

Conditions of consent (draft)

1 **ADVISORY NOTES**

1.1 **Terminology**

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

1.1.2 Any reference in this consent to a Construction, Compliance, Occupation or Subdivision Certificate is a reference to a certificate as defined by Sections 6.3, 6.4 and 6.16 of the Environmental Planning and Assessment Act 1979.

1.2 **Other Approvals**

1.2.1 A separate valid Construction Certificate shall be issued prior to commencement of any construction works.

1.2.2 The applicant's attention is drawn to the need to obtain Council's separate approval for any ancillary development not approved by this consent, including:

- (a) the removal of any tree(s) not indicated on the approved plans, and
- (b) any fence, retaining wall, land excavation or filling, advertising structure or other development not being exempt development, and
- (c) demolition of any existing buildings and associated structures in accordance with the requirements of the State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.
- (d) the installation of a vehicular footway crossing servicing the development.

1.3 **Services**

1.3.1 The applicant is advised to consult with:

- (a) Sydney Water Corporation Limited
- (b) Energy provider
- (c) Natural Gas Company
- (d) The relevant local telecommunications carrier

regarding any requirements for the provision of services to the development and the location of existing services that may be affected by proposed works, either on the land or on the adjacent public road(s).

All approved building construction plans attached to the Construction Certificate should be submitted to and stamped by a Sydney Water Corporation Limited Customer Centre or a Sydney Water Quick Check Agent as an indication that the proposal complies with the Sydney Water requirements.

1.3.2 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.

- 1.3.3 Prior to any demolition works, all services or utilities should be disconnected in consultation with the relevant service provider.

1.4 Identification Survey

- 1.4.1 The applicant is advised to obtain an identification survey from a registered surveyor to ascertain the correct location of the property boundaries, and to ensure the development does not encroach upon adjoining properties.

1.5 Engineering Notes

- 1.5.1 Any Construction Certificate covering Engineering Works must include and address the following:

- Design of specified Engineering Works as required by this consent.
- Any ancillary works necessary to make the construction effective.

If both Building and Engineering works are required, separate construction certificates can be issued for the following works:

- Construction Certificate for Building Works
- Construction Certificate for Engineering Works (As nominated in the 'Prior to Construction Certificate (Engineering)' section of the consent)

Works which require approval under the *Roads Act 1993* or *Local Government Act 1993* CAN NOT be privately certified. Examples of these works are, but not limited to:

- Works in public areas (i.e. Road Reserve, Public Reserves)
- Inter-allotment drainage (i.e. drainage outside the boundary of the land being developed)

Engineering works (as nominated in the 'Prior to Construction Certificate (Engineering)' section of the consent) can be included within a Construction Certificate for Building works, provided that:

- All Engineering Works are specifically mentioned on the Construction Certificate
- The Certifier holds relevant qualifications to issue a Construction Certificate for the Engineering works. Appropriate accreditation qualifications must be shown on Construction Certificate.

- 1.5.2 All works requiring approval under the *Roads Act 1993* or *Local Government Act 1993* must be approved PRIOR to the issue of any Construction Certificate, other than a staged Construction Certificate for bulk earthworks.

1.6 Road Damage

- 1.6.1 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

1.7 Office of Environment and Heritage General Terms of Approval (Advice)

- 1.7.1 Section 148 of the Heritage Act 1977 (the Act), allows people authorised by the Minister to enter and inspect, for the purposes of the Act, with respect to buildings, works, relics, moveable objects, places or items that is or contains an item of environmental heritage. Reasonable notice must be given for the inspection.

2 GENERAL

2.1 Scope of Consent

- 2.1.1 This consent relates to the following drawings/details submitted to Council with the Development Application, subject to compliance with any other conditions of this consent:

Dwg No.	Title	Date	Rev
Project Name: St Bartholomew's Cemetery – Stage 1A			
LD 00	Cover Page and Sheet Register	25/02/2019	G
LD 01	Project Overview Masterplanning Staging	25/02/2019	G
LD 02	Allotments	25/02/2019	G
LD 03	Landscape Plan	25/02/2019	G
LD 04	Landscape Detailed Plan	25/02/2019	G
LD 05	Landscape Detailed Plan - Terraces	25/02/2019	G
LD 11	Landscape Sections 01	25/02/2019	G
LD 12	Landscape Sections 02	25/02/2019	G
LD 13	Landscape Sections 03	25/02/2019	G
LD 14	Landscape Sections 04	25/02/2019	G
LD 15	Landscape Sections 05	25/02/2019	G
LD 16	Landscape Sections 06	25/02/2019	G
LD 17	Landscape Sections 07	25/02/2019	G
LD 20	Indicative Grave Layout	25/02/2019	G
LD 21	Indicative Columbarium Detail	25/02/2019	G
LD 22	Existing Grave Interpretation and Entry Signage	25/02/2019	G
LD 30	Plant Schedule	25/02/2019	G

Document Title	Dated	Prepared by
Detailed Site Investigation Stage 1A	December 2018	Prensa Pty Ltd
Preliminary Site Investigation State 1A	November 2018	Prensa Pty Ltd
Soil Management Plan	November 2018	Prensa Pty Ltd
Geotechnical Investigation	3 December 2018	Geotechnique Pty Ltd
Geotechnical Investigation addendum letter	22 March 2019	Geotechnique Pty Ltd
Arborist and Ecological Assessment	3 December 2018	Eco Logical Australia Pty Ltd
Transport Impact Assessment	3 December	GTA Consultants

	2018	
Bartholomew's Anglican Cemetery Conservation Management Plan	May 2010	Graham Edds & Associated Pty Ltd
Hydrogeological Site Review	4 April 2019	Arup Pty Ltd
Statement of Heritage Impact	March 2019	Navin Officer Heritage Consultants Pty Ltd
Stormwater Management and Water Sensitive Urban Design (WSUD) Report	3 December 2018	Arup Pty Ltd

2.2 Office of Environment and Heritage General Terms of Approval (Approved Development)

2.2.1 Development must be in accordance with:

(a) Landscape drawings prepared by Spackman Mossop Michaels as listed below:

Dwg No.	Title	Date	Rev
Project Name: St Bartholomew's Cemetery – Stage 1A			
LD 00	Cover Page and Sheet Register	25/02/2019	G
LD 01	Project Overview Masterplanning Staging	25/02/2019	G
LD 02	Allotments	25/02/2019	G
LD 03	Landscape Plan	25/02/2019	G
LD 04	Landscape Detailed Plan	25/02/2019	G
LD 05	Landscape Detailed Plan - Terraces	25/02/2019	G
LD 11	Landscape Sections 01	25/02/2019	G
LD 12	Landscape Sections 02	25/02/2019	G
LD 13	Landscape Sections 03	25/02/2019	G
LD 14	Landscape Sections 04	25/02/2019	G
LD 15	Landscape Sections 05	25/02/2019	G
LD 16	Landscape Sections 06	25/02/2019	G
LD 17	Landscape Sections 07	25/02/2019	G
LD 20	Indicative Grave Layout	25/02/2019	G
LD 21	Indicative Columbarium Detail	25/02/2019	G
LD 22	Existing Grave Interpretation and Entry Signage	25/02/2019	G
LD 30	Plant Schedule	25/02/2019	G

(b) Stage 1A St Bartholomew's Cemetery Expansion Prospect, NSW - Statement of Heritage Impact (based on amended DA plans dated 25 February 2019) (including Appendix 1 - Ground Penetrating Radar Survey, prepared by Alpha Geoscience, dated 14 November 2018), prepared by Navin Officer Heritage Consultants Pty Ltd, dated March 2019.

