

SOUTHERN REGIONAL PLANNING PANEL

| | |
|-----------|---------------------------------------|
| JRPP No | 2016STH016 |
| DA Number | DA-2016/358 – Bunnings, Kembla Grange |
| Date | 22 August 2018 |

ASSESSMENT MEMO

PURPOSE

This memo has been prepared in response to the matters raised by the Southern Regional Planning Panel (SRPP) dated 17 August 2018 regarding the following:

- a. *Whether Condition 100 is supposed to be addressing the letter dated 5/6/18 and attached plans*
- b. *What conditions dealt with the correspondence at attachment 5 – specifically Adam Wilson email and Phillip Drew response – may be by being a little bit more prescriptive in the conditions about key issue such as access for trucks and large vehicles and signage at all times through construction*
- c. *Does Council have a condition requiring signage to the business at all times? If not, could the Panel please see some draft wording?*
- d. *How do the conditions respond to Attachment 5?*
- e. *Impact – specifically to adjoining landowners. Construction impacts also require a broad assessment. Perhaps a line that levels at boundaries are graded back to match existing levels at the boundary – ensuring that the plans have been looked and they are not resulting in retaining structures.*

This Memo provides an assessment commentary to assist in the further consideration of the application and should be read in conjunction with Council's Assessing Officers report as presented to SRPP on the 1 May 2018 and Addendum Report as presented to SRPP 2 August 2018.

- a. ***Whether Condition 100 is supposed to be addressing the letter dated 5/6/18 and attached plans***

Planner's review comment:

Details of the applicant's response to the recommendations of the Southern Regional Planning Panel (SRPP) dated 1 May 2018 to defer the development application were referred to Council's Development Engineering Officer. The documents referred included the following:

- Construction staging of proposed Roundabout on Northcliffe Drive, Kembla Grange letter and Construction Staging Plans 1 and 2 dated 5 June 2018 prepared by High Definition Design Pty Ltd;
- Construction staging of proposed Roundabout on Northcliffe Drive, Kembla Grange letter and Construction Staging Plans 3 dated 18 August 2017 prepared by High Definition Design Pty Ltd; and
- Details of Applicants Consultation with Adjacent Property Owner – **Attachment 5** of Addendum Report.

Council's Development Engineering Officer following assessment of the above documents considered that the roundabout construction staging plans prepared by High Definition Design Pty Ltd give good estimate of the likely construction phases.

Based on this assessment Council's Development Engineering Officer recommended Condition 100 as at **Attachment 6** of the Addendum Report be amended to reference the roundabout construction staging plans prepared by High Definition Pty Ltd so as to address the key issue that access will be maintained to all adjoining properties during construction in particular during construction of roadworks on Northcliffe Drive.

In order to address the issue of access the condition requires more detailed plans, construction details, signage, traffic and pedestrian management etc prior to works commencing as part of any approvals under Section 138 of the Roads Act 1993.

Following recommendations of the SRPP dated 20 August 2018 and an updated assessment by Council's Development Engineering Manager Condition 100 as **Attachment 2** has been further amended to address the key issue of access and signage to adjoining properties during construction. The amendments to Condition 100 are discussed in more detail at point 'b' below and **Attachment 1**.

- b. What conditions dealt with the correspondence at attachment 5 – specifically Adam Wilson email and Phillip Drew response – may be by being a little bit more prescriptive in the conditions about key issue such as access for trucks and large vehicles and signage at all times through construction.**

Planner's review comment:

Concerns raised regarding Stage 1:

Conditions 71, 107, 111 and 143 as at **Attachment 2** require dust control measures to be in place during construction and up to six (6) months after the completion of works so as to minimise the impacts of dust on adjoining properties. Conditions 71 and 107 have been amended to be more reflective of the stages of construction as the project is undertaken and read as follows:

71 Dust Suppression Measures

The submission of details of the proposed dust suppression measures for the demolition, excavation and construction phases of the development to the Certifying Authority for approval prior to issue of the Construction Certificate. The dust suppression measures must be detailed on all construction phases via the Soil and Erosion Control Plan. Details must be provided to the Certifying Authority prior to the issue of the Construction Certificate.

107 Erosion and Sediment Control Measures

Erosion and sedimentation control measures are to be established in accordance with the requirements of Council. All erosion and sedimentation control measures are to be in place, prior to the commencement of any works and shall be maintained for a minimum period of six (6) months after the completion of all works. Daily maintenance of the erosion and sedimentation control measures is to undertaken to ensure their effectiveness. An Erosion and Sediment Control Plan must be provided to the Certifying Authority for each stage of construction prior to the issue of the Construction Certificate.

These measures are considered to address concerns raised by Adam Wilton regarding Stage 1 in his correspondence of 22 June 2018 as at Attachment 5 of the Addendum Report.

Concerns raised regarding Stage 2:

Amended Conditions 19(g) and 100 as at **Attachment 2** were provided in response to correspondence as at Attachment 5 of the Addendum Report to address the key issue of access. Condition 100 has been further amended to address correspondence at **Attachment 5** to the Addendum Report and reads as follows:

100 Prior approval from Council for any works in Road Reserve

Approval under Section 138 of the Roads Act must be obtained from Wollongong City Council's Development Engineering Team prior to any works commencing or any proposed interruption to pedestrian and/or vehicular traffic within the road reserve caused by the construction of this development.

- A construction management plan prepared by the project manager must be provided that details all the phases of the development construction particularly as it relates to works that effect surrounding roads and adjoining provide properties.
- Details must be included in the construction management plan that demonstrate how vehicular and pedestrian access is to be maintained to all adjoining private properties at all times during road works, including details of any temporary signage to notify road users of any temporary access arrangements
- Construction management plan for the roundabout construction phase is to be generally in accordance with the HD101 r12 construction staging plan Prepared by High Definition Design Pty Ltd Dwg No ST1 – ST4.
- A traffic control plan prepared and implemented by a suitably qualified person must be submitted for approval and the appropriate fees paid a minimum of five working

days prior to the expected implementation. The traffic control plan shall satisfy the requirements of the latest versions of Australian Standard AS1742 – Traffic Control Devices for Works on Roads and the RMS Traffic Control at Worksites Manual.

Note: *This includes temporary road closures for the delivery of materials, plant and equipment, concrete pours etc.*

Condition 11 at Attachment 6 to Council's Assessing Officers report as presented to SRPP on the 1 May 2018 was provided to address concerns raised regarding the adjoining property owners under notification of the application. An amended Condition 11 as at **Attachment 2** is recommended so as to address matters raised regarding access and signage during construction of the roundabout reads as follows:

11 Maintenance of Access to Adjoining Properties

Access to all properties not the subject of this approval must be maintained at all times. The project manager is to liaise with adjoining private property owners to ensure that access for cars, trucks and large vehicles is managed safely and appropriately with suitable directional and business signage to be displayed at all times.

These measures are considered to address concerns raised by Adam Wilton regarding Stage 2 in his correspondence of 22 June 2018 as at Attachment 5 of the Addendum Report.

Concerns raised regarding Stage 3:

The existing right hand turn out Pharlap Avenue is already not an ideal/safe option for residents due to the change in level through the median strip on Northcliffe Drive. It is considered unlikely that a right turn out of Pharlap Avenue would be catered for during Stage 3. It is noted however that Bunnings have provided a commitment to Adam Wilton that they will provide a right turn in construction planning. This may be possible however Council is concerned that should this not be safe or practical then a specific condition requiring the right turn during Phase 3 would require an amendment to the consent.

Given this constraint condition 101 as below and at **Attachment 2** is recommended to provide regular progress reports to all adjoining residents including updates on changes to construction activities and access arrangements so residents will be able to plan for and manage any temporary impacts.

Time Frames of Stage 1, 2 and 3:

With respect to Adam Wilton's question regarding when construction work is proposed to begin and how long it will take to complete Stages 1, 2 and 3, a start date is not available at present. However it is noted in Philip Drew's correspondence dated it is estimated that Stage 1 will take approximately two and a half (2.5) months, Stage 2 approximately two (2) months and Stage 3 approximately one (1) month.

It should be noted that accurate time frames would be difficult to predict as they are dependent on site constraints, weather, contractor availability, as well as unforeseen construction issues. However an additional condition, condition 101, as at **Attachment 2** requires a construction management communication strategy to be put in place which should provide regular updates on timing for affected residents keeping them informed. Condition 101 read as follows:

101 Construction Management Communication Strategy

Prior to the commencement of works, the developer must implement a Construction Management Communication Strategy for all adjoining residents, and all residents that benefit from the use of Pharlap Avenue. The strategy must include details of;

- a) Methods of communication to all relevant stakeholders effected during the construction phase
- b) Methods of consultation with residents to address concerns and requests during construction phases
- c) Regular updates on:
 - construction activities and the relevant contractors involved;
 - temporary access arrangements for all relevant phases of construction;
 - estimated time frames for various critical construction activities; and
 - key contact persons involved with the project management and consultation.

c. Does Council have a condition requiring signage to the business at all times? If not, could the Panel please see some draft wording?

Conditions 11 and 100 as at **Attachment 2** have been amended to provide some draft wording regarding signage and read as follows.

11 Maintenance of Access to Adjoining Properties

Access to all properties not the subject of this approval must be maintained at all times. The project manager is to liaise with adjoining private property owners to ensure that access for cars, trucks and large vehicles is managed safely and appropriately with suitable directional and business signage to be displayed at all times.

100 Prior approval from Council for any works in Road Reserve

Approval under Section 138 of the Roads Act must be obtained from Wollongong City Council's Development Engineering Team prior to any works commencing or any proposed interruption to pedestrian and/or vehicular traffic within the road reserve caused by the construction of this development.

- A construction management plan prepared by the project manager must be provided that details all the phases of the development construction particularly as it relates to works that effect surrounding roads and adjoining provide properties.
- Details must be included in the construction management plan that demonstrate how vehicular and pedestrian access is to be maintained to all adjoining private properties at all times during road works, including details of any temporary signage to notify road users of any temporary access arrangements
- Construction management plan for the roundabout construction phase is to be generally in accordance with the HD101 r12 construction staging plan Prepared by High Definition Design Pty Ltd Dwg No ST1 – ST4.
- A traffic control plan prepared and implemented by a suitably qualified person must be submitted for approval and the appropriate fees paid a minimum of five working days prior to the expected implementation. The traffic control plan shall satisfy the requirements of the latest versions of Australian Standard AS1742 – Traffic Control Devices for Works on Roads and the RMS Traffic Control at Worksites Manual.

Note: *This includes temporary road closures for the delivery of materials, plant and equipment, concrete pours etc.*

d. How do the conditions respond to Attachment 5?

This question is considered to be addressed under point 'b' above.

e. Impact – specifically to adjoining landowners. Construction impacts also require a broad assessment.

This question is considered to be addressed in Council's Development Engineering Managers comments as at **Attachment 1** to this assessment memo.

ATTACHMENTS

- 1 Council's Development Engineering Managers review of matters raised by SRPP and additional assessment comments.
- 2 Revised Conditions of Consent

Rodney Thew

Development Project Officer

Wollongong City Council

ATTACHMENT 1 – COUNCIL’S DEVELOPMENT ENGINEERING MANAGERS REVIEW OF MATTERS RAISED BY SRPP AND ADDITIONAL ASSESSMENT COMMENTS

Assessment of Adam Wiltons reponse to the construction staging plans:

Stage 1:

With regard to Adams concerns about dust suppression measure, while the consent already had conditions relating to dust suppression measures they have been modified to be more reflective of the stages of construction as the project is undertaken:

Condition 71

Dust Suppression Measures

The submission of details of the proposed dust suppression measures for the demolition, excavation and construction phases of the development to the Certifying Authority for approval prior to issue of the Construction Certificate. The dust suppression measures must be detailed on all construction phases via the Soil and Erosion Control Plan. Details must be provided to the Certifying Authority prior to the issue of the Construction Certificate.

Condition 106

Erosion and Sediment Control Measures

Erosion and sedimentation control measures are to be established in accordance with the requirements of Council. All erosion and sedimentation control measures are to be in place, prior to the commencement of any works and shall be maintained for a minimum period of six (6) months after the completion of all works. Daily maintenance of the erosion and sedimentation control measures is to undertaken to ensure their effectiveness. An Erosion and Sediment Control Plan must be provided to the Certifying Authority for each stage of construction prior to the issue of the Construction Certificate.

Stage 2:

- a) Adam has asked questions as to the nature of the traffic control and how will it affect his signage
- b) Concern that width needs to allow truck access
- c) Concern that VMS signage should include reference to his business ensuring access is still available
- d) Concern about congestion during peak times
- e) Time frames for construction

Comment point a) - Traffic control will ultimately be determined through a traffic management plan that will be developed by an RMS accredited traffic control designer. The designer will consider surrounding constraints and develop the plan in accordance with Australia Standards. However the conditions have been modified slightly to ensure that the development of any plan considers the adjoining land uses.

Condition 11 –

11 Maintenance of Access to Adjoining Properties

Access to all properties not the subject of this approval must be maintained at all times. **The project manager is to liaise with adjoining private property owners to ensure that access**

for cars, trucks and large vehicles is managed safely and appropriately with suitable directional and business signage to be displayed at all times.

Condition 19(g) -

19 Detailed Civil Engineering Design – Council Land

A detailed civil engineering design shall be provided for the proposed roundabout construction and drainage works within the road reserve and/or Council Land. The details must be submitted utilising the 'Engineering Plan Assessment – Development Consent Works within Council Land' form. The detailed civil engineering design shall be prepared by a suitably qualified practicing civil engineer in accordance with the relevant Council engineering standards. The design plans shall be generally in accordance with the Proposed Roundabout, Northcliffe Drive, Kembla Grange by High Definition Design Pty Ltd, Drawing Number HD16, Revision 12, dated 7 February 2018 and shall include:

- a Levels and details of all existing and proposed infrastructure/services such as kerb and gutter, public utility, pits, poles, fencing, stormwater drainage, adjacent road carriageway crown, street signs (clearly identifying the type of sign) and footpath levels, and shall extend a minimum of five (5) metres beyond the limit of works.
- b Footpath longitudinal sections, and cross-sections at five (5) metre intervals as well as including building entrance points and transitions to existing at the property boundary demonstrating compliance with the latest versions of AS 1428.1, AS/NZS 2890.1, the Disability Discrimination Act and the AUSTROAD road design standards.
- c Engineering details of the proposed pit and pipe stormwater drainage system within Council's road reserve, including a hydraulic grade line analysis and longitudinal section of the proposed system showing calculated flows, velocity, pits, pipe size/class, grade, inverts and ground levels. Each proposed pit must be constructed generally in accordance with Wollongong City Council's Engineering Standard Drawings.
- d Where any adjustments to public utilities are proposed the applicant shall submit documentary evidence that they have the consent of the owner of the public utility authority.
- e All construction must be in accordance with the requirements of Council's Subdivision Code. Evidence that this requirement has been met must be detailed on the engineering drawings.
- f Details are to be provided regarding the type of materials used for construction. They should conform to the adjacent road reserves.
- g **Vehicular access is to be maintained to all properties at all times.**

Condition 100 -

100 Prior approval from Council for any works in Road Reserve

Approval under Section 138 of the Roads Act must be obtained from Wollongong City Council's Development Engineering Team prior to any works commencing or any proposed interruption to pedestrian and/or vehicular traffic within the road reserve caused by the construction of this development.

