



# INFRASTRUCTURE DELIVERY, MANAGEMENT AND STAGING PLAN

221-291 Crown Street, 216-238 Keira Street & 86-90 Burelli Street, Wollongong

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Date 2025-07-31 - Revision 02

# INTRODUCTION

This Service Infrastructure Report prepared by Neuron on behalf of Wollongong Developments No.8 Pty Ltd ('the Applicant') supports a State Significant Development Application (SSDA) for an Infill Affordable Housing Development, SSD-76440958, for the site at 221-291 Crown Street, 216-238 Keira Street and 86-90 Burelli Street, Wollongong (the site).

Specifically, consent is sought for the following development in this SSDA:

- Demolition of existing structures on the site, retention of heritage facades, tree removal and site excavation for new basement.
- Construction of a new mixed-use development consisting of:
  - o Four residential towers, ranging from 16 to 38 storeys and comprising 546 apartments including:
    - Approx. 414 market apartments.
    - Approx. 132 affordable apartments.
    - Residential lobbies and podium.
    - Communal open space.
  - o A 10-storey commercial office building, an 8-storey hotel comprising 166 rooms, and numerous retail tenancies (including a supermarket) consisting of:
    - 10,009 sqm of commercial GFA.
    - 8,793 sqm of hotel GFA.
    - 3,781 sqm of retail GFA.
    - 1,510 sqm of retail supermarket GFA
- Car, motorcycle and bicycle parking for residents, workers and visitors across two basement levels, mezzanine, lower ground and levels 1 and 2 including:
  - o 774 car parking spaces, including:
    - 547 residential spaces (including accessible spaces).
    - 49 residential visitor spaces.
    - 63 commercial/retail/residential visitor spaces.
    - 25 commercial/retail (staff) spaces.
    - 10 hotel (staff only) spaces.
    - 80 retail (supermarket) spaces.
  - o Five (5) loading bays.
  - o 320 bicycle parking spaces.
  - o 47 motorcycle parking spaces.
- New public open space including a new public plaza.
- Associated landscaping and public domain works.

# INTRODUCTION

This report has been prepared to respond to the Secretary’s Environmental Assessment Requirements (SEARS) dated 8 October 2024 for SSD-76440958. Specifically, this report has been prepared to respond to those SEARS summarised in the table below.

## Background

An existing consent approved on 12 December 2022 (DA-2021/957) applies to the site. The consent was granted for the demolition of existing structures, retention of heritage facades, tree removal, excavation for basement car parking and construction of a mixed-use development at the street block bound by Crown, Keira, Burelli and Atchison Streets, comprising three (3) residential towers (shop top housing), one (1) commercial building, retail shops, entertainment facilities (cinema, exhibition/performance space) and a wellness centre (pool, gym, and health services).

## Secretary’s Environmental Assessment Requirements

This report has been prepared to respond to the Secretary’s Environmental Assessment Requirements (SEARS) dated 8 October 2024 for SSD-76440958. Specifically, this report has been prepared to respond to those SEARS summarised in the table below.

Table 1 - SEARs Requirements

| SEARs Item                                | Issue and Assessment Requirement                                                                                                                                                                                                          | Document                                             | Section of this report which responds to the SEARs requirement |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|----------------------------------------------------------------|
| Infrastructure Requirements and Utilities | <b>In consultation with relevant service providers:</b> <ul style="list-style-type: none"><li>Assess the impacts of the development on existing utility infrastructure and service provider assets surrounding the site.</li></ul>        | Infrastructure Delivery, Management and Staging Plan | Building Connections - All                                     |
|                                           | <ul style="list-style-type: none"><li>Identify any infrastructure required on-site and off-site to facilitate the development and any arrangements to ensure that the upgrades will be implemented on time and be maintained</li></ul>    | Infrastructure Delivery, Management and Staging Plan | Building Connections - All                                     |
|                                           | <ul style="list-style-type: none"><li>Provide an infrastructure delivery and staging plan, including a description of how infrastructure requirements would be coordinated, funded and delivered to facilitate the development.</li></ul> | Infrastructure Delivery, Management and Staging Plan | Staging Implications                                           |

- > POWER
- > COMMS
- > GAS
- > WATER
- > SEWER

# SITE OVERVIEW

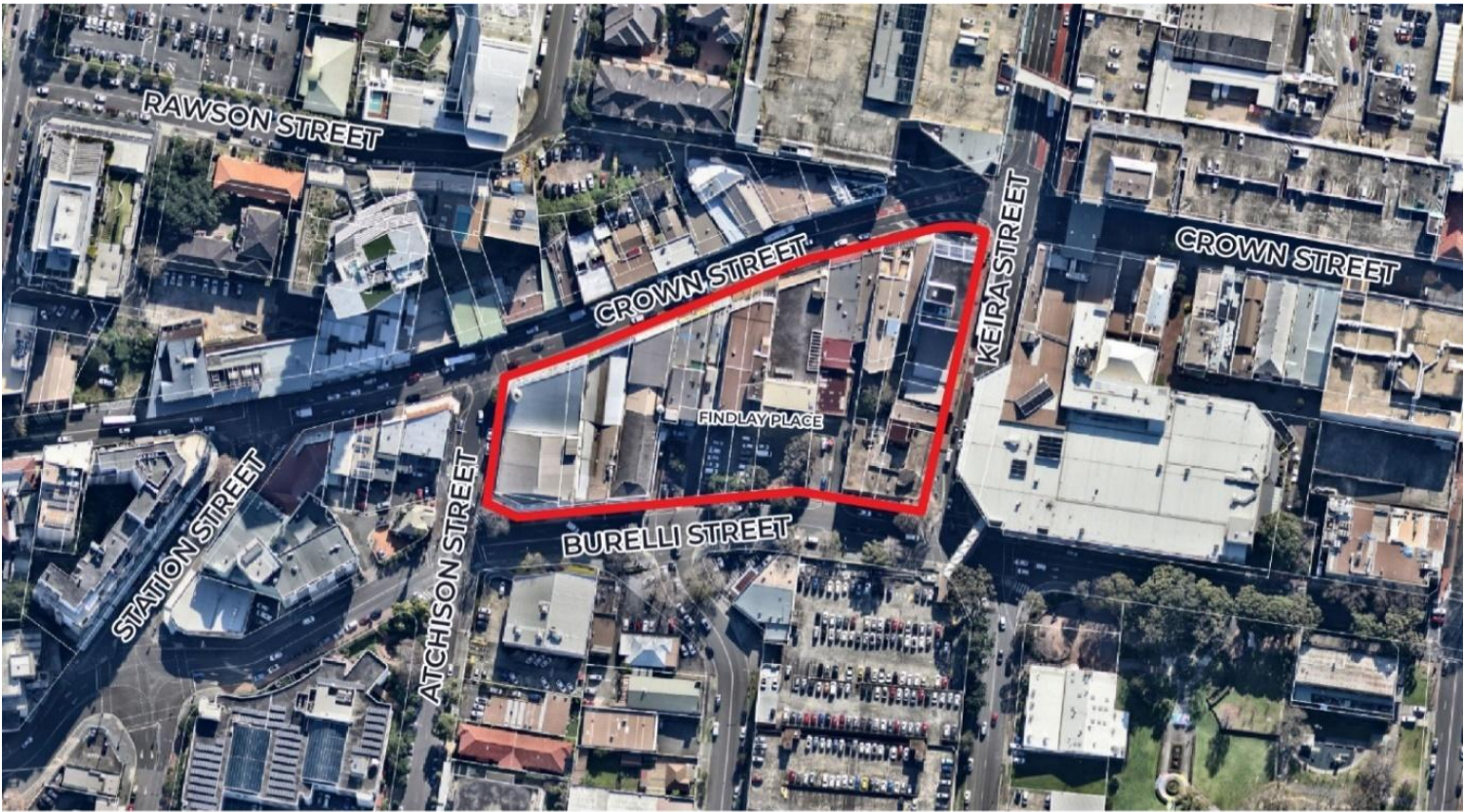
The site is situated at 221-291 Crown Street, 216-238 Keira Street and 86-90 Burelli Street, Wollongong, within the Wollongong Local Government Area (LGA).

