

BROKEN HILL KEY WORKERS ACCOMMODATION

DESIGN REPORT – VOLUME 1 REV B 4 APRIL 2024







VERSION CONTROL SCHEDULE

Project: Broken Hill Key Workers Accommodation

Document: REF Report

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Α	28/02/2024	MF	BK
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In the spirit of reconciliation, we recognise the Wilyakali people as the Traditional Custodians of the Far West region their connections to land and community. We pay our respect to their elders past and present and extend that respect to all Aboriginal and Torres Strait Islander peoples today.

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APPENDIX 1 – ARCHITECTURAL DOCUMENTS





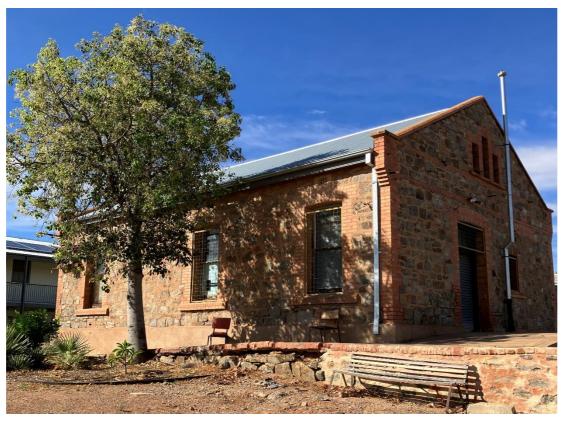
1.0 EXECUTIVE SUMMARY

The Broken Hill Hospital is heavily reliant on transient workers to provide the level of clinical staffing required. These workers are generally either, "Fly in, Fly out" (FIFO), or "Drive in, Drive out" (DIDO). Current staff accommodation on site is not able to cater for all transient staff, with numerous staff accommodated elsewhere within the Broken Hill township. Therefore we are proposing to develop new individual accommodation units to house these staff within the hospital site.

The key objective of this project is to provide 20 new individual accommodation units for transient workers.



Image of proposed site – looking west



Heritage building adjacent to proposed site



Image of proposed site – looking north-west



Existing Worker's Accommodation adjacent to proposed site



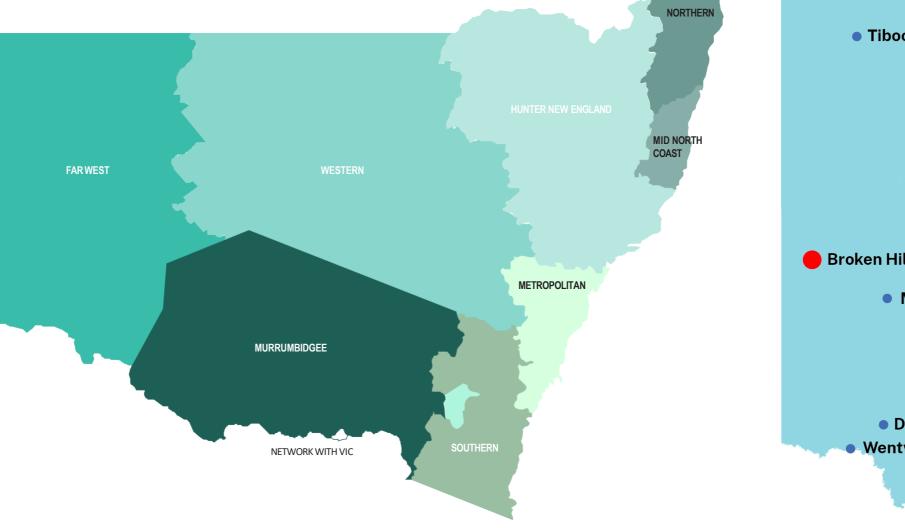


2.0 SITE REVIEW

2.1 LOCATION

Broken Hill is an inland mining city in the far west of NSW, near the border with SA. Broken Hill is located approx. 1100km north-west of Sydney.

Broken Hill Base Hospital is a 98 bed rural teaching hospital. The Broken Hill Base Hospital provides an Emergency Department as well as general medical, surgical, obstetric, paediatric, dialysis, oncology unit and acute mental health beds, operating theatres, specialist palliative care, intensive and coronary care units. Support services include radiology and pathology departments, as well as a wide range of allied and primary health services.



NSW Local Health Districts







2.0 SITE REVIEW

2.2 THE SITE

Broken Hill Base Hospital is located to the North-West of the CBD, surrounded by largely residential development. The proposed site lies on the Northern portion of the Hospital campus.

