DRAFT CONDITIONS
(X/900/2011 – 121-123 SHIPLEY ROAD, BLACKHEATH)
September 2012

DEFERRED COMMENCEMENT CONDITIONS

Stormwater Management Plan
Sydney Catchment Authority (Condition 10)

1. To ensure Stormwater Quality Management for the site is appropriate, a properly drafted and detailed stormwater management plan for the proposed development shall be prepared based on the hand annotated Concept Stormwater Management Plan and the MUSIC stormwater quality modelling (File Name Shipley_Pre_v2c3.sqz; dated 23 May 2012) both prepared by NSW Public Works. The plan shall be provided to Council and the Sydney Catchment Authority, prior to the issue of an operational consent.

Advisory Note:
With reference to Sydney Catchment Authority Condition 10 (of concurrence letter dated 14th June 2012), the Stormwater Management Plan(SMP) is to be prepared by suitably qualified persons with demonstrated experience in water sensitive urban design.

The SMP is to include include detailed engineering designs, supporting calculations and water quality analysis of all proposed stormwater management devices.

The detailed designs are to be based on the results of the Geotechnical Investigation (as per deferred commencement Condition 2 – Geotechnical Investigation) having regard to the following standards:

- *Australian Runoff Quality - A Guide to Water Sensitive Urban Design by Engineers Australia, 2006,*
- *Concept Design Guidelines for Water Sensitive Urban Design by Water by Design, South East Queensland Healthy Waterways Partnership, Version 1, Mar 2009,*
- *Water Sensitive Urban Design Engineering Procedures Stormwater, by Melbourne Water, dated 2005,*
- *Stormwater Biofiltration Systems Adoption Guidelines, by Facility for Advancing Water Biofiltration, Version 1, June 2009,*
- *MUSIC Version 5 (a new MUSIC model is only required if the concept design is amended, for example, to address geotechnical site constraints).*

The detailed SWMP and detailed engineering designs, supporting calculations and water quality analysis (including MUSIC modelling) are to demonstrate that the stormwater treatment performance outcomes required in this consent can be achieved.

Geotechnical investigation

2. A geotechnical investigation and report is to be carried out and prepared by a qualified geotechnical engineer with demonstrated experience. The investigation is to specifically address the current site conditions and suitability of the site to accommodate water sensitive urban design (WSUD) devices to provide stormwater water quality control, infiltration and treatment systems as required by these conditions of consent.

   The investigation is to confirm the following:

   a. Geology and soil character/depth,

   b. soil permeability/infiltration rate,

   c. the presence and depth of any groundwater in the vicinity of required WSUD devices, and

   d. the presence and depth of any bedrock in the vicinity of required WSUD

devices.

The results of the investigation are to inform the detailed stormwater design and confirm the nature of WSUD devices considered suitable and effective for the site.

The investigation report is to be submitted to and approved by Council to ensure that the proposed WSUD are appropriate, and will function effectively to achieve the required performance outcomes for the given site conditions.

Design of Stormwater Management Measures

3. The on-site stormwater drainage system shall be designed to satisfy the requirements of clause 10.5(a)(v) of Council's LEP 1991 and Better Living DCP C1.3, and is to meet the following stormwater treatment performance outcomes for the life of the development:

   a. The quality of surface or ground water leaving the site is not to be reduced in the short or long term.

   b. The pre-development quantity and flow characteristics of stormwater leaving the site will be maintained or not adversely altered.

   c. The stormwater management system is to be appropriate for the given soil character, permeability/hydraulic conductivities and soil/groundwater depths (particularly for infiltration devices).

   d. Stormwater is not to be released as a concentrated surface flow without adequate scour protection, filtration, absorption and dissipation mechanisms, and

   e. The stormwater management system shall comprise a best practice Water Sensitive Urban Design (WSUD) Treatment Train that includes:

      - On-site retention and re-use of stormwater run-off that is optimised through measures such as dual plumbing, permeable surfaces and infiltration devices.
      - Stormwater quality managed by Sydney Catchment Authority approved methods

Stormwater Management Plan (SMP) – Certification

Prior to the issue of any construction certificate

4. The SMP must be certified by suitably qualified persons with demonstrated experience in water sensitive urban design.

   The certification report is to confirm that the SMP designs:

   - conform to all relevant standards, regulations, codes, guidelines and current best practices,
   - are in accordance with the recommendations of a Geotechnical Investigation Report,
   - the designs meet the stormwater performance outcomes required by this development consent, and
   - the report is to identify critical operational and maintenance issues to be addressed in the Operations and Maintenance Manual to ensure their ongoing effective function.

The certification report is to accompany the detailed SMP, and is to be submitted to and approved by Council.

Transfer of Crown Road reserve to Council

5. Pursuant to s.151 of the Roads Act 1993, the Crown Road reserve Dalton Place is to be transferred to Council as public road. An application for the transfer must be made through Council's Development, Health & Customer Service directorate. Fees will be charged in accordance with the Council's and the Department of Lands schedule of fees and charges.

