Your ref: SSD -10425
File no: MC-20-00005

29 January 2021

NSW Department of Planning, Industry and Environment
GPO Box 39
SYDNEY NSW 2001

Recipient Delivery paula.bizimis@planning.nsw.gov.au

Attention: Paula Bizimis

Dear Sir/Madam

SSD10425: Stage 2 – Detailed Development Application - Tallawong Station Precinct South

Thank you for your correspondence dated 18 January 2021 inviting us to provide comments on the Response to Submissions (RTS) for the above application at 1-15 and 2-12 Conferta Avenue, Rouse Hill, which is a State Significant Development proposal under section 4.36 of the *Environmental Planning and Assessment Act 1979.*

The RTS has been reviewed by our officers and we have no objection to the proposal subject to the conditions provided at Attachment A being included as part of any development consent issued.

Please note that some conditions are requested to be deferred commencement conditions. Particularly important is the need for the Planning Agreement for the Village Green land at Tallawong Station Precinct South to be executed by both Deicorp and Council before the consent can be acted upon. Currently this VPA is with Deicorp for final consideration. Following the exhibition of the VPA it will be reported to the first available Council meeting in 2021 after its exhibition. Only then can the Agreement be executed.

If you would like to discuss this matter further, please contact Judith Portelli, our Manager Development Assessment, on 9839 6228.

Yours faithfully

Glennys James PSM
Director Planning and Development

Blacktown Council's requested conditions of consent to SSD 10425: Stage 2 – Detailed Development Application - Tallawong Station Precinct South

Note to DPIE:

The consent should not become operational until the Voluntary Planning Agreement between Blacktown City Council and Deicorp is executed by the parties. This is because Council is exposed as the nominated acquisition authority under the Land Reservation Acquisition map for the public space land which the developer has offered to build, own and maintain in perpetuity as a private facility. Until a Planning Proposal removes Council as the acquisition authority, the VPA provides Council with adequate protection.

1. Planning and design conditions

1.1 Deferred Commencement matter

Pursuant to section 4.16(3) of the Environmental Planning and Assessment Act 1979, this consent is not to operate until the Viilage Green land at Tallawong Station Precinct South Planning Agreement, drafted by the applicant and under negotiation with Blacktown City Council, has been executed by both parties.

2. Section 7.11 Contributions conditions

2.1 The following monetary contributions pursuant to *Section 7.11 of the Environmental Planning & Assessment Act 1979* must be paid. The amounts below are valid as at 28 January 2021. They WILL BE INDEXED from this date to the date of payment. Payment of the indexed amounts must be made prior to the issue of a Construction Certificate (for building works) or Subdivision Certificate (for subdivision works) either by Council or any accredited certifier, whichever occurs first.

PLEASE NOTE: Payments must be made by BANK CHEQUE IF IMMEDIATE CLEARANCE IS REQUIRED. Payments of the full amount by credit card or EFTPOS are accepted. However, payments by credit card or EFTPOS over $10,000.00 are levied a 3% surcharge on the whole amount and cannot be split between different credit or EFTPOS cards.

The contribution(s) will be indexed according to the Australian Bureau of Statistics' Consumer Price Index (Sydney Housing) or Consumer Price Index (All Groups Sydney).

Stage 1 – Sites 1A and 1B

Contribution Item	Amount
Stormwater Quantity Second Ponds Creek Land	$548,870.00
Stormwater Quantity Second Ponds Creek Works	$79,159.00
Stormwater Quality Second Ponds Creek	$109,521.00
Traffic Management Rouse Hill Land	$317,893.00

Contribution Item	Amount
Traffic Management Rouse Hill Works	$1,774,801.00
Open Space Rouse Hill Land	$6,622,977.00
Open Space Rouse Hill Works	$2,020,278.00
Community Facilities	$25,775.00
Community Facilities Land	$49,709.00
E2 Conservation Zone Land	$119,670.00
E2 Conservation Zone Works	$42,959.00
Total	**$11,711,612.00**

These contributions are based upon the following parameters as specified in the Contributions Plan:

Number of intended dwellings/apartments: 333 apartments.

Total Developable Area: 1.6250 hectares.

Additional population: 591.1 persons.

Stage 2 – Site 2A

Contribution Item	Amount
Stormwater Quantity Second Ponds Creek Land	$158,784.00
Stormwater Quantity Second Ponds Creek Works	$22,900.00
Stormwater Quality Second Ponds Creek	$31,683.00
Traffic Management Rouse Hill Land	$150,530.00
Traffic Management Rouse Hill Works	$840,411.00
Open Space Rouse Hill Land	$3,136,138.00
Open Space Rouse Hill Works	$956,650.00
Community Facilities	$12,205.00
Community Facilities Land	$23,538.00
E2 Conservation Zone Land	$56,667.00
E2 Conservation Zone Works	$20,342.00
Total	**$5,409,848.00**

These contributions are based upon the following parameters as specified in the Contributions Plan:

Number of intended dwellings/apartments: 164 apartments.

Total Developable Area: 0.4701 hectares.

Additional Population: 279.9 persons.

Stage 3 – Site 2D

Contribution Item	Amount
Stormwater Quantity Second Ponds Creek Land	$210,698.00
Stormwater Quantity Second Ponds Creek Works	$30,387.00
Stormwater Quality Second Ponds Creek	$42,042.00
Traffic Management Rouse Hill Land	$165,427.00
Traffic Management Rouse Hill Works	$923,581.00
Open Space Rouse Hill Land	$3,446,502.00

Contribution Item	Amount
Open Space Rouse Hill Works	$1,051,324.00
Community Facilities	$13,413.00
Community Facilities Land	$25,868.00
E2 Conservation Zone Land	$62,275.00
E2 Conservation Zone Works	$22,355.00
Total	**$5,993,872.00**

These contributions are based upon the following parameters as specified in the Contributions Plan:

Number of intended dwellings/apartments: 172 apartments.

Total Developable Area: 0.6238 hectares.

Additional Population: 307.6 persons.

Stage 4 – Sites 2B, 2C and 2E

Contribution Item	Amount
Stormwater Quantity Second Ponds Creek Land	$543,837.00
Stormwater Quantity Second Ponds Creek Works	$78,433.00
Stormwater Quality Second Ponds Creek	$108,516.00
Traffic Management Rouse Hill Land	$302,996.00
Traffic Management Rouse Hill Works	$1,691,630.00
Open Space Rouse Hill Land	$6,312,612.00
Open Space Rouse Hill Works	$1,925,604.00
Community Facilities	$24,567.00
Community Facilities Land	$47,380.00
E2 Conservation Zone Land	$114,062.00
E2 Conservation Zone Works	$40,945.00
Total	**$11,190,582.00**

These contributions are based upon the following parameters as specified in the Contributions Plan:

Number of intended dwellings/apartments: 318 apartments.

Total Developable Area:1.6101 hectares.

Additional Population: 563.4 persons.

Copies of the following relevant Contributions Plan may be inspected/purchased from Council's Customer Information Centre. Alternatively, Contributions Plans may be downloaded from Council's website:

S7.11 CP No. 22 – Rouse Hill (Works and Land).

Should the final plan of survey indicate any change in the total developable area or should amendments change the potential additional population, the information for these Section 7.11 Contributions will be adjusted accordingly.

3. Open Space conditions

3.1 The following matters are to be amended on the plan prior to the issue of any Construction Certificate:

- Design out the need for the park gate. The gate is too close to the inclusive carousel and wheelchair circulation will be impacted while the park gate is operating.
- Provide signage in the park to advise the public of the land ownership and maintenance of the park.

4. Tree Management condition

4.1 A revised Landscape Plan is to be provided indicating a revised species list for the proposed street trees along Themeda Avenue and Conferta Avenue to Council's satisfaction.

5. Waste conditions

5.1 It is noted that:

5.1.1 The proposed 11 m HRV vehicle generally demonstrates a potential to move within the space provided. Having said that, there is little room provided for driver error within the loading bay areas on both plans D & E. Furthermore, on plan D the HRV will slightly encroach the 3 m clear zone when reversing, but is able to move forward when coming to a complete stop to maintain the 3 m rear clearance.

5.1.2 The applicant has provided the minimum 3 m clear zone behind the service vehicle in accordance with BCC requirements.

5.2 The proposed development has nominated to use Council's Waste Service in accordance with Council's Resource (Waste) Management Services Charter. Council may only provide this service if the site is designed to satisfy Council concerns regarding safety and access.

5.3 Prior to Construction Certificate

5.3.1 The removal of asbestos from the site and its transportation to its final destination is to be undertaken in accordance with the NSW Environment Protection Authority's WasteLocate online system for tracking asbestos waste. Upon completion of transportation, the WasteLocate consignment number is to be submitted to Council. For more information, please refer to the following link: https://www.epa.nsw.gov.au/your-environment/waste/transporting-asbestos-waste-tyres

5.3.2 The applicant must ensure that roads and driveways are rated suitable for 24 tonne trucks.

5.3.3 The applicant must ensure access for collection vehicles is designed in accordance with the dimensions indicated on the approved architectural plans,

CAD files and vertical clearances (as per Australian Standards), showing adequate truck entry and exit and in all manoeuvring areas to the consent authority's satisfaction.