Broken Hill has a cold semi arid climate (Koppen climate classification), with relatively cool winters and hot and dry summers.



Site Location







3.0 ARCHITECTURAL DESIGN

3.1 HOW GOOD OUTCOMES ARE ACHIEVED

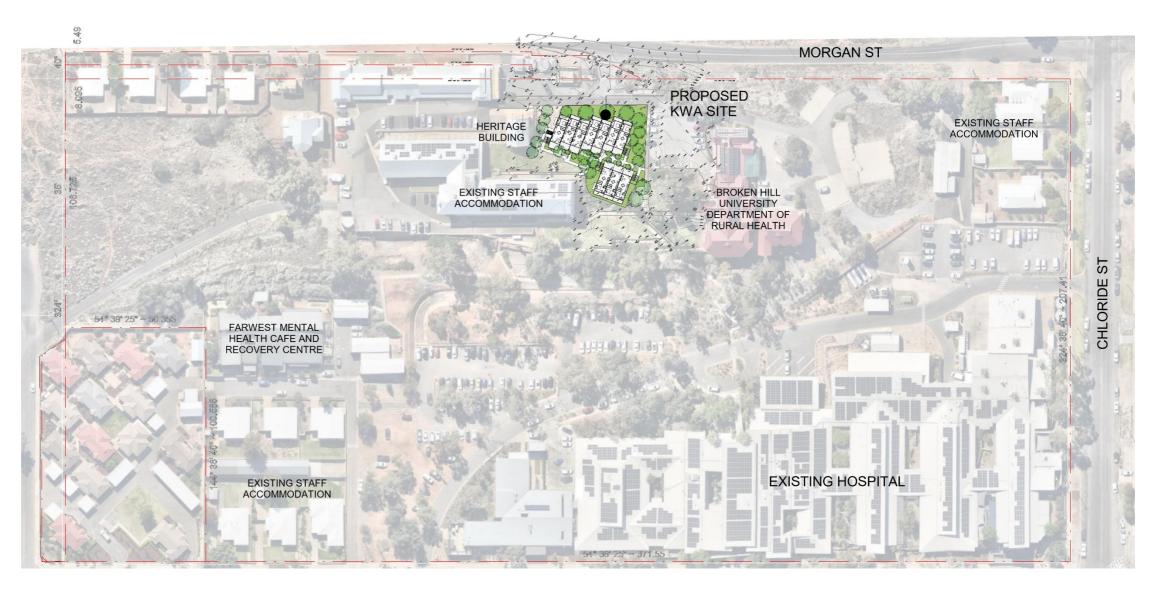
Some keys to a good design outcome are:

- Respectful to both the existing heritage-built form and landscape context of thesite.
- Acknowledge the street-scape and general surrounding character.
- Complimentary in both form and general surrounding character.
- Provides contemporary accommodation model, reflecting current worker expectations.
- Resilient and easily maintained to provide a durable, low maintenance asset.

As the site is adjacent to both a building of heritage significance, as well as being part of the streetscape, the units need to sit within its context and not detract its neighbours. By using a minimal colour palate and simple stepping forms, the proposed buildings will not visually distract from either the heritage significant building or the surrounding streetscape.

Modular construction requires approximately 600mm clearance above ground level. The system will be on piers, minimizing the need for cut and fill. This is not only a manufacturer's requirement, but will reduce the potential required site works considerably. There may need to be minor site works to accommodate the entrance decking and minimize transitions across the sloping site.

The material selections are modern and are of high quality. This will produce a high-quality finish which will entice workers to stay for longer periods of time. The materials chosen to need minimal upkeep. They are resilient to UV damage and are all prefinished to eliminate the need to repaint.



Location Plan





3.2 PLACEMAKING AND DESIGN

The proposed accommodation blocks are situated between a heritage listed building, existing staff accommodation and the Broken Hill University Department of Rural Health within the hospital site. The complex comprises of 20 modular accommodation units within two separate, but connected, blocks.

Each accommodation block shares a stepping covered deck leading to their respective entrances offering some opportunities for social interactions. Smaller secondary decks to the rear of the modules provide more private contemplative spaces off the bedrooms.

The buildings create an open dialogue with the adjacent heritage building. This is achieved by acknowledging a respectful scale and generous setback, while offering a modern and at times contrasting fabric. The slatted balustrades and timber-look dividing screens provide a layering to the design language.

