



Construction Waste Management Sub-Plan (CWMSP)

Greenwich Hospital Redevelopment

Revision 02

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Hindmarsh would like to acknowledge the Traditional Custodians of the Land on which we live and work and pay our respects to their Elders past and present.

1. Details of Revision Amendments

1.1 Document Control

The Project Manager is responsible for ensuring that this plan is reviewed and approved. The Project Environmental Manager or Project Manager as available is responsible for updating this plan to reflect changes to environmental, legal and other requirements, as required.

1.2 Amendments

Any revisions or amendments must be approved by the Project Manager and/or client before being distributed / implemented.

1.3 Revision Details

Approved revisions to this document may be independently issued.

Date Issued	Revision	Details	Section	Page
12/09/2024	v1	Initial CWMSP	All	All
25/10/2024	V2	CWMSP Issued for use:		
		Draft text removed	Section 9	p.17
		 Stage 1 Establishment Plans added 	Appendix A	p.26-45

2. Introduction

2.1 Context

This Construction Waste Management Plan (CWMP) is a sub plan to the Construction Environmental Management Plan (CEMP) and outlines how we will achieve acceptable waste management and associated environmental outcomes across delivery of the Greenwich Hospital Redevelopment Project through the application of the Hindmarsh's Environmental Management System.

This report has been prepared to address the requirements of the Minister's Conditions of Approval (CoA), project approvals, applicable guidance advice and legislation.

Company Name:	Hindmarsh Construction Australia Pty Ltd
ABN	15 126 578 176
Project:	Greenwich Hospital Redevelopment
Project No:	T24017
Location:	97-115 River Road, Greenwich
Client:	HammondCare
Contract:	*TBA

2.2 Project Specifics

2.3 Approval for Implementation

This revision of the Construction Waste management Sub Plan (CWMSP) has been reviewed by the Project Manager and complies with environmental aspects of Hindmarsh Compass System and contractual obligations, and is authorised for use.

Draft versions of this document, although approved, are issued for comment \ feedback and should not be considered as finalised until a revision number \ letter is assigned.

2.4 Induction

Every Project HCA employee receives induction training into the purpose and use of this CWMSP. Each acknowledges that they fully understand this EMP's requirements and their roles \ responsibilities associated with it. This acknowledgement is recorded via Aconex or the <u>Acknowledgement Register</u>.

Key elements of this CWMSP may be extracted for inclusion in the project specific site induction training which is given to all employees, subcontractors, and site workers prior to commencing works on site.

2.5 Precedence

This Construction Waste Management Plan (CWMSP) does not in any way override any provisions of the Project Brief, or brief issued by the Client. Where there is found to be a conflict in this CWMSP with any requirements of the Project Brief, the conflict is to be referred to the Project Manager for direction.

2.6 Abbreviations Used

AFC	Approved for Construction	AS	Australian Standard
BCA	Building Code of Australia	CC	Construction Certificate
CCD	Competition Concept Design	CD	Contract Documentation
CoA	Conditions of Approval	D&C	Design and Construction
CEMP	Construction Environmental Management Plan	CWMSP	Construction Waste Management Sib-Plan
DA	Development Application / Approval	DD	Detailed Design
DM	Design Manager	DMP	Design Management Plan
DOS	Design Options Study	DR	Documentation Readiness (for tender)
ESD	Environmentally Sustainable Design	FDB	Functional Design Brief
FRD	Functional Relationship Diagram	PCA	Principle Certifying Authority
HCA	Hindmarsh Construction Australia	PM	Project Manager
PCG	Project Control Group	PSA	Professional Services Agreement
PDC	Principal Design Consultant	QS	Quantity Surveyor / Cost Planner
PMP	Project Management Plan	RL	Reduced Level
QA	Quality Assurance	SSD	State Significant Development
RAP	Remediation Action Plan	SQE	Safety Quality and Environmental
R&O	Risk and Opportunity (Financial focus)	WOL	Whole of Life
SD	Schematic Design	Compass	Hindmarsh Management System
SoA	Schedule of Accommodation	ACONEX	Web-based Information Management System
VM	Value Management		

2.7 SSD Condition Satisfaction Table

Condition	Cond	ition Requirement	Document / Sub-Plan Reference
C10	Ecolo	gical Sustainable Development	
	Prior demo demo accon that t requir comp the Pl	to the commencement of each stage of construction that includes olition, demolition work plans required by AS 2601-2001 The olition of structures (Standards Australia, 2001) must be inpanied by a written statement from a suitably qualified person he proposals contained in the work plan comply with the safety rements of the Standard. The work plans and the statement of liance must be submitted to the Certifier and be made available to lanning Secretary within seven days upon request.	-
C12	Envir	onmental Management Plan Requirements	
	Man havir the E Infra	agement plans required under this consent must be prepared ng regard to the relevant guidelines, including but not limited to Environmental Management Plan Guideline: Guideline for structure Projects (DPIE April 2020).	Refer to CEMP
	•	The Environmental Management Plan Guideline is available on the Planning Portal at: https://www.planningportal.nsw.gov.au/major- projects/assessment/post-approval.	
	•	The Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.	
C13	Const	ruction Environmental Management Plan	
	Prior Const and p reque	to the commencement of construction, the Applicant must submit a cruction Environmental Management Plan (CEMP) to the Certifier rovide a copy to the Planning Secretary within seven days upon est. The CEMP must include, but not be limited to, the following:	Refer to CEMP
C17	Const	truction Waste Management Sub-Plan	
	 The Construction Waste Management Sub-Plan (CWMSP) must address, but not be limited to, the procedures for the management of waste, comprising: (a) the recording of quantities, classification (for materials to be removed) and validation (for materials to remain) of each type of waste generated during construction and proposed use; 		-
			Refer to Appendix B
	(b)	information regarding the recycling and disposal locations; and	Refer to Section 9
	(c)	confirmation of the contamination status of the development areas of the Site based on the validation results.	As required and addressed under the Remediation Action Plan

3. Purpose and Scope of CWMSP

The scope of this plan is to describe how HCA proposes to manage waste and resource recovery during construction of the project. Operational waste management measure do not fall within the scope of this plan and therefore are not included within the processes contained within this plan.

