



PRELIMINARY CONSTRUCTION MANAGEMENT PLAN

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

Westmead Hospital

September 2024

CONTENTS

1	INTRODUCTION	3	
	1.1 Proposed Works 1.2 Areas of management	3 4	
2	SITE OPERATIONS:	6	
	2.1 Legislative requirements2.2 Hours of operation2.3 Public & property protection	6 6 6	
3	ENVIRONMENTAL & AMENITY	8	
	 3.1 Noise and vibration 3.2 Dust 3.3 Odour Control 3.4 Storage of Dangerous Goods 3.5 Stormwater Run Off 	8 11 12 12 12	
4	WASTE MANAGEMENT / RECYCLING PRINCIPLES	13	
5	HAZARDOUS MATERIALS MANAGEMENT	14	
	5.1 Identification5.2 Air Monitoring5.3 Removal5.4 Disposal	14 14 14 14	
6	 5.1 Identification 5.2 Air Monitoring 5.3 Removal 5.4 Disposal TRAFFIC MANAGEMENT	14 14 14 14 15	
6	 5.1 Identification 5.2 Air Monitoring 5.3 Removal 5.4 Disposal TRAFFIC MANAGEMENT 6.1 General Requirements 6.2 Traffic Impact Assessment: 6.3 Construction Traffic & Entry/Exit: 6.4 Pedestrian Protection 6.5 Heavy Vehicle Movements 	14 14 14 14 15 15 16 17 18 19	

1 INTRODUCTION

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

The works underwent a 'Safety in Design' review in July 2024, and upon appointment, the Head Contractor will prepare a comprehensive Construction Management Plan with specific strategies for managing on-site activities.

The Head Contractor, appointed as Principal Contractor in accordance with NSW WHS legislation, will adhere to the requirements detailed in this PCMP and comply with the guidelines of the City of Parramatta and other relevant authorities. This report accompanies a Review of Environmental Factors (REF) under the State Environmental Planning Policy (Transport and Infrastructure) 2021 (TISEPP) for the facility.

1.1 PROPOSED WORKS

The Westmead Palliative Care Project (WCEoLP) will add 15 Supportive & Palliative Care (SPC) beds in a newly constructed facility on the rooftop of Westmead Hospital. This new facility will directly connect the Supportive & Palliative Care Unit (SPCU) to the acute care hospital, enhancing end-of-life care for patients.

A single-story palliative care development will encompass the following areas below:

- 15 Bedrooms: Special, Inboard Ensuite,
 Isolation (Negative Pressure)
- Anteroom
- Ensuite: Standard & Special
- Multifunctional Dining / Recreation
- Lounge
- Toilet
- Laundry
- Reflection/ Multifaith Room
- Ablution room

- Interview & Meeting Room
- 2 Staff Stations
- Office Clinical Workroom
- Medication Room
- Clean Store
- Dirty Utility
- 2 Stores: Equipment & General
- Bay Areas Beverage, Handwashing, Linen, Blanket Warmer, Mobile equipment, Resuscitation Trolley, Meal Trolley, Pneumatic Tube Station



Figure 1 – Proposed Site Location



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 Tress 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
 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 Westmead 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 confirm 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 Westmead 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 Westmead 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 Westmead 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).' These acoustic documents provide recommendations and requirements for mitigation of noise and vibration during construction.

The following regulations, standards, and guidelines have been referred to in relation to the noise and vibration impact assessment performed:

NSW EPA Noise Policy for Industry 2017 (NPI);

- NSW Health Engineering Services Guidelines 2022;
- NSW EPA Noise Guide for Local Government (NGLG);
- NSW EPA Approved Methods for the Measurement and Analysis of Environmental Noise in NSW;
- AS 1055:2018 Acoustics Description and measurement of environmental noise (AS 1055);
- NSW DEC Assessing Vibration: A Technical Guideline (2006);
- Australian/New Zealand Standard AS/NZS 2107: 2016 Acoustics Recommended Design Sound Levels and Reverberation Times for Building Interiors (AS 2107);
- Protection of the Environmental Operations (Noise Control) Regulations 2017 (POEO;
- NSW RMS Construction Noise and Vibration Guideline August 2016;
- EPA NSW Interim Construction Noise Guidelines (ICNG) 2009;
- Association of Australasian Acoustical Consultants (AAAC) Guideline for Healthcare Facilities Version 2;
- BS ISO 2631-1:1997 Mechanical vibration and shock Evaluation of human exposure to wholebody vibration Part 1: General Requirements;
- ISO 2631-2:2003(E) Mechanical vibration and shock Evaluation of human exposure to wholebody vibration – Part 2: Vibration in buildings (1 Hz to 80 Hz);
- American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE Applications Handbook Chapter 49 Noise & Vibration control);
- Australian Standard AS 2670.2:1990 Evaluation of human exposure to whole-body vibration, Part 2: Continuous and shock-induced vibration in buildings (1 to 80 Hz). N.B. Please note that this standard was superseded by Australian Standard ISO 2631.2:2014 Mechanical vibration and shock Evaluation of human exposure to whole body vibration, Part 2: Vibration in buildings (1 to 80 Hz); however, it is accepted practice within the Australian market to adopt the multiplying factors (R) as presented in Table 2 Appendix A (AS 2670.2:1990) for building vibration from human comfort;
- DIN Standard 4150-3 2016-12 Vibration in Buildings Part 3: Effects on Structures;
- BS 6472-1:2008 Guide to evaluation of human exposure to vibration in buildings Vibration sources other than blasting; and
- ISO 8041:2017 Human response to vibration, ISO 5349 Human response for hand-transmitted vibration and ISO 2631 Human response for whole-body vibration exposure.