5.3.4 The applicant must demonstrate that the proposed construction plans (with particular respect to the services and piping infrastructure secured to the ceilings of the basement and waste collection area) do not encroach the required 4.5 m headroom allowance for truck access as per Australian Standard 2890.2. This 4.5 m headroom allowance must be achievable clear of all eaves, overhangs, balconies, services (including sprinklers, pipes etc) and at the roller door entry point. Failure to comply may impact the ability for waste collection vehicles to safely access the development to service its waste and recycling bins.

5.3.5 The applicant must reconfigure the waste room so it is a more practical space to the satisfaction of the consent authority. Irregularly shaped rooms as proposed are not suitable for storage of 1100 L bins or bulky waste. It also makes cleaning this area problematic.

5.3.6 The applicant must ensure the proposed bin tug and trailer is capable of traversing all the ramp required to move bins around the site to the satisfaction of the consent authority.

5.3.7 The applicant must ensure no structural supports are located within the paths of waste collection vehicles to the satisfaction of the consent authority. Obstructions will limit access and movement within the site.

5.3.8 The applicant must ensure no stairs are required to access bulky waste rooms, as this endangers users and service staff. Bulky waste rooms must be designed to open onto the loading bay to limit manual handling.

5.3.9 The applicant must ensure that sufficient space is allocated to location and storage of machinery as many require additional headroom for operation. This must be demonstrated to the satisfaction of the consent authority. The location of each type of machinery must be identified on the plans and referred to in the Waste Management Plan.

5.3.10 The applicant must delete from the Waste Management Plan reference to bulk cardboard collection. Council does not collect bulk cardboard. This will need to be an interim service provided by the Strata for the building for a period of 6 weeks from occupation to cover residents moving into the building.

5.3.11 The applicant must delete from the Waste Management Plan reference to designated collection times. Council cannot provide collection windows for waste.

5.3.12 The applicant must provide a vertical cross-section plan with swept paths demonstrating a 4.5 m headroom allowance clear of eaves, overhangs, balconies, services and at the roller door entry point, for the trucks' entire travel path (as per AS2890.2). This must also include the corresponding AutoCAD file in DWG format and 1:1 scale for the trucks' entire travel path for review.

Stage 1: 1A

- The applicant must relocate the residential bulky waste room as it must open onto the loading bay to facilitate the movement of bulky goods such as mattresses, fridges and other heavy items:
  - the Waste Management Plans state that bulky waste will be transported from basement 1.A to the bulky waste collection area of 1.B
  - heavy reliance on machinery is not supported due to ongoing costs and maintenance.
- The applicant must ensure a bin holding room is provided in 1.A as the proposed chute discharge room does not accommodate the storage of excess bulk bins for rotation.
- The applicant must ensure clear access is provided to the chute discharge room in block 1.A to the satisfaction of the consent authority. It is currently limited and does not accommodate proposed daily access for bin transportation and rotation.

Stage 1: 1B

- The applicant must relocate the residential waste room (18 x bulk bins) to the satisfaction of the consent authority as it requires the building manager to move bins through the paths of heavy vehicles, increasing risk of injury. Waste rooms must open directly onto the loading bay without obstruction to facilitate the movement of bins.
- The applicant must relocate the commercial waste room (17 x bulk bins) to the satisfaction of the consent authority as it requires the building manager to move bins through the paths of heavy vehicles, increasing risk of injury. Waste rooms must open directly onto the loading bay without obstruction to facilitate the movement of bins.

Stage 2: A

- The applicant must ensure chute discharge rooms are located on the same level as waste rooms to facilitate the movement of bins. Split level locations require dependence on bin movement aids that must traverse ramps and the path of other vehicles. This must be demonstrated to the satisfaction of the consent authority.
- The applicant must ensure chute discharge rooms are large enough to facilitate bin rotation and can accommodate a minimum of 3 x 1100 L bulk bins which can be effectively rotated. This must be demonstrated to the satisfaction of the consent authority.
- The applicant must reconfigure the shape of the residential waste room to the satisfaction of the consent authority. Irregular shapes make bin rotation/storage and cleaning of this area difficult.
- The applicant must relocate the residential waste room to the satisfaction of the consent authority as access to this area is not suitable as bins cannot be accessed from this space when the waste collection vehicle is in the loading bay.

Stage 2: BCE

- The applicant must ensure no stairs are required to access bulky waste rooms as this endangers users and service staff. Bulky waste rooms must be designed to open directly onto the loading bay. This must be demonstrated to the satisfaction of the consent authority.
- The applicant must relocate the waste room to ensure general waste bulk bins open directly onto the loading bay to facilitate the effective servicing of bins. This must be demonstrated to the satisfaction of the consent authority.

Stage 2: D

- The applicant must reconfigure the shape of the bulky waste room as it makes the practical use of this space difficult. Irregularly shaped rooms limit the available space and make the storage of bulky goods such as mattresses and fridges difficult. This must be demonstrated to the satisfaction of the consent authority.

5.4 Prior to Occupation Certificate

5.4.1 Should Council provide a waste service to this site, the elected strata manager must sign our 'Onsite Waste Collection Agreement Form' on behalf of all lot owners (and stamped using the common seal), before collections can occur.

5.4.2 A Community Management Agreement/Strata Management Agreement is required to Council's satisfaction which:

- Indicates a requirement for the appointment of a building manager/caretaker to manage bins and bulky waste on-site in accordance with the approved Waste Management Plan. This includes placement of bins out for collection and their return to the storage areas following servicing.
- Indicates the responsibility for maintenance of the garbage collection system and bin cleaning, and ensure waste collection points are clear and unobstructed prior to collection times, including providing access to the loading bay prior to bin servicing.
- Indicates the method of communication to new tenants and residents regarding the waste management service and collection system for the complex.
- Clearly outlines the requirement for the building manager to maintain and display consistent signs on all bins and in all communal bin storage areas.
- Clearly outlines the requirement for the building manager to arrange for the prompt removal of dumped rubbish from the site.
- Includes the updated (and approved) Waste Management Plan as lodged with the Development Application.

5.5 Operational (waste)

5.5.1 The Owners Corporation/Community Management Association will be responsible for ensuring that clear access is provided to waste collection trucks entering the property.

5.5.2 Waste and recycling collection vehicles entering and exiting the property must do so in a forward direction.

5.5.3 Ongoing management of waste for the site must be in accordance with the waste requirements outlined in the approved Waste Management Plan as submitted with the Development Application. This includes but is not limited to:

- Separation or caging of waste equipment on-site from residents (such as chute discharge points or storage areas for bin movement aides etc), to prevent injury or damage.
- Provision and maintenance of suitable signage in all areas with waste facilities such as bin storage areas, waste chute rooms on each floor, chute discharge points, bin collection points, loading bays or any other relevant area accessible to residents, cleaners and/or building management staff.
- Separated bin storage areas and associated waste management equipment for commercial and residential components of a development if applicable.
- Provision of bin movement aids such as bin tugs and trolleys if suggested for the site. Adequate storage for both the bin tug and trolley attachment must be shown on the architectural drawings.
- Engagement of a building manager and/or caretaker on-site to manage the waste system if suggested for the site. This includes prompt removal of illegal dumping.

5.5.4 The Community Management Statement, Strata Management Statement and/or the Total Maintenance Plan (whichever is relevant to this site) must be provided to each tenant and/or owner-occupier upon commencement of the site, and for every subsequent lease renewal and/or change in ownership of every lot in perpetuity.

5.5.5 The applicant must ensure all road networks are completed prior to occupation and bin commencement to facilitate truck movement throughout the site to the satisfaction of the consent authority.

5.5.6 Council's Abandoned Shopping Trolley Policy (Policy Number: P000497.1) must be added as a consent condition to the Notice of Determination for approval of this development.

6. Drainage conditions

6.1 Deferred Commencement matters

6.1.1 Provide amended architectural plans to the satisfaction of Council to provide additional roof coverage over the rooftop resident access/trafficable areas to ensure greater catchment area to the rainwater tanks for each applicable development draining to a rainwater tank.

6.1.2 Amended drainage plans Series 60618532 from AECOM are to be provided to address the following to the satisfaction of Council:

- Indicate the bioretention street trees on the drawing, clearly identifying the number of trees to match the MUSIC model.
- The Stormfilter chamber with twenty-five 690 mm cartridges modelled in MUSIC needs to be detailed on plan. Indicate the Stormfilter weir length.
- Provide a section through each Stormfilter chamber, cartridges and the Stormfilter weir indicating the RL of false floor and Stormfilter weir. Provide a baffle 250 mm upstream of the weir extending from 400 mm below the weir to the tank soffit.
- The minimum length of the Stormfilter weir (L) is to be set to provide a maximum velocity of 0.4 m/s under the baffle during peak flow (i.e. $L > Q_{20} / (0.4 \times 0.25)$, or $L > 10 \times Q_{20}$) in m, where Q_{20} is in m^3/s). Provide calculations.
- Provide levels for the 1 year ARI level. The invert of the outlet from the Jellyfish is to be a minimum of 0.05 m above the immediate downstream 1 year ARI level. For the Stormfilter the false floor level is to be set at or above the immediate downstream 1 year ARI level.
- Provide details and calculations of the splitter pit in the loop road to direct low flows to the regional basin.
- The maximum storage of Stormfilter chamber upstream of Stormfilter weir is to be 20 m^3/ha which is 26 m^2/ha area based on 690 mm cartridge size.
- Provide MUSIC catchment plans for the site catchment and regional bioretention basin catchment areas with land use. Print areas on the plan showing which area is directed to which specific water quality treatment device and the areas of bypass.
- Detail the non-trafficable roof area connected to the rainwater tank (RWT) on drawing no. C1-0300 (4).
- Demonstrate how the non-trafficable roof water flows reach the RWT and similarly how the trafficable roof water flows reach the stormwater tank (SWT) through the required pipe connections if SWT is provided.
- Amend rainwater tank size on drawing no. C1-0300 (4).and in Civil and Stormwater Report as per the resized rainwater tank.
- If a Stormwater storage tank is required for landscape watering, provide details on drainage plans and amend the Civil and Stormwater Report.
- Provide amended drainage plans to amend the filter media size of the regional bioretention basin on the drainage plan and in the Civil and Stormwater Report in accordance with the amended MUSIC model. The amended design is to consider the extension of the subsoil system, the many site constraints and enable vehicular maintenance access.
- Indicate the size of the filter media.

