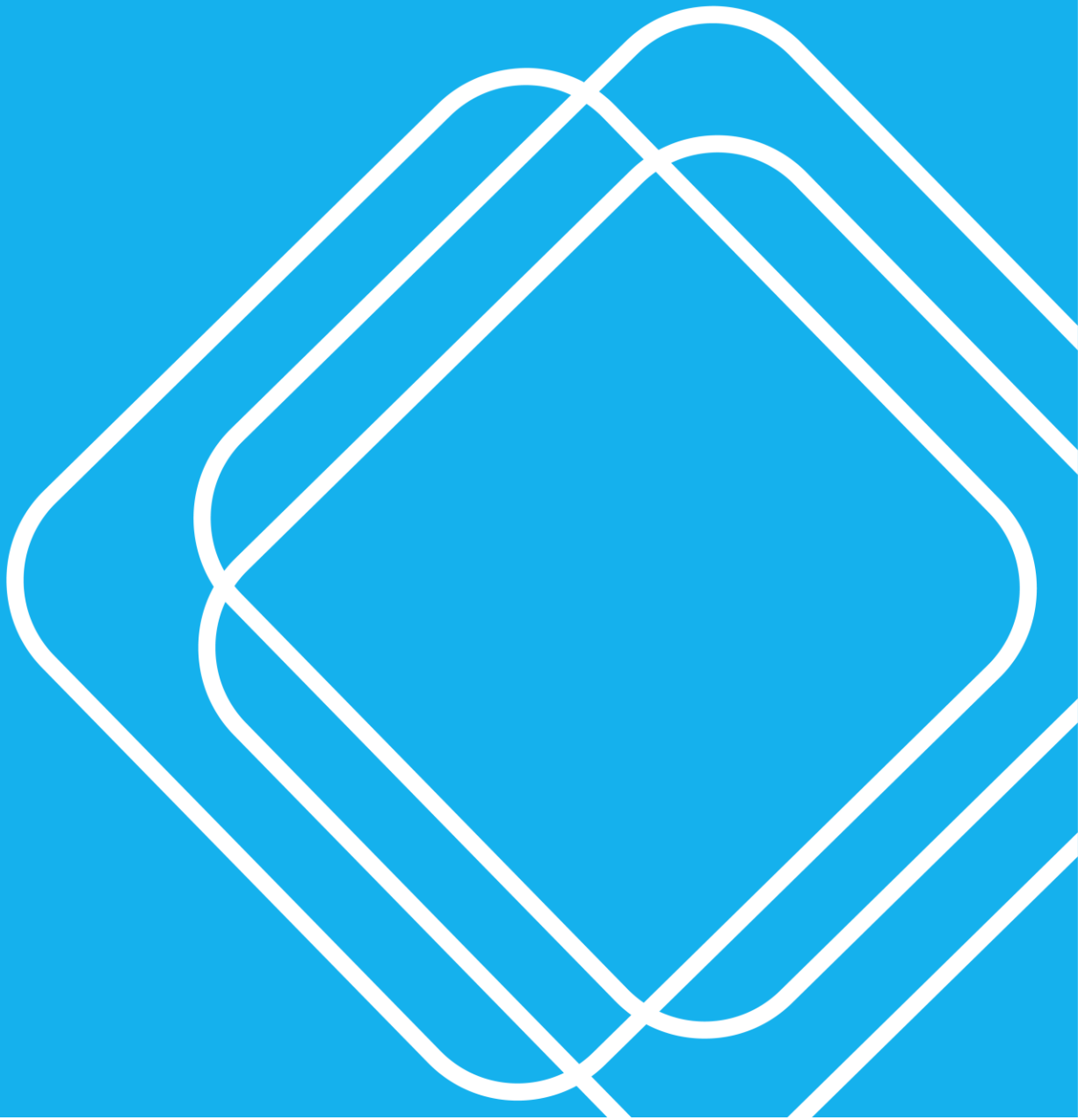
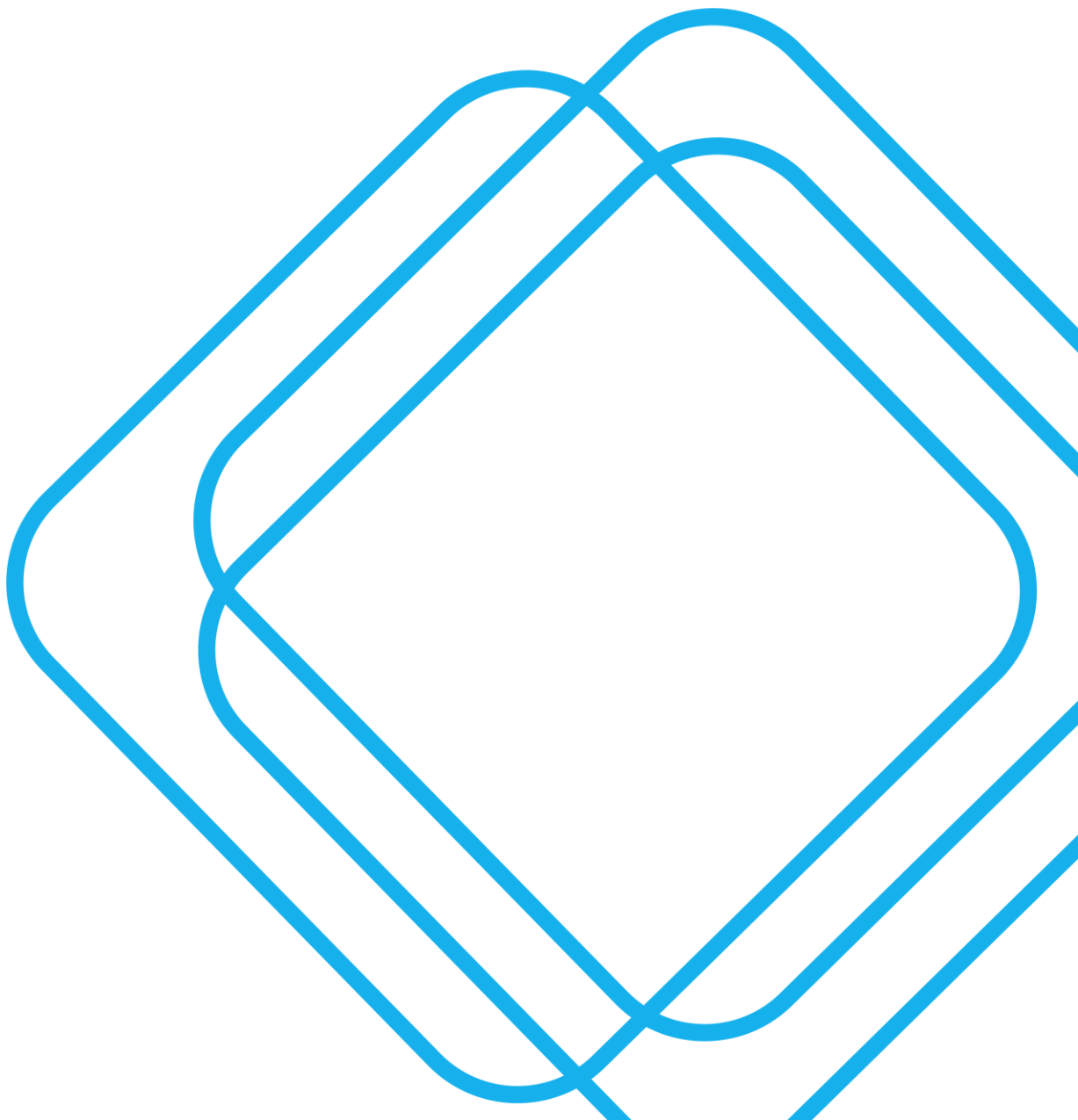


MAITLAND GAOL REDEVELOPMENT DA1

Traffic Impact Assessment


23 SEPTEMBER 2024





Quality Assurance

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Executive Summary

Proposed development

The Maitland Gaol Redevelopment will be staged across three separate Development Applications (DAs) consisting of:

Development Application 1 (DA1):

- Redevelopment of the ‘Store’ building (Building 14)
- Redevelopment of the ‘Gaol Staff / Warder’s Amenities’ building (Building 22)
- Construction of new carpark

Development Application 2 (DA2):

- Refurbishment of the ‘Lieutenant Governor and Governor’s residences’ (Buildings 2 and 3)

Development Application 3 (DA3):

- Future works for the redevelopment of the ‘Store’ Building

SCT Consulting has been engaged by the Maitland City Council (MCC) to prepare Traffic Impact Assessments (TIA) to support the Development Applications for the redevelopment of the Maitland Gaol. The proposed development considered in this TIA refers to DA1, which will perform a key role in activating areas inside the entrance of the Gaol. It will be a focus for visitors seeking information and amenities, be a place to meet and relax and act as a start/end point for tours. Once operational, it is expected that over 31,000 patrons will visit the site in the first year after the redevelopment in 2026.

An additional 16 parking spaces, accessed from John Street, are proposed as part of the redevelopment. Two on-grade spaces to the west of the store building are expected to act as accessible parking spaces as these are closest to the passenger lift to the facilities.

The current front gate from John Street is to be maintained as a secondary access point whereas the proposed north servicing dock will be a primary loading dock to improve servicing and delivery to the internal courtyard for stage equipment and food delivery. The maximum allowable vehicle to pass through the gate into the courtyard is a B99 vehicle. A forklift will unload materials or goods in the loading dock.

Future planning context

The *Maitland Gaol Development Plan* (Maitland City Council, July 2020) and the associated site master plan and *Plan of Management* provide a comprehensive guide for the future development and management of the Maitland Gaol site. It states that the vision for Maitland Gaol is to be ‘an iconic tourism destination, driven by its unique heritage, connection to community, and innovative experiences.

The *Development Plan* includes a ‘Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis which outlines an analysis of many items including transport opportunities and constraints for the Maitland wider area, as well as more site-specific ones. The Plan states that over half of Maitland Gaol visitation travels from local and regional areas and that visitation to the Gaol for tours peaks around the school holiday periods. These existing travel patterns should be considered when planning for transport for the site.

The *Gaol Site Masterplan* (Maitland City Council, 2020) includes a review of the current services and offerings at Maitland Gaol as well as a review of its heritage significance and the relevant policies that apply. The Masterplan aims to test the feasibility of many scenarios that take into account the history, vision and activation of the site as a precinct to regenerate community interest and attraction to the site. The preferred option proposed to improve site access and egress, internal spaces with fewer constraints and focus on paid visitor experiences and tours, non-paid visitor access retail spaces and other amenities.