Environmental management system overview is described within the CEMP.

This plan addresses the following CoA; C12 - Management plans required under this consent must be prepared having regard to the relevant guidelines, including but not limited to the Environmental Management Plan Guideline: Guideline for Infrastructure Projects (DPIE April 2020).

- The Environmental Management Plan Guideline is available on the Planning Portal at: https://www.planningportal.nsw.gov.au/major-projects/assessment/post-approval.
- The Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.

This plan addresses the management and reporting of waste streams generated on the project, with the objective to:

- identify, quantity and classify waste streams to be generated during construction;
- assist in the prevention of unauthorized environmental harm
- comply with relevant waste management and environmental legislation
- identify appropriate servicing arrangements (including but not limited to, waste management, loading zones, mechanical plant) for the site;
- ensure storage and collection of waste is designed and managed having appropriate regard to space, location, amenity, and ongoing management of waste management facilities;
- describe measures to be implemented to manage, reuse, and recycle and safely dispose of the waste;
- maximise reuse and recycling of demolition and construction materials, and materials from development;
- encourage building design techniques in general which minimise waste generation; and
- minimise the amount of waste being deposited to landfill with targets to reuse or recycle at least 90% of construction and demolition waste.

Activities conducted on the project that have the potential to generate waste are provided in the following table:

Project Activity	Environmental Hazard	Environmental Risk
Construction and demolition	Generation of waste product	Soil and water contamination
processes	Onsite storage of waste	Visual impact, littering
		Odours
		Increase in pets
		Wind-blown waste leaving site
Plant maintenance	Generation of waste materials and contaminants e.g. oil	Soil and water contamination
Operation and maintenance of site offices and related facilities	Generation of general waste	Unnecessary load on landfill
Waste transport	Handling waste	Noise and dust impacts
		Mud tracking on roads
		Unlicensed facilities transporting or receiving waste

5. Proposal

5.1 Project Overview

HammondCare is redeveloping Greenwich Hospital at 95-115 River Road, Greenwich to provide an integrated, contemporary healthcare campus providing specialised care services and a continuum of care to age in place. The project has been approved by Department of Planning, Housing and Infrastructure (DPHI) on 28 March 2024.

The redevelopment of Greenwich Hospital is proposed to be delivered over four stages to cater for the operational requirements of the hospital and health campus. The proposed stages and Timing are anticipated are as follows:

- Stage 1 Early works and external works;
- All activities 12 months;
- Stage 2 New Hospital Buildings;
- Site establishment 6 weeks;
- Demolition works 5 weeks;
- Construction 114 weeks;
- Stage 3 Two new Seniors Living buildings;
- Site establishment 3 weeks;
- Demolition 10 weeks;
- Excavation 12 weeks;
- Construction 70 weeks;
- Stage 4 New Respite Care buildings;
- Site establishment 2 weeks;
- Excavation 2 weeks; and
- Construction 30 weeks.

The following figure illustrates the overall staging intended for the project.

The boundaries and hoarding for the various stages are indicative only and the location and specification of fencing is to be confirmed upon engagement.



Figure 1 – Proposed Staging Plan

It is noted that as part of the delivery of the project, the HCA will implement multiple stages in accordance with the Construction Certificates required to be implemented for the project.

The approved development will include the following:

- Demolition of the existing hospital building and associated facilities at the site with the exception of heritage listed Pallister House;
- Construction of a new hospital facility and integrated healthcare services, including:
 - A new 7 storey main hospital building offering 130-bed residential aged care and health care facilities;
 - Two new 5-6 storey serviced self-care buildings offering 89 services senior living units;
 - A new 2-3 storey respite care building;
- Construction of associated site facilities and services, including pedestrian and vehicular access to basement parking;
- Site landscaping and infrastructure works; and
- Preservation of Pallister House which will continue to house dementia care and administrative functions.

The works are programmed to commence in end 2024 with anticipated completion of Stage 1 external works late 2025.

Commencement of subsequent Main Works Stages will be further developed in collaboration with HammondCare.

5.2 Hours of Operation

Site operating hours for construction activities will be in accordance with the SSD CoA, except as may be agreed with the Planning Secretary and local authorities for any out of hours work.

Construction, including the delivery of materials to and from the site, may only be carried out between the following hours:

- Between 7:30 am and 5:30 pm, Mondays to Fridays inclusive;
- Between 8:00 am and 1:00 pm, Saturdays; and
- No work may be carried out on Sundays or public holidays.

Construction works may be undertaken outside of the hours if works achieve construction noise management levels for 'Outside recommended standard hours' detailed in the Interim Construction Noise Guideline (DECC, 2009) as follows:

• Between 1:00pm and 3:30pm, Saturdays.