- A construction management plan prepared by the project manager must be provided that details all the phases of the development construction particularly as it relates to works that effect surrounding roads and adjoining provide properties.

- Details must be included in the construction management plan that demonstrate how vehicular and pedestrian access is to be maintained to all adjoining private properties at all times during road works, including details of any temporary signage to notify road users of any temporary access arrangements
- Construction management plan for the roundabout construction phase is to be generally in accordance with the HD101 r12 construction staging plan Prepared by High Definition Design Pty Ltd Dwg No ST1 – ST4.
- A traffic control plan prepared and implemented by a suitably qualified person must be submitted for approval and the appropriate fees paid a minimum of five working days prior to the expected implementation. The traffic control plan shall satisfy the requirements of the latest versions of Australian Standard AS1742 – Traffic Control Devices for Works on Roads and the RMS Traffic Control at Worksites Manual.

***Note:** This includes temporary road closures for the delivery of materials, plant and equipment, concrete pours etc.*

Comment point b) – Condition 11, as noted above, has been amended to reference ‘cars, trucks and large vehicles’.

Comment point c) – Condition 100, which relates to approvals under the roads act to undertake works, has been amended to require additional information associated with signage and access for businesses

‘Details must be included in the construction management plan that demonstrate how vehicular and pedestrian access is to be maintained to all adjoining private properties at all times during road works, including details of any temporary signage to notify road users of any temporary access arrangements’

Comment point d) – During construction it is considered that there may be some congestion at peak times. However as part of the condition 100, the traffic management for the construction phases must designed in accordance with relevant Australian and RMS standards and consider adjoining development and uses. See condition 100.

Never the less it is normal practice for the traffic management plans to be monitored by Council staff during the construction phase with staff directing the developer’s contractors to adjust and amend plans depending on construction activities and potential conflicts during peak times. S138 approvals are continually monitored by Council staff. It should be noted by the panel that under Section 140 of the Roads Act 1993 the road authority can revoke a S138 approval for ‘any reason’. This has been utilised by Council staff on occasion where contractors ignored approvals or conditions of consent.

Comment point e) – Council’s DA assessment cannot provide an estimate on time frames for construction. Even the developer will not be able to do this as it will be dependent on site constraints, weather, contractor availability, as well as unforeseen construction issues. However the communication strategy condition (see commentary for phase 3 below) should provide regular updates on timing for effected residents.

Stage 3:

- a) Will there be a turning bay for those leaving the estate to head east
- b) Left hand turn ‘Pharlap’ Ave’has been reduce to one lane needs to be wide enough for all vehicles
- c) VMS Signage for driveway access
- d) Estimated completion time

Comment point a) - The existing right hand turn out of Pharlap Avenue is already not an ideal/safe option for residents due to the level change through Northcliffe Drive. However during the stage 3 works it is unlikely that a right turn will be able to be catered for during that period. It is noted however that Bunnings have provided a commitment to Adam Wilton that they will include a right turn in the

construction planning. This may be possible but I am concerned that should it not be safe or practical then a specific condition requiring the right turn during phase 3 would require an amendment to the consent.

Given this constraint it is recommended that the applicant provide regular progress reports to all adjoining residents, including updates on changes to construction activities and access arrangements so resident will be able to plan and manage any temporary inconvenience.

(proposed condition to be placed after condition 100) Construction Management Communication Strategy

Prior to the commencement of works, the developer must implement a Construction Management Communication Strategy for all adjoining residents, and all residents that benefit from the use of Pharlap Avenue. The strategy must include details of

- a) Methods of communication to all relevant stakeholders effected during the construction phase
- b) Methods of consultation with residents to address concerns and requests during construction phases
- c) Regular updates on
 - construction activities and the relevant contractors involved,
 - temporary access arrangements for all relevant phases of construction
 - estimated time frames for various critical construction activities
 - key contact persons involved with the project management and consultation

Comment point b) The traffic assessment of the proposed roundabout has ensured the final design caters for all vehicles. However during construction condition 11 and 100 have been amended to ensure that traffic management considers all vehicles.

Comment point c) – See changes to condition 11 and 100

Comment point d) See comments above. However the communication strategy condition should provide regular updates on timing for effected residents.

Assessment of Panels concerns regarding construction impacts to adjoining land owners:

Overall there are two types of impacts to be considered, long term (the completed and operational roundabout) as well as short term impacts (during construction).

Traffic and Noise Pollution – The assessment report details consideration of these impacts at length including the existing road network, future planned strategic network as well as consideration of submitted acoustic reports. Overall the noise generation was considered acceptable given the existing impacts from Northcliffe drive relative to the future impacts from the Bunnings Development. The long term planned connection to West Dapto with a proposed fly over will be undertaken via extensive design and consultation with the community, so in this regard the only noise from additional traffic is that generated by Bunnings. Impacts from the construction of the roundabout will be mitigated through the provided construction staging plans and conditions of consent. Construction vehicle noise may be more frequent during business hours, however the communication strategy condition, will enable regular contact and updates for the effected residents. Previous experience in the Wollongong LGA has highlighted that an effective communication strategy (such as that used when Kiera Street in the City Centre was closed for 3 months during the GPT shopping centre construction), is an effective tool to allow two way communication between residents and the project manages / Developers as construction is underway.

Stormwater – The stormwater assessment looked at the pre development flows for a range of storm events. The proposal also included a significant on site detention system that drains towards the roundabout and road works. The analysis of the drainage model highlighted that the development (the Bunnings Building and site as well as the road and drainage works, will result in a decrease in peak flows through and around the roundabout. Overall this is considered to be compliant with Councils relevant DCP chapters as it relates to stormwater management.

Additionally during construction there is a requirement via several conditions that works are undertaken in accordance with 'Managing Urban Stormwater, Soils and Construction'. This manual provides specific controls for the interception and management of stormwater for a range of storm events, including diversion swales, bunds, sediment ponds and other methods to manage and control stormwater and potential erosion through construction sites. During construction the stormwater system that exists will be maintained so the risk of redirection of stormwater flows is reduced. This will also be continually monitored by Council staff during the construction phase as is typically required through the s138 Approval Process.

Over all the design provides an integration between proposed levels in the road and transitions to the existing levels on private property. A review of those transitions and proposed batters has highlighted no changes at the property boundaries for adjoining residents. It should be noted that during construction there may be temporary mounds or stockpiles. These will be managed as per the requirements of the conditioned 'Managing Urban Stormwater, Soils and Construction' manual. This will also ensure dust suppression measures are in place, temporary stockpile heights are limited, and no works will transition into adjoining properties.

Regards



Andrew Heaven

Development Engineering Manager

Post Locked Bag 8821 Wollongong DC NSW 2500

Phone +61 2 4227 7258

Email aheaven@wollongong.nsw.gov.au • www.wollongong.nsw.gov.au



ATTACHMENT 2 – REVISED CONDITIONS OF CONSENT

Consent has been granted subject to the following conditions:

The development proposed is Integrated Development and approval is required from the approval bodies listed below:

NSW Roads and Maritime Service (RMS)

Requirements issued by RMS dated 8 February 2018 as attached shall form part of this Notice of Determination

Conditions imposed by Council as part of this Integrated Development Consent are:

Approved Plans and Specifications

- 1 The development shall be implemented substantially in accordance with the details and specifications set out on Project No 1352 Drawing 030-E, 100-D, 101-D, 120-D and 130-D dated 4 December 2017, 010-C dated 18 August 2017 and 005-C dated 15 August 2017 prepared by John R Brogan & Associates Pty Limited, Drawing 193-14G L01 [02] dated 19 July 2017 prepared by Craig & Rhodes and Project No HD101 Drawing ST1-1 and ST2-1 dated 5 June 2018 and ST3-1 dated 18 August 2017 and HD01-11 to HD04-11 and HD05-11-10 dated 22 November 2017 prepared by High Definition Design Pty Ltd and any details on the application form, and with any supporting information received, except as amended by the conditions specified and imposed hereunder.

General Matters

2 Planning Agreement

Pursuant to Sections 4.17(1) and 7.7(3)(a) of the *Environmental Planning and Assessment Act 1979*, the planning agreement that relates to the development application the subject of this consent must be entered into before any part of this consent is acted on.

3 Appointment of Principal Certifying Authority for Roundabout

Council must be appointed as Principal Certifier for the roundabout construction works.

4 Geotechnical

- 4.1 All work is to be in accordance with the geotechnical recommendations contained in the report dated 21 March 2016 by JK Geotechnics and any subsequent geotechnical report required to address unanticipated conditions encountered during construction.
- 4.2 All earthworks including drainage, retaining wall and footing construction is to be subject to Level 1 geotechnical supervision as defined in Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Developments. Where necessary, amendments are to be made to the designs during construction based on supplementary geotechnical advice given during the supervision to ensure that the completed works accommodates all encountered geotechnical constraints.
- 4.3 Hard bedrock where encountered will be difficult to excavate. Alternative excavation methods should be considered to minimise noise and vibration.
- 4.4 Foundation systems are to be designed for Class P soils with all footings to be founded within the underlying weathered bedrock as recommended by the geotechnical consultant.
- 4.5 All excavations for foundations are to be inspected by the geotechnical consultant and certified that the ground has been suitably prepared for the placement of footings.

5 Tree Removal

Permission is granted to remove existing trees as numbered and described in submitted Tree Assessment Report prepared by Able Ecology dated 1 August 2017 and as shown on Existing Tree Plant prepared by John Lock Associates Issue I dated 28 May 2018. No further tree removal is permitted without prior written permission from Wollongong City Council.

- 6 **Water Sensitive Urban Design (WSUD)**
The developer shall provide the detailed design with the hydraulic flow capacities of the WSUD treatment train specifications such as for the proposed diversion, bioretention swale and GPTs. The proposed hydraulic flows shall meet the urban stormwater guidelines.
- i Applicant shall integrate all stages of the development concept plan for stormwater quality management.
- ii The treatment goals for removal pollutants and nutrients shall be GP – 90%, TSS – 80%, TP – 60% and TN – 45%.
- 7 **Sydney Water Conditions**
The recommendations contained in the letter from Sydney Water dated 20 September 2016 as attached to this consent shall form part of the conditions of consent for this application.
- 8 **Endeavour Energy Conditions**
The recommendations contained in the letter from Endeavour energy dated 9 February 2017 as attached to this consent shall form part of the conditions of consent for this application.
- 9 **Building Work - Compliance with the Building Code of Australia**
All building work must be carried out in compliance with the provisions of the Building Code of Australia.
- 10 **Construction Certificate**
A Construction Certificate must be obtained from Council or an Accredited Certifier prior to work commencing.
- A Construction Certificate certifies that the provisions of Clauses 139-148 of the Environmental Planning and Assessment Amendment Regulations, 2000 have been satisfied, including compliance with all relevant conditions of Development Consent and the Building Code of Australia.
- Note:** The submission to Council of two (2) copies of all stamped Construction Certificate plans and supporting documentation is required within **two (2)** days from the date of issue of the Construction Certificate, in the event that the Construction Certificate is not issued by Council.
- 11 **Maintenance of Access to Adjoining Properties**
Access to all properties not the subject of this approval must be maintained at all times. The project manager is to liaise with adjoining private property owners to ensure that access for cars, trucks and large vehicles is managed safely and appropriately with suitable directional and business signage to be displayed at all times.
- 12 **Occupation Certificate**
An Occupation Certificate must be issued by the Principal Certifying Authority prior to occupation or use of the development. In issuing an Occupation Certificate, the Principal Certifying Authority must be satisfied that the requirements of section 6.9 of the Environmental Planning and Assessment Act 1979, have been complied with as well as all of the conditions of the Development Consent.
- 13 **Design and Construction of Food Premises**
The construction and fit out must comply with *AS-4674/2004: Design, Construction and Fit-Out of Food Premises*.
- 14 **No Cooking Appliances**
No cooking appliances over 8kW or 29mj shall be used at the premises. Should these appliances be required an exhaust hood shall be installed in accordance with AS1668-2012.
- 15 **Defects Liability Period**
The developer must maintain the road, drainage and street landscape works for a defects liability period of twelve months from the date of Practical Completion Certificate issue.
- 16 **Relocation of Services**
The cost of relocation of any public utilities must be borne by the applicant.

17 **Advertising Signage**

This consent authorises the erection of the flush wall signs and pole/pylon sign only as shown on the plan Drawing No. 130-C dated 15 August 2017 prepared by John R Brogan & Associates. Any additional advertising signage will require separate Council approval in the event that such signage is not exempt development under Schedule 2 of Wollongong Local Environmental Plan 2009 or State Environmental Planning Policy (Exempt and Complying Codes) 2008.

18 **No Development on Pad Site**

This consent does not permit development on proposed Lot 101 denoted as “B Pad Site” on Project No. 1352 Drawing 010-C dated 18 August 2017 prepared by John R. Brogan & Associates. Any future development on proposed Lot 101 denoted as “B Pad Site” on Project No. 1352 Drawing 010-C dated 18 August 2017 prepared by John R. Brogan & Associates requires separate Council approval.

Prior to the Issue of the Construction Certificate

19 **Detailed Civil Engineering Design – Council Land**

A detailed civil engineering design shall be provided for the proposed roundabout construction and drainage works within the road reserve and/or Council Land. The details must be submitted utilising the ‘Engineering Plan Assessment – Development Consent Works within Council Land’ form. The detailed civil engineering design shall be prepared by a suitably qualified practicing civil engineer in accordance with the relevant Council engineering standards. The design plans shall be generally in accordance with the Proposed Roundabout, Northcliffe Drive, Kembla Grange by High Definition Design Pty Ltd, Drawing Number HD16, Revision 12, dated 7 February 2018 and shall include:

- a Levels and details of all existing and proposed infrastructure/services such as kerb and gutter, public utility, pits, poles, fencing, stormwater drainage, adjacent road carriageway crown, street signs (clearly identifying the type of sign) and footpath levels, and shall extend a minimum of five (5) metres beyond the limit of works.
- b Footpath longitudinal sections, and cross-sections at five (5) metre intervals as well as including building entrance points and transitions to existing at the property boundary demonstrating compliance with the latest versions of AS 1428.1, AS/NZS 2890.1, the Disability Discrimination Act and the AUSTROAD road design standards.
- c Engineering details of the proposed pit and pipe stormwater drainage system within Council’s road reserve, including a hydraulic grade line analysis and longitudinal section of the proposed system showing calculated flows, velocity, pits, pipe size/class, grade, inverts and ground levels. Each proposed pit must be constructed generally in accordance with Wollongong City Council’s Engineering Standard Drawings.
- d Where any adjustments to public utilities are proposed the applicant shall submit documentary evidence that they have the consent of the owner of the public utility authority.
- e All construction must be in accordance with the requirements of Council’s Subdivision Code. Evidence that this requirement has been met must be detailed on the engineering drawings.
- f Details are to be provided regarding the type of materials used for construction. They should conform to the adjacent road reserves.
- g Vehicular access is to be maintained to all properties at all times.

The detailed civil engineering design and supporting documentation shall be submitted to and approved by Wollongong City Council’s Development Engineering Manager prior to the issue of a Construction Certificate.

20 **Detailed Drainage Design**

A detailed drainage design shall be submitted with the Construction Certificate documentation for the proposed development. This detailed drainage design shall be prepared by a suitably

qualified civil engineer in accordance with Chapter E14 of Wollongong City Council's Development Control Plan 2009, conditions listed under this consent, and generally in accordance with the General Arrangement Plan Undercroft Parking Level (Drawing No 01327_C201, Revision 03 dated 28 May 2018), General Arrangement Plan Warehouse Level (Drawing No 01327_C202, Revision 03 dated 28 May 2018), and OSD Tank Details (Drawing No 01327_C501, Revision 02 dated 28 May 2018) by C & M Consulting Engineers.