3.3 CARPARKING

There will be no additional carparking constructed for the accommodation units on campus. Instead, staff living in the proposed accommodation will use existing carparking at the site. The staff who will be accommodated within the new units would typically be located within the broader Broken Hill township and drive to the site with their own vehicle, thus the parking demand is not expected to change.

There is existing carparking adjacent to the proposed site, as well as additional staff carparking on site. Street parking is also available and currently takes the surplus carparking for the hospital campus.



Perspective View – North-East







Bluegum Wall sheeting



American Oak style Batten screens



Golden Sand Modwood Decking



3.4 SUSTAINABILITY

The proposal will satisfy the requirements of NCC Section J, as required to achieve building compliance.

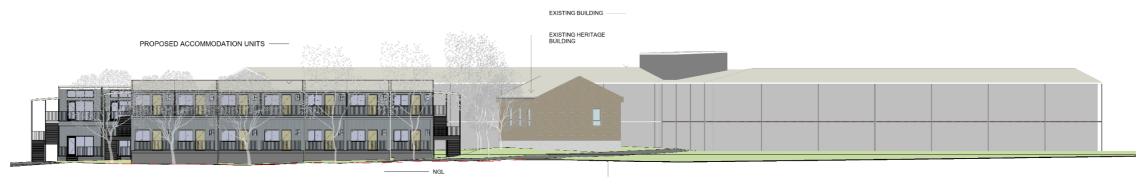
To achieve these requirements, the building design has been based around a modular off-site fabrication. This method of fabrication will ensure a well-sealed building envelope, with appropriate level of insulation for the hot dry summer, cool winter climate of Broken Hill (NCC climate zone 4).

The northern block of units are orientated with living areas facing South and bedrooms facing North. The southern block of units are orientated with living areas facing North and bedrooms facing South. Openings in both sides of the units promotes cross ventilation and allows the units to utilize the prevailing winds coming from the South direction, reducing the reliance on mechanical cooling during the warmer months.

Supporting sustainable objectives, off site fabrication results in reduced building waste through the construction process and a high level of recycling of the building waste produced. Sustainable outcomes realized through the prefabrication process include:

- Reduction in building waste by 80% when compared to traditional construction
- Recycling process for building waste that does occur
- Improved building sealing and insulation
- Renewable timber construction over structural steel subframe
- End of life recyclability

Fixtures and fittings will be selected to provide efficiency for both water and energy use, aligning with and exceeding the requirements of the NCC.



Context Elevation - North



Perspective View - North



3.5 CRIME PREVENTION THROUGH **ENVIRONMENTAL DESIGN PRINCIPLES (CPTED)**

Natural Surveillance:

- The proposed Broken Hill Key Workers Accommodation complex is set back from the internal sreet. This creates clear sitelines from the entrances to the street.
- The slatted timber balustrade does not obstruct views, minimising opportunities for intruders to hide while providing a degree of privacy for the occupants of the units.
- The units are orientated with living areas and balconies facing the street which promote natural surveillance.

Access Control

- Shared spaces will be secured from public via key/electronic access control. Residents of the accommodation units will have access to these areas.
- The sight-lines from the street to the complex are relatively clear, further discouraging intruders.
- Individual access to each unit is provided to the residents, allowing access to be controlled.

Territorial Reinforcement

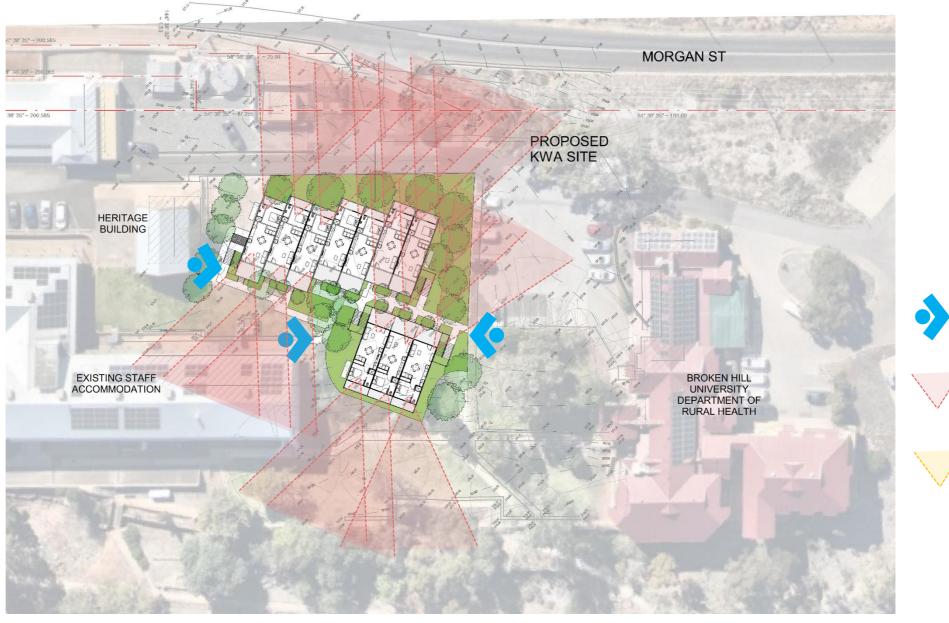
- The slatted balustrade acts as a permeable barrier to define what is public and what is private space.
- Landscape treatments will further define the boundary between public and private space, discouraging accidental thoroughfare through this area.