2.3 Engineering Matters

2.3.1 Design and Works Specification

2.3.1.1 All engineering works required by 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) including Part J – Water Sensitive Urban Design and Integrated Water Cycle Management
- (d) Blacktown City Council On Site Detention General Guidelines and Checklist
- (e) Upper Parramatta River Catchment Trust On Site Stormwater Detention Handbook THIRD Edition December 1999.

Design plans, calculations and other supporting documentations prepared in accordance with the above requirements MUST be submitted to Council with any application for Construction Certificate, *Road Act 1993* or *Local Government Act 1993* approval.

Any Construction Certificates issued by Private Certifiers must also be accompanied by the above documents.

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

2.4 Other Matters

- 2.4.1 No construction preparatory work (including tree or vegetation removal, ground clearing, excavation, filling, and the like) shall be undertaken on the land prior to a valid Construction Certificate being issued for the construction works.
- 2.4.2 Each year by the first business day on or after 1 September the registered proprietor/lessee is to provide to Council's Asset Design Services Section a report outlining all maintenance undertaken on the Stormwater Quality Improvement Devices. All material removed are to be disposed of in an approved manner. Copies are to be provided of all contractor's cleaning reports or certificates to Council's WSUD Compliance Officer.

3 PRIOR TO CONSTRUCTION CERTIFICATE (GENERAL)

3.1 DA Plan Consistency

- 3.1.1 A Construction Certificate for the proposed development shall only be issued when the accompanying plans, specifications and/or details are consistent with the approved Development Application design plans.

3.2 DA Plan Amendments

- 3.2.1 Details of proposed access points across the drainage swale and parking areas to the existing cemetery area are to be provided in the form of architectural plans, sections and elevations. A materials schedule for these additional works is to be included.

3.3 Heritage Matters

- 3.3.1 The Applicant must submit with the Section 60 Application details of the proposed location of the perimeter fencing, particularly along St Bartholomew's Place and at its intersection with Ponds Road.
- 3.3.2 The recommendations as noted in the Statement of Heritage Impact dated March 2019

as prepared by Navin Officer Heritage Consultants Pty Ltd shall be implemented throughout, and when necessary, to be demonstrated on the plans to be approved in the Construction and/or Occupation Certificate applications.

3.4 Construction Environmental Management Plan

- 3.4.1 Prior to the release of a Construction Certificate, an appropriately qualified person is to prepare a comprehensive Environmental Management Plan (EMP). The EMP is to be submitted to Council for separate approval.

The operational measures at a minimum should include the following:

- (a) Proposed schedule of works
- (b) Proposed hours of work
- (c) Noise and vibration controls
- (d) Salinity Management Plan
- (e) Erosion and Sedimentation Control Plan
- (f) Hazardous building materials survey
- (g) Procedures for validation of imported fill material and the proposed means of disposing overburden
- (h) Waste and materials re-use on-site
- (i) Community response and management procedure outlining the course of action to be undertaken following receipt of a complaint
- (j) Proposed means of controlling of any activity that could potentially cause a pollution incident as defined by the Protection of the Environmental Operations Act 1997.
- (k) Dust (air quality) management strategy noting that any stockpiled soil is to be stored on plastic sheeting in an area that is securely bunded with a silt fence and hay bales to prevent surface-water run-off. Plastic sheeting must be placed over the stockpile to minimise wind-blown dust.

3.5 Ecology and Natural Areas Matters

- 3.5.1 Tree protection measures will apply to the two trees identified to be retained on site, identified as Tree 48 and Tree 49, within Figure 3 of the Arborist and Ecological Assessment, prepared by Eco Logical Australia 209. Both trees that are to be retained on the site and reflect best practice in accordance with Australian Standard (AS) 4970 – 2009 Protection of trees on development sites. Measures must also comply with NSW Planning and Environment Information Sheet 3.7 - Tree protection and removal requirements dated January 2015 or later. Any pruning is to be as per AS 4373: 2007 Pruning of amenity trees.
- 3.5.2 Tree protection measures must be in place before work commences, be in good condition and remain in place for the duration of the construction works.
- 3.5.3 An ecologist or wildlife carer is to be present on site when tree felling is to occur, in order to rescue or treat any injured fauna present. At the conclusion of clearance works a report detailing works undertaken is to be provided to Natural Areas team within 14 days of clearance works.
- 3.5.4 A Vegetation Management Plan must be prepared by a suitably qualified and experienced bush regenerator or restoration ecologist for the restoration and rehabilitation of native vegetation. Revegetation is to include endemic species of the Cumberland Plain Woodland vegetation community. The VMP is to consider and propose how native timber can be re-used onsite either as logs used to delineate boundaries or as mulch. Any seed from trees to be removed is to be collected and utilised in revegetation actions. The Plan must be submitted to Council's Biodiversity

Officer (Ecology) for approval.

4 **PRIOR TO CONSTRUCTION CERTIFICATE (ENGINEERING)**

4.1 **General**

- 4.1.1 All relevant conditions within the 'Prior to Construction Certificate' section of this consent shall be satisfied before any Construction Certificate can be issued.
- 4.1.2 All fees for Construction, *Roads Act 1993* and *Local Government Act 1993* approvals must be paid to Council prior to the issue of any of the above certificates or approvals. All fees for Compliance Certificates must be paid to Council prior to any construction certificate works commencing.
- 4.1.3 Construction Certificate plans shall be generally in accordance with the following drawings:

Prepared By	Project No.	Drawing No.	Sheet No.	Revision	Dated
1. ARUP	259202 DD	CICW-DRG-0001 -0700	41	1	3/12/2018
2.Blacktown City Council	St Barts Council Drainage Sketch Plans	Sketch 01	1	1	17/05/2019
		Sketch 02	1	1	16/05/2019
		Sketch 03	1	3	21/05/2019
		Sketch 04	1	1	17/05/2019
		Sketch 05	1	1	17/05/2019
		Sketch 06	1	1	21/05/2019

4.2 **Construction Certificate Requirements**

- 4.2.1 Under the *Environmental Planning and Assessment Act 1979* a Construction Certificate for engineering work is required. These works include but are not limited to the following:
- Road and drainage construction
 - On-site stormwater detention
 - Water quality treatment
 - Earthworks and retaining walls
 - Inter-allotment drainage (created within the subject lot)
 - Path Paving and Steps should be constructed as per AS 1428.

4.3 **Other Engineering Requirements**

- 4.3.1 Submit a detailed estimate of costs for the engineering works. If this detailed estimate is \$25,000 or greater then a long service levy payment is required. Provide proof of this payment to Council.
- 4.3.2 Submit a Public Utilities Plan demonstrating adequate clearance between services to stormwater pits, pipes, driveways, light poles, etc.