Existing conditions

Over half of Maitland Gaol’s current visitors originate from local and regional areas, with Newcastle residents making up over a quarter of all visitors undertaking tours in 2018. Approximately a quarter of visitors to the site reside interstate or in another country. Maitland Gaol had approximately 18,500 visitors in the 2020-2021 financial year, with the heaviest visitation being school holidays, Fridays to Sundays. The peak visiting hours are between 11am and 2pm. The majority of visitors arrive by private vehicle and a limited proportion arrive by train. Many bus tours arrive at

the site each year, including school groups. However, Maitland City Council has announced in March 2024 the closure of Maitland Gaol following an independent safety review of the site including the fire and electrical systems.

The surrounding road network is generally not experiencing any major traffic delays during peak hours on a weekday or weekend, with the exception of Melbourne Street around 11am (Friday) and 11:35am (Saturday) where Google Maps suggest that there is a slight delay in westbound traffic.

There are two car parking areas fronting John Street, totalling 16 on-site parking spaces. They can be accessed by multiple driveways on John Street. The occupancy of the car park is based on tour visitation and is more likely to fill up if there is an event, or if training is booked at the site. Once the on-site parking is full, parking will occur on the street. On-street parking is available along John Street, King Street, Lindesay Street and Cumberland Street. Off-street overflow parking is also available next to the East Maitland courthouse and the train station.

Footpaths are available on the eastern side of John Street at the front of the site, the northern side of Cumberland Street and Morpeth Road. There are multiple refuge crossings around the site and a pedestrian crossing is provided near the Maitland Grossmann High School. No formal crossing facilities are available on John Street. On-street cycle routes are available on Lindesay Street, Melbourne Street, Morpeth Road and Newcastle Street.

Traffic impact assessment

Based on the below key assumptions, it is estimated that the current trip generation (prior to its closure in 2024) is 16 cars (8 cars in and 8 cars out) during a typical peak hour on a peak visitation day.

- About 160 days are school days (Monday to Thursday) when the visitation was relatively low.
- About 115 days are Fridays and normal weekends when the visitation was higher than school days.
- About 90 days were peak visitation days such as school holidays and public holidays including peak weekends.
- 75 per cent will arrive between the peak three hours with an average two-hour dwelling time.

Since the proposed redevelopment would attract over 31,000 people in the first year of operation, which is an increase of about 58 per cent from the current condition (prior to the recent closure), the net increase of traffic would be about eight cars (four cars in and four cars out) during the peak hour. This level of increase means that the total trip generation during a typical peak hour on a peak visitation day could be 24 cars (12 cars in and 12 cars out).

This level of increase is relatively minor and is expected to be accommodated by the existing road network. There will not be any significant impact on the surrounding road network.

Based on the proposed 16 on-site parking spaces, together with the availability of existing on-street and off-street parking around the site, it is expected that the parking impact associated with the redevelopment would be minor. Daily tours will be unlikely to have a major impact on the large supply of on-street parking. Overall, the parking impact would be mitigated through on and off-street parking, staggered timing from the public daily visitation and overspill parking provisions (across John Street next to the courthouse) which may only occur during special events, workshops and training.

The existing public transport usage to access the site is low and the public transport services are expected to cope with the additional trips generated by the proposed redevelopment. No significant impact is expected on the active transport network as a result of the additional trips generated by the proposed development.

Conclusions

The Traffic Impact Assessment concluded that the proposed redevelopment will not have any significant impact on the transport system.

1.0 Introduction

1.1 Purpose of the report

Maitland Gaol is located at 6-18 John Street (the site) in East Maitland in the Maitland Local Government Area (LGA) and is one of NSW's premier heritage-listed sites. The site is identified as Crown Land managed by Maitland City Council (MCC) and is located on top of the main hill at East Maitland and is the focal point of the town, having an approximate site area of 2,077 m². The site has an annual visitation of approximately 18,500 during 2020-2021, dropping from 23,700 during the 2018-2019 pre-COVID period.

SCT Consulting has been engaged by the MCC to prepare Traffic Impact Assessments (TIA) to support the redevelopment of the Maitland Gaol. The TIA includes the following scope of works:

- Existing site context summary and details on the planned development (type, scope and proposed uses on site)
- Estimation of parking supply requirements for the proposed development in accordance with relevant parking and vehicular access codes, Council requirements and any other statutory guidelines applicable and how this relates to the reasonable needs associated with the development and in accordance with the applicable local government and state policy
- Review of proposed access arrangement, driveways and service areas
- Proposed connections to the external street and traffic network, considering impacts of site ingress and egress and impact of proposed forecast traffic movements on existing infrastructure
- Estimation of additional traffic movements, assignments and impacts, including the assessment of the impacts of development traffic on external movements network
- Internal access and vehicle swept path analysis
- Assessment of walking, cycling and public transport patterns to and from the site as appropriate and implications on vehicle traffic patterns.

1.2 Development context

Maitland Gaol is the longest continuously operating correctional institution in New South Wales. The facility closed in 1998 and was converted to a tourism facility in 2000 under the management of Maitland City Council. In January 2022 the NSW State and Federal Governments announced a funding grant for the redevelopment of the Gaol to deliver a substantial part of its *2020 Development Plan* including capital investment in a new activity hub with enhanced access and connectivity, innovative interpretation, along with the provision of event infrastructure and boutique accommodation. The Maitland Gaol Redevelopment will be staged across three separate Development Applications consisting of:

Development Application 1 (DA1):

Redevelopment of the 'Store' building (Building 14) to provide:

- A new ticketing office and gift store
- New administration office space
- Upgraded amenities
- Construction of DDA access, ramps and stairs
- Demolition of the existing laundry
- Construction of a new loading dock.

Redevelopment of the 'Gaol Staff / Warder's Amenities' building (Building 22) consisting of:

- Demolition of Building 22
- Construction of a new café/restaurant
- External and internal landscaping
- Construction of enhanced access points.

Construction of new carpark

- Construction of 16-space car park including two accessible parking spaces
- Associated landscaping
- Construction of accessible pathways.

Development Application 2 (DA2):

Refurbishment of the 'Lieutenant Governor and Governor's residences' (Buildings 2 and 3) to provide:

- Boutique accommodation consisting of several guest rooms

Development Application 3 (DA3):

Future works for the redevelopment of the 'Store' Building to provide:

- Additional amenities
- Renovated theatre with bar, foyer, amphitheatre (pax: 256)
- Renovated back of house
- Construction of external DDA ramp.

The proposed development considered in this TIA refers to DA1.

Figure 1-1 Land use zoning for 6-18 John Street, East Maitland (the site)



Source: [ePlanning Spatial Viewer \(nsw.gov.au\)](https://ePlanning.SpatialViewer.nsw.gov.au), 2022

1.3 Report structure

The report comprises the following sections:

- **Section 2.0** summarises the strategic context of the region and describes how the development could support the future intents of the region.
- **Section 3.0** describes the existing transport conditions for all modes of transport.
- **Section 4.0** describes the proposed development, including its access strategy and parking intents.

- **Section 5.0** assesses the estimated trips generated, their distribution based on the preferred access strategy, and the likely traffic impacts associated with the additional trips.
- **Section 6.0** summarises the report and presents the conclusion.

2.0 Strategic context

2.1 Hunter Regional Plan 2041

Hunter Regional Plan 2041 is a 20-year plan consolidating an understanding of each local council's local strategic planning statements, which reflects the community aspirations for the region. It provides an overarching framework to guide subsequent and more detailed land use plans, development proposals and infrastructure funding decisions. The Hunter has a projected population of more than 900,000 people, with more than 100,000 additional dwellings needed by 2041.

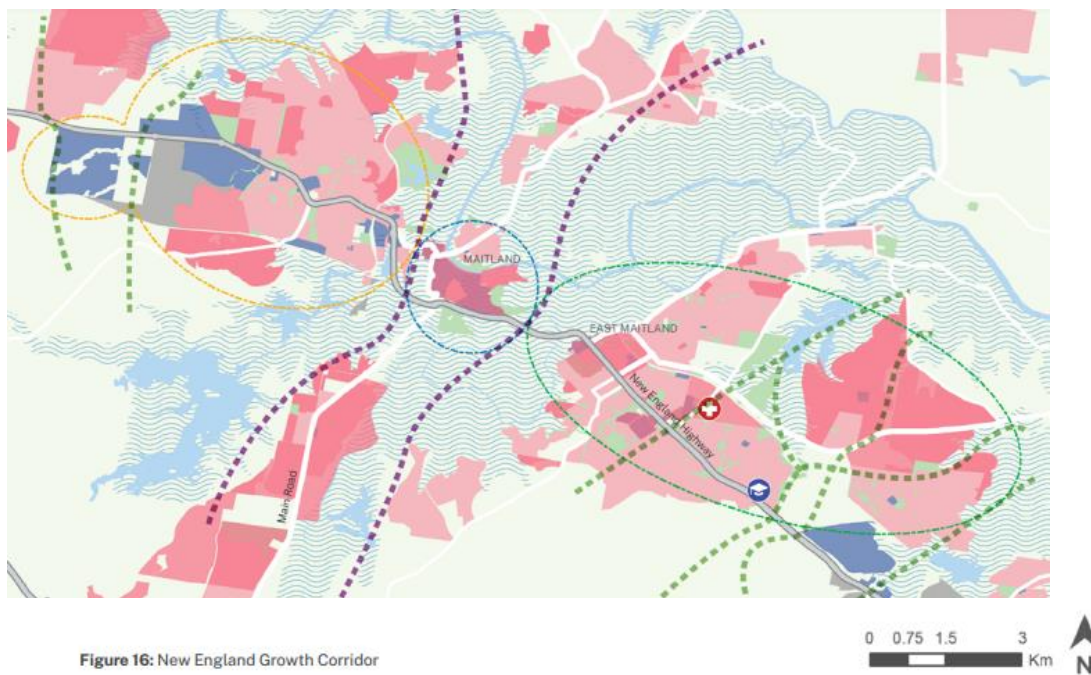
East Maitland Catalyst Area has been identified as a regionally significant catalyst area. A place strategy will be developed for catalyst areas that aim to efficiently use infrastructure, help align state and local investment and lead to stronger place-based planning.

An objective of the plan is to create 15-minute neighbourhoods to enhance local access to various services. This will encourage people to reduce car dependency and support the population that wants to live and work locally.

A key planning priority identified is to grow Maitland's strategic centres along the New England Growth Corridor. East Maitland in particular has been identified as an emerging strategic centre for health and retail in the Plan (**Figure 2-1**), with its importance summarised as:

- The health precinct will provide modern healthcare facilities and be a place of innovation and high-quality healthcare.
- The Greenhouse precinct will remain a place for modern retail, dining and entertainment
- Opportunities for housing and urban renewal projects in the precinct

Figure 2-1 Location of the East Maitland Strategic Centre



Source: Hunter Regional Plan 2041, Department of Planning and Environment (DPE) 2022

Implications for the site: The proposal would support the economy and employment in the East Maitland area. A focus on supporting East Maitland’s growth, including creating 15-minute neighbourhoods will strengthen accessibility to the area via transport networks including public transport and active transport.