The site forms part of the Wollongong City Centre Precinct, as identified in the Wollongong Local Environmental Plan 2009 (WLEP). It is well located, being approximately 280m from Wollongong Train Station which provides services within Wollongong and to the Sydney CBD. It is adjacent to Wollongong Central shopping centre, a major regional retail hub. The site has ample access to public open space being less than 50m from MacCabe Park.

The site comprises a significant landholding of approximately 13,088m2 with frontages to Crown Street, Keira Street, Burelli Street and Atchison Street. The site is owned by Wollongong Developments No.8 Pty Ltd

An aerial of the site is shown in Figure 1.

The site area and legal description is recorded in Table 2.



 The Site

 NOT TO SCALE

Figure 1 – Site Aerial

Source: Nearmap, edits by Ethos Urban



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# SITE OVERVIEW

Table 2– Site Description

| Legal Description    | Address                |
|----------------------|------------------------|
| Lot 1 in DP 112417   | 216-222 Keira Street   |
| Lot 100 in DP 774957 | 226-230 Keira Street   |
| Lot 9 in DP 551157   | 232-234 Keira Street   |
| Lot 8 in DP 546125   | 236-238 Keira Street   |
| Lot 1 in DP 88455    | 86 Burelli Street      |
| Lot 4 in DP 17979    |                        |
| Lot 5 in DP 17979    |                        |
| Lot B in DP 395330   | 90 Burelli Street      |
| Lot 1 in DP 220513   | 221-229 Crown Street   |
| Lot 3 in DP 17979    | 231 Crown Street       |
| Lot 2 in DP 17979    | 233-235 Crown Street   |
| Lot 1 in DP 17979    |                        |
| Lot 7 in DP 878243   | 237-241 Crown Street   |
| Lot 1 in DP 1135333  | 243-251 Crown Street   |
| Lot 1 in DP 226374   | 253-259 Crown Street   |
| Lot 1 in DP 183348   |                        |
| Lot 2 in DP 226374   |                        |
| Lot 3 in DP 319452   | 261 Crown Street       |
| Lot 2 in DP 319452   | 269-271 Crown Street   |
| Lot 1 in DP 319452   |                        |
| Lot 2 in DP 181570   | 273-279 Crown Street   |
| Lot 1 in DP 1116034  |                        |
| Lot 1 in DP 82673    | 281-291 Crown Street   |
| Lot 1 in DP 117019   |                        |
| Lot 1 in DP 927806   | 281-291 Burelli Street |
| Lot 1 in DP 1198873  |                        |
| Lot 1 in DP 1087986  |                        |

# STAGING IMPLICATIONS

The site will be built in two stages. From a utilities connection perspective, the building power, water, communications & sewer will all be constructed at the same time. This will include all relevant infrastructure, such as substation, meters, fire pumps and the like.

From a program perspective, the proposed development and provisioning for the required utilities has three stages to consider - applications, design and construction. These need to be carefully developed in order to meet the overall development programme.

## Decommissioning the existing utilities

Decommission of existing services on the site in preparation for excavation.

- Power: Application to Endeavour as part of the overall substation application process in conjunction with a Level 3 ASP. Decommission of existing substation to be completed once temporary/permanent substation built. Existing easements to be extinguished to allow existing infrastructure to be relocated or decommissioned.
- Communications: As part of the early works DA, the existing Telstra & Optus connections to the site will be decommissioned to ensure a clear site.
- Gas: As part of the early works DA, the existing gas main running through the site will be decommissioned to ensure a clear site.
- Water: Sydney Water Tapin application to disconnect water (or modify for construction purposes)
- Sewer: Sydney Water Tapin application to disconnect sewer (or modify for construction purposes)

## Early works utility modifications

To allow the early works of shoring and excavation the following scope is being considered;

- Power: HV Feeder extended to the preferred location on site. Substations to be designed by an Level 3 ASP
- Communications : Chosen fibre/s to be extended to the site.
- Gas: Application to Jemena. Gas main extended to the site.
- Water Supply: New water main/amplification extended to the site.
- Sewer: Review detailed sewer analysis with Sydney Water to confirm final connection locations and any requirement for the amplification of a sewer main to the site

## Utility works for the Proposed development

Refer to the subsequent sections of this report for details.

- Power: Builders supply likely to be partially fed from temporary substation arrangement. Any shortfalls to be fed from nearby substations. New substation arrangement to be built
- Communications: Telstra, NBN or Optus adjacent to the site.
- Gas: If required connection to adjacent gas main.
- Water supply: Finalised Section 73 application with proposed connection to the adjacent water main.
- Sewer: Finalised Section 73 Application with confirmation of sewer connection as per early works statement.

