

# **BLACKTOWN MT DRUITT HOSPITAL STAGE 1 & COAG SUB-ACUTE PROJECTS**



*New Clinical Service Building looking South-West*

## **OUTLINE CONSTRUCTION MANAGEMENT PLAN**

### **FOR**

## **BLACKTOWN HOSPITAL STAGE-1 NEW CLINICAL SERVICES BUILDING**

### **PART 4 DEVELOPMENT APPLICATION**

## Construction Management Plan - Revision Record

Revision	Date Issued	Approved	Summary of Amendments	Distribution
Draft-1	25 <sup>th</sup> June 12		Stage-1 DA Submission	Issued to BBC Planning Consultants for comments / feedback.
Final	9 <sup>th</sup> July 12		Stage-1 DA Submission	Issued for DA Submission

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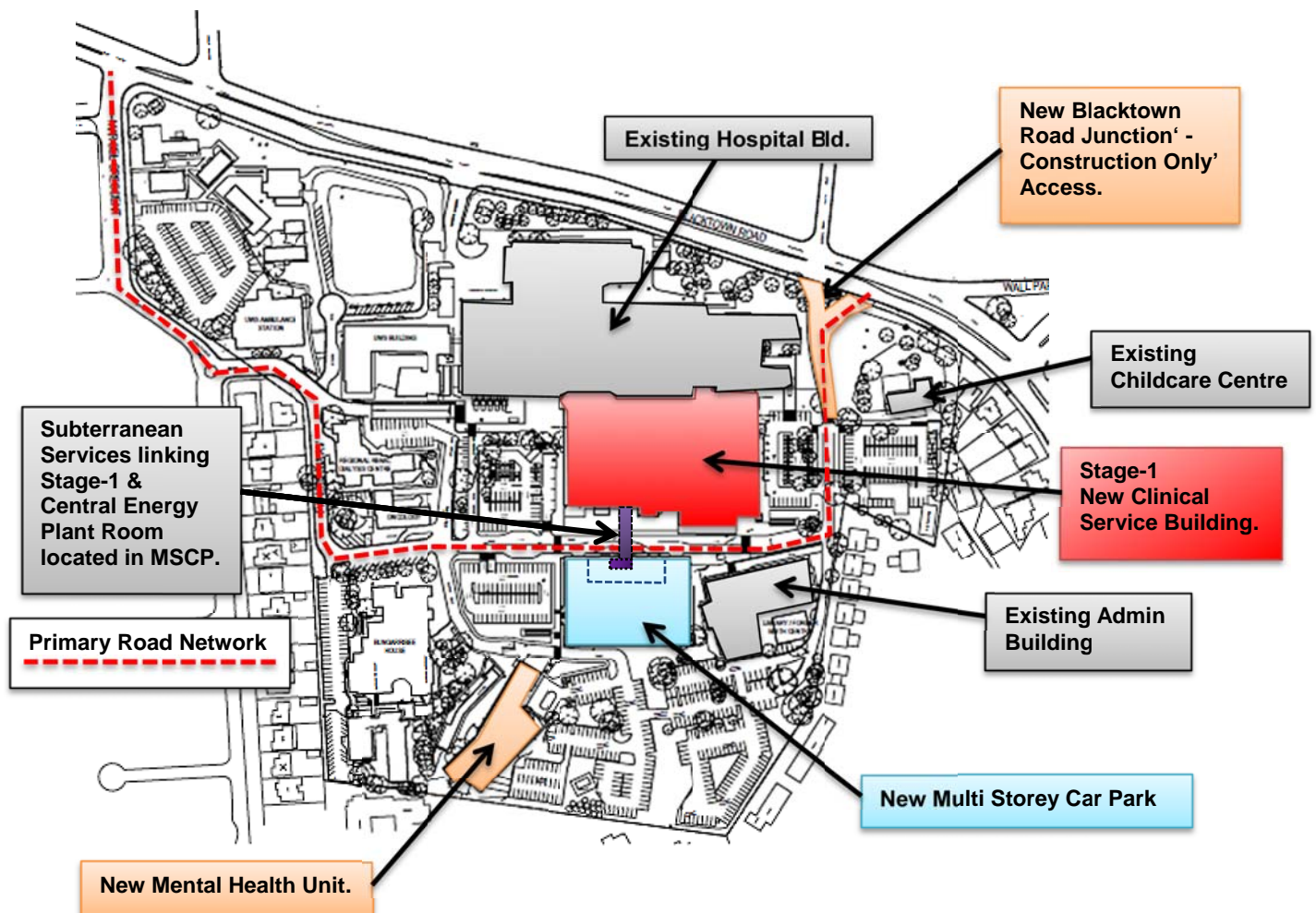
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## 1. Introduction