2.2 Greater Newcastle Metropolitan Plan 2036

The *Greater Newcastle Metropolitan Plan* supports the Hunter Regional Plan to act on the vision of Greater Newcastle as Australia’s newest and emerging economic and lifestyle city that is connected with northern NSW and acknowledged globally as dynamic, entrepreneurial, desirable and a national leader in the new economy.

The plan identifies catalyst areas which are areas of metropolitan significance that require a collaborative approach to deliver new jobs and homes. East Maitland is identified as a strategic centre with improved future connectivity from Central Maitland and Newcastle City (Figure 2-2). The following applies to the Maitland and East Maitland areas in the Plan:

- East Maitland strategic centre is one of the fastest-growing centres in regional NSW that will continue to provide housing, jobs and services for communities across the metro frame.
- The development of East Maitland as a future Health Centre will encourage more visitors to the area.
- All new major health facilities will be located in strategic centres, existing major health precincts or in locations that have a high level of public transport connectivity, such as railway stations.

Figure 2-2 The location of East Maitland as a strategic centre in the region



Source: Greater Newcastle Metropolitan Plan 2036, DPE 2018

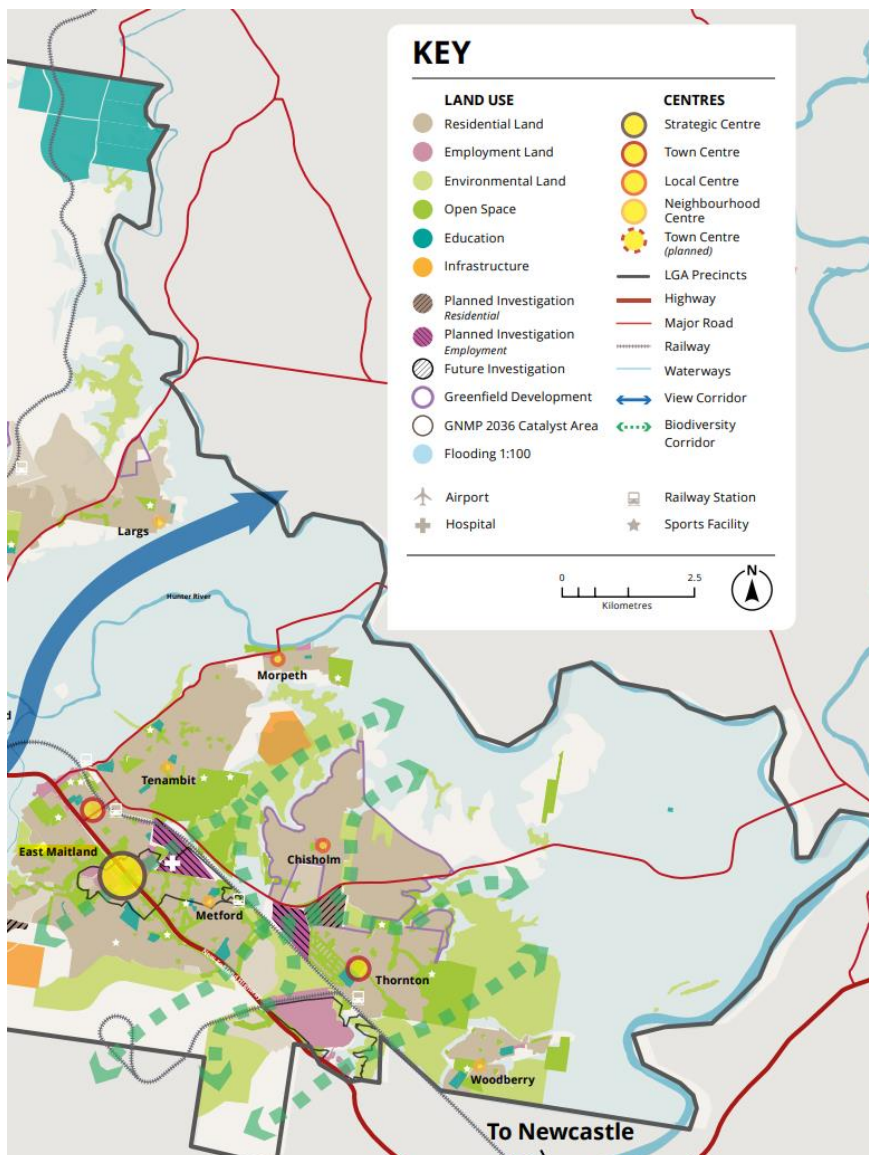
Implications for the site: The proposal would support the economy and employment in the East Maitland area and the strengthened connectivity between Central Maitland and Newcastle City Centre will encourage visitors to the site. The identification of East Maitland as a future health centre in the region will, together with the site's proximity to a train station, improve public and active transport connections to the site and attract visitors to the area.

2.3 Maitland Local Strategic Planning Statement (2020)

The Maitland LSPS sets out a 20-year plan integrating land use, transport and infrastructure planning for the future of our city. It outlines how we manage growth sustainably over this period and has been informed by the community and other stakeholders. The LSPS identifies the growing strategic centres of Central Maitland and East Maitland (**Figure 2-3**) that have the potential to accommodate significant growth in the economy and become important residential, employment and entertainment precincts.

Actions for the East Maitland area that are identified in the LSPS include working in collaboration with the relevant NSW Government agencies for the planning and development of the East Maitland Catalyst Area. Maitland Gaol is an iconic and unique tourism attraction in NSW that will provide opportunities to look back in time and explore the Maitland of yesteryear.

Figure 2-3 The location of East Maitland as a strategic centre in the region



Source: The Maitland Local Strategic Planning Statement 2040+, Maitland City Council 2020

Implications for the site: The identification of East Maitland as a future health centre in the region and the forecasted significant growth in the area will encourage visitors to the site and also encourage improved public and active transport connections to the site.

2.4 Gaol Development Plan

The *Maitland Gaol Development Plan* (Maitland City Council, July 2020) and the associated Site Master Plan and *Plan of Management* provide a comprehensive guide for the future development and management of the Maitland Gaol site. It states that the vision for Maitland Gaol is to be ‘an iconic tourism destination, driven by its unique heritage, connection to community, and innovative experiences. This will be supported by strategies to:

- implement a sustainable business model to achieve the financial viability of the site within 5 years
- conserve, interpret and enhance the heritage value of the Gaol
- balance the commercial and community use of existing buildings and spaces, with consideration to their highest and best use (i.e. considering heritage, cultural, social and economic value)
- create a vibrant precinct that encourages repeat visitation and benefits both visitors and the local community
- provide attractive and authentic tourism, cultural, social and educational experiences for both visitors and the local community
- use business intelligence and new media channels to increase visitation and build long-lasting relationships with the Gaol
- establish valued partnerships to support the delivery of quality experiences and products
- develop strong, collaborative relationships with internal Council service providers and external partners to implement the Development Plan
- enhance Maitland’s standing as a tourism destination by supporting integrated experiences with regional attractions and enabling the delivery of critical visitor infrastructure (e.g. accommodation).

The Development Plan includes a ‘Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis which outlines an analysis of many items including transport opportunities and constraints for the Maitland wider area, as well as more site-specific ones. The Plan states that over half of Maitland Gaol visitation travel from local and regional areas, with Newcastle residents, now making up over a quarter of all visitors undertaking tours in 2018, and that visitation to the Gaol for tours peaks around the school holiday periods. These existing travel patterns should be considered when planning for transport for the site.

The following specific opportunities and constraints were outlined in the Gaol Development Plan with regard to transport:

- As stated in ‘The Sydney Surrounds North Destination Management Plan’, an analysis of Maitland’s priorities and gaps suggested that Transport is considered a ‘gap’ for the area.
- The SWOT analysis suggests that limited public transport options are a weakness for the wider area. However, the nearby train access to the site from regional hubs, and sufficient overflow parking space in proximity of the site were listed as strengths for the area.
- An alternative entrance to the Gaol was suggested as an approach to increase visitor access to the site, as well as more parking for large events.
- A long-term objective for the site is to establish an integrated tourism offering – including links between Maitland tourist attractions through promotion, tourism maps and transportation options (e.g. electric bicycles).

The Plan also outlines a staged implementation strategy for the site. Transport-related matters listed in this strategy include the investigation of the long-term solution for events car parking (Stages 3 and 4).

2.5 Gaol Site Masterplan

The *Gaol Site Masterplan* (Maitland City Council, 2020) includes a review of the current services and offerings at Maitland Gaol as well as a review of its heritage significance and the relevant policies that apply. The Masterplan aims to test the feasibility of many scenarios that take into account the history, vision and activation of the site as a precinct to regenerate community interest and attraction to the site. It was listed in the Council’s Delivery Program

2019/2020 which states that the Council is to 'Develop and commence implementation of Business and Master Plan for Maitland Gaol'. The Masterplan takes into account the Maitland LEP 2011 and Development Control Plan (DCP) 2011 planning controls.

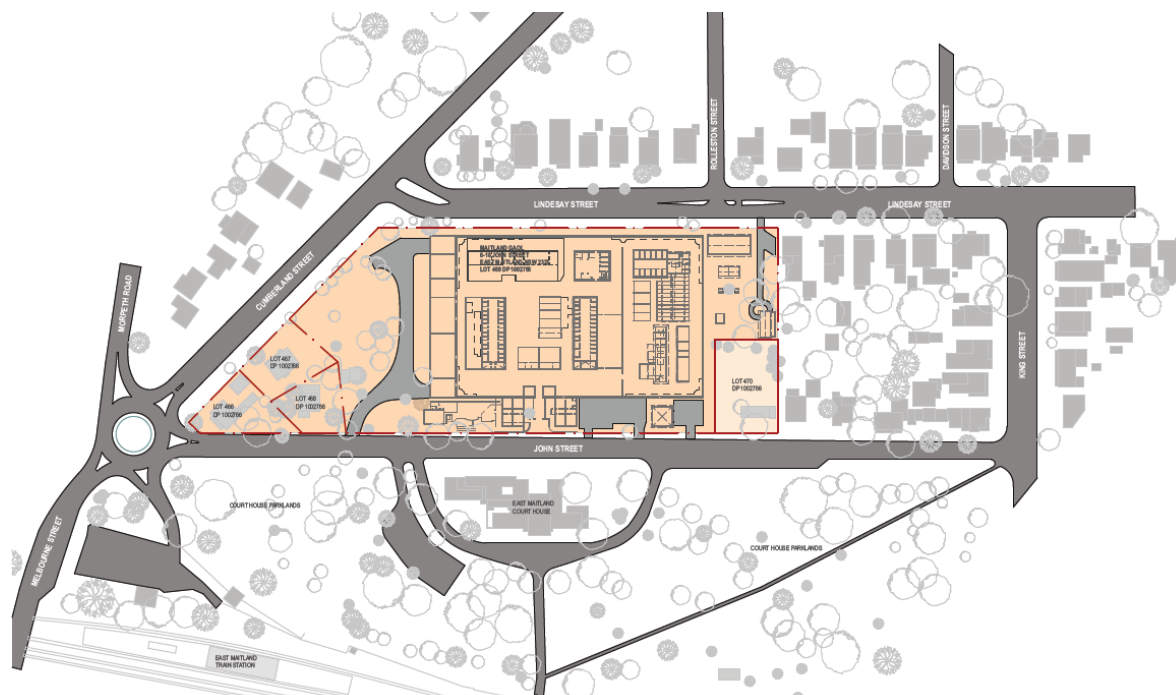
Urban design principles listed in the Masterplan with regards to transport include:

- Improve accessibility into the site and throughout the Gaol compound.
- Retain the large open green space within the site and continue to limit this to pedestrian access only.
- Connections to the existing site are limited by the existing perimeter heritage wall.
- Improve entry points into the Gaol.
- Improved equal access to the site without compromising safety.
- Improved site access for services vehicles to make it easier to run large-scale functions within the Gaol grounds.