21 **On-Site Detention - Design Criteria**

Each on-site stormwater detention facility must incorporate minimum 900 mm square lockable grates for access and maintenance purposes, provision for step irons where required, provision for safety, debris control screen and a suitably graded invert to prevent ponding (i.e. no sump). Also, details of the orifice plate including diameter of orifice and method of fixing shall be provided. These requirements shall be reflected on the Construction Certificate plans.

22 **On-Site Detention – Identification**

The construction certificate plans are to detail a corrosion resistant identification plaque for location on or close to the on-site stormwater detention (OSD) facility. The plaque shall include the following information and shall be installed prior to the issue of the occupation certificate:

- The structure is an OSD facility, being part of the stormwater drainage network, and is not to be tampered with.
- Identification number – DA-2016/358.
- Any specialist maintenance requirements.

23 **On-Site Detention – Orifice and Weir Calculations**

Orifice and weir calculations for the on-site detention facility shall be provided on the Construction Certificate plans and supporting documentation prior to the release of the Construction Certificate.

24 **Existing/Proposed Levels**

Existing and proposed levels to Australian Height Datum (AHD), including floor, ground, grate, pipe inverts, overland flow path and pavement levels shall be shown on the detailed drainage design. This requirement shall be reflected on the Construction Certificate plans and supporting documentation.

25 **Scour Protection**

All stormwater outlets and overland flow paths shall incorporate appropriate scour/erosion protection measures in accordance with good engineering practice. The final details of the proposed scour/erosion protection measures shall be reflected on Construction Certificate plans.

26 **Sizing of Drainage**

The detailed design of the development shall ensure that the capacity of the proposed stormwater drainage system (including surface grading, gutters, pits, pipes, surface drains and overland flow paths) is sufficient to:

- a Collectively convey all runoff from the on-site stormwater detention (OSD) tributary area to the OSD system in all storms up to and including the 1 in 100 year ARI event; and
- b Ensure that the OSD storage is by-passed by all runoff from non-tributary areas (incl. proposed Lot 3) in all storms up to and including the 1 in 100 year ARI event.

Certification that the above requirements have been met shall be prepared by a suitably qualified civil engineer and submitted to the Principal Certifying Authority prior to the release of the Construction Certificate.

27 **Containment of Drainage Infrastructure**

All proposed drainage infrastructure shall be contained wholly within the subject site and/or adjoining road reserve where the required approval for those works within the road reserve has been obtained. No encroachment of any drainage infrastructure into the adjoining property is

permitted. These requirements shall be reflected on the Construction Certificate plans and supporting documentation prior to the release of the Construction Certificate.

28 **Driveway in Conflict with Kerb Inlet Pit**

Where the proposed driveway is in conflict with an existing kerb inlet pit in Council's road reserve, the existing pit shall be modified to suit the proposed driveway and a new kerb inlet pit shall be constructed immediately upstream of the existing pit. Provision shall be made to maintain access to the existing pit (for future maintenance) and the new kerb inlet pit shall be constructed generally in accordance with Drawing N° 5000/C02/A of Wollongong City Council's Engineering Standard Drawings. The new pit shall incorporate a pre-cast lintel of size equal to or greater than the existing lintel and shall be connected to Council's existing drainage pit with a minimum 375 mm diameter Reinforced Concrete Pipe. These requirements shall be reflected on the Construction Certificate plans and supporting documentation.

29 **Details of Works within Road Reserve**

A detailed design for all proposed drainage works within the road reserve shall be prepared by a suitably qualified civil engineer in accordance with the relevant Council and RMS engineering standards. The design plans shall include levels and details of all existing and proposed infrastructure/services such as public utility, pits, poles, stormwater drainage, and road levels, extending a minimum of five (5) metres beyond the limit of works. Where any adjustments to public utilities are proposed the applicant shall submit documentary evidence that they have the consent of the owner of the public utility authority. Evidence that this requirement has been met must be detailed on the engineering drawings. The detailed design and supporting documentation shall be submitted to and approved by Wollongong City Council's Development Engineering Manager prior to the issue of the Construction Certificate.

30 **Overland Flows from Adjoining Land**

Overland flows from the adjoining land shall be accepted, contained and directed to the proposed stormwater management system on site. Finished ground/surface levels adjacent to the boundary (incl. structures such as kerbs, walls, retaining walls, etc.) shall be no higher than the existing upslope adjacent ground levels. Fences provided along the upslope boundary where the adjoining land slopes towards the site shall include a suitable and continuous gap under the fence to allow for surface runoff. Overflow paths shall be maintained to cater for flows in excess of the capacity of the underground stormwater system. These requirements shall be reflected on the Construction Certificate plans and supporting documentation.

31 **Fauna Ecologist to be Engaged**

The applicant shall provide written evidence to Wollongong City Council that a suitably qualified and experienced fauna ecologist has been engaged to carry out microchiropteran bat survey work.

32 **Site Auditor's Interim Advice**

The applicant must engage a NSW accredited site auditor and submit an "Interim Site Auditor's Advice letter under CLM Act 1997" to Council prior to the issue of the Construction Certificate.

33 **Planning Agreement**

Prior to the issue of a Construction Certificate for construction works of the warehouse building, the applicant must demonstrate compliance with all relative obligations under the planning agreement.

34 **Crime Prevention through Environmental Design (CPTED) - Lighting**

The proposed development shall incorporate 'low impact' lighting to ameliorate any light spillage and/or glare impacts upon surrounding properties in accordance with Council's CPTED principles. The final design details of the proposed lighting system shall be reflected on the Construction Certificate plans. The erection of the lighting system shall be in accordance with the approved final design.

35 **CPTED Lighting of Undercroft Car Park**

The ceiling height of the undercroft car park is to be greater than 2.2 metres in height to prevent vandalism of lights and signage. Lighting of the undercroft car park should be bright and meet Australian Lighting Standards AS/NZS 1158.

36 Design and Construction of Food Premises

The construction and fit out of the proposed café must be in accordance with the requirements of *AS4674-2004: Design, Construction and Fit Out of Food Premises* and the following conditions:

36.1 Floor Construction

The floor must be finished to a smooth, even non-slip surface, graded and drained to the floor waste (AS4674-2004-Section 3).

36.2 Floor Waste

The floor waste(s) in the food premises must be fitted with a sump removable basket and grate and constructed in all stainless steel finish (AS4674-2004-Section 4.1.8).

36.3 Coving

Recessed coving must be provided at all intersections of the floor with the walls. All coving must have a minimum concave radius of 25mm and be installed so as to be integral to the surface finish of both floor and wall in such a manner as to form a continuous, uninterrupted surface. “Feather edge skirting” and non-rebated coving are not permitted (AS4674-2004 – Section 3.1.5).

36.4 Penetrations

All service pipes and electrical conduit must be contained in the floor, walls and plinths or ceiling or fixed on brackets so as to provide at least 25mm clearance between the pipe and adjacent vertical surfaces and 100mm between the pipe or conduit and any adjacent horizontal surface (AS4674-2004-Section 3.2.9).

36.5 Wall Requirements

All walls must be of solid construction and be finished to provide a smooth impervious surface capable of being easily and effectively cleaned, in accordance with Table 3.2 of AS4674-2004. Cavity walls are not permitted (AS4674-2004 – Section 3.2).

36.6 Ceiling Construction

All ceilings must be constructed with a rigid, non-absorbent, smooth faced material free from open joints, cracks and crevices and be painted with a light-coloured washable paint. The intersection of the walls and ceiling must be right-joined, sealed and dustproof. Drop-in panel style ceilings are not permitted (AS4674-2004 - Section 3.2).

36.7 Light Fittings

All fluorescent light fittings must be fitted with a smooth faced diffuser. The light fittings must be either:

- a Recessed so that the diffuser is flush with the ceiling; or
- b Designed to ensure that no horizontal surface exists that would allow dust and grease to accumulate (AS4674-2004 – Section 2.6.2).

36.8 Hand Basin(s) and Hand Towels

A suitable number of hand basins must be provided in accessible and convenient locations within all food handling areas and in or adjacent to toilet facilities used by food handlers. The basins must be freestanding, serviced with hot and cold water through a single outlet and able to be mixed at a temperature of at least 40°C (AS4674-2004 – Section 4.4).

Hand basins within food handling areas must be located no further than 5m from any place where food handlers are handling open food.

A disposable paper hand towel dispenser must be installed adjacent to each hand basin. Air dryers installed as the sole means of drying hands are not permitted (AS4674-2004 - Section 4.4).

36.9 Double Bowl Sinks

A double bowl wash sink of adequate size and capacity must be provided for washing food handling equipment and utensils (AS4674-2004 - Section 4.1).

- 36.10 **Water Service**
Any equipment washing or preparation sink must be serviced with hot and cold water through a single outlet (AS4674-2004-Section 4.1).
- 36.11 **Cleaner's Sink**
Where floor wastes are not installed as a means of disposing of wastewater, a cleaner's sink serviced with hot and cold water through taps fitted with hose connectors must be provided and located outside or areas where open food is handled (AS4674-2004-Section 4.1.8).
- 36.12 **Tap Fittings**
Where floor wastes are installed as a means of disposing of wastewater, hot and cold wall mounted taps fitted with hose connectors and positioned at least 600mm above the floor must be installed in a convenient and accessible location outside of areas where open food is handled (AS4674-2004 – Section 4.1.8).
- 36.13 **Fittings**
All fixtures, fittings and equipment must be installed in accordance with Section 4 of AS4674-2004.
- 36.14 **Food Preparation Benches**
All food preparation benches must be constructed in stainless steel (AS4674-2004-Section 4.2).
- 36.15 **Benches**
The top and exposed edges of all benches and counters must be finished in a smooth and non-absorbent material, and free of cracks, gaps, crevices or exposed joints (AS4674-2004-Section 4.2).
- 36.16 **Storage Cabinets**
Storage cabinets, both internally and externally, must be finished in a smooth and non-absorbent material, and be free of cracks, gaps, crevices or exposed joints (AS4674-2004-Section 4.2).
- 36.17 **False Bottoms**
False bottoms and cavities under fittings are not permitted (AS4674-2004-Section 4.2 and 4.3).
- 36.18 **Installation of Fittings and Fixtures**
All fittings and fixtures must be built into the wall and floor so to be free from joint, gaps and cavities to enable easy cleaning or alternatively, supported on one of the following:
- a Plinths – Plinths must be an integral part of the floor, constructed of solid materials, at least 75mm in height and coved at the intersection with the floor. All plinths must have a smooth and impervious finish. All fittings and fixtures must be properly sealed to the plinth.
 - b Wheels or Castors – The wheels and castors must be capable of supporting and easily moving a full loaded fitting and be provided with a restraining device.
 - c Legs – Fittings and fixtures may be supported on legs but must be constructed of non-corrosive, smooth metal or moulded plastic. All legs must be free from cracks and cervices. All legs must have a clearance space between the floor and the underside of the fitting of at least 150mm.
- 36.19 **Shelving**
All shelving must be located at least 25mm off the wall. Alternatively, the intersection of the shelf and the wall is to be completely sealed to the satisfaction of Council (AS4674-2004-Section 4.2).

- 36.20 **Display Units**
All food display units must be enclosed to prevent the possibility of contamination by customer's breath, handling, or from flies, dust, etc (Food Regulation 2004, AS 4674-2004-Section 4.2).
- 36.21 **Condensation Collection**
Condensation from the refrigeration units/cool room motors must be directed to a tundish, installed in accordance with Sydney Water requirements.
- 36.22 **Doors**
Doors to the internal toilet and air lock must be fitted with a self-closing device. Toilet and air lock doors must not be able to be held in an open position (AS4674-2004 – Section 5.2).
- 36.23 **Hot Water Service**
A hot water service of adequate capacity must be provided. The hot water service must be positioned at least 75mm clear of the adjacent wall surfaces, and mounted a minimum 150mm above floor level on a stand of non-corrosive metal construction (AS4674-2004-Section 4.3).
- 36.24 **Toilet Facilities**
Adequate toilet facilities must be provided on the premises for staff. A hand basin must be located within or directly adjacent to toilets (AS4674-2004 – Section 5.2).
- 36.25 **Food Storage**
Any appliance used for the storage of hot or cold food must be provided with a numerically scaled indicating thermometer or recording thermometer accurate to the nearest degree Celsius or an alarm system for continuous monitoring of the temperature of the appliance (Food Regulation 2004).
- 36.26 **Fly Protection**
Tight-fitting, washable fly screens or other approved means of excluding flies must be provided to all window and door openings (AS4674-2004-Section 2.1.5).
- 36.27 **Storage Facilities**
Sufficient facilities must be provided for the storage of cleaning materials, office materials, employees' clothing and personal belongings (AS4674-2004 – Section 5.1).
- 37 **Structural Engineering Details**
Structural engineering details prepared by a suitably qualified and experienced structural engineer (with appropriate insurance coverage) shall be submitted to the Principal Certifying Authority prior to the release of the Construction Certificate addressing the following matters:
- a Footings;
 - b reinforced concrete slabs;
 - c retaining walls;
 - d structural steelwork;
 - e wall bracing and tie-down requirements;
 - f the structural engineer, in producing a design is to complement the Geotechnical Engineer's Stability Report (Report No.29056Vrpt. rev 1-Kembla Grange dated 21 March 2016 prepared by Network Geotechnics) to make a clear statement that "any structure designed and erected in accordance with the plans and specifications will achieve the performance requirements described in Clause 1.3 of AS2870 (1996) and any other relevant codes and standards."
- 38 **Present Plans to Sydney Water**
Approved plans must be submitted online using Sydney Water Tap, available through www.sydneywater.com.au to determine whether the development will affect Sydney

Water's sewer and water mains, stormwater drains and/or easements, and if further requirements need to be met.

The Certifying Authority must ensure that Sydney Water has issued an approval receipt prior to the issue of a Construction Certificate.

Visit www.sydneywater.com.au or telephone 13 20 92 for further information.

39 **Endeavour Energy Requirements**

The submission of documentary evidence from Endeavour Energy to the Principal Certifying Authority is required confirming that satisfactory arrangements have been made with Endeavour Energy for the provision of electricity supplies to the development, prior to the release of the Construction Certificate.

Note: Applications should be made to Customer Connections – South Coast, Endeavour Energy PO Box 811 Seven Hills NSW 1730.

40 **Telecommunications**

The submission of documentary evidence from an approved telecommunications carrier to the Principal Certifying Authority confirming that underground telecommunication services are available for this development is required prior to the issue of the Construction Certificate.

41 **CPTED - Landscaping**

In order to reduce the opportunities for “hiding places” the proposed landscaping must:

- a use shrubs/plants which are no higher than 1 metre adjacent to pathways.
- b the type of trees proposed must have a sufficiently high canopy, when installed and fully grown, so that pedestrian vision is not impeded.
- c Shrub planting to be set back minimum one (1) metre from the edge of the pathway. Groundcover planting acceptable.

This requirement shall be reflected on the Construction Certificate plans.