4.4 **Roads**

- 4.4.1 Submit a pavement report prepared and designed by a professional civil engineer with soil tests carried out by a registered NATA soils laboratory. The pavement design shall withstand the traffic loadings listed in this consent.
- 4.4.2 Submit a Traffic Management Plan (TMP) including but not limited to a Traffic Control Plan (TCP) and Pedestrian Management Plan, for any works within public road reserves. The TCP shall be approved, signed and dated by a suitably qualified Roads and Maritime Services (RMS) accredited work site traffic designer.
- 4.4.3 Splays are to be adjusted to meet site specific intersection designs in accordance with Council's Engineering Guide for Development.
- 4.4.4 Proposed new access roads shall be designed and constructed as follows:

Name	Road Reserve Width (m)	Length (m)	Formation (m)	Traffic Loading N(E.S.A)
New Access Road	10.5 metres and variable	Approx 300 metres	Varies as per MC00 typical sections	2 x 10 ⁵ ESA

- 4.4.5 A cul-de-sac at the end of the proposed new access road shall be designed as per the Engineering Guide for Development 2005 in accordance with the following:
- The longitudinal profile of the kerb and gutter of the cul-de-sac head shall be based on the adoption, as far as practicable of the standard 3% carriageway cross fall at critical points in the arc length with easing of changes in grade by designed vertical curves as required.
 - The minimum acceptable cross fall is 1.5% while the maximum allowable cross fall is 8%.

Note: The design kerb levels at the head of a cul-de-sac shall include detailed in plan using a scale of 1:200. The New Access Road Design shall be approved by Director City Assets and Managed by Manager Asset Construction for the construction works by Blacktown City Council.

4.5 Drainage

- 4.5.1 Drainage from the site must be connected into Council's existing drainage system.
- 4.5.2 Drainage Engineering plans from ARUP Project 259202 DD Issue are to meet the requirements below.
- The plans are to be generally in accordance with the set of six sketch plans entitled St Barts Council Drainage Sketch Plans prepared by Laith Almoil and forwarded to Arup on 22 May 2019.
 - Batters within the swale steeper than 1V:3H must be rock lined or similar to ensure stability and prevent scour.
 - Any swales $\geq 4\%$ grade are to have check dams. Refer to WSUD drawings A(BS)175M sheet 16.
 - All swales are to be designed for the 1 in 100 year flows. Allow for a minimum Mannings $n = 0.05$ for vegetated swales and provide a minimum 50 mm freeboard to the top of the swale. Calculations and section details are to be

provided to justify the swale capacity. Finished levels within the swale are to be provided at frequent intervals for the length of the swale.

- e. Provide scour protection across the top and on the downstream face of the detention basin spillway. Where rock is used at the spillway, provide a concrete cut-off wall at the centre of the spillway (minimum 400mm from top of spillway) to prevent seepage flows. The core of the embankment can be clay core.
- f. Where scour protection or energy dissipation is required at any other location the details are to be provided on the amended drainage plans
- g. The vehicular access to the basin will need to be positioned further west and be perpendicular to the road to facilitate safe access. Provide a maintenance access track to the detention basin floor at a maximum grade of 10% and a minimum 3.5 m wide. Provide a gate or chain across the access to the requirements of Council's Open Space Section.
- h. Provide on-site detention (OSD) warning signs as per the Upper Parramatta River Catchment Trust guidelines.
- i. Provide Floodway Warning Signs for the above ground detention area in accordance with Plan A(BS)114S from Council's Engineering Guide for Development 2005.
- j. All pits within the proposed development, other than for detention, must comply with the following. Pits 600 x 600 mm are limited to 600 mm maximum depth, pits 600 x 900 mm are limited to 900 mm depth and pits greater than 900 mm depth are all to be minimum 900 x 900 mm.
- k. Where required by level constraints redirect the pipeline from HW2 to the overflow pit in the next downstream raingarden. Ensure the pipe obvert is below the filter media.
- l. Provide bollards adjacent to the raingarden (bioretention basin) with a minimum 5.4 m² of filter area to the south of Bartholomews Place near Ponds Road to prevent vehicles entering or parking over it.

4.5.3 An experienced Drainage Engineer registered with NER is to certify that the internal drainage system is capable of carrying the 100 year ARI flows from the development site to the detention basin through either piped or surface flows.

4.5.4 A certificate from a Chartered Geotechnical Engineer registered with NER must be obtained and submitted to Council verifying that the detention basin and its embankments can withstand a 1 in 100 year ARI event with the orifices blocked and for events greater than the 100 year. Any requirements of the Geotechnical Engineer as to lining the crest and spillway or other necessary protection is to be incorporated into the design.

4.5.5 Provide details for permanent coloured interpretive signage minimum A1 size to be installed to highlight the water quality and water quantity process. The sign is to incorporate a simplified drainage layout of the site and detail through words and pictures all the different water quality devices including the on-site stormwater detention (OSD) and explain the benefit to the site and community. The sign is to be supported by a steel post or on a wall and is to be located adjacent to the major water quality device and OSD. The wording and detail is to be approved by Council.

4.5.6 The retaining walls adjacent to the bioretention basins are to be designed and certified by a Structural Engineer registered with NER to extend below the zone of influence allowing for future excavation of the bioretention basin to below the base of the gravel layer and be self-supporting (allowing for overturning and sliding), where the basin media including the gravel is removed and replaced for maintenance.

Revised Landscape plans are required in accordance with the Council's WSUD Standard Drawings A(BS)175M Sheet 12 that include appropriate species for the

bioretention system for the 400 mm deep filter media. No mulch is permitted over the bioretention, however jute mat is accepted.

- 4.5.7 The existing depression/watercourse through the site must be piped and/or channelled to contain stormwater discharges up to the 1% AEP (100 year Average Recurrence Interval) event.

4.6 Erosion and Sediment Control

- 4.6.1 Provide a sediment and erosion control plan in accordance with Council's Soil Erosion and Sediment Control Policy and Engineering Guide for Development.

4.7 Earthworks

- 4.7.1 Batters are to be stabilised with topsoil, turf and vegetation.
- 4.7.2 Finished levels of all internal works at the road boundary of the property must be 4% above the top of kerb.

4.8 On-Site Detention

- 4.8.1 Provide an on-site detention system in accordance with Council's Engineering Guide for Development.
- 4.8.2 The development site is within the following catchment and on-site detention system shall be designed to achieve the following:

Catchment	Site Storage Requirement (100%)	Permissible Site Discharge (100%)
Upper Parramatta River Catchment Trust – Area 1	470	80

- 4.8.3 The engineering drawings approved under this consent are not to be used for construction. The Construction Certificate drawings shall be generally in accordance with the approved drawings however any significant variation to the on-site detention design shall require a section 4.55 application.
- 4.8.4 Submit the following certificates which are to be prepared by a registered engineer (NER):
- Certification that the structures associated with the on-site stormwater detention system have been designed to withstand all loads likely to be imposed on them during their lifetime.
 - Certification that the on-site stormwater detention system will perform to meet the on-site stormwater detention requirements.
- 4.8.5 The following documents shall be submitted to accompany the on-site detention design in accordance with the design and construction specification:
- Comprehensive drainage drawings with cross-sectional details of the storage area, pit numbers, pipe sizes, catchment plan, etc.
 - OSD detailed design submission and calculation summary sheet
 - A maintenance schedule that is signed and dated by the designer

4.9 Stormwater Quality Control

- 4.9.1 Provide a stormwater quality treatment system in accordance with Council's Engineering Guide for Development and Development Control Plan Part J – Water Sensitive Urban Design and Integrated Water Cycle Management.
- 4.9.2 The engineering drawings approved under this consent are not to be used for construction. The Construction Certificate shall be generally in accordance with the approved DA plans however any significant variation to the water quality treatment design shall require a section 4.55 application.
- 4.9.3 Provide a maintenance schedule for the stormwater quality device that is signed and dated by the designer.
- 4.9.4 Bio-retention basins to be designed in accordance with "Stormwater Biofiltration Systems. Adoption Guidelines. Planning, design and implementation. Version 1 June 2009. Facility for Advancing Water Bio-filtration", as a lined, standard biofiltration system.

