

# Preferred Project Report and Statement of Commitments

## Neuroscience Research Precinct

Major Projects MP 08\_0086 and MP 08\_0153

Submitted to  
Department of Planning  
On Behalf of Prince of Wales Medical Research Institute Ltd

November 2009 ■ 07542

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## 1.0 Introduction

This Preferred Project Report (PPR) is submitted by JBA Urban Planning Consultants on behalf of Prince of Wales Medical Research Institute Ltd (POWMRI) to the Department of Planning.

On 20 May 2009, an Environmental Assessment Report (EAR) for the Neuroscience Research Precinct Concept Plan and Project Application was lodged with the Department of Planning for the:

- Concept Plan approval for the development of the existing POWMRI site at Barker Street, Randwick for consolidation and expansion of existing clinical and laboratory neuroscience research space over multiple stages to a maximum overall building height of RL 89.00 (approximately 44.5m above ground level) and maximum GFA of about 61,000m<sup>2</sup> for the creation of a new Neuroscience Research Precinct at the Prince of Wales Hospital;
- Concurrent Project Application approval for Stage 2 (being Stages 2A to 2D) of the Concept Plan proposal (being 25,470m<sup>2</sup> and associated car parking and landscaping and ancillary uses), and including associated infrastructure works; and
- Preservation of Stage 1 of the development (as already approved by Randwick Council (DA/468/2007) for *“proposed additions to Prince of Wales Medical Research Institute, comprising additional open office spaces located to the northeast and southwest corners of the building envelope, additional stairs and rooftop plant room located above the north-eastern addition”*, by inclusion as part of the Project Application and by agreeing that no further environmental assessment is required pursuant to Section 75P(1)(c) of the Act for works associated with that development consent.

It was exhibited for 31 days from 3 June to 3 July 2009. In response to the public exhibition, 7 submissions were received during this period.

The proponent for the Concept Plan and Project Application, POWMRI and its consultant team have reviewed and considered the submissions and, in accordance with clause 75H(6) of the *Environmental Planning and Assessment Act 1979*, have prepared this PPR.

This report sets out the proponent's response to the issues raised, describes and assesses the proposed revisions to the project, and provides revised Statement of Commitments.

### 1.1 Submissions

Submissions in response to the public exhibition were received from the Randwick City Council, State Government agencies and authorities and the general public. The sources of submissions are summarised as:

- Randwick City Council
- Sydney Regional Development Advisory Committee/ Roads and Traffic Authority
- The Heritage Branch of the Department of Planning
- Ministry of Transport
- Three general public submissions

Randwick Council and the agencies provided in principle support for the proposal and suggested conditions upon which an approval may be based.

Overall the matters raised in the submissions were generally similar in nature and based upon the following key issues:

- built form including building heights and setbacks, and associated impacts of the proposed built form with respect to overshadowing, relationship to streetscape and surrounds, and loss of views and privacy;
- various parking and traffic issues, including access to the site; and
- pedestrian access and linkages through the site to adjoining development and public domain areas.

The proponent's response to these key issues is provided at Section 2.0.

## 1.2 Revised Statement of Commitments

In response to the issues raised in the submissions, the draft Statement of Commitments for both the Concept Plan and the Project Application have been revised to clarify and strengthen future planning and management actions and are outlined in Sections 4.0 and 5.0.

## 2.0 Response to Key Issues

**Table 1** sets out the key issues which the Department of Planning has asked POWMRI to address and identifies where each of these issues have been addressed in this report and/ or the accompanying technical studies.

**Appendix A** includes a table which sets out the issues raised in the general submissions and detailed responses to these issues.

**Table 1** – Key Issues Overview

Issue	Location in Report
Built Form	
<ul style="list-style-type: none"><li>Proposed building envelopes for Stages 2 and 3 appear to extend beyond the site boundaries to the west, thereby reducing the pedestrian footpath width along the eastern side of Hospital Road.</li></ul>	Section 2.1 of report
<ul style="list-style-type: none"><li>Further justification is sought with regard to the proposed setbacks for the development along its western edge; particularly with respect to impacts such as potential loss of visual privacy, views and overshadowing impacts to adjoining development to the west of the site.</li><li>Consequently, there is a request for proposal’s western facade to Hospital Road to be setback to be in alignment with existing Prince of Wales Hospital buildings to the north.</li></ul>	
<ul style="list-style-type: none"><li>Concern the proposed building heights for both Stages 2 and 3 do not relate to surrounding development.</li></ul>	
<ul style="list-style-type: none"><li>The assessment for the Concept Plan should present a more detailed study of its architectural massing, articulation, street activation, uses and pedestrian access.</li></ul>	
<ul style="list-style-type: none"><li>The proposed building envelopes for the development detrimentally overshadow adjoining development, particularly to the residential development to the west of the site.</li></ul>	
<ul style="list-style-type: none"><li>The shadow diagrams for the proposal are thought not to clearly demonstrate the true extent of overshadowing to adjoining development.</li></ul>	
<ul style="list-style-type: none"><li>Concern that the Stage 2 building will overlook adjoining residential living rooms and bedrooms, thereby causing a loss of visual privacy to these residences.</li></ul>	
<ul style="list-style-type: none"><li>Concern that the Stage 2 development will generate adverse solar glare conditions to adjoining development to the west of Hospital Road.</li></ul>	
<ul style="list-style-type: none"><li>Request that the western facade be redesigned to provide the same architectural appeal as that afforded by the elevations proposed for Barker and Easy Street.</li></ul>	
Traffic & Parking	
<ul style="list-style-type: none"><li>Clarification is sought with regard to the number of car parking spaces to be provided at each stage.</li></ul>	Section 2.2 of report
<ul style="list-style-type: none"><li>Confirmation that the design of the car parking areas complies with the required standards.</li></ul>	