42 **Car Parking and Access**

The development shall make provision for a minimum of 403 car parking spaces (including 3 trailer parking spaces and 10 disabled car parking spaces), 7 motorcycle parking spaces, 20 secure (class B) employee bicycle spaces and 15 visitor bicycle spaces (class C). This requirement shall be reflected on the Construction Certificate plans. Any change in the above parking numbers shown on the approved DA plans shall be dealt with via a section 4.55 modification to the development. The approved parking spaces shall be maintained to the satisfaction of Council, at all times.

43 The parking dimensions, internal circulation, aisle widths, kerb splay corners, head clearance heights, ramp widths and grades of the car parking areas are to be in conformity with the current relevant Australian Standard AS2890.1, except where amended by other conditions of this consent. Details of such compliance are to be reflected on the Construction Certificate plans.

44 Each disabled person's parking space must comply with the current relevant Australian Standard AS2890.6 – Off-street parking for people with disabilities. This requirement shall be reflected on the Construction Certificate plans.

45 The designated loading/unloading facility shall be kept clear for that purpose at all times. The designated loading/unloading facility shall be shown on the Construction Certificate plans.

46 The provision of suitable barriers, line-marking and painted signage delineating vehicular flow movements within the car parking areas. These details shall be reflected on the Construction Certificate plans.

47 The edge of the driveway and car parking areas shall be provided with a kerb where necessary to direct surface water flows to the proposed stormwater drainage system. This requirement shall be reflected on the Construction Certificate plans, prior to the release of the Construction Certificate.

- 48 Overflow paths must be provided to allow for flows of water in excess of the capacity of the pipe/drainage system draining the land, as well as from any detention storage on the land. Blocked pipe situations with 1 in 100 year ARI events must be incorporated in the design. Overflow paths must also be provided in low points and depressions. Each overflow path shall be designed to ensure no concentration of surface water flows onto any adjoining property and no entry of surface water flows into any building. Details of each overflow path shall be provided on the detailed drainage design. These requirements shall be reflected on the Construction Certificate plans prior to the release of the Construction Certificate.
- 49 Provision shall be made along the boundary of the property at the vehicular crossing/s to prevent surface water entering the road reserve. This requirement shall be reflected on the Construction Certificate plans.
- 50 The depth and location of all services (ie gas, water, sewer, electricity, telephone, traffic lights, stormwater, etc) must be ascertained and reflected on the Construction Certificate plans and supporting documentation.
- 51 The developer must provide on-site detention storage for stormwater runoff from the development. The Site Storage Requirement (SSR) and Permissible Site Discharge (PSD) values for the site must be designed in accordance with Chapter E14 of the Wollongong DCP2009. The on-site detention system shall be designed to ensure the control of post development discharges at each stormwater disposal point to pre-development levels. Details of the detention facility and SSR/PSD values must be submitted with the Construction Certificate application.

52 **Submission of Final Landscape Plan**

The submission of a final Landscape Plan to the Principal Certifying Authority, prior to the release of the Construction Certificate. The final Landscape Plan shall address the following requirements:

- a the existing trees on Northcliffe Drive shall be integrated into the mass planting bed to the main entry. The mass planting bed shall be extended to the drip line of the canopy of existing trees proposed to be retained. The proposed lawn shall be deleted.
- b deletion of the following plant species since they are unsuitable for this type of development *Corymbia maculata* and *Eucalyptus tereticornis* as a street tree on Princes Highway due to the over head power lines.
- c planting of indigenous plant species native to the Illawarra Region such as: *Syzygium smithii* (syn *Acmena smithii*) Lilly pilly, *Archontophoenix cunninghamiana* Bangalow palm, *Backbousia myrtifolia* Grey myrtle, *Elaeocarpus reticulatus* Blueberry ash, *Glochidion ferdinandii* Cheese tree, *Livistona australis* Cabbage palm tree, *Syzygium paniculatum* Brush cherry.

A further list of suitable suggested species may be found in Wollongong Development Control Plan 2009 – Chapter E6: Landscaping;
- d a schedule of proposed planting, including botanic name, common name, expected mature height and staking requirements as well as number of plants and pot sizes;
- e the location of all proposed and existing overhead and underground service lines. The location of such service lines shall be clear of the dripline of existing and proposed trees; and
- f any proposed hard surface under the canopy of existing trees shall be permeable and must be laid such that the finished surface levels match the existing level. Permeable paving is to be installed in accordance with the manufacturer's recommendations.

The completion of the landscaping works as per the final approved Landscape Plan is required, prior to the issue of Occupation Certificate.

- 53 The submission of certification from a suitably qualified and experienced landscape designer and drainage consultant to the Principal Certifying Authority prior to the release of the Construction Certificate, confirming that the landscape plan and the drainage plan are compatible.

- 54 The implementation of a landscape maintenance program in accordance with the approved Landscape Plan for a minimum period of 12 months to ensure that all landscape work becomes well established by regular maintenance. Details of the program must be submitted with the Landscape Plan to the Principal Certifying Authority prior to release of the Construction Certificate.

55 **Tree Protection and Management**

The existing trees are to be retained upon the subject property and any trees on adjoining properties shall not be impacted upon during the excavation or construction phases of the development. This will require the installation and maintenance of appropriate tree protection measures, including (but not necessarily limited to the following:

- a Installation of Tree Protection Fencing - Protective fencing shall be 1.8 metre cyclone chainmesh fence, with posts and portable concrete footings. Details and location of protective fencing must be indicated on the architectural and engineering plans to be submitted to the Principal Certifying Authority prior to release of the Construction Certificate.
- b Mulch Tree Protection Zone: Areas within a Tree Protection Zone are to be mulched with minimum 75mm thick 100% recycled hardwood chip/leaf litter mulch.

56 **Street Trees**

The developer must address the street frontage by installing street tree planting. The number and species for this development are sixteen (16) *Tristaniopsis laurina* 'Luscious' 200 litre container size, in accordance with AS 2303:2015 Tree stock for landscape use. Street trees are to be installed in accordance with Wollongong Development Control Plan 2009 – Chapter E6: Landscaping. 'Dial Before You Dig' must be consulted prior to any excavation on site. Pot holing must be carried out to determine service location. Tree pits must be adequately mulched, plants installed and staking installed to the satisfaction of WCC Manager of Works. Staking is to consist of min. 3 x 2400 x 50 x 50mm hardwood stakes driven min 600mm into firm ground. Hessian webbing is to be utilised to secure plant stock to industry standard.

These requirements shall be reflected on the Construction Certificate plans and any supporting documentation.

57 **Engineering Plans and Specifications - Retaining Wall Structures**

The submission of engineering plans and supporting documentation of all proposed retaining walls to the Principal Certifying Authority for approval prior to the issue of the Construction Certificate. The retaining walls shall be designed by a suitably qualified and experienced civil and/or structural engineer. The required engineering plans and supporting documentation shall include the following:

- a A plan of the wall showing location and proximity to property boundaries;
- b an elevation of the wall showing ground levels, maximum height of the wall, materials to be used and details of the footing design and longitudinal steps that may be required along the length of the wall;
- c details of fencing or handrails to be erected on top of the wall;
- d sections of the wall showing wall and footing design, property boundaries and backfill material. Sections shall be provided at sufficient intervals to determine the impact of the wall on existing ground levels. The developer shall note that the retaining wall and footing structure must be contained wholly within the subject property;
- e the proposed method of subsurface and surface drainage, including water disposal;
- f reinforcing and joining details of any bends in the wall;
- g the assumed traffic loading used by the engineer for the wall design.

- 58 **Pier and Beam Footings Adjacent to any Drainage Easement**
Buildings and structures (including brick fences) adjacent to easements shall be supported on pier and beam footings outside the easement. The base of the piers shall be a minimum 900 mm below ground level and shall extend below the invert level of the drainage pipelines within the easement. Structural engineers details are required detailing the size and levels of the existing drainage pipelines and the design levels for the base of the piers adjacent to the easement.
- 59 **On-Site Detention – Structural Design**
The on-site detention facility must be designed to withstand loadings occurring from any combination of hydrostatic, earth, traffic and buoyancy forces. Details must be provided demonstrating these requirements have been achieved prior to the issue of the Construction Certificate.
- 60 **On-Site Detention - Maintenance Schedule**
A maintenance schedule for the on-site stormwater detention system must be submitted with the Construction Certificate plans for the proposed development. The maintenance schedule must be in accordance with Chapter E14 of the Wollongong DCP2009.
- 61 Bicycle parking facilities must have adequate weather protection and provide the appropriate level of security as required by the current relevant Australian Standard AS2890.3 - Bicycle Parking Facilities and Austroads Guide to Traffic Management Part 11: Parking (Commentary 9: C9.2). This requirement shall be reflected on the Construction Certificate plans.
- 62 **Property Addressing Policy Compliance**
Prior to the issue of any construction certificate, the developer must ensure that any site addressing complies with Council's **Property Addressing Policy** (as amended). Where appropriate, the developer must also lodge a written request to Council's **Infrastructure Systems & Support – Property Addressing** (propertyaddressing@wollongong.nsw.gov.au), for the site addressing prior to the issue of the construction certificate. Enquiries regarding property addressing may be made by calling 4227 8660.
- 63 **Subdivision Code**
All works must be designed in accordance with the requirements set out in the version of the Wollongong City Council Subdivision Code current at the time of issue of this consent.
- 64 **Construction Certificate**
A Construction Certificate for works must be obtained prior to commencement of works on site.
- 65 **Construction Certificate Details**
Details of all engineering works must be submitted to the Certifying Authority, for approval prior to the issue of a Construction Certificate.
- 66 **Road Design Criteria**
The following design criteria must be adopted in the final design of the road network:
- a Provision for the turning manoeuvre of a 12.5 metre rigid vehicle at all bends, roundabouts and cul-de-sacs. Evidence that the truck turning manoeuvre satisfies this requirement must be shown on the engineering plans.
 - b All flexible pavements are to be designed in accordance the 'Australian Road Research Board' design criteria current at the date of this consent.
 - c All concrete roads must be constructed in accordance with the principles of the Cement and Concrete Association's design criteria current at the date of this consent.
- 67 **Geotechnical Report – Construction Certificate**
The submission of a final geotechnical report, prepared by a suitably qualified and experienced geotechnical engineer, to the Certifying Authority prior to the issue of the Construction Certificate.
- The report must cover, but not be limited to the following:

- 67.1 Extent and stability of proposed embankments including those acting as retarding basins;
- 67.2 recommended Geotechnical testing requirements;
- 67.3 required level of geotechnical supervision for each part of the works as defined under AS 3798 - Guidelines on Earthworks for Commercial and Residential Developments;
- 67.4 compaction specification for all fill within private subdivisions;
- 67.5 the level of risk to existing adjacent dwellings as a result of a construction contractor using vibratory rollers anywhere within the site the subject of these works. In the event that vibratory rollers could affect adjacent dwellings, high risk areas shall be identified on a plan and the engineering plans shall be amended to indicate that no vibratory rollers shall be used within that zone;
- 67.6 the impact of the installation of services on overall site stability and recommendations on short term drainage methods, shoring requirements and other remedial measures that may be appropriate during installation;
- 67.7 the preferred treatment of any unstable areas within privately owned allotments;
- 67.8 requirement for subsurface drainage lines;
- 67.9 overall suitability of the engineering plans for the proposed development.
- 67.10 No FRC pipes are located in areas subject to groundwater or potential for prolonged saturation.

68 **Environmental Management Plan**

Excluding any Construction Certificates for earthworks, services and in-ground structure the submission of a detailed Environmental Management Plan which addresses but is not limited to, the following issues:

- a Introduction
 - i Project Description

This section should include:

 - (1) Timing and duration of works;
 - (2) location of work sites offices, compounds, stockpiles and refuelling areas;
 - (3) a description of the site and surrounds and location of environmentally sensitive areas.
 - ii Objectives of the CEMP

This section should state what the CEMP is trying to achieve
 - iii Context of the CEMP

This section should specify how the CEMP fits into the planning process of the project.
- b Planning Project Environmental Actions
 - i EIA Obligations

This section should identify all Environmental Impact Assessment documentation related to this project.
 - ii Environmental Aspects

This section should reference or describe the aspects and impacts associated with the construction activities. Each impact should be assigned a risk ranking of low, medium or high. Control measures should be selected for all impacts

ranked as medium or high. Low risk impacts should be monitored to ensure that they do not increase.

iii Legal and Other Requirements

This section should detail the legislative requirements of the work, and all other specifications.

iv Supplementary Environmental Plans

These include:

- (1) Erosion and Sediment Control Plan (ESCP) or Soil and Water Management Plan (SWMP).

Note: Requirements for ESCPs and SWMPs are provided in “Managing Urban Stormwater: Soils and Construction” NSW Dept of Housing, 1998.

- (2) Noise and Vibration Management Plan.
- (3) Landscaping and Revegetation Plan.
- (4) Flora and Fauna Management Plan.
- (5) Traffic Management Plan (TCP).
- (6) Air Quality Management Plan.
- (7) Waste Management Plan.
- (8) Acid Sulfate Soil Management Plan (ASSMP).
- (9) Indigenous and European Heritage Plan.
- (10) Contaminated Soil Management Plan.

c Implementation

i On-site Structure and Responsibility

This section should state the duties and responsibilities of all contractors and sub-contractors working on site and the relationship between these parties.

ii Training, Awareness and Competence

This section should detail the environmental training that all site personnel are required to undertake. Environmental training should include:

- (1) Knowledge and understanding of the CEMP.
- (2) Site induction.

And may include:

- (3) Emergency response training.
- (4) Familiarisation with site environmental controls.
- (5) Erosion and sediment control training.

iii Communication

This section should include how the contractor plans to keep affected residents informed as to the nature and scope of works, the type of consultation and frequency.

This section should identify and list details for relevant external stakeholders such as:

- (1) EPA.

- (2) NPWS.
- (3) NSW Fisheries.
- (4) DNR.
- (5) Aboriginal Groups.
- (6) Council.

This section should also detail the procedures for the notification of complaints and identify the person responsible for its maintenance and follow up action.

iv Emergency Planning and Response

This section should detail the procedure to be followed in the event of an environmental emergency. An environmental emergency is any event that causes or has the potential to cause environmental damage. The procedure needs to include:

- (1) The names of key emergency response personnel;
- (2) personnel responsibilities and contact details;
- (3) contact details for emergency services (ambulance, fire brigade, spill clean up services);
- (4) the location of on site information on hazardous materials, including MSDSs and spill containment material;
- (5) the procedure to follow to minimise/control the emergency;
- (6) procedures for notifying the Superintendent, the public and/or EPA.

Emergency Response Contacts should be listed in table form.

d Auditing and Monitoring

i Environmental Action Monitoring

This section should detail how all Environmental Actions identified in Section 2 are going to be monitored and verified. This section should also detail or refer to a procedure to ensure that all monitoring results that exceed set criteria are acted on quickly and that the appropriate regulatory authorities are notified.

ii Auditing

This section should detail audit criteria, frequency and scope.

iii Non-Conformance and Corrective and Preventive Action

This section should state how these items should be addressed.

e Review of CEMP

This section should detail the procedure and frequency of reviewing the CEMP and how those using it will be aware of changes.

f Appendix 1 - Environmental Action Table

The environmental action table should provide sufficient information to ensure effective and efficient on-site environmental management. The Environmental Actions Table should include all Environmental Actions that were identified in Section 2.0 of the CEMP. The Environmental Actions Table must clearly convey what action is required, when it needs to be done and who is supposed to do it.

g Appendix 2 - Environmental Action Monitoring Table

This section should detail how all of the environmental actions listed in Appendix 1 are going to be monitored and verified, The monitoring must clearly convey what monitoring is required, when the monitoring is to take place and who is to do it.

