

Amy Watson
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

30 October 2014

D14/107159

Dear Ms Watson,

**M2 Site within the North Ryde Station Urban Activation Precinct SSDA
5093**

I refer to your letter dated 5 August 2014 and Council's previous letter dated 19 September 2014 regarding the State Significant Development Application for the above precinct.

Please find attached a copy of the final version of the submission as endorsed by Council on 29 October 2014. At the Council meeting there were three additional matters that were identified by Council. These are as follows:

- (a) Protection of the wetlands from stormwater flows through a range of measures including lot size and pipe infrastructure;
- (b) Consideration of capacities within the schools to accommodate the population of the North Ryde Station Precinct;
- (c) Satisfactory connection from the proposed pedestrian/cycle bridge over Delhi Road to the regional cycle route on the southern side of Epping Road.

The attached submission has been updated regarding these three items.

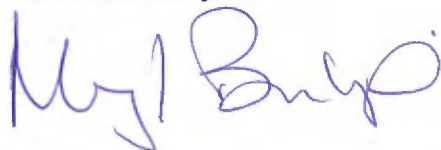
As identified in the previous letter, Council recognises the high quality of work undertaken by UrbanGrowth NSW (UGNSW) regarding the proposal and the new layout for built form, roads and parks that has been developed for the precinct. However, Council continues to have significant issues regarding the limited applicability of the existing North Ryde Station Precinct (NRSP) Development Control Plan (DCP) in the event that the SSDA is approved.

Council continues to believe that the Department should endorse the extensive Master Planning work undertaken to date through amendment of the NRSP DCP or by ensuring that the wide body of work supporting the SSDA including the building setbacks, envelopes, road and open space layouts form part of the final approval.

Council continues to have concerns that much of the information contained within the SSDA is outdated and is subject to ongoing discussions between Council and UGNSW. This applies to the negotiation of a Voluntary Planning Agreement (VPA) and the design and construction of the Community Facility. Council is of the opinion that until these matters are finalised, a determination of the SSDA cannot be made.

Should you have any queries regarding the above, please contact Glenn Ford, Client Manager, on 9952 8227.

Yours sincerely



Meryl Bishop
Acting Group Manager, Environment and Planning
City of Ryde Council

North Ryde Station Precinct

State Significant Development Application – M2 Site



City Of Ryde

29 October, 2014

Executive Summary

Council has undertaken a review of the State Significant Development Application (SSDA) and has identified several key areas of concern.

Council recognises high quality of the work undertaken by UrbanGrowth NSW (UGNSW) to date regarding the proposal and the alternate layout developed. However, Council continues to have significant concerns regarding the extensive revision of the layout for the precinct and that once the SSDA has been approved the existing Development Control Plan (DCP) for the North Ryde Station Precinct (NRSP) will have limited weight. To mitigate this issue, the Department should seek to endorse the extensive Master Planning work undertaken to date through amendment of the DCP or ensuring that the wide body of work supporting the SSDA including the building envelopes form part of the final approval.

Also of concern to Council is that much of the information contained within the SSDA is outdated and is subject to ongoing discussions between Council and UGNSW. This applies to the negotiation of a Voluntary Planning Agreement (VPA) and the design and construction of the Community Facility. Council is of the opinion that until these matters are finalised, no determination of the SSDA can be made.

In addition to the above, it should be noted that at a Council meeting held on the 28 October 2014 it was specifically identified that further consideration of the capacities within the schools to accommodate the population of the North Ryde Station Precinct.

Given the nature of the concerns identified within this submission, Council would like to extend an offer of staff assistance to resolve the SSDA in a mutually acceptable manner. This can be in the form of a workshop on the various elements of the SSDA at Council's offices with sufficient time provided in advance for detailed review of alternate plans / amendments.



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Planning Pathway

Development Control Plan

It is noted that the proposal as submitted by UGNSW does not adhere to the recently endorsed Development Control Plan that was approved by the Department of Planning and Environment in late 2013.

Whilst it is noted that Section 1.7.2 of the NRSP DCP allows for variations to be made to the Indicative Layout Plan, this is only where the indicative layout plan can demonstrate compliance with the Objectives of the Ryde Local Environmental Plan 2010 and the Vision for the precinct detailed in Chapter 2 of the DCP. This has not yet been detailed in the provided Environmental Impact Statement (EIS).