Issue	Location in Report
<ul style="list-style-type: none"><li>▪ Consideration be given to implementing the traffic measures sooner, particularly with regard to the proposed traffic signalisation at the intersection of Botany and Barker Streets.</li><li>▪ Concern that added traffic generated by the development will make the Botany and Barker Street intersection as a pedestrian crossing more dangerous than it is currently.</li></ul>	
<ul style="list-style-type: none"><li>▪ Review of mitigation measures to reduce traffic noise impacts to adjoining development to the western side of Hospital Road.</li></ul>	
<ul style="list-style-type: none"><li>▪ The parking for the Stage 3 development requires more detailed analysis of parking demand and the distribution of parking supply over the hospital and university precinct.</li></ul>	
<ul style="list-style-type: none"><li>▪ Request made for traffic calming measures to be implemented along Hospital Road.</li></ul>	
<ul style="list-style-type: none"><li>▪ Concern that the development does not provide sufficient parking.</li></ul>	
<ul style="list-style-type: none"><li>▪ Concern that the development will generate further on-street parking problems in the local area.</li></ul>	
<ul style="list-style-type: none"><li>▪ Concern that Hospital Road does not have the capacity to accommodate increases in traffic generated by the development.</li><li>▪ Request that vehicle entries and exits to the development be relocated adjacent to Easy Street.</li></ul>	
<ul style="list-style-type: none"><li>▪ Concern that local roads do not have the capacity to tolerate additional traffic generated by the proposed development, given roads are already at capacity or struggling to cope with existing traffic.</li></ul>	
<b>Pedestrian Access and Linkages</b>	
<ul style="list-style-type: none"><li>▪ A more detailed study of the pedestrian links through and from the site and connections to other hospital facilities should be undertaken.</li><li>▪ Specifically, it is requested that the site accommodate an east-west through-site link between the Stage 2 building and the Kiloh Centre.</li><li>▪ It is proposed that the building frontage of the development along Francis Martin Drive could provide a better link to the hospital.</li><li>▪ A 2.5m width pedestrian footpath along the eastern edge of Hospital Road should be retained to accommodate stronger pedestrian connections between the POWMRI and the University of NSW.</li></ul>	Section 2.3 of report
<b>Section 94A Contributions</b>	
<ul style="list-style-type: none"><li>▪ Council requests that the development only be granted a partial exemption to the application of Council’s Section 94A Contribution levies.</li></ul>	Section 2.4 of report

**Table 2** sets out what additional information the Department of Planning has sought and where it is addressed and located within this report and/ or the accompanying technical studies.

**Table 2** – Additional Information Requirements

Issue	Location in Report
<b>Additional Plans / Information</b>	
Total quantum existing floor area to be retained at the various sub-stages of Stage 2.	Section 2.1
Identify changes in employee numbers at the various sub-stages of Stage 2.	Section 2.1
Identify total quantum of car parking provided at the various stages of the development and total parking on the site at the completion of all stages.	Section 2.2
Provide revised shadow diagrams for the proposal.	<b>Volume 2</b> – Architectural Plans

## 2.1 Built Form

### 2.1.1 Issues

A number of submissions received raised concerns regarding the proposed height, bulk and scale of the building envelopes. Submissions also raised concern regarding the potential overshadowing impacts upon adjoining residential development, particularly to the west of the site.

Further information has been requested by the Department of Planning, specifically:

- assess the scale of the proposal and its impact in the context of surrounding public spaces and buildings;
- justify the building setbacks proposed along Hospital Road;
- provide revised shadow diagrams to demonstrate the true and full extent of overshadowing to adjoining development;
- clarification of whether the buildings envelopes along Hospital Road extend beyond the boundaries of the development site, such that the pedestrian footpath is significantly reduced and/or compromised; and
- provide more detailed analysis of the massing of the Concept Plan.

## 2.1.2 Additional Information

**Table 3** provides the requested information outlining the quantum of existing floor space to be retained and the proposed quantum of floor space relative to each stage and sub-stage of the development.

**Table 3 – Total Quantum of Floor Space by Stage, including Existing Floor Space**

Stage / Level GFA (m <sup>2</sup> )	1	2A	2B	2C	2D	3 <sup>1</sup> approx
<b>L1 (existing &amp; 1B)</b>	3,575	2,810	2,520	1,785	-	-
<b>L1</b>	-	1,160	1,740	2,930	4,125	7,725
<b>L2 (existing &amp; 1B)</b>	1,320	1,265	925	925	-	-
<b>L2</b>	-	1,000	2,110	2,095	3,975	6,975
<b>L3</b>	-	800	2,035	2,035	2,440	5,440
<b>L4</b>	-	1,270	2,515	2,515	3,890	6,890
<b>L5</b>	-	1,265	2,510	2,510	3,855	6,855
<b>L6</b>	-	1,100	2,245	2,245	3,610	6,610
<b>L7</b>	-	-	-	-	-	3,000
<b>L8</b>	-	-	-	-	-	3,000
<b>L9</b>	-	-	-	-	-	3,000
<b>L10</b>	-	-	-	-	-	3,000
<b>B1</b>	-	330	390	1,170	625	665
<b>B2</b>	-	1240	1335	2,815	1,950	1990
<b>Total</b>	4,895	12,240	18,325	21,025	25,470	56150
<b>Additional Areas</b>						
<b>Stage 1C</b>	450	450	450	450	-	-
<b>Existing Ambulance</b>	630	630	-	-	-	-
<b>Black Dog</b>	2,570	2570	2570	2570	2570	-
<b>Overall Total</b>	8,545	15,890	21,345	24,045	28,040	56,150

**Table 4** identifies the changes in the total number of employees that will be working within the proposed development at each of the various stages. These calculations for employees within the development include both students (many of which are part-time) and staff working within the institute.

<sup>1</sup> The total quantum of final floor space for this stage will be subject to detailed design.

**Table 4** – Estimated Number of Employees by Stage of Development

Stage	Total Employee numbers (approximate)
Existing	225
1	250
2A	300
2B	500
2C	500
2D	650
3 <sup>2</sup>	1,500

### 2.1.3 Response

The proposed form and scale of both the Stage 2 and 3 developments have been re-evaluated in light of the abovementioned comments, in particular with respect to:

- the relative scale and setbacks of the development in comparison to the existing Hospital buildings to the north of the site;
- the overall massing of the proposal and the associated potential shadowing impacts to adjoining development; and
- streetscape appeal of the development, with respect to the proposed Stage 2 Hospital Road elevation.

The result of this reassessment has lead to the following amendments to the development:

- the proposed Stage 2 building will be further setback by 1m (from 1.5m – 2.5m- min width of pavement) along the Hospital Road frontage, by reducing the plant areas to this side of the development;
- the proposed Stage 2 building will be further setback by approximately 6m at the upper levels, to create a stepped appearance to this elevation; and
- the proposed Stage 3 building envelope will be setback by approximately 1m (from 1.5m to 2.5m) at the lower levels and stepped back at the upper levels.

These amendments are reflected in the revised Architectural Plans included at **Volume 2**.