69 **Soil and Water Management Plan (SWMP)**

A Soil and Water Management Plan (ESCP) must be prepared by a suitably qualified person in strict accordance with the requirements set out in “Managing Urban Stormwater: Soils and Construction” NSW Dept of Housing, 4th Edition. The plan must be submitted to the Certifying Authority for approval prior to the issue of the Construction Certificate.

70 **Subsoil Drainage**

Subsoil drainage must be detailed on the Construction Certificate plans and specifications in accordance with the version of the Wollongong City Council Subdivision Code current at the time of issue of this consent.

71 **Dust Suppression Measures**

The submission of details of the proposed dust suppression measures for the demolition, excavation and construction phases of the development to the Certifying Authority for approval prior to issue of the Construction Certificate. The dust suppression measures must be detailed on all construction phases via the Soil and Erosion Control Plan. Details must be provided to the Certifying Authority prior to the issue of the Construction Certificate.

72 **Pram Ramps**

All kerb returns must be provided with pram ramps to Wollongong City Council standard drawing number 5000_C11_B (colour – Sahara Yellow), unless otherwise approved in writing by Wollongong City Council.

73 **Signs and Linemarking**

A sign and linemarking diagram must be endorsed by the Local Traffic Committee and approved by Council prior to the issue of the Construction Certificate for all public roads and roads dedicated to Council.

74 **Street Lighting**

A draft electricity provider approved street lighting plan must be submitted to the Certifying Authority for approval prior to the release of the Construction Certificate. All costs associated with the installation of street lighting must be borne by the developer. A Final electricity provider approved street lighting plan must be submitted to Wollongong City Council for approval prior to commencement of works.

Wollongong City Council will not accept painted poles.

75 **Asset Management – Roads, Drainage and Landscaping**

Prior to issue of the Construction Certificate the following documentation must be submitted to the Principal Certifying Authority (Council) for approval:

- a The length, square meterage and cost of constructed roadworks to be dedicated as public road.
- b An itemised list of the size, length and type of pipe, associated pits and water quality features in the proposed drainage system to be handed over to Council (not including common drainage lines or inter-allotment drainage).
- c Itemised list of street signs and street furniture including their current cost.
- d Itemised list of plantings in public areas. Cost of plantings must be provided (to be based on current Landscape Contractors’ Association figures).
- e Maintenance schedule of landscape works and civil works and costs to Council associated with the ongoing maintenance of the work.
- f Risk assessment of carrying out maintenance of landscape works and drainage/water quality systems. Appropriate traffic control plans (prepared in accordance with RMS guidelines) will need to be submitted for approval where maintenance work takes place

in a proposed road reserve. Current costs will need to be provided in implementing the Traffic Control Plan.

76 **No Adverse Run-off Impacts on Adjoining Properties**

The design of the development shall ensure there are no adverse effects to adjoining properties or upon the land as a result of flood or stormwater run-off. Attention must be paid to ensure adequate protection for buildings against the ingress of surface run-off.

77 **Re-direction or Treatment of Stormwater Run-off**

Allowance must be made for surface run-off from adjoining properties. Any redirection or treatment of that run-off must not adversely affect any other property.

78 **Dilapidation Survey**

A dilapidation survey and report shall be submitted to the Principal Certifying Authority.

The dilapidation survey and report shall accurately reflect the condition of existing public and private infrastructure in the adjacent street(s) fronting the lots.

The report shall outline measures for the protection of existing public and private infrastructure during the works.

Any damage to infrastructure items and relics which is caused by the developer shall be repaired to the satisfaction of the Principal Certifying Authority prior to the issue of a Certificate of Practical Completion for Subdivision works.

Prior to the Commencement of Works

79 **Tree Removal**

Prior to removal, the trees approved for removal under this development consent shall be closely inspected for vertebrate fauna occupation, and if occupied by vertebrate fauna, then a fauna ecologist or the NSW Wildlife Information, Rescue and Education Service (WIRES) shall be contacted for advice (phone 1300 094 737).

80 **Site Management Plan**

Site Management Plan including an asbestos management plan - if there is no asbestos in the existing buildings a certificate from Certified Occupational Hygienist shall be included in the site management plan.

81 **Microchiropteran Bat Survey Effort Prior to Demolition of Buildings**

No earlier than seven (7) days prior to the demolition of the buildings on the site, survey effort to determine whether microchiropteran bats are roosting in any of the buildings to be demolished shall be carried out by a suitably qualified and experienced fauna ecologist. This shall involve daytime inspection of potential roosting locations, and over two (2) consecutive nights when evening temperatures are above 14°C, echolocation call recording (minimum of two Anabat or similar recorders all night starting at dusk) and watching potential exits at dusk–early evening. The results of the survey effort shall be submitted to Wollongong City Council's Environmental Strategy and Planning Division prior to any demolition.

If the survey effort identifies any microchiropteran bat species listed under the Threatened Species Conservation Act 1995 and/or the Environment. Protection and Biodiversity Conservation Act 1999, then the results submitted to Wollongong City Council shall include revised assessments of significance and consideration of management and mitigation measures.

If a microchiropteran bat maternity roosting colony is detected in any of the buildings to be demolished on the site, then the building shall be fenced off and a report prepared by a suitably qualified and experienced fauna ecologist to address the presence of the microchiropteran bat maternity colony shall be submitted to and accepted by Wollongong City Council's Environmental Strategy and Planning Division prior to the demolition of the building.

If roosting (non-maternity) microchiropteran bats are detected in any of the buildings to be demolished on the site, then a suitably qualified and experienced fauna ecologist shall inform Wollongong City Council's Environmental Strategy and Planning Division in writing and shall provide for acceptance details of the proposed method of microchiropteran bat exclusion from

the building and the details of the installation of microchiropteran bat roosting boxes, including the type; number; timing, method and location of installation; monitoring, maintenance and reporting. The microchiropteran bat roosting boxes shall be installed under the supervision of a suitably qualified and experienced fauna ecologist at least two (2) days prior to the demolition of the building containing the microchiropteran bats. If other buildings are to be demolished prior to the installation of the microchiropteran bat roosting boxes, then the building where the microchiropteran bats are roosting shall be fenced off until the microchiropteran bat roosting boxes have been installed and the microchiropteran bats have been excluded from the building.

A report detailing the installation, locations and the number of microchiropteran bat roosting boxes shall be prepared by the supervising fauna ecologist and submitted to the Wollongong City Council's Environmental Strategy and Planning Division within seven (7) days after completion of installation.

82 **Microchiropteran Bat Survey Effort Prior to Tree Removal**

No earlier than seven (7) days prior to the removal of the trees approved for removal under this development consent, over two (2) consecutive nights when evening temperatures are above 14°C echolocation call recording (minimum of two Anabat or similar recorders all night starting at dusk) shall be carried out and the results submitted to Wollongong City Council's Environmental Strategy and Planning Division. If the echolocation call recording identifies any microchiropteran bat species listed under the Threatened Species Conservation Act 1995 and/or the Environment Protection and Biodiversity Conservation Act 1999, then the results submitted to Wollongong City Council shall include revised assessments of significance and consideration of management and mitigation measures.

83 **Appointment of Principal Certifying Authority**

Prior to commencement of work, the person having the benefit of the Development Consent and a Construction Certificate must:

- a Appoint a Principal Certifying Authority (PCA) and notify Council in writing of the appointment irrespective of whether Council or an accredited private certifier is appointed; and
- b notify Council in writing of their intention to commence work (at least two days notice is required).

The Principal Certifying Authority must determine when inspections and compliance certificates are required.

84 **Sign – Supervisor Contact Details**

Before commencement of any work, a sign must be erected in a prominent, visible position:

- a stating that unauthorised entry to the work site is not permitted;
- b showing the name, address and telephone number of the Principal Certifying Authority for the work; and
- c showing the name and address of the principal contractor in charge of the work site and a telephone number at which that person can be contacted at any time for business purposes.

This sign shall be maintained while the work is being carried out and removed upon the completion of the construction works.

85 **Temporary Toilet/Closet Facilities**

Toilet facilities are to be provided at or in the vicinity of the work site on which work involved in the erection or demolition of a building is being carried out at the rate of one toilet for every 20 persons or part of 20 persons employed at the site.

Each toilet provided must be:

- a a standard flushing toilet; and
- b connected to either:

- i the Sydney Water Corporation Ltd sewerage system or
- ii an accredited sewage management facility or
- iii an approved chemical closet.

The toilet facilities shall be provided on-site, prior to the commencement of any works.

86 **Enclosure of the Site**

The site must be enclosed with a suitable security fence to prohibit unauthorised access, to be approved by the Principal Certifying Authority. No building work is to commence until the fence is erected.

87 **Demolition Works**

The demolition of the existing buildings and structures shall be carried out in accordance with Australian Standard AS2601 (2001): The Demolition of Structures or any other subsequent relevant Australian Standard and the requirements of the NSW WorkCover Authority.

No demolition materials shall be burnt or buried on-site. The person responsible for the demolition works shall ensure that all vehicles leaving the site carrying demolition materials have their loads covered and do not track soil or waste materials onto the road. Any unforeseen hazardous and/or intractable wastes shall be disposed of to the satisfaction of the Principal Certifying Authority. In the event that the demolition works may involve the obstruction of any road reserve/footpath or other Council owned land, a separate application shall be made to Council to enclose the public place with a hoarding or fence over the footpath or other Council owned land.

88 **Demolition Notification to Surrounding Residents**

Demolition must not commence unless at least two (2) days written notice has been given to adjoining residents of the date on which demolition works will commence.

89 **Hazardous Material Survey**

At least one week prior to demolition, the applicant must prepare a hazardous materials survey of the site and submit to Council a report of the results of the survey. **Hazardous materials** includes, but are not limited to, asbestos materials, synthetic mineral fibre, roof dust, PCB materials and lead based paint. The report must include at least the following information:

- a the location of hazardous materials throughout the site;
- b a description of the hazardous material;
- c the form in which the hazardous material is found, eg AC sheeting, transformers, contaminated soil, roof dust;
- d an estimation (where possible) of the quantity of each particular hazardous material by volume, number, surface area or weight;
- e a brief description of the method for removal, handling, on-site storage and transportation of the hazardous materials, and where appropriate, reference to relevant legislation, standards and guidelines;
- f identification of the disposal sites to which the hazardous materials will be taken.

90 **Consultation with SafeWork NSW – Prior to Asbestos Removal**

A licensed asbestos removalist must give written notice to SafeWork NSW at least five (5) days before licensed asbestos removal work is commenced.

91 **Contaminated Roof Dust**

Any existing accumulations of dust in ceiling voids and wall cavities must be removed prior to any demolition work commencing. Removal must take place by the use of an industrial vacuum fitted with a high efficiency particulate air (HEPA) filter.

92 **Support for Neighbouring Buildings**

This consent requires the preservation and protection of neighbouring buildings from any damage and if necessary, requires the underpinning and support of any neighbouring building in

an approved manner. The applicant or the contractor carrying out the work must at least seven days in advance of any excavation works below the level of the base of the footings of a building on an adjoining allotment, including a public road or place, give written notice of intention to carry out such works to the property owner of the affected adjoining building and furnish specific written details and supporting plans or other documentation of the proposed work.

The adjoining property owner of land is not liable for any part of the cost of work carried out for the purposes of this condition, whether carried out on the allotment of land being excavated or on the adjoining allotment of land.

93 **Temporary Sediment Fences**

Temporary sediment fences (eg haybales or geotextile fabric) must be installed on the site, prior to the commencement of any excavation, demolition or construction works in accordance with Council's guidelines. Upon completion of the development, sediment fencing is to remain until the site is grassed or alternatively, a two (2) metre strip of turf is provided along the perimeter of the site, particularly lower boundary areas.

94 **All-weather Access**

An all-weather stabilised access point must be provided to the site to prevent sediment leaving the site as a result of vehicular movement. Vehicular movement should be limited to this single accessway.

95 **Supervising Arborist – Tree Inspection and Installation of Tree Protection Measures**

Prior to the commencement of any demolition, excavation or construction works, the supervising arborist must certify in writing that tree protection measures have been inspected and installed in accordance with the arborist's recommendations and relevant conditions of this consent.

96 **Certification from Arborist - Adequate Protection of Trees to be Retained**

A qualified arborist is required to be engaged for the supervision of all on-site excavation or land clearing works. The submission of appropriate certification from the appointed arborist to the Principal Certifying Authority is required which confirms that all trees and other vegetation to be retained are protected by fencing and other measures, prior to the commencement of any such excavation or land clearing works.

97 **Notification to Council of any Damage to Council's Infrastructure**

Council must be notified in the event of any existing damage to any of Council's infrastructure including, but not limited to the road, kerb and gutter, road shoulder, footpath, drainage structures and street trees fronting the development prior to the commencement of work. Adequate protection must be provided to Council infrastructure prior to work commencing and during the construction period. Any damage to Council's assets shall be restored in a satisfactory manner prior to the issue of the Occupation Certificate.

98 **Application for Occupation, Use, Disturbance or Work on Footpath/Roadway**

Any occupation, use, disturbance or work on the footpath or road reserve for construction purposes, which is likely to cause an interruption to existing pedestrian and/or vehicular traffic flows requires Council consent under Section 138 of the Roads Act 1993. An application must be submitted and approved by Council prior to the works commencing where it is proposed to carry out activities such as, but not limited to, the following:

- a Digging or disruption to footpath/road reserve surface;
- b Loading or unloading machinery/equipment/deliveries;
- c Installation of a fence or hoarding;
- d Stand mobile crane/plant/concrete pump/materials/waste storage containers;
- e Pumping stormwater from the site to Council's stormwater drains;
- f Installation of services, including water, sewer, gas, stormwater, telecommunications and power;

- g Construction of new vehicular crossings or footpaths;
- h Removal of street trees;
- i Carrying out demolition works.
- j The developer shall apply for a Road Occupancy Licence (ROL) from the RMS Traffic Operations Unit (TOU) prior to commencing work within the classified road reserve. A copy of the ROL is to be submitted with the S138 application.

99 **Compliance with Council's Subdivision Code**

All works must be approved by way of issue of a Construction Certificate and constructed in accordance with the version of the Wollongong City Council Subdivision Code current at the time of this consent.

100 **Prior Approval from Council for Any Works in Road Reserve**

Approval under Section 138 of the Roads Act must be obtained from Wollongong City Council's Development Engineering Team prior to any works commencing or any proposed interruption to pedestrian and/or vehicular traffic within the road reserve caused by the construction of this development.

- A construction management plan prepared by the project manager must be provided that details all the phases of the development construction particularly as it relates to works that effect surrounding roads and adjoining provide properties.
- Details must be included in the construction management plan that demonstrate how vehicular and pedestrian access is to be maintained to all adjoining private properties at all times during road works, including details of any temporary signage to notify road users of any temporary access arrangements.
- Construction management plan for the roundabout construction phase is to be generally in accordance with the HD101 r12 construction staging plan Prepared by High Definition Design Pty Ltd Dwg No ST1 – ST4.
- A traffic control plan prepared and implemented by a suitably qualified person must be submitted for approval and the appropriate fees paid a minimum of five working days prior to the expected implementation. The traffic control plan shall satisfy the requirements of the latest versions of Australian Standard AS1742 – Traffic Control Devices for Works on Roads and the RMS Traffic Control at Worksites Manual.