4.10 **Footpaths**

- 4.10.1 The construction of path paving is to be provided generally in accordance with Council's Path Paving Policy and the Blacktown City Council Engineering Guide for Development.

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, and
- (b) connected:
 - (i) to a public sewer, or
 - (ii) if connection to a public sewer is not practicable, to an accredited sewage management facility provided by the Council, or
 - (iii) if connection to a public sewer or an accredited sewage management facility is not practicable to some other sewage management facility approved by Council.

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

5.2 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.

5.2.2 At least five (5) full working days written notice must be given for the commencement of engineering works. Such notice must be accompanied by evidence of the contractors Public Liability and Workers Compensation Insurances. For Public Liability Insurance this should be a minimum amount of \$10,000,000.

5.3 Tree Protection

5.3.1 Any tree not indicated on the approved Development Application plans as being removed shall be effectively protected against damage.

5.4 Sydney Water Authorisation

5.4.1 Sydney Water Corporation's approval, in the form of appropriately stamped Construction Certificate plans, shall be obtained and furnished to the Principal

Certifying Authority to verify that the development meets the Corporation's requirements concerning the relationship of the development to any water mains, sewers or stormwater channels.

OR

The approved plans are to be submitted to a Sydney Water Customer Centre or Quick Check Agent, to determine whether the development will affect Sydney Water's sewer and water mains, stormwater drains and/or easements and if further requirements need to be met. The plans must be appropriately stamped and all amended plans will require restamping. For Quick Check Agent details, please refer to the "Building Plumbing and Developing" Section of the website www.sydneywater.com.au, then follow the "Developing Your Land" link or telephone 13 20 92 for assistance.

5.5 Adjoining Owners

5.5.1 Written permission from the respective owner(s) must be obtained to:

- (a) discharge stormwater onto adjoining owner's land
- (b) carry out works on adjoining land
- (c) drain the site across land owned by others.

A copy of such written permission shall be lodged with Council.

5.6 Office of Environment and Heritage General Terms of Approval (Construction Environmental Management Plan)

5.6.1 A Construction Environmental Management Plan must be prepared and submitted for approval by the Heritage Council of NSW (or delegate) prior to commencement of works.
Reason: *To ensure that site works that take place in the cemetery will be managed to avoid any direct or indirect impacts on the significant fabric of the place, particularly existing groves, significant trees and the Church. The CEMP must outline how potential impacts from the site works will be managed and particularly how vibration and heavy machinery on the site will be controlled.*

5.7 Office of Environment and Heritage General Terms of Approval (Heritage Consultant)

5.7.1 A suitably qualified and experienced heritage consultant must be nominated for this project. The nominated heritage consultant must provide heritage information to be imparted to all tradespeople during site inductions and oversee the works to minimise impacts to heritage values. The nominated heritage consultant must be satisfied that all work has been carried out in accordance with the conditions of this consent.
Reason: *So that appropriate heritage advice is provided to support best practice conservation and ensure works are undertaken in accordance with this approval.*

5.8 Office of Environment and Heritage General Terms of Approval (Photographic Archival Recording)

5.8.1 A photographic archival recording must be prepared prior to the commencement of works, which focuses on the areas of the site that will be impacted by the works and significant views (detailed internal recording of the Church is not required). This recording must be in accordance with the NSW Heritage Division publication 'Photographic Recording of Heritage Items using Film or Digital Capture' (2006). A digital copy of the archival record must be provided to the Heritage Division, Office of Environment and Heritage.

Reason: *To capture the condition and appearance of the place prior to modification of the site.*

5.9 Office of Environment and Heritage General Terms of Approval (Section 60 Application)

5.9.1 An application under section 60 of the Heritage Act 1977 must be submitted to, and approved by, the Heritage Council of NSW (or delegate), prior to work commencing.

Reason: *To meet legislative requirements.*

5.10 Environmental Health Matters

5.10.1 Any materials requiring off-site disposal will need to be classified, managed and disposed of in accordance with the Protection of the Environment Operations Act (NSW) 1997 and the NSW Environment Protection Authority's Waste Classification Guidelines (2014).

5.10.2 The recommendations provided in the Detailed Site Investigation, prepared by Prensa Pty Ltd, report no. 57658, dated December 2018 shall be implemented.

5.10.3 All areas that are suspected to be contaminated must be remediated. Upon completion of remediation an appropriately qualified environmental consultant must prepare a validation report in accordance with:

- NSW Office of Environment and Heritage's Guidelines for Consultants Reporting on Contaminated Sites (2011)
- NSW Environment Protection Authority's Contaminated Sites Sampling Design Guidelines (1995)
- National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013 (No. 1), National Environment Protection Council, 2013
- Australian and New Zealand Environment and Conservation Council and National Health and Medical Research Council's Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (1992)
- NSW Environment Protection Authority's "Contaminated Sites: Guidelines for NSW Site Auditor Scheme" (2006).

6 DURING CONSTRUCTION

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 98A(2) of the Environmental Planning and Assessment Regulation 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.

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

6.2 Nuisance Control

- 6.2.1 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.
- 6.2.2 The hours of bulk earthworks, truck movements and all transportation of fill material is to occur between the hours of 7 am – 8 pm, Monday to Friday, and 8 am – 8 pm, Saturday. No transportation of fill material is permitted on Sunday or public holidays, nor is any 24 hour operation permitted at any time.
- 6.2.3 Any activity carried out in accordance with this approval shall not give rise to air pollution (including odour), offensive noise or pollution of land and/or water as defined by the Protection of the Environment Operations Act 1997.
- 6.2.4 All waste generated on the site is to be stored, handled and disposed of in such a manner as to not create air pollution (including odour), offensive noise or pollution of land and/or water as defined by the Protection of the Environment Operations Act 1997.
- 6.2.5 In accordance with the requirements of Part 5.7 Protection of the Environment Operations Act 1997, Council is to be informed of any pollution incident that occurs in the course of carrying out the approved activity where material harm to the environment is caused or threatened.

6.3 **Tree Protection**

- 6.3.1 The measures required to effectively protect trees on the land shall be maintained throughout the development works.

6.4 **Other Matters**

- 6.4.1 All site works shall be confined to the areas shown on the approved plans.
- 6.4.2 The environmental consultant engaged for this project is to be on site for regular monitoring of the bulk earthworks and the importation of any certified fill material.