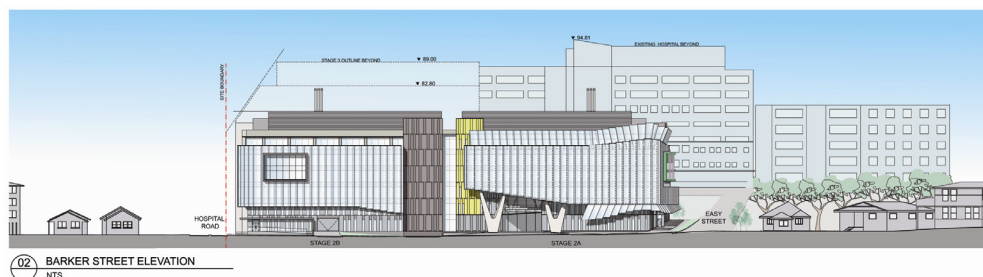
It should be noted that the building envelopes presented in the originally submitted drawings PA-311 and PA-313 did not correctly reflect the full extent of the building envelope for Stage 3 as shown in drawing PA-103, rather they illustrated a possible envelope for the future Stage 3 building, which is not the subject of the proposed development. These drawings have been replaced to show the full extent of the proposed building envelope sought as part of the Concept Plan (see **Volume 2 – Architectural Plans**).

<sup>2</sup> The total number of employees for Stage 3 includes 80 existing Black Dog Institute employees

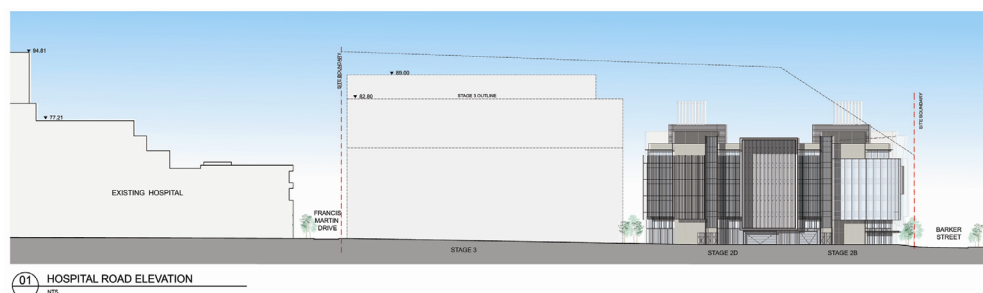
The consequence of this correction to the drawings does not result in any increase to the maximum quantum of floor space that may be later developed for Stage 3, and consequently does not alter expected demands for parking that will be associated with the Stage 3 development.

### Scale of Proposal

**Figures 1 and 2** illustrate the relative height and bulk of the proposed Stage 2 development and the Stage 3 building envelopes in comparison to the adjoining residential buildings to the west, and hospital buildings to the north and west of the site. These figures also illustrate the extent to which the proposed Project Application development relates to the proposed Concept Plan building envelope for Stage 2.



**Figure 1** – Barker Street elevation



**Figure 2** – Hospital Road elevation

Based on these figures and the amended architectural plans (included in **Volume 2**), the bulk and scale of the revised development as a whole is considered to be in context with the adjoining hospital buildings given that:

- the height of the proposed Stage 2 buildings is appreciably less than that of the main hospital buildings to the north of the site;
- the height of the proposed Stage 3 building envelope is less or equal in height to the main hospital buildings to the north of the site;
- the heights of both Stage 2 and 3 of the development are stepped down from the main hospital buildings;
- both the lower and upper portions of the building envelopes for Stage 2 and 3 are further setback from Hospital Road, such these setbacks generally in align with the setbacks of the car park and the Royal Hospital for Women building to the north of Stage 3; and
- the provision of the open space courtyard to Stage 2 and the low scale auditorium building continues to provide suitable amount of separation and a transition of scaled development, so as to ensure that the proposed development does not dominant the lower scaled adjoining Kiloh Centre building.

The proposed development is considered to relate well to the built form of the existing surrounding hospital buildings and assists in clearly denoting the development site as an integral part of the Hospital Precinct and defining the precinct's southern and western boundaries.

Although the scale of the proposed development is notably greater than the adjoining residential development to the west, it was acknowledged in many of the submissions that this outcome was not unacceptable or unexpected. Rather some of the submissions raised concern about whether the proposed development was too prominent when viewed from Hospital Road and requested that the height of the development be reduced.

The increased upper level setbacks will go to reducing the overall apparent scale of the Stage 2 development, such that when viewed from street level the built elements above Level 6 will either not be visible or will be sufficiently recessed so as to reduce the overall apparent height of the building. Similarly, the increased setbacks at the lower and upper portions of the Stage 3 building envelope will ensure that development at the upper levels is not apparent when viewed from street level of Hospital Road.

### Streetscape

The architectural appearance of the Stage 2 Hospital Road elevation has been re-evaluated to redress concerns that this facade was not suitably designed to ensure that it complemented the streetscape, did not look like the 'service' or 'back of house' side of the building and had the same architectural appeal as the Barker and Easy Street facades of the building.

In addition to the abovementioned amendments to the building setbacks for the development along the Hospital Road frontage, amendments have also been made to the design treatment of the western facade of the Stage 2 development, particularly at the corner of Barker Street and Hospital Road. These amendments are illustrated in the Photomontage at **Figure 3** and in the Architectural Plans in **Volume 2**.

Specifically these changes include repetition of the glazed facade treatment along the main frontages of the Stage 2 building to the corner that addresses Barker Street and Hospital Road.



**Figure 3** – Photomontage of proposed Stage 2 development as viewed from Barker Street looking east

The combined outcomes of the modifications to the Hospital Road facade and the increased setbacks of the Stage 2 development (as outlined above) seek to:

- provide a corresponding architectural 'book end' to the other corner of the building to that at the intersection of Easy and Barker Street, while maintaining its secondary importance of incorporating service functions of the building such as the car park and loading dock entries;
- provide greater architectural interest to this side of the building, so as to improve its streetscape appeal;
- allow the building to address and provide natural surveillance of the corner of Hospital Road and Barker Street;
- ensure the Hospital Road facade harmonises with the key architectural facade elements incorporated at the corner of Easy and Barker Streets; and
- soften the corner edge of the building by introducing a curved finish, which helps reduce the building's apparent bulk and scale when viewed from the street.

In summary, the proposed amendments to the Hospital Road facade seek to provide the same architectural appeal as that afforded by the elevations proposed for Barker and Easy Street as was sought by several of the submissions.

## Interface and Impacts to Adjoining Residential Properties

### Overshadowing

Revised shadow diagrams have been provided to show the full extent to which both the Concept Plan building envelopes for Stages 2 and 3 and the proposed detailed development for Stage 2 impact upon the surrounding existing development (see Architectural Drawings at **Volume 2**).

