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WOLLONGONG CITY COUNCIL

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Department of Planning & Environment
Att : David Gibson
GPO BOX 39
SYDNEY NSW 2001

APPLICATION	**DE-2017/95**
Date	18 December 2017

Dear Sir

Development	Arts and Social Sciences Building University of Wollongong (SSD 8596)
Location	2 Northfields Avenue, KEIRAVILLE NSW 2500

Thank you for the opportunity to comment on the Development Application and accompanying Environmental Impact Statement (EIS) for the proposal. Council has reviewed the documentation and provided commentary for consideration by the Department at Attachment A.

Should the Department proceed to issue the Project Approval, conditions are provided at Attachment B which are requested to be considered for inclusion.

If you have any enquiries or wish to discuss these matters further, please contact John Wood, City Wide Development Manager on 4227 7111.

Yours faithfully

David Farmer
General Manager
Wollongong City Council

ATTACHMENT A: COMMENTARY

1. Traffic Matters:

- The proposed development will result in the removal of part of the western car park area and an increased demand for car parking as detailed in the Transport Report.
- Car parking is proposed within the extension of car park P5 (as approved under DA-2017/376). Of the total number of spaces provided in the P5 car park extension, just 80 of these spaces can be allocated to the proposed Arts and Social Sciences Building. Accordingly additional permanent car parking needs to be provided elsewhere within the campus.
- The applicant proposes to provide the balance of the required car parking spaces on adjacent land owned by the NSW TAFE under a temporary licence agreement (ending on 29 June 2018). It is understood that this licence can be extended on the basis of a 1 plus 1 year option if required. The Traffic Section is concerned that this temporary arrangement cannot be secured in perpetuity and could result in a loss of parking in the future. Such a shortfall would result in car parking and traffic impacts.
- In view of these concerns, Councils Traffic Section considers that the applicant should provide a permanent solution to the car parking shortfall.

2. Landscape Matters:

- It is noted that the proposal seeks to retain a small group of the larger trees on site. It is however also noted that over 100 trees, many of them 10m or more in height, are proposed to be removed to accommodate the development.

  The removal of these large trees will have a negative impact on the overall amenity and natural environment of the university. The wholesale removal of these trees is not supported in principle.

3. Section 94A Matters:

- The request for an exemption from the payment of S94A fees has been reviewed by Councils Contributions Officer. The officer has advised that she concurs with the exemption request, in accordance with clause 15m, part i of the Wollongong Section 94A Development Contributions Plan (2017).

ATTACHMENT B: REQUESTED CONDITIONS

Following receipt of additional information from the proponent to address matters referred to in Attachment A, should the Department proceed to issue the Project Approval, Council requests the following conditions be considered for inclusion:

1. Traffic:

1.1 **Car Parking and Access**
The development should make provision for a total of 169 car parking spaces, 13 secure class 2 bicycle parking spaces and 7 motorcycle spaces. This requirement should be reflected on the Construction plans. Any change in the above parking numbers should be dealt with via modification to the development. The approved parking spaces should be maintained to the satisfaction of Council, at all times.

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

1.3 Bicycle parking facilities should 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 should be reflected on the construction plans.

1.4 Each disabled person's parking space should comply with the current relevant Australian Standard AS2890.6 – Off-street parking for people with disabilities. This requirement should be reflected on the construction plans.

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

1.6 The development should make provision for suitable barriers, line-marking and painted signage delineating vehicular flow movements within the car parking areas. These details should be reflected on the construction plans.

1.7 **Site Management, Pedestrian and Traffic Management**
This plan is required to maintain public safety, minimise disruption to pedestrian and vehicular traffic within this locality and to protect services, during demolition, excavation and construction phases of the development and should include the following aspects:

a) Proposed ingress and egress points for vehicles to/from the construction site;
b) Proposed protection of pedestrians, adjacent to the construction site;
c) Proposed pedestrian management whilst vehicles are entering/exiting the construction site;
d) Proposed measures to be implemented for the protection of all roads and footpath areas surrounding the construction site from building activities, crossings by heavy equipment, plant and materials delivery and static load from cranes, concrete pumps and the like;
e) Proposed method of loading and unloading excavation machines, building materials formwork and the erection of any part of the structure within the site;
f) Proposed areas within the site to be used for the storage of excavated material, construction materials and waste containers during the construction period;
g) Proposed traffic control measures such as advanced warning signs, barricades, warning lights, after hours contact numbers etc should be displayed where works are in progress in any road reserve and shall be in accordance the latest versions of the NSW Roads and Maritime Services Specification - "Traffic Control at Work Sites Manual" and the Australian Standard AS1742. – "Manual of Uniform Traffic Control Devices" and accompanying field handbooks (SAA HB81);