Construction activities may be undertaken outside of the hours (noted above) in accordance with the approved SSD Condition C4 and C5 if required:

- By the Police or a public authority for the delivery of vehicles, plant, or materials; or
- In an emergency to avoid the loss of life, damage to property or to prevent environmental harm; or
- Where the works are inaudible at the nearest sensitive receivers; or
- For the delivery, set-up, and removal of construction cranes, where notice of the crane-related works is provided to the Planning Secretary and affected residents at least seven days prior to the works; or
- Where a variation is approved in advance in writing by the Planning Secretary or his nominee if appropriate justification is provided for the works.

Notification of such construction activities as referenced above for works outside of the normal hours must be given to affected residents before undertaking the activities or as soon as is practical afterwards.

Rock breaking, rock hammering, sheet piling, pile driving, and similar activities may only be carried out between the following hours:

- 9:00am to 12:00pm, Monday to Friday;
- 2:00pm to 5:00pm Monday to Friday; and
- 9:00am to 12:00pm, Saturday.

6. Site Description

The site is located in the suburb of Greenwich, within the Local Government Area (LGA) of Lane Cove Council. It comprises a total of two allotments, which are legally described as Lots 3 and 4 in DP584287. Lot 3 accommodates the existing Hospital building, and Lot 4 accommodates Pallister House. In total, the site is 33,763m2 in size and irregular in shape.

The site is bounded by River Road to the north, St Vincents Road to the east, and existing residential housing to the south and west. The site is characterised by a sloped and varied topography. Site levels rise towards the centre from its southwestern and southeastern boundaries, with a steep fall at the southwestern end, towards Gore Creek Reserve.

Existing development on the site comprises the current Greenwich Hospital complex. Existing buildings at the site range between 1-5 storeys in height and are interconnected through a series of internal corridors and external pathways. This includes the Main Hospital Building, which provides patient hospital beds, general healthcare, and palliative care services, the Riverglen building which provides sub-acute mental health services for older persons, and the Blue Gum Lodge, which is currently used for pain clinic and community care healthcare services. Near the southern end of the site, within Lot 4 in DP584287, is the State Heritage-listed 'Pallister House' building (SHR 00574). This two-storey Victorian house currently houses the hospital's dementia and research facilities, and education facilities.



Figure 2 – Approved Site Plan

7. NSW Legislation Requirements & Guidelines

Relevant key legislation and guidelines applicable to the project include:

- Protection of the Environment Operations Act 1997;
- Protection of the Environment (General) Operations Act 1998;
- Waste Avoidance and Resource Recovery Act 2014;
- Protection of the Environment Operations (Waste) Regulation 2014;
- Waste Classification Guidelines (EPA, 2014);
- Work Health and Safety Act 2011 (NSW); and
- NSW Department of Planning and Environment.
- NSW Waste and Resource Recovery Strategy 2014-21 (EPA, 2014),
- NSW Government Resource Efficiency Policy (GREP) (OEH 2014),
- Waste Classification Guidelines (EPA 2014),
- AS2601: 2001 The Demolition of Structures,

8. Servicing Arrangements

The current legislation determines that the generator of waste is the owner of the waste until the waste crosses a calibrated weighbridge into a licensed facility. Waste contractors to demolition and construction contractors are the primary transporters of waste off-site, accordingly, waste contractors are required to provide verifiable monthly reports on waste reused, reprocessed, or recycled (diverted from landfill) or waste sent to landfill. These reports have a direct bearing on the generator's compliance with the relevant regulations. This CWMSP will be implemented onsite throughout including singularly or collectively the demolition, excavation, construction and fit out phases.

A Waste Data File must be maintained on-site, and all entries are to include:

- The classification of the waste;
- The time and date of material removed;
- A description of and the volume of waste collected;
- The location and name of the waste facility that the waste is transferred to; and
- The vehicle registration and the name of the waste contractor's company.

The Waste Data File will be made available for inspection to any authorized officer at any time during the life of the site works. At the conclusion of site works, the designated person will retain all waste documentation and make this validating documentation available for inspection.

Arrangement's will be made with the Waste Contractor to increase bin supply if there is an unexpected increase in waste generation.

8.1 Waste Management Equipment, Bin Sizes & Collection Frequency

All waste will be removed by a licensed waste contractor using up to 15-meter bins on site, with waste being removed when bins are full and within construction site hours to reduce disturbance of the neighbours.

8.2 Waste Management Targets

The project has been set the following Waste Management performance targets.

Metric/Measure	Objective	Timeframe	Accountability
% of waste quantified in waste management reports	100%	At all times	Project Manager
% of regulated hazardous wastes for which transfer certificates are retained	100%	At all times	Project Manager
Number of enforcement notices and penalties received from regulators and/or client	Zero	At all times	Project Manager
% waste recycled	90%	12 months	Project Manager

8.3 Roles and Responsibilities

The waste management strategy for the project will operate over the design, procurement, and construction including fit out of the project, and is detailed in table below.

