PRELIMINARY CONSTRUCTION MANAGEMENT PLAN

Review of Environmental Factors (REF)
Orange Hospital (World Class End of Life Program)

Orange Hospital

May 2024

CONTENTS

1 INTRODUCTION

The purpose of this Preliminary Construction Management Plan (PCMP) for the Orange Palliative Care Project (World Class End of Life Program - WCEoLP) is to demonstrate that the proposed works can be executed in accordance with legislated safety and environmental requirements with minimal inconvenience to users, visitors and staff of the hospital along with neighbours and the general public.

The works have undergone a 'Safety in Design' review in early April 2024 and on appointment the Head Contractor will prepare a comprehensive Construction Management Plan with specific details and strategies for the management of on-site activities.

The Head Contractor, appointed as Principal Contractor in accordance with NSW WHS legislation, complies with the requirements detailed in this Preliminary Construction Management Plan, as well as the requirements of the Orange City Council and other governing authorities. This report has been prepared to accompany a Review of Environmental Factors (REF) under State Environmental Planning Policy (Transport and Infrastructure) 2021 (TISEPP) planning provisions for the facility.

1.1 PROPOSED WORKS

The Orange Hospital aims to expand the palliative care beds capacity to 3 Palliative Care beds in addition to the existing 2 within the existing Orange Hospital building. These proposed 3 beds will be additional to existing hospital operations.

The WCEoLP Orange comprises an additional 3 new palliative care beds located within the existing cold shell of level 01 Orange Hospital main building. The fit out of the cold shell space for the new palliative care will be constructed in a single stage and will encompass the following areas below:

- 3 Bedrooms - Special, Inboard Ensuite
- Lounge - Patient / Family
- Beverage Bay
- Dirty Utility
- Courtyard
- Public Toilet