Should any contaminated material and/or explosive ordnance be unearthed during the engineering works, all works are to cease immediately and the relevant measures contained in the Site Audit Report shall be implemented accordingly.

- 6.4.3 Throughout the duration of the bulk earthworks, the applicant is to demonstrate compliance with the following parameters:

(a) Any fill material or recycled crushed material transported from outside of the development site for use on the site, shall be tested and validated by a suitably qualified EPA recognised accredited geoscientist. In this regard, the applicant is to engage a suitably qualified environmental consultant to validate the fill material as VENM (at the source) pursuant to Council's Contaminated Land Guidelines and the NEPM 2013 Guidelines to Council's satisfaction. The validation report is also to conclude that the fill material is suitable for residential use, open space, school use or other sensitive land uses as deemed necessary. Any validated imported fill material is to be monitored by the applicant's environmental consultant upon placement of the fill on the subject land. Any validation report is to be consistent with the relevant Site Audit Statements for the subject land. Final remediation/validation reports documenting any sampling and analysis shall be submitted to Council for approval prior to the commencement of any works.

(b) Any imported fill material shall be certified as non-saline/slightly saline by a suitably qualified environmental consultant.

(c) Appropriate dust suppression measures are to be incorporated into the earthworks process, so as to ensure that adjoining properties in the local vicinity are not negatively impacted upon by dust generated from the development site.

(d) The applicant is to ensure that the site has been satisfactorily secured so as to prevent any unauthorised dumping of illegal fill/waste building materials (i.e. non-V.E.N.M. soils) from entering onto the development site.

(e) Should Council receive any complaints regarding non-compliance with any of the above matters or other such operational type matters, then Council will have no alternative but to fully investigate the complaint and pursue an appropriate course of action.

- 6.4.4 As the bulk earthworks will necessitate the importation of fill material to the site, the following conditions shall be complied with at all times:

(a) All truck movements should be by truck or by "truck and dog trailer" not exceeding a length of 19 m. No B-Doubles will be permitted to transport fill material on Blacktown City Council roads.

(b) All truck movements in the Blacktown LGA must be on designated heavy vehicle

roads, as listed in the RMS's road register (see the RMS's website for regular updates) and as agreed to by Council.

(c) All trucks/operators must adhere strictly to designated road speed limits/school zones/safety requirements when transporting fill material through the Blacktown LGA.

(d) All transportation of fill material is to occur between the hours of 7 am – 8 pm, Monday to Friday, and 8 am - 8 pm, Saturday. No transportation of fill material is permitted on Sunday or public holidays, nor is any 24 hour operation permitted at any time.

(e) All truck operators are to minimise revs/noise levels when driving through residential areas/school zones to minimise the impact on the amenity of the area.

(f) The applicant is to minimise the impact of heavy vehicles, including restrictions on times (particularly to peak commuter times), and ensure that sand, clay or soil are not tracked onto transport routes.

(g) The applicant is to monitor and maintain a register of all trucks entering the site and the source of the soil. Note: All soil is to be from an approved source in accordance with the other condition of this consent.

6.5 Environmental Health Matters

6.5.1 Any materials requiring off-site disposal will need to be classified, managed and disposed of in accordance with the Protection of the Environment Operations Act (NSW) 1997 and the NSW Environment Protection Authority's Waste Classification Guidelines (2014).

6.5.2 The recommendations provided in the Detailed Site Investigation, prepared by Prensa Pty Ltd, report no. 57658, dated December 2018 shall be implemented.

6.5.3 Any asbestos material is to be handled and treated in accordance with the SafeWork NSW document "Your Guide to Working With Asbestos - Safety guidelines and requirements for work involving asbestos" dated March 2008.

6.5.4 In the events of any unexpected finds, all works shall cease and the applicant and/or site foreman shall contact the Certifying Authority and a suitably qualified Environmental Consultant to conduct an assessment. Appropriate measures shall be implemented on the basis of the assessment including but not limited to isolation of the site, further investigation and environmental controls to minimise the potential migration of contaminants from the impacted area. Affected areas can only be reopened subject to a clearance of the location and issuance of a report by the Environmental Consultant.

Any suspected asbestos containing material should be left in place and not disturbed. The Environmental Consultant shall organise for further investigation purposes and subsequent removal by an appropriate licensed contractor.

Any unexpected finds encountered should be listed on a UFP register, which should include the action taken and the status of the unexpected find. Prior to closing out an unexpected find it will be important to ensure the appropriate documentation is obtained, such as: photographs, the UFP form, waste classification letter(s) and a validation report or letter.

6.5.5 A Construction Environment Management Plan should be in place and must include specific advice on how water treatment and dam dewatering will be undertaken in

accordance with the Blue Book, as well as demonstrating the discharged water complies with ANZECC water quality guidelines.

6.6 Office of Environment and Heritage General Terms of Approval (Site Protection)

- 6.6.1 Significant built and landscape elements are to be protected during site preparation and the works from potential damage. Protection systems must ensure significant fabric, including landscape elements, is not damaged or removed.

Reason: *To ensure significant fabric including vegetation is protected during construction.*

6.7 Office of Environment and Heritage General Terms of Approval (Treatment of Potential Unmarked Graves)

- 6.7.1 The applicant shall ensure the anomalies identified as potential unmarked graves within the report entitled Alpha Geosciences Ground Penetrating Radar Survey Report for APP located at St Bartholomew's Cemetery Prospect, NSW dated 14 November 2018 are not excavated under this approval and are treated as unmarked graves. The applicant shall identify in the cemetery each of the anomalies from the 2018 Alpha Geosciences report with a suitable lawn treatment/ marker and identify these locations on the cemetery plan. The applicant shall treat these plots as unmarked graves and not for sale, unless confirmed at a later date through archaeological test excavation, which is not the subject of this approval.

Reason: *The identification and protection of these areas is appropriate as proposed where they have not been confirmed as unmarked graves through physical investigation but retain that potential. The approach to avoid disturbance is appropriate and an appropriate marker linked to the cemetery plan and sale option plan for the site is appropriate to explain why this approach has been taken. It will also protect any unmarked burials that may be located there.*

6.8 Office of Environment and Heritage General Terms of Approval (Unexpected Historical Archaeological Relics)

- 6.8.1 The applicant must ensure that if unexpected archaeological deposits or relics not identified and considered in the supporting documents for this approval are discovered, work must cease in the affected area(s) and the Heritage Council of NSW must be notified. Additional assessment and approval may be required prior to works continuing in the affected area(s) based on the nature of the discovery.

Reason: *This is a standard condition to identify to the applicant how to proceed if historical archaeological deposits or relics are unexpectedly identified during works.*

6.9 Office of Environment and Heritage General Terms of Approval (Aboriginal Objects)

- 6.9.1 Should any Aboriginal objects be uncovered by the work which is not covered by a valid Aboriginal Heritage Impact Permit, excavation or disturbance of the area is to stop immediately and the Office of Environment & Heritage is to be informed in accordance with the National Parks and Wildlife Act 1974 (as amended). Works affecting Aboriginal objects on the site must not continue until the Office of Environment and Heritage has been informed and the appropriate approvals are in place. Aboriginal objects must be managed in accordance with the National Parks and Wildlife Act 1974.