Table 3: Breakdown of Tasks and Responsibilities					
Management Strategies	Responsibilities				
Design:					
Design for materials to standard sizes.	Architect, Subcontractors.				
Design for operational waste minimisation.	Architect & Builder.				
Consider ways to avoid, reuse and recycle construction wastes.	Subcontractors.				
Procurement:					
Select recycled and reprocesses materials.	Architect, Engineer, Builder &				
Select components that can be reused after deconstruction. Prioritise suppliers that take back offcuts and unused product.	Subcontractors.				
Encourage contractors and subcontractors that use unneeded offcuts and unused product for use on other jobs.	Architect, Engineer, Builder & Subcontractors.				
Ordering the right quantities of materials (Purchasing Policy); include prefabrication of materials.	Subcontractors.				
Pre-construction:					
Waste management plan to be reviewed & approved prior to construction.	Builder.				
Contract a Waste Contractor.	Waste Contractor.				
Construction on-site:					
Use the avoid, reuse, reduce, recycle principles. Minimisation of recurring packaging materials. Returning packaging to the supplier.	Builder, Waste Contractor & Subcontractors.				
Separation of recycling for materials, off-site audit & monitor the correct usage of bins.	Builder, Waste Contractor & Subcontractors.				
Audit and monitor the Waste Contractor.	Builder & Waste Contractor.				
Avoiding construction waste:					
Reduce extraneous packaging use reusable padding and careful packing.	Builder.				
All packaging generated on site should be captured for reuse or recycling wherever possible.					
Reuse formwork.					
Use reuse non-returnable containers on the job site to the maximum extent possible.					

8.4 Training

All personnel, including employees, contractors and utility staff working on site will undergo site induction training relating to waste management issues. The induction training will address elements related to waste management including:

- Existence and requirements of this Sub-plan,
- Existence and requirements of other management plans and guidelines such as the Unexpected Contaminated Lands and Asbestos Finds Procedure, the Sustainability Strategy and the Sustainability Management Plan,
- Relevant legislation and guidelines,
- Roles and responsibilities for waste management,
- Incident response, management and reporting,
- Waste reporting requirements,
- Requirements of the waste hierarchy,
- Waste/recycle storage requirements,
- Energy and resource use efficiency best practices,
- Potential for contaminated material to be present on site and management requirements if such material is identified, and
- Expectations for targets relevant to waste and resource management including ISCA targets.

Targeted training in the form of toolbox talks or specific training will also be provided to personnel with a key role in waste management.

Further details regarding staff induction and training are outlined in Section 3.5 of the CEMP.

8.5 Waste Management Hierarchy

To achieve positive waste and resource management outcomes, the project will adopt waste management strategies in accordance with the waste hierarchy and requirements identified in the CoA, EIS, SPIR, NSW Waste Avoidance and Resource Recovery Act 2001 (WARR Act) and the NSW Waste Avoidance and Resource Recovery Strategy 2014-21 (EPA 2014).

Waste generated during delivery of the project will be dealt with in accordance with the following priorities (in order of preference):

- Waste generation is to be avoided, and where avoidance is not reasonably practicable, waste generation is to be reduced;
- Where avoiding or reducing waste is not possible, waste is to be reused, recycled, or recovered; and
- Where re-using, recycling or recovering waste is not possible, waste is to be treated or disposed of at a waste management facility (premise lawfully permitted to accept the materials), in accordance with a Resource Recovery Exemption or Order issued under the Protection of the Environment Operations (Waste) Regulation 2014, or to any other place that can lawfully accept such waste.



Figure 3 – Waste management hierarchy (NSW Waste Avoidance and Resource Recovery Strategy 2014-21 (EPA,2014)

8.6 Waste Avoidance and Reduction

As demonstrated the waste hierarchy (which governs the management of waste during construction of the Project) nominates avoidance of waste as the most important priority. During the construction phase, the following measures will be implemented to avoid creation of waste:

- Ensuring that the necessary planning is undertaken to enable efficient management of the delivery and storage of materials, to avoid spoilage of materials,
- Wherever possible, establishing agreements with suppliers for 'take back' arrangements for packaging/pallets/drums,
- Highlighting the minimisation of packaging as an important factor in the product procurement process,
- Ensuring correct types and quantities of materials are ordered, essentially avoiding excess material waste,
- Coordinating site activities to minimise waste through utilisation of unused materials,
- Employing trained and qualified plant and machinery operators to avoid damage to materials and reduce wastage of consumables during plant and machinery maintenance,
- Ensure that stored supplies are properly protected from the weather, and
- Where feasible and reasonable suppliers that can demonstrate sustainable practices will be selected e.g. locally sourced, produced with sustainable practices, EMS accredited.

9. On-Site Waste Management Requirements

There will be a designated waste storage area for the disposal and storage of construction waste prior to collection. This area will be located conveniently for demolition and construction work team to use the bins as well as for waste contractors to collect. An indicative location has been provided in Appendix A – Site Establishment & Waste Location.

Other requirements include:

- The routes for movement of waste between work site and waste storage area are to be kept obstructionfree;
- The routes for movement of bins and waste between storage and collection points are marked in the site drawing and will be kept obstruction-free (if waste is moved between the waste storage area(s);
- The waste bin collection point provided will be accessible for waste collection vehicles. There are no obstructions to turning or reversing, pulling up vehicles and lifting bins;
- Access for waste collection vehicles will not be compromised by construction-related activities vehicles or other consequences of construction staging;
- All waste not being reused on site will be removed during, or at the completion of, the construction stage;
- No waste will be left on site unless it is part of valid reuse on site, which is integral to and in place in the design;
- In order to manage noise levels, collection of waste from the construction site will only occur during hours approved for construction work;
- All vehicles entering or leaving the site must have their loads covered;
- All vehicles, before leaving the site, to be cleaned of dirt, sand, and other materials, to avoid tracking these materials onto public roads; and
- At the completion of the works, the work site is left clear of waste and debris.