h) Proposed method of support of any excavation, adjacent to adjoining buildings or the road reserve. The proposed method of support should be certified by an accredited certifier in Civil Engineering; and

i) Proposed measures to be implemented, in order to ensure that no soil/excavated material is transported on wheels or tracks of vehicles or plant and deposited on the roadway.

The approved plan should be implemented, prior to the commencement of any works upon the construction site.

2. Stormwater:

2.1 Habitable floor levels

Habitable floor levels should be constructed at no lower than the 100 year flood level plus 0.5 metres freeboard. This requirement should be reflected on the plans issued for construction.

2.2 Flood Compatible Materials - Building

Any portion of the building or structure below the 100 year flood level plus 0.5 metres freeboard should be built from flood compatible materials. Where materials are proposed and not listed in Appendix B of Chapter E13 of the Wollongong DCP2009, relevant documentation from the manufacturer should be provided demonstrating that the materials satisfy the definition of 'flood compatible materials' as stated in Chapter E13 of the Wollongong DCP2009. These requirements should be reflected on the plans issued for construction.

2.3 Structural Soundness Design Criteria

The proposed buildings and structures should be designed to withstand the forces of floodwater, debris and buoyancy up to and including the 100 year flood level plus 0.5 metres freeboard. These requirements should be reflected on the plans issued for construction.

2.4 Survey Report for Floor Levels

A survey should be undertaken verifying that each ground floor level accords with the floor level shown on the plans issued for construction. The survey should be undertaken after the formwork has been completed and prior to the pouring of concrete for each respective ground floor level of the buildings. Where a timber/steel frame supports the floor, the survey should be undertaken after the piers have been installed and prior to the laying of the bearers/joists and installation of the wall frames for each building. All levels should relate to Australian Height Datum.

2.5 Flood Compatible Materials – Electrical

All commercial power service (metering) equipment, power outlets, switches etc. should be located above the 100 year ARI flood level plus 0.5 metres freeboard. All electrical wiring installed below this level should be suitable for continuous underwater immersion and should contain no fibrous components. Earth leakage circuit breakers should also be installed. Any equipment installed below or partially below the 100 year flood level plus 0.5 metres freeboard should be capable of disconnection by a single plug and socket assembly.

2.6 Structural Soundness Certification

A report from a suitably qualified and experienced structural engineer should be submitted to the Consent Authority, prior to the commencement of use of the development. This report should verify that each new building can withstand the forces of floodwater, debris and buoyancy up to and including the 100 year flood level plus 0.5 metres freeboard.

2.7 Car Parking Levels

Parking area levels shall be designed and constructed to limit the 1 in 100 year ARI flood flow velocity and depth to within the vehicle stability limits in accordance with Australian Rainfall and Runoff. This requirement shall be reflected on the Construction Certificate plans prior to the release of the Construction Certificate.

2.8 **External Storage of Materials**

Any external storage of materials including waste bins etc, which are likely to cause pollution or be potentially hazardous during a flood event should be adequately secured to prevent any buoyancy in the event of a flood.

2.9 **Site Filling**

No increases in ground surface levels on the site being within the extents of the floodplain should be permitted. No wholesale filling of the site should be permitted.

2.10 **Overflow Paths**

Overflow paths should 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 should be incorporated in the design. Overflow paths should also be provided in low points and depressions. These requirements should be reflected on the plans issued for construction.

2.11 **Depth and Location of Services**

The depth and location of all services (i.e. gas, stormwater, water supply, sewer, electricity, telephone, etc) should be ascertained prior to the commencement of works on site. This requirement should be reflected on the plans issued for construction.

2.12 **Detailed Drainage Design - OSD**

The developer should provide a detailed drainage design for the proposed development with on-site detention in accordance with Chapter E14 of the Wollongong DCP 2009.

2.13 **On-Site Detention - Design Criteria**

The on-site stormwater detention facility should be positioned on the site such that it can capture all runoff from the tributary area including pervious and impervious areas for the 1 in 100 year ARI event. The on-site detention facility should incorporate minimum 600mm 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 should be included on the construction plans. These requirements should be reflected on the plans issued for construction.