Consolidation of Lots 204 and 205

6. The two lots (Lot 204 and 205) which form the subject site are to be consolidated. Evidence of consolidation to the satisfaction of Council is to be provided.

Lapsing of Deferred Commencement

7. In accordance with Section 95(6) of the Environmental Planning and Assessment Act 1979, the deferred commencement matters are to be resolved within a five (5) years period from the date of the deferred commencement consent. The deferred commencement consent will lapse if the applicant fails to satisfy the consent authority as to the deferred commencement matters within 5 years of the date of this notice.

OPERATIONAL CONDITIONS

A. (GENERAL CONDITIONS)

Confirmation of relevant plans

1. To confirm and clarify the terms of consent, the development shall be carried out in accordance with the following plans (and as amended in red):

Prepared By	Plan Title	No.	Rev	Date
Prescott Architects P/L	Site Plan	A1000	A	04/03/2011
Kollanyi Architects P/L	Elevations 1	A-03	C	16/11/2010
Kollanyi Architects P/L	Elevations 2	A-04	C	16/11/2010
Kollanyi Architects P/L	Floor Plan	A-01	C	16/11/2010
Kollanyi Architects P/L	Roof Plan	A-02	C	16/11/2010
Kollanyi Architects P/L	Sections	A-05	C	16/11/2010

and accompanying supportive documentation, except as otherwise provided or modified by the conditions of this consent.

Confirmation of the Development Extent

2. To confirm and clarify the extent of the development, (including the establishment of asset protection zones) works are to be confined to Lots 204 and 205 of DP751647.

Building Certification (Crown Development)

3. Prior to commencement of any site or building works the building work shall be certified by or on behalf of the Crown to comply with the technical provisions of the State's building laws (Building Code of Australia), in accordance with Clause 109R(2) of the Environmental Planning and Assessment Act 1979 (as amended).

Building Code of Australia	4. All building work must be carried out in accordance with the provisions of the Building Code of Australia.
Sydney Catchment Authority	5. To ensure the development achieves a neutral or beneficial effect on water quality, the works are to be undertaken in accordance with the conditions of approval contained within the concurrence provided by the Sydney Catchment Authority, dated 14th June 2012. This concurrence is attached to and forms part of this consent.
Rural Fire Service	6. To ensure the development is adequately protected from bushfire threat, and in accordance with Section 79BA of the *Environmental Planning and Assessment Act 1979 (as amended)*, the recommendations provided by the Rural Fire Service in their letter dated 5th March 2012 are to be adopted. These recommendations are attached to and form part of this consent.
Protection of Aboriginal Cultural Heritage	7. To ensure appropriate protection for sites or potential sites of Aboriginal Cultural significance, should any features or objects become exposed during construction works, all work must cease and the contractor is to contact the consulting Archaeologist and the National Parks and Wildlife Service (NPWS). Works shall not continue until agreement to proceed has been gained from the NPWS and relevant Aboriginal stakeholders.
Materials and Finishes	8. To ensure that the proposed building results in limited visual impact on the natural environment and blends with the bushland setting, a revised materials and colour schedule is to be provided to Council for approval prior to the commencement of works.
External Lighting	9. To protect the amenity of the local area, any external lighting is to be positioned, directed and shielded so that it does not interfere with traffic safety or cause nuisance to adjoining and nearby properties.
Plans on site	10. A copy of the stamped and approved plans, and development consent are to be on the site at all times during construction.
Site management	11. To safeguard the local amenity, reduce noise nuisance and to prevent environmental pollution during the construction period: a) Site and building works (including the delivery of materials to and from the property) shall be carried out Monday to Friday between 7am-6pm and on Saturdays between 8am-3pm, excluding public holidays. Alteration to these hours may be possible for safety reasons but only on the approval of Council. b) Stockpiles of topsoil, sand, aggregate, spoil or other material shall be stored clear of any drainage path or easement, natural watercourse, footpath, kerb or road surface and shall have measures in place to prevent the movement of such material off site. c) Building operations such as brickcutting, washing tools, concreting and

bricklaying shall be undertaken on the building block. The pollutants from these building operations shall be contained on site.

d) Builders waste generated under this consent (including felled trees, tree stumps and other vegetation) must not be burnt or buried on site. All waste must be contained and removed to an approved Waste Disposal Depot or in the case of vegetation, with the exception of environmental and declared noxious weeds, mulched for re-use on site.

Signage

12. To ensure that the site is easily identifiable for deliveries and provides information on the person responsible for the site, a sign displaying the following information is to be erected:

- The statement *"Unauthorised access to the site is not permitted".*
- The names of the builder or another person responsible for the site along with an out of hours contact number.
- Street number.