Note: *This includes temporary road closures for the delivery of materials, plant and equipment, concrete pours etc.*

101 **Construction Management Communication Strategy**

Prior to the commencement of works, the developer must implement a Construction Management Communication Strategy for all adjoining residents, and all residents that benefit from the use of Pharlap Avenue. The strategy must include details of:

- a Methods of communication to all relevant stakeholders effected during the construction phase
- b Methods of consultation with residents to address concerns and requests during construction phases
- c Regular updates on:
 - construction activities and the relevant contractors involved;
 - temporary access arrangements for all relevant phases of construction;
 - estimated time frames for various critical construction activities; and
 - key contact persons involved with the project management and consultation.

102 **Supervision of Works**

A suitably qualified and experienced Civil Engineer, Registered Surveyor or experienced Civil Engineering Foreman must be appointed by the developer before any work commences. The supervisor's name, address and contact telephone number must be submitted to the Principal Certifying Authority, two days prior to the commencement of any work.

- 103 **Site Documentation**
The supervisor must have on-site at all times a copy of the following documents:
- a a copy of the Development Consent;
 - b a copy of the Construction Certificate and approved drawings; and
 - c a copy of the approved Environmental Management Plan (if required by the conditions of the Development Consent).
- 104 **Geotechnical Requirements During Construction**
All works must be carried out in accordance with reports submitted in support of the Development Application and Construction Certificate Application.
- 105 **Works to be in accordance with Environmental Management Plan**
All works on the site must be carried out in accordance with the approved environmental management plan for the full duration of construction works.
- 106 **Works to be in accordance with Soil and Water Management Plan**
All works must be carried out in accordance with the approved Soil & Water Management Plan.
- 107 **Erosion and Sediment Control Measures**
Erosion and sedimentation control measures are to be established in accordance with the requirements of Council. All erosion and sedimentation control measures are to be in place, prior to the commencement of any works and shall be maintained for a minimum period of six (6) months after the completion of all works. Daily maintenance of the erosion and sedimentation control measures is to undertaken to ensure their effectiveness.
- 108 **Temporary Sediment Fences**
Sediment fences must be installed on the site in accordance with “Managing Urban Stormwater: Soils and Construction NSW Dept of Housing - 4th Edition”, prior to the commencement of any works. Upon completion of the subdivision, sediment fencing is to remain until the site is grassed or alternatively, a minimum 2 metre strip of turf must be provided.
- 109 **Sediment Traps**
Sediment traps must be installed on-site around all affected stormwater inlets and drainage lines, in accordance with “Managing Urban Stormwater: Soils and Construction, NSW Dept of Housing - 4th Edition”, prior to the commencement of any works. All sediment control measures must be maintained on a daily basis until the site has been fully revegetated.
- 110 **Deposited Materials on Roads**
Any material deposited on public roads resulting from the works must be removed within the same day.
- 111 **Dust Control**
The emission of dust from the site must be controlled and in this regard watering equipment shall be kept on the site at all times for this purpose.
- 112 **Shaker Pads**
Shaker pads are to be installed at the entry/exit points to the site to prevent soil material leaving the site on the wheels of vehicles and other plant and equipment.
- 113 **Vibratory Rollers**
No vibratory rollers are to be used during the construction of the subdivision without the prior written approval of the Principal Certifying Authority. The Principal Certifying Authority shall not issue this approval unless the geotechnical consultant has confirmed in writing that the use of vibratory rollers will not affect existing adjacent dwellings.
- 114 **Filling – Borrowed Externally**
Any fill material borrowed externally shall comply with Wollongong City Council’s Technical Policy 4.71 “Use of Fill Material in Construction Sites – Impact on Water and Air Quality”.
- 115 **Geotechnical Supervision**
A Suitably Qualified Geotechnical Engineer must supervise all filling within the development.

- 116 **Certification – Installation of Erosion and Sedimentation Control Devices**
Prior to any excavation, demolition or construction works being carried out a certificate from the appointed site supervisor must be submitted to the Principal Certifying Authority confirming that all erosion and sedimentation control devices have been satisfactorily installed as per the approved Construction Certificate plans and specifications.
- 117 **Programming of Works in Road Reserve**
The submission of a written construction program to Council is required, a minimum of one week prior to the commencement of any works within any public road reserve.
- 118 **Forty-eight Hours Notice – Prior to Works Commencing in any Road Reserve**
The site supervisor must give the Principal Certifying Authority 48 hours notice, prior to any works commencing in any road reserve (footpath/carriageway).
- 119 **Temporary Road Closures**
If a road closure is required an approval must be obtained from Wollongong City Council's Local Advisory Traffic Committee.

Note: This request may take up to 6 weeks for approval. An application for approval together with the prescribed fee must include a Traffic Control Plan prepared by a suitably qualified person which is to include the date and times of closure and any other relevant information.
- 120 **Public Liability Insurance**
All contractors working in Council's road reserve shall take out public liability insurance for a minimum amount of \$10 million. This policy shall indemnify Council from all claims arising from the execution of any such works. It will be the site supervisor's responsibility to ensure that this condition of consent is complied with.
- 121 **Pavement Design**
The pavement design for all subdivision roads must be carried out by a qualified geotechnical/civil engineer in accordance with the 'Australian Road Research Board' design criteria and the version of the Wollongong City Council Subdivision Code which are current at the date of this consent. The pavement design must be submitted to the Certifying Authority for approval prior to the laying of pavement material.
- 122 **Street Lighting (Final Plan)**
A Final electricity provider approved street lighting plan must be submitted to Wollongong City Council for approval prior to commencement of works.

During Demolition, Excavation or Construction

- 123 **Site Remediation and Validation**
Recommendations of site assessment report (Stage III – Remediation Action Plan by Environment Investigation Service dated 12th February 2016 Ref No. E29056KMrpt) must be implemented for removal of UST and remediation land for the proposed development. The CLM Act 1997, DCP Chapter E-20 must be considered for proposed remediation works.
- 124 **Backfill of Excavated Contaminated Soil or Importing Any Soils**
Prior to using of excavated soil or importing any soils to site for the purpose of back-filling also requires validation testing following the EPA (1995) *Sampling Design Guidelines* to confirm suitability for the proposed land use.
- 125 **Light Spillage**
Car park area, outdoor lighting shall comply with Lighting Plan and the Australian Standard AS4282. Lighting and signage on the site shall not cast glare on the adjacent properties.
- 126 **Demolition of Tower**
The existing tower shall be dismantled/removed when not occupied by nesting birds.
- 127 **Injured Native Vertebrate Fauna**
If any native vertebrate fauna are injured during demolition or tree removal, then the NSW Wildlife Information, Rescue and Education Service (WIRES – phone 1300 094 737), or a veterinarian shall be contacted so that any injured fauna are collected and treated.

128 **Water Sensitive Urban Design (WSUD)**

The developer shall install the WSUD infrastructure as stated in the WSUD report prepared by C&M Consulting Engineering dated March 2016 Job Ref No RO1327-SWMP Rev F recommended a combination of a rainwater tanks, hydrodynamic separator and filter cartridges to improve stormwater quality. Upon completion of the WSUD infrastructure the developer shall submit an engineering certificate stated that the WSUD infrastructure was installed as stated in the report.

129 **Stormwater Connections**

All pipe connections to existing stormwater drainage systems within the road reserve shall be constructed in accordance with good engineering practice. The developer shall ensure that the condition of the existing stormwater drainage system is not compromised and that the service life of the existing stormwater drainage system is not reduced as a result of the connection.

130 **Protection of Council Infrastructure**

The developer shall provide adequate protection to all Council assets prior to work commencing and during construction. Wollongong City Council's Development Engineering Manager shall be notified immediately in the event of any damage to Council's assets. Any damage to Council's assets shall be restored to the satisfaction of Council, with all associated costs borne by the developer.

131 **Works within Road Reserve**

All works proposed within the road reserve as part of the subject development shall be carried out in accordance with good engineering practice and at the developer's expense.

132 **Survey Report**

The submission of a survey report by a registered Land Surveyor to the Principal Certifying Authority is required, prior to the work proceeding beyond each of the following respective stages so as to guarantee that each stage of the development is completed in accordance with the approved plans:

- a footing excavation;
- b slab formwork;
- c foundation walls;
- d walls and completed parapet/gable;
- e building on the site.

133 **Survey Certificate**

The submission of a Survey Certificate to the Principal Certifying Authority confirming that:

- a The ridge height level of the entry gable accords with the ridge height levels for the entry gable as per the approved plans under this consent being R.L. 33.24 metres Australian Height Datum.
- b The parapet height level of the hardware and building supplies building accords with the parapet height level of the hardware and building supplies building as per the approved plans under this consent being R.L. 31.4 metres Australian Height Datum.

134 **Supervision of Engineering Works**

All engineering works associated with the development are to be carried out under the supervision of a practicing engineer.

135 **Piping of Stormwater to Existing Stormwater Drainage System**

Stormwater for the land must be piped to the existing stormwater drainage system within the adjoining road in accordance with the approved detailed drainage design.

136 **No Adverse Run-off Impacts on Adjoining Properties**

The design of the development shall ensure there are no adverse effects to adjoining properties or upon the land as a result of flood or stormwater run-off. Attention must be paid to ensure adequate protection for buildings against the ingress of surface run-off.

- 137 **Re-direction or Treatment of Stormwater Run-off**
Allowance must be made for surface run-off from adjoining properties. Any redirection or treatment of that run-off must not adversely affect any other property.
- 138 **Notification to Adjoining Property Owners Prior to Commencement of Works**
The contractor shall be mindful of maintaining access to existing properties fronting the drainage works. It would be prudent to provide some form of notification to the affected properties prior to commencement of works. This is particularly the case if any disruption to access will be required as a consequence of the works.
- 139 **Prior approval from Council for any works in Road Reserve**
Approval, under Section 138 of the Roads Act must be obtained from Wollongong City Council's Development Engineering Team prior to any works commencing or any proposed interruption to pedestrian and/or vehicular traffic within the road reserve caused by the construction of this development. A traffic control plan prepared and implemented by a suitably qualified person must be submitted for approval and the appropriate fees paid a minimum of five working days prior to the expected implementation. The traffic control plan shall satisfy the requirements of the latest versions of Australian Standard AS1742 – Traffic Control Devices for Works on Roads and the RMS Traffic Control at Worksites Manual.
Note: This includes temporary road closures for the delivery of materials, plant and equipment, concrete pours etc.
- 140 **Branch Pruning in accordance with Australian Standard**
Any branch pruning which has been given approval, must be carried out by a qualified arborist in accordance with Australian Standard AS4373 (2007).
- 141 **Copy of Consent to be in Possession of Person carrying out Tree Removal**
The applicant/developer must ensure that any person carrying out tree removal/vegetation clearance is in possession of this development consent and/or the approved landscape plan, in respect to the trees/vegetation which have/have been given approval to be removed in accordance with this consent.
- 142 **Restricted Hours of Work**
The developer must not carry out any work other than emergency procedures to control dust or sediment laden runoff outside the normal working hours, namely, 7.00 am to 5.00 pm, Monday to Saturday, without the prior written consent of the Principal Certifying Authority and Council.
No work is permitted on public holidays or Sundays.
Any request to vary these hours shall be submitted to the **Council** in writing detailing:
a the variation in hours required;
b the reason for that variation;
c the type of work and machinery to be used.
Note: The developer is advised that other legislation may control the activities for which Council has granted consent including but not limited to the Protection of the Environment Operations Act 1997.
- 143 The developer must carry out work at all times in a manner which will not cause a nuisance, by the generation of unreasonable noise, dust or other activity, to the owners and/or occupiers of adjoining and adjacent land.
- 144 **Excavation/Filling/Retaining Wall Structures**
Any proposed filling on the site must not:
a encroach onto the adjoining properties, and
b adversely affect the adjoining properties with surface run-off.
- 145 All proposed cut and filling works must be adequately retained with all battered slopes being no steeper than 2H: 1V and comply with Council's Development Control Plan.

- 146 If an excavation associated with the erection or demolition of a building extends below the level of the base of the footings of a building on adjoining allotment of land, the person causing the excavation to be made:
- a must preserve and protect the adjoining building from damage; and
 - b if necessary, must underpin and support the building in an approved manner; and
 - c must, at least seven (7) days before excavation below the level of the base of the footings of a building on an adjoining allotment of land, give notice of intention to do so to the owner of the adjoining allotment of land and furnish particulars of the excavation.
- 147 All excavations and backfilling associated with the erection of a building must be executed safely and in accordance with appropriate professional standards.
- 148 All excavations and backfilling associated with the erection of a building must be properly guarded and protected to prevent them from being dangerous to life or property.
- 149 **Asbestos – Removal, Handling and Disposal Measures/Requirements Asbestos Removal by a Licensed Asbestos Removalist**
The removal of any asbestos material must be carried out by a licensed asbestos removalist if over 10 square metres in area of non-friable asbestos, or if any type of friable asbestos in strict accordance with SafeWork NSW requirements (<http://www.safework.nsw.gov.au>).
- 150 **Asbestos Waste Collection, Transportation and Disposal**
Asbestos waste must be prepared, contained, transported and disposed of in accordance with SafeWork NSW and NSW Environment Protection Authority requirements. Asbestos waste must only be disposed of at a landfill site that can lawfully receive this type of waste. A receipt must be retained and submitted to the Principal Certifying Authority, and a copy submitted to Council (in the event that Council is not the Principal Certifying Authority), prior to commencement of the construction works.
- 151 **Provision of Waste Receptacle**
The developer must provide an adequate receptacle to store all waste generated by the development, pending disposal. The receptacle must be regularly emptied and waste must not be allowed to lie or accumulate on the property other than in the receptacle. Consideration should be given to the source separation of recyclable and re-usable materials.
- 152 **Supervision of Engineering Works**
A suitably qualified civil engineer, registered surveyor or experienced civil engineering foreman appointed by the developer must be on site at all time during working hours.
- 153 **Drainage Inspections**
A suitably qualified civil engineer appointed by the developer must regularly visit the site to ensure that all drainage construction complies with the approved Construction Certificate drawings.
- 154 **Noise Control – Construction Works**
The construction works shall comply with the Australian Standard AS 2436- 2010 “Guide to Noise Control on Construction, Maintenance & Demolition Sites” and any other requirements as specified by Council or the NSW Environment Protection Authority.
- 155 **Prior to Pouring of Concrete**
A suitably qualified civil and/or structural engineer appointed by the developer must review and approve any structural reinforcement prior to pouring of concrete.
- 156 **Formwork**
A suitably qualified civil and/or structural engineer appointed by the developer must review and approve all formwork prior to pouring of concrete.
- 157 **Notice to Council – Road Openings**
The site supervisor must notify Council’s Works Department 48 hours prior to the opening of any public road.

158 **Traffic Control Plan**

Approval must be obtained from Wollongong City Council Traffic Section for any interruption to pedestrian and vehicular traffic within the road reserve caused by the construction of this development. A traffic control plan prepared and implemented by a suitably qualified person must be submitted for approval with the appropriate fee, 48 hours prior to expected implementation. The traffic control plan shall be to the requirements of Wollongong City Council.

Note: This includes temporary road closures for the delivery of materials, plant and equipment, concrete pours etc.

159 **Notification to Council of any Damage to any Road, Drainage Structure or Footpath**

Council must be notified in the event of any existing damage to the road, kerb and gutter, road shoulder, footpath, drainage structures and street trees fronting the development prior to the commencement of work. Adequate protection must be provided for Council infrastructure prior to work commencing and during subdivision operations. Any damage to Council's assets shall be made good, prior to the release of the Subdivision Certificate.