Throughout the construction phase Hindmarsh will engage a waste contractor such as Just Skips or equivalent to provide waste bins for the collection and separation of waste on site bins expected to be onsite include:

- 3m3 food waste bin (collected weekly);
- 660L cardboard and paper recycling bin (collected fortnightly);
- Concrete slurry bin for the collection of concrete pump excess concrete;
- 1.5m3 general site waste bins;
- 660L general site waste bins; and
- 240L general site waste bins.

All the site general site waste bins will be used to collect all site waste from the building area. These smaller site bins will then be tipped into the appropriate large site bins ready for truck collection and transportation to a recycling facility. The waste collection contractor will be contracted to ensure a minimum of 90% of all waste is recycled.

Construction waste will be taken to facilities for disposal or recycling as may be appropriate:

The facility will have the capacity to separate project waste into such categories as:

- Metals;
- Cardboard;
- Timber;
- Concrete;
- Plasterboard;
- Soils;
- Plastics; and
- Landfill.

Every month the facility will provide a log and waste recycling report for all materials delivered from our site to the facility.

9.1 Monitoring

Waste data is to be collected on the project to allow monthly reporting of the following:

- The quantity of each type of waste sent to landfill;
- The quantity of each type of waste recycled;
- The quantity of each type of waste reused;
- The quantity of each type of hazardous/regulated waste generated on the project and:
 - Its method of treatment and disposal;
 - The location of treatment and disposal; and
 - Copies of records confirming the legal transport, treatment and disposal.
- Measurement of any reduction in waste generation that has been achieved.

The quantities for solid waste is measured by weight and liquid waste by volume, with records to be provided by the transport contractor.

10. Contamination / Remediation Reports

There are a number of Site Investigation undertaken by HammondCare with reports having been made available to the project.

These reports in summary below will be utilised by the project to generate work practices in supplementing the management of waste.

- JHA vA 05 May 2022 Preliminary Screening Report Dangerous Goods
- JK Environments v1 05 May 2022 Remediation Action Plan (RAP)
- JK Environments v2 05 May 2022 Additional Site Investigation
- JK Environments v2 05 May 2022 Hazardous Building Materials Survey
- JK Environments v2 05 May 2022 Acid Sulfate Soil Assessment
- JK Environments v1 08 April 2022 Salinity Investigation

The above-mentioned documentation is available upon request.

11. Construction

The presence of hazardous materials on the site determines the need to implement and closeout project work practices in alignment to a RAP provided by JK Environments v1 05 May 2022.

11.1 Pre-Commencement

The project team is to have a pre-commencement meeting to discuss the sequence of remediation, and the remediation and validation tasks. The site management plan for remediation works should be reviewed by the project manager and remediation contractor, and appropriate steps are to be taken to ensure the adequate implementation of the plan.

11.2 Remediation and Associated Tasks

The following general sequence of works is anticipated:

- Preparation of Asbestos Management Plan (AMP) for the proposed development. JKE note that this is a requirement of the JKE HAZMAT report;
- Site establishment and demolition;
- Hold Point A site inspection should be completed by the validation consultant on completion of demolition to identify any additional sources of contamination such as ACM, USTs etc. An LAA should be appointed to provide a site clearance certificate. Any such areas identified should be targeted as part of the DGI;
- Completion of the DGI as outlined in JK Environments v1 05 May 2022 RAP Section 4;
- Completion of the HHRA for HGG, based on the results of the DGI;
- Preparation of a RWP based on the data gap investigation and HHRA;
- Decommissioning and removal of the USTs, backfill and associated infrastructure, followed by excavation and off-site disposal of soils associated with the tank pit and other impacted areas; and
- Remediation of TRH impacted fill and residual soil in the south-west of the site. Validation of the works would occur progressively throughout the remediation program.

Details in relation to the above are outlined in the following subsections.

Asbestos Management Plan

An AMP will be prepared for the site by a LAA and implemented for the site demolition, remediation and development works. The AMP should include the minimum PPE, WHS and other requirements outlined in the documents published by Safe Work Australia, WorkCover Authority of NSW, National Occupational Health and Safety Commission, and other relevant authorities as applicable.

Site Establishment and Demolition

The remediation contractor (yet to be appointed) is to establish on site as required to facilitate the remediation. Consideration must be given to the work sequence and extent of remediation so that the site establishment (e.g. site sheds, fencing, access points etc.) does not inhibit the remediation works.

The hazardous building materials in the existing structures should be demolished in accordance with the relevant codes and standards.

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An AMP is to be prepared prior to the commencement of demolition of buildings associated with the project.

A clearance certificate is to be obtained from a LAA by the demolition contractor following the removal of any hazardous materials. The concrete slabs should be inspected for potential ACM post-demolition by the LAA.

All waste from the demolition is to be disposed to facilities that are licenced by the NSW EPA to accept the waste. The demolition contractor is to maintain adequate records and retain all documentation for such activities including:

- A summary register including details such as waste disposal dates, waste materials descriptions, disposal locations (i.e. facility details) and reconciliation of this information with waste disposal docket numbers;
- Waste tracking records and transport certificates (where waste is required to be tracked/transported in accordance with the regulations); and
- Disposal dockets for the waste. Legible dockets are to be provided for all waste materials so they can be reconciled with the register.

The above information is to be supplied to the validation consultant for assessment and inclusion in the site validation report.