The revised shadow diagrams continue to show that the Concept Plan envelopes and the Stage 2 development will ensure that the residential properties to the west of the site maintain more than the minimum acceptable 3 hours of solar access between the hours of 9am and 3pm during the winter solstice. Specifically:

- the extent of overshadowing generated by the Stage 2 development towards the residential development to the west will still afford these residents 5 hours of solar access to their properties during the winter solstice between the hours of 10am and 3pm - see Stage 2 Shadow Diagrams in **Volume 2**; and
- the extent of overshadowing generated by the whole of the development, that is the Stages 2 and 3 building envelopes, towards the residential development to the west will still afford these residents 4.5 hours solar access to their properties during the winter solstice between the hours of 10.30am and 3pm - see attached Concept Envelope Shadow Diagrams in **Volume 2**.

All other times of the year the development will also continue to maintain good levels of solar access to these properties.

The Concept Plan building envelopes and the Stage 2 development will cast shadows to the Newmarket Randwick Stable Complex to the south of Barker Street, such that it will not receive the standard 3 hours of solar access between the hours of 9am and 3pm during the winter solstice. Despite this, this impact is not considered to be detrimental given that the stables serve to provide short stay accommodation for horses. All other times of the year the horse stables and associated facilities will receive good levels of solar access.

Based on the above analysis, the development will not detrimentally overshadow adjoining development.

### Loss of Privacy

The revised facade design for the Hospital Road elevation for Stage 2 development continues to maintain much of the plant area, stairs and extensive use of fixed louvered treatments along this facade. The effect of these elements will not only protect occupants of the development from strong westerly solar penetration during summer, but also serve to obstruct views from the development outward to the adjoining residential properties to the west of Hospital Road. Moreover, there is more than 12 metres separating this adjoining development from the proposed Stage 2 development.

The combined effects of distance and facade treatments will ensure that occupants and workers within the proposed Stage 2 development will not be able to directly overlook the adjoining residential properties, which will not result in a detrimental loss of privacy for adjoining residential properties.

### Reflectivity

Windtech has revised its original Solar Light Reflectivity Analysis assessment, which was submitted with Concept Plan and Project Application (see Appendix U of the EAR). This updated assessment included at **Appendix B** has been revised to:

- address submission concerns that the proposed Stage 2 development would generate unacceptable solar glare towards the adjoining residential properties to the west of the development; and
- reassess the potential reflectivity impacts associated with the new western facade treatments for the Stage 2 development, particularly at the corner of Hospital Road and Barker Street.

The findings of this revised assessment indicate that there are portions of the development, notably the corner of Easy and Barker Streets, which may generate adverse glare conditions to drivers and pedestrians. To avoid these outcomes Windtech propose revised recommendations on what the reflectance properties of the glazing to be used on the facade of the Stage 2 development. These recommendations are included in the revised Statement of Commitments for the Project Application at Section 5.0 of this report. These recommendations are very similar; however replace those previously proposed for the Stage 2 development.

## 2.2 Traffic and Parking

### 2.2.1 Issues

A number of submissions received raised concerns regarding the potential impacts of the development with regard to exacerbating traffic and parking problems already experienced in the local area. A summary of the key issues raised by the submissions with respect to the traffic and parking impacts are itemised in **Table 1** above.

### 2.2.2 Additional Information

Further information has been requested to:

- clarify the full extent of car parking to be provided for each sub-stage of Stage 2 and for the development once fully completed (being both Stages 2 and 3);
- confirm the total number of employees anticipated to be working within the development by each sub-stage of Stage 2;

- confirm whether the design of the car parking and loading areas complies with the required Australian Standards; and
- confirm whether the proposed traffic measures can be provided sooner than originally proposed.

As requested the following provides the total quantum of parking provided on site during each sub-stage of the Stage 1 and 2 developments. This information is provided by Parsons Brinkerhoff.

Due to design development, the on-site parking layout has been reconfigured, as shown in the Architectural plans at **Volume 2**. Furthermore, of the 10 designated on-street parking spaces on the western side of Hospital Road, 4 will be allocated for use by the Black Dog Institute as compensation for the loss of designated car parking on the eastern side of Hospital Road. The overall number of parking spaces at the completion of Stage 2 is 232 (decrease of 4 spaces).

These figures do not include the number of car parking spaces utilised on-street (that are not designated for the exclusive use of the Institute), parking for the Black Dog Institute, parking for the ambulance facility or parking utilised at the Prince of Wales Hospital Car Park or UNSW.

On completion of the Stage 3 development it is expected that there will be a total number of 365 car parking spaces accommodated on-site, with a further 10 designated on-street parking spaces on Hospital Road. The total number of on-site parking spaces for the Stage 3 development also accommodates parking for the Black Dog Institute.

**Table 5** – Total Quantum of On-site Car Parking Available for each Sub-Stage of the Stage 1 and 2 Developments

Stage	Car Parking Spaces On-site (Existing)	POWMRI Designated On-Street Parking	Car Parking Spaces On-site (Proposed)	Total Number of Car Parking Spaces Available at each Sub-Stage
Existing	27	17	-	44
1	27	17	-	44
2A	13	15	23	51
2B	13	15	118	146
2C	-	15	116	131
2D	-	6	226	232

## 2.2.3 Response

### Traffic and Servicing

Parsons Brinkerhoff has provided a further statement to address specific traffic and parking related issues raised in the submissions (see Traffic and Parking Statement at **Appendix C**). This statement confirms that the proposed designs and layouts for the car parking and loading areas for the Stage 2 development will comply with the relevant Australian Standards, most specifically AS 2890.1-2004.

Parsons Brinckerhoff has retested the turning movements of vehicles moving through the car parking and loading areas (see AutoTrack turning paths included as part of the Traffic & Parking Statement at **Appendix C**). This reassessment has demonstrated that there is sufficient area to manoeuvre vehicles through these areas.

There were concerns raised in the submissions about the timing for the delivery of the implementation of the signalised traffic intersection at the junction of Barker and Botany Streets. Parsons Brinckerhoff has reviewed the necessity for the development to deliver this work prior to the completion of the Stage 3 component of the POWMRI development.

This opinion has not changed, however the proponent is willing to commit to delivering the signalised intersection at the completion of Stage 2D. This new commitment is included in the revised Statement of Commitments for the Project Application (see Section 5.0).