6.1.3 The following water conservation requirements are to be addressed in sizing the rainwater tank in MUSIC:

- Resize the Rainwater Tank (RWT) so that a minimum of 80% of non-potable water demand for the development is met through the reuse of rainwater. Non-potable water demand is to include landscape watering and toilet/urinal flushing.

- Allow for a minimum usage rate of 0.1 kL per day internal use per toilet or urinal for commercial/retail areas. Where the 80% reuse cannot be achieved, provide waterless urinals to reduce the water demand for flushing in urinals.
- Allow a minimum of 0.4 kL per m^2 per year for landscape garden watering excluding turf areas. The landscape watering areas are to include landscaped areas within the site excluding turfed areas, public open space areas which have native vegetation and any self-watering trees. The proposed landscaping watering area 6957 m^2 for rainwater reuse appears to be too high. Provide detailed landscape watering plan indicating the areas and the types of vegetation. Additional RWTs should be considered for the residential development to the south of Conferta Avenue for landscape watering.
- If the total demand could not be met through a RWT alone, a stormwater tank (SWT) is to be provided to meet the annual demand for landscape watering. The SWT can source water form trafficable roof area or other surface flows. The RWT is to collect the non-trafficable roof water only and is to be re-used for the toilets and urinals only.
- Where a SWT is used, a water specialist has to certify that the water quality when treated is fit for purpose.
- Allow for a 10% loss in rainwater tank/stormwater tank size volume in MUSIC to that shown on the design plans to allow for anaerobic zones, mains water top up levels and overflow levels, e.g. where a 50,000 L tank is specified on the drainage plan it is to be modelled in MUSIC as 45,000 L.
- Where the 80% reuse cannot be achieved to size the rainwater tank for the optimum performance, plot a curve based on MUSIC for various tank sizes and percentage of reuse as detailed in section 11.14.5 of Council's WSUD Developer Handbook 2020 which is available on Council's website.

6.1.4 Amended MUSIC models for the site and regional basin are required to address the following:

- For the regional bioretention basin, include the catchment area of roads north of the railway station drain down to this bioretention basin, which includes Implexa Pde, Aristada St North, Cudgegong Road (north) and part Munina St totalling about an additional 2 ha of roadway. Revise the size of the bioretention basin in the model to meet the water quality targets with additional catchment areas.
- The surface area of 650 m^2 for the bioretention node in the model appears to be too large for a 431 m^2 filter area with 1V:4H batter. Revise the surface area of the bioretention basin nominated in the model or provide a copy of NRT's Work As Executed plan on which the data is based.
- The model for the development is to be modelled for ultimate conditions for which the total impervious area of the site is to be considered as 85% of impervious.
- Include any amendments to the RWT and SWT sizing or usage.

- Reassess SEI for the amended MUSIC model for the site to ensure SEI is less than 3.5.

6.1.5 All of the requirements listed in the above condition must be completed within 24 months of the date of this "Deferred Commencement" consent. Should these matters not be completed satisfactorily within this time period, this "Deferred Commencement" consent will lapse.

6.1.6 If the satisfaction of any of the above deferred commencement conditions results in any changes to the operational conditions in this consent, the Applicant must lodge a Modification Application, seeking consent for those changes.

6.2 General conditions

6.2.1 The registered proprietor/owners corporation is to provide to Council's WSUD Compliance Officer a report outlining all maintenance undertaken on the Stormwater Quality Improvement Devices in accordance with the approved maintenance schedule. All materials removed are to be disposed of in an approved manner. Copies are to be provided of all contractors' cleaning reports or certificates to Council's WSUD Compliance Officer WSUD@blacktown.nsw.gov.au.

6.2.2 Each year the registered proprietor/owners corporation is to provide to Council's WSUD Compliance Officer at WSUD@blacktown.nsw.gov.au a report outlining all non-potable water used annually and the percentage of non-potable reuse.

6.2.3 The development must at all times maintain the water quality system to achieve the following minimum pollutant removal targets for the entire site for the life of the development:

Required percentage reductions in post development average annual load of pollutants

Pollutant	**% post development pollutant reduction targets**
Gross Pollutants	90
Total Suspended Solids	85
Total Phosphorous	65
Total Nitrogen	45

6.3 Conditions required prior to release of Construction Certificate

6.3.1 Amended drainage plans from AECOM are to be provided to meet the requirements under Council's DCP Part J 2015 and Council's Engineering Guide for Development 2005 to the satisfaction of Council's Manager Asset Design. The amended plans must address the following:

- Confined space entry warning signs are to be detailed on the drainage plans adjacent to all entries into the water quality devices and rainwater tank in accordance with Council's Engineering Guide for Development 2005.

- The minimum storage and dual alternating pump requirements for the basement garage is to satisfy AS/NZS 3500.3:2015 – Plumbing and Drainage Part 3: Stormwater Drainage.
- Provide a basement design that ensures a minimum 0.5% slope to all surface inlet pits.
- Provide galvanised or equivalent step irons or ladders for all entry points to the tanks.

6.3.2 An experienced Drainage Engineer registered with NER and supported by a DRAINS or other hydraulic modelling is to certify that the internal drainage system is capable of carrying the 5% AEP flows without surcharge at any pits.

6.3.3 An engineer registered with NER is to certify that the maximum depth of flows in the critical 1% AEP storm event within the loop road is less than 200 mm.

6.3.4 Provide details for permanent interpretive signage minimum A1 size to be installed to each lot to highlight the water quality improvement 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 and rainwater tanks and explain the benefit to the site and community as per chapter 14 of Council's WSUD Developer Handbook 2020. 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. The wording and detail is to be approved by Council.

6.3.5 Due to the cut and/or fill exceeding 1.5 m, a desktop Groundwater Assessment Report is required for the site in accordance with section 4.6 of DCP 2015 Part J and chapter 5 of Council's WSUD Developer Handbook 2020. Where there is the potential for interaction with groundwater, a Groundwater Management Plan must be prepared by a Geotechnical Engineer registered with NER.

6.3.6 Revised landscape plans are required in accordance with Council's WSUD Standard Drawings A(BS)175M Sheet 12 that include appropriate species for the bioretention system. Planting within the filter area should incorporate several growth forms, including shrubs and tufted plants and be densely planted (tufted plants at a minimum of 10 plants per square metre) to ensure plant roots occupy all parts of the media. To ensure diversity and disease resistance a minimum of 8 different species is required planted as a matrix. No mulch is permitted over the bioretention however jutemat is accepted. Where the banks of the basin are turfed a minimum 200 mm wide concrete mowing strip is required adjacent to the bioretention to minimise grass intrusion into the bioretention.

6.3.7 Amended architectural plans are required for buildings, or parts of buildings, that are not affected by BASIX, to demonstrate compliance with the minimum standards defined by the Water Efficiency Labelling and Standards (WELS) Scheme for any water use fittings. Minimum WELS ratings are:

- 4 star dual-flush toilets
- 3 star showerheads
- 5 star taps (for all taps other than bath outlets and garden taps)
- 3 star urinals or waterless urinals

- 3 star water efficient washing machines and dishwashers are to be specified.

6.3.8 An experienced chartered hydraulic engineer is to prepare and certify a detailed Rainwater Water Supply and Irrigation Plan for non-potable water uses on the site including all toilet/urinal flushing and landscape watering as detailed and that all Sydney Water requirements have been satisfied. The plan is to show the rainwater pipe and tank arrangement including:

- a first flush or pre-treatment system (typically 0.2 litres / m^2 of roof area going to the tank for a first flush)
- a pump with isolation valves
- a solenoid controlled mains/recycled water bypass
- flow meters on the solenoid controlled mains/recycled water bypass line and the pump outflow line, to determine non-potable usage and actual percentage reuse
- an automatic backwash inline filter
- a control panel with warning light to indicate pump failure
- ensuring all the rainwater reuse pipes and taps are coloured purple
- connection points for all the proposed irrigation area supplied by the rainwater tank
- fitting rainwater warning signs to all external taps using rainwater.

6.3.9 An experienced chartered hydraulic engineer is to prepare and certify a detailed Non-Potable Water Supply and Irrigation Plan for landscape watering only sourced from stormwater tank and that all Sydney Water requirements have been satisfied. The plan is to show the stormwater pipe and tank arrangement including:

- a pre-treatment system appropriate to the water source
- a pump with isolation valves
- a solenoid recycled water bypass
- flow meters on the solenoid controlled recycled water bypass line and the pump outflow line, to determine non-potable usage and actual percentage reuse
- an automatic backwash inline filter
- a control panel with warning light to indicate pump failure
- ensuring all the rainwater reuse pipes and taps are coloured purple
- connections points for all proposed irrigation areas supplied by the stormwater tank
- fitting rainwater warning signs to all external taps using stormwater.