2.14 **On-Site Detention – Identification**

Details should be provided of a corrosion resistant identification plaque for location on or close to the on-site detention (OSD) facility. The plaque should include the following information:

2.14.1 The structure is an OSD facility, being part of the stormwater drainage network, and is not to be tampered with.

2.14.2 Identification number [DE-2017/95]

2.14.3 Any specialist maintenance requirements.

These requirements should be reflected on the plans issued for construction.

2.15 **On-Site Detention – Structural Design**

The on-site detention facility should be designed to withstand expected loadings occurring from any combination of hydrostatic, earth, traffic and buoyancy forces. These requirements should be reflected on the plans issued for construction.

2.16 **On-Site Detention - Maintenance Schedule**

A maintenance schedule for the on-site stormwater detention system should be created for the proposed development in accordance with Chapter E14 of the Wollongong DCP 2009.

2.17 **Allowance for External Runoff**

The detailed design of the development should allow for all external surface runoff contributing to the site in accordance with the requirements of Section 11.3.17 and 12.1.3 of Chapter E14 of the Wollongong DCP2009. This requirement should be reflected on the plans issued for construction.

2.18 **Sizing of Drainage**

All roof gutters, downpipes, and pipelines draining roof areas and other impervious surfaces with no deliberate overflow path to the on-site stormwater detention (OSD) facility, should be designed to cater for a 1 in 100 year ARI storm event in accordance with AS 3500.3 – Plumbing and Drainage (Stormwater Drainage). Details of gutter/downpipe/pipeline sizes and locations should be reflected on the detailed drainage design.

2.19 **On-Site Detention - Orifice/Weir Calculations**

The discharge control from the on-site detention facility should be by means of a circular orifice for the 5 year ARI and a high level pipe or weir for the 100 year ARI. The orifice should be designed to allow free discharge and have no influence from any tailwater levels in the downstream drainage system. The orifice and weir calculations should reflect this arrangement and to be provided on the detailed construction plans.

2.20 **Protection of Building from Surface Runoff**

The development should be designed such that adequate protection is provided to each building against the ingress of upslope surface run-off in any rainfall event. This design should also ensure there are no adverse effects to adjoining properties or upon the subject land as a result of flood or surface run-off.

2.21 **Supervision of Engineering Works**

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

2.22 **Retaining Wall Structures**

Any retaining walls proposed on the site should be designed by a suitably qualified and experienced civil and/or structural engineer in accordance with Chapter B1 of the Wollongong DCP 2009 where applicable.

2.23 **No Adverse Runoff Impacts to Adjoining Properties**

The design of the development should ensure there are no adverse effects to adjoining properties or upon the land as a result of flood or stormwater run-off. The designer should ensure adequate protection is provided for buildings against the ingress of surface run-off for all storm events.

2.24 **Re-Direction or Treatment of Stormwater Runoff**

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

2.25 **Prior approval from Council for any works in Road Reserve**

Approval, under Section 138 of the Roads Act should be obtained from Wollongong City Council's Development Engineering Team prior to 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 should be submitted for approval with the appropriate fee, a minimum of five working days prior to the expected implementation. The traffic control plan should satisfy the requirements of the latest versions of Australian Standard AS1742 – Traffic Control Devices for Works on Roads and the RTA Traffic Control at Worksites Manual. **Note**: This includes temporary road closures for the delivery of materials, plant and equipment, concrete pours etc.

2.26 **Drainage Certification and Work-As-Executed Plans**

The developer should 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 should be submitted. These plans and certification should satisfy all the requirements in Chapter E14 of the Wollongong DCP 2009. This information should be submitted to Council prior to the use of the development.

2.27 **Restriction on Use over On-Site Detention Facility**

The applicant should create a restriction on use under the Conveyancing Act 1919 over the on-site detention system. The following terms should 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 should be submitted to Council for endorsement prior to the use of the development.

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

A positive covenant should be created under the Conveyancing Act 1919, requiring the property owner(s) to undertake maintenance in accordance with the approved On-Site Stormwater Detention System and Maintenance Schedule. The instrument, showing the positive covenant should be submitted to Council for endorsement prior to the use of the development.