Several submissions identified that currently vehicles travelling along Hospital Road do not adhere to the 20km/h speed limit. The concern raised was that the proposed development would only serve to exacerbate these unsafe traffic conditions by increasing traffic along this road. Parsons Brinckerhoff is of the view that increased traffic from the development would not encourage traffic to travel at speeds greater than the speed limit (see Traffic and Parking Statement at **Appendix C**). Traffic travelling at excessive speed along this road is considered a Police matter.

## Parking

Concern was raised in the submissions about the potential for the development to place further pressure on local on-street parking in the vicinity of the development site. Many submissions identified that currently parking was generally not available in many of the streets where time-limited parking was not applied. Parsons Brinckerhoff's original Traffic Study and TMAP (at Appendix M of the EAR) sought to address this issue, by seeking to ensure that the proposed development will not give rise to addition demand to on-street parking. This objective is considered to be achieved based on the provision of adequate parking on site, which is balanced with the implementation of TravelSmart initiatives that are to encourage staff, students and visitors to utilise existing public transport and alternative means of transport to and from the development (see Traffic Study and TMAP – Appendix M of EAR).

In summary, the proposed quantum of parking and implementation of the TravelSmart initiatives are considered to ensure that there will be no further demand for on-street parking in the vicinity of the site.

## Traffic Noise

PKA Acoustic Consulting has reviewed their original noise assessment submitted with the application (see Appendix T of the EAR) and has prepared a further statement to address issues raised with respect to impacts of traffic noise along Hospital Road (see Acoustic Statement at **Appendix D**). This statement should be read as revised section 9.0 of the original report submitted with the EAR.

PKA note that the original findings were based on expected AM and PM peak periods traffic flows to and from the development modelled by Parsons Brinckerhoff. Their findings indicated that traffic noise levels would not exceed acceptable maximums during the PM peak period, but would marginally be exceeded for the AM peak period. It should be noted that the traffic modelling by Parsons Brinckerhoff was conservatively analysed to estimate the maximum total impact of traffic flows in the local area. This estimate was based on estimated traffic peak movements of normal commercial office premises, each of which usually last only for 2 hour periods.

However, given that the institute's operations vary to that for normal commercial premises and based on general observations of current traffic movements for the institute, the peak traffic movements for the institute are likely to be spread over a greater periods for both am and pm peak times. PKA estimate that if traffic were spread over greater periods, say for 3 hour periods, the result would be that AM peak traffic noise along Hospital Road would only reach 54 LAEQ(1hr). This is within the recommended daytime noise levels of 55 LAEQ(1hr), despite the 4dB(A) exceedance in acceptable noise criteria. The PM peak period would remain with recommended daytime noise levels.

The most appropriate noise mitigation measures were explored to further resolve the issue. The most effective mitigation measure would be to erect a 3 metre noise fencing along the western side of Hospital Road, so as to shield residents from noise exposure. However, this option was considered to generate additional amenity impacts of its own by potentially overshadowing the private open space areas of properties and potentially obstructing views from upper windows. Given the noise levels may be exceeded during AM peak periods, the loss of amenity associated with the acoustic treatment walls was considered an unsatisfactory outcome.

### Loading Bay Noise

Some of the submissions also raised concern that the operation and use of the loading dock for the development may give rise to unacceptable noise impacts to nearby residential properties. PKA has investigated this concern and has provided an assessment (see Acoustic Statement at **Appendix D**).

Results of this assessment indicate that combined loading dock and existing noise levels would result in noise levels exceeding the existing levels by 1-3dB(A) in the vicinity of the loading dock access. For the same reasons mentioned above, the use of acoustic wall treatments along Hospital Road were not considered appropriate to mitigate intermittent noise from the loading dock. However, PKA recommended the following measures to ensure that noise from the loading dock would be minimised:

- ensure that the delivery dock is generally accessed only during the daytime hours of 7am to 6pm Mondays to Fridays. The only exception would be to accept gas deliveries outside of these hours, which would be made prior to 10pm, with preference to make these deliveries during normal business hours;
- ensure vehicles are driven forward into and out of the loading zone, reversing only into the loading dock, in order to minimise the use of reverse beepers;
- to provide rubberised drop surfaces where equipment and materials are to be unloaded from trucks; and
- provide acoustic absorption within the loading dock area (soffits and upper walls) to minimum NRC 0.8 in order to reduce reverberant noise spill and reflection, particularly from noise beepers.

These measures are included in the revised Statement of Commitments for the Project Application (see Section 5.0).

## 2.3 Pedestrian Access

### 2.3.1 Issues

The submission received from Randwick Council requested the development incorporate better pedestrian thorough-fares through the site to facilitate better linkages between the development and public domain areas around the site and the adjoining hospital.

Further information has been requested to:

- assess the feasibility for the implementation of the proposed linkages through the site as is sought by Randwick Council; and
- reassess the adequacy of the pedestrian footpaths adjoining the development to ensure safe paths of travel for pedestrians and encourage their use.