Workers amenities

13. To ensure amenities are available for construction personnel, toilet facilities must be made available on the basis of 1 toilet for every 20 workers.

(GENERAL ENGINEERING CONDITIONS)

Works within the road reserve

14. A separate application is to be submitted and approved by Council for all works within the Road Reserve under the Roads Act 1993.

Compliance with standards

15. All internal and external engineering works required by this development are to be in accordance with Council's Specification for Engineering Work for Subdivisions and Development, Part 1—Design and Part 2—Construction (Development Control Plan No. 31), Australian Rainfall and Runoff 2001 and other relevant Australian Standards. The design and construction is to include any additional works to make the construction effective.

Internal pavement

16. a) Kerbs and formation paving and sealing of access driveways and car parking areas in the development site together with any necessary drainage, retaining walls and other engineering works that may be required to make the construction effective shall be provided.

b) All driveways and associated carpark areas are to be sealed and delineated with thermoplastic linemarking to the following standard 150mm DGB 20 on approved subgrade, AC asphalt at 30mm thickness.

c) All internal driveway and access shall be designed in accordance with Australian Standard (AS) 2890.1/2004 and AS 2890.2/2002.

(GENERAL ENVRIONMENTAL CONDITIONS)

Limit of vegetation removal

17. No vegetation, apart from that shown on the approved Vegetation Management Plan as vegetation to be removed or felled, may be damaged, destroyed or lopped without the written consent of Council.

Vegetation may be only be removed/modified in the following circumstances:

a. Vegetation removal within the direct footprint of the approved building, driveway and associated works.

b. Vegetation removal or modification for the purpose of establishing an asset protection zone* comprising an "Inner Protection Area" within Lots 204 and 205 DP 751647 in accordance with an approved Vegetation Management Plan and these conditions.

*as required by Planning for Bushfire Protection 2006 and Standards for Asset Protection Zones by the NSW Rural Fire Service.

Stormwater Management Performance Outcomes

18. The on-site stormwater drainage system shall be constructed, operated and maintained in accordance with the approved Stormwater Management Plan, to satisfy the requirements of Council's LEP 1991 and Better Living DCP C1.3 and the requirements of the Sydney Catchment Authority, and is to meet the stormwater treatment outcomes identified in Deferred Commencement Condition 1 (Stormwater Management Plan, Sydney Catchment Authority (Condition 10)) and Deferred Commencement Condition 3 (Design of Stormwater Management Measures).

(GENERAL – ENVIRONMENTAL HEALTH CONDITIONS)

Standards – Sewer and Plumbing works

19. a) All building sewer and plumbing work is to be carried out in accordance with the requirements of the Local Government (Water Services) Regulation 1999. The following matters relating to the design and operation of the system are to be addressed:

b) Toilet and bathroom fittings are to be connected by a single pipe system.

c) The installation is to incorporate a 3/6 dual flush system.

d) Manually operated cisterns are to be installed.

e) The maximum vertical drop in the soil line from the pan is 2.25 metres

f) The flushing systems fitted with internal overflows shall not be connected to any toilet pan.

g) The horizontal length of pipe between the outlet of the pan and the junction with another waste to the main drain line or the outlet of the pan to the inlet of the septic tank is not to exceed 3 metres.

h) The elevated pipe line is to be adequately supported.

All wastes from the building are to be treated in the septic tank unless otherwise approved by Council.

Location and capacity of septic tank

20. a) To ensure structural integrity of adjoining buildings and property along with the installation itself, the waste treatment device should not be located within 1.5 metres of any building or site boundary, nor over easements or vehicle access ways. Stormwater is to be diverted around the septic tank installation and the effluent disposal area so as not to contribute unnecessary loads to the system. The septic tank is to be buried with only the top 150mm being above finished ground level.

b) The capacity of the septic treatment system must be a minimum of 3000 litres.

The septic tank must be fitted with an outlet filter

Amended Soil System (Ecomax requirements)

21. a) The size and design of the amended soil system is to be based on a minimum wastewater loading of **600 litres** per day, and a design loading rate based on the limiting soil layer.

b) A distribution box to be installed to allow for alternate usage of the amended soil cells.

c) The amended soil cells are to be alternated every six months.

d) The cells are to be well maintained and the grass mowed on a regular basis to aid in the harvesting of nutrients.

e) In order to minimise the risk of inundation of the on-site disposal system from overland stormwater flow, and surcharge from the system. The on-site disposal system is to be protected by the installation of an "earth mound" around its perimeter. The "earth mound" is to be a minimum of 0.4m in height, with side's slopes of 1 in 3. The earth mound is to be stabilised with grass and / or landscaped.

