

**DUBBO BASE HOSPITAL – STAGES 1&2 REDEVELOPMENT
REVIEW OF ENVIRONMENTAL FACTORS
PRELIMINARY CONSTRUCTION MANAGEMENT PLAN**

22 June 2012 | Revision 01



Health
Western NSW
Local Health District



Health
Infrastructure



TSA
MANAGEMENT

DOCUMENT ADMINISTRATION

Revision History

Version	Date	Issued To	Remarks
01	22 Jun 2012	Health Infrastructure	For Approval

© Copyright TSA Management

All rights reserved. No part of this document may be reproduced or transmitted, in any form or in by any means, without the express permission of TSA Management Pty Limited, unless specifically allowed for by the terms of a contractual agreement with TSA Management Pty Limited.

Document Control

Prepared by:	Catherine Lee	Date:	22 Jun 2012
Approved for issue:	Michael Roxburgh	Date:	22 Jun 2012

TABLE OF CONTENTS

1.0	Introduction.....	1
1.1	Proposed Works	1
1.2	Site Description	2
1.3	Prior to the Commencement of the Works	2
1.4	Construction Management Plan Components	3
2.0	Site Operations	3
2.1	Legislative Requirements	3
2.2	Hours of Operation	4
2.3	Public Safety, Amenity and Site Security	4
2.4	Disruption Notices & Neighbour Management	4
3.0	Environment and Amenity	5
3.1	Noise and Vibration	5
3.2	Dust	6
3.3	Odour Control	6
3.4	Vegetation Protection	6
3.5	Stormwater and Sediment Control	6
4.0	Traffic Management	7
4.1	Construction Entry & Exit	7
4.2	Pedestrian Protection	7
5.0	Waste and Materials Reuse Management.....	7
5.1	Storage of Dangerous Goods	7
5.2	Waste Management / Recycling Principles	8
5.3	Hazardous Materials Management	8
6.0	Services Disconnection.....	9

1.0 Introduction

The Early Works (the Works) described in this preliminary Construction Management Plan will be carried out by a Head Contractor on behalf of Health Infrastructure (HI) and Dubbo Base Hospital (DBH).

This Plan is a preliminary Construction Management Plan submitted as part of the Review of Environmental Factors (REF) submission. Once the Head Contractor has been appointed, a comprehensive Construction Management Plan will be prepared by the Head Contractor with specific details and strategies for the management of activities on-site.

HI will ensure that the Head Contractor complies with the minimum standards detailed in this Preliminary Construction Management Plan, as well as the requirements of the Dubbo City Council.

The Head Contractor's requirements outlined in this preliminary Construction Management Plan will be specifically included in the *HGC21 General Conditions of Contract*, *HGC21 Preliminaries*, *HGC21 Conditions of Tendering* and *HGC21 Tender Schedules*.

1.1 Proposed Works

The Works will include:

- Demolition of various structures including the existing Nurses Accommodation and Boiler House buildings, including removal of hazardous materials
- Construction of a new electrical substation building (including switchboard and generators) and relocation of existing padmount substations
- Upgrades and expansion of the existing car park
- Termination and relocation of existing hydraulic, water, sewer, stormwater, gas and electrical infrastructure services across the site
- Relocation of sheds to accommodate a new link road and construction access road in the northern part of the site
- Construction of a new building for ICT infrastructure
- Minor reconfiguration of the Hospital's main entry and front of house areas
- Provision of new landscaping.

1.2 Site Description

The proposed development site covers an area of approximately 13.41 hectares. The site is defined by Myall Street to the south, Coonamble Railway line and Muller Street to the west, a privately owned lot to the north and the rear of residential lots facing Leonard Street to the east.



Figure 1-1 Dubbo Base Hospital Redevelopment Site Area

1.3 Prior to the Commencement of the Works

Prior to the commencement of Works on site, the following procedures will be undertaken:

- Ascertain all relevant project information, applicable standards, statutory requirements and conditions, including authorities having jurisdiction over the Works;
- Obtain all relevant insurances, permits and approvals and pay all associated fees and deposits;
- Undertake a dilapidation report that provides a photographic record of the site and surrounding areas and properties as well as a record of existing noise and dust levels for use as a base for ongoing monitoring; and
- Retain a copy of the REF Approval on site at all times during the duration of the Works. The Principal will notify the Consent Authority of proposed variations to project requirements and conditions where they are practicably foreseeable.