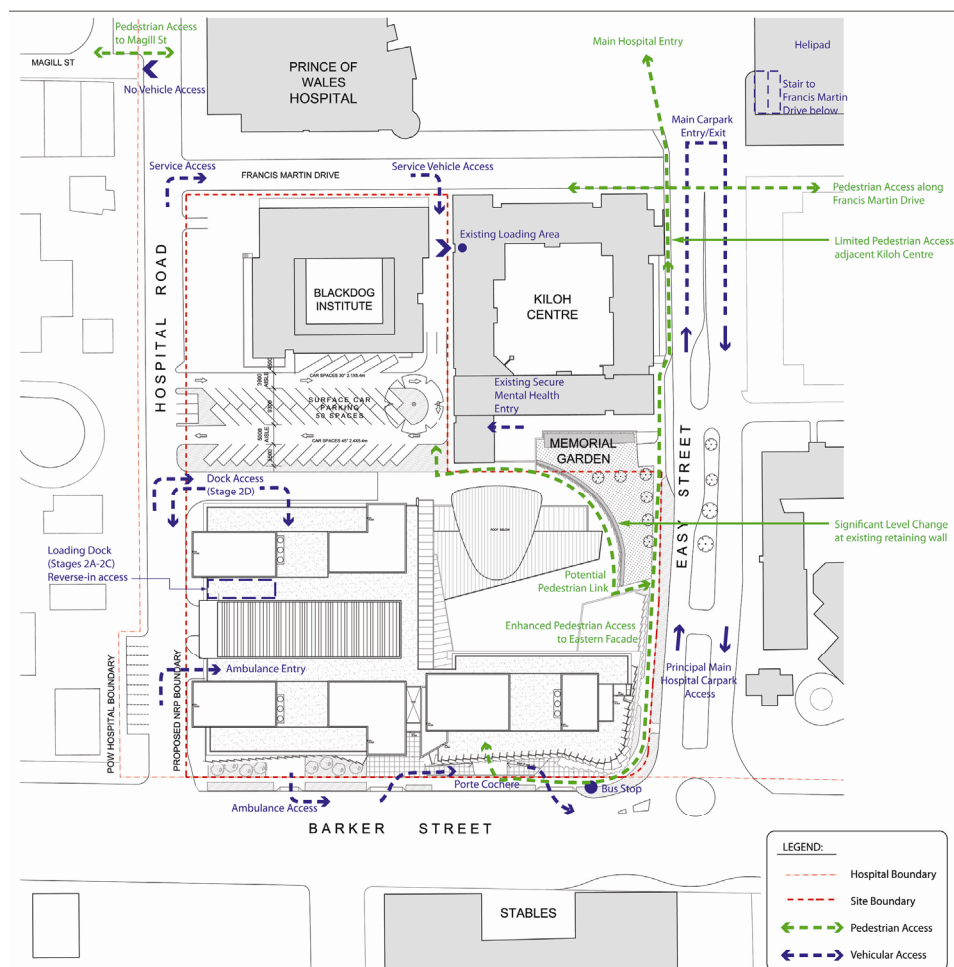
### 2.3.2 Response

#### Through site links

Council's submission has recommended the development provide specific through site links to improve pedestrian amenity and improve pedestrian links between the main hospital buildings and the institute. Specifically Council recommends including:

- an east west site link through the site, just to the south of the Kiloh Centre, which would provide a direct pedestrian link between Hospital Road and Easy Street; and
- a pedestrian link from the Stage 3 development to the main hospital buildings to the north, crossing over Francis Martin Drive.

Cox Richardson Architects has assessed the feasibility of the above and provided a diagram to illustrate site opportunities and constraints– see **Figure 4** and Pedestrian and Vehicular Access Illustration at **Appendix E**.



**Figure 4** – Pedestrian and vehicle access pathways in and around the site

The provision of a site link through the middle of the site between Hospital Road and Easy Street is not considered feasible or practical on the basis that this outcome:

- could bring about potential conflict between pedestrians travelling along this path and truck movements to and from the loading dock at the rear of Stage 2D;
- would result in a pathway with a significant level change from Hospital Road up to Easy Street, which may not be able to provide equitable access or would require significant treatments and use of switch back ramps, or the like;
- may allow for inappropriate public exposure and interface with the Black Dog Institute and Kiloh Centre, where patients are treated for depression and mental health issues;
- would not facilitate a direct link as the pathway would have to be redirected around the memorial garden, located to the south of the Kiloh Centre; and
- can readily be achieved with pedestrians travelling along Barker Street, which is only 35 metres south of the suggested pedestrian link.

Similarly the provision of a pedestrian link from the Stage 3 development and the main hospital buildings to the north is not considered feasible or practical in that:

- access could not be made at street level (ie. Francis Martin Drive), as there is no pedestrian entry opportunity into the hospital at any point, and any access through this point would only lead pedestrians into the main hospital car park;
- may encourage pedestrians to travel east along Francis Martin Drive, where there is no existing pathway and for which is only used as a service entry for deliveries to the hospital, the Blackdog Institute and the Kiloh Centre;
- upper level access would lead pedestrians into the part of the Women's Hospital, where currently general public access is limited to the main entry off Easy Street; and
- the Prince of Wales Hospital has not indicated that they would want or encourage this type of access between the main hospital and the development.

These links may seem to improve functionality between the development and the hospital. However, this link is not needed for this purpose as patients of the hospital are not treated at the POWMRI institute and conversely, those attending the institute are not then treated in the hospital.

For the above reasons the implementation of the recommended pedestrian links is not practical and would not improve functions of either the hospital or the institute.

### Pedestrian Amenity along the Hospital Road Street Frontage

Concern was raised that inadequate width and pedestrian amenity had been provided for the pedestrian pathway along the eastern side of Hospital Road. With the abovementioned amendments to further set back parts of the Stage 2 building along this facade and revision of the landscaping along this frontage (see revised Landscape Plan at **Appendix F**), these concerns will be resolved.

Specifically the revisions will improve the amenity of this area by providing:

- a wider pedestrian pathway for the pedestrian moving along the eastern side of Hospital Road, which will be comparable to that provided along Barker and Easy Streets; and
- complementary landscaping and street trees that is appropriately located so as to not compromise the sight lines for vehicles entering and existing the car park and loading dock entries.

## 2.4 Section 94 Contributions

The original application sought not to enter into any voluntary planning agreement or separate development contributions framework as part of either the Concept Plan or Project Application (see Section 6.11 of the original EAR).

It is noted that Council has sought to recommend that the applicant pay for half of Council's Section 94A levy that may apply broadly to development on the basis that the proposed auditorium and parking facilities are 'commercial uses'. The proposed auditorium and parking facilities are ancillary and supporting elements for the development and are not to be separately operated to that of the functions of the Institute.

For exactly the same reasons as sought in the original EAR the opinion still remains the same that the proposed development should not be subject to requiring payment of any portion of the Section 94A levy. Furthermore, the Council's view that commercial elements are likely to operate separately to that of the Institute is incorrect. Therefore, if Council are the view that the levy should not apply to the medical research components of the development, then in the same manner the Section 94A levy should levied for any part of the development.

## 3.0 Preferred Project

On the basis of the submissions received and consultation with the Department of Planning, the abovementioned amendments that have been made to the project to minimise specific environmental impacts.

Other alterations to the proposed Stage 2 development include:

- The reconfiguration of the MRI area within Stage 2A of the development. This proposed amendment is to provide additional space to accommodate the required MRI machine. This modification will not result in accommodating any more staff than originally envisaged and will not result in an increase for demand on car parking or public transport services.
- The exhaust stacks along the roof line for the Stage 2 development have been moderately increased to a height of 6 metres to allow for the dispersal of fumes emitted from the development in accordance with required standards. Refer to Table of Submissions at **Appendix A** for more detail.
- The originally proposed garden bed areas adjacent to the Easy Street facade are proposed to be replaced with courtyard paving. This will result in providing a wider pathway and serve to cater for expected pedestrian traffic movements between the bus stop and up to the main hospital entry, at the north end of Easy Street. This amendment is shown in the revised Landscape Plan at **Appendix F**.

