

29 October 2010

Director Strategic Assessments
NSW Department of Planning
GPO Box 39
SYDNEY NSW 2001

Dear Sir/Madam

EDMONDSON PARK SOUTH

Part 3A Major Project Application for the Concept Plan, State Significant Site Listing and Stage 1 Subdivision

Thank you for providing Council the opportunity to comment upon the proposed Edmondson Park South - Part 3A Major Project Application for the Stage 1 Subdivision, Concept Plan and State Significant Site Listing proposal.

Council would like to provide the following comments to assist the Department in the assessment of the proposal. Whilst Council is generally supportive of the Concept Plan and the Stage 1 subdivision proposal there are a number of issues that raise some concern. These matters need to be addressed in order that Council can proceed with the assessment of the construction certificate application for the Stage 1 subdivision, and be confident that high quality and sustainable development and environmental planning outcomes will be achieved for the Edmondson Park area.

Council has considered the Environmental Assessment Report for the Stage 1 subdivision which seeks consent for the following:

- Subdivision of the land in Stage 1 in five (5) sub stages to create:
 - 206 residential lots;
 - 15 environmental living lots;
 - 8 super lots for future subdivision;
 - 3 lots for public open space to be dedicated to Campbelltown City Council;
 - road lots for dedication to Campbelltown City Council.
- Infrastructure and early works in Stage 1 comprising roads and traffic management, utility services reticulation, stormwater management, open space embellishment and landscaping of streets, earthworks, demolition of existing structures and tree removal.
- Infrastructure and early works outside Stage 1 comprising lead in mains for sewer, electricity, recycled water, gas and telecommunications, stormwater management,

demolition of existing structures and tree removal, earthworks, and construction of an acoustic wall, and new intersection to existing Macdonald Road.

Council has also considered the Concept Plan and State Significant Site Study, which also covers Liverpool City Council boundaries, and establishes an overall planning framework for Edmondson Park South and proposes a mixed use residential, commercial and retail development, with a yield of approximately 3200 dwellings and up to 45,000sqm of retail/commercial floor space within the new Edmondson Park Town Centre. The Concept Plan also seeks to establish a Regional Park of approximately 150 hectares.

As far as land located within the Campbelltown Local Government Area, it is noted that the Concept Plan alters the existing zoning of the subject land in so far as:

- The land currently zoned Special Uses 5(a) School would be rezoned to General Residential R1,
- The land currently zoned 6(c) Private Open Space adjoining the South Western Freeway would be rezoned to Environmental Living E4,
- Some land currently zoned 6(a) Local Open Space adjoining the South Western Freeway to Residential General R1
- The land currently zoned 3(a) General Business will be rezoned to General Residential R1,
- The land currently zoned 3(c) Neighbourhood Business is to be rezoned General Residential R1,
- The alignment of MacDonald Road would be amended and zoned SP2 Infrastructure,
- The land which is the site of the Water Reservoir is to be zoned SP2 Infrastructure and it is noted that the site of the Reservoir is to be enlarged,
- The extent of land that makes up the western end of the Maxwells Creek open space corridor currently zoned 6(a) Local Open Space would be partly rezoned to General Residential R1,
- Some land adjoining the land currently zoned 3(c) Neighbourhood Business, to the east, would be rezoned to Public Recreation RE1,
- Land currently zoned 8(b) National Parks and Nature Reserve would be rezoned to Public Recreation RE1,
- Land currently zoned 6(a) Local Open Space would be rezoned to Public Recreation RE1, and
- Certain land located opposite the existing primary school fronting MacDonald Road would be rezoned from Residential 2(c) to Public Recreation RE1.

Council poses no objection to these proposed zoning changes excepting for the proposal affecting the existing strip of Private Open Space 6(c) zoned land that adjoins the South Western Freeway, and that area of land adjoining the Freeway currently zoned Local Open Space 6(a) proposed to be rezoned to Residential General R1. Council strongly objects to this proposal given that the intention of preserving this area as a vegetated strip (also incorporating the retention and enhancement of the memorial forest established by the ex-serviceman of the Ingleburn Army Camp) would be compromised. This matter is discussed in further detail later in this submission.

1. Statutory Planning And Non Statutory Instruments

Sydney Region Growth Centres 2006 SEPP

The site forms part of the Edmondson Park Precinct within the South West Growth Centre under the SEPP (Sydney Region Growth Centres) 2006 and the proposed Stage 1 subdivision is permissible under the provisions of the Growth Centres SEPP.