Reason: *This is a standard condition to identify to the applicant how to proceed if Aboriginal objects are unexpectedly identified during works.*

7 DURING CONSTRUCTION (ENGINEERING)

7.1 Notification of Works

- 7.1.1 A written notification of works must be submitted to Council's Engineering Approvals Team prior to the commencement of any engineering works required by this consent. This must be submitted a minimum five (5) business days prior to commencement of engineering works.

7.2 Service Authority Approvals

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

7.3 Boundary Levels

- 7.3.1 Any construction at the property boundary, including but not limited to fences, retaining walls and driveways shall not be carried out until boundary alignment levels have been fixed.

7.4 Tree Protection and Preservation

- 7.4.1 Existing vegetation and trees shall be left undisturbed except where roads, stormwater drainage infrastructure, site filling and/or works are proposed.
- 7.4.2 Prior to commencement of engineering works that may disturb existing vegetation/trees, the site shall be inspected to identify and appropriately mark out any trees to be retained as well as determine areas that are to be left undisturbed. Proposed roads must be set-out onsite prior to this inspection. Note: Inspection must be carried out by Council's representative or an appropriately accredited private certifier. The applicant's representative must be present during this inspection.
- 7.4.3 There is to be no storage of materials, stockpiling of excavated material or parking of plant/machinery within the drip line of the crown of any retained trees.
- 7.4.4 Council must be notified a minimum of 24 hours prior to the removal of any branches from existing trees which are to be retained. Subject to Council's direction, this work must be generally undertaken by a qualified Arborist.

7.5 Soil Erosion and Sediment Control Measures

- 7.5.1 Soil erosion and sediment control measures onsite shall be implemented, maintained and monitored in accordance with Council's Soil Erosion and Sediment Control Policy.
- 7.5.2 Re-vegetation and restoration of all disturbed areas as a result of the development works shall be completed as soon as practicable after the completion of earthworks and before the commencement of any other works on-site. The revegetated/restored areas must be established prior to the release of maintenance security/bonds. Note: All open drains must be turfed.
- 7.5.3 All required soil erosion and sedimentation control measures are to be maintained throughout the entire construction period and until all disturbed areas are restored to the satisfaction of Council in accordance with the design and construction specification. Infringement Notices incurring a monetary penalty may be issued by Council where the maintenance of measures is deemed inadequate.

7.6 Filling of Land and Compaction Requirements

- 7.6.1 Suitable land fill replacement is required when unsuitable soils are removed. All fill including existing fill shall be compacted in accordance with Council's Works Specification - Civil (current version). A compaction certificate shall be obtained from an appropriately qualified practising registered engineer (NER) verifying that the correct compaction requirements have been met. This compaction certificate is to be submitted to Council.
- 7.6.2 Special attention is drawn to the below listed requirements of Council's Works Specification - Civil (Current Version).
- a) Submission of compaction certificates for fill within road reserves.
 - b) Submission of compaction certificates for road sub-grade.
 - c) Submission of compaction certificates for road pavement materials (sub-base and base courses).
 - d) Compliance Certificates from road material suppliers (the relevant certified stockpile number shall be digitally shown from supplier)

Note: Council's Works Specification (Civil) requires road pavement and pipe bedding materials be sourced from approved suppliers. A listing of these materials and approved stockpile numbers can be found on Council's webpage.

The above documentation shall be submitted at the prior to Subdivision and/or Occupation certificate stage as required by this consent.

- 7.6.3 Site filling within lot boundaries (not in road reserves) and compaction is to be carried out under the supervision of a Chartered Geotechnical Engineer and shall be in accordance with Blacktown City Council's "Works Specification - Civil (Current Version)". Minimum standard compaction of 95% must be achieved and certified by a NATA registered soils lab and details submitted to Council.
- 7.6.4 Only clean fill shall be deposited/imported on site in accordance with Council's Works Specification - Civil (Current Version). Note: dry builder's waste i.e. bricks plaster and timber industrial waste or putrescible materials are not to be deposited on site. Validation of the imported fill material will be required by a suitably qualified registered engineer.
- 7.6.5 Appropriate dust control measures are to be implemented during construction to reduce any impact on local air quality and reduce dust emissions. This will include but not be limited to regularly wetting down of the site during the course of works being carried out in order to control wind blown dust.
- 7.6.6 All roads adjoining the site must be kept clean and free of all materials. Infringement Notices incurring a monetary penalty may be issued by Council where this measure is not being complied with.
- 7.6.7 Trucks transporting cut and fill must have their loads covered and provisions of "shaker pads" and wash-down areas for trucks leaving the site are to be made available. All details are to be shown on soil erosion and sediment control plans.
- 7.6.8 Prior to the placement of any fill on the site all topsoil and vegetation must be removed down to a suitable sub-grade material. The topsoil is to be stockpiled for use in revegetation of the site.
- 7.7 **Inspection of Engineering Works - Environmental Planning and Assessment Act 1979**

- 7.7.1 Comprehensive inspection compliance certificate(s) to be issued for all engineering works required by this consent and the approved construction certificate. The inspection compliance certificate(s) can only be issued by Council or an accredited certifier, under *Part 4A of the Environmental Planning and Assessment Act 1979* as amended. A schedule of mandatory inspections is listed in Council's Works Specification – Civil (current version).

Where Council is appointed as the Principal Certifying Authority for the development, only compliance certificates issued by accredited certifiers will be accepted. All compliance certificate(s) must certify that the relevant work has been completed in accordance with the pertinent Notice of Determination / Development Consent and Construction Certificate.

7.8 **Inspection of Engineering Works - Roads Act 1993**

- 7.8.1 All inspection(s) required by this consent for any engineering works that are approved under the *Roads Act 1993* must be made by Council's Development Overseers.

Inspections must be pre-booked with a minimum twenty-four (24) hours notice. Council's Development Overseers may be contacted on 02 9839 6586 between 7am – 8 am and 12.30 pm - 1.30 pm, Monday to Friday. Note: A site inspection is required prior to commencement of work. A schedule of mandatory inspections is listed in Council's Works Specification – Civil (current version).

7.9 **Public Safety**

- 7.9.1 The applicant is advised that all works undertaken 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.

7.10 **Site Security**

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

7.11 **Traffic Control**

- 7.11.1 Any "Traffic Control Plan" utilised for engineering works required by this consent must be prepared by a suitably qualified Roads and Maritime Services (RMS) accredited work site traffic designer for all works that are carried out in or adjacent to a public road. This Plan must satisfy all the requirements of AS 1742.3 - 2002.
- 7.11.2 Traffic control devices/facilities (i.e. barricades, signs, lights, etc) must be setup, installed, monitored and maintained in accordance with the certified Traffic Control Plan and by suitably qualified RMS accredited work site traffic controllers.
- 7.11.3 Persons undertaking the control of traffic through or around work sites on Council controlled roads must hold with them their RMS Traffic controllers accreditation.
- 7.11.4 The applicant is advised that prior to implementation of any traffic control system and during the entire course of construction suitably qualified RMS accredited work site traffic controllers will ensure a smooth transition with other nearby traffic control setups. The coordination, communication and cohesion between adjacent traffic control systems shall be addressed by the applicant and must satisfy all the requirements of AS 1742.3 - 2002.