Space Management

• The material choices require minimal upkeep. This will allow the units to look newer for longer, reducing the chance of vandalism.

Controls

- The pedestrian pathways to the units will be lit. The entrance gates to the units and shared space will be illuminated to deter intruders.
- The lighting will be provided by energy efficient fittings with switches to save energy





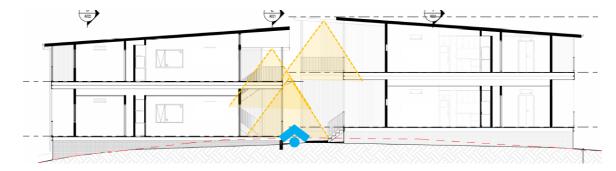
Entrance



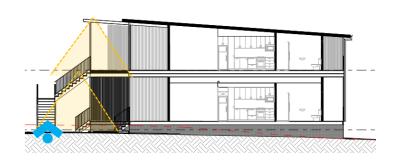
Natural Surveillance

Entrance Lighting

Surveillance Plan

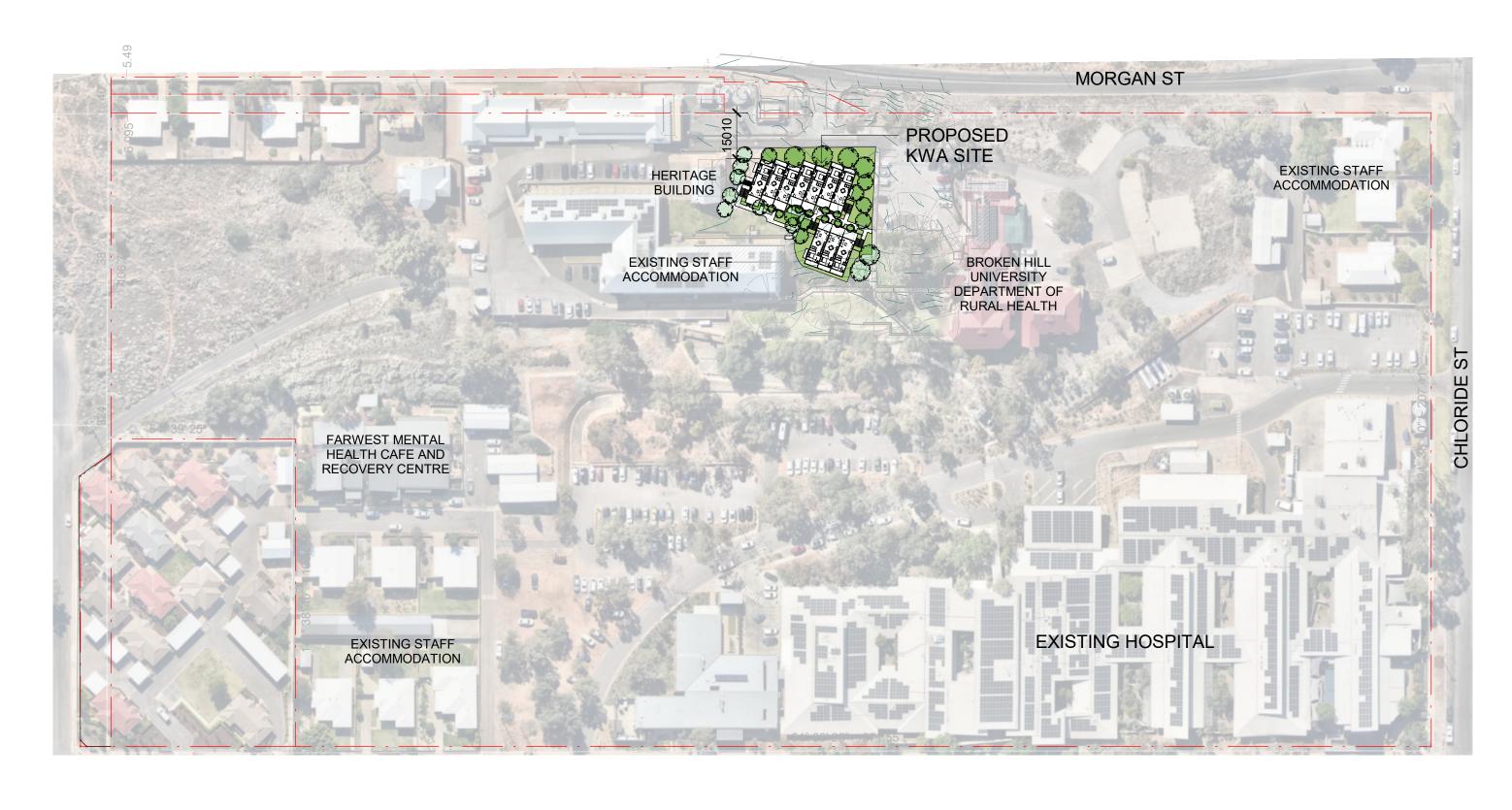


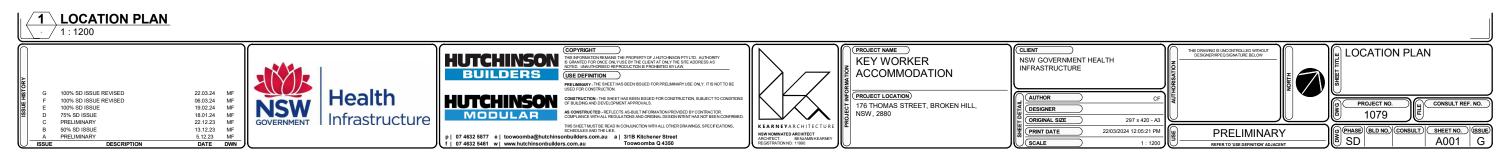
Entrance Lighting Sections

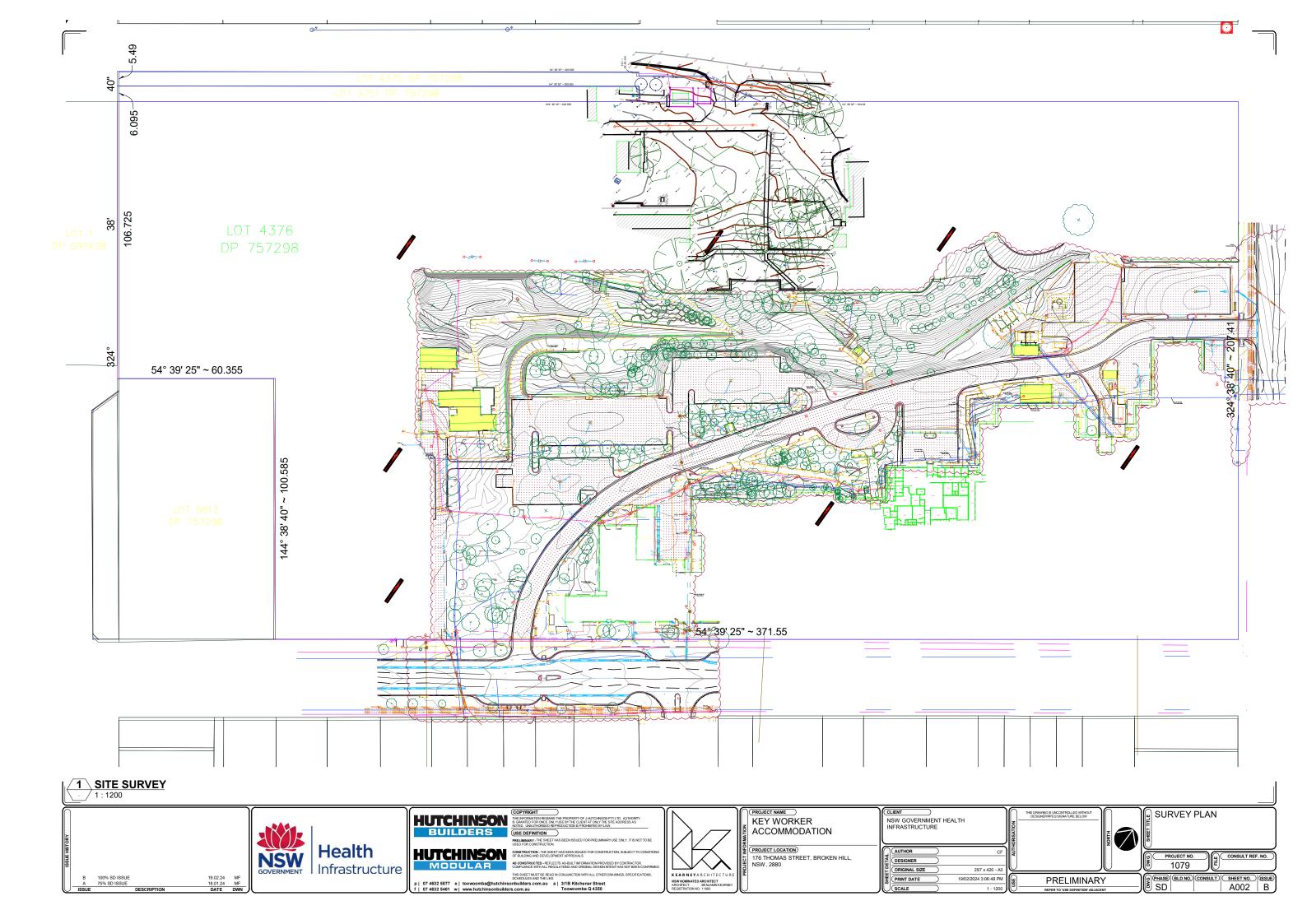