This Outline Construction Management Plan has been prepared for the proposed **Blacktown Hospital- Stage 1 New Clinical Services Building** to support the project's Part 4 Development Application being submitted to The Department of Planning.

This **Stage 1 New Clinical Services Building** forms part of the overall Blacktown Mt Druitt Hospital Redevelopment which includes:

- Blacktown Hospital- Stage1 new Inpatient & Clinical Building (this Application).
- Blacktown Hospital- Multi Storey Car Park Development Application (including New Temporary Construction Access onto Blacktown Road) Ref: JRPP-12-776 lodged 4/03/12.
- Blacktown Hospital-Civil works (preparatory works approved under Infrastructure SEPP 22/06/12).
- Blacktown Hospital- Mental Health Facility (a project approved under Infrastructure SEPP 29/05/12)
- Mt Druitt Hospital- Alterations and Additions (a project approved under Infrastructure SEPP 29/05/12).



**Blacktown Hospital Stage-1 Master Plan**

## 2. Proposed Works

The new 8 level (circa) 32,000 SqMt Stage -1 Clinical Services Building comprises:

- Level 1 & 2: Subterranean Service Links & Engineering Plant Rooms
- Level 3 & 4: Clinical Services Floors
- Level 5,6 & 7: Inpatient Floors
- Level 8: Roof Plant Rooms

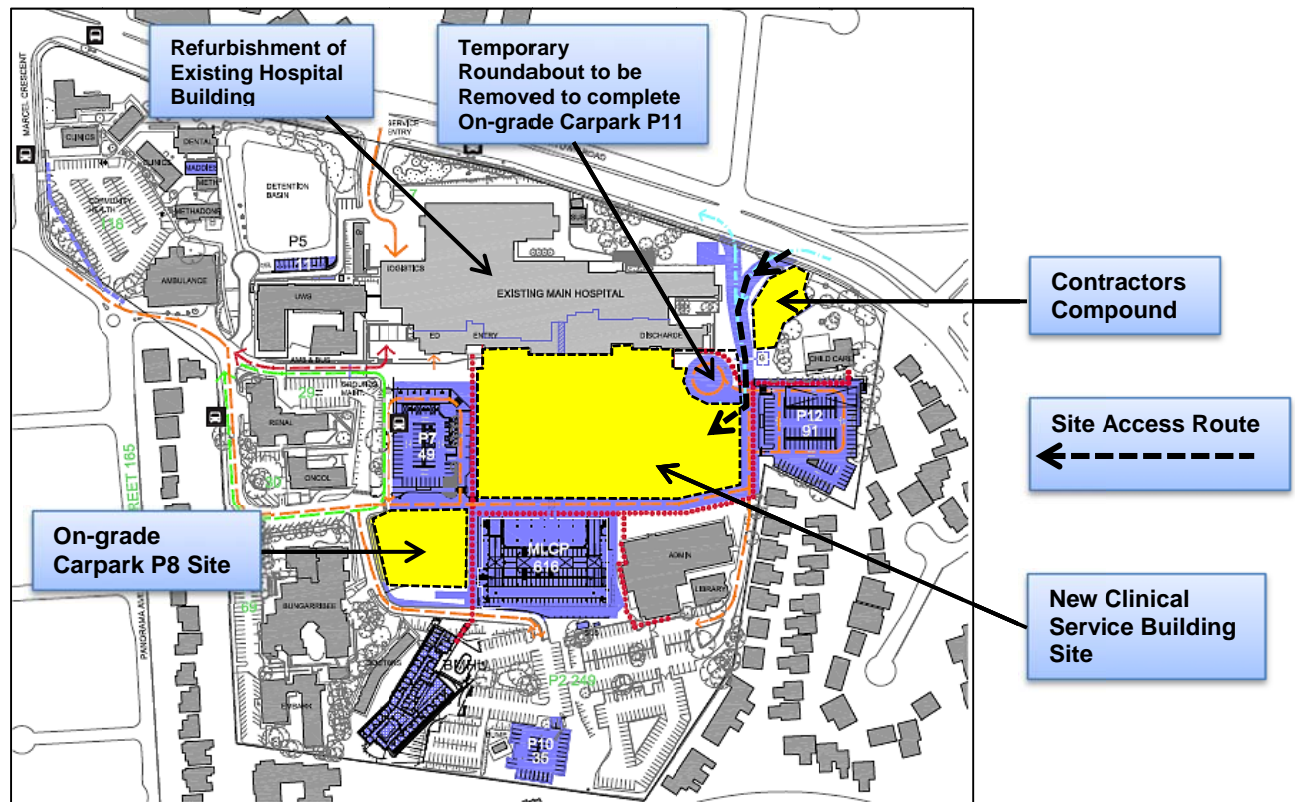
The following Clinical Services are proposed to be delivered as part of the Stage 1 New Clinical Services Building:

- An additional 120 inpatient beds (approximate).
- A new Cancer Centre to include 3 Bunkers, 2 of which will be initially fitted out with Linier Accelerators.
- Additional Outpatient Clinics.
- Establishment of a subterranean link between the existing Blacktown facility and Stage 1 new build dedicated for the separate and discrete movement of staff and patients, and goods and services.

Refurbishment of certain areas within the existing Hospital Building will include;

- Expansion of the ICU Department.
- Extension of the Emergency Department capacity.
- Fit out of one additional Operating Theatre.

### 2.1 Site Compound and Access



Site Compound and Access Plan

### 3. Phasing Program & Indicative Dates

The indicative program and key milestones are outline in the following schedule:

New Clinical Service Building – Indicative Dates	Date
Commence onsite	May 2013
Complete New Clinical Service Building	March 2015
Complete Refurbishment of Existing Hospital Building	April 2016

**Note:**

- 1) The Civil Infrastructure (Early) Works is planned to commence on-site under a separate approval and contract September 2012 with completion April 2012.
- 2) The New Mental Health Unit is planned to commence on-site under a separate approval and contract end of November 2012 with completion Jan 2014.
- 3) The Multi Storey Car Park (MSCP) is planned to commence on-site under a separate approval and contract February 2013 with completion Jan 2014.

### 4. Construction Management Plan Components

The Plan covers the following areas of management:

- a) The operations of site management when undertaking the works:
  - Facilities
  - Legislative requirements
  - Hours of construction works
  - Public fencing
- b) Mitigation to minimise amenity and environmental impacts:
  - Noise
  - Dust Management
  - Odour control
  - Protection of trees
  - Vibration management
  - Soil and erosion control
- c) Traffic/pedestrian management in the duration of the works;
- d) Waste management:
  - Construction
  - Storage of dangerous goods
  - Hazardous materials management
- e) Services disconnections.

### 5. Operations of Site Management

The Works will be undertaken under by a Principal Contractor.

All statements and proposals documented in this Construction Management Plan will be reviewed at the time of contract award for the Works to ensure alignment with the proposed methodologies and construction staging of the preferred Contractor.

## 5.1 Legislative Requirements

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

- Protection of the Environment Operations Act and Regulations;
- Approved Methods for the Modeling and Assessment of Air Pollutants in NSW (EPA)
- Environmentally Hazardous Chemicals Act 1985;
- Protection of the Environment Administration Act and Regulations;
- Occupational Health and Safety Act 2000 and relevant codes of practice and Standards;
- Occupational Health and Safety Regulation 2001 and relevant codes of practice and Standards;
- Australian Standard 2601-2001: Demolition of Structures;
- 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;
- Heritage Act 1997;
- Local Government Act 1993;
- Applicable aviation standards eg CASA requirements;
- Occupational Health and Safety Act 1983;
- Soil Conservation Act 1983.
- Australian Standard 4970-2009: Protection of Trees on Development Sites.