1.4 Construction Management Plan Components

This Plan covers the following areas of management:

1. The operations of site management when undertaking the Works:

- Legislative Requirements
- Hours of Work
- Public Safety, Amenity and Site Security
- Disruption Notices and Neighbour Management

2. Mitigation to minimise amenity and environmental impacts:

- Noise and Vibration Management
- Dust Management
- Odour Control
- Vegetation Protection
- Stormwater and Sediment Control

3. Traffic/pedestrian management over the duration of the works.

4. Waste Management:

- Storage of Dangerous Goods
- Hazardous Materials Management
- Contamination Contingency Strategy

5. Service Disconnections

2.0 Site Operations

2.1 Legislative Requirements

The Works will be undertaken in accordance with the following legislative requirements and any others that must be complied with in undertaking the Works as required:

- 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 4373-1996: 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 (1998));
- Resource and Recovery Act 2001;
- Environmental Planning and Assessment Act 1979, including clause 109R 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 Conservation Act 1983.

2.2 Hours of Operation

The hours of demolition or construction including delivery of materials to and from the site shall be restricted as follows as per Dubbo City Council's requirements:

- Monday to Saturday inclusive 7.00AM to 7.00PM
- No work or deliveries on Sundays and Public Holidays

Out of hours works may be required from time to time and will be coordinated with hospital requirements and BCA for Crown Certification. Deliveries of heavy machinery may be required out of the proposed hours of operation to conform to the overriding requirements of the Roads & Maritime Services (RMS).

2.3 Public Safety, Amenity and Site Security

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. Access to the public car park areas will be maintained as much as is feasible to the maximum capacity during the works.

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.

These measures may be staged during the works. At various times, different portions of the site may be fenced. These public and 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 Section 2.1 of this document.

2.4 Disruption Notices & Neighbour Management

Disruption Notices

Disruptions to hospital operations will be managed through the process of Disruption Notices (DNs). For such stoppages, the DN will describe the applicable works, timetable, issues and contingency plans.

DNs are submitted by the Head Contractor to the Project Manager and hospital stakeholders for approval. Depending on the Works, these may be required between 48 hours and 3 weeks prior to commencing works dependent upon the nature of the works.

Complaints Mechanism and Neighbour Management

From the commencement of construction until completion of the Early Works, the Head Contractor will be required to maintain a community liaison officer on the project. This officer will be contactable by both a mobile phone and email and the contact details will be clearly advertised on site hoardings, community updates and the like. The Head Contractor will be required to maintain a register of complaints and to report on the status of complaints on a monthly basis. For complaints that cannot be addressed by the Head Contractor, these will be presented to the appointed representative from the Hospital for resolution of the issues and for decisions to be made.

Dubbo Base Hospital will provide site signage that clearly indicates the relevant contact within the Hospital with responsibility for addressing complaints during the construction phase.

2.5 Staging of Works

A staging strategy will be implemented to ensure that car parking facilities on site are not diminished as a result of the Works. Reference should be made to the Traffic Impact Assessment prepared by Cardno as part of the REF submission, for the number of existing car park on site.

Expansion and Regrading the Car Park North to South

The car park expansion to the north of the main north-east car park should be staged to occur ahead of any works on the existing car park. This will allow a surplus supply of parking spaces to be created while the existing main car park remains operational and the existing supply of parking spaces is maintained.

Staging the Regrading of the Existing Car Park

The existing main north-east car park should then be progressively regraded in stages so that a minimal number of car parking spaces are lost during the works. Once the expansion of the main car park to the north is complete, a similar number of car park spaces can be displaced at a time while the regrading occurs with minimal impact on parking availability.

3.0 Environment and Amenity

The Head Contractor undertaking the Works will be required to submit for review a comprehensive Environmental Management Plan (EMP) to ensure that all elements of the plan meet all statutory requirements, NSW Ministry of Health (MoH) requirements and requirements as set out in Clause 6: Environmental Protection in the *HGC21 Preliminaries* document.