Tank Remediation

The UST and associated infrastructure (i.e. underground pipe work, vent pipes etc) are to be removed from the site in accordance with the Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation (2019)14, Guidelines for the Implementation of the Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2019 (2020)15 and the Australian Standard for The Removal and Disposal of Underground Petroleum Storage Tanks (AS4976-2008)16. Reference is also to be made to the UPSS Technical Note: Decommissioning, Abandonment and Removal of UPSS (2010)17 and the UPSS Technical Note: Site Validation Reporting (2010)18.

It is noted that various guidelines are outdated and/or are currently being updated to reflect the UPSS Regulation 2019. The remediation is to occur in accordance with the current regulation and best practice guidelines available when the remediation commences.

Procedures for removal and disposal of materials associated with this element are detailed in the JK Environments v1 05 May 2022 RAP to be adhered to.

Excavation and Disposal of THR-Imacted Fill and Residual Soil/Bedrock

Procedures for removal and disposal of materials associated with this element are detailed in the JK Environments v1 05 May 2022 RAP to be adhered to.

Remediation Documentation

The remediation contractor must retain all documentation associated with the remediation, including but not limited to:

- Waste register;
- Asbestos management documentation, including all relevant notifications and monitoring reports;
- Photographs of remediation works;
- Waste tracking documentation (where applicable);
- Survey information; and

• Imported materials documentation from suppliers, including any routine analysis reports, product specifications and dockets for imported materials.

Copies of these documents must be forwarded to the project manager and the validation consultant on completion of the remediation for inclusion in the validation report.

Waste Register

All waste removed from the site is to be appropriately tracked and managed in accordance with the relevant regulations. The remediation contractor (and/or their nominated construction contractor) is to maintain adequate records and retain all documentation for waste disposal activities including:

- A summary register including details such as waste disposal dates, waste materials descriptions, disposal locations (i.e. facility details) and reconciliation of this information with waste disposal docket numbers; and
- Waste tracking records and transport certificates (where waste is required to be tracked/transported in accordance with the regulations); and
- Disposal dockets for the waste. Legible dockets are to be provided for all waste materials so they can be reconciled with the register.

Any soil waste classification documentation is to be prepared in accordance with the reporting requirements specified by the NSW EPA. Reports are to include:

- The full name, address, Australian Company Number (ACN) or Australian Business Number (ABN) of the organisation and person(s) providing the waste classification;
- Location of the site where the waste was generated, including the source site address;
- History of the material and the processes and activities that have taken place to produce the waste;
- Potential contaminating activities that may have occurred at the site where the waste was generated;
- Description of the waste, including photographs, visible signs of contamination, such as discolouration, staining, odours, etc;
- Quantity of the waste;
- Number of samples collected and analysed;
- Sampling method including pattern, depth, locations, sampling devices, procedures, and photos of the sample locations and samples;
- Contaminants tested;
- Laboratory documentation chain-of-custody (COC), sample receipt, laboratory report;
- All results regardless of whether they are not used in the classification process;
- Results of sample mean, sample standard deviation and the 95% upper confidence limit (UCL) where relevant;
- Brief summary of findings including discussion of results; and
- A clear statement of the classification of the waste as at the time of the report.

A soil volume analysis should be undertaken on completion of remediation and reconciled with the quantities shown on the soil disposal dockets. This information is to be reviewed by the validation consultant on completion of the works and an assessment of the quantities of soil disposed off-site (e.g. comparison with the estimated and actual volumes) is to be included in the validation report. A review of the disposal facility's licence issued under the Protection of the Environment Operations (POEO) Act (1997)20 should also be undertaken to assess whether the facility is appropriately licensed to receive the waste.

11.3 Construction Waste Generally

Waste building materials generated from demolition or construction activities will be recycled as far as practicable, and Hindmarsh will comply with the requirements of all relevant Authorities in relation to the disposal of all waste material.

The following measures will be adopted to encourage management and reduction of waste, with the objective to minimise the loss of natural resources and landfill space:

- Emphasise the importance of recycling and waste reduction;
- Encourage the use of recycled materials where it is reasonably practical;
- Minimise the use of packaging materials and recycle packaging materials where possible;
- Waste concrete to be sent to a concrete recycling plant where possible;
- Separate removed native vegetation from general construction waste, mulch, and stockpile for re-use; and
- Dispose of any non-recyclable general waste at approved waste disposal facilities.

Removal of hazardous and dangerous materials from the site shall be in accordance with State and Federal legislation, including WorkSafe requirements and further Health Infrastructure Design Guidance Notice no.015 Asbestos and Hazardous Materials. Asbestos / soil waste will be removed (if applicable) according to WorkSafe Guidelines and placed in double-lined bins before being disposed of at a licensed landfill by a licensed transporter.

Waste material shall be stored on site neatly, in appropriate bins or stockpiles, in such a manner that stormwater run-off does not come into contact with waste.

Waste segregation areas and temporary storage locations for skips / waste for recycling / re-use / disposal shall be selected so as to minimise safety risks to site workers and to minimise adverse impact on the visual amenity of the site.

For external bins, self-closing lids shall be installed to ensure waste does not become airborne.

Waste collection shall only occur during permitted hours.

Litter and debris trapped against the site fence shall be regularly cleaned away.

Burning off on site will be prohibited.

All waste disposed of (whether it be for recycling / re-use or landfill disposal) will be recorded on forms which will be part of the project records. Recycler and landfill disposal dockets will be used for confirmation of tonnages and proof of lawful disposal.

Hindmarsh shall be responsible for reporting any incident which causes, or threatens to cause, material environmental harm or breaches approval requirements to relevant project stakeholders as soon as possible.

