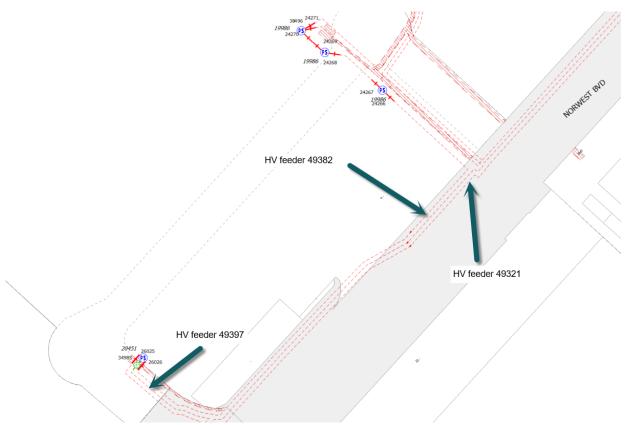


Figure 1: Screen shots from GIS showing the HV network near the site.



**Figure 2:** Screen shots from GIS showing the HV feeders from which supply is available for the site.



Figure 3: Screen shot from google earthing showing existing HV network near the site.

Based on current development in the area there is spare capacity in the HV network near the site as mentioned above.

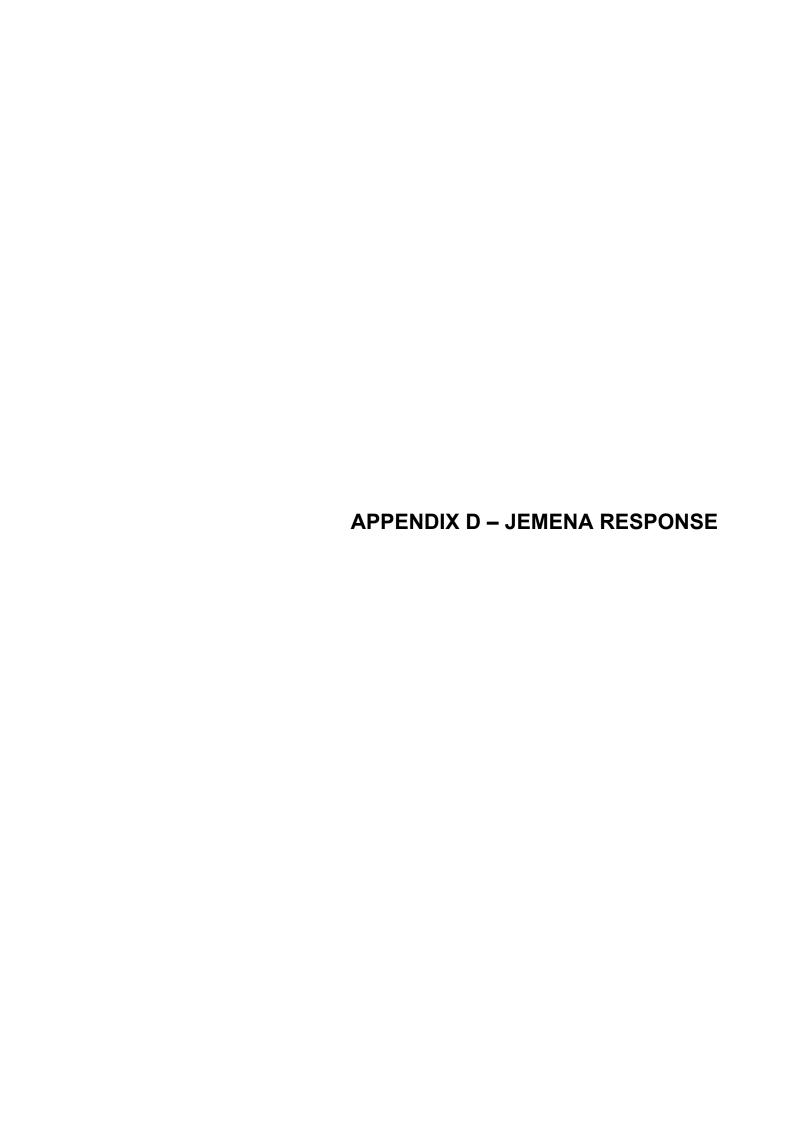
Should you have any enquiries regarding your application please contact the undersigned.

Yours faithfully,

Waheed Ebrahimi Customer Network Engineer

Ph: 02 9853 5643

Email: CWTech@endeavourenergy.com.au



15 November 2022



J Wyndam Prince P/L 580 High St PENRITH NSW 2750 Attn. K. Songberg

Dear Kevin

Jemena Limited ABN 95 052 167 405

Level 9-15 99 Walker St North Sydney NSW 2060 PO Box 1220 North Sydney NSW 2060 T +61 2 9867 7000 F +61 2 9867 7010 www.jemena.com.au

#### RE: PROPOSED DEVELOPMENT OF NORWEST MARKETOWN

Natural Gas is available to the above subdivision and could be extended to supply any proposed development at this site depending upon its commercial viability. Jemena does not reserve capacity for any individual project.