Campbelltown LEP 2002

The entire site comprises the following land use zones under the prevailing Campbelltown LEP 2002:

- *2(c) Higher Density Residential*
- *3(a) Business*
- *6(a) Local Open Space*
- *3(c) Neighbourhood Business*
- *5 Special Landuses*
- *6(c) Private Open Space*
- *7(d5) Environmental Protection 1 ha minimum, and*
- *8(b) National Parks and Nature Reserves*
-

The Stage 1 area of works is zoned partly:

- *2(c) Higher Density Residential*
- *6(a) Local Open Space*
- *3(c) Neighbourhood Business*
- *7(d5) Environmental Protection 1 ha minimum and*
- *5(d) Special Uses Roads.*

Draft Bardia Sub Precinct Development Control Plan

Council has given regard to the Draft Bardia Sub Precinct Development Control Plan which is on public exhibition from 5 October 2010 to 3 November 2010. Council acknowledges that the Draft DCP has not been adopted by Council and strict statutory consideration cannot be given to it however it represents Council's most relevant non-statutory planning document relating to the planning framework of the Edmondson Park South area. Generally the proposal is consistent with the objectives and controls of the Draft DCP with some exceptions as detailed in this submission. Consideration is provided below of specific sections within the Draft DCP that are relevant to the proposal.

a. Character Areas

- Village Centre
- Urban
- Urban Transition
- Suburban
- Residential Large Lot

The proposed Stage 1 subdivision layout has been assessed with the mapped character areas and is considered compliant. The subdivision primarily comprises 'sub urban' and 'large residential lot' character lots which are consistent with the nominated character location areas.

Proposed Super Lot Nos.150-152 are identified as 'urban transition' and 'village centre' character lots and will ultimately be re-subdivided and developed to reflect the required character.

b. Access –Street Network, Types, Pedestrian Access and Cycleways

The proposed street layout, cycleway and footpath links vary slightly from the Draft Bardia Sub-Precinct Development Control Plan, however, the variations to the street layout, and subsequent changes to the cycleways and footpaths is considered reasonable and upholds the objectives of the draft DCP. It is noted that the Concept Plan

road pattern has been amended to improve connectivity with the east west aligned road system. Of particular note is the proposed road sited on the northern side of Maxwells Creek Riparian Corridor which is proposed to extend to Zouch Road and improve connectivity from east to west. Presently there is provision for only one neighbourhood connector road under the Draft Bardia DCP from east to west but the concept plan provides for two neighbourhood connector roads. This is supported by Council.

Despite this however, there is a concerning difference between the Draft DCP and the concept plans in terms of the nominated road carriageway width for the roads nominated as "Local Roads (Minor)" – Roads 2, 3, 6, 7, 8, 10, 11, 13, 15, 16 & 17. The draft DCP shows for a "Local Street" a total carriageway width (kerb to kerb) of 9.0m whereas the plans included with the concept application and that included with the stage 1 application show for a Local Road (Minor), a total road carriageway width (kerb to kerb) of only 7.2m. Commentary in respect to the suitability of the 7.2m Local Road width has not been provided and no substantive reasoning or supporting documentation of a qualified nature has been provided that discusses the capacity of a 7.2m wide carriageway to adequately service the local traffic needs post development. Clarification and further discussion is required in this regard. Council is most concerned over this aspect and requires carriageway widths of an appropriate size.

In addition to the above, the cycleway for Road 5 is not shown on the Concept / Stage 1 civil works plans. The cycleway is shown on the typical cross sections of the same plans.

c. Public Open Space

Council has identified a number of areas where the proposal does not conform to the mapped public open space allocation under the Draft Bardia DCP.

The most notable change to the distribution of open space within the Edmondson Park Precinct is the rezoning of a strip comprising both public and private open space along the sites boundary with the Hume Highway to 'Environmental Living' E4 and 'General Residential' R1. A detailed comment from Council in respect to this matter is provided in Section 2.0 of this submission which addresses concern for the successful environmental management of this land.

Council notes that the Concept Plan application proposes to reduce the length of the Maxwells Creek Open Space corridor given it does not extend as far west as is shown on the Draft Bardia Precinct DCP riparian corridor mapping. It appears that possibly the equivalent open space area (square metres) has been relocated and re-orientated north-south and is directly adjacent to the south east side of Mont St Quentin Oval. In this respect it is noted that the Stage 1A plan of subdivision proposes the creation of a conservation area public reserve (Proposed Lot 1) on the western side of proposed Lot 34 which does not appear to be nominated under the Draft Bardia DCP. Notwithstanding, Council accepts this variation.