Effluent disposal area

22. The amended soil mound shall be designed, located and installed in accordance with the manufacturer's specifications, and *Designing and Installing On-site Wastewater Systems* (Sydney Catchment Authority, 2012)

To minimise environmental and health impacts:

a) The amended soil cells are to be turfed and/or landscaped before the system is in operation.

b) The mound must be capped with a soil of moderate permeability e.g. loam to clay loam, to minimise rainfall infiltration and promote evapotranspiration.

c) An improved topsoil to promote vegetation growth and nutrient uptake is to cover the mounds at a minimum depth of 100mm.

d) All stormwater collected from roofs, access road and other hard surfaces is to be diverted away from the disposal area by the use of diversion drains or earth mounds.

e) The amended soil mound shall be located as indicated on the hand annotated Concept Stormwater Management Plan prepared by NSW Public Works (author, number and date not specified).

B. PRIOR TO COMMENCEMENT OF WORKS

(PRIOR TO COMMENCEMENT - ENGINEERING CONDITIONS)

Relocation of services

23. The applicant is to carry out the relocation or alteration of public utilities or any existing services made necessary as a result of this development. Satisfactory arrangements shall be made with the relevant authority concerned and a certificate of clearance shall be obtained from each relevant authority and

submitted to Council prior to release of the commencement of works.

Construction in Council's roads

24. Where works affect Council or public lands (i.e. roads, parks etc.) by or on behalf of the applicant, the following conditions shall be satisfied:

a. Before any work commences, plans and specifications prepared by a suitably qualified person~~,~~ are to be submitted to and approved by Council under the Roads Act 1993.

   Approval of the engineering designs by Council is subject to the payment of the prescribed Engineering Development Fees at the time of lodgement. All works in Council's road are to be at no cost to Council.

b. An onsite meeting is to be arranged with Council's Supervising Engineer prior to the commencement of any work in Council's road for the purpose of a pre-construction meeting. Council's inspection fee is to be paid prior to the meeting.

c. The person or company carrying out the works will be required to carry workers compensation and public liability insurance to the value of $10 million. The policy shall indemnify Council from all claims arising from the execution of the works. Proof of the policy is to be provided to Council's Development Engineer at the pre-construction meeting.

d. The person or company carrying out the works shall submit to Council reference demonstrating experience in the type of work proposed to be undertaken. The person or company shall obtain approval from Council to carry out the works prior to works commencing.

e. The applicant will be required to pay for inspections in accordance with Council's fees and charges. The specific stages of inspection required will be advised at the pre-construction meeting.

   A minimum of 48 hours notice shall be given to Council when arranging for an inspection. Work is not to proceed further until the works, or activity covered by the inspection has been approved.

f. Prior to any work commencing on site, a Traffic Management Plan (TMP) report prepared by a qualified person with experience in the field, is to be submitted to Council for approval.

   The Traffic Management Plan is to address but not be limited to the following: through traffic and contractors, construction vehicle travel routes, safety of the public, materials storage and handing, deliveries and construction traffic and parking.

   A minimum of seven (7) days notice shall be given to residents if access by residents will be affected. A copy of the letter to residents and a list of addresses notified shall be submitted to Council for approval.

g. Safety devices such as signs, barricades, barriers, warning lights, etc. shall be placed where works affect Council and Roads and Traffic Authority roads and shall be in accordance with Australian Standard No. 1742.3-2009: Manual of uniform traffic control devices - Traffic control for works on roads and Roads and Traffic Authority Manual—Traffic Control at Work Sites Version 4.0/2010. Details prepared by a qualified person shall be submitted to Council for its approval with the Traffic Management Plan

Report.

The contractor shall submit to Council the names of proposed traffic controllers with a signed declaration that they are appropriately trained in the duties of traffic controllers and Roads and Traffic Authority accredited.

h. The applicant shall indicate the extent of any service adjustments necessary and submit with the design proof of approval by the relevant service authorities. The applicant shall bear all responsibility and costs associated with the proposed relocation of services.

i. A prominently displayed sign identifying the contractor responsible for the work shall be erected. A contact telephone number should be provided on the sign.

Works required in Council's Road Reserve

(including Dalton Place)

25. The following engineering works shall be constructed by the applicant at the applicant's expense:

a. Extension of the piped drainage under the Dalton Place intersection and regrading of the existing tabledrain to ensure a minimum stormwater flow of a 1:20 year 5 minute storm event, to the existing pipe under Shipley Road south of the proposed intersection. The design is to include provision for passage of a 1:100 year 5 minute storm event along the table drain as surface flow.

b. Construction (widening) of the road shoulder on both the northern and southern approaches to the proposed Dalton Place intersection to allow a HRV design vehicle (as described in AS2890.2/2004) to make turning movements without impacting on the opposing traffic flow.

c. Full sealed construction of Dalton Place from the existing edge of seal in Shipley Road up to and 6 metres beyond the proposed driveway to the Rural Fire Service Building to the following standard: 150mm DGB20 on approved subgrade, AC 10 asphalt at 30 mm thickness:

d. Additional signage and linemarking to provide adequate warning to drivers using Shipley Road of emergency services vehicles entering the roadway.

e. Vegetation removal/management on approach to the proposed intersection along Shipley Road to provide improved line of sight compliant with AS2890. Further to this some benching of the natural land form may also be required.