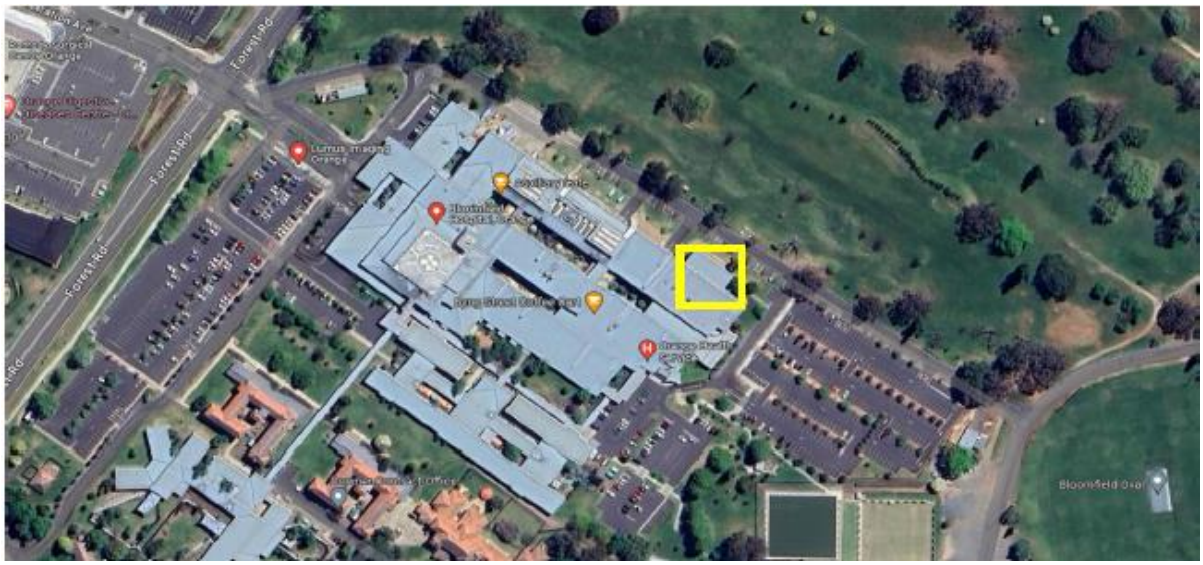

Figure 1 – Site context plan

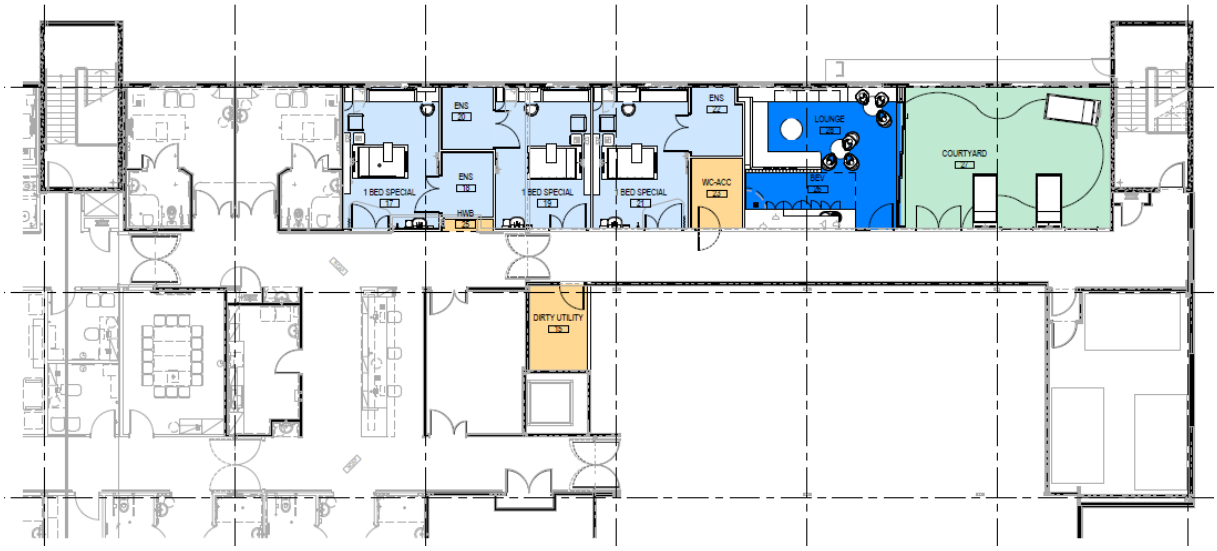

Figure 2 – Detailed Schematic Design Plan

1.2 AREAS OF MANAGEMENT

The Plan covers the following areas of management:

- Legislative requirements;
- Hours of operation;
- Public and property protection;
- Noise;
- Dust Management;
- Odour control;
- Storage of dangerous goods;
- Water quality / stormwater runoff;
- Waste management principles;
- Hazardous materials management;
- Traffic and pedestrian management; and
- Services disconnections.

The Works will be undertaken by suitably licensed contractors holding current and appropriate licences and insurances.

It is envisaged that the Works will be undertaken under a "Principal Contractor" arrangement.

All statements and proposals documented in this Plan will be reviewed at the time of contract award for the Works to ensure alignment with proposed preferred methodologies and sequencing developments.

The Principal Contractor will adhere to the Protection of the Environment Operations Act - 1997.

2 SITE OPERATIONS:

2.1 LEGISLATIVE REQUIREMENTS

The Works will be undertaken in accordance with the following legislative requirements:

- Protection of the Environment Operations Act and Regulations;
- Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA);
- Environmentally Hazardous Chemicals Act 1985;
- Protection of the Environment Administration Act and Regulations;
- Work Health & Safety Act 2012 and relevant codes of practice and Standards;
- WHS Regulation 2012 and relevant codes of practice and Standards;
- Australian Standard AS 2601:2001: Demolition of Structures;
- Australian Standard AS 4970:2009: Protection of Trees on Development Sites;
- Australian Standard AS 4373:2007: Pruning of Amenity Trees;
- Code of Practice for the Safe Removal of Asbestos (NOHSC:2002 (1998));
- Guide to the Control of Asbestos Hazards in Buildings and Structures (NOHSC:3002 (1988));
- Resource and Recovery Act 2001;
- Environmental Planning and Assessment Act 1979, including clause 6.28 for the compliance of the current Building Code of Australia;
- Heritage Act 1997;
- Local Government Act 1993;
- Disability Discrimination Act 1992 (DDA);
- Disability (Access to Premises – Buildings) Standards 2010 (Premises Standard);
- Applicable aviation standards e.g. CASA requirements; and
- Soil Conversation Act 1938.

2.2 HOURS OF OPERATION

The following hours of operation are proposed for the Works:

- Monday to Friday 7.00AM to 6.00PM
- Saturdays 8:00AM to 1:00PM
- Sundays and Public Holidays No Work

No work will occur outside of the hours nominated unless approval has been given by Orange Hospital and the relevant statutory authority in line with the conditions of consent.

Deliveries of heavy machinery may be required out of the proposed hours of operation to conform to the overriding requirements of Transport for NSW.

2.3 PUBLIC & PROPERTY PROTECTION

Appropriate hoarding/fencing (as specified in Australian Standards and WorkCover requirements) will be installed to prevent public access and to maintain security for the various areas of the Works. The

Works will be planned so that access to the public car park areas will be maintained to the maximum capacity, as much as is feasible during the works. Public access to the Hospital facilities will be maintained and signed as appropriate in consultation with the Orange Hospital.

Vehicular access/egress gates will be erected internally as required. These gates will be manned by qualified traffic supervisors at the times of vehicular access and egress to the Site.