# STAGING IMPLICATIONS

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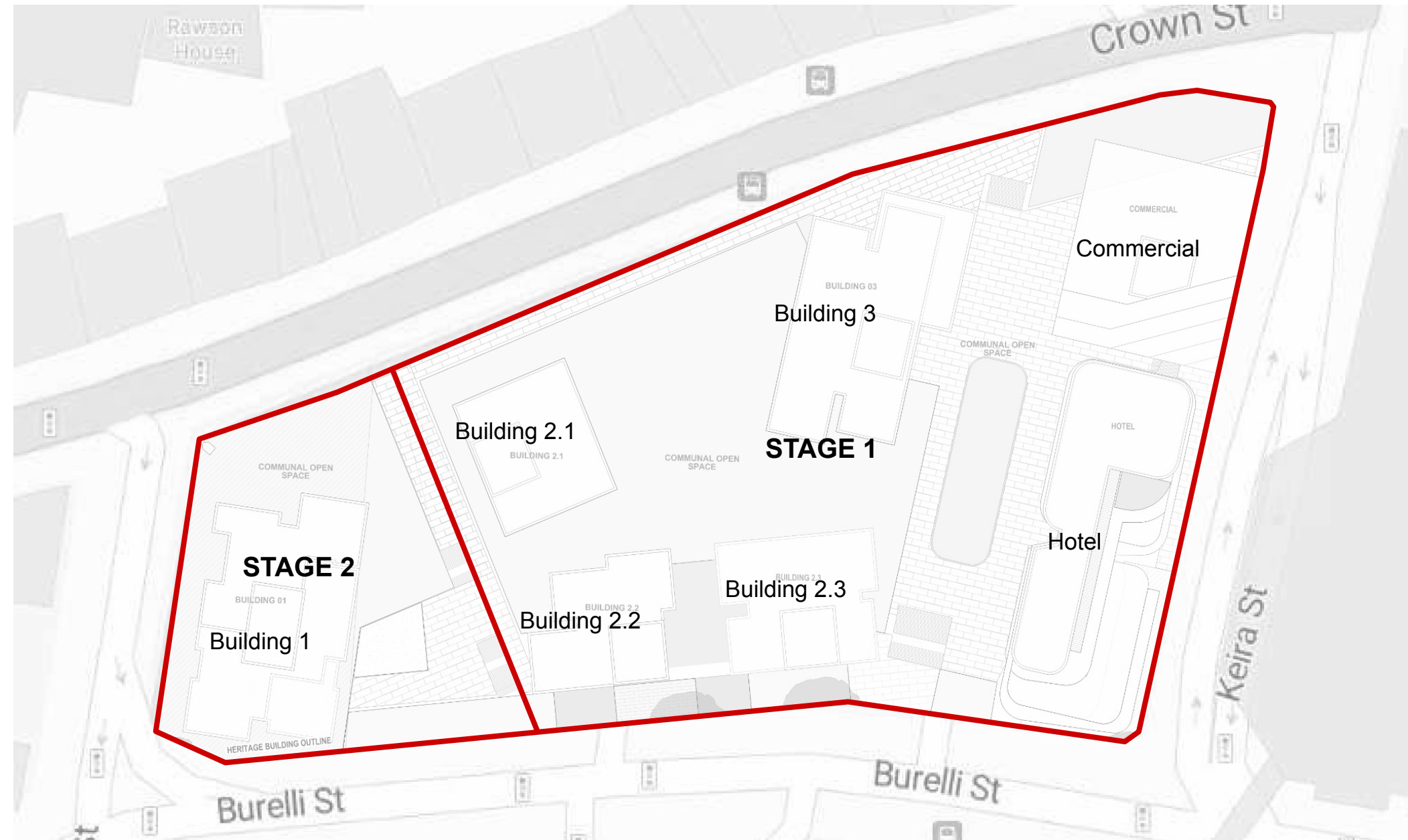


Figure 2 – Site Staging

- > POWER
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# ELECTRICAL INFRASTRUCTURE

## EXISTING POWER INFRASTRUCTURE

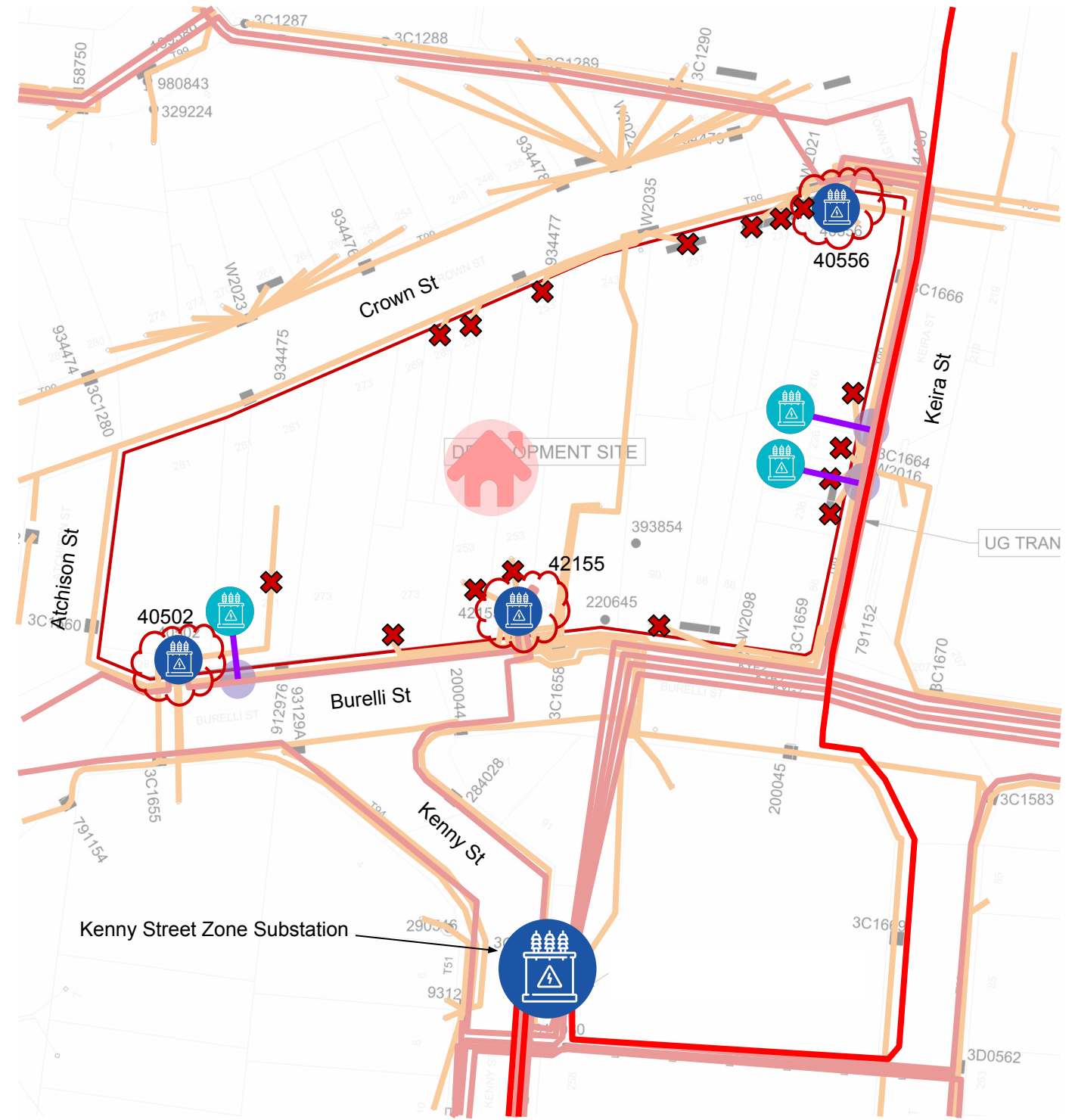
The Endeavour Energy network maps indicate that the nearest High Voltage available for substation connection is along the sites Keira Street and Burelli Street frontage.