Detailed engineering plans prepared by a suitably qualified person shall be submitted to, and approved by Council under the Roads Act 1993 prior to the commencement of works.

Approval of the engineering designs by Council is subject to the payment of the prescribed Engineering Development Fees, the amount of which will be advised at the time of lodgement.

(PRIOR TO COMMENCEMENT - ENVIRONMENTAL CONDITIONS)

Vegetation Management Plan Preparation

26. A Vegetation Management Plan (VMP) shall be prepared in accordance with Council's Guidelines and submitted to, and approved by Council prior to the commencement of any works including vegetation removal.

Council Guidelines are available at:
http://www.bmcc.nsw.gov.au/sustainableliving/environmentalinformation/environmentalguides

The VMP is to be prepared by persons with professional qualifications and/or demonstrated knowledge and experience in bushland rehabilitation practices.

The objective of the VMP is to detail how existing native vegetation on the site will be protected and rehabilitated to ensure a biologically diverse and self-sustaining vegetation community will be maintained for the life of the development in accordance with these conditions.

The VMP shall detail the location, protection, rehabilitation, ongoing management and maintenance strategies as relevant to:

a. identification of trees to be retained or removed (number and locate on a plan, list species name, common name, SULE, size/age class, habitat value)

b. details and a plan showing vegetation modification required to establish and maintain the required asset protection zones – demonstrate environmentally sensitive implementation

   - there must be the absolute minimum level of disturbance to existing vegetation (i.e. slashing, pruning, thinning or removal) required to comply with Planning for Bushfire Protection, 2006)
   - bushland and habitat values will be maintained by retaining a mosaic of intact vegetation and managed (fuel reduced) areas of native trees, shrubs and ground covers
   - elements of all strata (i.e. ground cover, shrub, canopy) of the native vegetation communities will be retained within the APZ

c. protection of rare/threatened species and flora and fauna habitat by implementation of mitigation measures as recommended in the Flora and Fauna Assessment for Lots 204 and 205 DP 751647 by Cumberland Ecology dated April 2011

d. proposed landscaping and restoration of batters and disturbed areas

e. vegetative components of stormwater management systems

f. extent of vegetation management/clearing required to facilitate on-site effluent disposal

g. vegetative components of the on-site effluent disposal system

h. species list for plant establishment or transplanting

i. environmental and noxious weed control for all areas affected by the proposal

j. demonstrate compliance with LEP 1991 clause 6.2 Bushland Conservation zone objectives

The plan is to consist of an annotated aerial photograph/ site plan with accompanying explanatory text. The plan must be at a sufficient scale to show

the entire property including all development and environmental features covered by these conditions.

The plan must include a timeframe for implementation of various project tasks and identify performance targets, on-going monitoring and maintenance of the above works.

The VMP shall be implemented in accordance with the strategies, tasks, performance targets and timeframes set out in the approved VMP and in accordance with the development consent conditions.

Vegetative components of bio-retention systems

Prior to the commencement of any works

27. Prior to the commencement of any works, a detailed planting schedule to be implemented within the bio-retention system(s) is to be prepared by a suitably qualified professional with experience in the vegetative design of bio-retention systems and submitted to and approved by NSW Public Works.

The Planting schedule is to ensure vegetative components within the bio-retention system(s) include local macrophytes and groundcovers with occasional small shrubs where appropriate that:

a. Are adapted to local climatic conditions,

b. Are adapted to the expected high and variable nutrient and moisture conditions,

c. Are suitable for the bio-retention basin's expected management and maintenance requirements,

d. Plants with extensive fibrous root systems, spreading rhizomatous or suckering habitat are preferred over a clumped habit,

e. Ensure complexity and year round coverage by including at least 4 different macrophyte or groundcover species within the basin filter surfaces including species such as *Juncus planifolius, Carex appressa, Gahnia sieberiana, Juncus usitatus, Lepidosperma* species, *Schoenus* species or other similar local native species,

f. Plants are to be established at a minimum density of at least 8 plants per square metre across the base and side batters of bio-retention systems.

Marking of site vegetation to be retained and removed - asset protection zones

Prior to work commencing

28. All trees and areas of retained vegetation specified for protection within the asset protection zone in the approved Vegetation Management Plan are to be clearly marked on the site using a different coloured survey tape, or alternative method, to that used to indicate trees to be removed. The tape or other suitable marker must be applied prior to any tree removal or fuel reduction work commencing within the asset protection zone.

Site vegetation management - asset protection zones

Before, during and after construction

29. The required bush fire asset protection zone is to be implemented in accordance with Planning for Bushfire Protection (2006), in a manner that is sensitive to the protection of the indigenous vegetation community located on and/or adjacent to the site.