## 5.2 Hours of Operation

The following hours of operation apply to the Works:

- Monday to Friday: 7.00AM to 6.00PM
- Saturdays: 8.00AM to 1.00PM
- Sundays and Public Holidays: No Work

## 5.3 Public and Property Protection

The general principle is to separate construction areas of work from hospital staff and visitors. Where there is a cross-over this will be managed to insure safety of all persons and equipment.

Appropriate hoarding/fencing (as specified in Australian Standards and Workcover requirements) will be installed to prevent public & staff access and to maintain security for the various areas of the works. Access to the Hospitals public & staff car park areas and on-site Childcare Centre will be maintained during the works.

Construction vehicular access/egress gates will be erected (set-back) from the new temporary Blacktown Road junction. These gates will be manned by traffic control staff during site operation hours and will be locked shut when site is closed.

This manned access point will also manage a safe crossing point to the childcare centre from the main hospital & car parking.

Pedestrian access along Blacktown Road across the construction vehicle access will also be monitored during construction.

These public and property protection measures will be reviewed at the time of contract award for the works to ensure alignment with the proposed preferred methodologies and construction staging and to ensure that the safety of the public & staff is maintained at all times during the works.

## 5.4 Disruption Notices

Any planned 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 contractor to the project manager and Hospital stakeholders for approval. Depending on the nature of the works these may be required between 48hrs and 6 weeks prior to commencement of works.

## 6.0 Environment & Amenity

The contractor undertaking the Works will be required to submit for approval to the Principal a comprehensive Environmental Management Plan (EMP) to ensure that all elements of the plan meet all statutory requirements as well as NSW Health's 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) and/or details provided by the project engineering consultants.

The environmental performance of the contractor will be monitored throughout the Works.

**The following specific environmental management principles will be implemented on site:**

### 6.1 Noise and Vibration

**Note: This section is to be read in conjunction with the Acoustic Report appended to the Environmental Impact Statement prepared by 'Acoustic Logic'.**

Noise from the Site shall not exceed the limits set out in the Interim Construction Noise Guidelines, EPA and Australian Standards and a Construction Noise Impact Statement has been prepared which will specify requirements for the contractor. No machine work will occur outside the normal working hours set unless approval has been given through the DN process.

The noise and vibration from the use of any plant equipment and/or building services associated with the premises shall not give rise to an offensive noise as defined under the provisions of the Interim Construction Noise Guidelines, EPA and Australian Standards.

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

## 6.2 Dust

To control dust generation water will be sprayed where necessary 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 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 and monitoring of weather conditions (including wind). Management and contingency plans will be developed to prevent any foreseeable impacts from dust

## 6.3 Odour Control

The scope for demolition activity for the Site will be minor and odour problems will be minimal. All plant and machinery involved in the Works will be regularly serviced and checked for exhaust emissions and catalytic converters.

## 6.4 Protection of Trees

**Note: This section is to be read in conjunction with the Flora and Fauna Report appended to the Environmental Impact Statement prepared by 'Abel Ecology'.**

The contractor undertaking the Works will be required to comply with Australian Standard 4970-2009: Protection of Trees on Development Sites to include tree management guidelines for the proper care and protection of trees retained and integrated into construction projects.

The contractor will be required to put in place procedures to protect trees at every stage of the development process.

The contractor undertaking the Works will be required to submit for approval to the Principal a comprehensive plan re guidance on how to decide which trees should be retained and the means of protecting those trees during construction work. Guidelines on how to calculate the tree and crown area requiring protection and isolation from construction activities and the use of tree protection measures such as barriers and protectors.

## 6.5 Stormwater Management

**Note: This section is to be read in conjunction with the Stormwater Management Plan appended to the Environmental Impact Statement prepared by 'Robert Bird Group'.**

Measures will be employed on each stage, and on the site overall, to control soil erosion during construction. These measures will be in accordance with currently accepted principles, as described in Managing Urban Stormwater: Soils & Construction (4th edition, Landcom, 2004).