The Preliminary Site Access diagrams have been drafted to depict how the development site may be contained, serviced and accessed, including designated parking for construction staff so that Orange Hospital and visitors are not unduly inconvenienced. The site plan will be further developed in consideration of the appointed Head Contractor's methodologies prior to commencement on site.

Public Safety, Amenity and Site Security measures may be staged during the Works. At various times, different portions of the site may be fenced. These property protection measures will be reviewed at the time of contract award for the Works to ensure alignment with proposed preferred methodologies and sequencing developments and to ensure that the safety of the general public is maintained at all times during the Works.

The Head Contractor will need to comply with their duty under WHS management in accordance with the legislative requirements listed in 'Legislative Requirements' of this document.

3 ENVIRONMENTAL & AMENITY

The contractor undertaking the Works will be required to submit for approval a comprehensive Construction Environmental Management Plan (CEMP) to ensure that all elements of the plan meet all statutory requirements as well as Orange Hospitals' requirements.

As a minimum, the erosion and sediment controls for the Works shall be designed, installed and maintained in accordance with the requirements of Managing Urban Stormwater: Soils and Construction "The Blue Book" 2004 (4th edition).

The environmental performance of the contractor will be monitored and reported monthly under the Performance Evaluation Record from the GC21 Contract, throughout the Works.

The following specific environmental management principles will be implemented on site.

3.1 NOISE AND VIBRATION

All practicable measures will be taken to reduce the noise arising from the Works. Noise from the site shall not exceed the limits set out in the Interim Construction Noise Guidelines (ICNG) and Environmental Protection Authority (EPA). No machine work will occur outside approved working hours (refer item 2.2) unless approval has been given by the consent authority.

The following measures are proposed with reference to the ICNG:

- Use Noise Management Levels (NML's) to identify demolition, excavation and construction noise sources or scenarios that require engineering controls or administrative management;
- Promote clear understanding of ways to identify and minimise noise from construction works;
- Focus on applying all feasible and reasonable work practices to minimise construction noise impacts;
- Provide flexibility in the selection of site-specific and reasonable work practices to minimise noise impacts;
- Encourage construction/ demolition work to be undertaken within approved standard hours where reasonably practicable with noise that is audible to other premises. Approval is required for Works undertaken outside standard hours; and
- The use of noise reduction techniques including, but not limited to, barriers, enclosures and silencers shall be employed to ensure compliance with construction and demolition noise criteria.

Demolition work shall comply with Australian Standard 2436-2010 "Guide to Noise Control on Construction, Demolition and Maintenance Sites".

As part of the noise mitigation treatment for the project, the Head Contractor will be responsible for the checking of compliant maintenance regimes and statutory supervision of all equipment, such as making sure all trucks and machinery involved in the Works are checked for defective exhaust systems and general servicing.

The benchmarks used to assess vibration impacts due to the construction Works are documented in the Acoustic Assessment Report prepared by ACOR Consultants Pty Ltd (ACOR). Acoustic design review and recommendations are provided to meet the specific acoustic criteria for this project, in accordance with the following guidelines:

- NSW Noise Policy for Industry (NPI) 2017 and NSW Health – Engineering Services Guidelines 2022.
- NSW EPA Noise Policy for Industry 2017 (NPI)

Figure 3 – Satellite image showing Project Site and Noise Sensitive Receivers (Metromap © 2023)

Figure 4 – Distance between Project Site and Railway Track (>200m)