Council also notes that the western end of the riparian corridor link from Chowne Road to the eastern boundary of the nominated school site has been marginally amended. Under the Draft Bardia DCP, the corridor maintains the same width to the extent of the school boundary.

However under the Concept Plan, the corridor has been extended to adjoin almost the entire eastern boundary of the school site and provides a linkage to an east-west aligned road fronting the southern side of the school site. The extension is supported on the basis of improved pedestrian connectivity from the school site to the Maxwells Creek South Conservation Area.

d. Subdivision Densities

The proposed Stage 1 subdivision is generally compliant with the minimum relevant subdivision density requirements under the provisions of the Draft Bardia Sub Precinct Development Control Plan.

- Village Centre: 17 dwellings/ha
- Urban: 28 dwellings/ha
- Urban Transition: 17 dwellings/ha
- Suburban: 14 dwellings/ha
- Residential Large Lot: 1 ha minimum lot size

It is noted that proposed Lot 4 in the Stage 1 subdivision appears to be restricted in size with an area of 281.5sqm given its corner location. It is recommended that the applicant be required to increase the area of the allotment to comply with the Draft DCP.

Council has reviewed the proposed allotment sizes of which the configurations are considered to generally comply with the objectives and controls of the Draft Bardia DCP.

Importantly however, the Draft Bardia DCP requires that allotments with a proposed area of less than 450 square metres be treated as integrated housing. This does not appear to have been taken into consideration by the Stage 1 subdivision plan. Accordingly, Council can only accept allotments with an area of less than 450 square metres in circumstances where they are accompanied by appropriately designed and sited building envelopes, protected by relevant restrictions as to user provisions. This information has not been provided.

2. Environmental Management and Assessment

Council has undertaken a detailed environmental assessment of the proposal and provides the following comments.

Open Space / Vegetation

Areas of Open Space within the Edmondson Park Precinct have been reconfigured in light of the Regional Park boundary adjustment and to offset the loss of existing native vegetation (ENV) associated with the construction of the sewer main and the implementation of the Remediation Action Plan within non-certified areas. This reconfiguration will result in the retention of 4.2ha of previously certified ENV to ameliorate the loss of 1.8ha of non-certified ENV.

In addition, a further 9ha of land will be revegetated to Cumberland Plain Woodland within Edmondson Park south to further offset the loss on ENV within non-certified areas. In this regard, Eco Logical Australia's conclusion that the proposed concept plan satisfies the requirements of the Biodiversity Certification Order and the Biodiversity Conservation Agreement is supported.

As previously stated, it is noted that one of the changes to the distribution of open space within the Edmondson Park Precinct is the rezoning of a strip comprising both public and private open space along the boundary with the Hume Highway to Environmental Living E4 and General Residential R1. Council would reiterate its objection to this proposed change in zoning. The technical reports advise that this rezoning will occur in association with appropriate 'development controls' (refer to page 152 of the State Significant Site Study and Environmental Assessment Report, page 37 of the Concept Plan Ecological Assessment Report and page 27 of the Stage 1 Ecological Assessment Report).

The following comments are provided in relation to this proposal:

1. It is considered that clarification is required as to what types of development controls will be developed for the Environmental Living and General Residential zone and whether such controls will form part of or be consistent with the SEPP (Growth Centres) 2006 or the Bardia Sub-Precinct Development Control Plan.
2. Section 9.0 of the State Significant Site Listing and Concept Plan outlines Draft Statements of Commitment. These Statements include the following in relation to the area that will be rezoned for Environmental Living purposes:
 - a. The detailed design of development on slopes within the E4 Environmental Living Zone in the south-western portion of the Edmondson Park South site will retain existing scattered trees where possible, and establish new tree canopy to assist in the screening of new housing in this location. The detailed design of future built form will provide, side, front and rear setbacks and landscaped area that will consider the visual prominence of this location.
 - b. The detailed design of development in the E4 Environmental Living Zone along the South Western Freeway Edge of the site will ensure that no habitable structures are established within 30 metres of the site boundary to the Freeway reservation, and will retain existing vegetation within private backyards where possible.

These commitments are a long way from achieving the vegetation strip and landscape screen that is proposed under the Draft Bardia Sub-Precinct Development Control Plan, and are not sufficient. The Draft DCP was proposing the following outcomes for these areas of open space:

3. The park (Maxwells Creek South Riparian Park) should be revegetated and regenerated with native vegetation. Where it abuts the M5 Motorway this Park must be densely planted for the first 100 metres from the motorway (refer page 35 of the Draft DCP).
4. The locality (Private Open Space) includes a 50 metre landscaped strip, east of McDonald Road that will continue the Memorial Forest planted along the M5 Motorway. This area shall be regenerated with endemic vegetation.