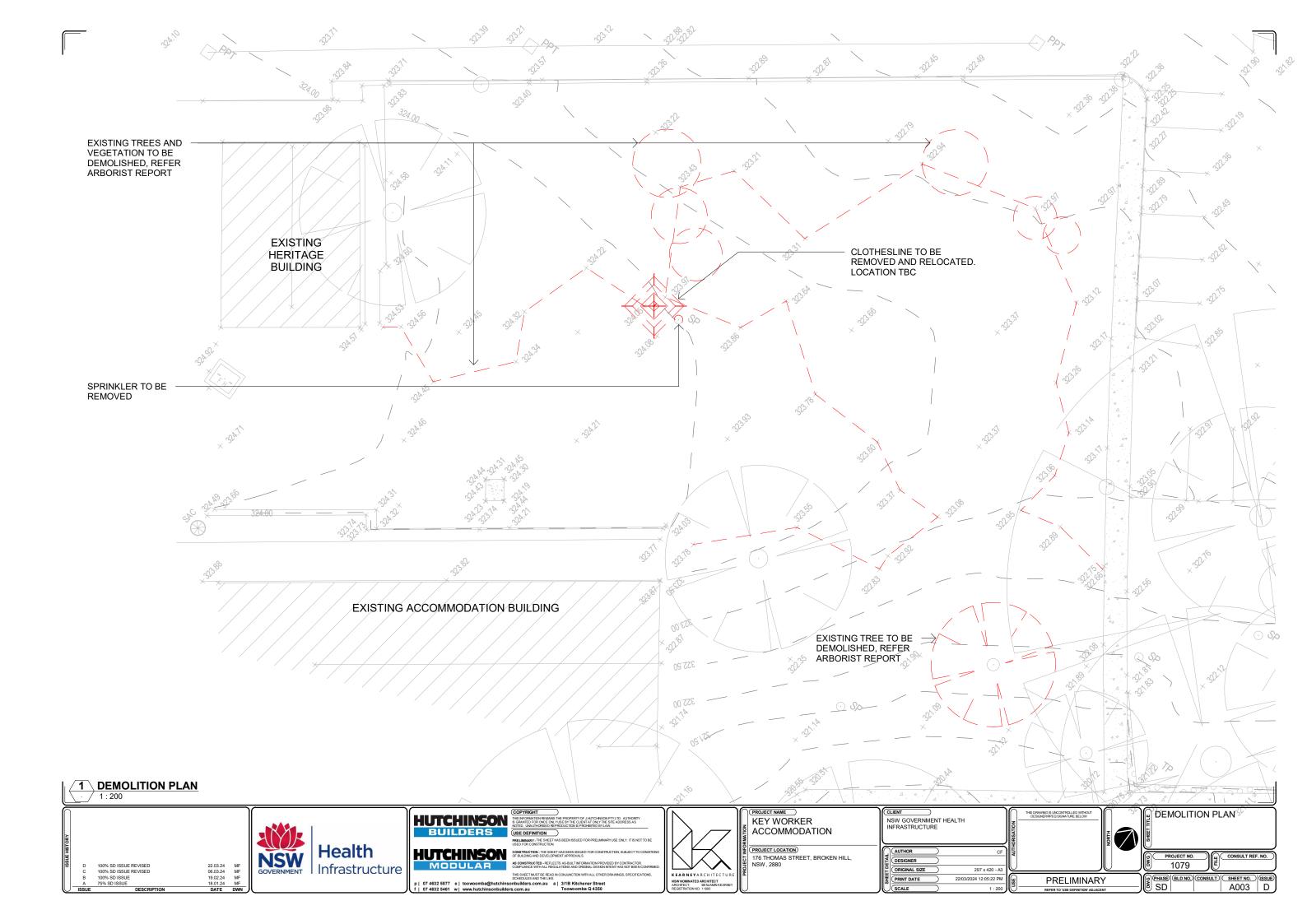




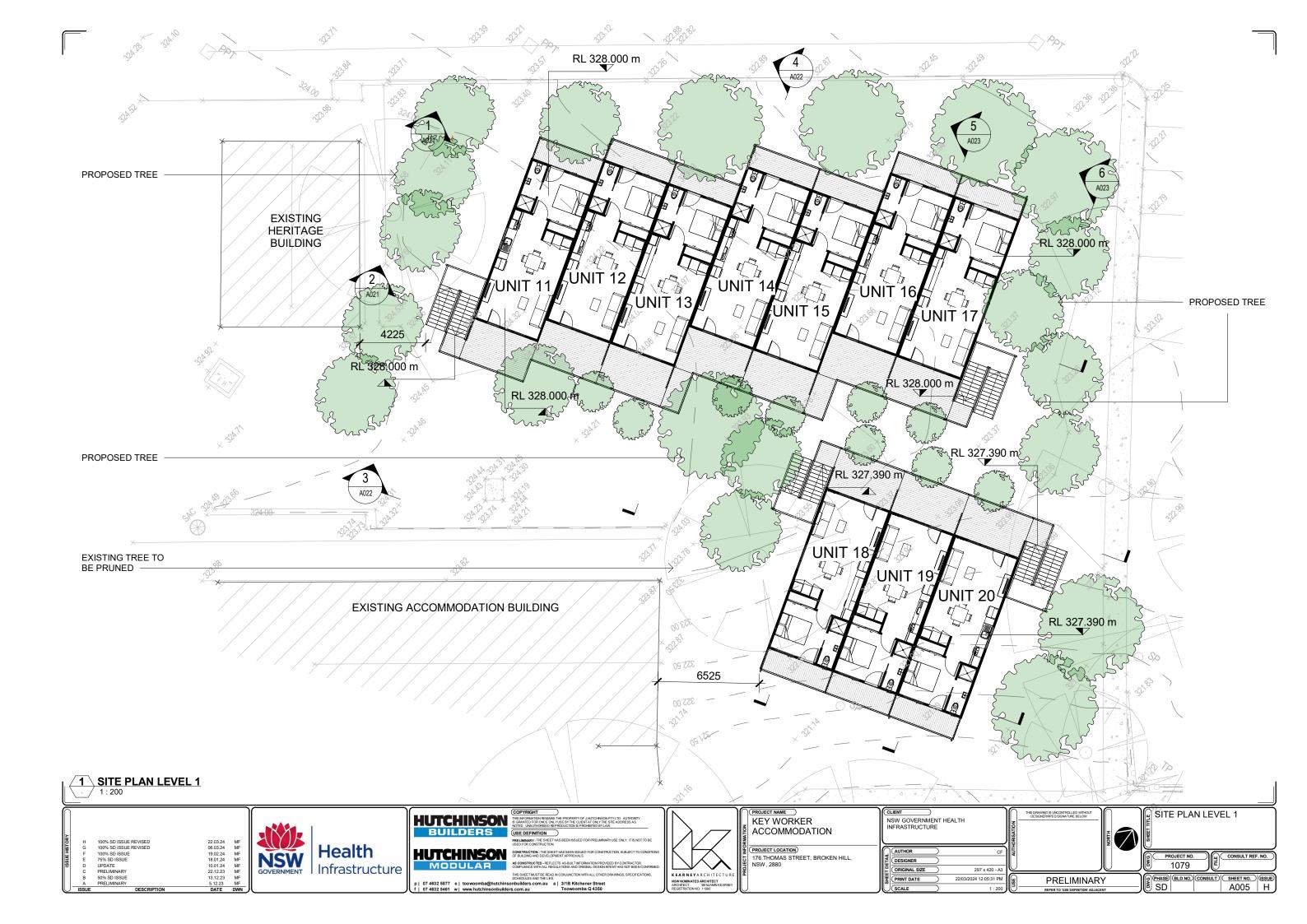


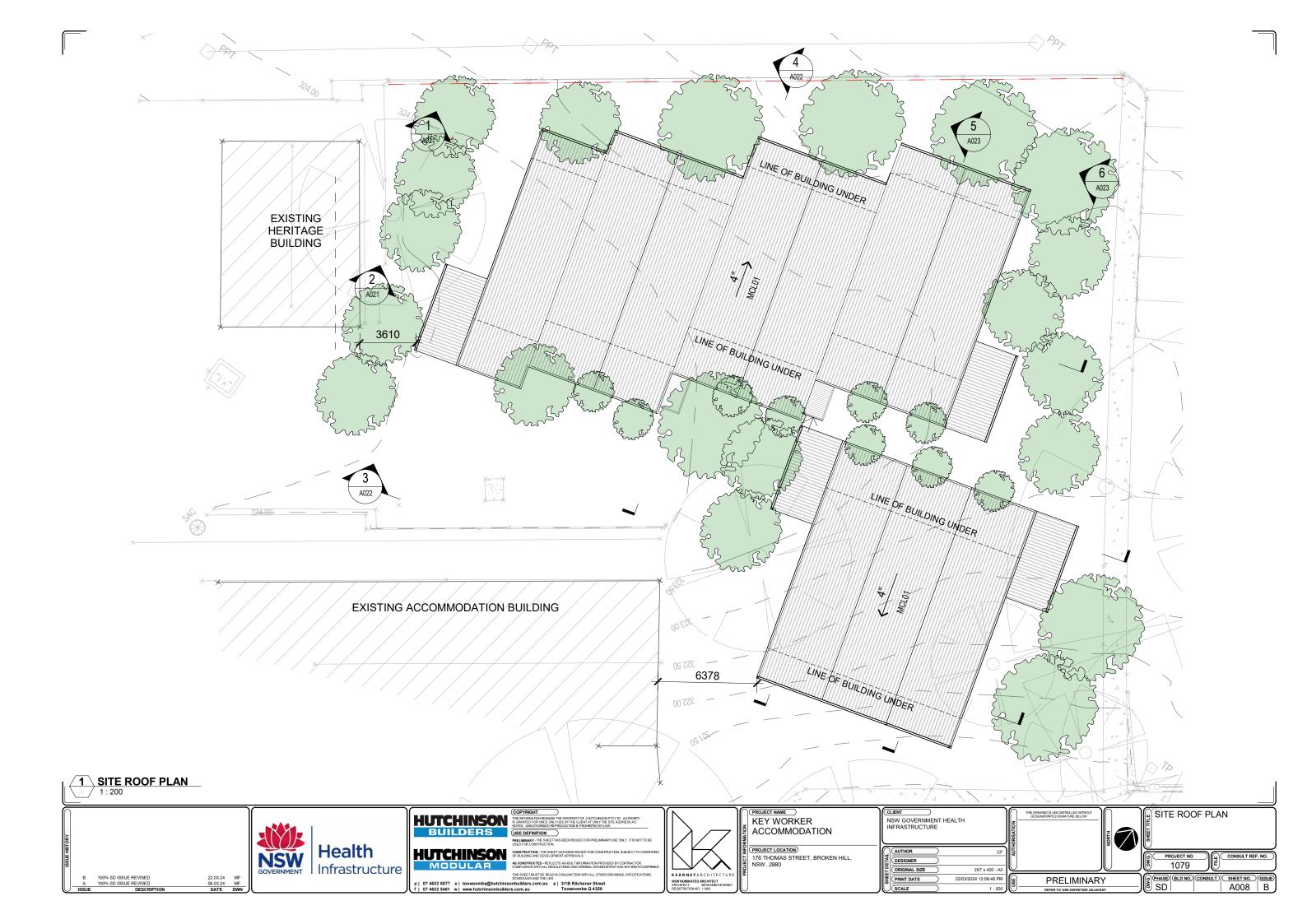














NORTH ELEVATION
1:200