7.11.5 Where the Traffic Control Plan may change during the course of construction to facilitate new works, a revised traffic control plan shall be prepared and certified by a suitably qualified RMS accredited worksite traffic control designer. This Plan must satisfy all the requirements of AS 1742.3 – 2002 and the current version of the RMS *Traffic Control at Work Sites* manual and shall be submitted to Council prior to implementation.

7.12 Other Matters - Drainage

7.12.1 Provide certification prior to placement, that the bioretention filter media ex-bin has:

- A minimum hydraulic conductivity as defined by ASTM F1815-11 of 250 mm/hr (actual, not predicted).
- A maximum hydraulic conductivity as defined by ASTM F1815-11 of 700 mm/hr (actual, not predicted).
- An Orthophosphate content < 20 mg/kg.

7.12.2 Provide certification prior to placement in the bioretention basin, that the transition layer material ex-bin:

- Is a clean, washed well-graded coarse sand or coarse sand blend containing little or no fines (< 2%), and
- Satisfies the bridging criteria $D_{15}(\text{transition layer}) \leq 4 \times D_{85}(\text{filter media})$ where: D_{15} is the 15th percentile particle size in the transition layer material (i.e., 15% of the sand is smaller than D_{15} mm), and D_{85} is the 85th percentile particle size in the filter media.
- Satisfies the hydraulic conductivity criteria $D_{15}(\text{transition layer}) \geq D_{15}(\text{filter media}) \times 2$.

7.12.3 Provide certification prior to placement in the bioretention basin, that the drainage layer material ex-bin:

- Is a clean washed 5-7 mm gravel, such as washed screenings.
- Satisfies the bridging criteria $D_{15}(\text{drainage layer}) \leq 4 \times D_{85}(\text{transition layer})$ where: $D_{15}(\text{drainage layer})$ is the 15th percentile particle size in the drainage layer material (i.e., 15% of the gravel is smaller than D_{15} mm), and $D_{85}(\text{transition layer})$ is the 85th percentile particle size in the transition layer material.
- Satisfies the hydraulic conductivity criteria $D_{15}(\text{drainage layer}) \geq D_{15}(\text{transition layer}) \times 2$.

7.12.4 No fertiliser or additional nutrient material or mulch is to be provided to the bioretention basin filter area during planting of the tubestock, or at any time.

7.12.5 The filter media in the bioretention area is not to be installed nor bioretention plants installed until all the building works, retaining walls and driveways have been completed.

8 PRIOR TO OCCUPATION CERTIFICATE (ENGINEERING)

8.1 Road Damage

8.1.1 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.

8.2 Compliance with Conditions

- 8.2.1 An Occupation Certificate shall not be issued until such time as all conditions of this consent, other than “Operational” conditions, have been satisfied. The use or occupation of the development prior to compliance with all conditions of consent, other than “Operational” conditions, may render the applicant/developer liable to legal proceedings.

8.3 Temporary Facilities Removal

- 8.3.1 Any hoarding or similar barrier erected to protect a public place shall be removed from the land and/or public place.
- 8.3.2 Any temporary toilet facilities provided during construction works shall be appropriately dismantled, disconnected and removed from the land.
- 8.3.3 Any temporary soil erosion control measure installed during development works shall be removed and other permanent measures required by Council’s Soil Erosion Control Policy shall be provided.
- 8.3.4 Any temporary builder's sign or other site information sign shall be removed from the land.
- 8.3.5 Any temporary site access provided for the purpose of development works shall be removed and the kerb and gutter and/or previous roadworks reinstated in a manner satisfactory to Council. Should the reinstatement involve the provision of a new vehicular crossing, layback, kerb and gutter or road shoulder works the separate approval of Council's Maintenance Section shall be obtained (and any appropriate fees paid) prior to such works commencing.

8.4 Fee Payment

- 8.4.1 Any fee payable to Council as part of a Construction, Compliance or Occupation Certificate or inspection associated with the development (including the registration of privately issued certificates) shall be paid in full.

8.5 Engineering Matters

8.5.1 Surveys/Certificates/Works As Executed plans

- 8.5.1.1 A Work-as-Executed (WAE) plan signed by a Registered Engineer (NER) or a Registered Surveyor must be submitted to Council when the engineering works are completed. A hardcopy (A1 size) and softcopy (on a CD/USB with file format .PDF) of the WAE plans are to be submitted to Council. All engineering Work-as-Executed plans MUST be prepared on a copy of the original, stamped Construction Certificate plans for engineering works.
- 8.5.1.2 The Work-as-Executed (WAE) 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 Council.
- 8.5.1.3 A Chartered Civil Engineer registered with NER, is to certify that:
- a) All the requirements of the approved drainage plan have been undertaken.
 - b) The five raingardens (bioretention systems) have been installed with a minimum total filter media area of 5.4m², 7m², 8m², 8 m² and 8m² respectively clear of pits and scour protection as per approved plans by ARUP.
 - c) The bioretention basins are enclosed with a minimum 1.5mm HDPE or equivalent liner with geotextile under.

- d) The bioretention subsoil lines are un-socked slotted PVC laid flat with a minimum 50 mm gravel cover.
- e) There is no geotextile between the layers of the bioretention basins.
- f) The raingarden (bioretention systems) having a minimum of 400 mm of filter media, a 350 mm transition layer and a minimum 200 mm gravel layer with liners.
- g) The minimum detention storage of 461 m³ has been provided below the 1.5 year ARI weir and a total of 700 m³ has been provided below the 100 year ARI emergency overflow weir.
- h) For the detention basin the 1.5 year ARI orifice discharge does not exceed 47.42 l/s at the 1.5 year weir level and the 100 year ARI orifice discharge does not exceed 196.92 l/s at the emergency overflow weir level.
- i) All the signage and warning notices have been installed.
- j) The interpretative water quality sign has been correctly installed.
- k) A copy of the certification and the works-as-executed drainage.

8.5.1.4 A registered surveyor is to provide a works-as-executed plan of the detention basin and certify that the available storage volumes are at or exceed the design volumes in the 1 in 100 year ARI events.

8.5.1.5 A certificate from a Registered Engineer (NER) must be obtained and submitted to Council verifying that the On-Site Detention System as constructed will perform to meet the on-site stormwater detention requirements in accordance with the approved design plans.

8.5.1.6 A certificate from a Registered Engineer (NER) must be lodged with Council verifying that the structures associated with the On-Site Detention System(s) have been constructed to withstand all loads likely to be imposed on them during their lifetime.

8.5.1.7 Provide a Restriction to User and Positive Covenant over the Stormwater Quality Improvement Devices in accordance with the requirements of Council's Engineering Guide for Development 2005. The covenant requirements are to include the submission of an annual report on water treatment by the first business day on or after 1 September each year. The Restriction to User and Positive Covenant must be registered with NSW Land Registry Services.

8.5.1.8 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.

8.5.1.9 A certificate from a Registered Engineer (NER) must be obtained and submitted to Council verifying that the constructed Stormwater Quality Control system will function effectively in accordance with Blacktown Council's DCP Part J – Water Sensitive Urban Design and Integrated Water Cycle Management.

