



Your Ref: SSD 5263
File No: MC-11-557/2

11 October 2012

Department of Planning and Infrastructure
GPO Box 39
Sydney NSW 2001

Attention: Peter McManus

Dear Peter,

Blacktown Hospital Stage 1 Expansion (SSD 5263)

Thank you for your correspondence dated 3 September 2012 which provided Council with the opportunity to provide comments on the proposed State Significant Development for the Stage 1 Expansion of Blacktown Hospital.

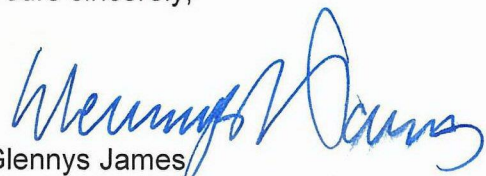
Council has undertaken a review of the DA and Environmental Impact Statement (EIS) and in principle raises no objections to the proposal, subject to the imposition of appropriate conditions of consent (as attached).

Council is however particularly concerned to ensure that where the construction phase of the Hospital Building occurs concurrently with the new decked car parking building, adequate on-site and off-site provision is made for parking to ensure patients and visitors are not inconvenienced and residents in the local area are not affected by excessive overflow parking in the streets.

Also the applicant had requested Council to defer all the necessary drainage works for the recently approved decked carpark to form part of this approval. Therefore it is essential that all drainage requirements outlined in the conditions attached are including in any consent issued by the Minister.

Should you require any further information regarding this matter, please contact Council's Manager Development Services and Administration, Judith Portelli on 9839 6228.

Yours sincerely,


Glennys James
Director City Strategy and Development



Recommended Conditions – Stage 1 Expansion – Blacktown Hospital

1 **ADVISORY NOTES**

1.1 **Building Code of Australia Compliance**

1.1.1 All aspects of the building design shall comply with the applicable performance requirements of the Building Code of Australia so as to achieve and maintain acceptable standards of structural sufficiency, safety (including fire safety), health and amenity for the ongoing benefit of the community. Compliance with the performance requirements can only be achieved by :

- (a) Complying with the deemed to satisfy provisions, or
- (b) Formulating an alternative solution which :
 - (i) complies with the performance requirements, or
 - (ii) is shown to be at least equivalent to the deemed to satisfy provision, or
 - (iii) A combination of (a) and (b).

1.1.2 A preliminary assessment of the plans submitted with the application has disclosed that the following design and/or construction issues need to be addressed prior to the issue of any Construction Certificate to ensure compliance with the Building Code of Australia:

- (a) Section C, D, E, F and J

1.2 **Terminology**

1.2.1 Any reference in this document to a "consent" means a "development consent" defined in the Environmental Planning and Assessment Act 1979.

1.3 **Other Approvals**

1.3.1 This consent does not authorise the encroachment or overhang of any building or structure over or within any easement.

1.4 **Services**

1.4.1 Information regarding the location of underground services may be obtained from the Sydney "Dial Before You Dig" service, telephone number 1100, fax number (02) 9806 0777. Inquirers should provide the street/road name and number, side of street/road name and the nearest cross street/road name.

2 **GENERAL**

2.1 **Other Matters**

2.1.1 The recommendations provided in Chapter 5.3 (Comment/Assessment) of Noise Impact Assessment Blacktown Hospital – Main campus, prepared by Acoustic Logic, dated 26 June 2012 are to be implemented.

- 2.1.2 The recommendations provided in Chapter 6 (Discussion and Recommendations) of Geotechnical Investigation and Preliminary Contamination Assessment – Proposed Additions to Blacktown Hospital, prepared by Coffey Geotechnics Pty Ltd, Dated 10 May 2011 are to be implemented.

3 PRIOR TO CONSTRUCTION CERTIFICATE (GENERAL)

3.1 Road Deposit/Bond

- 3.1.1 The following current fee and bond (which is subject to periodic review and may vary at time of payment) shall be lodged with Council:

- (a) Road inspection fee
- (b) Road maintenance bond.

The bond is required to cover the cost of any damage to Council's public assets (eg: road, guttering, footpaths, drainage systems) arising from development works. The bond (less an administration fee) will be refunded upon the completion of the development should there be no damage to Council's assets as a result of the development works.

The road inspection fee covers Council's costs to inspect public assets adjacent to the development site before and after development work.