12. Regulatory Reporting Requirements - EPA

An Environmental Incident is an unexpected event that may result in harm to the environment and requires some action to minimise the impact or restore the environment. An Environmental incident can include (but not be limited to) the following:

- spills of waste, fuels, oils, chemicals, and other hazardous materials;
- overflow of sediment basin or other containment devices;
- failure of temporary erosion and sediment controls;
- contamination of waterways or land;
- accidental starting of fire or fire breaking out of containment;
- breach of licence, permit or approval requirement;
- breach of legislative requirements;
- illegally dumped waste;
- unplanned disturbance of acid sulphate soils (or subsequent pollution);
- accidental harm to vegetation, fauna, or habitat (e.g., hollow logs);
- accidental harm to heritage items or locations (Aboriginal and non-Aboriginal); and
- public complaints arising from activities (relating to environmental issues).

There is a duty to report pollution incidents under section 148 of the Protection of the Environment Operations Act 1997 (POEO Act). Pollution incidents causing or threatening material harm to the environment must be notified. A 'pollution incident' includes a leak, spill or escape of a substance, or circumstances in which this is likely to occur. 'Pollution incident' is defined in the Dictionary to the Act as an incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but it does not include an incident or set of circumstances involving only the emission of any noise.

If you observe a major pollution incident that presents an immediate threat to human health or property, such as toxic fumes or a large chemical spill, call 000 to report it to emergency services. As first responders, Fire and Rescue NSW, the NSW Police and the NSW Ambulance Service are responsible for controlling and containing incidents. Then all matters must be reported to the EPA NSW:

EPA State Name: EPA New South Wales Telephone: 131 555 Fax: N/A Email: *info@epa.nsw.gov.au*

In the event of a reportable environmental incident the Project Manager (PM) must refer to the Injury, Illness and Incident Management and Reporting flow chart for detailed guidance regarding the management and reporting of environmental incidents.

Hindmarsh - Commercial in confidence

13. Review and Improvement

13.1 Continuous Improvement

Continuous improvement of this Plan will be achieved by the ongoing evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement.

The continuous improvement process will be designed to:

- Identify areas of opportunity for improvement of environmental management and performance,
- Determine the cause or causes of non-conformances and deficiencies,
- Develop and implement a plan of corrective and preventative action to address any non- conformances and deficiencies,
- Verify the effectiveness of the corrective and preventative actions,
- Document any changes in procedures resulting from process improvement identified through the following:
 - As a result of any investigations into any exceedances or non-conformances that determine changes to this Plan are required to prevent reoccurrences,
 - To take into account changes to the Environment or generally accepted environmental management practices, new risks to the Environment, any Hazardous Substances, Contamination or changes in Law, and
 - In response to internal or external audits or annual management reviews.
- Where requested or required by the DPIE or any other Authority,
- Make comparisons with objectives and targets, and
- Meet approval requirements and conditions such as EPL requirements.

13.2 CWMSP Update and Amendment

The processes described in the CEMP may result in the need to update or revise this Plan. Any revisions to the CWMSP will be in accordance with the process outlined in the CEMP.

A copy of the updated plan and changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure of the CEMP.

Appendix A – Site Establishment & Waste Collection Locations

REFER FOLLOWING PAGES









































Appendix B – Estimate of Waste Quantities

Anticipated volumes of waste resulting from the construction process, including materials generated from deliveries, such as pallets, pallet wrap, cardboard packaging, and general waste and recyclables disposed of by contractor staff, based on the works to be undertaken. Specific disposal/recycling facilities are not shown, as waste removal contractors have not yet been appointed for the project.

Demolition Waste - Expected Materials Streams

Materials on Site			Destination/Treatment	
Type of Material	Estimated m3	Onsite (Reuse/Recycle)	Offsite (Reuse/Recycle)	Disposal (Landfill)
Excavated Soil, Rock	13,600	Possible onsite reuse in landscaping works	Material to be taken to facility for processing for reuse at other sites	No disposal to landfill
Bricks	1,000	Separated on site and crushed for use in pavement and/or temporary access road construction	Acceptable quality bricks collected by contractor for reuse. Unusable bricks collected and recycled at recycling facility to be used in aggregate gravel products	No disposal to landfill
Trees & Vegetation	200	Possible onsite reuse	Material to be taken to organic waste facility for processing for reuse in landscaping works	No disposal to landfill
Roof Tiles	100	No on-site reuse or recycling	Sent for reuse if feasible and/or recycling depending on condition	No disposal to landfill
Bitumen	100	No on-site reuse	Collected by contractor for recycling at dedicated facility	No disposal to landfill
Concrete	60	Separated on site and crushed for use in pavement and/or temporary access road construction	Acceptable quality bricks collected by contractor for reuse. Unusable bricks collected and recycled at recycling facility to be used in aggregate gravel products	No disposal to landfill