The Masterplan encompasses the entire Maitland Gaol (**Figure 2-4**), including the

Police, Lock Up and Reserve and a section of the Police Barracks which is Crown Land managed by the Maitland City Council.

Figure 2-4 The Maitland Gaol Site Area for the Masterplan

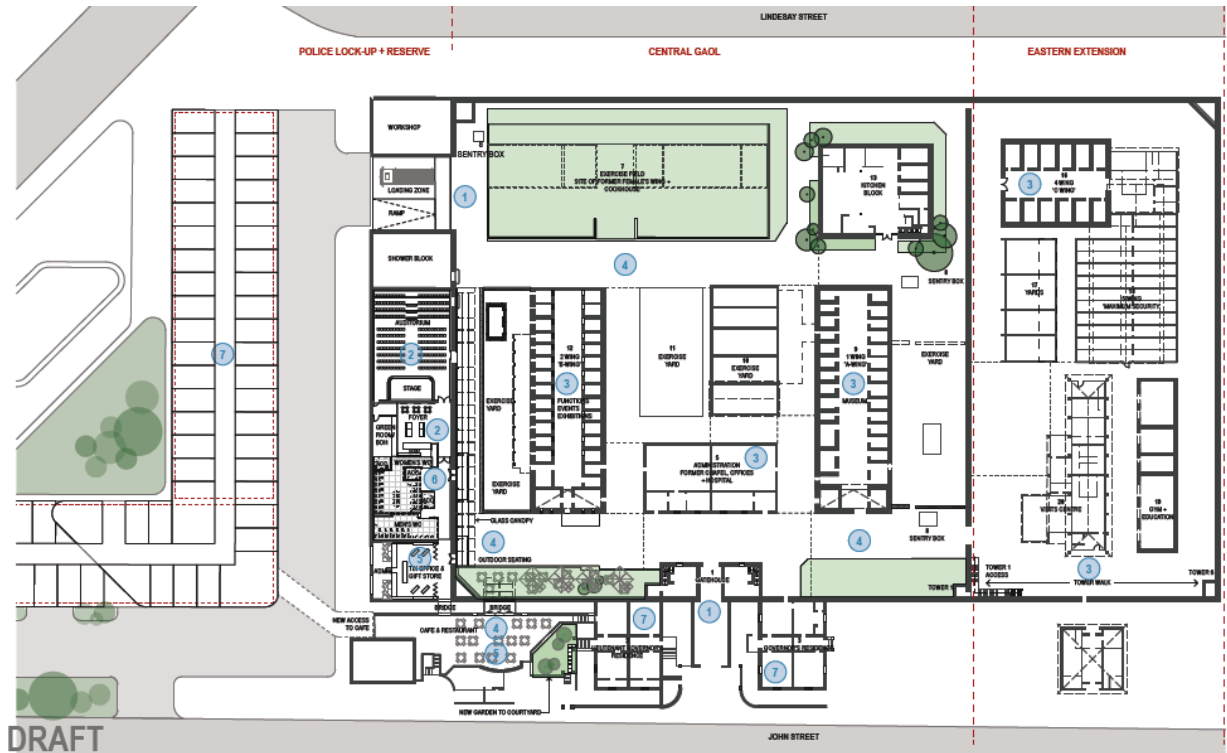


Source: The Gaol Site Masterplan, Maitland City Council 2020

Although the Masterplan encompasses the entire Maitland Gaol site, this TIA however only assesses the site at 6-18 John Street, which is Lot 469 component of the Masterplan (excluding the proposed accommodation component of the site), as seen in **Figure 2-5**. The preferred option proposed the following:

1. Improving site access and egress
2. Internal spaces with fewer constraints
3. Paid visitor experiences and tours
4. Non-paid visitor access
5. Retail spaces
6. Amenities
7. Accommodation and hotel facilities

Figure 2-5 The preferred consolidated option C



Source: The Gaol Site Masterplan, Maitland City Council 2020

3.0 Existing conditions

3.1 Travel behaviour

This section of the report presents the visitation data and staffing numbers of the Maitland Gaol, before its closure in March 2024.

3.1.1 Public visitation/daily tours

In accordance with the *Draft Maitland Gaol Development Plan* (Maitland City Council, July 2020), over half of Maitland Gaol's current visitors originate from local and regional areas, with Newcastle residents making up over a quarter of all visitors undertaking tours in 2018. Approximately a quarter of visitors to the site reside interstate or in another country. The residence of visitors to the site is outlined in **Table 3-1**.

Table 3-1 Residence of visitors to Maitland Gaol (2018)

Visitor residence	Percentage
Maitland	11%
Newcastle	27%
Hunter Valley	8%
Central Coast	11%
Sydney	17%
Interstate / International	26%
Total	100%

Source: The Draft Maitland Gaol Development Plan (Maitland City Council, July 2020)

Based on data obtained from the *Funding Deed Application* developed by Vibrant City MCC, Maitland Gaol had approximately 18,500 visitors in the 2020-2021 financial year, with the heaviest visitation being:

- during the months containing school holidays
- during Fridays, Saturdays and Sundays
- between 11am and 2pm (apart from bus arrivals).

General tours account for about 50 per cent of the total visitation, whereas the other half of the visitation is events and school groups¹.

There is no data available regarding the mode of transport for visitors, but it is known that the majority of visitors arrive by private vehicle and a limited proportion arrive by train. Many bus tours arrive at the site each year, including school groups.

3.1.2 Special events

Typical frequent events at the site have a patronage of 100 to 300 based on the size of the venues (such as small weddings, birthdays, small shows, and special event tours). From time to time, larger events like movie nights and music events may attract 500-1,000 patrons. Traffic management plans have been developed to manage traffic and parking arrangements during these large events.

This TIA does not consider parking requirements for future special events as these are managed through specialised traffic management plans.

¹ This is sourced from Table 1 Current uses of Maitland Gaol of the Gaol Development Plan.

3.1.3 Staff

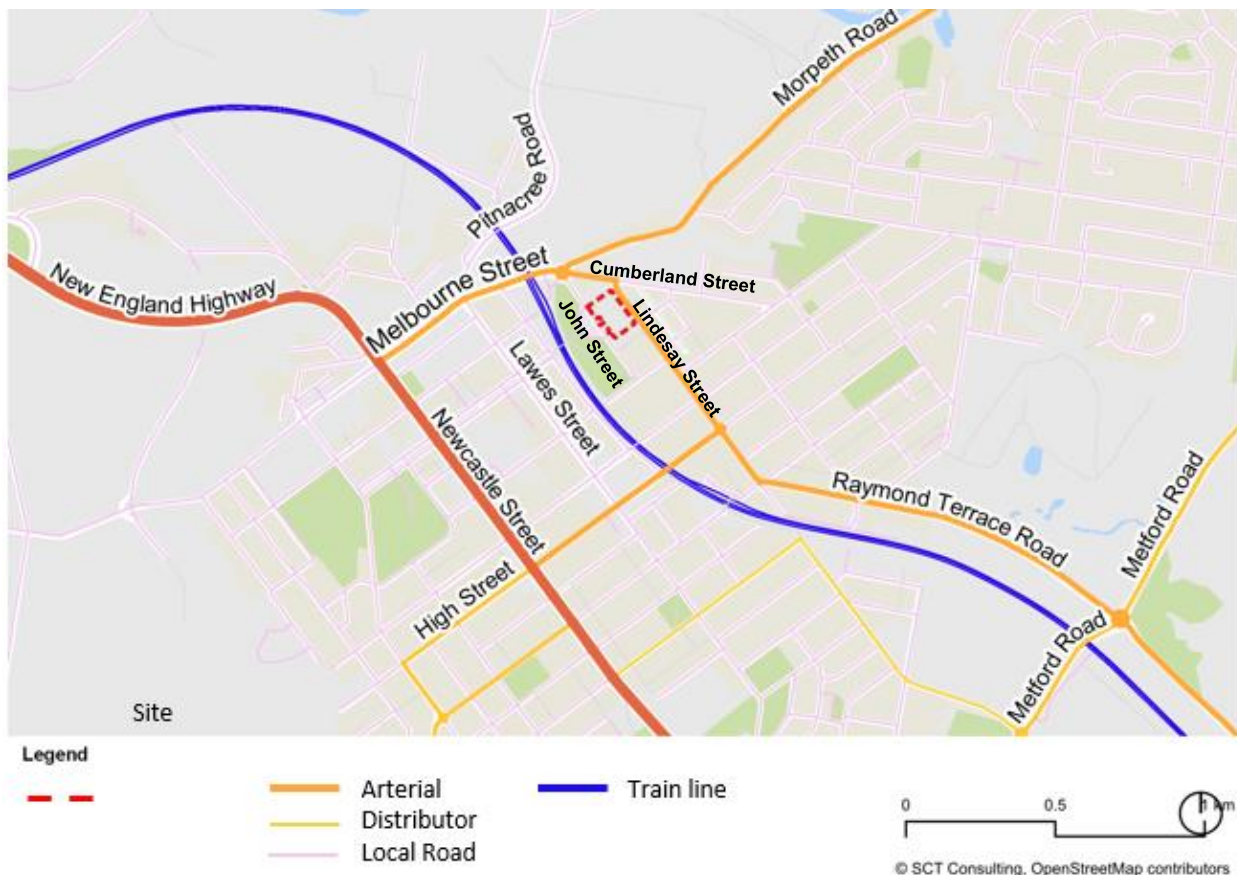
There are five staff who work in the offices or grounds on weekdays and the number increases by one or two when guided tours are booked. Typically on a weekend, one staff member is working in the front of the house, which increases by one or two when guided tours are booked.