Accordingly, the Environmental Assessment Report together with these amendments and the revised Statement of Commitments at Sections 4.0 and 5.0 of this report comprise the Preferred Project.

## 4.0 Final Statement of Commitments – Concept Plan

The following commitments have been compiled based on the environmental assessment undertaken in the preparation of the Concept Plan and following review and consideration of issues raised in agency and community submissions. They provide a commitment by the proponent indicating the responsibilities and timing to implement measures to prevent potential environmental impacts that have been identified through the assessment to ensure that the project is environmentally, socially and economically sustainable, and to outline a program of works to take forward the development of the POWMRI site under future Project Applications.

POWMRI Ltd, the proponent of this Concept Plan application commits to the following:

Subject	Commitments	Timing
<b>Sydney Airport OLS surfaces</b>	Submission of an application to the Department of Transport and regional Services for approval to perform a controlled activity should any structure, including construction cranes extend into prescribed airspace.	If required.
<b>Built Form</b>	Provision of a development, which accords with the following controls: <ul style="list-style-type: none"> <li>■ Use of the land for medical research and ancillary purposes;</li> <li>■ Maximum of 61,000m<sup>2</sup> GFA;</li> <li>■ Maximum height of RL 89m (approximately 44.5m above ground level)</li> <li>■ Maximum building envelope (as show in Architectural Drawing PA101-06);</li> <li>■ Maximum of 365 car parking spaces.</li> </ul>	Within Stages 2 and 3.
<b>Traffic &amp; Parking</b>	Restrict the on-street parking on the eastern side of Avoca Street between St Pauls Road and Barker Street to 'no parking' between the hours of 7.00am and 9.00am.	At the completion of Stage 3.
	Implementation of a Travel Smart Travel Plan to encourage staff and students to utilise alternative means of transport to driving.	Prior to the issue of occupation certificate for each Stage of development.
	Include provision for bicycle parking and amenities within the detailed design of the development	Within the Project Application for Stage 2.

Subject	Commitments	Timing
<b>Heritage</b>	Archaeological testing to be undertaken over the areas of the site determined to have potential for aboriginal archaeological evidence in accordance with recommendations set out within Mary Dallas Consulting's preliminary assessment report.	Prior to construction of the above ground structure for Stage 2A and each subsequent stage, in conjunction with the European archaeological assessment.
	Further archaeological assessment in accordance with CRMs European Archaeological Assessment to be undertaken to define the extent of European archaeological evidence across the site and to determine appropriate methods for retrieval and storage of found items.	Prior to construction of the above ground structure for Stage 2A and each subsequent stage, in conjunction with the Aboriginal archaeological assessment and excavation investigations.
<b>Hazardous materials</b>	All ACM found on the site is to be removed by NSW WorkCover Authority licensed asbestos contractors prior to any works starting on site.	During construction works.
	If potential ACM are found during the construction works a sample will be taken and sent for asbestos identification analysis by a NATA accredited laboratory.	During construction works.
	Prior to the demolition of the Ambulance Station or Black Dog Institute a Hazardous Materials Survey is to be undertaken of these building to ascertain the likelihood of hazardous materials on the site and the appropriate method of removal.	Prior to construction certificate issue for the demolition of the Ambulance Station and Black Dog Institute.
	Clearance certificates are to be produced following removal of all asbestos containing materials at the site.	During construction works.
<b>Contamination</b>	The site is to be inspected by experienced environmental personnel during demolition and excavation works at the site.	During demolition and excavation works.
	Additional subsurface investigations comprising a minimum of 19 sampling locations are to be undertaken once the existing buildings have been demolished to meet the minimum sampling density outlined in the NSW EPA (Contaminated Sites Sampling Design Guidelines 1995.	Prior to the construction certificate for each of the sub-stages for the Stage 2 and 3 developments.

Subject	Commitments	Timing
<b>Sewer and Water</b>	Application of a Section 73 certificate from Sydney Water	Following issue of Concept Plan approval.
	Negotiation and agreement with Sydney Water in regard to the need to upgrade the sewer vent on the site	Following issue of Concept Plan approval.
<b>Utilities</b>	Liaise with all necessary service providers in regards to the provision of utility services (i.e. Gas, Electric and Telecommunications etc) to the site	Prior to Construction Certificate stage.
<b>Accessibility</b>	Incorporation of the accessibility strategies within the detailed design of buildings, as outlined by Access Associates	Within the Stage 2 and Stage 3 project Applications.

## 5.0 Final Statement of Commitments – Project Application

The following commitments have been compiled based on the environmental assessment undertaken in the preparation of the Project Application and following review and consideration of issues raised in agency and community submissions. They provide a commitment by the proponent indicating the responsibilities and timing to implement measures to prevent potential environmental impacts that have been identified through the assessment to ensure that the project is environmentally, socially and economically sustainable, and to outline a program of works to take forward the development of the POWMRI site under this and future Project Applications.

POWMRI Ltd, the proponent of this Project Application commits to the following:

Subject	Commitments	Timing
<b>Stage 1 construction works</b>	The Stage 1 works will be carried out in strict accordance with the same conditions of consent issued by Randwick Council for DA/468/2007.	At time of construction for Stage 1.
<b>General Works</b>	Notwithstanding any other commitment (condition of consent), the consent for the Project Application permits separate construction certificates and occupation certificates to be issued for the development approved by the consent in stages, provided that all commitments (conditions of consent) relevant to the development incorporated within each stage have been complied with prior to the release of the construction certificate or occupation certificate for that stage.	
<b>Traffic</b>	Provision of signalised traffic controls at the Botany Street/ Baker Street intersection.	At the completion of Stage 2D.
	Implementation of a Travel Smart Travel Plan to encourage staff and students to utilise alternative means of transport to driving.	Prior to issue of occupation certificate for Stage 2A.
<b>Heritage</b>	A full report on the excavation and results of the assessment of Aboriginal heritage values will be provided to the AHIMS register at DECC in accordance with S91 of the NPW Act.	Prior to the issue of the construction certificate for the construction of the above ground Stage 2A building.