4 PRIOR TO CONSTRUCTION CERTIFICATE (ENGINEERING)

4.1 Engineering Matters

4.1.1 Drainage

- 2.2.1.1 The stormwater drainage discharge is not to exceed the capacity of the existing downstream drainage system.

- 4.1.1.1 Within five (5) years of the date of this consent, the following drainage works and other water management requirements are to meet the following requirements. .

4.1.2 Design and Works Specification

- 4.1.2.1 All engineering works required by Scope of Engineering Works and other sections of this consent must be designed and undertaken in accordance with the relevant aspects of the following documents except as otherwise authorised by this consent:

- (a) Blacktown City Council's Works Specification - Civil (Current Version)
- (b) Blacktown City Council's Engineering Guide for Development (Current Version)
- (c) Blacktown City Council Development Control Plan (Current Version)

- (d) Blacktown City Council Soil Erosion and Sediment Control Policy (Current Version)
- (e) Blacktown City Council On Site Detention General Guidelines and Checklist
- (f) Upper Parramatta River Catchment Trust On Site Stormwater Detention Handbook *Third Edition December 1999*.
- (g) Blacktown City Council Stormwater Quality Control Policy – Part R of DCP 2006.

Design plans, calculations and other supporting documentations prepared in accordance with the above requirements **MUST** be submitted to Council with any application for a Certificate under S109R of the EP&A Act, Road Act 1993 or Local Government Act 1993 Approval.

Any Certificate under S109R of the EP&A Act issued by Private Certifiers must also be accompanied by the above documentations.

NOTE: Any variations from these design requirements must be separately approved by Council.

4.1.3 Hydraulic Engineering

- 4.1.3.1 The Hydraulic Engineer is to certify that all the requirements of the approved drainage plan have been undertaken including the installation of the water quality devices and that all the signage and warning notices have been installed for the site.
- 4.1.3.2 On-site detention is required in accordance with the Upper Parramatta River Catchment Trust requirements using version 3 (not version 4) of the Trust guidelines. A copy of the calculation spreadsheet is to be made available to Council for review. Detailed catchment plans are required for the detention system noting any bypass.
- 4.1.3.3 Detailed hydraulic plans are required.
- 4.1.3.4 Detailed catchment plans are required for the individual devices in the water quality system noting any bypass.
- 4.1.3.5 Water quality treatment is required in accordance with Part R of DCP 2006 to meet the target removal rates specified in Part R and in section 5 of the Integrated Stormwater Management Report. Note specific electronic rainfall data and source nodes for use in Blacktown are available from Council. Note also that Ecosol devices have not been approved for use in MUSIC in Blacktown. Please consult with Council prior to using any proprietary devices and for specific MUSIC modelling requirements for bio-retention. An electronic copy of the MUSIC model must be provided to Council for review with subsequent applications.

- 4.1.3.6 Rainwater tanks are required in accordance with Part R of DCP 2006 to meet 80% of non-potable uses including all toilet flushing within the hospital extension and landscape watering. Usage and watering rates are to be included in the amended Integrated Stormwater Management Report. The 80% reuse will be assessed using the Node Water Balance function in MUSIC.
- 4.1.3.7 A positive covenant and restriction is required over the water quality devices in accordance with the requirements of the BCC Engineering Guide for Development 2005 or as amended.

5 PRIOR TO DEVELOPMENT WORKS

5.1 Safety/Health/Amenity

- 5.1.1 Toilet facilities shall be provided on the land at the rate of 1 toilet for every 20 persons or part thereof employed at the site.

Each toilet provided shall be:

- (a) a standard flushing toilet, or
- (b) a temporary on-site toilet which is regularly maintained and the waste disposed to an approved sewerage management facility.

- 5.1.2 A sign is to be erected and maintained in a prominent position on the site in accordance with Clause 98 A (2) of the Environmental Planning and Assessment Regulations 2000 indicating:

- (a) the name, address and telephone number of the principal certifying authority for the work, and
- (b) the name of the principal contractor (if any) for the building work and a telephone number on which that person may be contacted outside working hours, and
- (c) stating that unauthorised entry to the work site is prohibited.

This condition does not apply to:

- (a) building work carried out inside an existing building, or
- (b) building work carried out on premises that are to be occupied continuously (both during and outside working hours) while the work is being carried out.