6.3.10 An experienced irrigation specialist is to prepare and certify a detailed Landscape Watering Plan for non-potable landscape watering. The plan is to show the irrigation layout based on non-potable water supply point from the rainwater tank/stormwater tank, including:

- isolation valve for maintenance or during water restrictions
- a timer and control box for landscape watering, allowing for seasonal variations and split systems

- clearly detail the areas covered by the irrigation system
- designed to automatically achieve a minimum average usage rate of 0.4 kL/yr/m2 for landscape area but not generally turf including increasing the frequency of watering by a minimum 50% above average for the hotter months and reducing by 50% for the cooler months
- ensuring all the reuse pipes and taps are coloured purple
- fitting warning signs to all external taps using non-potable water.

6.4 Conditions required during construction

6.4.1 The twenty-five 690 Stormfilter cartridges for the Stormfilter chamber supplied by Ocean Protect are not to be reduced in size or quantity, nor replaced with an alternate manufacturer's product.

6.4.2 The Jellyfish filters two numbers of JF 2250-7-2 and JF 3250-16-3 supplied by Ocean Protect are not to be reduced in size or quantity, nor replaced with an alternate manufacturer's product.

6.4.3 The Gross Pollutant Traps HumeGard HG15 and three numbers of HumeGard HG12A supplied by Humes are not to be reduced in size or replaced with an alternate manufacturer's product.

6.4.4 A plumber licensed with NSW Fair Trading is to undertake flow testing of the non-potable water reuse system to certify that all the toilets are capable of being supplied by rainwater and that there is no cross mixing or cross contamination with the potable water supply.

6.4.5 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)
- a pH between 5.5 and 7
- an Orthophosphate content < 20 mg/kg
- a Total Nitrogen content between 800 and 1000 mg/kg
- is not hydrophobic.

6.5 Conditions required prior to occupation

6.5.1 Surveys/certificates/works as executed plans

- A Chartered Civil Engineer registered with NER is to certify that:
  - all the requirements of the approved drainage plan have been undertaken
  - the modified future regional bioretention basin has been constructed in accordance with the additional required filter media area
  - the minimum size rainwater tank(s) has been provided collecting roof water from non-trafficable roof area as per the approved plan

- the minimum size stormwater tank(s) has been provided collecting roof water from trafficable roof area or surface flows as per the approved plan
- the Gross Pollutant Traps HumeGard HG15 and three HumeGard HG12A are installed for the site in accordance with the Humes standard operational guidelines and production drawings
- the interpretative water quality signs have been correctly installed
- all other signage and warning notices have been installed
- a copy of the certification and the works-as-executed drainage plan has been provided to the certifier, who shall provide it to Council.

o Ocean Protect is to certify for the installation of Stormfilter and Jellyfish filters that:

- they are installed in accordance with the Ocean Protect standard operational guidelines and production drawings
- the minimum twenty-five 690mm high Stormfilter cartridges for the Stormfilter tank have been installed as per the approved plan
- the Stormfilter tank includes a baffle 400 mm below the Stormfilter weir and set 250 mm upstream from the weir to retain floatables for the 690 mm cartridges
- the Stormfilter weir length for the Stormfilter chamber matches the approved plan
- mosquito proof screens have been provided under all grated accesses into the Stormfilter tanks
- energy dissipaters have been provided on the inlets to the Stormfilter chamber as per the approved plan
- a maintenance contract has been entered into for the maintenance of the Stormfilter
- the Jellyfish filters of two JF 2250-7-2 and JF 3250-16-3 match the approved drainage plans
- a maintenance contract has been entered into for the maintenance of the Jellyfish cartridges of each Jellyfish filter.

o A plumber licensed with NSW Fair Trading, or experienced hydraulic engineer, is to certify that:

- all the non-potable water uses are being supplied by rainwater
- all the requirements of the detailed Rainwater Water Supply and Irrigation Plan have been installed to the required locations
- the flow meters have been installed on the pump outflow and the solenoid controlled mains/recycled water bypass to determine non-potable usage and actual percentage of reuse
- the initial flow meter readings are detailed in the certificate
- the pumps, alarms and all other systems are working correctly
- the water from at least two toilets per grouped amenities section have been tested to show no chlorine residual
- rainwater warning signs are fitted to all external taps using rainwater

- a signed, works-as-executed Non-Potable Water Supply & Irrigation Plan is to be provided to Council's WSUD Compliance Officer at WSUD@blacktown.nsw.gov.au

- An experienced irrigation specialist is to certify that:
  - all the non-potable landscape water uses are being supplied by rainwater;
  - all the requirements of the detailed Landscape Watering Plan have been installed to the required locations
  - for the rainwater/stormwater tank indicated on the approved drainage plan, the automatic timer has been set up for time and frequency to deliver 0.4 kL/m2/year on average and the system has been designed for a minimum of 50% above the average rate in summer and half the rate in winter
  - the pumps, alarms and all other systems are working correctly
  - the water from at least two garden taps, or two sample points for the landscape watering system, have been tested to show no chlorine residual
  - rainwater warning signs are fitted to all external taps using rainwater
  - a signed, works-as-executed Landscape Watering Plan is to be provided to Council's WSUD Compliance Officer at WSUD@blacktown.nsw.gov.au
- If stormwater tank is used for landscape watering water uses, an experienced irrigation specialist is to certify that:
  - the landscape watering water uses are being supplied by stormwater
  - all the requirements of the detailed Non-Potable Water Supply & Irrigation Plan have been installed to the required locations, including all necessary treatment requirements to ensure the stormwater is fit for purpose
  - the flow meters have been installed on the pump outflow and the solenoid controlled recycled water bypass to determine non-potable usage and actual percentage of reuse
  - the initial flow meter readings are detailed in the certificate
  - the pumps, alarms and all other systems are working correctly
  - the water from at least two garden taps, or two sample points for the landscape watering system have been tested to show no chlorine residual
  - warning signs are fitted to all external taps using stormwater
  - a signed, works-as-executed Non-Potable Water Supply & Irrigation Plan is to be provided to Council's WSUD Compliance Officer at WSUD@blacktown.nsw.gov.au
- A plumber licensed with NSW Fair Trading is to certify that the buildings, or parts of buildings that are not affected by BASIX, comply with the minimum standards defined by the Water Efficiency Labelling and Standards (WELS) Scheme for any water use fittings. Minimum WELS ratings are:
  - 4 star dual-flush toilets

- 3 star showerheads
- 5 star taps (for all taps other than bath outlets and garden taps)
- 3 star urinals or waterless urinals
- 3 star Water efficient washing machines and dishwashers have been used.

- A Geotechnical Engineer is to undertake in situ Saturated Hydraulic Conductivity Testing of the bioretention systems off Cudgegong Road in accordance with Practice Note 1 of the FAWB guidelines. For bioretention systems with a filter area less than 50 m^2, in situ hydraulic conductivity testing should be conducted at three points. For systems with a filter area greater than 50 m^2, an extra test point should be added for every additional 100 m^2 or part thereof. Points are to be spatially distributed. 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 of 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.
- 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.

6.5.2 **Easements/restrictions/positive covenants**

- Provide a Restriction as to User and Positive Covenant over the Stormwater Quality Improvement Devices including rainwater and stormwater tanks 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 and non-potable water usage before September each year. The Restriction as to User and Positive Covenant must be registered with NSW Land Registry Services prior to the final Occupation Certificate.

6.6 Other matters

6.6.1 Provide maintenance requirements for each of the proposed water quality devices including rainwater tank generally in accordance with the Council's *WSUD Inspection and Maintenance Guidelines* available on Council's website. Where a proprietary device is not included within this guideline provide these separately in accordance with the manufacturer's requirements. 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.

6.6.2 Provide written evidence that the registered owner/lessee has entered into a minimum five (5) year signed and endorsed maintenance contract with a reputable and experienced cleaning contractor for the maintenance of Humegards, Stormfilters, Jellyfish filters and rainwater/stormwater tanks. Forward a copy of the signed and endorsed contract(s) and maintenance contractor(s) details to Council's WSUD Compliance Officer at WSUD@blacktown.nsw.gov.au. This maintenance contract cannot be cancelled, but can be replaced with an alternative contract of the same standard or with a differing entity (e.g. owners' corporation).

6.6.3 The maintenance contract is to contain a requirement that all maintenance on the filter cartridges is undertaken by Ocean Protect and either the Stormfilter and Jellyfish filter cartridges are replaced no later than three years after the date of installation, or a flow test is to be undertaken on the filter chamber in accordance with Council's WSUD developer handbook. The flow test is to be repeated and passed each and every year after that for the filters to be retained, but the filters must be replaced after a maximum of 5 years.

6.6.4 Where the Groundwater Assessment Report indicated the requirement for a Groundwater Management Plan, then a Chartered Geotechnical Engineer registered with NER is to certify that all the requirements of the Groundwater Management Plan have been undertaken and that there is no adverse impact due to groundwater.

7. Engineering conditions

7.1 Deferred Commencement matters

7.1.1 This Development Consent is not to operate until such time as:

- The applicant is to obtain written concurrence for the proposed design formation of future public roads MC01 and MC02 from Council. This may require changes to the proposed engineering plans and subdivision configuration.