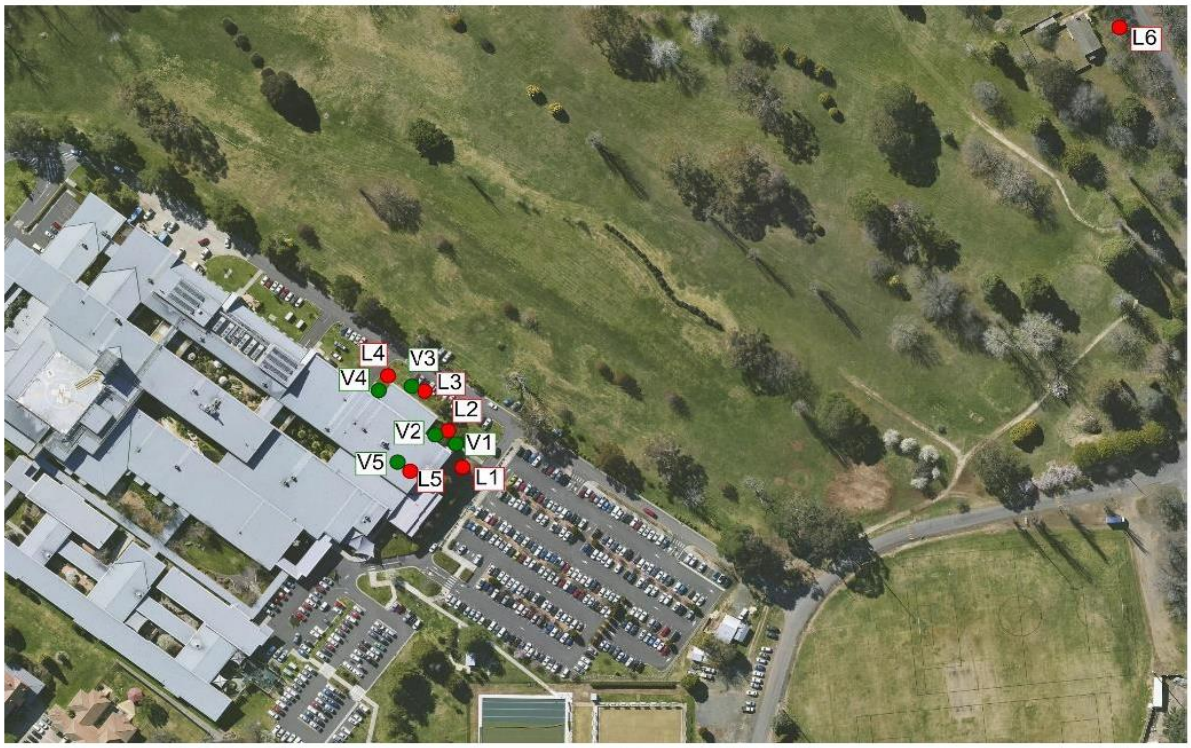

Figure 5 – Background attended Noise and Vibration measurement locations

The assessment confirms that external vibrations meet established criteria, with a very low risk of vibration impact from external sources on the proposed facility. Therefore, no additional measures for structural isolation or vibration attenuation are deemed necessary to address external vibration ingress.

It is anticipated that, upon implementation of the design recommendations, the proposed development will meet the relevant noise criteria.

This report forms part of the Review of Environmental Factors (REF) submission for planning approval. The noise mitigation treatment proposed by the Head Contractor will be included in the detailed Construction Management Plan. Vibration will be constantly reviewed to minimise impacts on the Hospital and surrounding stakeholders, residents and commercial properties.

3.2 DUST

To control dust generation and where necessary, water will be sprayed at the source of origin, over demolition materials during demolition and loading activities to prevent airborne dust particles migrating into the surrounding environment, especially in the internal hospital area (level 1).

Dust monitoring and dust suppression measures will be implemented by the appointed Head Contractor. The site dust levels shall be managed primarily by ensuring:

- Develop a plan for dust management as part of the CEMP. As a minimum daily visual inspection of dust emissions on the site boundary is required. Given the sensitivity of the Orange Hospital personnel who will continue to use the areas close to the refurbishment works, it is recommended that realtime continuous monitoring take place should site disturbance works occur.
- The head contractor will be responsible to record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken. Make the complaints log available to the project team and local authority when

asked. Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the log book.
- Water sprays are used on the stockpiles and haulage pathways;
- Stockpiles will be either periodically wetted down or covered to control dusts;
- Haulage vehicles shall be covered and are to leave via the designated (stabilised) site access;
- Haulage vehicles and plant and equipment shall be washed down whenever they leave the work area; and
- Access roads are to be sufficiently maintained to ensure no visible dust at the site boundary.

Care should be taken to not over-wet stockpiles such that excess runoff is generated. If dust is visible at the boundary of the work area, then additional dust control measures shall be employed, which may include:
- Temporarily suspending activities until wind speeds reduce; and/or
- Additional use of water sprays or dust suppression mixtures.

Additional precautions that will be implemented during the works include the covering of all haulage trucks with tarpaulins and the use of mobile water points during the hammering, processing and loading of concrete, monitoring of weather conditions (including wind) and helicopter down draft. Management and contingency plans will be developed to prevent any foreseeable impacts from dust.

3.3 ODOUR CONTROL

In terms of demolition activity for the Site, odour problems will be minimal. All plant and machinery involved in the Works will be regularly serviced and checked for exhaust emissions.

Stormwater gully pits will preferably be hand cleaned with shovels and collected debris bagged to minimise odour and disposed of prior to pipes being cleaned.

3.4 STORAGE OF DANGEROUS GOODS

The Works may involve the use of flammable fuels such as petrol, diesel, Oxy-acetylene, oils, etc. Storage of such items will be in a lockable compound with sufficient ventilation in accordance with relevant codes of practice and Standards. Material safety data sheets on all of these flammable and potentially harmful liquids will be provided by the contractor undertaking the Works.

3.5 STORMWATER RUN OFF

Drainage of surface run-off will be allowed to flow along existing contours with the existing drainage system on-site of kerbs, gutters, gully pits, pipes and stormwater runoff passing through installed filtration systems prior to being discharged off-site.