There is multiple existing substation on the current site. These chamber substations will need to be decommissioned and removed. An Application to Endeavour Energy will be needed for this decommission.

The loads of these existing substations will be confirmed during subsequent design phases. The staging of the site will allow for efficient changing of power.

The existing substation 40556 on the Crown Street frontage may be used for temporary builders supply, if the location does not clash with the excavation.

We note there is LV cabling running through middle of the site. This connects substation 42155 to 40556 and will be able to be removed prior to construction works.



Power Infrastructure Map

- Below Ground High Voltage Power
- Below Ground Transmission Cable
- Below Ground Low Voltage Power
- Proposed Power Connection Strategy
- Substation
- Proposed Substation
- Development Location

- > POWER
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# ELECTRICAL INFRASTRUCTURE

## PROPOSED ELECTRICAL SERVICES

The preliminary maximum demand for the entire site is 9,934 amps (6,882 kVA).

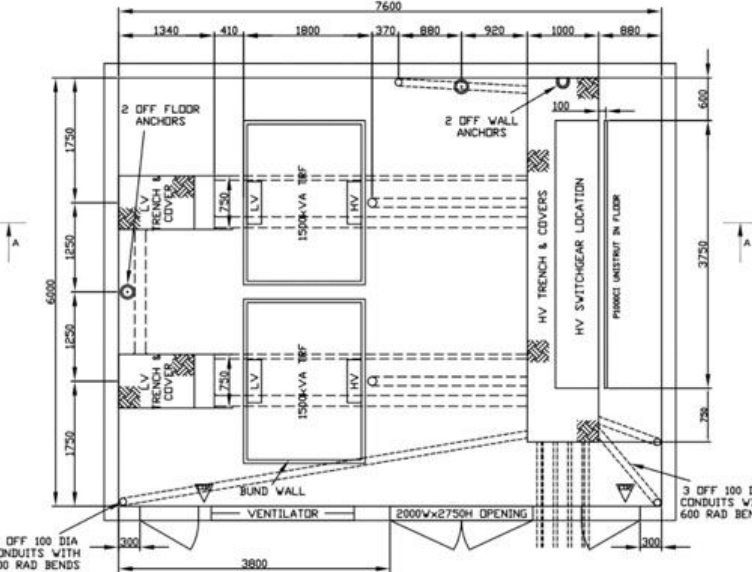
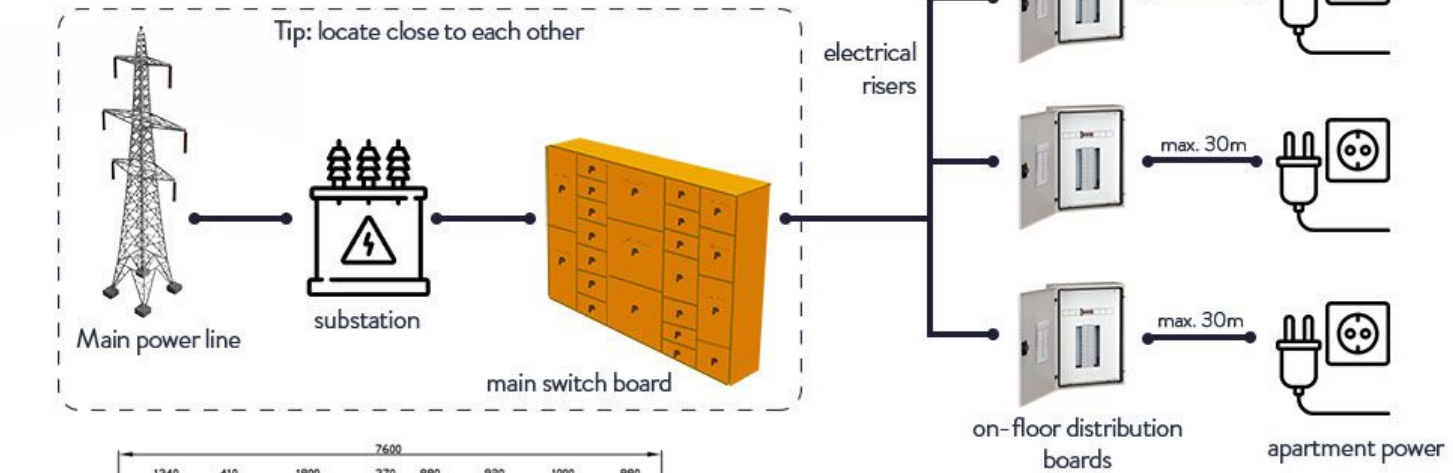
The preliminary maximum demand for stage 1 is 4,927kVA. The preliminary max demand for stage 2 is 1,850kVA.

Stage 1 of the site will likely require two new chamber substations each containing two 1,500kVA transformers. Stage 2 will likely require two mini-chamber substations each containing a 1,000kVA transformer.

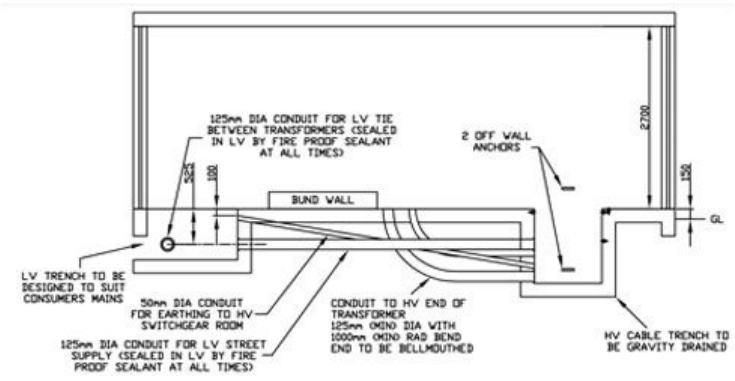
Due to the high maximum demand and the large size of the proposed development, the final substation arrangement will be finalised through the application process.

As part of the next phase of works, an ASP Level 03 will be engaged to begin the detailed design of this substation including consultation with Endeavour Energy.

Electrical infrastructure overview



Chamber substation plan



Chamber substation section



Ventilation louvres on the front of a chamber substation



Inside a chamber substation

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## Mobile base stations

There are no carrier mobile base stations located on this site.