Vegetation modification for the purpose of establishing the asset protection zone must be in accordance with an approved Vegetation Management Plan and in addition must:

a. be the absolute minimum level of disturbance to existing vegetation (ie. slashing, pruning, thinning or removal) required to comply with Planning for Bushfire Protection (2006) and the NSW Rural Fire Services document Standards for Asset Protection Zones,

b. should any noxious or environmental weeds listed in the schedule entitled "Weeds of the Blue Mountains" within the Better Living DCP be located in an asset protection zone, these weeds shall be removed and disposed of so as to ensure that regeneration of such weeds does not occur,

c. weed removal is to be prioritised over indigenous vegetation removal within the APZ,

d. retain the natural character of the site's vegetation by retaining and/or allowing the regeneration of elements of all stratum (groundcover/ shrub/ canopy),

e. retain bushland and habitat values by retaining intact mosaic areas with native trees, shrubs and ground covers (that are not fuel reduced) between areas of managed (fuel reduced) bushland across the inner and outer asset protection zones,

f. ensure retained shrub and tree clumps do not form a continuous canopy across the asset protection zone,

g. maintain at least 80% cover of ground layer vegetation,

h. be undertaken using hand methods without soil disturbance or bare soil left exposed,

i. involve the pruning of selected limbs (absent of hollows) in preference to complete tree removal,

j. where tree removal is required to achieve canopy separation prefer juveniles and trees absent of hollows or of poor quality and retain stumps in-situ,

k. be undertaken by a qualified horticulturalist/arborists/restoration practitioner,

l. ensure the outer boundaries of the APZ are to be delineated on site by the erection of highly visible survey markers or a similar method in order to prevent the encroachment of clearing into adjoining bushland, and

m. ensure identification of any fauna occupation prior to carrying out any works.

Fauna habitat and tree hollows

Prior to the commencement of any works

30. Avoid the removal of trees with hollows or substantial cavities and avoid the removal of bush rock.

Where removal is unavoidable, removal is to be in accordance with the following requirements:

a. Prior to being removed, any tree with hollows must be investigated by a suitably qualified person for the presence of any native fauna. If any fauna

are present they are to be appropriately relocated by a suitable qualified person.

b. The tree must be removed in sections by a qualified tree surgeon.

c. Any hollow logs on the ground and bushrock are to be retained in situ. If removal is unavoidable, relocate to an alternative natural area within the site.

d. The provision of artificial nest boxes on other retained trees within the site must be provided to compensate for the loss of any hollows.

e. Significant rock outcrops are to be protected at all times.

Advisory Note:
With reference to Condition 29(b)(Fauna Habitat and Tree Hollows), it is recommended that WIRES (Wildlife Rescue) be contacted on (02)4754 2946 for assistance.

Rescue of suitable plant species

Prior to the commencement of any works

31. Prior to the commencement of any vegetation clearing work within the development area native plants (seedlings, groundcovers or small shrubs) within the development area are recommended to be removed and retained for transplanting where possible. Any salvaged native plants are to be temporarily potted using the surrounding native site soil.

Exclusion fencing must be in place to ensure plants are only removed from within the development area.

Following the completion of construction works any salvaged natives may be transplanted to disturbed areas around the development requiring stabilisation or landscaping.

Advisory Note:
With reference to Condition 30 it is recommended that 'Wild Plant Rescue' (or other similar service) be contact on 02 4782 9257 for assistance..

Exclusion zone

Prior to work commencing and during construction

32. Prior to the commencement of any work on site, including clearing and site preparation, an exclusion zone must be established and maintained around the immediate perimeter of approved building, driveway and associated works to prevent damage to existing vegetation/site features.

This area is to be clearly identified by the placement of a temporary brightly coloured barrier mesh or required sediment control fencing around the perimeter of the area to be protected, and the provision of weatherproof signage to indicate that no entry into the zone or removal of the barrier is permitted.

Within this zone, there is to be:

a) no placement of temporary buildings or stockpiling of material,

b) no parking or movement of machinery

c) no change to the soil grade or level

d) no changes to soil aeration or hydrological capacity

e) no open cut trenching

f) no spillage/disposal of building chemicals of any description.

An inspection of these barriers must be arranged with NSW Public Works:

g) prior to the commencement of site works

h) at the first critical mandatory stage inspection.

Such barriers are to remain in place until construction works are completed and must be maintained in good order at all times. Rehabilitation of disturbed areas is to be undertaken immediately it is possible to do so following the completion of site works.

Tree protection zones

Prior to commencement of site works

33. Establishment of Tree Protection Zones (TPZ)

In order to ensure that the SULE of the retained trees is not compromised by the approved development, a Tree Protection Zone (TPZ) is to be established around all trees beyond the footprint of approved works which are to be retained on the site in a manner consistent with the Australian Standard 4970-2009 for the Protection of Trees on Development Sites.