Subject	Commitments	Timing
	Archaeological testing to be undertaken over the areas of the site determined to have potential for aboriginal archaeological evidence in accordance with recommendations set out within Mary Dallas Consulting's preliminary assessment report.	Prior to construction of the above ground structure for Stage 2A and in conjunction with the European archaeological assessment.
	Further archaeological assessment in accordance with CRMs European Archaeological Assessment to be undertaken to define the extent of European archaeological evidence across the site and to determine appropriate methods for retrieval and storage of found items and implementation of recommendations as set out within CRM Report dated June 2009.	Prior to construction of the above ground structure for Stage 2A and each subsequent sub-stage, in conjunction with the Aboriginal archaeological assessment and excavation investigations.
	There should be provision for an interpretative element/ landscape treatment for the Worker's Cottages on Barker Street as identified in the heritage assessment for the proposed Concept Plan, Graham Brooks & Associates. The design of this element should be considered in conjunction with the European Archaeological Assessment works.	Prior to the issue of the occupation certificate for Stage 2A.

Subject	Commitments	Timing
<b>Reflectivity</b>	<p>Façade glazing will have the following properties:</p> <ul style="list-style-type: none"> <li>▪ The glazing on the top 3 levels of the 191° aspect, and the third level of 011° aspect at the eastern edge, will have a maximum normal specular reflectivity of visible light of 9%;</li> <li>▪ The glazing on levels 2 and 3 of the 205° and 200° aspects between longitudinal lines Q and L indicated on the architectural plans will have a maximum normal specular reflectivity of visible light of 8%;</li> <li>▪ The inclines panels on the awning around the south-eastern corner of the site will be made from a clear or body-tinted glass so as to have a maximum normal specular reflectivity of 7%;</li> <li>▪ All remaining glazed areas of the façade of the development will have a maximum normal specular reflectivity of visible light of 20 percent. Other highly reflective materials will also be avoided on the facades to avoid adverse glare to the occupants of neighbouring buildings.</li> </ul>	<p>Prior to the issue of the construction certificates for the construction of the above ground buildings for each of the respective sub-stages of the Stage 2 development.</p>
<b>ESD</b>	<p>The ESD initiatives included within the Cundall report will be incorporated into the design and operational practices of the building.</p>	<p>Prior to the issue of the construction certificates for the construction of the above ground buildings for each of the respective sub-stages of the Stage 2 development.</p>
	<p>The base building design will target an energy performance rating equivalent to the 5 star NABERS rating scheme (Education model).</p>	<p>Prior to the issue of the construction certificates for the construction of the above ground buildings for each of the respective sub-stages of the Stage 2 development.</p>
<b>Geotechnical Issues</b>	<p>Implementation of the recommendations set out within the Geotechnical Report prepared by Jeffery &amp; Katauskas.</p>	<p>Prior to and during construction works.</p>

Subject	Commitments	Timing
	<p>Further work in the form of the following will be undertaken:</p> <ul style="list-style-type: none"> <li>▪ Dilapidation surveys of surrounding buildings and structures;</li> <li>▪ Continuous vibration monitoring during rock excavation;</li> <li>▪ Proof testing of anchors, if appropriate;</li> <li>▪ Geotechnical footing inspections and spoon testing, if appropriate;</li> <li>▪ Groundwater monitoring into bulk excavation;</li> <li>▪ Proof-rolling of pavement sub-grade; and</li> <li>▪ Density testing of engineered fill and sub-base.</li> </ul>	<p>Prior to the issue of the construction certificate for any excavation or construction activities.</p>
<b>Hazardous Materials</b>	<p>All Asbestos Containing Materials (ACM) found on the site is to be removed by NSW WorkCover</p> <p>Authority licensed asbestos contractors prior to any works starting on site.</p>	<p>During demolition works</p>
	<p>If potential ACM are found during the construction works a sample will be taken and sent for asbestos identification analysis by a NATA accredited laboratory.</p>	<p>During demolition works.</p>
	<p>Prior to the demolition of the Ambulance Station or Black Dog Institute a Hazardous Materials Survey is to be undertaken of these building to ascertain the likelihood of hazardous materials on the site and the appropriate method of removal.</p>	<p>Prior to construction certificate issue for the demolition of the Ambulance Station and Black Dog Institute.</p>
	<p>Clearance certificates are to be produced following removal of all asbestos containing materials at the site.</p>	
<b>Contamination</b>	<p>The site is to be inspected by experienced environmental personnel during demolition and excavation works at the site.</p>	
	<p>Additional subsurface investigations comprising a minimum of 19 sampling locations are to be undertaken once the existing buildings have been demolished to meet the minimum sampling density outlined in the NSW EPA (Contaminated Sites Sampling Design Guidelines 1995.</p>	
<b>Construction Management</b>	<p>A detailed Site Safety Management Plan will be prepared once a construction contractor has been engaged</p>	<p>Prior to issue of the construction certificate for any works on the site.</p>

Subject	Commitments	Timing
Noise	<p>During the construction period, the following noise mitigation measures will be implemented:</p> <ul style="list-style-type: none"> <li>▪ Appropriate screening and hoarding will be provided along the northern site boundary;</li> <li>▪ Temporary screening will be provided around the car park and ramp construction site;</li> <li>▪ Consultation will also be carried out with the child care centre and noisy work will be restricted during the child care centre's rest period (12pm-1pm).</li> <li>▪ Use of an electric tower crane, if possible.</li> </ul>	Prior to the issue of the construction certificate for any works on site.
	<p>The following will be implemented to ensure noise from the operation of the loading dock is minimised:</p> <ul style="list-style-type: none"> <li>▪ The delivery dock is generally accessed between 7am to 6pm Mondays to Fridays, with the only exception being to accept gas deliveries which will be made prior to 10pm, with preference to make these deliveries during normal business hours;</li> <li>▪ Vehicles are driven forward into and out of the loading zone, reversing only into the loading dock;</li> <li>▪ Rubberised drop surfaces will be provided where equipment and materials are to be unloaded; and</li> <li>▪ Acoustic absorption within the loading dock (soffits and upper walls) to minimum NRC 0.8 will be provided.</li> </ul>	
BCA	The detailed design and specification of signage, lifts, mechanical services, glazing, fire fighting services etc will be provided within the construction certificate documentation.	Prior to the issue of the construction certificate for the above ground Stage 2A building.
	Compliance with the BCA and relevant Australian Standards.	At construction certificate stage.
Safety & Security	Details of the illumination and deterrence measures proposed for the development will be submitted for approval.	Prior to the issue of the construction certificate for these works.
Utility Services	Liaise, and obtain approval from all relevant service providers in regard to the provision of utility services to the site.	At construction certificate stage.

Subject	Commitments	Timing
Loading Dock	A Loading Dock Management Plan is to be prepared and submitted, detailing the management of multiple deliveries and arrival and departure times for deliveries and tradespeople in the loading dock and associated parking area.	Prior to the issue of the occupation certificate relating to Stage 2D of the development.