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) and/or details provided by project engineering consultants. Reference should be made to Section 6, Sediment and Erosion Control, of the Stormwater Management Plan produced by Enstruct as part of the REF submission.

The environmental performance of the Head Contractor will be monitored 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 Early 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 normal working hours unless approval has been given by the consent authority through the DN process.

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 minimize noise from construction works;
- Focus on applying all feasible and reasonable work practices to minimize construction noise impacts;
- Provide flexibility in the selection of site-specific and reasonable work practices to minimize 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.

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 Norman Disney & Young (NDY). This Acoustic Assessment Report documents recommendations and requirements for mitigation of noise and vibration during construction. This report forms part of the Review of Environmental Factors submission.

The noise mitigation treatment proposed by the Head Contractor will be included in the detailed Construction Management Plan.

3.2 Dust

To control dust generation where necessary, water will be sprayed at the source of origin and surrounding areas to prevent airborne dust particles migrating into the surrounding environment. Management of dust prevention is to be developed by the Head Contractor and agreed by the project stakeholders.

Additional precautions that will be implemented during the Works include the covering of all haulage trucks with tarpaulins, 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

Odour problems will be minimal for demolition activity on site. All plant and machinery involved in the Works will be regularly serviced and checked for exhaust emissions and catalytic converters.

3.4 Vegetation Protection

The Head Contractor upon appointment will be required to prepare a detailed site-specific Construction Management Plan. This Plan will need to demonstrate the measures that will protect trees and vegetation being retained under the development works. Vegetation protection should be in accordance with Australian Standard 4970-2009, Protection of Trees on Development Sites. Where branch pruning works are required, works should be carried out in accordance with Australia Standard AS 4373-1996 Pruning of Amenity Trees and the works are to be undertaken by an experienced and qualified arborist.

Recommendations and requirements for vegetation protection are documented in the Arborist Report produced by Outback Tree Services and it forms part of the Review of Environmental Factors submission.

3.5 Stormwater and Sediment Control

Appropriate elements of the drainage system on the Site will be cleaned out to remove sediments, prior to commencing the Works on site. Drainage of surface run-off will be allowed to flow along existing contours (down slope) 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 works areas will be covered with geotextile fabric to allow water to enter into drains whilst retaining sediments.

Should external surface run-off flow into works areas, 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.

Reference should be made to the Stormwater Management Plan produced by Enstruct as part of the REF submission for stormwater and sediment control. 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.

4.0 Traffic Management

As part of its Construction Management Plan, the Head Contractor will be required to submit a Construction Traffic Management Plan for approval prior to commencement of the works.

During construction, the following equipment may be used:

- bulldozers, backhoes and excavators;
- articulated and fixed trucks;
- mobile cranes;
- concrete delivery trucks;
- concrete pumps;
- man and material hoists;
- scissor and boom lifts, and
- fork trucks.

4.1 Construction Entry & Exit

It is proposed that construction works traffic will enter and exit at the north of the site via River St, with a vehicle access way constructed between River St and the hospital site. Note that construction vehicles will not be permitted to use the intersection of Myall St/Cobbora Rd and McGuinn Drive. It is estimated that there will be up to 50 heavy vehicle movements per day. Details of service vehicle movements including likely arrival and departures have been assessed within the Preliminary Construction Traffic Management Plan produced by Cardno as part of the REF submission.

Appropriate traffic management procedures will be adopted within the hospital grounds in accordance with the requirements of the Hospital and Local Health District.

4.2 Pedestrian Protection

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

The Head Contractor will need to produce a detailed Traffic Management Plan which addresses pedestrian and diesel activities at or near the site.

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

5.0 Waste and Materials Reuse Management

5.1 Storage of Dangerous Goods

Dangerous goods (such as petrol, diesel, oxy-acetylene, oils, glues etc) will be stored 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 Head Contractor undertaking the Works.

Operational hazards (used in hospital activities) are outlined in a separate report, Waste Management Policy and Plan (Document Number GW_PD2010_040), produced by the Greater Western Area Health Service (GWAHS), the predecessor of the Western NSW Local Health District. As a result of the proposed Early Works, there will be no change in the type or quantities of dangerous goods on site, therefore all current practices for the management of dangerous goods will apply at the completion of the Early Works.