  Note: the proposal seeks to construct a future public in a formation that deviates from the typical local road cross-section (medium to high density) detailed within the Blacktown City Council Growth Centre Precincts Development Control Plan 2010.

- The applicant is to supply an amended staging plan and plan of subdivision. The staging plan and plan of subdivision is to demonstrate that all subdivision works are to be completed to the satisfaction of Council, and the Subdivision Certificate issued prior to any development stage for building works. This includes future public infrastructure such as roads and road drainage systems as well as any engineering infrastructure required to serve the road and road drainage system, including temporary on-site

stormwater detention (OSD) and Water Sensitive Urban Design (WSUD) located on privately owned land.

Note: Sites 1A and 1B may be excluded from the above requirement subject to the applicant demonstrating the appropriate infrastructure such as roads and road drainage systems as well as any engineering infrastructure required to serve the road and road drainage system, including temporary on-site stormwater detention (OSD) and Water Sensitive Urban Design (WSUD) can be completed prior to that stage.

7.1.2 All of the requirements listed in the above condition must be completed within 12 months of the date of this "Deferred Commencement" consent. Should these matters not be completed to Council's satisfaction within this time period, this "Deferred Commencement" consent will lapse.

7.2 Other approvals

7.2.1 A separate valid Construction Certificate/Subdivision Works Certificate shall be issued prior to commencement of any construction works.

7.3 Services

7.3.1 The developer shall be responsible for all public utility adjustment/relocation works, necessitated by the above work and as required by the various public utility authorities and/or their agents.

7.4 Identification survey

7.4.1 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.

7.5 Other approvals

7.5.1 All works requiring approval under the *Roads Act 1993* (except standard vehicular crossings) or *Local Government Act 1993* must be approved PRIOR to the issue of any Construction Certificate or Subdivision Works Certificate.

7.6 Payment of engineering fees

7.6.1 If the applicant wishes for Council to issue the Construction Certificate or Subdivision Works Certificate please:

- Complete application form
- Submit all relevant plans produced by a suitably qualified person and in accordance with Council's Standards.

7.7 Release of plan of subdivision

7.7.1 The plan of subdivision is not to be released until Public Road access is provided. This may require the registration of the adjoining subdivision.

7.8 Road damage

7.8.1 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.

7.9 Design and works specification

7.9.1 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:

- Blacktown City Council's Works Specification - Civil (Current Version)
- Blacktown City Council's Engineering Guide for Development (Current Version)
- Blacktown City Council Development Control Plan (Current Version) including Part J – Water Sensitive Urban Design and Integrated Water Cycle Management
- Blacktown City Council Growth Centre Precincts Development Control Plan 2010
- Blacktown City Council On Site Detention General Guidelines, S3QM online tool and standard drawing A(BS)175M
- On Site Stormwater Detention Handbook - Upper Parramatta River Catchment Trust FOURTH Edition.

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

7.9.2 The Applicant is required to submit, to Council, Bonds and/or Contributions for works associated with the development in conjunction with the civil engineering works required to be constructed as part of this development. Works may include:

- Path Paving construction
- Final Layer Asphaltic Concrete (AC) construction
- Maintenance of the construction works
- Removal of temporary infrastructure.

7.9.3 Prior to release of any bond securities held by Council for civil engineering works, the payment of a bond release inspection fee in accordance with Council's Goods and Services Pricing Schedule must be made.

7.9.4 Written notice must be provided to adjacent properties, at least 5 days prior to works commencing, where works are approved by this consent and located within Council controlled lands (i.e. roads, drainage reserves, parks, etc.)

A copy of this notice must be provided to Council's Co-ordinator of Engineering Approval.

7.10 Other necessary approvals

7.10.1 A separate application will be required for the following approvals, under the *Local Government Act 1993* and/or the *Roads Act 1993*.

- Vehicular crossing
- Works on or occupation of existing public roads (not including works covered by a Roads Act Approval).

7.11 Subdivision

7.11.1 Principal Certifying Authority - Blacktown City Council shall be the Principal Certifying Authority for the proposed subdivision and issue the Subdivision Certificate.

7.12 Imported fill material

7.12.1 The only fill material that may be received at the development site is:
(a) virgin excavated natural material (within the meaning of the *Protection of the Environment Operations Act 1997).*

7.13 Other matters

7.13.1 No construction preparatory work (such as excavation, filling and the like) shall be undertaken on the land prior to a valid Construction Certificate being issued.

7.13.2 Any future substation, temporary drainage works or other utility installation required to service the approved subdivision/development shall not be sited on future or existing Council land, including road reservations and/or public reserves.

PRIOR TO CONSTRUCTION CERTIFICATE (GENERAL)

7.14 DA plan consistency

7.14.1 A Construction Certificate or Subdivision Works 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.

7.15 Road deposit/bond

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

(a) Road inspection fee.

Council will undertake initial and final inspection of civil assets outside the development site. The applicant will be held liable for any damage arising from construction activities. Council will undertake reinstatement works and recover the costs from the applicant in accordance with Council's current Goods & Services Pricing Schedule.

7.15.2 The payment of a vehicular crossing fee to Council's Maintenance Section pursuant to Sections 608 and 609 of the Local Government Act 1993. The fee is subject to periodic review and may vary at actual time of payment.

7.16 Development Control Plan

7.16.1 Except as otherwise approved, the design plans which accompany the Construction Certificate shall comply with the design criteria specified in Council's Growth Centre Precincts Development Control Plan 2010.

PRIOR TO CONSTRUCTION CERTIFICATE/SUBDIVISION WORKS CERTIFICATE (ENGINEERING)

7.17 General

7.17.1 All relevant conditions within the 'Prior to Construction Certificate' section of this consent shall be satisfied before any Construction Certificate or Subdivision Works Certificate can be issued.

7.17.2 Where this consent requires both subdivision and building works to be undertaken, no Construction Certificate for building works is to be issued until all subdivision works have been completed to the satisfaction of Council and the Subdivision Certificate issued. This includes future public infrastructure such as roads and road drainage systems, as well as any engineering infrastructure required to serve the road and road drainage systems, including temporary on-site stormwater detention (OSD) and Water Sensitive Urban Design (WSUD) located on privately owned land.

For temporary OSD and WSUD located on privately owned land, the registration of all associated easements/restrictions and positive covenants of said infrastructure is required prior to any building works Construction Certificate being issued.

7.17.3 The engineering drawings referred to below are not for construction. The Construction Certificate/Subdivision Works Certificate drawings shall be generally in accordance with the approved drawings and conditions of consent. Any significant variation to the design shall require a section 4.55 application.

The construction Certificate/Subdivision Works Certificate plan shall be generally in accordance with the following drawings and relevant Consent conditions:

[INSERT PLAN NUMBERS]

7.17.4 The following items are required to be addressed on the Construction Certificate plans:

- Private stormwater drainage infrastructure must be adjusted to be wholly located within the subject lots excluding connections from boundary pits to the existing stormwater network within public roads.

- The proposed road design must be adjusted to cater for a design speed of 60 km/hr in accordance with Blacktown City Council's Engineering Guide for Development.
- Proposed WSUD street tree pits that are intended to treat stormwater quality must be designed in accordance with Blacktown City Council's Street Tree Standards. The applicant is to obtain written concurrence from Council's Manager Asset Design.
- The applicant is to obtain written concurrence from Council's Manager Traffic and Transport Management for the proposed location of the vehicular crossing intended to serve the new substation off Cudgegong Road at the north-eastern end of the site.
- The applicant is to obtain written concurrence from Council's Manager Traffic and Transport Management for the proposed location of the pedestrian crossings proposed along Conferta Avenue. The applicant is also required to obtain approval from the Local Traffic Committee.
- The applicant is to provide a certificate from a suitably qualified engineer to verify that the overland flow path conveyance at the low point within MC02 at approximate chainage 00.00 will not negatively impact the proposed vehicular crossing within close proximity and that all flows bypass the vehicular crossing.
- All proposed kerb ramps are to comply with Blacktown City Council Standard Drawing A(BS)104M and are to be located/aligned so as to ensure there is a kerb ramp on the opposing side of the road.
- Parking bays are to be adjusted to meet the requirements of AS2890 and all associated Australian Standards and Austroad requirements.
  Note the kerb alignment along the verge side of all parking bays is to incorporate an appropriate radius along the perimeter of any proposed breaks.
- Stormwater connections from private property into the existing public stormwater network must not be located within the existing carriageway where practical to do so, i.e. within Conferta Avenue.

7.18 Subdivision Works/Construction Certificate requirements

7.18.1 Under the *Environmental Planning and Assessment Act 1979* a Subdivision Works Certificate is required. These works include but are not limited to the following:

- Road and drainage construction
- Water quality treatment – WSUD street tree pits
- Earthworks
- Path paving (within a subdivision).

The above requirements are further outlined in this section of the consent

7.18.2 Under the *Environmental Planning and Assessment Act 1979* a Construction Certificate is required. These works include but are not limited to the following:

- Private park/open space, private road and drainage construction
- Rainwater tank construction
- On-site stormwater detention

- On-lot stormwater quality treatment.

The above requirements are further outlined in this section of the consent.