3.2 Road network

The road network surrounding the site is shown in **Figure 3-1**.

- **Lindesay Street** is classified by TfNSW as an arterial road and runs along the eastern border of the site. It has one lane in each direction and runs between Cumberland Street in the north and transitions into a local road at Raymond Terrace Road. There is no restriction for on-street parking while an on-road cycleway is available on either side of the street.
- **Cumberland Street** is classified as an arterial road between John Street and Lindesay Street, where it continues as a local road to Narang Street. It has one lane in each direction with a 50km/h speed limit. There is a school zone to the east of Lindesay Street near Maitland Grossmann High School. There is no restriction for on-street parking and a footpath is available on the northern side of the road.
- **Melbourne Street / Morpeth Road** is classified as an arterial road by TfNSW and runs to the north of the site with one lane in each direction. It provides access from the site via John Street to the arterial network on New England Highway. The signposted speed limit is 60km/h apart from a school zone. There is no restriction for on-street parking to the east of John Street whereas parking to the west of John Street is not available due to bus zones and the tunnel beneath the railway line. An on-road cycleway is available on either side of the street.
- **John Street** is classified as a local road by TfNSW and provides both vehicular access to an off-street car park and pedestrian access to the site. A footpath is available to the northern side of the road at the front of the site. John Street has one lane in each direction and runs between Cumberland Street and King Street. On-street parking is provided along the eastern side of the street (along the site boundary) but there are “No Stopping” restrictions along the western side of the road. The street has a signposted speed limit of 50km/h.

Figure 3-1 Road network surrounding the site



3.3 Existing traffic conditions

A desktop analysis was undertaken to establish a typical day of existing traffic conditions on the road network surrounding the site when the site is most frequently visited by private vehicles (between 11am and 2pm). Google Maps shows live traffic delays related to speed of traffic at any time during the day, based on the following colour code system:

- Green - no traffic delays
- Orange - medium amount of traffic
- Red - traffic delays (the darker the red, the slower the speed of traffic on the road).

The traffic conditions on the surrounding road network on weekday and weekend respectively is shown in **Figure 3-2**. This suggests that the roads surrounding the site are generally not experiencing any major traffic delays during peak hours on a weekday or weekend, with the exception of Melbourne Street around 11am (Friday) and 11:35am (Saturday) where Google Maps suggest that there is a slight delay in westbound traffic.

Figure 3-2 Traffic conditions surrounding the site



Traffic conditions at 11am (Friday)

Source: www.google.com/maps (December, 2022)



Traffic conditions at 11:35am (Saturday)

3.4 Parking and access

There are two car parking areas to the southwest of the site. Car park 1 is accessed by two driveways (one entrance and one exit) at John Street, where 11 on-site parking spaces are provided (**Figure 3-3**). Car park 2 is accessed via a single driveway at John Street, where five on-site parking spaces are provided (**Figure 3-4**).

Figure 3-3 Access arrangement for Car park 1



Source: Google Streetview (December 2022)

Figure 3-4 Access arrangement for Car park 2



Source: Google Streetview (December 2022)

Prior to the closure, the occupancy of the car park is based on tour visitation and is more likely to fill up if there is an event, or if training is booked at the site. Once the on-site parking is full, parking will occur on the street. On-street parking is available along John Street, King Street, Lindesay Street and Cumberland Street.

A desktop parking observation has been undertaken based on Nearmaps historic images as shown in **Table 3-2**. It is assumed that the available on-street parking on John Street is around 76 spaces (considering the driveways and “No Parking” section) whereas the total available on-site parking is 16 spaces. The actual parking demand varies from 21 to 47 cars on the three typical days, resulting in a remaining capacity of at least 49 per cent given more on-street parking is available on other local streets.

Table 3-2 Parking occupancy observation

Date	14 June 2022 (Tuesday)	18 August 2022 (Thursday)	6 May 2023 (Saturday)
Time	13:32 PM	12:18 PM	9:22 AM
Image			
Capacity analysis	<p>7 out of 16 on-site parking were taken. 14 cars (one bus equals two cars) are parked on John Street where the total available spaces are a minimum of 76 spaces. Remaining capacity is at least 77%.</p>	<p>12 out of 16 on-site parking were taken. 35 cars are parked on John Street where the total available spaces are a minimum of 76 spaces. Remaining capacity is at least 49%.</p>	<p>8 out of 16 on-site parking were taken. 14 cars are parked on John Street where the total available spaces are a minimum of 76 spaces. Remaining capacity is at least 76%.</p>

Prior to the closure, some servicing vehicles are accessed via the front gate to get to the internal courtyard area whereas the main loading/servicing area is via the access to the north of the site. Delivery vehicles and vendor cars of up to 2.5m high may access the site during events, activations and functions in particular.

Pedestrian access was located between the two lieutenant governor's residences

3.5 Public transport

The public transport facilities located in the proximity of the site are buses and trains as shown in **Figure 3-5**.

The site is located within 250m (an approximate four-minute walk) of the East Maitland train station which is accessed via John Street. The East Maitland train station is serviced by the intercity service Hunter Line which runs between Scone or Dungog and Newcastle Interchange. During weekdays, the frequency of trains stopping at East Maitland Train Station is

- 3-4 services per hour in each direction (AM peak hour)
- 4-5 services per hour in each direction (PM peak hour)
- One train per hour stops at East Maitland Station in each direction during weekends (between 10am and 4pm).

The nearest bus stops (approximately 250m) to the site are located at the East Maitland Station and Melbourne Street northwest of the site. Nearby bus stops are also located along Cumberland Street and Lindesay Street. The bus routes that stop within 800m walking distance of the site are routes 181, 183 and 184. The frequency of these routes is outlined in **Table 3-3**. As seen, the bus coverage in the proximity of the site is currently limited, and the buses within 800m walking distance of the site only operate between the nearby suburbs of East Maitland and with limited frequency during both weekdays and weekends.

Table 3-3 Frequency of bus routes within 800m walking distance of the site

Route	Origin and destination	Number of services in both directions per hour		
		AM peak	PM peak	Weekend
181	Rutherford to Woodberry via Maitland, Green Hills Shopping Centre & Beresfield	2	2	2
183	Rutherford to Tenambit via Maitland & Green Hills Shopping Centre	3	3	2
184	Morpeth to Green Hills Shopping Centre via Tenambit & East Maitland	1	1	<1

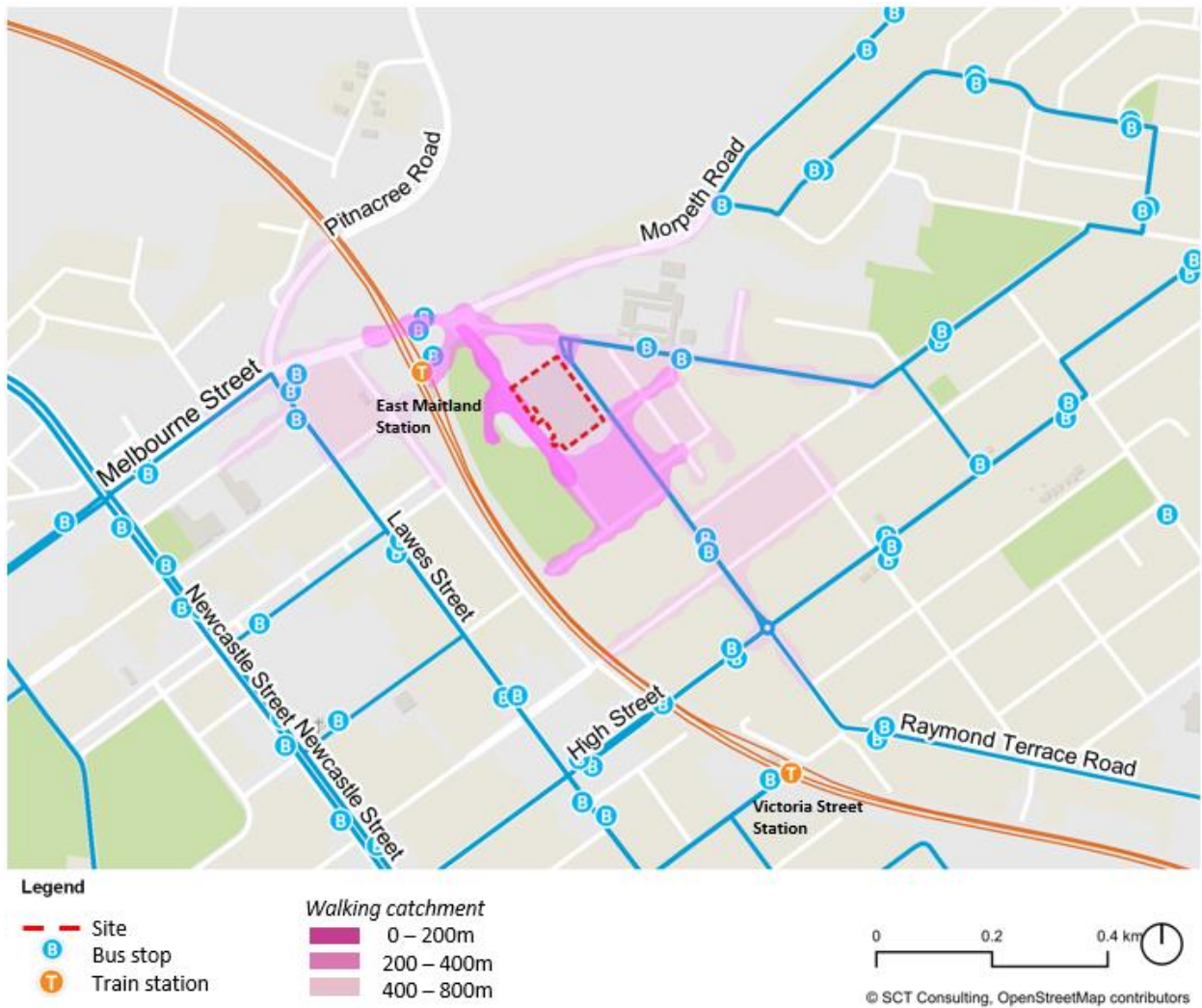
Source: Trip Planner | transportnsw.info (December 2022)

3.6 Walking

Footpaths are available on the eastern side of John Street at the front of the site, the northern side of Cumberland Street and Morpeth Road. There are multiple refuge crossings around the site and a pedestrian crossing is provided near the Maitland Grossmann High School. No formal crossing facilities are available on John Street.

The East Maitland Train Station as well as some bus stops along Melbourne Street, Cumberland Street and Lindesay Street are located within an 800m walking distance of the site, as seen in **Figure 3-5**.