- 5.1.3 Should the development work:

- (a) be likely to cause pedestrian or vehicular traffic in a public place to be obstructed or rendered inconvenient, or
- (b) involve the enclosure of a public place,

a hoarding or protective barrier shall be erected between the work site and the public place. Such hoarding or barrier shall be designed and erected in accordance with Council's current Local Approvals Policy under the Local

Government Act 1993.

Where necessary, an awning shall be erected, sufficient to prevent any substance from, or in connection with, the work falling into the public place.

The hoarding, awning or protective barrier shall be effectively illuminated between sunset and sunrise where it may be hazardous to any person in the public place.

- 5.1.4 Soil erosion and sediment control measures shall be provided in accordance with Council's Soil Erosion and Sediment Control Policy.
- 5.1.5 All soil erosion and sedimentation control measures indicated in the documentation accompanying the Construction Certificate shall be installed prior to the commencement of development works.
- 5.1.6 A single vehicle/plant access to the land shall be provided to minimise ground disturbance and transport of soil onto any public place. Such access shall be provided in accordance with the requirements of Appendix "F" of Council's Soil Erosion and Sediment Control Policy. Single sized 40mm or larger aggregate placed 150mm deep, and extending from the street kerb/road shoulder to the land shall be provided as a minimum.
- 5.1.7 Any excavation and/or backfilling associated with the development shall be executed safely and in accordance with appropriate professional standards, with any excavation properly guarded and protected to prevent such work being dangerous to life or property.
- 5.1.8 Should any excavation associated with the development extend below the level of the base of the footings of a building or any other structure on any adjoining allotment of land (including a public place), that building or structure:
 - (a) shall be preserved and protected from damage, and
 - (b) if necessary, shall be underpinned and supported in accordance with structural design details accompanying the Construction Certificate, and
 - (c) the owner(s) of which shall, at least 7 days before any such excavation or supporting work commences, be given notice of such intention and particulars of the excavation or supporting work.

5.2 Notification to Council

- 5.2.1 The person having the benefit of this consent shall, at least 2 days prior to work commencing on site, submit to Council a notice under Clauses 135 and 136 of the Environmental Planning and Assessment Regulation 2000, indicating details of the appointed Principal Certifying Authority and the date construction work is proposed to commence.

6 DURING CONSTRUCTION (BUILDING)

6.1 **Safety/Health/Amenity**

6.1.1 The required toilet facilities shall be maintained on the land at the rate of 1 toilet for every 20 persons or part of 20 persons employed at the site.

6.1.2 A sign is to be erected and maintained in a prominent position on the site in accordance with Clause 98 A (2) of the Environmental Planning and Assessment Regulations 2000 indicating:

- (c) the name, address and telephone number of the principal certifying authority for the work, and
- (d) the name of the principal contractor (if any) for the building work and a telephone number on which that person may be contacted outside working hours, and
- (e) stating that unauthorised entry to the work site is prohibited.

6.1.3 Should the development work:

- (a) be likely to cause pedestrian or vehicular traffic in a public place to be obstructed or rendered inconvenient, or
- (b) involves the enclosure of a public place,

the required hoarding, awning or protective barrier shall be maintained between the land and the public place.

The hoarding, awning or protective barrier shall be effectively illuminated between sunset and sunrise where it may be hazardous to persons in the public place.

6.1.4 Soil erosion and sediment control measures (including the connection of roofwater downpipes to stormwater drainage lines upon fixing of roof covering) shall be maintained during the development works.

6.1.5 All measures specified in the Construction Certificate to control soil erosion and sedimentation shall be maintained throughout development works.

6.1.6 A single vehicle/plant access to the land shall be maintained to minimise ground disturbance and transport of soil onto any public place. Such access shall be maintained in accordance with the requirements of Appendix "F" of Council's Soil Erosion and Sediment Control Policy. As a minimum, single sized 40mm or larger aggregate placed 150mm deep, and extending from the street kerb/road shoulder to the land shall be provided.

6.1.7 Any excavation and/or backfilling associated with the ongoing development works shall be executed safely and in accordance with appropriate professional standards, with any excavation properly guarded and protected to prevent them from being dangerous to life or property.

6.1.8 Should any excavation associated with the ongoing development works extend below the level of the base of the footings of a building or any other structure on any adjoining allotment of land (including a public place), that

building or structure:

- (a) shall be preserved and protected from damage, and
- (b) if necessary, shall be underpinned and supported in accordance with structural design details accompanying the Construction Certificate, and
- (c) the owner(s) of which shall, at least 7 days before any such excavation or supporting works be given notice of such intention and particulars of the excavation or supporting works.