Such controls would have assisted with the protection of the Memorial Forest and any remnant native vegetation which occurs within this locality, as would the management of this area as both public and private open space.

It is important to note that some years ago certain ex-servicemen from World War 2 initiated the planting of trees, characteristic of *shale plains woodland* along the F5 Freeway, within the Edmondson Park Urban Release Area, with the help of students from the North Ingleburn Primary School. Its purpose was to create a Memorial Forest similar to that along the Hume Highway between Sydney and Canberra. Council has always been very supportive of the ex-servicemen's initiative with regard to this Memorial Forest, and would be very concerned if its integrity was likely to be compromised by any future residential development.

Council is strongly opposed to the inclusion of these areas within 'backyards' and where relevant, without an open space zoning, given the potential for vegetation to be compromised, outbuildings to be erected and a general compromise of landscape character as viewed from the Freeway.

Environmental Living Purposes Lots

Council raises concerns that the rezoning of this area to Environmental Living and General Residential purposes will impact upon the future viability and retention of the proposed vegetation screen, as the management of vegetation would become the responsibility of an excessive number of private landowners. This arrangement would put at risk the integrity and longevity of the vegetative screening and Council considers the resulting outcome as untenable. In addition, vegetation will need to be removed in order to erect property boundary fences. Of particular concern are the proposed 52 residential allotments of approximately 1,000 square metres in area with an average width of what would appear to be approximately 13.5metres. Council had anticipated only 18 allotments with a width of 40metres each under the current zoning of part Private Open Space and part Residential. This outcome is unacceptable to Council.

Landscape Plan / Vegetation Cover - Riparian Zones

Clarification is required as to whether the landscape plan which accompanies the Stage 1 Environmental Assessment report accurately depicts the desired final extent of vegetation cover and the location of the detention basins or whether the figures in this plan are simply concept plans.

Bushfire Hazard Assessment

The use of perimeter roads as the Asset Protection zone is the preferred option for Council as it minimises the future maintenance work required by Council.

The Edmondson Park South Stage 1 Bushfire Risk Assessment has considered the Planning for Bushfire Protection 2006 document, and its requirements within the Risk Management Plan should be reviewed in light of the development proposal and the Committee should be informed of these matters.

Heritage

With respect to potential heritage impacts, there are two (2) listed heritage items (LEP 2002) associated with the Ingleburn Army Camp within the Edmondson Park Release Area. It is noted that there are no heritage items located within Stage 1.

A Heritage Impact Statement has been prepared to support the project and State Significant Site Study which appears to adequately evaluate the impacts of the heritage significance of the site, and make suitable recommendations to conserve the European (Ingleburn Army Camp) and aboriginal heritage significance of the site.

a. European Heritage

Mess Hall, Ingleburn Army Camp - LEP 2002

Comment: The Mess Hall is proposed to be demolished in accordance with separate Commonwealth processes. In this respect it is noted that this demolition does not form part of the subject concept plan application.

Mont St Quentin Oval - LEP 2002

Comment: The recognised heritage features comprising the oval, entry gates and flagpole are proposed to be retained as part of the concept plan, and and refurbished within a new district park. Appropriate curtilages and development controls are proposed to protect the setting of the military precinct and oval from surrounding development.

b. Aboriginal Heritage

Consultation has occurred by Landcom with Local Aboriginal Land Councils (Tharawal and Gundangara) in accordance with the DG and DECCW requirements. An Aboriginal Cultural Heritage Assessment has been undertaken by Kelleher Nightingale Consulting P/L. This report appears to adequately assess the aboriginal cultural heritage values of the site and the potential impacts of the proposed development on aboriginal cultural heritage.

It is noted that thirty archaeological sites have been recorded within the Concept Plan Area (11 sites of moderate to high significance), less within Stage 1. Those sites to be impacted upon are to be ameliorated by a raft of proposed measures, including salvage, collection and continued consultation with aboriginal stakeholders.

The Part 3A Concept Plan for Edmondson Park South appears to comply with relevant statutory requirements for heritage impact and assessment - namely the Heritage Act 1977, DGR's Requirements including the assessment of guidelines published by the NSW Heritage Office, DECCW requirements and compliance with Campbelltown (Urban Area) LEP 2002. Subject to the commitments made by the proponent to manage and mitigate the potential impacts on European and Aboriginal heritage within the site, no objection is raised to the project on the basis of heritage considerations.