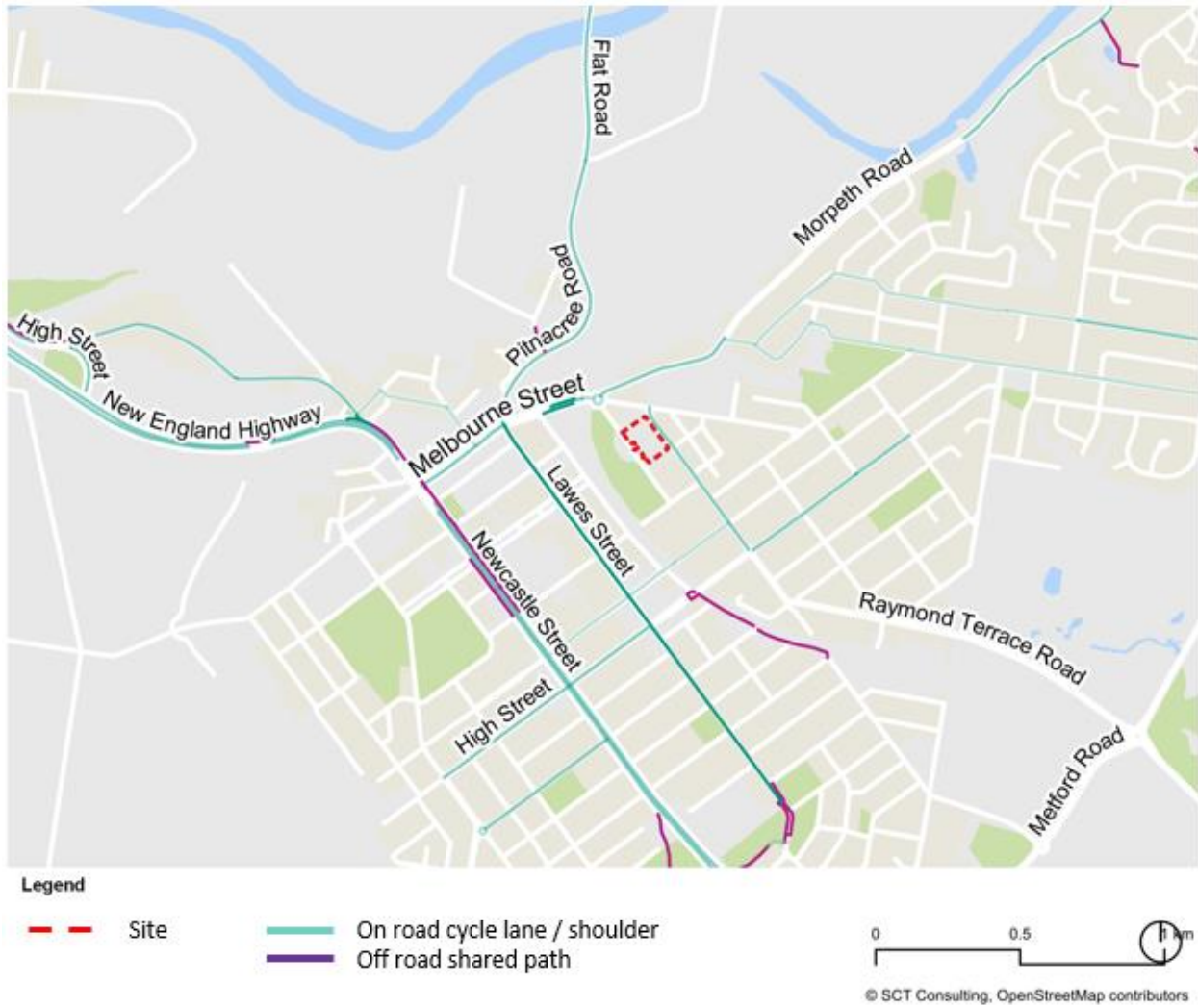
Figure 3-5 Public transport facilities and walking catchment



3.7 Cycling

The site is not located in the proximity of any major off-road cycle routes, as seen in **Figure 3-6**. However, on-street (and partly off-street) cycle routes are available on Lindesay Street, Melbourne Street, Morpeth Road and Newcastle Street. The mixed environment with motorised traffic could act as a barrier to cycling to the site and steep gradients could also limit cycling uptake.

Figure 3-6 Cycle network



4.0 Proposed development

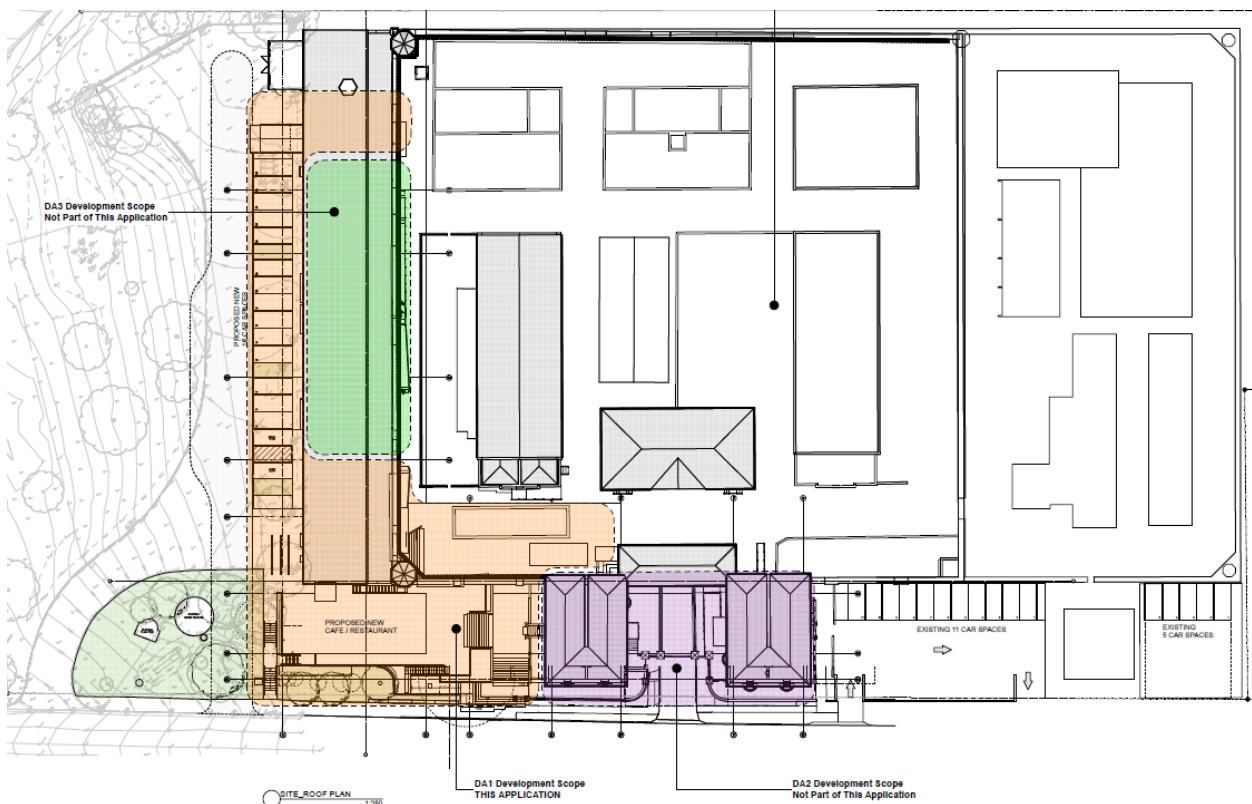
4.1 The proposed master plan

The proposed development considered in this TIA refers to Maitland Gaol's DA1. It will perform a key role in activating areas inside the entrance of the Gaol. It will be a focus for visitors seeking information and amenities, be a place to meet and relax and act as a start/end point for tours.

The allotment for the site is Lot 469 in Deposited Plan 1002766 and is currently zoned SP3 Tourist under the *Maitland Local Environmental Plan (MLEP) 2011*.

It is emphasised that this TIA relates to the redevelopment of the visitor ticket area, administration, cafe, loading dock and car park but excludes the theatre and bar (shown in yellow area in **Figure 4-1**).

Figure 4-1 The proposed staging plan



Source: Maitland City Council, 2023

4.2 Expected increase in patronage and employment

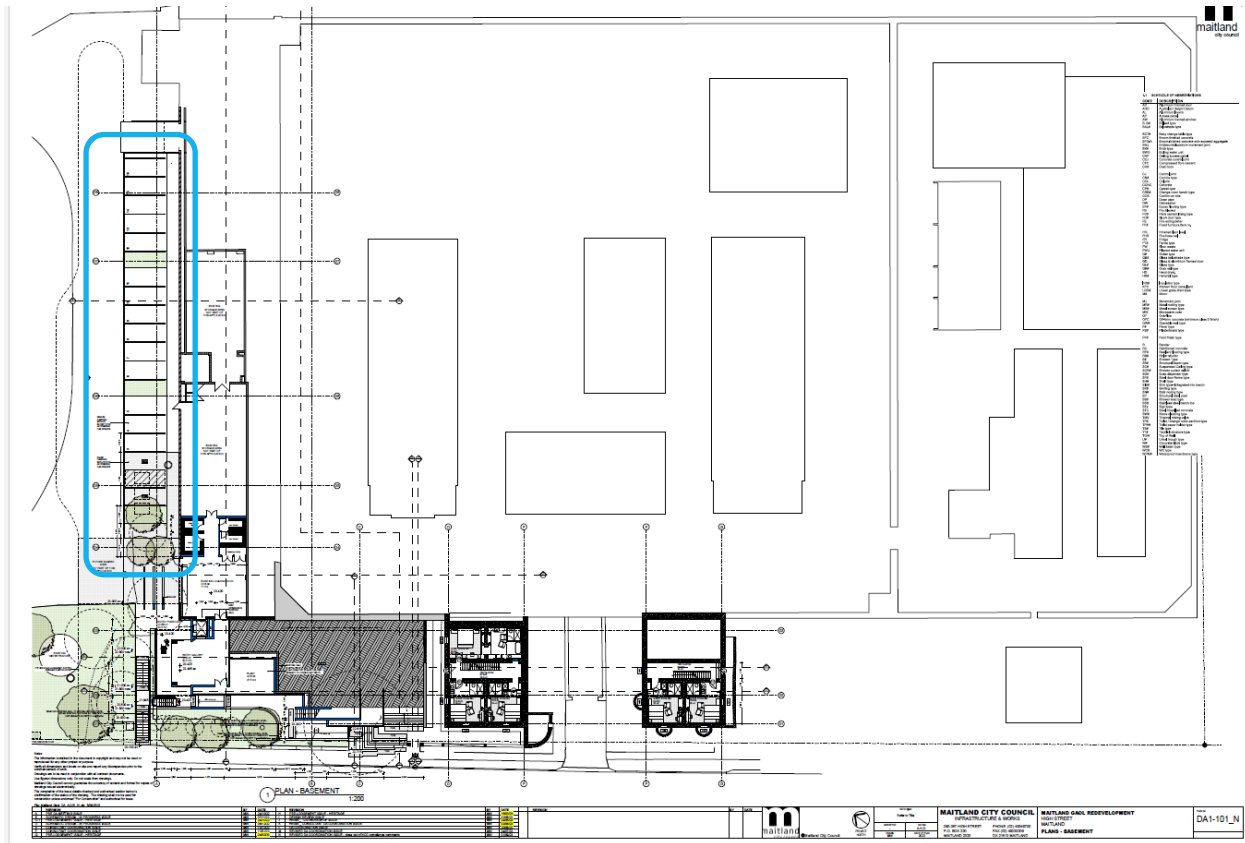
As a result of DA1, once operational, it is expected that over 31,000 patrons will visit the site in the first year.