7.19 Roads Act requirements

7.19.1 Under *Section 138 of the Roads Act 1993* an approval for engineering work is required. These works include but are not limited to the following:

- Any works within Council's road reserve
- Stormwater drainage pit connections and associate works within existing public roads, i.e Conferta Avenue and Cudgegong Road
- Any works associated with expansion to the existing reaional bioretention basin located within the existing road corridor on the eastern side of Cudgegong Road
- Interface works between proposed new roads and existing public roads
- Roads works, kerb realignment and wombat crossings along Conferta Avenue
- Vehicular crossings
- Path paving.

7.20 Other engineering requirements

7.20.1 Proof of long service levy payments is required.

7.20.2 Any ancillary works undertaken shall be at no cost to Council.

7.20.3 Submit written permission from the affected property owner for any works proposed on adjoining land.

7.20.4 Submit written evidence from the Roads and Maritime Services indicating compliance with all necessary requirements. This includes but is not limited to written confirmation from the Roads and Maritime Services for any proposed works within Cudgegong Road and for the connection of proposed new stormwater lines into the existing stormwater network within Cudgegong Road.

7.20.5 The applicant must obtain written concurrence from the relevant rail authority for any works proposed along Themeda Avenue or within close proximity, that have the potential to impact the zone of influence affecting the adjacent rail corridor on the northern side of Themeda Avenue.

7.20.6 All street name poles, light poles and bus shelters shall be black powder coated in accordance with Blacktown City Council's Engineering Guide for Development. Ensure this is noted on the construction plans.

7.20.7 Submit a Public Utilities Plan demonstrating adequate clearance between services to stormwater pits, pipes, driveways, light poles, etc.

7.21 Roads

7.21.1 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.

NOTE: The design CBR is to be confirmed on site prior to placement of any pavement. If actual CBR is less than design CBR, revised pavement design will be required.

7.21.2 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 person who holds a current Roads and Maritime Services (RMS) Work Zone Traffic Management Plan accreditation and photo card.

7.21.3 The applicant is to obtain a Road Occupancy Licence (ROL) from the Roads and Maritime Services for any works proposed along Cudgegong Road and/or that is within 100 m of an existing signalised intersection. Evidence of the ROL is to be submitted to Council.

7.21.4 Any approved design drawings must show a minimum 5 m x 5 m splay for residential allotments at each street intersection.

7.21.5 Splays are to be adjusted to meet site specific intersection designs in accordance with Council's Engineering Guide for Development.

7.21.6 Proposed new roads shall be designed and constructed as follows:

Name	Width(m) (Overall Minimum)	Length (m)	Formation (m)	Traffic Loading N(E.S.A)
MC01	18	190	3.5-11-3.5	5x10^5
MC02	18	65	3.5-11-3.5	5x10^5

NOTE: Where the proposal seeks to construct a future public road in a formation that deviates from the typical local road cross-section (medium to high density) detailed within the Blacktown City Council Growth Centre Precincts Development Control Plan 2010, the applicant is to obtain written concurrence for that design from Council's Coordinator Engineering Approvals.

NOTE: All travel lanes must achieve a minimum 3 m of unobstructed width.

NOTE: All verge sections must ensure delineation from the carriageway and must incorporate the appropriate kerb and gutter system in accordance with Council's Engineering Guide for Development.

7.21.7 Private access roads or right of way driveways shall be designed and constructed in accordance with the nominated engineering plans and generally in accordance with Council's Engineering Guide for Development. This includes part of MC02 approximately from CH70.00 to CH160.00.

NOTE: The proposed private road design, including but not limited to the travel lanes and parking bays, are to be designed and constructed to meet the

requirements of the relevant Austroads and Australian Standard requirements as well as provide for the safety and amenity of pedestrian movement.

The pavement shall be designed as a rigid pavement. A suitably qualified engineer (NER registered) must certify that the pavement has been structurally designed in accordance with Austroads Guide to Pavement Technology Part 2: Pavement Structural Design with a Design Traffic loading determined in accordance with Austroads, particularly Section 7.7, and that all jointing and reinforcement requirements are consistent with RMS NSW practice (i.e. RMS NSW Publication - Plain concrete pavement MD.R83.CP, Jointed concrete pavement MD.R83.CJ and Continuously reinforced concrete pavement MD.R83.CC).

NOTE: the minimum equivalent N(ESA) traffic loading for design shall be 5 x 10.4.

7.21.8 Staging of road construction will be permitted where suitable traffic circulation or temporary turning areas in dead end roads are evident in accordance with Council's Engineering Guide for Development.

7.22 Drainage

7.22.1 Drainage from the site must be connected into Council's existing drainage system.

7.22.2 Provided inter-allotment drainage lines for lots that do not drain directly to a public road. The design shall include pipeline long-sections and identify location and levels of services.

7.22.3 Any overland or stormwater flows must be intercepted at the property boundary, conveyed through the site in a piped or channelled drainage system and discharged in a satisfactory manner.

7.23 Signage and line marking

7.23.1 A formal submission must be made to the Local Traffic Committee (LTC) through Council's Traffic Engineering Section for all signage and line marking details proposed as part of these works.

7.23.2 A determination will be required prior to the implementation of all signage and line marking works.

7.24 Erosion and sediment control

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

7.25 Earthworks

7.25.1 Proposed lots must be filled so that the ground levels behind the building are a minimum of 500 mm above the designed 100-year average recurrence interval flood level.

7.25.2 Batters are not to exceed a grade of 1V:5H and are to be stabilised with topsoil, turf and vegetation.

7.25.3 Finished levels of all internal works at the road boundary of the property must be 4% above the top of kerb.

7.25.4 Show on plan adjacent to road cross sections approximate quantities of road materials required for construction (i.e. Densely Graded Subbase and Densely Graded Base).

7.26 On-site stormwater detention

7.26.1 The On-site stormwater detention system shall be designed in accordance with the parameters set out in Council's Water Sensitive Urban Design Standard Drawings A(BS)175M On-site detention requirements - Sheet 20, or an S3QM Certificate.

7.26.2 The on-site detention system shall be generally designed to achieve the following:

- All systems shall use at least 2 orifice plates to control flows:
  - The 1.5 year ARI orifice shall be designed to convey a maximum of 40/L/s/ha.
  - The 100 year ARI orifice shall be designed to convey a maximum of 190 L/s/ha.
- Storage shall be provided as follows:
  - Volume up to 1.5 year ARI TWL = 300 m^3/ha
  - Volume up to 100 year ARI TWL = 455 m^3/ha.
- Orifice flow rates will be adjusted for bypass with a maximum site bypass of 15% as per the following table:

Total OSD BYPASS (%)	ENVIRONMENTAL DISCHARGE (1.5 YEAR ARI ORIFICE) (L/s/ha)	ENVIRONMENTAL STORAGE (BELOW 1.5 YEAR ARI WEIR) (m^3/ha)	FLOOD DISCHARGE (100 Year ARI ORIFICE (L/s/ha)	FLOOD STORAGE (BELOW EMERGENCY WEIR) (m^3/ha)
0	40.0	300	190	455
2.5	38.5	300	176	455
5	37.0	300	162	455
7.5	35.5	300	148	455
10	34.0	300	134	455
12.5	32.5	300	120	455
15	31.0	300	106	455

7.26.3 A registered engineer (NER) must certify 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.
- The on-site stormwater detention system will perform to meet the on-site stormwater detention requirements and function hydraulically in general accordance with Council's Engineering Guide for Development, DCP Part J - Water Sensitive Urban Design and Integrated Water Cycle Management, S3QM Deemed to comply tool and Council's Standard Drawing A(BS)175M.

7.26.4 The following documents shall be submitted to accompany the on-site detention design in accordance with the design:

- Comprehensive drainage drawings with cross-sectional details of the storage area, pit numbers, pipe sizes, catchment plan, etc

- On-site detention detailed design submission and calculation summary sheet
- A maintenance schedule that complies with Council's Water Sensitive Urban Design maintenance guidelines, signed and dated by the designer
- S3QM Deemed to Comply On-site detention summary details.

7.27 Stormwater quality control

7.27.1 The stormwater quality treatment system shall be designed in accordance with Council's Engineering Guide for Development and DCP Part J - Water Sensitive Urban Design and Integrated Water Cycle Management.

7.27.2 Provide a maintenance schedule for the stormwater quality device that is signed and dated by the designer.

7.27.3 Bio-retention basin(s) to be designed in accordance with Council's Water Sensitive Urban Design standard drawings and Council's Engineering Guide for Development and DCP Part J - Water Sensitive Urban Design and Integrated Water Cycle Management.

7.28 Vehicular crossings

7.28.1 Plans must demonstrate the construction of commercial and industrial vehicular crossings to Council's standard A(BS)103S.

7.29 Footpaths

7.29.1 Path paving is to be provided generally in accordance with Council's Path Paving Policy, Blacktown City Council Engineering Guide for Development and Blacktown City Council Growth Centre Precincts Development Control Plan 2010.

NOTE: maximum cross fall permissible for full width path paving is 2.5%. Path paving is to be designed and constructed generally in accordance with Blacktown City Council Standard Drawing A(BS)178M – CBD Pavers.

7.29.2 The construction of path paving is to be provided generally in accordance with Council's Path Paving Policy, Blacktown City Council Engineering Guide for Development and Blacktown City Council Growth Centre Precincts Development Control Plan 2010.

Proposed locations and widths are to be approved by Blacktown City Council's Co-ordinator Engineering Approvals. Cycleways/ shared pathways are to include line marking and signposting in accordance with the requirements of Austroads "Guide to Road Design" Part 6A and the Roads and Maritime Services NSW Bicycle Guidelines November 2003.