6.1.9 Building and construction materials, plant, equipment and the like shall not be placed or stored at any time on Council's footpath, roadway or any public place.

6.2 Building Code of Australia Compliance

6.2.1 All building work shall be carried out in accordance with the provisions of the Building Code of Australia.

6.3 Nuisance Control

6.3.1 Any objectionable noise, dust, concussion, vibration or other emission from the development works shall not exceed the limit prescribed in the Protection of the Environment Operations Act 1997.

6.3.2 The hours of any offensive noise-generating development works shall be limited to between 7.00am to 6.00pm, Mondays to Fridays: 8.00am to 1pm, Saturdays; and no such work to be undertaken at any time on Sundays or public holidays.

6.3.3 Construction work on all buildings (except that on single dwelling houses and associated structures on the site of a single dwelling house) shall not occur on Saturdays and Sundays on weekends adjacent to a public holiday.

6.4 Waste Control

6.4.1 The waste material sorting, storage and re-use requirements of the approved Waste Management Plan and Council's Site Waste Management and Minimisation Development Control Plan shall be implemented during the course of development works.

7 DURING CONSTRUCTION (ENGINEERING)

7.1 Notice of work Commencement

7.1.1 At least 5 full working days written notice shall be given of the commencement of engineering works. Such notice shall be accompanied by evidence of the contractor's Public Liability and Workers Compensation Insurances. For Public Liability Insurance this should be a minimum of \$20,000,000.

7.2 Service Authority Approvals

- 7.2.1 Prior to commencement of construction of footway crossings a clearance shall be obtained from the relevant telecommunications carriers and Integral Energy that all necessary ducts have been provided under the proposed crossing.

7.3 Maintenance of Soil Erosion Measures

- 7.3.1 Soil erosion and sediment control measures shall be implemented in accordance with Council's Soil Erosion and Sediment Control Policy.
- 7.3.2 Re-vegetation must be applied to disturbed areas as soon as practical after completion of earthworks and must be established prior to release of the maintenance security. All open drains must be turfed.
- 7.3.3 All required soil erosion and sediment control measures are to be maintained during the entire construction period until disturbed areas are restored by turfing paving or revegetation. Infringement Notices incurring a monetary penalty may be issued by Council where the maintenance of measures is inadequate.

7.4 Inspections of Works

- 7.4.1 Inspection Compliance Certificates issued by a Registered Engineer (NPER) or Registered Surveyor or Compliance Certificates issued by an accredited certifier, under Part A of Environmental Planning and Assessment Act 1979 as amended, are to be issued for works covered by the Construction Certificate for engineering works at the completion of the following mandatory inspection stages: -

(i) Soil Erosion and Sediment Control

- (a) Implementation of erosion and sediment control
- (b) Revegetation of disturbed areas
- (c) Construction of major controls (i.e gabions mattresses shotcreting etc)
- (d) Removal of sediment basins/ fencing etc.
- (e) Internal sediment/ pollution control devices
- (f) Final Inspection

(ii) Traffic Control

- (a) Implementation of traffic control
- (b) Maintenance of traffic control during works
- (c) Removal of traffic control

(iii) Construction of Drainage works (including inter-allotment)

- (a) Pipes before backfilling including trench excavation and bedding
- (b) Sand Backfilling

- (c) Final pipe inspection
 - (d) Pit bases and headwall aprons
 - (e) Pit Walls/ wingwalls/ headwalls
 - (f) Concrete pit tops
 - (g) Connection to existing system
 - (h) Tailout works
 - (i) Final Inspection
- (iv) Provision of Street Furniture
 - (a) Street Furniture (including street signs guideposts guardrail etc)
 - (b) Erection of fencing adjoining public/ drainage reserves
- (v) Footpath Works
 - (a) Footpath Trimming and/or turfing (to ensure 4% fall)
 - (b) Pathway construction (cycle/ link pathways)
 - (c) Path-paving construction
 - (d) Service Adjustments
 - (e) Final Inspection
- (vi) Construction of on-site detention system
 - (a) Steel and Formwork for tank/ HED control pit
 - (b) Completion of HED control pit
 - (c) Pit formwork
 - (d) Pipes upstream/ downstream of HED control pit before backfilling
 - (e) Completion of OSD system
- (vii) Stormwater Quality Control
 - (a) Installation of Stormwater Quality Control devices
 - (b) Final Inspection
- (viii) Traffic Control
 - (a) Implementation of traffic control
 - (b) Maintenance of traffic control during works
- (ix) CCTV Inspection of Drainage Structures (pipelines and pits)
 - (a) All road drainage
- (x) Final overall Inspections
 - (a) Preliminary overall final inspection
 - (b) Overall final inspection