Following completion and based on expected visitors in the first year, it is anticipated that an additional 23 long-term local jobs will be available at the site as part of the proposed development. Council is also creating five new full-time equivalent roles to support the development and ongoing management of the site.

4.3 Proposed car parking and access

An additional 16 parking spaces, accessed from John Street, are proposed as part of the redevelopment, as seen in **Figure 4-2**. Two on-grade spaces to the west of the store building are expected to act as accessible spaces as these are closest to the passenger lift.

Figure 4-2 The proposed master plan (shown in blue boxes)



Source: Maitland City Council, 2023

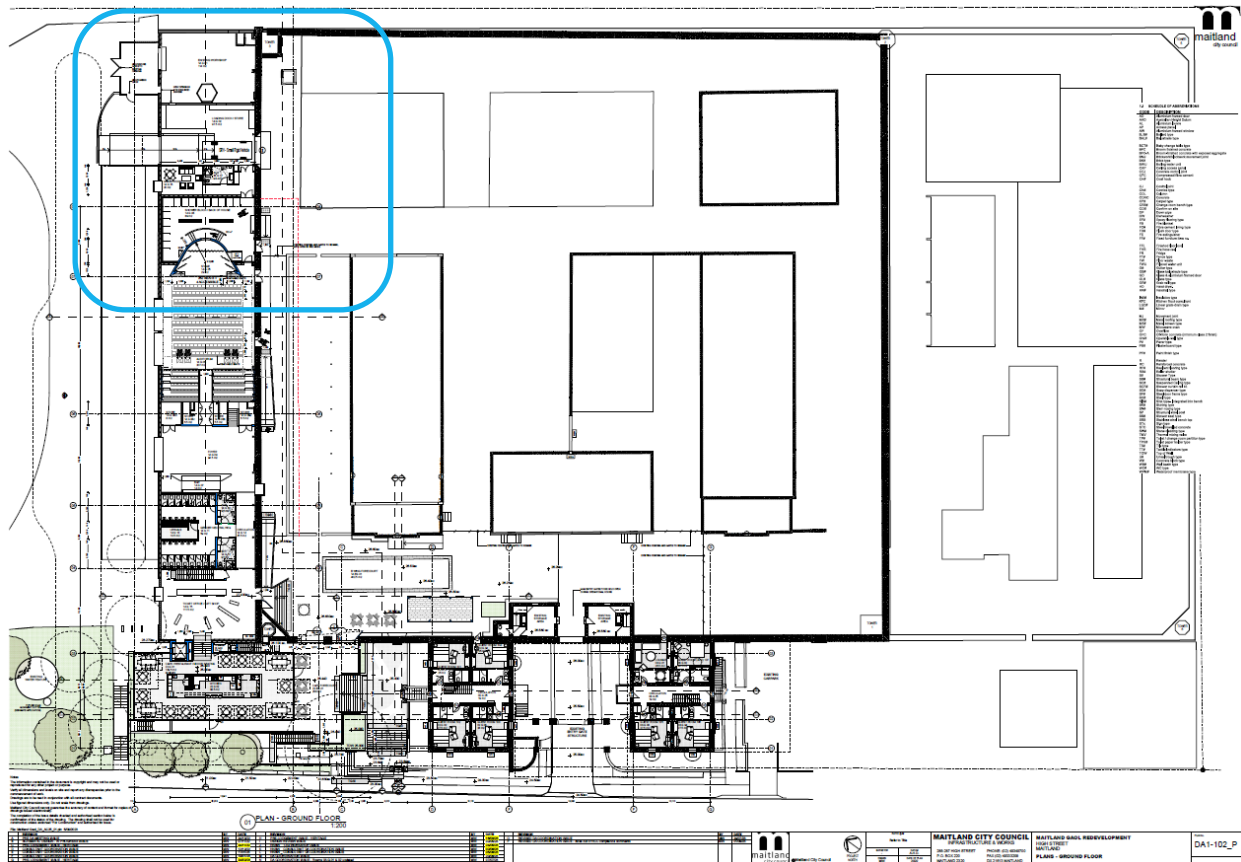
4.4 Proposed additional service access

The current front gate from John Street is to be maintained as a secondary access point whereas the proposed north servicing dock will be a primary loading dock to improve servicing and delivery to the internal courtyard for stage equipment and food delivery, as shown in **Figure 4-3**.

The maximum allowable vehicle to pass through the gate into the courtyard is a B99 vehicle. A forklift will unload materials or goods in the loading dock.

The number of service vehicles is however not expected to increase with the proposed development.

Figure 4-3 The proposed additional loading area to access the internal courtyard

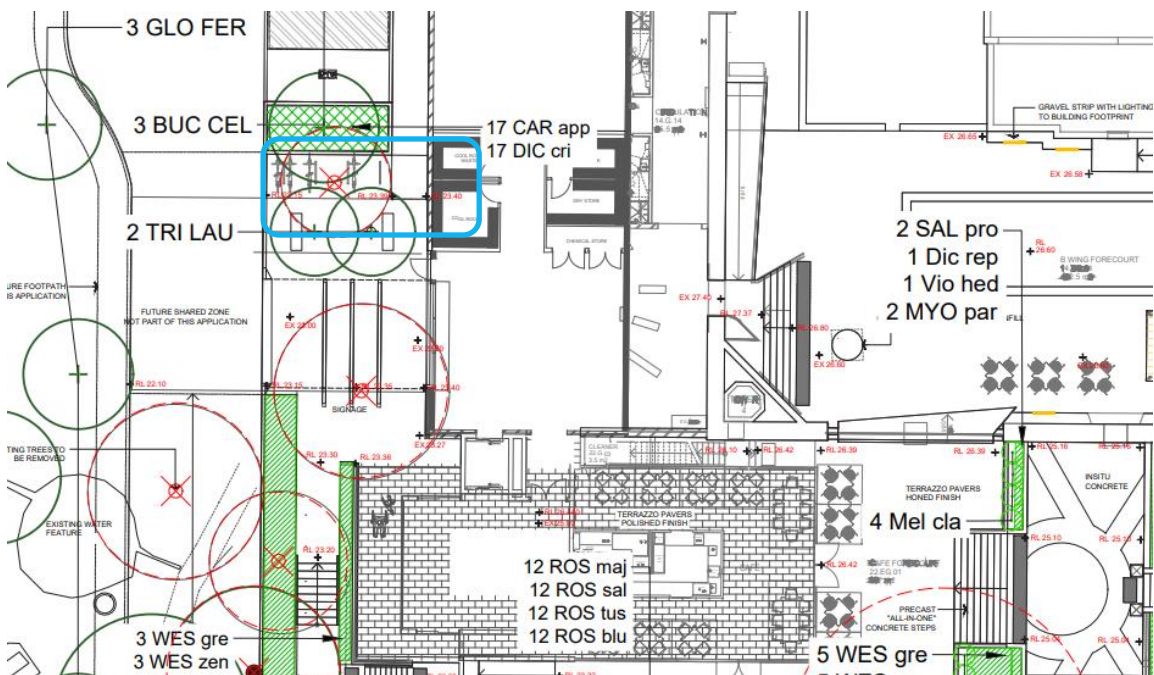


Source: Maitland City Council, 2023

4.5 Proposed bicycle parking

Eight bicycle parking spaces have been provided adjacent to the accessible entrance.

Figure 4-4 The proposed bicycle parking



Source: Urbis, 2023

4.6 Swept path and AS2890 review

An AS2890.1 car park review and related swept path assessment were conducted based on the latest drawings. The review identified that the current design is consistent with what is specified in Australian standards.

The detailed swept path analysis for the loading dock is shown in **Appendix A**.

5.0 Traffic and Transport Impact Appraisal

5.1 Traffic generation and distribution

5.1.1 Traffic generation

It is assumed that since 2020/21 the current visitation (prior to closure in 2024) has slightly recovered, i.e. an annual visitation of 19,600² with a higher concentration of visitors during school holidays, Fridays and weekends and between 11am and 2pm.

Further assumptions have been made to investigate the peak hour traffic while the visitation has excluded the people during special events and school groups. This would be half of the total visitation, i.e. 9,800 visitors (**Table 5-1**):

- The site was open for visitors seven days a week.
- About 160 days are school days (Monday to Thursday) when the visitation was relatively low.
- About 115 days are Fridays and normal weekends when the visitation was higher than school days.
- About 90 days were peak visitation days such as school holidays and public holidays including peak weekends.
- 75 per cent will arrive between the peak three hours with an average two-hour dwelling time.
- In the worst-case scenario, all visitors are arriving by private vehicle with an average occupancy of two people per car.

Table 5-1 Existing visitation assumption

Type of day	Number of visitations (per day)	Number of days	Total visitation	Number of car trips per day (per direction)	Number of car trips per peak hour per direction
School day (excluding Friday)	10 people	160 days	1,600 people	5 cars	2 cars
Normal Friday weekends	25 people	115 days	2,875 people	13 cars	3 cars
School holidays, public holidays (including peak weekends)	60 people	90 days	5,400 people	30 cars	8 cars
Total	-	365 days	9,875 people	-	-

Hence, the current trip generation (prior to its closure in 2024) is 16 cars (8 cars in and 8 cars out) during a typical peak hour on a peak visitation day. It is expected that the proposed redevelopment would attract over 31,000 people in the first year of operation in 2026, which is an increase of about 58 per cent from the current post-COVID condition, prior to its closure. This is equivalent to a net increase of about eight cars (four cars in and four cars out) during the peak hour.

This level of increase means that the total trip generation during a typical peak hour on a peak visitation day could be 24 cars (12 cars in and 12 cars out), with the upgrade works proposed in DA1.

5.1.2 Trip distribution

Based on the distribution of visitors as described in **Section 3.1**, the below distribution is assumed to access the site:

- Approximately 55 per cent will arrive from the east via Newcastle Road, Melbourne Street and John Street (from Newcastle, Sydney and the Central Coast)

² This is based on the email correspondence with the client on 6 Dec 2022 regarding the visitation projection: 'We predict it will encourage an additional 11,400 additional visitors in its first full year of in operation.' 'Once operational, over 31,000 people will visit the site in the first year.'