## Mobile Base Station Map



Existing Mobile Base Station



Development Location

# COMMUNICATIONS INFRASTRUCTURE

## AUTHORITY INTERFACE

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## SITE OVERVIEW

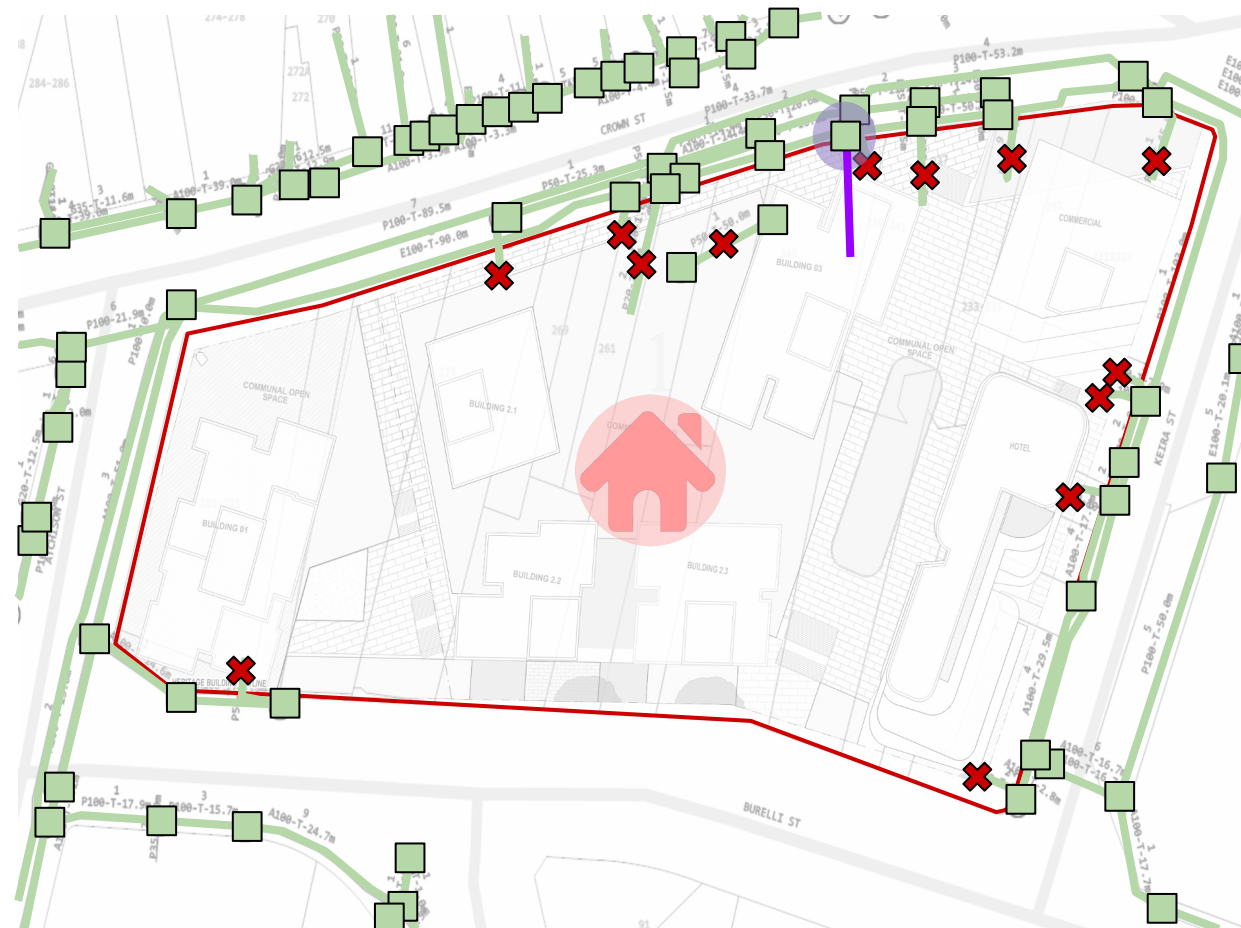
## STAGING IMPLICATIONS

## BUILDING CONNECTIONS

- > POWER
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### NBN

The existing NBN carrier service infrastructure is illustrated below. As shown, there is a connection opportunity available for this site. The existing NBN infrastructure running into the site will need to be removed prior to excavation. Consultation with NBN will be undertaken during the next stage of the project to coordinate the required works.