2.29 **Flood Affectation Certification**

The submission of a report from a suitably qualified and experienced civil (hydrology) engineer to the Consent Authority should be required prior to the commencement of use. This report should certify that the development (including landscaping works in the riparian zone) will not have any adverse effects to adjoining properties or upon the land with respect to the loss of flood storage, changes in flood levels and alteration of flood conveyance, as a result of flooding or stormwater run-off.

2.30 **Structural Soundness Certification**

The submission of a report from a suitably qualified and experienced structural engineer to the Consent Authority should be required, prior to the commencement of use. This report should verify that the building can withstand the forces of floodwater, debris and buoyancy up to and including the 100 year ARI level, immediately upslope of highest ground level, adjacent to the building.

3. Landscape:

3.1 Tree Retention / Removal

The developer should retain the existing trees indicated on the Masterplan by Taylor Brammer dated 27 October 2017 consisting of trees numbered 1 – 6, 8 – 43, 45, 46, 48- 59, 61-69, 71-72, 74 – 76, 78-79, 91-102, 104, 105, 107, 111, 115-118, 120-130, 132-138, 149, 152, 155, 158, 201-206 and 229.

Any branch pruning, which has been given approval, should be carried out by a qualified arborist in accordance with Australian Standard AS4373-2007.

All tree protection measures should be installed in accordance with Australian standard AS4790-2009 Protection of Trees on development Sites.

All recommendations in Arborist's Report by Arborist Impact Assessment by Ian Mills, dated October 2017 should be implemented including and not restricted to: remedial tree pruning, deadwooding, fencing and signage, sediment buffer, stem protection, establishing tree protection zones and watering and root hormone application if required.

The removal of trees numbered 7, 44, 47, 60, 70, 73, 77, 80-90, 103, 106, 108-110, 112-114, 119,131, 139-148, 150, 151, 153, 154, 156, 157 and 159-200 is permitted as indicated on the

Landscape Concept – Masterplan by Taylor Brammer dated 27 October 2017 No other trees should be removed without prior written approval of Council.

3.2 **Final Landscape Plan**
The submission of a final Landscape Plan in accordance with the requirements of Wollongong City Council Landscape Technical Policy No 98/4 should be required prior to the commencement of works.

3.3 **Landscape Plan Certification**
The submission of certification from both a suitably qualified and experienced landscape designer and suitably qualified Civil engineer should be provided confirming that the landscape plan and the drainage plan are compatible.

3.4 **Maintenance Program**
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.

3.5 **Tree Protection and Management**
The existing trees should be retained upon the subject property. This will require the installation and maintenance of appropriate tree protection measures, including (but not necessarily limited to) the following:

3.5.1 Installation of Tree Protection Fencing - Protective fencing should be 1.8 metre cyclone chainmesh fence, with posts and portable concrete footings. Details and location of protective fencing should be indicated on the architectural and engineering plans;

3.5.2 Installation of Tree Protection Fencing - A one (1) metre high exclusion fence should be installed around the extremity of the dripline of the tree/trees to be retained prior to any site works commencing. The minimum acceptable standard is a 3 strand wire fence with star pickets at 1.8 metre centres. This fence should be maintained throughout the period of construction to prevent any access within the tree protection area. Details of tree protection and its locations should be indicated on the architectural and engineering plans.

3.5.3 Mulch Tree Protection Zone: Areas within a Tree Protection Zone should be mulched with minimum 75 mm thick 100% recycled hardwood chip/leaf litter mulch; and

3.5.4 Areas within the Tree Protection Zone should be regularly watered in accordance with the arborist's recommendations.

3.6 **Supervising Arborist – Tree Inspection and Installation of Tree Protection Measures**
Prior to the commencement of any demolition, excavation or construction works, the supervising arborist should certify in writing that tree protection measures have been inspected and installed in accordance with the arborist's recommendations

3.7 **Copy of Consent to be in Possession of Person carrying out Tree Removal**
The applicant/developer should 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/has been given approval to be removed in accordance with this consent.

3.8 **Provision of Taps/Irrigation System**
The provision of common taps and/or an irrigation system should be required to guarantee that all landscape works are adequately watered. The location of common taps and/or irrigation system should be implemented in accordance with the approved Landscape Plan.

3.9 The developer should make compensatory provision for the trees required to be removed as a result of the development. In this regard, one hundred 100 litre container mature plant stock should be planted throughout the site. The suggested species are to be Illawarra escarpment species.