Figure 3 – Location of the proposed WCEoLP Facility at Westmead Hospital (Building K, Level 5)



Figure 4 – Attended noise measurement location and Unattended noise logger location

Acoustic design review and recommendations are provided to achieve the relevant acoustic and vibration criteria for this project. 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.

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 Westmead 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.

Should external surface run-off flow into areas of construction 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 - %
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

All waste and excess materials will be removed from site at the end of installation.

5 HAZARDOUS MATERIALS MANAGEMENT

5.1 IDENTIFICATION

Possible locations of hazardous materials will be identified in building and on site. 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 Westmead 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 'Stantec Australia Pty Ltd' (subject to confirmation of the contractor's program and sequencing activities being undertaken on site).



Figure 5 – Site View

Figure 6 – Site - Proposed Works

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:

The WCEoL Westmead project, located on level 5 of the existing CASB building, will house 15 new palliative and supportive care beds. The addition is projected to generate parking demand for 27 to 34 spaces, which can be readily accommodated within the existing substantial parking supply both on-site and in nearby areas. This increase in demand is not expected to disrupt current parking arrangements.

The proposed facilities are anticipated to generate only a minor increase in traffic, with negligible impact on the function, operation, or safety of the surrounding road network. Therefore, the project is not expected to exacerbate existing traffic conditions.

Overall traffic impact of the World Class End of Life (WCEoL) Westmead project is expected to be minimal, with no significant adverse effects on the broader road network.



Figure 7 - Westmead Health Precinct car parking facilities



Figure 8 - Staff and visitor key access routes

6.3 CONSTRUCTION TRAFFIC & ENTRY/EXIT:

Construction traffic for the Westmead Hospital WCEoL Project will be managed to minimise disruption to hospital operations and the surrounding community. Temporary traffic control measures will ensure safe and efficient entry and exit for vehicles. Construction schedules will be planned around off-peak hours to reduce congestion on key roads, such as Hawkesbury Road.

A dedicated construction vehicle staging area will be located within the existing contractor's compound, adjacent to Mons Road (refer to below Figure 9 & 10). Construction vehicle access to this area will be from Mons Road via an additional entry point near the Mons Road T-Way bridge, as indicated in Figure 9. All vehicles will enter and exit the staging area in a forward direction, using the existing Mons Road crossover to proceed east toward the construction site.

Careful coordination will be required between other adjacent construction sites, including the Mental Health and Children's Hospital projects. Additionally, the locations for crane operations will need to be coordinated with the adjacent ambulance bays for the new Children's Hospital building. These details will be confirmed by the Contractor through the Disruption Notice process with WSLHD prior to establishing crane operations.

The Principal Contractor will be responsible for preparing a detailed Construction Traffic Management Plan, including Traffic Guidance Schemes, to mitigate any impacts on traffic, pedestrians, cyclists, public transport, and emergency vehicles. Construction traffic will be routed away from high-traffic areas, with specific access points and staging areas designed to minimise disruption to hospital activities. Entry and exit points are planned to prevent additional stress on the surrounding road network.



Figure 9: Construction Vehicle Access and Vehicle Staging Area



Figure 10: Construction vehicle routes

6.4 PEDESTRIAN PROTECTION

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.

All pedestrians and cyclists will continue to use the existing CASB facilities. As a result, the WCEoL proposal is not anticipated to affect pedestrian or cyclist access throughout the broader Westmead Hospital area.

6.5 HEAVY VEHICLE MOVEMENTS

Heavy vehicle movements during the Westmead Hospital redevelopment will be carefully managed to minimise their impact on the surrounding road network and hospital operations. A variety of construction vehicles will access the site as shown in Figure 10, with the largest being 20-metre semi-trailers. At peak times, up to 10-15 trucks will access the site daily, resulting in a maximum of 30 two-way heavy vehicle movements. These movements will be spread throughout the day to ensure minimal impact on existing traffic, both within the Westmead Health Precinct and on surrounding roads.

Construction deliveries will be pre-scheduled to avoid conflicts with hospital shift changes and patient transport. Dedicated construction vehicle routes have been developed to ensure the shortest possible travel distances to and from major arterial roads, thus reducing the impact of heavy vehicle traffic on local roads.

7 SERVICES DISCONNECTION

The Project Manager will notify the management of Westmead 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.