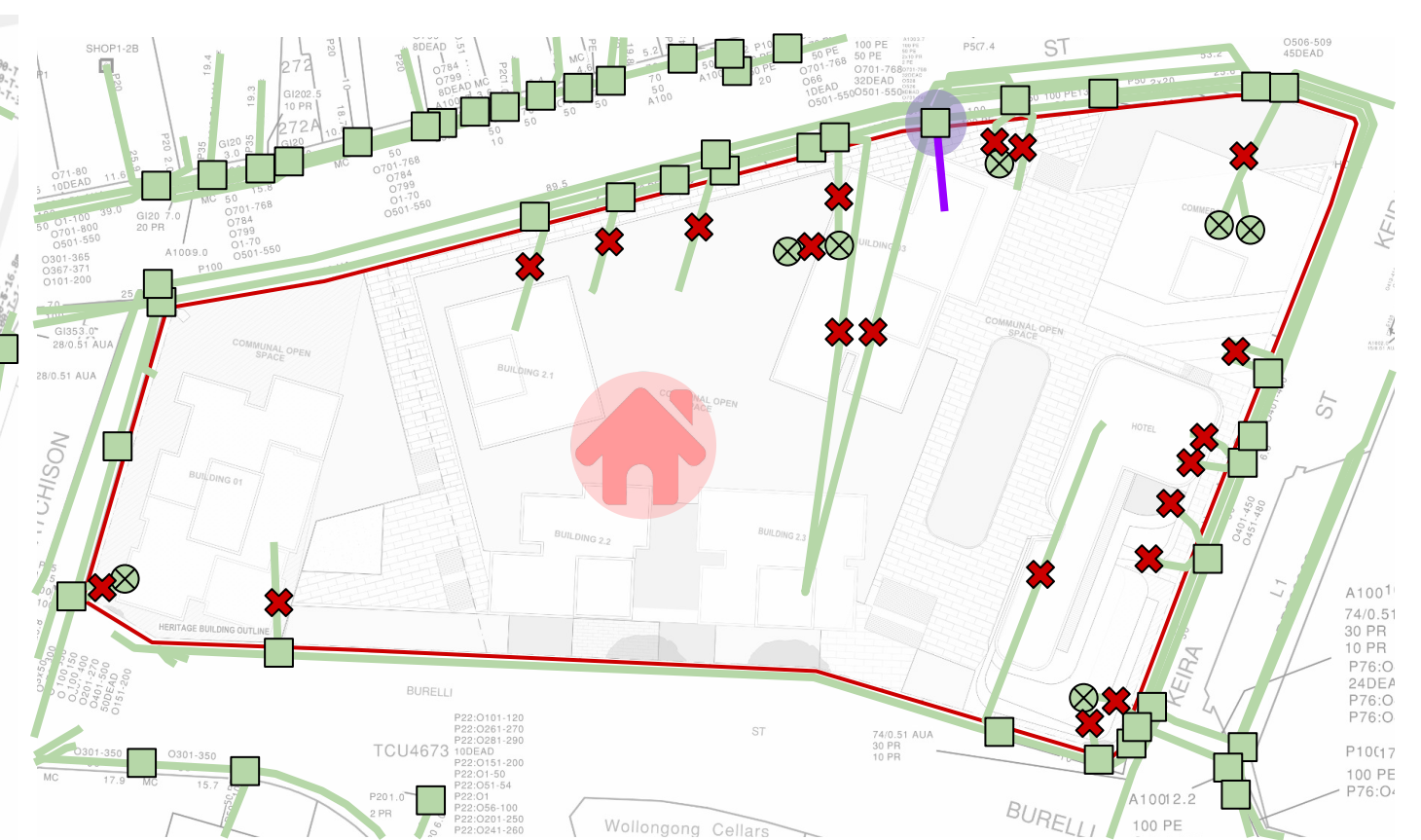


**Fibre Infrastructure Map**

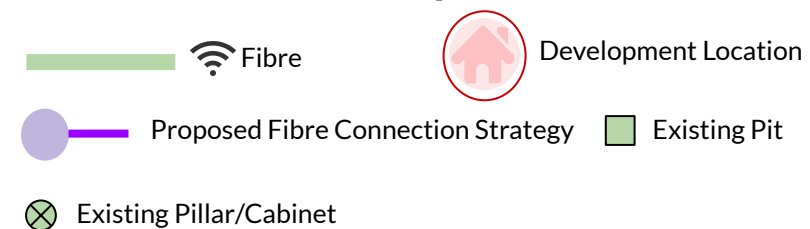


### Telstra

The existing Telstra carrier service infrastructure is illustrated below. As shown, there are connection opportunities available for this site. The existing Telstra infrastructure running into the site will need to be removed prior to excavation. Consultation with Telstra will be undertaken during the next stage of the project to coordinate the required works.



**Fibre Infrastructure Map**



# COMMUNICATIONS INFRASTRUCTURE

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## SITE OVERVIEW

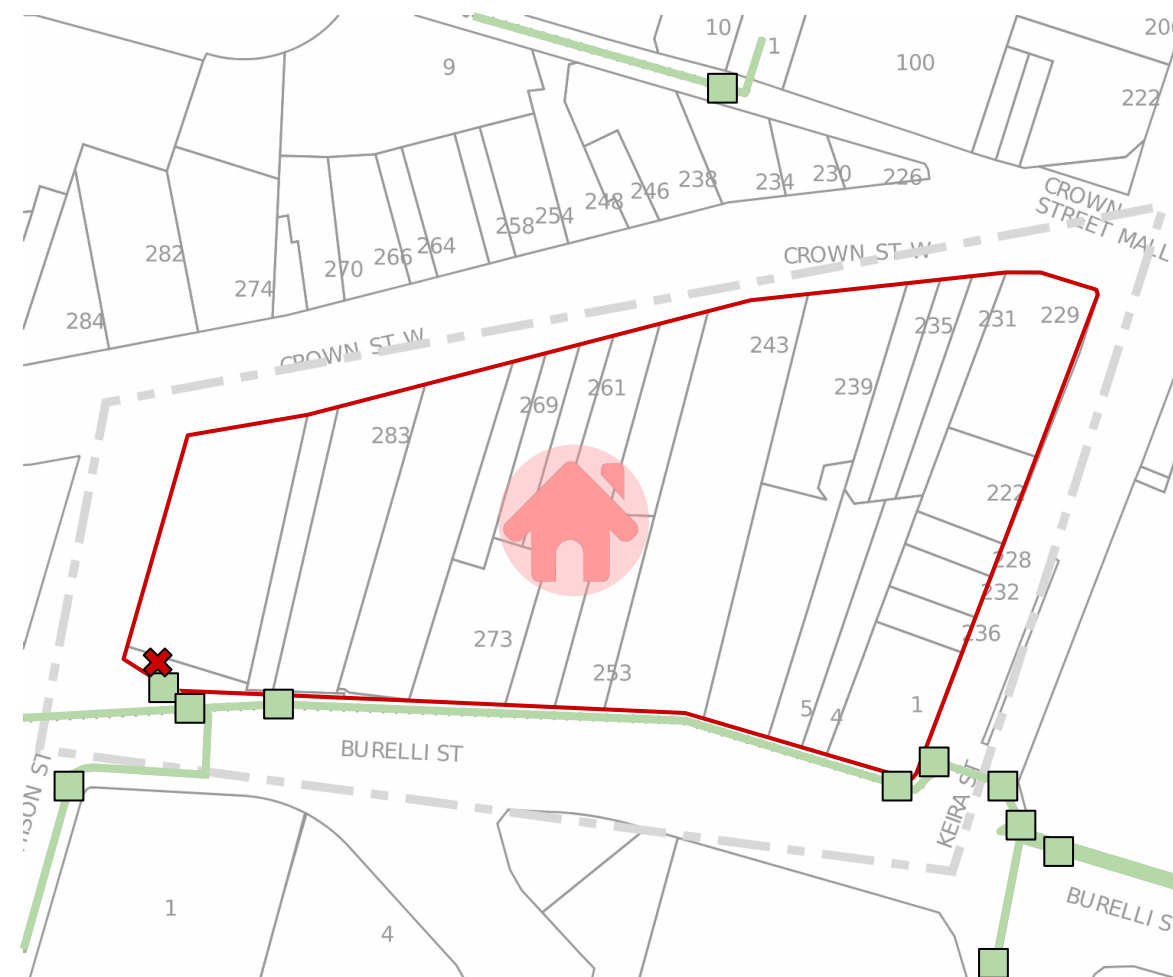
## STAGING IMPLICATIONS

## BUILDING CONNECTIONS

- > POWER
- > COMMS
- > GAS
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### Optus

The existing Optus carrier service infrastructure is illustrated below. The existing Optus infrastructure running into the site will need to be removed prior to excavation. Consultation with Optus will be undertaken during the next stage of the project to coordinate the required works.