Appropriate elements of the drainage system on the Site will be cleaned out to remove sediments prior to commencing the Works on 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, sedimentation socks or similar (to be approved by project civil engineer).



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 to reduce sediment transportation by the use of using hay bales or similar (to be approved by project civil engineer).

All drainage control devices will be regularly checked particularly during heavy rainfall periods.

## 7.0 Traffic Management / Construction Entry & Exit

**Note: This section is to be read in conjunction with the Traffic Management Plan appended to the Environmental Impact Statement prepared by 'Arup Traffic Engineers'.**

As part of the contractors Construction Management Plan, the contractor will be required to submit a Traffic and Pedestrian Management Plan for approval to the Principal prior to commencement of the works.

Construction vehicular access/egress to the site will be from Blacktown Road via a proposed temporary 'Left-in Left-out' road junction.

Access/egress gates will be erected (set-back) from the new Blacktown Road junction. These gates will be manned by qualified traffic supervisors during site operation hours and will be locked shut when site is closed.

Appropriate traffic controls will be put in place during construction to separate construction activities from the public. In addition, traffic controllers will be engaged to manage the interface between pedestrians and to direct vehicles entering and leaving the site including pedestrian traffic along Blacktown Road.

Details of construction vehicle per day including likely arrival and departures have been assessed within the transport and traffic report prepared by Arup Traffic Engineer for the Development Application.

It is likely the following construction equipment will be used:

- Articulated vehicles for delivery of excavation machinery;
- Heavy and medium rigid trucks for construction material delivery;
- Heavy rigid tankers for fuel delivery for compacting and excavation machinery;
- Rigid trucks for removal of excavated material;
- Mobile cranes;
- Concrete delivery trucks & concrete pumps;

A vehicle wash-down will also be placed adjacent the site to prevent construction vehicles tracking dust onto public roads

There will be a small allocation of Contractors parking made available onsite to allow for temporary set-down of equipment and deliveries however the majority will be off-site.

It is anticipated that construction associated personnel will use car-pooling and public transport options to travel to and from the site.

Construction worker access (via foot) will be initially via the existing hospital road entrance off Marcel Crescent, however will eventually move adjacent the construction vehicle access off Blacktown Road, but via separate pathway for safety.

## 7.1 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.

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

Furthermore a manned access point will manage a safe crossing point to the childcare centre from the main hospital & car parking.

## 8.0 Waste Management / Recycling Principles

The Contractor will be required to recycle and reuse where possible. The contractor will be required to arrange for the sorting and recycling of waste materials and packaging to ensure maximum recycling is achieved. The contractor will be committed to achieving compliance with the EPA guidelines.

The scope for demolition activity for the Site will mainly include the removal of internal walls and finishes as part of the existing hospital building refurbishment.

The demolitions and removal of an existing brick faced Ground Maintenance / Carpenters Shed and The Garden Chapel will be undertaken as part of the Civil Infrastructure (early) Works.

Remaining demolition will be limited to minor elements such as fencing and minor reinforced concrete elements. Removal of in-ground services around the site will be undertaken as part of the Civil Infrastructure (early) Works.

## 8.1 Storage of Dangerous Goods

Dangerous goods (such as petrol, diesel, oxy-acetylene, oils 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 contractor undertaking the Works.

Geotechnical, Site Contamination and Soil Classification Reports have been undertaken by 'Coffey Environmental'. It indicated little to no issues of contamination on the site.

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

## 9.0 Service Disconnections

In preparation of the future New Stage-1 Clinical Services Building service disconnection and diversions will be undertaken as part of the Civil Infrastructure (early) Works.

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

Services impacts on the existing Blacktown Hospital Campus facilities will be done with full coordination; development and input with relevant hospital and authority stakeholders and will only proceed with approval from same, via a Disruption Notice process.

Impacts on the hospital will be kept to the absolute minimum, which may result in 'Out of Hours' work. At all-time patient care will be paramount and Staff/Visitor safety, access and security maintained.

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 project design engineers' specifications and instructions.

All termination works will be undertaken by suitably licensed contractors.

**End of Construction Management Plan**