AS 4687 specifies applicable fencing requirements.

Protection of Root Zone: The Protected tree shall not have its root zone affected by:

a) Storage of building materials, site sheds, workers amenities, paving or other impervious materials.

b) Excavation or increased soil level.

c) Installation of underground services, e.g. plumbing, power, gas etc.

d) Dumping of refuse.

e) Chemical run-off (including concrete wash, paint wash etc.)

f) parking of vehicles and plant,

g) operation of plant

h) altered hydrology

Protection of tree trunk: the protected tree shall not have its trunk or limbs affected by:

h) physical damage

i) attachment of powerlines, stays, guys and the like or driving of nails.

The barriers must be in place prior to commencement of any works and maintained in good order throughout the construction process. Any encroachment into the TPZ that becomes necessary as site works progress must be reviewed by the project arborist and be acceptable to the determining authority before being carried out.

Signage: TPZ fences shall be signposted to advise all people associated with

the development (e.g. contractors, suppliers, developers & workers) and the general public of their purpose, (e.g. Tree protection area - No admittance). Signs are to be maintained and remain throughout the construction period.

Bio-retention media bed certification

Prior to installation

34. Prior to the installation of the bio-retention system(s) media bed material, certification is to be provided to NSW Public Works from a NATA registered laboratory confirming that the bio-retention system(s) filter media bed material complies with the 'Guidelines for Filter Media in Bio-retention Systems Version 3.01 dated June 2009' prepared by the Facility for Advanced Water Bio Filtration (Monash University).

Inspections of bio-retention system(s) during construction

During construction

35. To ensure that all works are completed in accordance with the approved specifications and plans, compliance certificates are to be issued to the Council or NSW Public Works by an appropriately accredited certifier at the following stages during construction:

Bio-retention system(s)

a. after set out (prior to excavation)
b. after excavation and prior to placement of the bottom media layer or any liner
c. after installation of subsoil drainage
d. after placement of each media layer
e. after planting of vegetative components

(PRIOR TO COMMENCEMENT OF WORK – ENVIRONMENTAL HEALTH)

Inspections (human waste treatment device)

36. To ensure the maintenance of minimum health standards and the protection of the environment, inspections are required at significant stages throughout the construction period. These stages are:

a) on completion of the treatment system/tanks before any backfilling.
b) the building drains before they are covered.
c) The Ecomax cells before being covered

Service points on the treatment system / tanks and drainage lines are to be left open for inspection, the day before the inspection, the tanks must be filled with water. To ensure satisfactory jointing, drainage lines must also be water tested prior to Council's inspection. The approved installer and the licensed plumber/drainer are to be present at the inspection.

At each inspection, erosion and sediment control measures and site management will be inspected.

C PRIOR TO OCCUPATION

(PRIOR TO OCCUPATION - ENGINEERING CONDITIONS)

Supervision of internal engineering works

37. All internal engineering works shall be supervised by a suitably qualified and experienced person. Certification from the supervisor shall be submitted to Council to verify that all works have been constructed in accordance with approved plans prior to the occupation of the building.

Works in the Road Reserve

38. Prior to occupation of the building, all works within the road reserve are to be completed to the satisfaction of Council's supervising Engineer.

Repair of damage

39. The applicant shall repair or reconstruct all damages caused by construction activity relating to the development as required by Council's Supervising Engineer prior to occupation of the building.

(PRIOR TO OCCUPATION - ENVIRONMENTAL CONDITIONS)

Vegetation Management Plan

Certification

Prior to any occupation of the building

40. The works in the approved Vegetation Management Plan (VMP) shall achieve the objectives and targets specified for the relevant time frames in the plan, including the completion of primary weed control, unless otherwise recommended by the restoration practitioner.

A suitably qualified consultant ecologist or bushland restoration practitioner shall certify that the VMP works have been carried out in accordance with the required time frames up to occupation. This verification statement is to be provided to NSW Public Works prior to any occupation of the building.

Vegetation Management Plan

Implementation and Compliance

Prior to any occupation of the building

41. In order to ensure retention and conservation of the indigenous vegetation community within the site and the environmentally sensitive implementation of an asset protection zone, the approved Vegetation Management Plan (VMP) shall be implemented in accordance with all strategies, tasks, performance targets and timeframes specified in the plan.

The following items are to be checked by NSW Public Works:

a. Retention and conservation of the indigenous vegetation community across the site;

b. Environmentally sensitive implementation of the asset protection zone for bushland conservation;

c. Protection of identified rare/threatened species habitat and implementation of ameliorative strategies;

d. Landscaping and restoration of batters and disturbed areas;

e. Environmental and noxious weed control; and

f. Vegetation components of stormwater management devices and on-site

effluent disposal system.