Street and Open Space Landscaping

Council has reviewed the indicative street and open space landscaping plans and supporting documents and considers that the various species listed within the "Preliminary Plant Schedule" requires amending. The tree species listed under the heading "Feature Trees" starting from the *Hoop Pine* and through to the *Brush Box* are not considered appropriate for the planting within road areas. Similar to this, other than for the *Melaleuca*, none of the tree species listed under the heading "Native Trees" are considered appropriate for the planting within road reserves. These tree species should be identified as species to be used within open space areas in which they would have a far better chance of reaching their respective mature growing potential.

The following list of trees should be considered as substitute trees species for planting within road reserves:

- *Hymenosporum flavum* - Native Frangipanni
- *Elaeocarpus reticulatus* - Blue Berry Ash
- *Callistemon salignus* - Willow Bottlebrush
- *Pyrus calleryana* - Ornamental Pear – "Capital" or "Fronzam Frontier"
- *Gordonia axillaris* - Fried Egg tree
- *Lagerstroemia x fauriei* - Crepe Myrtle - "Biloxi", "Natchez" or "Tuscarora"

It is expected that further detail will be provided with the application for the construction certificate for stage 1, at which time, a more detailed assessment will be undertaken and advice in respect to the required street tree species will be provided.

Geotechnical Elements

The works undertaken to date are preliminary and Council recommends that additional investigations be undertaken at the time of detailed design to confirm preliminary assessments.

The recommendation to manage potential slope instability should be expanded to include reference to the “Practice Note Guideline for Landslide Risk Management” (*Australian Geomechanics*, Vol 42, No 1, 2007).

It is recommend that additional discussion of the management of development in areas of deep uncontrolled fills be expanded.

The Concept Plan Site Suitability Assessment and Stage 1 Project Application identified the expected extent of cut and fill required to achieve the proposed development, by way of the Stage 1 Project Application including a plan of proposed cut and fill and discussion of likely fill material types and sources. The Concept Plan and Project Application Requirements require a report showing quantities of fill necessary for site preparation works and strategies to minimise excavation works, both for site preparation works and individual dwellings. These items have not been reported and it is recommended that the Stage 1 Project Application be amended to include quantities of fill necessary for site preparation works and strategies to minimise excavation works, both for site preparation works and individual dwellings.

With regard to the Golder Associates Figure 4 – Geology, it is noted that the sandstone encountered within some of the test pits and boreholes is shown as covering significant areas with inferred strata thickness of greater than 20 metres in places. This plan may not be an accurate representation of the site geology in these areas because the “outcrops” shown are inconsistent with the geological deposition process. Furthermore, the unusual presence of the sandstone within an area of Bringelly Shale has not been discussed in detail. Whilst the Bringelly Shale is known to contain sandstone, it is considered that these unusual features warrant more detailed explanation in the documentation.

Contamination and UXO Issues

Based on the documents provided, Council concurs with Golder that the Landcom site is considered suitable for the proposed redevelopment subject to the conditions listed in Section 4.1. It is also considered that there is a low probability of unidentified contamination being encountered.

Based on the documents provided, Council accepts that the Defence site should be suitable for its proposed end use subject to the conditions listed in Section 4.2. However, it is considered that there is more uncertainty in respect of the extent and degree of remaining contamination (and remediation required) at the Defence Site relative to the Landcom Site based on the limited information available at the time of this review, particularly in respect of the former incinerators present on site.

Water Cycle Management

In general the strategy is considered acceptable, however, concern is raised in respect to the lack of information regarding flooding. It is accepted that the detail design work is currently underway and drainage calculations and philosophies will be presented to Council shortly, however, the need to further develop the concept of the regional detention basins and rain garden treatment areas while giving regard to both compliance with relevant policy and the needs and capacity of Council in terms of maintenance and long term management of the various devices, is of the highest importance. In this regard, it is critical that Council be required to sign off on all proposed civil infrastructure prior to the issue of the construction certificate for those works or a separate construction certificate for works that rely on the relevant infrastructure.

Transport Management and Accessibility

In general, Council agree with the overall concept plan outline for developing Edmondson Park South. However, it is considered that the TMAP does not provide a qualified

justification for selecting the proposed concept transport network plans or a clear understanding of the likely precinct related impacts from the proposed staging. It is understood that the concept transport network plans follow a recommended network structure that is presented in the Draft Bardia Sub-Precinct Development Control Plan (DCP). Although this is the latest structure, the DCP is still a draft document and the TMAP appears to have missed the opportunity to demonstrate that, along with supporting in principle the high level objectives set by State Government guidelines and planning, it also provides an optimum arrangement against all other tested options.