- Approximately 19 per cent will arrive from the west/north via New England Highway, Melbourne Street and John Street (from the Hunter Valley and Maitland)
- Approximately 26 per cent will arrive from 'interstate/international', which are expected to be accessed from New England Highway (west and north) and Newcastle Road (east) due to their strategic access.

5.2 Road network impact

The traffic increase associated with the redevelopment is relatively minor and within a daily traffic volume variation on the local road network. It is expected to be accommodated by the existing road network and there will not be any significant impact on the surrounding road network.

5.3 Parking impact

There are currently 16 parking spaces provided to the southwest of the site. The proposal will double the parking capacity for DA1 to 32 spaces.

The desktop parking occupancy analysis indicates that there was at least 49 per cent remaining capacity, which is further converted into about 45 parking spaces (available on and off-street). Together with the availability of on-street parking around the site, it is expected that the parking impact associated with the redevelopment would be minor. Daily tours will be unlikely to have a major impact on the large supply of on-street parking.

Overall, the parking impact would be mitigated through a combination of on and off-street parking, staggered timing from the public daily visitation and overspill parking provisions (across John Street next to the courthouse) which may only occur during special events, workshops and training.

5.4 Public transport impact

The existing public transport usage to access the site is low and the public transport services are expected to cope with the additional trips generated by the proposed redevelopment.

5.5 Active transport impact

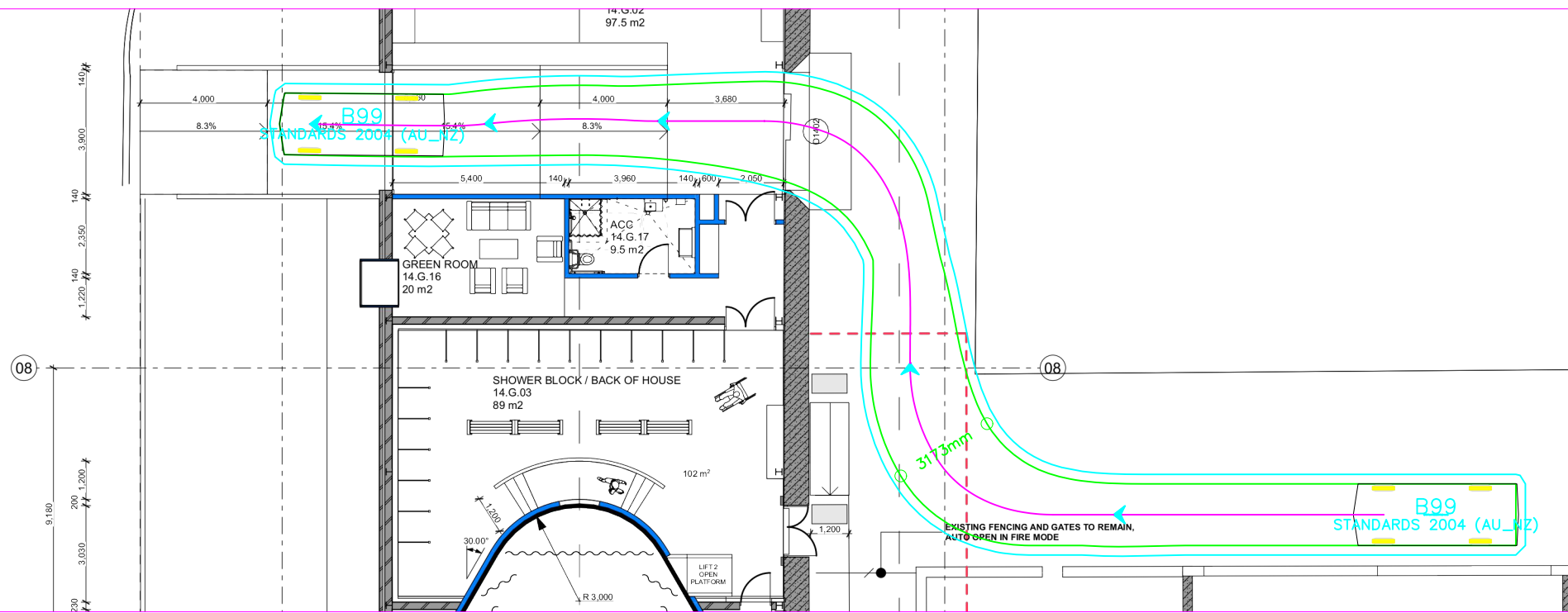
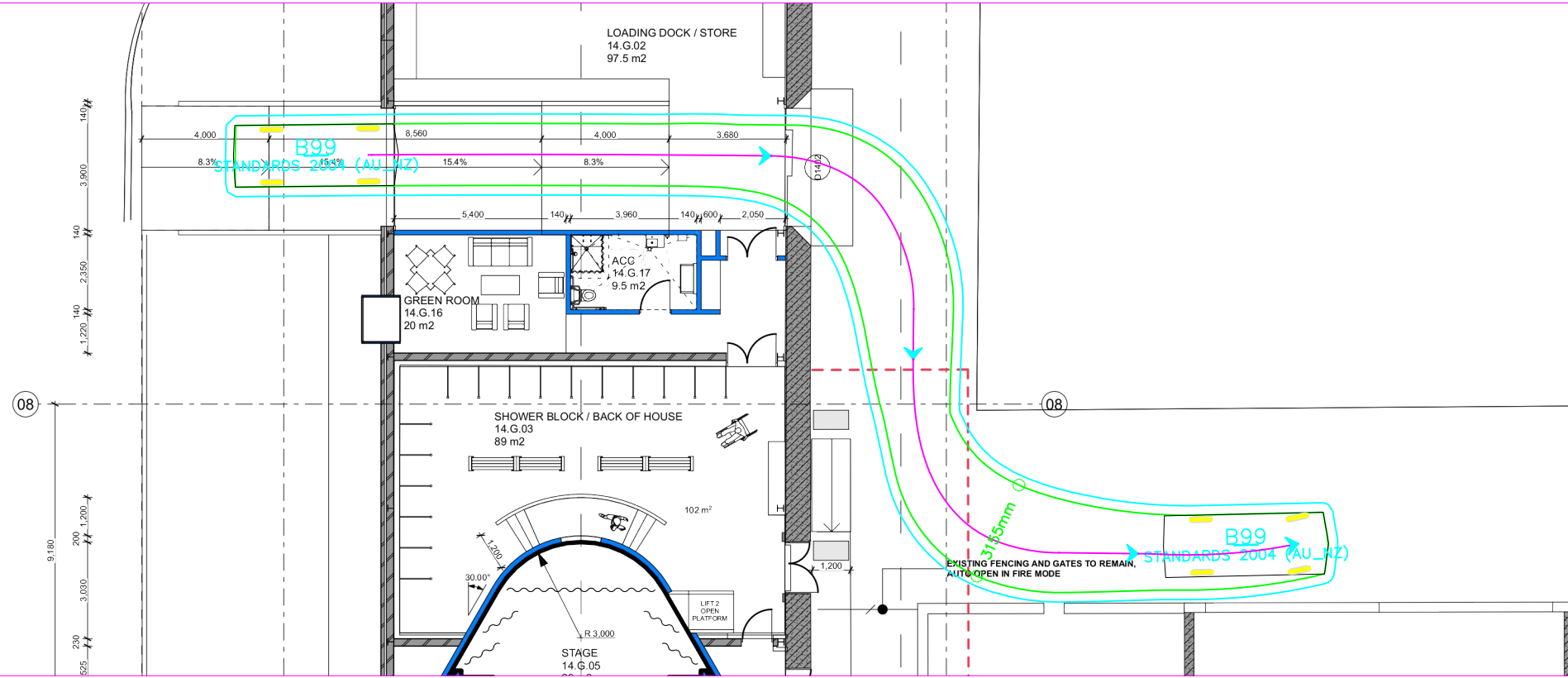
The number of walking/bicycle trips generated by the proposed development is expected to be limited, and hence no significant impact is expected on the active transport network as a result of the proposed development. Eight bicycle parking spaces have been provided adjacent to the accessible entrance to encourage cycling to the facility.

6.0 Conclusion

The proposed development considered in this TIA refers to Maitland Gaol's Development Application 1 (DA1). In summary:

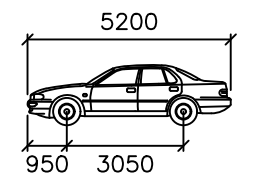
- As part of the proposed development, an additional 11,400 visitors to the site will be expected in 2026, totalling 31,000 patrons in the first year. This is an increase of about 58 per cent from the current visitation (prior to its closure in 2024), which is equivalent to a net increase of about eight cars (four cars in and four cars out) during the peak hour. Given the small increase in the traffic volume, there will not be any significant impact on the surrounding road network.
- An additional 16 parking spaces, accessed from John Street, are proposed as part of the redevelopment. Two on-grade spaces to the west of the store building are expected to act as accessible parking spaces as these are closest to the passenger lift.
- Given the availability of on-street parking around the site and increased parking capacity on-site, it is expected that the parking impact associated with the redevelopment would be minor. Daily tours will be unlikely to impact on-street parking.
- The parking impact would be mitigated through on and off-street parking, staggered timing from the public daily visitation and overspill parking provisions which may only occur during special events, workshops and training.
- An additional servicing dock will be provided via a ramp to the existing internal service road to the north of the site accessed via John Street, to improve servicing and delivery to the internal courtyard. The maximum allowable vehicle to pass through the gate into the courtyard is a B99 vehicle.
- The number of service vehicles is however not expected to increase with the proposed development.
- No significant impact is expected on the public transport and active transport network as a result of the additional trips generated by the proposed development.

The Traffic Impact Assessment report concluded that the proposed development will have a limited impact on the local transport system.



Assumptions:

The swept path analysis was carried out to identify the feasibility of a B99 accessing the loading dock and passing through the gate to the internal area of the gaol. It is noticed that two way operation is not permitted on the ramp.



B99

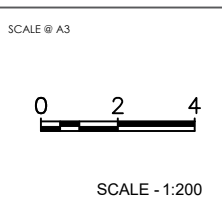
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Track	: 1840
Lock to Lock Time	: 6.0
Steering Angle	: 33.9



REV	DESCRIPTION	DATE
A	PRELIMINARY DRAFT	25/01/2023
B	FINAL DRAFT	08/09/2023



QUALITY INFORMATION	
DATE	09/23
PREPARED	S.C
REVIEWED	J.B.
AUTHORISED	J.B



PROJECT
Maitland Gaol Redevelopment Traffic Consultant
Swept Path Analysis

TITLE
B99 Proposed Turning Movement

DRAWING NUMBER
SCT_00383_02-001



APPENDIX A

Swept path analysis