NSW Public Works is to be satisfied that vegetation management requirements of the VMP including the specific items listed above have been implemented satisfactorily and in accordance with the approved Vegetation Management Plan and these conditions prior to any occupation of the building.

Weed control

Prior to any occupation of the building

42. Systematic control of noxious and environmental weeds is to be undertaken prior to or concurrently with the establishment of the landscape, and is to be undertaken on a regular basis to ensure the depletion of soil stored seed, and /or the successful establishment of the approved plantings.

Techniques used must be consistent with best practice and low impact bushland regeneration techniques, and in accordance with any specifications noted in any approved BMCC weed management strategies or plans available at http://www.bmcc.nsw.gov.au/sustainableliving/weedmanagement

This work must coincide with supplementary activities designed to:

- reduce continuing opportunities for weeds to establish,
- reduce the factors promoting the weeds on site, and
- enhance the ecological processes operating on the site.
- ensure the successful establishment of the landscape (if appropriate).

Weeds for priority removal on this site include:

- Exotic species listed in the Flora and Fauna Assessment for Lots 204 and 205 DP 751647 by Cumberland Ecology dated April 2011.

Where herbicide is proposed for use within the weed control strategy, operators must ensure that all chemicals are registered for use and used in strict accordance with a current, registered label.

Failure to do so may constitute a breach of the Pesticides Act 2000.

Prior to any occupation of the building, NSW Public Works must be satisfied that adequate environmental weed control has been achieved and all noxious weeds are eradicated within the development area and asset protection zone.

Landscaping

Prior to any occupation of the building

43. Landscaping is required to ensure that the development contributes to the bushland character of the Blue Mountains and its environmental sustainability and must be consistent with the following:

a. All existing native bushland areas within the site are to be retained intact or sensitively managed to maintain the required fuel-reduced bushland state in accordance with these consent conditions.

b. The land between the approved footprint of works and the eastern property boundary along Shipley Road is to be retained as natural (fuel reduced) bushland.

c. Bush regeneration methods shall be utilised to remove weeds and maintain the health of retained bushland areas (within the limits of Planning for Bushfire Protection, 2006). Any areas displaying spontaneous

recovery/regeneration are to be protected and their complete recovery facilitated.

d. Any landscape fabrication is to occur in areas disturbed by construction within the footprint of the approved works and must be in accordance with an approved Vegetation Management Plan and these consent conditions. All plants introduced must be local indigenous species sourced from local suppliers.

e. Landscaping is to comply with the principles of Appendix 5 of Planning for Bushfire Protection (2006),

NSW Public Works is to be satisfied that landscaping requirements have been implemented satisfactorily and in accordance with the approved Vegetation Management Plan and these conditions prior to any occupation of the building.

Restore disturbed and degraded areas

Prior to any occupation of the building

44. All disturbed areas, earthworks and/or batters are to be restored, stabilised, topsoiled and revegetated with native or non-invasive groundcover species immediately it is possible to do so and revegetated in accordance with the methods and timeframes outlined within the approved Vegetation Management Plan.

NSW Public Works must be satisfied that all disturbed areas are adequately stabilised in accordance with the approved plans and these development consent conditions prior to any occupation of the building.

(PRIOR TO OCCUPATION – ENVIRONMENTAL HEALTH CONDITIONS)

Approval to operate sewage system

45. The Rural Fire Service (Shipley Station) must obtain an approval to operate the sewage system from Council prior to occupation. This approval can only be issued after Council is satisfied the installation has been completed in accordance with the approved system design.

D. MAINTENANCE AND OPERATION OF USE

(GENERAL CONDITIONS)

Restriction on Parking

46. All vehicles visiting the site must be wholly contained on the site or within the site. No vehicles using this site are to park within the Shipley Road corridor.

Direction of travel

47. All vehicles are to enter and exit the site in a forward direction.

ENVIRONMENTAL CONDITIONS

Stormwater quality device - vegetation maintenance

After completion of works

48. A dense and continuous coverage of healthy native macrophytes, sedges and rushes are to be maintained across the entire surface area of the bio-retention system(s) to ensure the design water quality performance outcomes are achieved and maintained in perpetuity.

If vegetation coverage declines for any reason, it is to be restored immediately

it is possible to do so, by the planting (or other appropriate method of re-establishment) in accordance with the species selection and diversity outlined within the approved Vegetation Management Plan.

(ENVIRONMENTAL HEALTH CONDITIONS)

Maintenance of on-site wastewater system	49.	The on-site wastewater management system is to be maintained according to Section 5 of the Department of Local Government's guidelines On-site Sewage Management for Single Households (1998) and AS/NZS 1547:2012 On-site Domestic Wastewater Management, and the manufacturer's requirements.

ADVICE

A copy of the approval should be given to the supplier and installer of the wastewater system.

The building should not be occupied until Council has issued an "approval to operate" the wastewater system as required under the Local Government Act 1993.