160 **Compliance Inspections**

All the roadworks will require regular inspections in accordance with the Wollongong City Council Subdivision Code. If Wollongong City Council is to carry out compliance inspections you are advised that inspections must be paid for at the time of submission of Wollongong City Council's type M10 form and booked a minimum of 24 hours prior to taking place.

161 **Supervision of Work in Road Reserve**

Any work carried out in Council's road reserve shall be supervised at all times by a suitably qualified and experienced civil engineer, registered surveyor or experienced civil engineering foreman.

162 **Excess Excavated Material - Disposal**

Excess excavated material shall be classified according to NSW Environment Protection Authority's Waste Classification Guidelines - Part 1: Classifying Waste (2014) prior to being transported from the site and shall be disposed of only at a location that may lawfully receive that waste.

Prior to the Issue of the Occupation Certificate

163 **Site Auditor's Report (SAR) and Site Auditor's Statement (SAS)**

The submission of a site auditor's report and site auditor's statement to the Principal Certifying Authority and copy to Council is required, prior to issue of any occupation certificate. The site auditor's report shall verify that:

- a all site contamination remediation works have been satisfactorily completed;
- b the site is not affected by any soil strata and/or groundwater table contamination, above the NSW DECCW threshold limit criteria; and
- c the site is rendered suitable for the proposed development.

The submission of a site audit statement (SAS) is required from the NSW EPA accredited site auditor pursuant to the provisions of Part 4 of the Contaminated Land Management Act 1997 confirming that the site has been satisfactorily remediated and is suitable for the proposed development.

164 **Fire Safety Certificate**

A Fire Safety Certificate must be issued for the building prior to the issue of an Occupation Certificate. As soon as practicable after a Fire Safety Certificate is issued, the owner of the building to which it relates:

- a Must cause a copy of the certificate (together with a copy of the current fire safety schedule) to be given to the Commissioner of New South Wales Fire Brigades, and

- b must cause a further copy of the certificate (together with a copy of the current fire safety schedule) to be prominently displayed in the building.

165 **Planning Agreement**

Prior to the issue of an Occupation Certificate, the applicant must demonstrate both completion and compliance with all relative obligations under the planning agreement.

166 **Drainage WAE**

The developer shall obtain written verification from a suitably qualified civil engineer, stating that all stormwater drainage and related work has been constructed in accordance with the approved Construction Certificate plans. In addition, full works-as-executed plans, prepared and signed by a Registered Surveyor shall be submitted. These plans shall include levels and location for all drainage structures and works, buildings (including floor levels), and finished ground and pavement surface levels. This information shall be submitted to the Principal Certifying Authority prior to the issue of the final occupation certificate.

167 **Drainage within Road Reserve WAE**

The developer shall obtain written verification from a suitably qualified civil engineer, stating that the construction of the drainage infrastructure works within the road reserve has been undertaken in accordance with the approved construction plans. In addition, a full works-as-executed plan, prepared and signed by a Registered Surveyor must be submitted. This plan must include the location and levels of the drainage lines, structures and finished surface levels. This information must be approved by Wollongong City Council's Development Engineering Manager prior to the issue of the final Occupation Certificate.

168 **Post Dilapidation Report**

The developer shall provide Wollongong City Council's Development Engineering Manager with a post construction dilapidation report, identifying the condition of Council assets and all land in the vicinity of the proposed works at the completion of works.

- 169 A Section 73 Certificate must be submitted to the Principal Certifying Authority prior to occupation of the development/release of the plan of subdivision.

170 **Drainage**

The developer must obtain a certificate of Hydraulic Compliance (using Council's M19 form) from a suitably qualified civil engineer, to confirm that all stormwater drainage and on-site detention works have been constructed in accordance with the approved plans. In addition, full works-as-executed plans, prepared and signed by a Registered Surveyor must be submitted. These plans and certification must satisfy all the stormwater requirements stated in Chapter E14 of the Wollongong DCP2009. This information must be submitted to the Principal Certifying Authority prior to the issue of the final Occupation Certificate.

171 **Restriction on Use – On-site Detention System**

The applicant must create a restriction on use under the Conveyancing Act 1919 over the on-site detention system. The following terms must be included in an appropriate instrument created under the Conveyancing Act 1919 for approval of Council:

“The registered proprietor of the lot burdened must not make or permit or suffer the making of any alterations to any on-site stormwater detention system on the lot(s) burdened without the prior consent in writing of the authority benefited. The expression ‘on-site stormwater detention system’ shall include all ancillary gutters, pipes, drains, walls, kerbs, pits, grates, tanks, chambers, basins and surfaces designed to temporarily detain stormwater as well as all surfaces graded to direct stormwater to those structures.

Name of the authority having the power to release, vary or modify the restriction referred to is Wollongong City Council.”

The instrument, showing the restriction, must be submitted to the Principal Certifying Authority for endorsement prior to the issue of the final Occupation Certificate and the use of the development.

172 **Retaining Wall Certification**

The submission of a certificate from a suitably qualified and experienced structural engineer or civil engineer to the Principal Certifying Authority is required, prior to the issue of the Occupation Certificate or commencement of the use. This certification is required to verify the structural adequacy of the retaining walls and that the retaining walls have been constructed in accordance with plans approved by the Principal Certifying Authority.

173 **Occupation Certificate**

An Occupation Certificate must be issued by the Principal Certifying Authority prior to occupation or use of the development. In issuing an Occupation Certificate, the Principal Certifying Authority must be satisfied that the requirements of section 6.9 of the Environmental Planning and Assessment Act 1979, have been complied with as well as all of the conditions of the Development Consent.

174 **Compensatory Planting**

The developer must make compensatory provision for the trees required to be removed as a result of the development. In this regard, fifty (50) 200 litre container mature plant stock shall in an appropriate location within the property boundary of the site. The suggested species are *Acmena smithii*, *Cupaniopsis sp.*, *Waterhousia sp.*

175 **Positive Covenant – On-Site Detention Maintenance Schedule**

A positive covenant shall be created under the Conveyancing Act 1919, requiring the property owner(s) to undertake maintenance in accordance with the Construction Certificate approved On-Site Stormwater Detention System and Maintenance Schedule (application number to be referenced).

The instrument, showing the positive covenant must be submitted to the Principal Certifying Authority for endorsement prior to the issue of the final Occupation Certificate and the use of the development.

176 **On-Site Detention – Structural Certification**

The submission of a certificate from a suitably qualified practising civil and/or structural engineer to the Principal Certifying Authority is required prior to the issue of the final Occupation Certificate. This certification is required to verify the structural adequacy of the on-site detention facility and that the facility has been constructed in accordance with the approved Construction Certificate plans.

177 **Registration**

The food business is required to be registered with Council. A Food Business Notification Form must be submitted prior to business operations commencing. The appropriate form can be completed on Councils' web page by visiting:

<http://www.wollongong.nsw.gov.au/customerserviceonline/applyforit/Pages/foodpremises.aspx>

Alternatively, contact Council's Regulation and Enforcement Division on (02) 4227 7737 to obtain a registration form.

178 **Extinguish Redundant Easements and Restrictions as to Use**

All redundant easement and/or restrictions as to use shall be extinguished from all Titles prior to issue of an Occupation Certificate for the building.

Prior to Issue Subdivision Certificate/Release of Final Subdivision Plan

179 **Certification – Stormwater Drainage**

The submission of written certification from a suitably qualified civil engineer stating that all stormwater drainage and related works have been constructed in accordance with the approved Construction Certificate plans and the requirements of the Wollongong City Council Subdivision Code.

180 **88B Instrument – Restriction as to User – On-site Detention System**

The applicant must create a restriction on use over proposed Lots 2 and 3. The following terms must be included on an 88B instrument for approval of Council:

“The registered proprietor of the lot burdened must not erect or permit the erection of or permit to remain any building and/or other impervious surface area(s) on the lot burdened unless the registered proprietor constructs an on-site stormwater detention system on the said lot burdened in conjunction with the building and/or other impervious surface area(s), in accordance with the requirements of Wollongong City Council. The expression ‘on-site stormwater detention system’ shall include all ancillary gutters, pipes, drains, walls, kerbs, pits, grates, tanks, chambers, basins and surfaces designed to temporarily detain stormwater as well as all surfaces graded to direct stormwater to those structures.

Name of the authority having the power to release, vary or modify the restriction referred to is Wollongong City Council.”

The 88B instrument, showing the restriction must be submitted to the Principal Certifying Authority for endorsement prior to the issue of the Subdivision Certificate.

181 **Final Geotechnical Report - Subdivision Certificate**

The submission of a final geotechnical report by a suitably qualified and experienced geotechnical consultant to the Principal Certifying Authority, prior to the issue of the Subdivision Certificate. The report shall include, but is not necessarily limited to:

- 181.1 All earthwork operations;
- 181.2 The suitability of each allotment for residential development. In this regard each lot shall be given a classification in accordance with AS2870.1 - Residential Slabs and Footings;
- 181.3 A fill plan showing extent and depth of fill;
- 181.4 Certification that all earthworks within the site have complied with the Subdivision Code. This shall include appropriate test results, and test location diagram and date of testing;
- 181.5 Certification that all recommendations contained in geotechnical reports lodged in support of this development have been satisfied;
- 181.6 The exact extent of any restricted building zones or any other restrictions affecting any of the allotments. Particular attention shall be paid to the location of subsurface drainage lines, which shall be burdened with a restriction-as-to-user within the Section 88B Instrument;
- 181.7 identification of all land affected by landslip or instability constraints (if applicable).
- 181.8 No FRC pipes are located in areas subject to groundwater or potential for prolonged saturation.

182 **Certification - Geotechnical**

A suitably qualified geotechnical engineer must supervise all filling activity. The geotechnical engineer shall provide written certification that the completed landfilling or land re-shaping works are in compliance with the approved plans and specifications. The certification shall include appropriate test results, a test location diagram and date of testing.

183 **Works-As-Executed Plans**

The submission of two sets (minimum) of Works-As-Executed (WAE) plans to the Principal Certifying Authority, prior to the release of the Subdivision Certificate. The Works-As-Executed plans shall be certified by a registered surveyor indicating that the survey is a true and accurate record of the works that have been constructed. The Works-As-Executed dimensions and levels must also be shown in red on a copy of the approved Construction Certificate plans. The Works-As-Executed (WAE) plans must include:

- Final locations and levels for all works associated with the subdivision which also indicates the final volume of each on-site detention and subsoil drainage locations;
- a separate conduit plan showing the location of all conduits laid beneath the constructed road system;

- a separate fill plan showing extent and depth of filling;
- a separate plan which indicates the extent of flood inundation for 1% AEP and PMF storm event;
- the location of the on-site detention identification plaque; and
- the plan(s) must include but not be limited to the requirements stated in Chapter E14 of the Wollongong DCP 2009.

An electronic copy in CAD format is required to be submitted at the time of lodgement.

184 **Practical Completion**

Upon completion of all works stipulated in the Development Consent and Construction Certificate, the developer must obtain either a Certificate of Practical Completion from Wollongong City Council or a Compliance Certificate from an accredited Private Certifier.

In order to attain a Certificate of Practical Completion the following items must be lodged with Wollongong City Council:

- Completed M3 Form which references the Construction Certificate application number and stipulates that a Certificate of Practical Completion is required.
- Work-as executed drawings as conditioned in this consent.
- CCTV as conditioned in this consent.
- Final Certifications as conditioned in this consent.
- Final Reports as conditioned in this consent.
- All pipelines compaction data (all layers) and road density testing data (all courses) as per Wollongong City Council subdivision code requirements.
- Asset Management report as conditioned in this consent.

As part of the Practical Completion certificate, a draft Handover Package is to be provided to Wollongong City Council, with written confirmation that Council confirms practical completion has been reached and assets are to Council's satisfaction for future handover.

185 **Existing Easements**

All existing easements must be acknowledged on the final subdivision plan.

186 **Existing Restriction as to Use**

All existing restriction on the use of land must be acknowledged on the final subdivision plan.

187 **Encroaching Pipes**

A minimum one (1) metre wide easement to drain water shall be created over any encroaching drainage pipes.

188 **Encroaching Services**

A minimum one (1) metre wide easement for services must be created over any encroaching utility service.

189 **88B Instrument Easements/Restrictions**

Any easements or restrictions required by this consent must nominate Wollongong City Council as the authority to vary, modify or release/extinguish the easements or restrictions. The form of the easement(s) or restriction(s) created as a result of this consent must be in accordance with the standard format for easements and restrictions as accepted by the NSW Land Registry Services.

190 **All Works to be Completed**

All works as specified in the development Consent and Construction Certificate must be completed prior to the issue of a Subdivision Certificate. All works shall be fully borne by the developer and any damage to Council's assets shall be made good, prior to the issue of the Subdivision Certificate.

191 **Final Documentation Required Prior to Issue of Subdivision Certificate**

The submission of the following information/documentation to the Principal Certifying Authority, prior to the issue of a Subdivision Certificate:

- 191.1 Completed Subdivision Certificate application form and fees in accordance with Council's fees and charges;
- 191.2 Administration sheet and plan of Subdivision prepared by a registered surveyor plus four (4) equivalent size paper copies of the plan;
- 191.3 Section 88B Instrument covering all necessary easements and restrictions on the use of any lot within the subdivision;
- 191.4 Original Subdivider/Developer Compliance Certificate pursuant to Section 73 of the Water Board (Corporatisation) Act 1994 from Sydney Water;
- 191.5 Original Notification of Arrangement from an Endeavour Energy regarding the supply of underground electricity to the proposed allotments;
- 191.6 Original Compliance Certificate from Telstra or another Telecommunications Service Provider which confirms that the developer has consulted with the Provider with regard to the provision of telecommunication services for the development.

192 **CCTV**

All stormwater pipes within road reserves and within drainage easements intended to be dedicated to Council must be inspected by CCTV. A copy of the CCTV inspection must be submitted to the Principal Certifying Authority prior to the issue of the Subdivision Certificate. Below standard work must either be replaced or repaired to the Principal Certifying Authority's satisfaction prior to the issuing of a Subdivision Certificate.

193 **Benkelman Beam**

Prior to issue of the Subdivision Certificate, Benkelman beam testing must be undertaken on all roads proposed for dedication as road reserve. Testing must be carried out in accordance with the current version of the Wollongong City Council Subdivision Code at the time of issue of this consent. The acceptance criteria is based on the tolerable deflections as specified by the Australian Road Research Board and AUSTROADS at the time of issue of this consent.

Operational Phases of the Development/Use of the Site

194 **Microchiropteran Bat Roosting Box Monitoring**

Any installed microchiropteran bat roosting boxes shall be monitored twice yearly (early spring and late summer) by a suitably qualified and experienced fauna ecologist for a period of no less than two (2) years.

195 **Microchiropteran Bat Roosting Box Monitoring Reporting**

A brief report on the results of each habitat box monitoring session shall be forwarded to Wollongong City Council's Environment Strategy and Planning Division within one (1) month of the completion of each monitoring session.

196 **Acoustic Compliance**

Within three (3) months of operating hardware store submit to the council an acoustic compliance report prepared by a member of the Australian Acoustic Society (AAS) or The Association of the Australian Acoustic Consultants (AAAC) that the recommended noise control work was undertaken and the hardware store does comply with the noise criteria.