Medium pressure 210kPa Natural Gas infrastructure exists in Norwest Blvd, directly adjacent to the proposed site between both Century Cct intersections. It cannot be determined at this point in time if suitable capacity is available until known gas loads are nominated. Jemena is aware that Mulpha do not intend to utilise Natural Gas on the residential component of this site.

We appreciate the opportunity to be involved in the forward planning of this development and would like to pursue the potential for the connection to the natural gas network. An offer for supply could be made available once Staging and construction is imminent.

Caution should be exercised when carrying out any road works that may expose the Natural Gas mains existing in this location. Contact Dial B4 you Dig, ph 1100 to confirm their location.

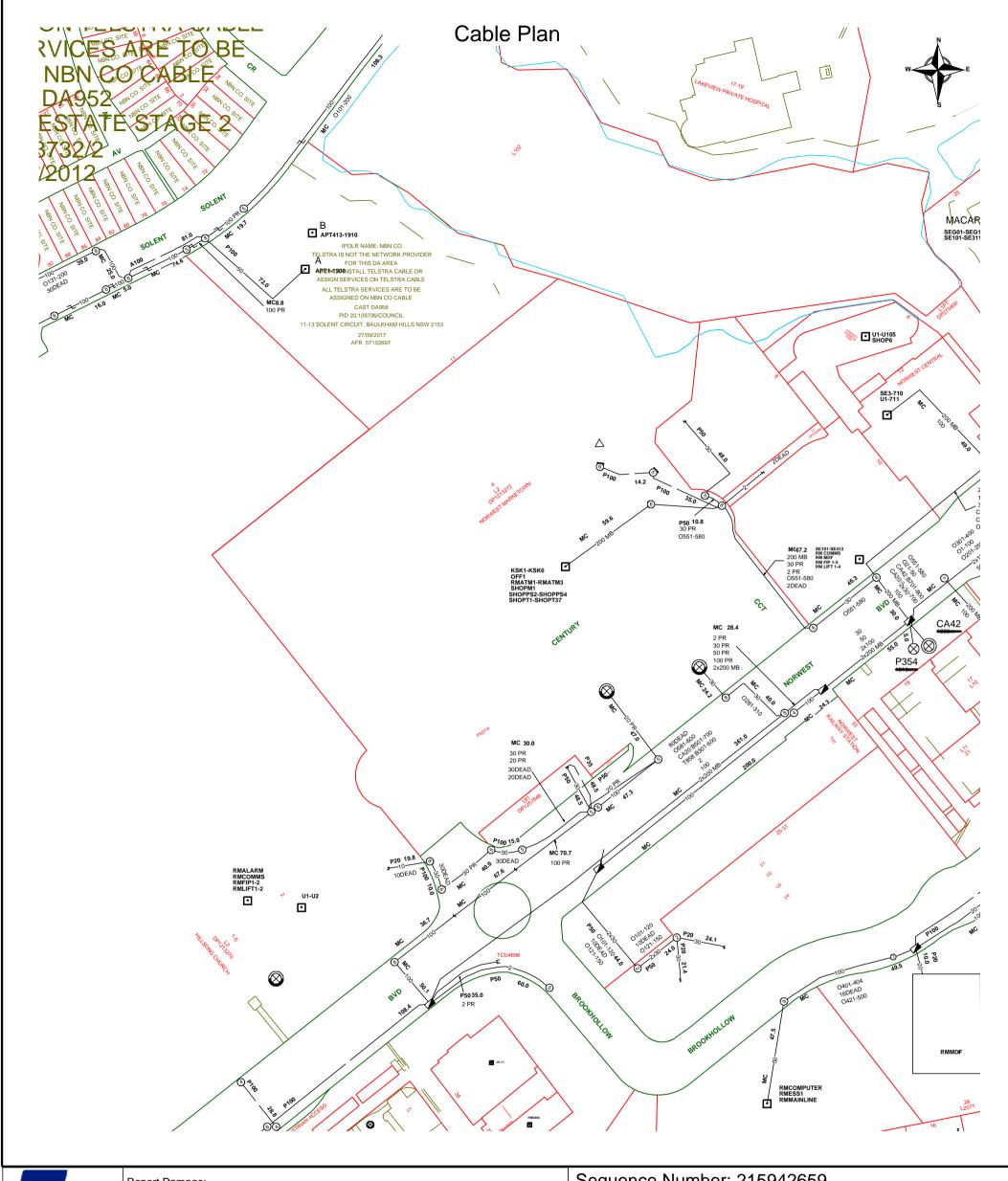
Thank you for your inquiry. If further information or assistance is required, please do not hesitate to contact me on 0402 060 151.

Yours faithfully,

Neale Hillon

Neale Hilton Network Development Specialist





Report Damage: https://service.telstra.com.au/customer/general/forms/report-damage-to-telstra-equipm

Ph - 13 22 03

Email - Telstra.Plans@team.telstra.com

Planned Services - ph 1800 653 935 (AEST bus hrs only) General Enquiries

TELSTRA CORPORATION LIMITED A.C.N. 051 775 556

Generated On 14/09/2022 06:51:33

Sequence Number: 215942659

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

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

# **WARNING**

Telstra plans and location information conform to Quality Level "D" of the Australian Standard AS 5488-Classification of Subsurface Utility Information.