5.2 Waste Management / Recycling Principles

Demolition will include:

- Nurse's Accommodation
- Laundry
- New Boiler House
- Old Boiler House & Medical Records (including external chimney)
- Main Switch Room and Generator

Demolition and removal of in-ground services will also be required around the campus.

Where possible any material generated from the Works will be recycled apart from selected soft demolition materials and hazardous materials such as asbestos, lead-based paints, phenols and polychlorinated biphenyls (PCB). The Head Contractor will be required to achieve compliance with the EPA guidelines.

The following measures are adopted to encourage the management and reduction of waste to minimize 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, mulched and stockpiled for re-use; and
- Non-recyclable general waste will be disposed at an approved waste disposal facility.

References should be made to the Dubbo City Council's waste management guidelines. The Head Contractor must comply with the requirements as set out in the *HGC21 Preliminaries* document (Section 6.3 – Waste Management) in its waste management practices.

5.3 Hazardous Materials Management

A hazardous building materials assessment report has been produced by Douglas Partners to include buildings proposed to be demolished under the REF submission. The report records hazardous materials including lead-based paints, phenols and polychlorinated biphenyls (PCBs) and provides recommendations for handling the hazardous materials identified in the buildings that will be demolished. This report should also be read in conjunction with the Asbestos Contamination Audit undertaken in May 2008 by GWAHS.

Hazardous Materials Audit

A licensed demolition contractor and/ or Head Contractor are to inspect the site to determine the presence of any hazardous materials in accordance with the requirements of AS2601.

Hazardous Materials Management Plan

- A Hazardous Materials Management Plan will be prepared in accordance with the requirements of AS2601 prior to the commencement of any demolition works;
- The removal, handling and disposal of asbestos materials are to be undertaken only by an appropriately licensed contractor and in accordance with the requirements of the NSW WorkCover Authority and the NSW Office of Environment and Heritage (NSW OEH);

- All asbestos and other hazardous materials are to be appropriately contained and disposed of at a facility holding the appropriate licence issued by the NSW OEH; and
- A sign displaying the words ‘DANGER ASBESTOS REMOVAL IN PROGRESS’ is to be displayed on sites where buildings to be demolished contain asbestos materials.

Any hazardous materials discovered during Early Works should be dealt with by the Head Contractor in accordance with the requirements set out in the *HGC21 Preliminaries* document (Section 5.6 – Hazardous Substances).

5.4 Contamination Contingency Strategy

A Phase 1 contamination report and specific contamination report for former coal bunker have been produced by Douglas Partners and they form part of the REF submission. These reports indicated minimal evidence of contamination on the site. The Phase 1 contamination report noted that the tested areas have soils that are suitable for continued use in the hospital environment. A Phase 2 contamination report will be carried out prior to any works occurring on site.

These reports will be used as the basis for identifying and managing the removal of any contaminated materials identified during the Works. ‘Unexpected finds’ protocols will be implemented to manage any materials identified during the Works.

The following measures should be implemented to ensure that construction activities avoid site contamination and any discovered contaminated soil can be effectively managed to safeguard human health and environment.

6.0 Services Disconnection

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

- The Head Contractor must comply with the Dubbo Base Hospital Isolation Procedures during the disconnection of services;
- Services impacts on the existing facility (Dubbo Base Hospital) will be done with full coordination, development and input with the client and its relevant stakeholders and will only proceed with approval via a Disruption Notice process;
- Impacts on the hospital will be kept to a minimum, which may, on occasion, result in ‘out of hours’ work. At all time patient care will be paramount and staff/visitor safety, access and security maintained;
- If the Head Contractor proposes to carry out ‘out of hours’ work, the Head Contractor must provide details of the time and frequency of such work. It is anticipated that such work will be kept to a minimum;
- 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;
- Any termination works that impact on adjoining owners will be notified and will be undertaken out of hours to minimise impact; and
- The Head Contractor must comply with the requirements as set out in the *HGC21 Preliminaries* document (Section 5.4 – Existing Services) for locating and dealing with the existing services.