ALTERNATIVELY, one comprehensive Inspection Certificate or Compliance certificate may be issued to include all of the above-mentioned stages of construction.

Where Council is appointed as the Principal Certifying Authority for the development (e.g. all Torrens Title subdivisions), only Compliance Certificates issued by accredited certifiers will be accepted at the completion of the above-mentioned stages. Any Compliance Certificate must certify that the relevant work has been completed in accordance with the pertinent Notice of Determination / Development Consent and Construction certificate.

- 7.4.2 Inspection of the works required pursuant to the engineering approval issued under the Roads Act 1993 must be made by Council's Development Overseers who can be contacted on 9839 6586 between 7am - 8am and 12.30pm - 1.30pm. A site inspection is required prior to commencement of work. A minimum twenty-four (24) hours notice must be given prior to any required inspection. A schedule of mandatory inspections is listed in Council's Works Specification – Civil (current version).

7.5 Public Safety

- 7.5.1 The applicant is advised that all works undertaken in a public place are to be maintained in a safe condition at all times. Council may at any time and without prior notification make safe any such works Council considers to be unsafe and recover all reasonable costs incurred from the applicant.

7.6 Site Security

- 7.6.1 Chain wire gates and security fencing must be provided around the site in order to prevent unauthorised access and dumping of rubbish.

7.7 Traffic Control Plan

- 7.7.1 Where amendments to the approved Traffic Control Plan are required, a new plan shall be prepared and approved prior to implementation. Such plans shall be prepared in strict compliance with the requirements of the current version of Australian Standard 1742.3 (Traffic Control Device for works on Roads) as well as the current version of the RTA Traffic Control at Work Site manual. Any person preparing such Traffic Control plans shall have the relevant RTA accreditation, which must be stated on the submitted plans.

7.8 Powder Coated Furniture

- 7.8.1 Where the conditions of this consent permit the installation of powder coated furniture (i.e. street lighting poles, bus shelters, rubbish bins, seats or any other items of street furniture), a certificate from the manufacturers shall be provided to Council confirming that the nominated powder coated items have been prepared and coated in accordance with Australian Standard AS/NZ 4506-2005 (service condition category 3). This certificate must be no more than 3 months old and shall be provided to Council prior to the installation of the relevant items of the street furniture. Any items of street furniture not so

certified shall be removed and replaced at no cost to Council with items appropriately certified.

7.9 Other Engineering Matters

7.10 Road Damage

- 7.10.1** The cost of repairing any damage caused to Council's assets in the vicinity of the land as a result of the development works shall be met in full by the applicant/developer.

Note: Should the cost of damage repair work not exceed the road maintenance bond Council will automatically call up the bond to recover its costs. Should the repair costs exceed the bond amount a separate invoice will be issued.

7.11 Fire Safety Certificate

- 7.11.1** A final fire safety certificate complying with Clause 153 of the Environmental Planning and Assessment Regulation 2000 shall be issued prior to the use or change of use of the building, except in the case of any Class 1a and Class 10 building(s).

7.11.2 Surveys/Certificates/Works As Executed plans

- 7.11.2.1** A works-as-executed plan (to a standard suitable for microfilming) under the hand of a Chartered Professional Engineer or a Registered Surveyor must be lodged with Blacktown City Council when the engineering works are completed. The works as executed plan must confirm that the On-Site Detention system identification plate has been installed in accordance with the Upper Parramatta River Catchment Trust Guidelines. The On-Site Detention system identification plate can be purchased from Upper Parramatta River Catchment Trust /Council.
- 7.11.2.2** A certificate from a Chartered Professional Engineer/Registered Surveyor must be obtained and submitted to Council verifying that the on-site detention system as constructed will function hydraulically in accordance with the approved design plans.
- 7.11.2.3** A certificate from a Registered Engineer (NPER) must be lodged with Council verifying that the structures associated with the on-site detention systems have been constructed to withstand all loads likely to be imposed on them during their lifetime.
- 7.11.2.4** A Certificate from a Registered Engineer (NPER) must be lodged with Council verifying that pier and beam style construction was used adjacent to the easement to the depth of the invert of the pipeline.