3.10 **Completion of Landscape Works**
The completion of the landscaping works as per the final approved Landscape Plan should be required, prior to the use of the development.

4 Environment:

4.1 Hazardous Material Survey

At least one week prior to demolition, the applicant should 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 should include at least the following information:

- 4.1.1 The location of hazardous materials throughout the site;
- 4.1.2 A description of the hazardous material;
- 4.1.3 The form in which the hazardous material is found, eg AC sheeting, transformers, contaminated soil, roof dust;
- 4.1.4 An estimation (where possible) of the quantity of each particular hazardous material by volume, number, surface area or weight;
- 4.1.5 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;
- 4.1.6 Identification of the disposal sites to which the hazardous materials will be taken.

4.2 Pre-Clearing Fauna Survey

A pre-clearing fauna survey should be conducted by an appropriately qualified and experienced ecologist.

4.3 Ecologist to Supervise Clearing Works

All clearing works should be supervised by a suitably qualified and experienced ecologist.

4.4 Unexpected Contamination Finds Protocol

An Unexpected Contamination Finds Protocol should be prepared to by a suitably qualified and experienced environmental consultant.

4.5 Construction Noise and Vibration Impact Assessment and Management Plan

A Construction Noise and Vibration Impact Assessment and Management Plan should be prepared by a suitably qualified Acoustic Consultant.

4.6 Excess Excavated Material – Disposal

Excess excavated material should be classified according to the 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.

4.7 Septic Pit Investigation

As identified in the Stage 1 Preliminary Investigation prepared by Coffey, during construction, investigations as to the existence of a septic pit should be made. If one is located it should be excavated along with appropriate management of soils in close proximity.

4.8 Operational Noise Levels

Noise levels from the operation of the building (e.g. rooftop mechanical plant) at the nearest sensitive receivers should be required to be designed and provided with noise mitigation if required to be below levels identified in the Acoustic Report prepared by ARUP.

5 General Planning:

5.1 Building Work - Compliance with the Building Code of Australia

All building work should be carried out in compliance with the provisions of the Building Code of Australia.

5.2 **Protection of Public Infrastructure**

Council should be notified in the event of any existing damage to any of its infrastructure such as the road, kerb and gutter, road shoulder, footpath, drainage structures and street trees fronting the development site.

Adequate protection should be provided for Council infrastructure during building operations.

Any damage to Council's assets should be made good, prior to the occupation of the development.

5.3 **Disability Discrimination Act 1992**

It is the responsibility of the developer to guarantee compliance with the requirements of the Disability Discrimination Act 1992. The current Australian Standard AS1428.1 – Design for Access and Mobility is recommended to be referred for specific design and construction requirements, in order to provide appropriate access to all persons within the building.

5.4 **Consultation with NSW WorkCover Authority**

Prior to any work commencing on the site it is the responsibility of the owner to contact NSW WorkCover Authority in writing in respect to any demolition or use of any crane, hoist, plant or scaffolding.

5.5 The arrangements and costs associated with any adjustment to a public utility service should be borne by the developer. Any adjustment, deletion and/or creation of public utility easements associated with the approved works are the responsibility of the applicant/developer.

5.6 **Endeavour Energy Requirements**

The University of Wollongong should confirm that satisfactory arrangements are in place with Endeavour Energy for the provision of electricity supplies to the development.

5.7 **Telecommunications**

The University of Wollongong should confirm that underground telecommunication services are available for this development prior to works commencing.

5.8 **Section 73 Compliance Certificate**

A Section 73 Compliance Certificate under the Sydney Water Act 1994 should be obtained from Sydney Water Corporation. Application should be made through an authorised Water Servicing Coordinator. Please refer to the "Builders and Developers" section of the web site www.sydneywater.com.au then search to "Find a Water Servicing Coordinator". Alternatively, telephone 13 20 92 for assistance.

Following application, a "Notice of Requirements" will advise of water and sewer infrastructure to be built and charges to be paid. Please make early contact with the Coordinator, since building of water/sewer infrastructure can be time consuming and may impact on other services and building, driveway or landscape design.

The Notice of Requirements should be submitted to the Principal Certifying Authority prior to construction commencing.