The site will be continually cleaned of rubble to minimise possible sediment flow during rainfall periods.

Stormwater kerbs and drainage lines will have sediment controls in the form of hay bales or sedimentation socks.

Stormwater grate inlets surrounding the demolition areas will be covered with geotextile fabric to allow water to enter into drains whilst retaining sediments.

Should external surface run-off flow into areas of demolition and excavation work, it may need to be diverted (using hay bales) to reduce sediment transportation. All drainage control devices will be regularly checked particularly during heavy rainfall periods.

The Head Contractor will be required to prepare a detailed Stormwater Management Plan which will cover all aspects of stormwater and sediment management and control during construction.

4 WASTE MANAGEMENT / RECYCLING PRINCIPLES

The contractor will be committed to achieving compliance with the EPA guidelines.

All hazardous materials will be removed and disposed of at licensed waste facilities.

As part of the contractual requirements for the Works, the contractor will be required to provide all trucking and disposal documentation for all waste materials.

The key to maximising recycling and minimising waste going to landfills is to effectively separate the individual materials during the demolition phase, not after.

All material generated from the Works will be recycled apart from selected soft demolition materials and hazardous materials such as asbestos, SMF, PCB'S and the like.

The following table sets out the materials likely to be encountered during the Works and the general waste management principles that will be adopted through the contracting process.

Material	Source	Recyclable	End Usage - %
Asbestos	Lagged steam reticulation pipe work	No	EPA Approved Landfill – 100%
Timber	Vegetation	Yes	Mulch or offsite recovery 100%
Timber	Frames, doors, architraves, framework	Yes	Second hand sales 50% or landfill 50%
Metal	Bulkhead framing, galvanised steel and copper piping	Yes	Metal recycler 100%
Brick - commons	Internal walls	Yes	SUEZ recovery centre or similar

There is expected to be little waste generated. All waste and excess materials will be removed from site at the end of installation.

5 HAZARDOUS MATERIALS MANAGEMENT

5.1 IDENTIFICATION

The potential locations of hazardous materials within the building and on-site have been identified (EnviroScience Solutions Pty Ltd has conducted a Hazardous Materials Survey, which will also be integrated into the Contractor's contract documents).

The inspection of area 6 (project scope area) did not reveal any hazardous materials such as asbestos, lead paint, PCBs, or Phenols. However, SMF materials were found encapsulated in the Air Conditioning Ducting and were observed to be in good condition. To meet the requirements of the NSW Work Health and Safety Act and NSW Work Health and Safety Regulation 2017 in the event of discovering hazardous building materials, the following recommendations are provided:

- In the case of unexpected asbestos discovery, the material should be removed under controlled conditions by a licensed asbestos removal contractor. A Scope of Works must be established beforehand to ensure compliance with legislative requirements. Airborne asbestos air monitoring during removal and a visual clearance inspection afterward by an Occupational Hygienist are also recommended practices.
- If asbestos-containing materials are to remain undisturbed, they should be documented in the premises' asbestos register. Any disturbance should prompt isolation of the area and assessment by an Occupational Hygienist, along with airborne asbestos air monitoring.
- For renovation or demolition projects, it is crucial to remove potentially disturbed asbestos-based materials beforehand. Any disturbance should trigger isolation and assessment measures, as detailed by an Occupational Hygienist.

Overall, managing the identified materials according to the Asbestos Management Plan is essential to mitigate risks associated with potential disturbances. The management and site removal of these products will be done in accordance with Australian Standards.

These reports will be used as the basis for identifying and managing the removal of hazardous materials during the Works. 'Unexpected finds' protocols and secure isolation of the site from the general public will also reduce the risk of potential harm to the general public.

5.2 AIR MONITORING

As an integral component of the Works and in accordance with all codes and standards, air monitoring will be undertaken by a registered occupational hygienist if asbestos removal works are being undertaken.

The daily monitoring results will be assessed by an Occupational Hygienist and distributed daily to the principal and the client.

5.3 REMOVAL

All asbestos and hazardous material works will be undertaken by WorkCover licensed contractors supervised and monitored by registered occupational hygienists.

The Works will comply with all relevant codes and Standards.

5.4 DISPOSAL

Asbestos and other hazardous materials will be loaded and transported in accordance with all relevant codes and Standards.

All asbestos materials will be bagged and wrapped and placed in plastic lined disposal containers.

All asbestos and hazardous materials will be disposed of at a registered EPA landfill with full accountability and traceability of transport and disposal monitoring enforced and monitored throughout the Works contract.