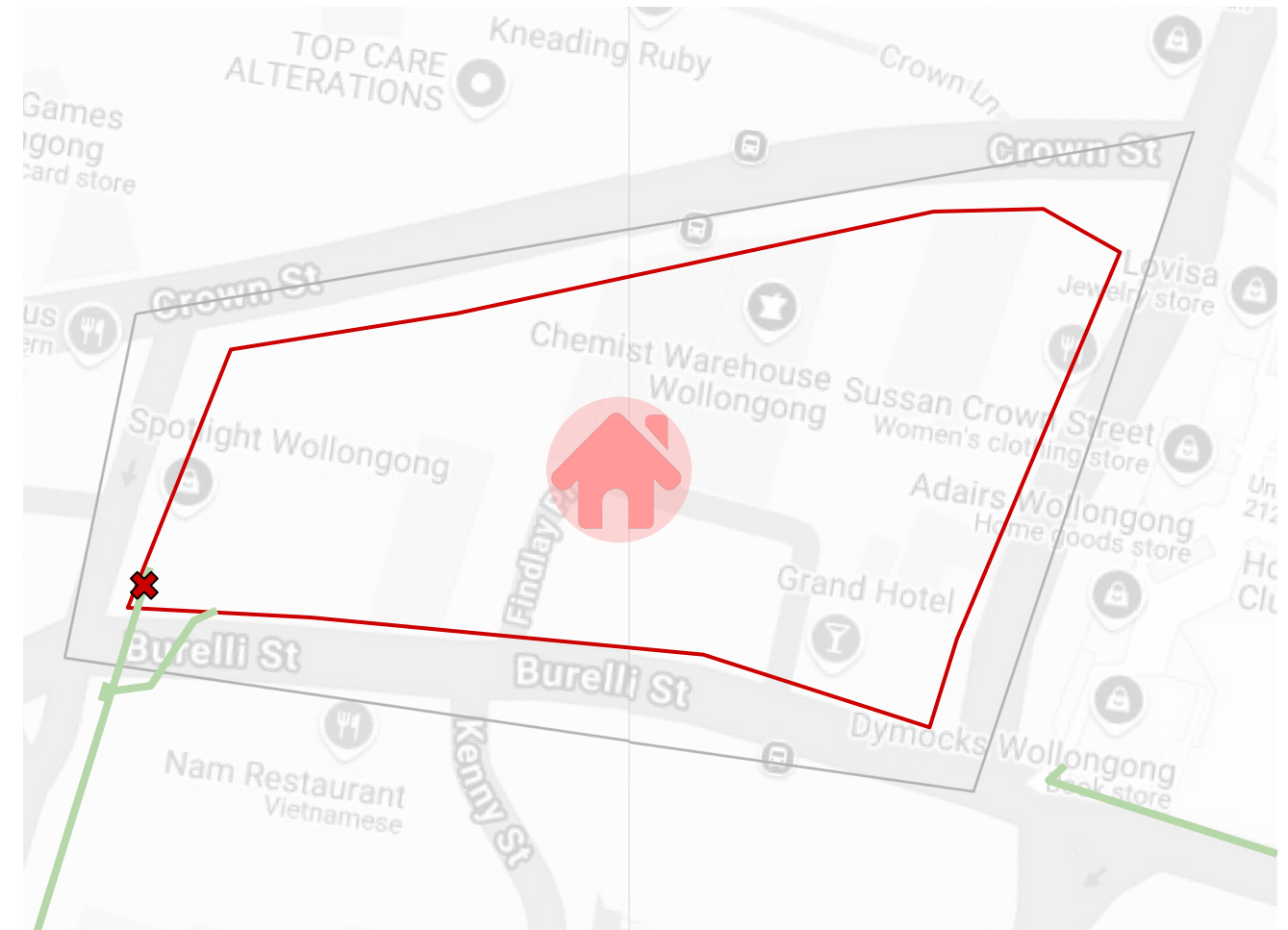


**Fibre Infrastructure Map**



### TPG

The existing TPG carrier service infrastructure is illustrated below. The existing TPG infrastructure running into the site will need to be removed prior to excavation. Consultation with TPG will be undertaken during the next stage of the project to coordinate the required works.



**Fibre Infrastructure Map**



# GAS INFRASTRUCTURE

## AUTHORITY INTERFACE

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## SITE OVERVIEW

## STAGING IMPLICATIONS

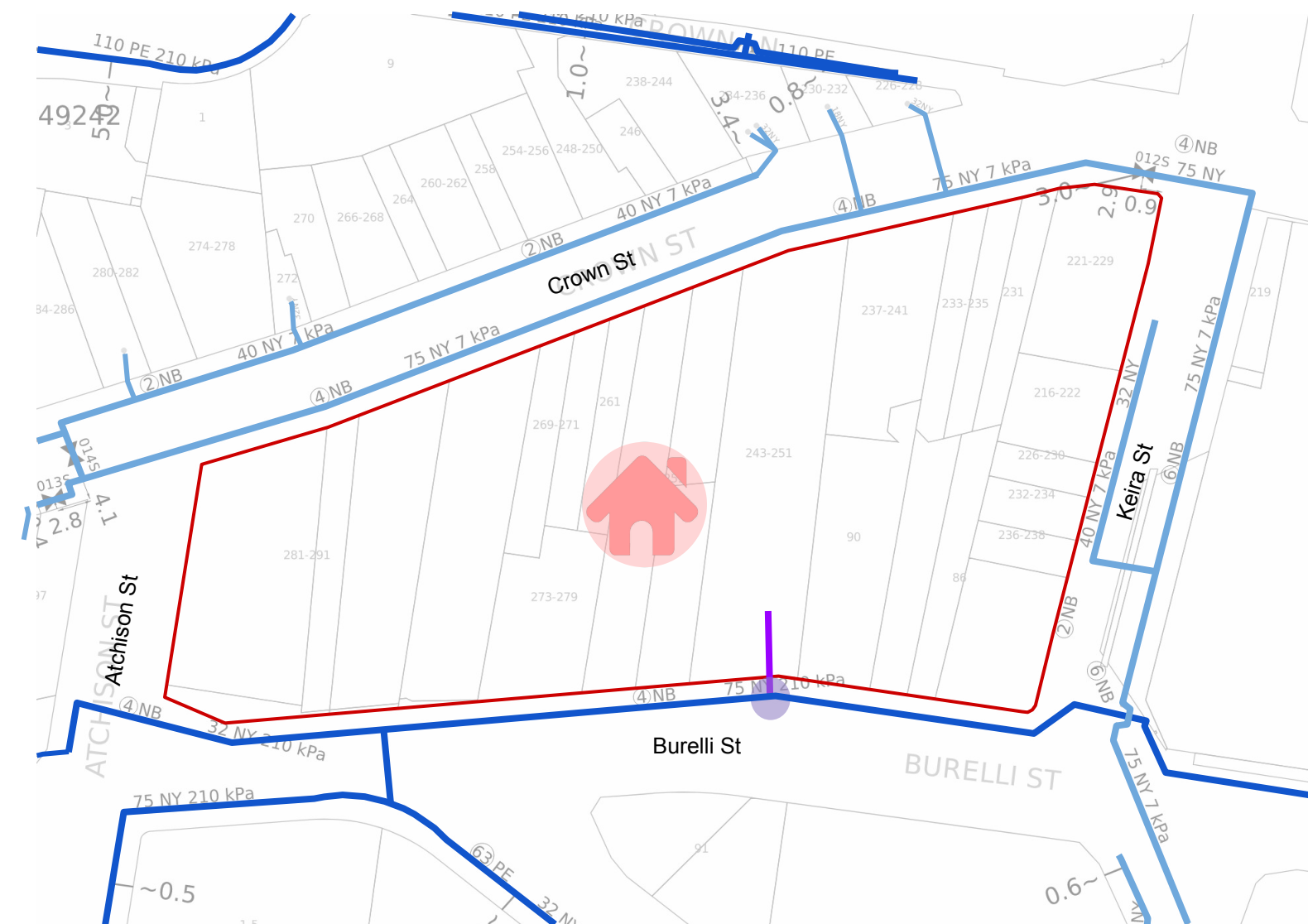
## BUILDING CONNECTIONS

- > POWER
- > COMMS
- > **GAS**
- > WATER
- > SEWER

As illustrated, the dial before you dig investigation reveals that there are an existing medium pressure gas main running adjacent to the proposed development along Burelli Street and low pressure mains close to the site on Crown Street and Keira Street.