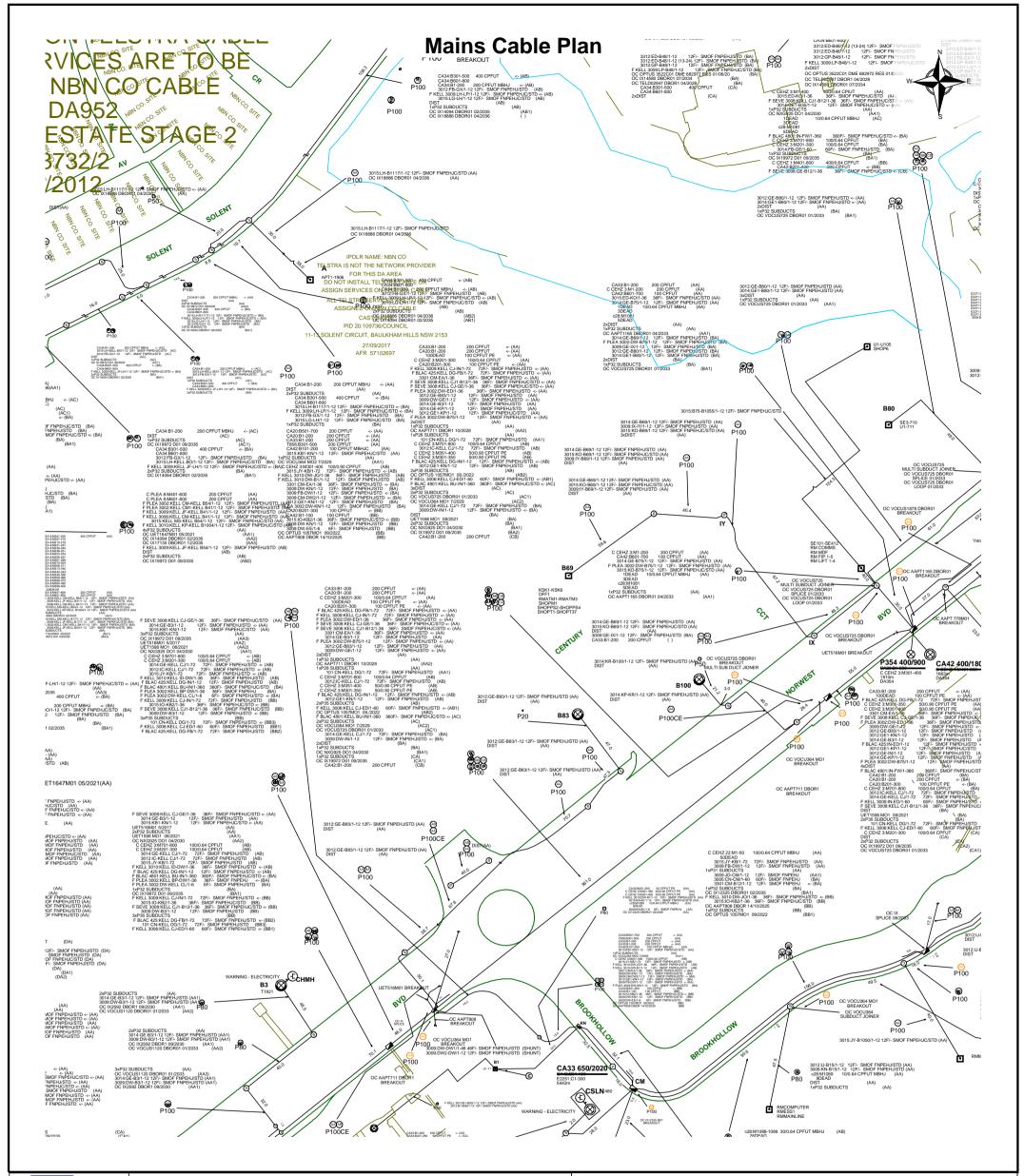
As such, Telstra supplied location information is indicative only. Spatial accuracy is not applicable to Quality Level D.

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

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

Further on site investigation is required to validate the exact location of Telstra plant prior to commencing construction work. A Certified Locating Organisation is an essential part of the process to validate the exact location of Telstra assets and to ensure the asset is protected during construction works.

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





Report Damage: https://service.telstra.com.au/customer/general/forms/report-damage-to-telstra-equipment Damage Ph - 13 22 03

Email - Telstra.Plans@team.telstra.com

Planned Services - ph 1800 653 935 (AEST bus hrs only) General Enquiries

TELSTRA CORPORATION LIMITED A.C.N. 051 775 556

Generated On 14/09/2022 06:51:39

Sequence Number: 215942659

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

# **WARNING**

Telstra plans and location information conform to Quality Level "D" of the Australian Standard AS 5488-Classification of Subsurface Utility Information.

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