6 TRAFFIC MANAGEMENT

As part of the Construction Management Plan (CMP), the Head Contractor is required to submit a Construction Traffic Management Plan (CTMP) for approval prior to commencement of the Orange Palliative Care Works. The CTMP will detail site access, pedestrian protection measures and all associated vehicle movements which will be restricted to the permitted working hours of the site.
During construction, the following equipment may be used:

- Articulated and fixed trucks;
- Mobile cranes;
- Concrete delivery trucks;
- Concrete pumps;
- Man and material hoists;
- Scissor and boom lifts, and
- Fork lifts

It is anticipated that the Works may involve varying vehicle movements each day – refer Early Works Traffic and Parking Assessment by SCT Consulting PTY. LTD (subject to confirmation of the contractor's program and sequencing activities being undertaken on site).

6.1 GENERAL REQUIREMENTS

In accordance with Transport for NSW requirements, all vehicles transporting loose materials will be required to have the entire load covered and/ or secured to prevent any large items, excess dust or debris being deposited onto the roadway during travel to and from the site. The Head Contractor will induct all subcontractors and suppliers to ensure that the procedures are met for all vehicles entering and exiting the construction sites. The Head Contractor will monitor the internal and immediate external roads leading to and from the site and take all necessary steps to clean any debris deposited by construction vehicles.

Vehicles operating to, from and within the site shall do so in a manner which does not create unreasonable or unnecessary noise or vibration.

Public roads and access points will not be obstructed by any materials, vehicles, refuse skips or the like, under any circumstances.

6.2 TRAFFIC IMPACT ASSESSMENT:

SCT Consulting PTY. LTD. has conducted a Traffic Impact Assessment for Orange Hospital and has prepared a report specifically focusing on the project scope (subject to confirmation of the contractor's schedule and sequencing of activities on site).

Traffic Impact Assessment Report has reviewed the current traffic and parking operations at Orange Hospital, detailed upcoming changes, and evaluated their effect on traffic and transportation in the hospital's vicinity. Based on analysis, the impacts can be summarised as follows:

- The projected increase in peak hour trips is negligible in terms of its impact on the road network.
- Existing parking facilities can accommodate the additional peak hour traffic.
- There will be no adverse effects on pedestrian traffic.
- Public transportation will remain unaffected.

These findings support the hospital's planned developments and underscore the importance of proactive management to minimise disruption during construction.