If gas is envisioned for the retail spaces, a connection off Burelli Street will be possible. Consultation with Jemena will be undertaken during the next stage of the project to coordinate the required connection works.

No gas-related infrastructure appears to run through this site.



### Gas Infrastructure Map

- Low Pressure Gas Main
- Medium Pressure Gas Main
-  Development Location
-  Proposed Gas Connection Strategy

# WATER INFRASTRUCTURE

## AUTHORITY INTERFACE

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## SITE OVERVIEW

## STAGING IMPLICATIONS

## BUILDING CONNECTIONS

- > POWER
- > COMMS
- > GAS
- > **WATER**
- > SEWER

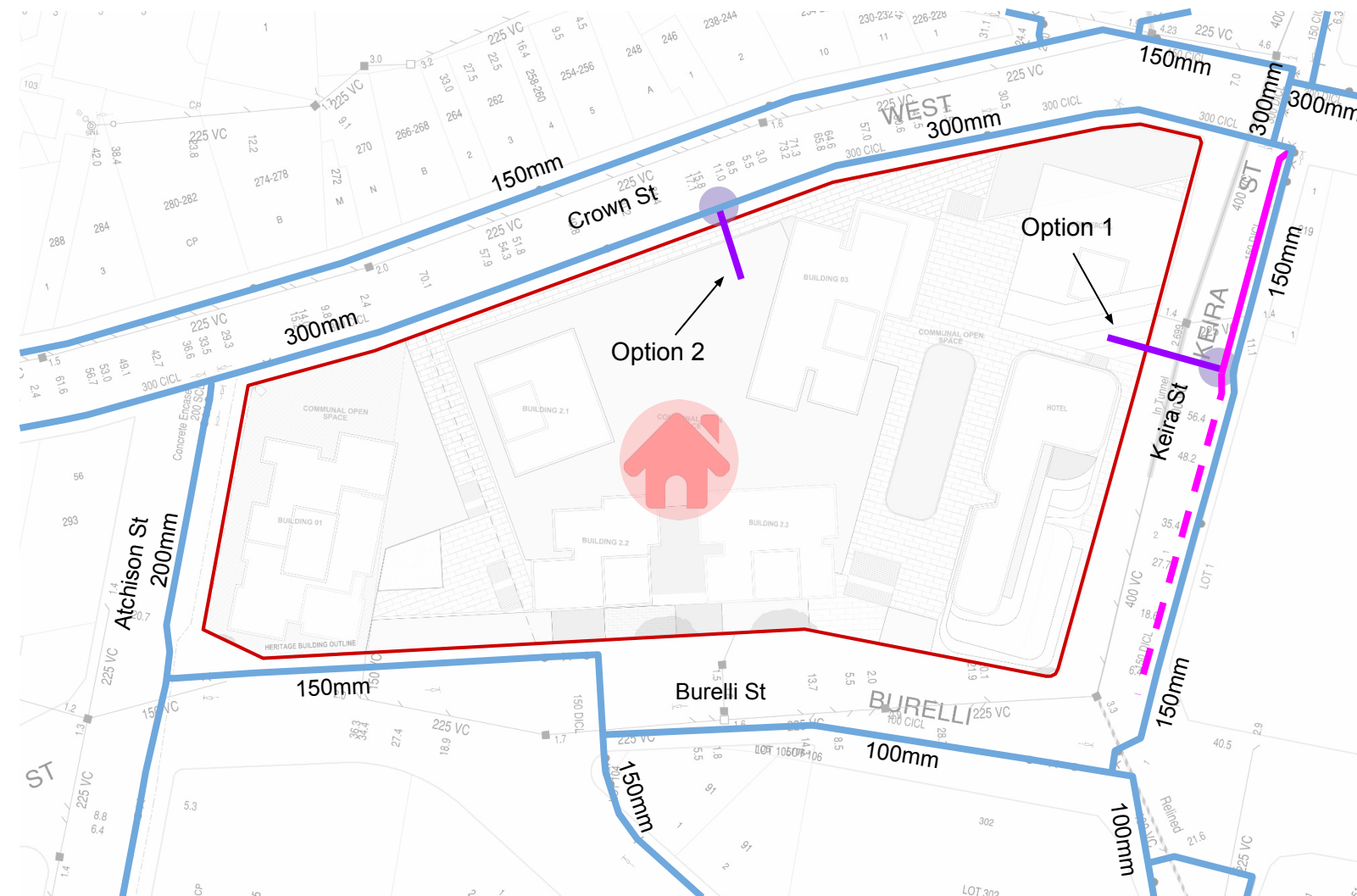
The dial before you dig investigation reveals there is an existing 300mm water mains running close to the proposed development along Crown Street.

Based on the preliminary calculations, the proposed development is likely to require a new 250mm mains water connection. Two connection strategies have been proposed, as illustrated in the adjacent image.

- Option 1: Amplify the existing 150mm main on Keira street to 250mm from the 300mm main on Crown Street. A connection to the existing 150mm main without amplification may be an option depending on the mains available pressure and flow. Sydney Water may require the main to be amplified to the edge of the site.
- Option 2: A 250mm connection to the 300mm water main on Crown Street.

No water-related infrastructure appears to run through this site.

A Sydney Water Coordinator will be engaged during the next stage of the project to begin consultation with Sydney Water and ascertain their preferred connection strategy.



### Water Infrastructure Map

- Water Main
- Proposed Main Upgrade
- 🏠 Development Location
- Proposed Water Connection Strategy

- > POWER
- > COMMS
- > GAS
- > WATER
- > SEWER

# SEWER INFRASTRUCTURE

The dial before you dig investigation reveals there is an existing 400mm sewer main running down Keira Street and a 225mm main adjacent to the site on Burelli Street and Crown Street.

Based on the preliminary calculations, the proposed development is likely to require multiple 225mm connections to serve this site. We have proposed multiple connections to the 225mm main on Burelli Street, a connection to the 150mm main running of Auburn Street and a connection to the 400mm main on Keira Street. Amplification works will be required, upgrading the 150mm end section of the 225mm main, on Burelli Street, to 225mm. A concept layout of the proposed works required to enable the connection are illustrated in the adjacent image.

The site has a sewer vent shaft currently attached to the existing sewer main. This will need to be retained, and incorporated into the new design. These can smell rather unpleasant, so it may be beneficial to locate them away from any openings or residential areas if possible.

A Sydney Water Coordinator will be engaged during the next stage of the project to begin consultation with Sydney Water to agree on their preferred connection strategy.



**Sewer Infrastructure Map**

- Sewer Main
- Proposed Main Upgrade
- Sewer Manhole
-  Development Location
- Proposed Sewer Connection Strategy