5.9 **Disabled Access and Facilities**

The provision of disabled access throughout the development should be required and should be in compliance with the Building Code of Australia Part D3 "Access for People with Disabilities" and Australian Standard AS1428.1 (2009) - Design for Access and Mobility – Part 1 General Requirements for Access – Buildings.

5.10 **Sign – Supervisor Contact Details**

Before the commencement of work, a sign should be erected in a prominent, visible position:

5.10.1 Stating that unauthorised entry to the work site is not permitted;

5.10.3 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 should be maintained while the work is being carried out and removed upon the completion of the construction works.

5.11 **Temporary Toilet/Closet Facilities**

Toilet facilities should 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 should be:

5.11.1 A standard flushing toilet; and

5.11.2 Connected to either:

5.11.2.1 The Sydney Water Corporation Ltd sewerage system or

5.11.2.2 An accredited sewage management facility or

5.11.2.3 An approved chemical closet.

5.12 **Enclosure of the Site**

The site should be enclosed with a suitable security fence to prohibit unauthorised access during the demolition and construction phases of the development. No demolition or building work should commence until the fence is erected.

5.13 **Structural Engineer's Details**

Structural engineer's details for all structurally designed building works such as reinforced concrete footings, reinforced concrete slabs and structural steelwork should be submitted to the Consent Authority, prior to the commencement of works at the site.

5.14 **Erosion and Sediment Control Measures**

Erosion and sediment control devices should be installed prior to the commencement of excavation or construction works upon the site. These devices should be maintained throughout the entire excavation and construction phases of the development.

5.15 **Waste Management**

The developer should provide an adequate receptacle to store all waste generated by the development pending disposal. The receptacle should be regularly emptied and waste should 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 reusable materials.

5.16 **Fire Safety Schedule**

Prior to construction, a Fire Safety Schedule specifying all of the fire safety measures required for the building to ensure the safety of persons in the building in the event of fire should be prepared.

5.17 **All-weather Access**

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

5.18 **Restricted Hours of Work**

The developer should not carry out any work other than emergency procedures to control dust or sediment laden runoff outside the hours of 7.00 am to 5.00 pm, Monday to Friday and 7 am to 4.00 pm Saturdays. No work should be permitted on public holidays, Sundays or the Saturday adjacent to public holidays on Mondays or Fridays.

Note: The developer is advised that other legislation may control the activities including but not limited to the Protection of the Environment Operations Act 1997. Developers should note that EPA Environmental Noise manual restricts use of power tools (electronic or pneumatic) to between the hours of 7.00 am to 5.00 pm Mondays to Fridays and 8.00 am to 4.00 pm on weekends.

5.19 The lighting of the premises should be directed so as not to cause nuisance to the owners or occupiers of adjoining premises or to motorists on adjoining or nearby roads.

5.20 The developer should 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.

5.21 **Site Management**
Stockpiles of sand, gravel, soil and the like should be located to ensure that the material:

5.21.1 Does not spill onto the road pavement; and
5.21.2 Is not placed in drainage lines or watercourses and cannot be washed into these areas.

5.22 **Noise Control – Construction Works**
The construction works should 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.

5.23 **Dust Suppression Measures**
Activities occurring during the construction phase of the development should be carried out in a manner that will minimise the generation of dust.

5.24 Trucks which are entering and leaving the premises and carrying loads should be sealed or covered at all times, except during loading and unloading.

5.25 The building site should be kept free of rubbish at all times. All refuse capable of being wind-blown should be kept in a suitable waste container.

5.26 Drains, gutters, access ways and roadways should be maintained free of sediment and any other material. Gutters and roadways should be swept/scraped regularly to maintain them in a clean state.

5.27 Building operations such as brick cutting, the washing of tools or paint brushes, or other equipment and the mixing of mortar should not be carried out on the roadway or public footpath or any other locations which could lead to the discharge of materials into the stormwater drainage system or natural watercourse.

5.28 **Fire Safety Certificate**
A Fire Safety Certificate should be issued for the building prior to the occupation of the development. As soon as practicable after a Fire Safety Certificate is issued, the owner of the building to which it relates:

5.28.1 Should provide 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
5.28.2 Should provide a further copy of the certificate (together with a copy of the current fire safety schedule) to be prominently displayed in the building.

5.29 **Fire Safety Measures**
All new and existing fire safety measures should be maintained in working condition, at all times.

5.30 **Loading/Unloading Operations/Activities**
All loading/unloading operations should take place at all times wholly within the confines of the site.