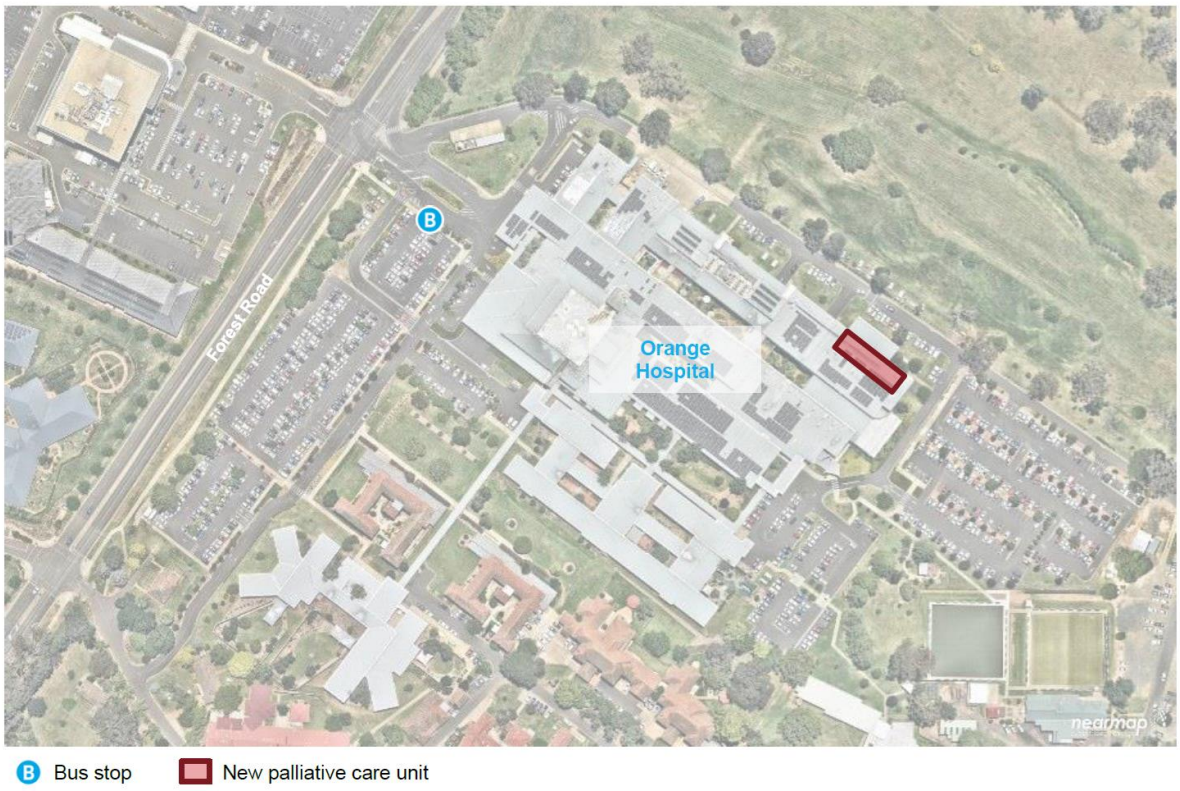

Figure 6 – Orange Hospital Bus Stop Location

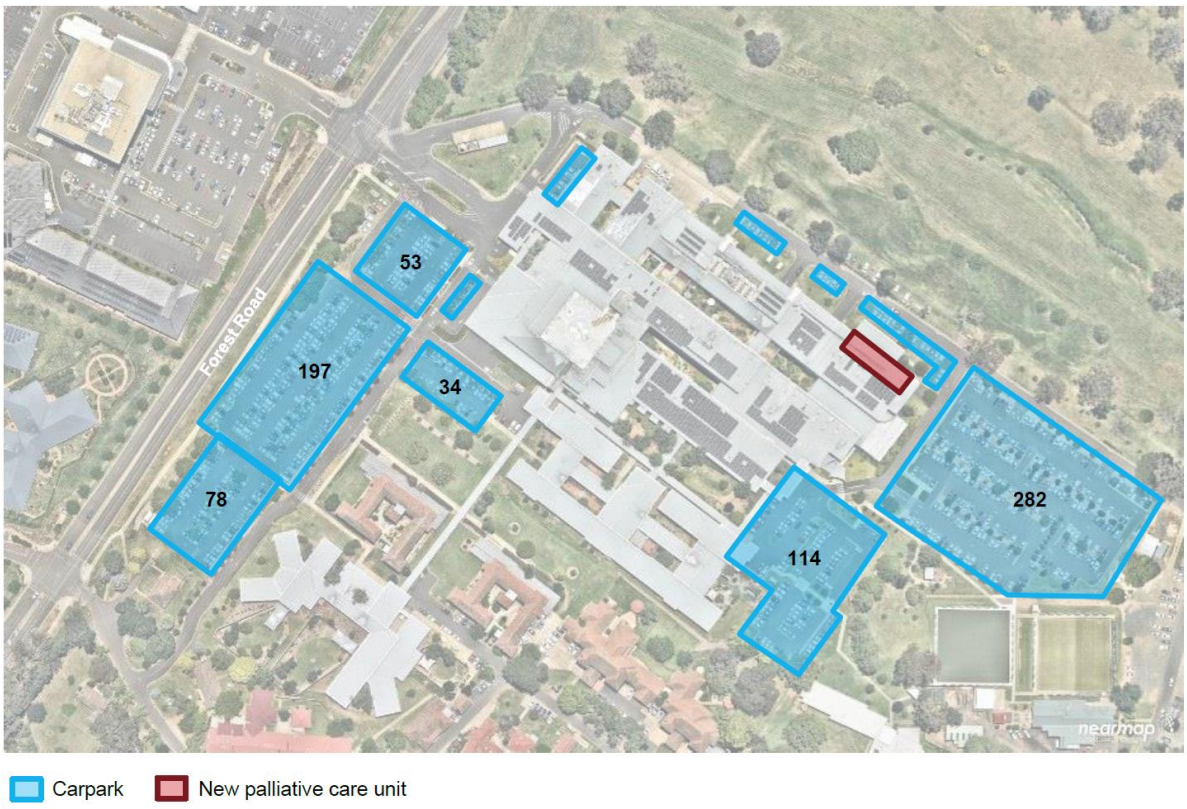

Figure 7 – Orange Hospital Car Park Locations and Capacity

Workers will likely locate parking options within the hospital car parks, surrounding facilities, or on adjacent streets. However, it's crucial to note that the proposed facility's construction may affect the availability of 15 nearby parking spaces and loading/unloading zones. Therefore, careful consideration must be given to the construction planning process to mitigate any potential disruptions caused by the site's impact on parking availability.

6.3 CONSTRUCTION TRAFFIC & ENTRY/EXIT:

During construction, it is estimated that 1 to 2 construction trucks per week will operate on-site, necessitating approximately 7 additional parking spaces for construction staff. The implications of this increased traffic and parking demand, along with the construction site's scale, will require evaluation and mitigation through a Construction Traffic Management Plan (CTMP) to be developed by the contracted Construction Manager.