8.5.1.10 Applicant to submit the following in accordance with Council's Works Specification - Civil (Current Version):

- a) Compaction certificates for fill within road reserves.
- b) Compaction certificates for road sub-grade.
- c) Compaction certificates for road pavement materials (sub-base and base courses).
- d) Compliance Certificates from road material suppliers (the relevant certified stockpile number shall be digitally shown from supplier).

8.5.1.11 The submission to Council of Compliance Certificate(s) and construction inspection reports required by this consent for engineering works. A final inspection report is to be included noting that all works are complete.

When Council has been nominated or defaulted as the nominee for engineering compliance. Final inspections can be arranged through Councils Coordinator of Engineering Approvals contactable on (02) 9839 6263. A final inspection checklist must be completed by the applicant prior to the final inspection.

8.5.2 Water Sensitive Urban Design Certification and Testing

- 8.5.2.1 A Geotechnical Engineer is to undertake insitu Saturated Hydraulic Conductivity Testing of each of the raingardens (bioretention systems) in accordance with Practise Note 1 of the FAWB guidelines. For raingardens a minimum of one in situ hydraulic conductivity test must be conducted at each of the five raingardens. Where the hydraulic conductivity of the soil differs from the rate specified in MUSIC of 100 mm/hr (tolerance 0% to +400%), remediation works will be required over the filter area to restore the conductivity and the test repeated until the hydraulic conductivity is achieved. A Geotechnical Engineer is to then certify that in accordance with Practice Note 1 of the FAWB guidelines, the Saturated Hydraulic Conductivity is within tolerance to the rate specified in MUSIC for each of the bioretention systems. A copy of the test results and certification is to be provided to Council.
- 8.5.2.2 After the hydraulic conductivity has been certified by the Geotechnical Engineer, a horticulturalist that has relevant tertiary qualifications and technical knowledge with a minimum of five (5) years demonstrated experience is to certify that the planting within the bioretention area including bank areas, is of the same quality in type and quantity as per the construction certificate approved landscape plans, that any plants lost have been replaced and that any areas of scour or disrepair have been restored.
- 8.5.2.3 Provide maintenance requirements for each of the proposed raingardens (bioretention systems) generally in accordance with the WSUD Inspection and Maintenance Guidelines and WSUD Inspection and Maintenance Handbook available on Council's website. Where these devices are located in roadway/parking areas these are to include traffic management requirements. The designer of the stormwater treatment system must prepare the Maintenance schedule and this schedule must show the designer's name, company, signature and date on it.

8.5.3 Inspections

- 8.5.3.1 Any additional Council inspections beyond the scope of any Compliance Certificate package and needed to verify full compliance with the terms of this consent will be charged at the individual inspection rate nominated in Council's Fees and Charges Schedule.

8.5.4 CCTV Inspection of Stormwater Drainage Structures

- 8.5.4.1 All road stormwater drainage structures (pipelines and pits) must be inspected via CCTV on completion of the provision of all public utility services in accordance with Council's current Works Specification Civil. CCTV reports must be submitted to council in the form of a DVD of the inspection, a hard copy printout of the SEWRAT (or equivalent) report and a certified CCTV statement in accordance with section 6.8 of Council's Works Specification Civil indicating that any defects identified by this inspection have been rectified.

9 PRIOR TO OCCUPATION CERTIFICATE (HERITAGE)

- 9.1 The Principal Certifying Authority shall be satisfied that the recommendations of the Statement of Heritage Impact dated March 2019 as prepared by Navin Officer Heritage Consultants Pty Ltd have been implemented.

10 OPERATIONAL

10.1 Environmental Health Matters

- 10.1.1 Any activity carried out in accordance with this approval shall not give rise to air pollution (including odour), offensive noise or pollution of land and/or water as defined by the Protection of the Environment Operations Act 1997.
- 10.1.2 All waste generated on the site is to be stored, handled and disposed of in such a manner as to not create air pollution (including odour), offensive noise or pollution of land and/or water as defined by the Protection of the Environment Operations Act 1997.
- 10.1.3 In accordance with the requirements of Part 5.7 Protection of the Environment Operations Act 1997, Council is to be informed of any pollution incident that occurs in the course of carrying out the approved activity where material harm to the environment is caused or threatened.

10.2 Operational and Heritage Management

- 10.2.1 Prior to Occupation an Operational Management Plan is to be submitted and approved by the Council. The Operational Management Plan is to be prepared to assist in the management and conservation of the cemetery and its cultural landscape. All stakeholders and interested groups and individuals should be encouraged to comment on the Draft Operational Management Plan. The plan should be monitored and reviewed after 12 months in operation.
- 10.2.2 **Heritage Matters:** The Operational Management Plan is to incorporate the following Heritage Matters:
- a) The heritage management policies outlined in the St Bartholomew's Cemetery 2010 Conservation Management Plan (CMP).
 - b) Significant elements including significant trees such as early plantings, shrub and tree patterns and other elements.
 - c) Any minor refinements to the geometry of the terraced graves/ash lawn cemetery; which, if design modifications are required, is to occur in consultation with Council's Heritage Advisor.
 - d) Any new landscaping, with consideration given to increasing the proposed soft landscaping between the terracing and the areas of Exceptional and Considerable significance; so as to provide a visual backdrop to the terracing when viewed from the east and a separation between the existing grave site geometry to the north and west.
- 10.2.3 Following any new development, in relation to the Heritage Matters the CMP for the St Bartholomew's Cemetery is to be revised and submitted to the NSW Heritage Council for its approval.
- 10.2.3 **Operational Matters:** Prior to Occupation an Operational Management Plan is to be submitted and consented to by Council. The Operational Management Plan is to contain site management details and include the following (but not be limited to):
- Access
 - Maintenance
 - Security
 - Operating hours
 - Traffic and parking management

- Burial procedures (timing between creation of grave and infill, location of excavated fill, shallow burials protocol and permission sought in accordance with NSW Dept Health Policy Directive PD2013_045, etc.)
- Details of the headstone and ashes internment plaque options
- Provision of services (such as toilet facilities)
- Way finding (ie. signage)

10.2.4 An Interpretation Strategy is to be commissioned as the first stage of 3 interpretation techniques required to be employed as part of the overall St Bartholomew's Cemetery expansion project. Stage 2 will involve the preparation of an Interpretation Plan that will consider signs and markers for the cemetery as a whole. Signs should be designed and located to provide the information required by visitors; a plan of the cemetery is a useful aid if located at the entrance to the cemetery. It should assist in finding denominational areas and specific grave plots. Stage 3 (Implementation Plan) will involve the physical implementation of the interpretative elements.

10.2.5 A St Bartholomew's Cemetery Maintenance Manual is to be prepared and used as a guiding document for maintenance contracts and personal grave conservation.

10.3 **Office of Environment and Heritage General Terms of Approval (Compliance)**

10.3.1 If requested, the applicant and any nominated heritage consultant may be required to participate in audits of Heritage Council of NSW approvals to confirm compliance with conditions of consent.

Reason: *To ensure that the proposed works are completed as approved.*

10.4 **Traffic Matters**

10.4.1 42 car parking spaces shall be provided on the site and marked accordingly for the approved use.

10.5 **Shallow Burials**

10.5.1 The site manager must obtain any necessary approval from the Director General of the Department of Health, or their delegate, before any shallow burial should take place on the site.