Metals	60	No on-site reuse	Collected by contractor for separation into different metal types for recycling	No disposal to landfill
General Waste (All Materials Unsuitable for Reuse/Recycling)	60	No on-site reuse or recycling	Collected by the waste contractor for disposal at landfill	Disposal to landfill
Floor Coverings	60	No on-site reuse	Collected in designated bin and sent for recycling if of sufficient quality; otherwise sent to landfill	Material that cannot be recycled will be sent to landfill
Structural & Fencing Timber	50	Possible onsite reuse	Untreated recyclable timber will be collected and recycled at timber yard. Unrecyclable timber will be sent to landfill	Material that cannot be recycled will be sent to landfill
Glass	40	No on-site reuse or recycling	Sent for reuse if feasible and/or recycling depending on condition	No disposal to landfill
Hazardous Materials	30	No on-site reuse or recycling	Collected by specialist contractor for treatment and disposal	Disposal to licensed landfill
Ceiling Tiles	20	No on-site reuse or recycling	Collected by specialist contractor for recycling	No disposal to landfill
Lighting Fixtures, Lamps (Non- Hazardous)	30	No on-site reuse or recycling	Collected by specialist contractor for recycling	No disposal to landfill
Wiring, Electrical Fittings	30	No on-site reuse	Collected by specialist metal subcontractor for separation into	No disposal to landfill
Plumbing, Fixtures	30	No on-site reuse	recycling	No disposal to landfill
Plasterboard	20	No on-site reuse	Material to be separated onsite and collected by contractor for recycling for use as soil improver with gypsum removed by recycler	Material that cannot be recycled will be sent to landfill
Bathroom & Kitchen Tiles	10	No on-site reuse or recycling	Sent for reuse if feasible and/or recycling depending on condition	No disposal to landfill
TOTAL MATERIALS	15,540	The development's demolition phase will produce around 15,540 m3 of waste materials, of which 15,540 m3 or 99% can potentially be diverted from landfill, by being reused on site, or recycled off-site at a dedicated facility.		

Construction Waste - Expected Materials Streams

Materials on Site		C	Destination	
Type of Material	Estimated m ³	Onsite (Reuse/Recycle)	Offsite (Reuse/Recycle)	Disposal (Landfill)
Soft Plastics (e.g. pallet wrapping)	85	Possible onsite reuse	Collected by contractor and taken to recycling facility	No disposal to landfill
Used Pallets	83	Reuse on site for materials storage	Collected by contractor and taken to recycling facility	No disposal to landfill
Paper/Cardboard Recycling	66	Reusecardboard boxes forstorage where possible	Separated onsite into dedicated receptacles and collected by the waste contractor for recycling	No disposal to landfill
Metal Offcuts, Wiring, etc.	58	No on-site reuse	Collected by contractor for separation into different metal types for recycling	No disposal to landfill
General Waste	55	No on-site reuse or recycling	Separated onsite into dedicated receptacles and collected by waste contractor for disposal	Disposal to landfill
Plasterboard Offcuts	52	No on-site reuse	Material to be separated onsite and collected by contractor for recycling for use as soil improver with gypsum removed by recycler	Material that cannot be recycled will be sent to landfill
Floor Coverings	50	No on-site reuse	Collected in designated bin and sent for recycling if of required quality; otherwise sent to landfill	Material that cannot be recycled will be sent to landfill
Recyclable Glass, Metal, & Plastic Containers	41	No on-site reuse	Separated onsite into dedicated receptacles and collected by the waste contractor for recycling	No disposal to landfill
Timber Offcuts	39	Reuse for formworkwhere possible	Untreated recyclable timber will be collected and recycled at timber yard. Unrecyclable timber will be sent to landfill	Material that cannot be recycled will be sent to landfill
Concrete (Excess)	33	Separated on site and crushed for use in access road construction	Collected by contractor and taken to concrete recycling facility	No disposal to landfill
Glass (Excess)	28	No on-site reuse or recycling	Sent for reuse if feasible and/or recycling depending on condition	No disposal to landfill
TOTAL MATERIALS	589 m ³	The development's c of which 534 m ³ or 90 site, or recycled off-s	onstruction phase will produce around 58).2% can potentially be diverted from land ite at a dedicated facility.	9 m³of waste materials, fill, by being reused on

Appendix C – Waste Classification Process

Waste Classification Process (Part 1, of the Waste Classification Guidelines EPA, 2014)



Appendix D – Environmental and Sustainability Policy



Environment and Sustainability Policy

Hindmarsh operates with full appreciation and awareness that environmental protection and sustainability are principle to our ongoing success. Operations in terms of both construction and completion are compassionate to the environment, the local community and aim to support the ongoing sustainability of the environment.

Hindmarsh seeks to meet its own environmental needs and the needs and expectations of clients, stakeholders, employees and the community by:

- Setting and continually reviewing measureable environmental objectives and targets. Backed by ongoing
 monitoring, reporting and analysis supporting continual improvement. Complimented by ongoing feedback at
 all levels.
- Prevent pollution and unnecessary resource consumption by setting targets and maintaining systems and
 processes which facilitate the more efficient use of energy and material resources and improved waste
 management, waste avoidance, re-use and recycling.
- Seek to minimise construction related aspects and impacts including noise, vibration, groundwater, air quality, land contamination, amenity and heritage.
- Promote a shared sense of ownership and responsibility for optimal environmental performance from board through to employees and contractors whilst developing a culture of environmental respect and appreciation.
- Encourage and support environmental awareness through ongoing training and development of competencies particular to specific environmental impacts related to individual activities.
- Comply with all legal requirements including environmental Legislation, Regulations, Codes of Practice, Applicable Australian and other standards specific to Hindmarsh.
- Implement and maintain the Hindmarsh Management System and its Environmental elements to ensure all
 potential aspects and impacts are identified, evaluated and suitably eliminated or controlled.
- Foster and support continuous improvement at all levels including the identification of key environmental initiatives.

Compliance with this policy will be monitored, audited and continually reviewed so as to remain effective and aligned with all of our operations.

Rowan Hindmarsh Chief Executive Officer

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