It is difficult to judge if the concept transport network plan selected provides optimum infrastructure outcomes or if it presents the most advantageous performance target outcome for stakeholders. This inconsistency needs to be addressed.

Infrastructure Delivery Strategy

The Concept Plan and Stage 1 Project Application documents are currently very similar in content. The Concept Plan should relate specifically to the entire development and the Stage 1 Project Application to Stage 1 only. However, there are specific references to Stage 1 in the Concept Plan and the Stage 1 Project Application does not contain much further detail in relation to Stage 1 servicing (apart from generic references to required reticulation works). There are a number of references within the Concept Plan document that seem to relate to the Stage 1 Project Application.

More information on the proposed services, including an indication on the typical road cross sections for the Stage 1 works should be provided (not currently indicated on the typical road cross sections provided with the Part 3A Application). There is some uncertainty as to whether the road verge widths area is sufficient to accommodate all the services proposed for the development (i.e. potable water, recycled water, electricity, telecommunications and gas).

Noise and Vibration Impacts

A review of the noise and vibration impacts for the project revealed a number of areas in both the Concept Plan and the Stage 1 Project Application documents that require further clarification, including:

a. Ambient Noise Levels

1. The report does not specify whether the noise data was filtered against concurrent weather data (wind speed and rain) and how this may have affected the noise monitoring results.
2. Noise data gathered prior to 19 July was taken within school holidays. The report should discuss how noise levels may be affected (in particular with regards to modified traffic flows) and justify if this data is valid.

b. Noise and Vibration Criteria

1. The three noise logging locations are concentrated in the southern portion of the site. As a result, the background noise levels and derived construction noise limits may not be representative of receivers located in the northern area of the site.
2. Table 4-4 offers an interpretation of external rail and road noise criteria, which is not explicitly supported by the Department of Planning Development Near Rail Corridors and Busy Roads – Interim Guideline.

- a. For road noise, it would be more appropriate to refer to the Department of Environment, Climate Change and Water (DECCW) Environmental Criteria for Road Traffic Noise to address external criteria and the requirements for ventilation.
 - b. For rail noise, the noise objectives outlined in RailCorp Environment Protection Licence (EPL 12208) could be referred to.
3. Section 4.4 of the report outlines a rail vibration criterion of 108dBA re 10-9 m/sec based on the findings of the South West Rail Link Environmental Assessment (SWRL EA). As it is unusual to apply the A-weighting network to rail vibration levels, and as such, it is assumed that this is a typographic error and the limit should read 108dB re 10-9 m/sec. Regardless, Development Near Rail Corridors and Busy Roads – Interim Guideline states the following:
 - a. *“Vibration levels such as the intermittent vibration emitted by trains should comply with the criteria in Assessing Vibration: a technical guideline (DECC 2006). The standards used for assessing the risk of vibration damage to structures are German Standard DIN 4150 Part 3 1999 and British Standard BS 7385 Part 2 1993. Human comfort is normally assessed with reference to the above British Standard or Australian Standard AS 2670.2 1990”.*

Therefore it is recommended that the rail vibration criteria be revised accordingly.

c. Road Noise Impacts

1. The report should outline the origin of the traffic data used in the modelling. It should also discuss whether the topographic contours include the earthworks associated with the widening of the motorway.
2. It should be noted that split source heights should be considered where the percentage of heavy vehicles exceed 10 per cent to account for heavy vehicle exhaust noise. This may not be feasible using CoRTN and the report does not provide details on this issue.

d. Stage 1 Report

Comments on the Stage 1 Report are generally the same as for the Concept Plan Report, where applicable. Additional comments are as follows:

1. The report states that whilst the SWRL is to cross the northern end of the site, it is sufficiently remote from the Stage 1 area such that noise and vibration from its operation is not of significance. The report should further justify this statement by outlining what type of land use is planned to be located in the vicinity of the rail corridor.
2. With regards to Figure 3-1, Logger location B in the Stage 1 Report appears to be different to Logger location B in the Concept Plan Report. However, noise logging results are exactly the same in both reports. It should be clarified whether this is a coincidence or an oversight.
3. The construction noise assessment is based on a total Leq sound power level of 116dB(A). It is unclear how this was derived from the Table 5-1 Lmax sound power levels.

4. As houses within Stage 1 were modelled indicatively, it would be appropriate to discuss road noise mitigation in a more general manner, such as was done in the Concept Plan Report. This would allow consideration of a wider range of options.