- 7.11.2.5 A Certificate shall be submitted by a Registered Surveyor indicating that all pipelines and associated structures lie wholly within any easements required by this consent.
- 7.11.2.6 A certificate from a Chartered Professional Civil Engineer must be obtained and submitted to Council verifying that the constructed Stormwater Quality Control system will function effectively in accordance with Council's Stormwater Quality Control Policy.
- 7.11.2.7 The submission to Council of all Inspection/Compliance Certificates required by the "During Construction (Engineering)" Section of this consent.
- 7.11.3 **Easements/Restrictions/Positive Covenants**
- 7.11.3.1 Any easement(s) or restriction(s) required by this consent must nominate Blacktown City Council as the authority to release vary or modify the easement(s) or restriction(s). The form of easement or restriction created as a result of this consent must be in accordance with the following:
- (a) Blacktown City Council's standard recitals for Terms of Easements and Restrictions (Current Version).
- (b) The standard format for easements and restrictions as accepted by the Lands Title Office.
- 7.11.3.2 Restrictions and positive covenants must be provided over the on-site detention storage areas and outlet works and registered with the LPI. Prior to Council endorsing the Restrictions and Positive Covenants, all the relevant and or related to On Site Detention (OSD) engineering conditions in the consent must be complied and satisfied with. All relevant OSD documentations as required by the conditions of consent must be submitted to Council in accordance with Council's standards and requirements. All submitted documentations will be checked by Council's officer for compliance prior to endorsement of required instruments.

In summary the following documentations will be required:

1. An approved and certified design plan of the OSD system by an accredited certifier.
2. A Structural certificate from an NPER structural engineer for the design of the On Site Detention (OSD) tank and an approved structural detail design plan certified by an NPER structural engineer if an underground tank is involved.
3. Hydraulic certificate for the design of the OSD system.
4. Design summary sheet for OSD, Weir calculation, Form B9 – OSD detailed design submission.
5. An OSD maintenance schedule.
6. An inspection certificate from an Accredited Certifier or a (NPER registered) Professional Engineer for the construction of OSD system.
7. Hydraulic Compliance certificate From B.11

8. A Structural Certificate for the constructed OSD tank verifying that the structure has been constructed structurally adequate to withstand all loads likely to impose on it during its lifetime.
9. Works as executed (WAE) plan for OSD in accordance with Council' requirements.

7.11.3.3 Restrictions and positive covenants must be provided over the Stormwater Quality Control devices and outlet works and registered with the LPI. Prior to Council endorsing the Restrictions and Positive Covenants, all the relevant and or related to Stormwater Treatment Measure (STM) engineering conditions in the consent must be complied and satisfied with. All relevant STM documentations as required by the conditions of consent must be submitted to Council in accordance with Council's standards and requirements. All submitted documentations will be checked by Council's officer for compliance prior to endorsement of required instruments.

In summary the following documentations will be required:

1. An approved and certified design plan of the STM system by an accredited certifier.
2. STM maintenance schedule including a manufacturer maintenance manual.
3. Inspection Certificate from an Accredited Certifier or a (NPER registered) Professional Engineer for the installation of STM system.
4. A certificate from a chartered professional engineer verifying that the installed STM (including its specific name, type and model number) will function effectively in accordance with Council's Stormwater Quality Control Policy.
5. Works as executed (WAE) plan for STM system in accordance with Council' requirements.

7.11.3.4 All Section 88B restrictions and covenants created, as part of this consent shall contain a provision that they cannot be extinguished or altered except with the consent of Blacktown City Council.

7.12 **Other Matters**

7.12.1 Retaining wall(s) and/or other effective methods to retain excavated or filled ground (other than those sites works which may be Exempt Development under the Blacktown Local Environmental Plan), together with any associated groundwater drainage system, shall be constructed and/or provided in accordance with the plans attached to the Construction Certificate.

7.13 **Car parking**

7.13.1 A minimum of 116 visitor parking spaces in car parking area P1 are to maintained within the site throughout the construction period.