197 **Eating Areas**

Any enclosed eating area must be smoke free. "No Smoking" signs must be displayed within the eating areas to ensure all patrons comply with this requirement (Smoke Free Environment Act 2000).

198 **Restricted Hours of Operation**

The hours of operation for the development shall be restricted to:

Staff: Monday to Friday -6.00 am to 10.00 pm on Saturday, Sunday and Public Holidays 6.00 am to 9.00 pm

Business Hours: Monday to Friday -7.00 am to 10.00 pm on Saturday, Sunday and Public Holidays 7.00 am to 8.00 pm

Deliveries and Pick up including Waste Services: All seven (7) days of the week between 8.00 am to 8.00 pm

Any alteration to the approved hours of operation will require separate Council approval.

199 **Noise Restrictions on Bunnings Store Development**

The noise ($L_{Aeq(15min)}$) emanating from Bunnings Store must not exceed 5 dB(A) above the background noise level ($L_{A90(15min)}$) of the area at any boundary of the land.

200 **Loading/Unloading Operations/Activities**

All loading/unloading operations are to take place at all times wholly within the confines of the site.



Our ref: STH06/01366/12
Contact: Chris Millet 4221 2570

8 February 2018

Rodney Thew
Wollongong City Council
BY EMAIL: rthew@wollongong.nsw.gov.au

DEVELOPMENT APPLICATION 2016/358 – BUNNINGS, NORTHCLIFFE DRIVE, KEMBLA GRANGE

Dear Sir

Roads and Maritime Services (RMS) refers to your correspondence dated 14 December 2018 regarding the subject development application.

RMS has completed an assessment of the development, based on the information provided and focussing on the proposed upgrades to the signals at the junction of the Princes Highway and Northcliffe Drive (as shown in the attached plans).

RMS understands Council are satisfied with the proposed upgrades to the signals at the junction of the Princes Highway and Northcliffe Drive (i.e. a signalised seagull). Should the development be approved in this form, the developer will need to enter into a Works Authorisation Deed with RMS to progress and finalise the detailed design for the upgrades and then deliver the proposed upgrades. As part of the detailed design process, the developer will need to demonstrate the design is compliant with relevant standards (such as median and island dimensions, turn paths) and there is sufficient room to undertake ongoing maintenance safely.

Once the upgrades are completed, RMS' ongoing role will simply be to maintain the signals and optimise the operation of the signals within the constructed road geometry. Any ongoing capacity issues and/or complaints associated with signals will be a matter for Council to deal with and/or address with Council funded upgrades. RMS will not be providing any upgrades in the future to address capacity issues.

In regards to Northcliffe Drive (which is a classified regional road), RMS considers that it is appropriate for Council to determine if proposed access arrangements and road upgrades proposed on Northcliffe Drive are acceptable from a network perspective (i.e. acceptable in terms of safety and efficiency). RMS supports Council's plans for a future arterial road corridor into West Dapto and supports Council's endeavour to ensure the access arrangements for the Bunnings development can be integrated with the longer term network needs.

Based on the above, RMS will not object to the development application subject to the following comments being included in the conditions of development consent:

Prior to the issuing of a construction certificate

- Prior to the issuing of the construction certificate, the developer must enter into a Works Authorisation Deed (WAD) with the RMS for the proposed upgrades to the signals at the junction of the Princes Highway and Northcliffe Drive.

Prior to the issuing of an occupation certificate (interim or final)

- Prior to any occupation, the developer must upgrade the existing signalised seagull at the junction of the Princes Highway and Northcliffe Drive generally in accordance with the layout shown in the attached plan and in accordance with Austroads *Guide to Road Design Part 4a: Unsignalised and signalised intersections*, Austroads *Guide To Traffic Management Part 6: Intersections, Interchanges and Crossings* (2007) and the RTA's *Traffic Signal Design* (2008).
- All pavement design associated with the above upgrade must be in accordance with Austroads standards. The location of the existing travel lanes would be altered by the proposed upgrades. The pavement outside the existing travel lanes is unlikely to be suitable for accommodating the traffic loadings. It is likely that the pavement and wearing surface would need to be upgraded. RMS would require pavement joints to be located away from wheel paths. RMS would require a uniform pavement and wearing surface that is adequately water proofed. The upgrade would need to be to the satisfaction of RMS, consistent with the existing lanes and in accordance with Austroads Standards.
- Where required, the developer must upgrade/provide lighting in accordance with Australian Standard AS/NZS1158.
- All roadworks, traffic control facilities and other works associated with this development, including any modifications required to meet RMS standards, will be at no cost to RMS. All works must be completed prior to occupation.
- All works relating to the upgrade to the traffic signals must be undertaken by a pre-qualified contractor. A copy of pre-qualified contractors can be found on the RMS website at:

<http://www.rta.nsw.gov.au/doingbusinesswithus/tenderscontracts/prequalifiedcontractors.html>

Note: It is requested that Council advise the applicant that conditions of development consent do not guarantee RMS final consent to the specific works relating to the upgrade to the traffic signals. In this regard, prior to undertaking any such work, the applicant is required to submit detailed design plans and all relevant additional information prior to commencing work on the State road network. The developer will need to pay all RMS fees and charges associated with works. In the first instance, to progress the post consent process, the applicant should email the conditions of development consent to: WAD.southern@rms.nsw.gov.au

- The developer must apply for, and obtain a Road Occupancy Licence (ROL) from the RMS Traffic Operations Unit (TOU) prior to commencing roadworks which impact the operation of traffic signals on any road. The application will require a Traffic Management Plan (TMP) to be prepared by a person who is certified to prepare Traffic Control Plans. Should the TMP require a reduction of the speed limit, a Speed Zone Authorisation will also be required from the TOU. The developer must submit the ROL application 10 business days prior to commencing work. It should be noted that receiving an approval for the ROL within this 10 business day period is dependant upon RMS receiving an accurate and compliant TMP.

Notes: An approved ROL does not constitute an approval to commence works until an authorisation letter for the works has been issued by RMS Project Manager.

Conditions of development consent relating to road work, traffic control facilities and other structures on the classified road network contrary to those outlined above are unlikely to receive RMS consent under the Roads Act, 1993.

RMS highlights that in determining the application under Part 4 of the Environmental Planning and Assessment Act, 1979, it is the consent authority's responsibility to consider the environmental impacts of any road works which are ancillary to the development. This includes any works which form part of the proposal and/or any works which are deemed necessary to include as requirements in the conditions of development consent. Depending on the level of environmental assessment undertaken to date and nature of the works, the consent authority may require the developer to undertake further environmental assessment for any ancillary road works.

Upon determination of this matter, it would be appreciated if Council could email a copy of the Notice of Determination to RMS via development.southern@rms.nsw.gov.au.

Yours faithfully



Joanne Parrott
Network & Safety Manager
Network Management, Southern Region

20 September 2016

Our Ref: 156985

Kristy Robinson
Senior Development Project Officer
Wollongong City Council
Locked Bag 8821
Wollongong DC NSW 2500

**RE: DA 2016/358 – 1-3 & 9 Canterbury Road and 638, 642 & 644-650 Northcliffe Drive,
Kembla Grange**

Dear Ms Robinson,

Thank you for notifying Sydney Water of the development application listed above. We have reviewed the application and provide the following comments for your consideration.

Water

- The drinking water main available for connection is the 150 mm main in Canterbury Road.
- Detailed drinking water requirements will be provided at the Section 73 application phase.

Wastewater

- Trunk capacity exists at the local pumping station.
- Extensions of the local reticulation will be required to service the proposed development.
- The scope of these extensions will be dependent on proposed discharge rates of the development.
- Details of proposed discharge and water usage will be required at the Section 73 stage so that Sydney Water can specify the preferred connection point for the extensions.

Sydney Water E-Planning

Sydney Water has an email address for planning authorities to submit statutory or strategic planning documents for review. This email address is urbangrowth@sydneywater.com.au.

Further advice and requirements for this proposal are at attachments 1 and 2 (overleaf). If you require any further information, please contact Manwella Hawell of Urban Growth Strategy on 02 8849 4354 or e-mail manwella.hawell@sydneywater.com.au.

Yours sincerely,



David Gough
Manager, City Shaping

Attachment 1

Sydney Water Servicing

A Section 73 Compliance Certificate under the Sydney Water Act 1994 must be obtained from Sydney Water.

The proponent is advised to make an early application for the certificate, as there may be water and wastewater pipes to be built that can take some time. This can also impact on other services and buildings, driveways or landscape designs.

Applications must be made through an authorised Water Servicing Coordinator. For help either visit www.sydneywater.com.au > Plumbing, building and developing > Developing > Land development or telephone 13 20 92.

Building Plan Approval

The developer must have the building plans stamped and approved before any construction is commenced. Approval is needed because construction/building works may affect Sydney Water's assets (e.g. Water, sewer and stormwater mains).

For further assistance please telephone 13 20 92 or refer to the Building over or next to assets page on the Sydney Water website (see Plumbing, building and developing then Building over or next to assets).

Attachment 2

Requirements for Business Customers for Commercial and Industrial Property Developments

If this property is to be developed for Industrial or Commercial operations, it may need to meet the following requirements:

Trade Wastewater Requirements

If this development is going to generate trade wastewater, the property owner must submit an application requesting permission to discharge trade wastewater to Sydney Water's sewerage system. You must wait for approval of this permit before any business activities can commence.

The permit application should be emailed to Sydney Water's [Business Customer Services](mailto:businesscustomers@sydneywater.com.au) at businesscustomers@sydneywater.com.au

It is illegal to discharge Trade Wastewater into the Sydney Water sewerage system without permission.

A Boundary Trap is required for all developments that discharge trade wastewater where arrestors and special units are installed for trade wastewater pre-treatment.

If the property development is for Industrial operations, the wastewater may discharge into a sewerage area that is subject to wastewater reuse. Find out from Business Customer Services if this is applicable to your development.

Backflow Prevention Requirements

Backflow is when there is unintentional flow of water in the wrong direction from a potentially polluted source into the drinking water supply.

All properties connected to Sydney Water's supply must install a testable Backflow Prevention Containment Device appropriate to the property's hazard rating. Property with a high or medium hazard rating must have the backflow prevention containment device tested annually. Properties identified as having a low hazard rating must install a non-testable device, as a minimum.

Separate hydrant and sprinkler fire services on non-residential properties, require the installation of a testable double check detector assembly. The device is to be located at the boundary of the property.

Before you install a backflow prevention device:

1. Get your hydraulic consultant or plumber to check the available water pressure versus the property's required pressure and flow requirements.
2. Conduct a site assessment to confirm the hazard rating of the property and its services. Contact PIAS at NSW Fair Trading on 1300 889 099.

For installation you will need to engage a licensed plumber with backflow accreditation who can be found on the Sydney Water website:

<http://www.sydneywater.com.au/Plumbing/BackflowPrevention/WaterEfficiencyRecommendations>

Water is our most precious resource and every customer can play a role in its conservation. By working together with Sydney Water, business customers are able to reduce their water consumption. This will help your business save money, improve productivity and protect the environment.

Some water efficiency measures that can be easily implemented in your business are:

- Install water efficiency fixtures to help increase your water efficiency, refer to WELS (Water Efficiency Labelling and Standards (WELS) Scheme, <http://www.waterrating.gov.au/>
- Consider installing rainwater tanks to capture rainwater runoff, and reusing it, where cost effective. Refer to <http://www.sydneywater.com.au/Water4Life/InYourBusiness/RWTCalculator.cfm>
- Install water-monitoring devices on your meter to identify water usage patterns and leaks.
- Develop a water efficiency plan for your business.

It is cheaper to install water efficiency appliances while you are developing than retrofitting them later.

Contingency Plan Recommendations

Under Sydney Water's [customer contract](#) Sydney Water aims to provide Business Customers with a continuous supply of clean water at a minimum pressure of 15meters head at the main tap. This is equivalent to 146.8kpa or 21.29psi to meet reasonable business usage needs.

Sometimes Sydney Water may need to interrupt, postpone or limit the supply of water services to your property for maintenance or other reasons. These interruptions can be planned or unplanned.

Water supply is critical to some businesses and Sydney Water will treat vulnerable customers, such as hospitals, as a high priority.

Have you thought about a contingency plan for your business? Your Business Customer Representative will help you to develop a plan that is tailored to your business and minimises productivity losses in the event of a water service disruption.

For further information please visit the Sydney Water website at:

<http://www.sydneywater.com.au/OurSystemsandOperations/TradeWaste/> or contact Business Customer Services on 1300 985 227 or businesscustomers@sydneywater.com.au

The General Manager
Wollongong City Council
9 February 2017

Dear Rod,

There is an 11,000 volt / 11 kV high voltage overhead feeder / customer service to Canterbury Road, Northcliffe Drive and Princess highway . Please note the location of any electricity infrastructure, boundaries etc. shown on the plan is indicative only and this plan is not a 'Dial Before You Dig' plan under the provisions of Part 5E 'Protection of underground electricity power lines' of the Electricity Supply Act 1995 (NSW).

Endeavour Energy's recommendations and comments regarding the Draft Plan of Management are as follows:

- Network Capacity / Connection

Whilst there is an existing customer connection / service mains to the site, the applicant for the future proposed development of the site may need to submit an application for connection of additional load if the development results in an increase in load requiring an upgrade or augmentation to their existing service installation. Further details are available by contacting Endeavour Energy's Network Connections Branch via Head Office enquiries on telephone: 133 718 or (02) 9853 6666 from 8am - 5:30pm or on Endeavour Energy's website under 'Home > Residential and business > Connecting to our network' via the following link:

<http://www.endeavourenergy.com.au/>

- Network Access

It is imperative that the access to the existing electrical infrastructure on and adjacent to the site is maintained at all times. To ensure that supply electricity is available to the community, access to the electrical assets may be required at any time.

- Safety Clearances

Any future proposed buildings, structures, balconies, awnings, canopies, signage etc. must comply with the minimum safe distances / clearances for voltages up to and including 132,000 volts (132kV) as specified in AS/NZS 7000:2010 'Overhead line design - Detailed procedures' and the 'Service and Installation Rules of NSW'. Different voltages are kept at different heights, the higher the voltage, the higher the wires are positioned on the pole. Similarly, the higher the voltage, the greater the required building setback. These distances must be maintained at all times and to all buildings and structures eg. for the erection of scaffolding etc., and regardless of the Council's allowable building setbacks etc. under its development controls, allowance must be made for the retention of appropriate / safe clearances.

- Earthing

The construction of any building or structure (including fencing) that is connected to or in close proximity to Endeavour Energy's electrical network is required to comply with AS/NZS 3000:2007 'Electrical installations' to ensure that there is adequate connection to the earth. Inadequate connection to the earth places persons and the electricity network at risk.

- Vegetation Management

The planting of large trees in the vicinity of electricity infrastructure is not supported by Endeavour Energy. Suitable planting needs to be undertaken in proximity of electricity infrastructure. Accordingly only low growing shrubs not exceeding 3.0 metres in height, ground covers and smaller shrubs, with non-invasive root systems are the best plants to use. Landscaping that interferes with electricity infrastructure may become subject to Endeavour Energy's Vegetation Management program and/or the provisions of the Electricity Supply Act 1995 (NSW) Section 48 'Interference with electricity works by trees' by which under certain circumstances the cost of carrying out such work may be recovered.

- Dial before You Dig

Before commencing any underground activity the applicant is required to obtain advice from the **Dial before You Dig 1100** service in accordance with the requirements of the Electricity Supply Act 1995