7.29.3 Construct shared user paths (including signage and linemarking) in accordance with Part 6A (Paths for Walking and Cycling) 2017 of Austroads "Guide to Road Design" and the RMS NSW Bicycle Guidelines – July 2005.

PRIOR TO DEVELOPMENT WORKS

7.30 Notification to Council

7.30.1 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.

7.30.2 At least 5 full working days written notice must be given for the commencement of engineering works. Such notice must be accompanied by evidence of the contractor's Public Liability and Workers Compensation Insurances. For Public Liability Insurance this should be a minimum amount of $10,000,000.

7.31 Roads and maritime services

7.31.1 Written evidence shall be obtained from the Roads & Maritime Services indicating compliance with its requirements, including the payment of any necessary works supervision fees. A copy of such approval shall be lodged with Council.

7.32 Adjoining owners

7.32.1 Written permission from the respective owner(s) must be obtained to:
(a) discharge stormwater onto adjoining owners 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.

DURING CONSTRUCTION (ENGINEERING)

7.33 Notification of works

7.33.1 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 5 business days prior to commencement of engineering works.

7.34 Insurances

7.34.1 Current copies of relevant insurance Certificates of Currency are to be submitted to Council's Engineering Approvals Team. This shall be submitted prior to commencement of engineering works required by this consent that are carried out on Council controlled lands such as roads, drainage reserves and parks. This includes Public Liability Insurance with a minimum of $20,000,000 Indemnity and Workers Compensation.

7.35 Service authority approvals

7.35.1 Prior to the commencement of 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 crossings.

7.36 Boundary levels

7.36.1 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.

7.37 Tree protection and preservation

7.37.1 Existing vegetation and trees shall be left undisturbed except where roads, stormwater drainage infrastructure, site filling and/or building works are proposed.

7.37.2 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.

7.38 Soil Erosion and sediment control measures

7.38.1 Soil erosion and sediment control measures on-site shall be implemented, maintained and monitored in accordance with Council's Soil Erosion and Sediment Control Policy.

7.38.2 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.

7.38.3 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.

7.39 Filling of land and compaction requirements

7.39.1 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.

7.39.2 Special attention is drawn to the below listed requirements of Council's Works Specification - Civil (Current Version).

- Compaction certificated for fill with road reserves
- Compaction certificates for road sub-grade
- Compaction certificates for road pavement materials (sub-base and base courses).
- Contour lot fill diagrams and lot fill compaction certificates. A restriction as to User with Council's standard wording must be placed on filled lots.
- Applicant to submit material compliance documentation in accordance with Council's Civil Works Specification 8.1.4:
  - Compliance Certificate and test results

- Delivery dockets
- Summary of material deliveries as per template available on Council's website.

NOTE: Council's Works Specification (Civil) requires road pavement and pipe bedding materials be sourced from N.A.T.A. certified stockpiles.

The above documentation shall be submitted prior to Subdivision and/or Occupation Certificate as required by this consent.

7.39.3 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.

7.39.4 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.

7.39.5 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.

7.39.6 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.

7.39.7 Trucks transporting cut and fill must have their loads covered and the provision 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.

7.39.8 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.

7.40 Inspection of engineering works – Environmental Planning and Assessment Act 1979

7.40.1 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).

7.40.2 Where Council is appointed as the Principal Certifying Authority for the development, compliance certificates issued by accredited certifiers in lieu of

council inspections will only be accepted by prior agreement or by Council request. All compliance certificate(s) must certify that the relevant work has been completed in accordance with the pertinent Development Consent and Construction Certificate.

7.41 Inspection of Engineering Works – Roads Act 1993 or Local Government Act 1993

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

7.41.2 Inspections must be pre-booked with a minimum 24 hours' notice. Council's Development Overseers may be contacted on 02 9839 6586 between 6 am – 7 am, 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).

7.42 Public safety

7.42.1 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.

7.43 Site security

7.43.1 Chainwire gates and security fencing must be provided around the site in order to prevent unauthorised access and dumping of rubbish.

7.44 Traffic control

7.44.1 Any "Traffic Control Plan" utilised for engineering works required by this consent must be prepared by a person who holds a current Roads and Maritime Services (RMS) Work Zone Traffic Management Plan accreditation and photo card 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 - 2009.

7.44.2 Traffic control devices/facilities (i.e. barricades, signs, lights, etc.) required by the certified Traffic Control Plan must be setup, installed, monitored and maintained and by a person who holds a current Roads and Maritime Services (RMS) accreditation and photo card to implement Traffic Control Plans.

7.44.3 Persons undertaking the control of traffic through or around work sites on Council controlled roads must hold a current Roads and Maritime Services (RMS) Traffic Controller accreditation and photo card and carry it with them.

7.44.4 The applicant is advised that prior to implementation of any traffic control system, and during the entire course of construction, suitably qualified Roads and Maritime Services (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 - 2009.

7.44.5 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 person who holds a current Roads and Maritime Services (RMS) accreditation to prepare a Work Zone Traffic Management Plan. This Plan must satisfy all the requirements of *AS 1742.3 – 2009* and the current version of the RMS *Traffic Control at Work Sites* manual and shall be submitted to Council prior to implementation.

7.45 Powder coated furniture

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

7.46 Road line marking and traffic signage

7.46.1 Prior to the implementation of any road line marking and traffic signage required by this development, the applicant shall acquire an approved Construction Certificate for the line marking and traffic signage plan arrangement.

7.46.2 In regard, the applicant shall provide evidence to the certifying authority in order to demonstrate that the proposed line marking and traffic signage plan has approval from the Local Traffic Committee and has been adopted by Council at an Ordinary Council Meeting.

NOTE: all recommendations by the Local Traffic Committee and Ordinary Council Meeting shall be reflected within the Construction Certificate for line marking and traffic signage.

PRIOR TO OCCUPATION CERTIFICATE

7.47 Road damage

7.47.1 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.

7.48 Compliance with conditions

7.48.1 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.

7.49 Fee payment

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

7.50 Surveys/Certificates/Work as Executed plans

7.50.1 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 colour soft copy (on a CD/USB with file format .PDF) of the WAE plans are to be submitted to Council. All engineering WAE plans MUST be prepared on a copy of the original, stamped Construction Certificate plans for engineering works.

7.50.2 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.

7.50.3 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.

7.50.4 A Certificate shall be submitted by a Registered Surveyor indicating that all pipelines and associated structures lie wholly within any easements required by this consent.

7.50.5 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.

7.50.6 Written evidence is to be obtained from the Roads and Maritime Services (RMS) indicating compliance with its requirements including the payment of any necessary works supervision fees.

7.50.7 The applicant is to compile and submit the following in accordance with Council's Works Specification - Civil (Current Version):

- Compaction certificates for fill within road serves
- Compaction certificates for road sub-grade
- Compaction certificate for road pavement materials (sub-base and base courses).
- Contour lot fill diagrams and lot fill compaction certificates, A restriction as to User with Council's standard wording must be placed on filled lots
- Material compliance documentation in accordance with Council's Civil Works Specification 8.1.4:
  - Compliance Certificate and test redults
  - Delivery dockets

- Summary of material deliveries as per templateavailable on Council's website.

7.50.8 The applicant is to submit the certified line marking and traffic signage plan as required by this consent. This will require evidence to demonstrate that approvals have been obtained from the Local Traffic Committee and adoption at Council's Ordinary Meeting. A final inspection report is to be included noting that all line marking and traffic signage works are complete.

7.50.9 This development requires separate approvals under the Roads Act 1993 and / or Local Government Act 1993. Prior to the issue of an Occupation Certificate, the applicant must obtain written confirmation from Council that these works have been completed to its satisfaction.

7.51 Easements/restrictions/positive covenants

7.51.1 Any easement(s) or restriction(s) required by this consent must nominate Blacktown City Council as the authority to release vary or modify the easement(s) or restriction(s). The form of easement or restriction created as a result of this consent must be in accordance with the following:

- Blacktown City Council's standard recitals for Terms of Easements and Restrictions (Current Version).
- The standard format for easements and restrictions as accepted by the Land Registry Services (LRS).

7.51.2 Restrictions and positive covenants must be endorsed by Council and lodged with NSW Land Registry Services (LRS) over the on-site detention storage areas and outlet works.

7.51.3 Restrictions and positive covenants must be endorsed by Council and lodged with NSW Land Registry Services (LRS) over the Stormwater Quality Control devices/system and outlet works.

7.51.4 Restrictions and/ or positive covenants must be endorsed by Council and lodged with NSW Land Registry Services (LRS) over the overland flow path.

7.51.5 The creation of an Easement to Drain Water with a minimum width in accordance with Council's Engineering Guide for Development (current issue). The easement must be created under the *Conveyancing Act 1919* and have the nominated lot(s) burdened and each and every lot upstream benefited.

7.51.6 The creation of easement(s) related to inter-allotment drainage with a minimum width in accordance with Council's Engineering Guide for Development (current issue).

7.51.7 A Right of Carriageway as an easement in gross (under schedule 4A Part 1) benefitting Blacktown City Council shall be provided over the private access road and an appropriate restriction and positive covenant on the use of the land shall be created under Section 88B of the *Conveyancing Act 1919* covering this requirement.