Roads and Drainage Design

A review of the roads and drainage design for the project provided a number of areas that require further clarification, including geometry and drainage. Other portions of Landcom's documents were also reviewed in conjunction with the above. The following is a list of issues / questions that have arisen from this review.

a. Geometry

1. The Project Application and associated documents contain general arrangement, layout drawings and typical cross sections for the estate roads (1-18), lanes (1-4), Zouch Road and Driveway 1.
2. The vertical grading appears to meet the design requirements of the Roads and Traffic Authority Road Design Guide, section 2, Road Geometry. However, the criteria adopted for curve length needs to be defined in an accompanying design statement for sections of road where the vertical grading exceeds 10 per cent. These are namely chainage 45 – 180 of road no. 18 (given the constraints of the land, increasing the 30VC to 60m would help with sight distances), and chainage 27.668 – 105 of Driveway 1 (in this regard, thought should be given to lengthening the 45VC at IP55.346, to approx. 100m – is there an issue of filling on neighbouring land if this were to happen?). The nature of the grading needs to be qualified in a design statement to Council outlining the criterion of curve length determination (comfort, sight distance, etc), design speed and any departures from typical guide values as outlined in design guides. It is preferred that the VC lengths of those sections nominated above are lengthened to as to improve sight distance and improve driver comfort.
3. In relation to the horizontal geometry, the basis should be included in a corresponding design statement. There have been no sight lines provided at intersections and roundabouts. These sight lines need to be confirmed in relation to location and heights of obstructions such as streetscape items. The designer will need to provide further information in relation to this item.
4. As noted previously in this submission, there is a concerning difference between the Draft DCP and the concept plans in terms of the nominated road carriage width for the roads nominated as "Local Roads (Minor)" – Roads 2, 3, 6, 7, 8, 10, 11, 13, 15, 16 & 17. Clarification and further discussion is requested in this regard.
5. The cycleway for Road 5 is not shown on the Concept / Stage 1 civil works plans. The cycleway is shown on the typical cross sections of the same plans.

b. Drainage

1. A design report has not been provided on the lot and pavement drainage. A summary of the drainage design loads should be provided in an adjoining drawing sheet highlighting catchments, pit numbers, pipe sizes, hydraulic grade line etc. This typical information needs to be as per Councils Engineering Guidelines and identify the design storm adopted, and other considerations or assumptions such as blockage factors and climate change increases.

2. The drainage design provided was reviewed and it is noted that this has been provided in plan only, no sectional information, pipe sizing, type or flows were provided for review. This information will need to be provided for the purpose of further assessment. In addition, the adequacy of the inline or on-grade pit spacing cannot be assessed as the type, capacity and criteria for location have not been provided.
3. There appears to be adverse fall on the drainage line serving lots 114 -119.
4. The drainage line servicing lots 34 – 38 may need to be extended to lots 32 – 33.
5. There is a section of the road pavement drainage on road 18. The capacity of the table drains and the resulting freeboard needs to be considered as well as the surface treatment of the table drain, particularly in the section where the grade is greater than 10 per cent.
6. There are no drainage details provided upstream of the roundabout at road 1 and road 8.
7. The drainage design requires additional information including catchment definitions; common drainage line and main line pit and pipe numbering; flow directions; pit and pipe schedules; drainage long sections; and a hydraulic design summary incorporating hydraulic grade line analysis.
8. A channel (table drain) design summary including lining treatment information is required.
9. Defined O/L flow paths from dam at bottom of catchment downstream of Road 18 – there is to be no impact on downstream properties in the case of normal weir topping and or in the case of flooding or a dam break/failure.
10. Post development discharges should be compared to existing development discharges at a number of downstream locations (beyond Campbelltown Road) and at least at the precinct boundary, to ensure post-development flows are not increased over existing development flows for a range of storm events.
11. It is noted that the Maxwell Creek basin floods to a depth of 2.17 metres. This needs to be reviewed in terms of safety and Council's requirements.
12. The report does not describe how the basins were configured in RAFTS, with respect to storage and outlet discharge curve. This could lead to an increase in basin volume and size. Furthermore, the Maxwell Creek Basin, if still proposed as a V-Notch or otherwise, needs to consider the potential for drowning of the outlet, which may require more basin storage.
13. It is noted on Figure 5 that the sub-division to the north-west of the regional basin may be located below the basin full supply level (FSL). This would result in backflow up the stormwater system and/or untreated stormwater being discharged from the site. Further detail should be provided to demonstrate how this area is to be managed.
14. The flood liable land has not been defined in accordance with the Floodplain Development Manual 2005. This needs to be defined and include all areas inundated by the probable maximum flood (PMF) event.