Orange Hospital is positioned east of Forest Road, which serves as the primary collector road for the surrounding area. The hospital has 2 entry points along Forest Road, both managed by signalised intersections allowing two-way access. The primary access point is the northern intersection, situated closest to the main hospital entrance and emergency department. The southern intersection offers optimal access to mental health, drug, and alcohol services at Bloomfield Hospital. These entry points are interconnected by an internal road network that extends to all hospital parking facilities.

Additionally, an alternative access point is available from Huntley Road via an unnamed road, as the hospital is situated west of Huntley Road. This is illustrated in Figure 6.

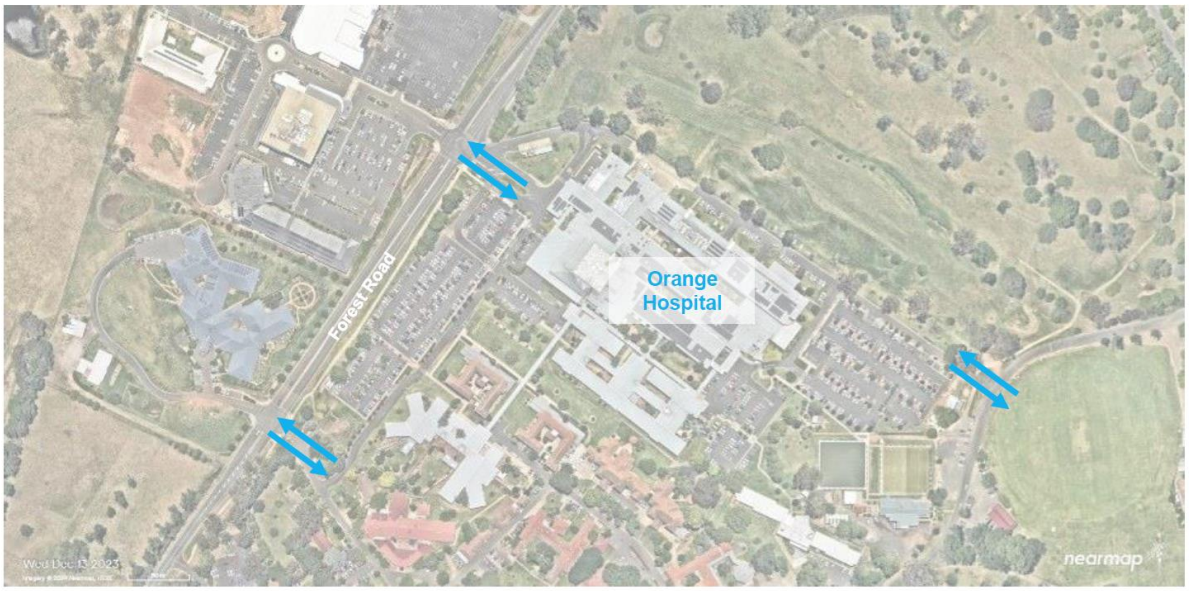

Figure 8 – Access Points to Orange Hospital

6.4 PEDESTRIAN PROTECTION

A pedestrian pathway runs alongside Forest Road adjacent to Orange Hospital. Near the northern intersection, an internal pathway links to the Forest Road pathway. Throughout the hospital carparks, pathways lead to different hospital entrances.

The palliative care unit is situated on the first floor at the rear of the hospital. The primary pedestrian entrance at the rear of the hospital provides the most direct access to the palliative care unit. Daytime visitors to the palliative care unit use this entry point, while after-hours visitors enter through the main hospital entrance at the front of the building.

Pedestrian, cyclists and vehicular passage to and around the site will be maintained, or alternate routes determined where necessary, and are to be defined by clear signage.

Temporary hoarding appropriate to the interaction between pedestrians (and cyclists where relevant) and construction Works will be constructed to prevent unauthorised access to the Site (as per WorkCover requirements and Australian Standards). These hoardings and fences will be staged to allow access to in-use areas during the Works.

6.5 HEAVY VEHICLE MOVEMENTS

It is proposed that heavy vehicles entering and exiting the site via Hunter Valley Road, located behind the Orange Hospital as shown in below figure 7.

Figure 9 – Access Map - Heavy Vehicle Access via Hunter Valley Road

7 SERVICES DISCONNECTION

The Project Manager will notify the management of Orange Hospital if there is an anticipated services disruption and coordinate its shutdown to suit operational needs.

Such site services include:

- Wastewater;
- Water;
- Electricity;
- Stormwater;
- Telecommunications; and
- Gas

In general terms the following principles will be adopted when disconnecting services:

- All Service authorities will be consulted prior to the Works commencing to ascertain lead times and correct termination locations;
- All termination works will be undertaken in accordance with design engineers' specifications and instructions;
- All termination works will be undertaken by suitably licensed contractors; and
- Any termination works that impact on adjoining owners/departments will be notified and will be undertaken out of hours to minimise impact.