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

7.52 Bonds/securities/payments in lieu of works

7.52.1 The payment to Blacktown City Council of a monetary contribution in lieu of works for the placement of the final layer of asphaltic concrete on the new road works. The amount will be calculated at Council's approved rate upon request and following issue of a Construction Certificate for the work.

7.52.2 A maintenance security of 5% of the value of the required engineering works must be lodged with Council prior to the practical completion of the works. Council will hold this security for a period of at least twelve months.

- In the case of subdivision - this period commences at the release of the final plan of subdivision (Issue of Subdivision Certificate).
- In the case where no subdivision occurs - this period commences at the date of practical completion of the development.

This maintenance period may be extended in the following situations to allow for the completion of necessary maintenance and/or all outstanding minor works.

7.52.3 Concrete path paving must not be placed until the lots have been built upon or until approved in writing by Council. The applicant has the option of lodging a security deposit for the works, or paying a monetary payment in lieu of works based upon Council's Goods and Services Pricing Schedule. The security will be released upon satisfactory completion to the works.

7.52.4 Where Council's has granted approval to providing security in lieu of outstanding works, a security, in the form of a bank guarantee or a cash deposit, shall be lodged with Council to cover outstanding works required by this consent. The security amount will be calculated at Council's approved rate upon request.

7.53 Inspections

7.53.1 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.

7.54 CCTV inspection of stormwater drainage structures

7.54.1 All road stormwater drainage structures (pipelines and pits) must be inspected via CCTV after completion of road pavement construction works (excluding any deferred AC works) and 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 video footage of the inspections, a copy 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.

PRIOR TO SUBDIVISION CERTIFICATE

7.55 Site area

7.55.1 There shall be no direct vehicular or pedestrian access to and/or from the following nominated road(s) for any lots having frontage to that road. An appropriate restriction on the use of land shall be created under Section 88B of the *Conveyancing Act 1919* covering this requirement. The Section 88B Instrument shall contain a provision that it may not be extinguished or altered except with the consent of Blacktown City Council.

Nominated Road: Cudgegong Road.

7.55.2 All lots shall have access from a dedicated public road. In this regard all proposed roads shall be dedicated as public road free of cost to Council.

7.55.3 Any future substation or other utility installation required to service the approved subdivision/development shall not under any circumstances be sited on a future public road. Any proposal to locate a proposed substation or other utility installation on a future public road shall be negotiated with and fully endorsed by Council.

7.55.4 A Right of Carriageway as an easement in gross (under schedule 4A Part 1) benefitting Blacktown City Council shall be provided over the private access road and an appropriate restriction and positive covenant on the use of the land shall be created under Section 88B of the *Conveyancing Act 1919* covering this requirement.

7.56 Road Damage

7.56.1 The cost of repairing any damage caused to Council's assets in the vicinity of the subject site as a result of the development works must be met in full by the developer.

7.56.2 The cost of repairing any damage caused to Council's assets in the vicinity of the subject site as a result of the development works must be met in full by the developer.

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

7.57 Asset Management

7.57.1 A fee is to be paid to Council for the ongoing maintenance of the black powder coated light poles, street name poles and bus shelters proposed in this subdivision. This amount is based on Council's Goods and Services Prcing Schedule (current) and is to be paid prior to the release of the Subdivision Certificate. Any enquiries regarding this fee are to be directed to the Maintenance Section of Council.

7.57.2 The manufacturer of the light poles/street name poles/bus shelters is to provide written certification that all structures have been black powder coated to the satisfaction of Council's Development Services Engineers prior to installation.

7.58 Consent compliance

7.58.1 A Subdivision Certificate shall not be issued until all conditions of this consent have been satisfied.

7.59 Additional inspections

7.59.1 Any additional Council inspection services provided beyond the scope of any Compliance Certificate or inspection package, and required to verify full compliance with the terms of this consent, will be charged at the individual inspection rate nominated in Council's Goods and Services Pricing Schedule and shall be paid to Council.

7.60 Surveys/Certificates/Work As Executed plans

7.60.1 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, in a colour soft copy format (PDF). All engineering Work-as-Executed plans MUST be prepared on a copy of the original, stamped Construction Certificate plans for engineering works (including works under the *Roads Act 1993* and the *Local Government Act 1993* covered by the Development Application).

7.60.2 The Work-as-Executed (WAE) plans must confirm that the On Site Detention system(s) identification plate has been installed in accordance with Council's WSUD Standard Drawings A(BS)175M Sheet 20.

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

7.60.4 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.

7.60.5 A Certificate shall be submitted by a Registered Surveyor indicating that all pipelines and associated structures lie wholly within any easements required by this consent.

7.60.6 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.

7.60.7 Written evidence is to be obtained from the Roads and Maritime Services (RMS) indicating compliance with its requirements including the payment of any necessary works supervision fees.

7.60.8 The applicant is to submit the following in accordance with Council's Works Specification - Civil (Current Version):

- Compaction certificates for fill within road reserves.
- Compaction certificates for road sub-grade.
- Compaction certificates for road pavement materials (sub-base and base courses).
- Contour lot fill diagrams and lot fill compaction certificates. A restriction as to User with Council's standard wording must be placed on filled lots.
- Applicant to submit material compliance documentation in accordance with Council's Civil Works Specification 8.1.4:
  - Compliance Certificate and test results
  - Delivery dockets
  - Summary of material deliveries as per template available on Council's website.

7.60.9 The applicant is to submit the certified approved line marking and traffic signage plan as required by this consent. This will require evidence to demonstrate that approvals have been obtained from the Local Traffic Committee and adopted by Council's Ordinary Meeting. A final inspection report is to be included noting that all line marking and traffic signage works are complete.

7.60.10 Submit to Council all Compliance Certificates 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.

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

7.60.12 A survey report prepared and signed by a Registered Surveyor providing confirmation of the depth of all constructed road pavements in the form of finished surveyed levels for each road pavement layer, noting tolerances for any variations in constructed pavement depth.

7.60.13 Structural certification must be submitted 'as built' by a qualified Engineer (NER) for all structural items approved by the scope of this consent. This relates to the following components:

- Retaining walls over 0.6 m in height
- Rigid pavements
- Non-standard stormwater pits.

7.60.14 A Certificate shall be submitted by a suitably qualified geotechnical engineer verifying that any fill material imported to the site is virgin excavated natural material (VENM) or (ENM).

7.61 Easements/restrictions/positive covenants

7.61.1 Any easement or restriction created as a result of this consent must be in accordance with the following:

- Blacktown City Council standard recitals for Terms of Easements and Restrictions (Current Version).
- The standard format for easements and restrictions as accepted by NSW Land Registry Services (LRS).

7.61.2 Restrictions and positive covenants must be endorsed by Council and lodged with NSW Land Registry Services (LRS) over the on-site detention storage areas and outlet works. Documentary evidence of this LRS lodgement shall be submitted to Council.

7.61.3 Restrictions and positive covenants must be endorsed by Council and lodged with NSW Land Registry Services (LRS) over the Stormwater Quality Control devices/system and outlet works. Documentary evidence of this lodgement shall be submitted to Council.

7.61.4 Restrictions and positive covenants must be endorsed by Council and lodged with NSW Land Registry Services (LRS) over the overland flowpath. Documentary evidence of this LRS lodgement shall be submitted to Council.

7.61.5 The creation of an Easement to Drain Water, with a minimum width in accordance with Council's Engineering Guide for Development (current issue), free of cost to Council. The easement must be created under the *Conveyancing Act 1919* and have the nominated lot(s) burdened and each and every lot upstream benefited.

7.61.6 The creation of easement(s) related to inter-allotment drainage with a minimum width in accordance with Council's Engineering Guide for Development (current issue).

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

7.62 Dedications

7.62.1 Dedication at no cost to Council of 5 m x 5 m splay corners on allotments at each street intersection.

7.62.2 Dedication at no cost to Council of pathways for stormwater conveyance in accordance with Council's Engineering Guide for Development.

7.63 Bonds/securities/payments in lieu of works

7.63.1 The payment to Blacktown City Council of a monetary contribution in lieu of works for the placement of the final layer of asphaltic concrete on the new road works. The amount will be calculated at Council's approved rate upon request and following the issue of a Construction Certificate for the work.

7.63.2 A maintenance security of 5% of the value of the required engineering works must be lodged with Council prior to the practical completion of the works. Council will hold this security for a period of at least 12 months.

(a) In the case of subdivision - this period commences at the release of the final plan of subdivision (issue of Subdivision Certificate).

(b) In the case where no subdivision occurs - This period commences at the date of practical completion of the development.

This maintenance period may be extended in the following situations to allow for the completion of necessary maintenance and/or all outstanding minor works.

7.63.3 Concrete path paving must not be placed until about 75% of the lots have been built upon or until approved in writing by Council. The applicant has the option of lodging a security deposit for the works or paying a monetary payment in lieu of works based upon Council's Goods and Services Pricing Schedule. The security will be released upon satisfactory completion of the works.

7.63.4 Where Council has granted approval to providing security in lieu of outstanding works, a security in the form of a bank guarantee or a cash deposit shall be lodged with Council to cover outstanding works required by this consent. The security amount will be calculated at Council's approved rate upon request.

7.64 Inspections

7.64.1 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.

7.65 Inspection of work

7.65.1 All road stormwater drainage structures (pipelines and pits) must be inspected via CCTV after completion of road pavement construction works (excluding any deferred AC works) and 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 video footage of the inspections, a 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.