15. Channel capacity for Corridor A and B was checked using Manning's equation for capacity; however no flood mapping is provided, particularly at the downstream extent of the proposed development footprint. Furthermore, flood levels are not provided for a number of events.
16. Headwater catchments to Corridor B are considered too large (significantly greater than 15 hectares). This would require substantial in-road stormwater infrastructure, or the riparian corridor would need to be extended upstream. A statement should be included on how these 'trunk' flows will be conveyed in the road system to satisfy Council's V x D requirements.
17. There is no flood mapping or demonstration of how the regional detention basin will operate in Locality 1. Details on the staged outlet should be provided.
18. There does not seem to be any comments or details provided in respect to dam break scenarios, down stream safety and affect, flood evacuation and consideration for evacuation routes, within the development layout. Comments should be provided including commentary in regard to the requirements of the NSW Dam Safety Committee.
19. The inundation regime for the rain gardens located within the regional detention basins should be described in respect to frequency of inundation, scour and entrainment of sediment.
20. The NSW Floodplain Development Manual 2005 requires climate change impact to be considered in the assessment and management of flood risk. Increases in rainfall intensities for future climate scenarios should be addressed.
21. Overall for Locality 1 draining to Maxwell Creek, the stormwater quality from the 110.66 ha development footprint is managed in a 12,000 square metre area of rain gardens. This represents approximately 1 per cent of the development footprint, which is considered low. It is customary to require approximately 3 per cent of the development footprint as a treatment area in particular to meet total nitrogen (TN) targets, with actual facilities approximately 5 to 6 per cent in footprint once embankments and other works are included. Further clarity is sought.
22. While the tables demonstrate that pollutant reductions are achieved for total suspended solids (TSS), TN and total phosphorous (TP), it should be demonstrated that these are achieved at the points of discharge to riparian corridors and receiving environments. This is not adequately addressed as the configuration of the MUSIC model reports the outputs at one aggregated 'fictitious' node. For example, rain garden 4 discharges to riparian Corridor A, however it is not demonstrated that this receiving riparian corridor receives adequately treated stormwater. Further clarity is sought.
23. All water quality devices including dams / rain gardens / GPT's are to be located so as to be easily accessible by heavy vehicles for the purpose of cleaning and repair. In this regard, all weather access points shall be provided to each device as well as truck hard stand areas adjacent to each device that requires implements such as vacuum trucks or crane trucks for the purpose of cleaning each of the devices. Vehicular access is to be considered in terms of ensuring a heavy rigid vehicle can enter and gain easy access to the hard stand area and that in the event of extended periods of rain, that the point of access allows a fully loaded heavy rigid vehicle to exit the site in a forward direction, without bogging or damaging the vehicular access point.

24. Rain gardens 2, 7 and potentially 1B will need to be reviewed in terms of configuration, as they potentially could result in “short-circuiting” due to the location of inlets and outlets.
25. Details on basins need to provide embankment footprints, side-slopes, storage/spillway levels and other critical levels.

c. Drawings

1. General notes were not provided with the drawings. It would be desirable to indicate on the road drawings the proposed finished road contours (in plan). As mentioned previously, a plan indicating the sightlines at intersections and round-about locations would demonstrate that design compliance has been achieved. This is currently not indicated on the drawings.
2. Adequate details in respect to the interface treatment between Stage 1 and the adjoining future stages needs to be provided, including the temporary handling of localised drainage. Where there is major cut/fill at the interface, details need to be shown in regard to batters / structural designs to ensure roads / drainage facilities constructed at these interfaces (and those people who may be using the road facility at that location) are adequately protected.
3. More information is required in respect to the sizeable filling and steep batter interface adjacent to Lane 04. It is expected that this profile has been setup to receive a dwelling with a rear loaded / understorey garage. There is no detail provided in respect to the protection of this steep batter from erosion, etc or in respect to slump or slope failure while the land is waiting to be built upon.
4. There does not seem to be any line marking / sign posting plans issued for the development. These are required for the purpose of obtaining approval from the Campbelltown Local Traffic Committee.

Council appreciates the opportunity provided to comment on the proposed Edmonson Park South – Part 3A Major Project Application for the Stage 1 Subdivision, Concept Plan and State Significant Site Listing proposal.

As the application currently stands, and in light of the issues raised in this submission, Council is not in a position to provide its total support for the project. Further information is required to be submitted to address the nominated short comings and Council requests that it be granted a further opportunity to review and make a further submission on any response received from the proponent in respect to the issues raised by Council.

Council appreciates the assistance of the Department of Planning in raising the issues included in this submission, with the proponent.

Yours faithfully

Jeff Lawrence
DIRECTOR PLANNING AND ENVIRONMENT