It is noted that the proposal as put forth by the applicant is predicated on the implementation of the scheme detailed within the EIS, with the exception of the building envelopes. In this respect, in the event that the Department forms the opinion that the proposed layout is acceptable, certainty must be provided to ensure that the future development of the lots will be in accordance with the master plan undertaken by Bates Smart. Council notes that there are significant inconsistencies with the Master Plan and the DCP which will cause significant issues for Council during the assessment of future forthcoming Development Applications. In this respect, Council notes that the Department initially considered delegating the DCP to Council following the approval of the SSDA. Council looks forward to discussing this in further detail with the Department.

Should this be pursued by the Department, there are some outstanding areas of concern with the proposed master plan detailed within this submission.

Infrastructure Delivery

The submitted EIS identifies a range of infrastructure that is to be delivered on the subject site. Table 21 of the EIS (p. 62-63) identifies that UGNSW, Transport for NSW and Roads and Maritime Services (RMS) have undertaken an in principle agreement regarding the payment of \$10.4 Million towards regional transport upgrades.

In this respect, it is noted that the payment of \$10.4 million is identified as item 24 in the Infrastructure Schedule associated with the Finalisation Report for the NRSP. Table 21 of the EIS states that this is to be used for the following in order of priority:

1. Wicks/Waterloo Roads length turn lane from Wicks Rd into Waterloo Road
2. Upgrade to Wicks/Epping Rd intersection
3. Upgrade to Waterloo/Lane Cove Roads intersection
4. Upgrade to Epping/Lane Cove Rd intersection
5. Widening Delhi Rd adjacent to North Ryde railway station
6. Upgrade to Epping/Pittwater Rd intersection
7. Upgrade to Lucknow Rd ramp onto Epping Rd
8. Bus stop and facilities outbound on Epping Rd at Delhi Rd
9. Cycleways along Wicks/Waterloo Roads.

Many of these items are identified independently within the Infrastructure Schedule and as such should be independent from the \$10.4 Million contribution identified in item 24. This is of particular concern from Council as it may result in some of the later items required under the approval never being delivered.

The timing of the delivery of these items is of concern to Council. From the submitted information and discussions held with UGNSW it is unclear what the timing of the delivery of these items will be and whether they will be in place to meet the demands of the development / mitigate ongoing impacts from the development. The timing for the delivery of this infrastructure must be clarified.

It is noted that Council is still undertaking ongoing discussions with UGNSW regarding the delivery of many of the other items within the Infrastructure Schedule as part of a future VPA. This matter is yet to be concluded.

In addition to the above, it is noted that Council and the wider community have previously identified concerns regarding the capacity of surrounding schools to cater to the demands of the additional population generated by the UAP. It should be noted that at a Council meeting held on the 28 October 2014 this item was specifically identified as an area of concern. Any forthcoming approvals within the NRSUAP must ensure that sufficient infrastructure upgrades are provided to the surrounding schools to cater to the additional population.

Community Facility and VPA

Council has been in discussions with UGNSW regarding the funding of the infrastructure to be delivered under this SSDA and the possibility of a Voluntary Planning Agreement between Council and UGNSW. In this respect, it is noted that the funding, bridge landing details and commentary on the community facility contained within the SSDA are obsolete. During discussions between Council and UGNSW, the community facility is no longer proposed to be a “sports-court” type facility and the proposed bridge landing design onto the M2 site cannot be achieved due to impractical gradients.

The implications of this are that *Appendix T – Community Needs Assessment* and *Appendix G – Pedestrian Bridge Plans* may not be relevant as they are likely to change. This may require the relocation of the intended Community facility due to a redesign of the bridge.

Subsequently, the designs illustrated in *Appendix D – Urban Design Report* are likely to be unrepresentative of the outcome which has yet to be finalised between ourselves and UGNSW. Council has raised this issue with UGNSW directly and they have acknowledged that changes to the SSDA will be unavoidable if it is to reflect the Voluntary Planning Agreement between UGNSW and Council.

Additionally it is noted that the application of Section 94 to the development and the consideration of works in kind or material public benefit is also the subject of ongoing discussions between Council and UGNSW.

It is also noted that the EIS identifies that there are two individual lots which are to be utilised for Community Facilities. Whilst one is to be provided to Council it is unclear what is to occur with the second.

Council considers that these matters must be resolved prior to the finalisation of the SSDA and cannot be conditioned as part of any forthcoming approval.

Urban Design

In reviewing the master plan submitted in support of the revised layout plan, Council has identified several concerns. These are detailed in the following sections.



Built form

The Indicative Building Layout shows that consideration has been given to the minimum building separation requirements in the Residential Flat Design Code. The proposed street and courtyard widths generally provide adequate separation between buildings. However, in some instance there are non-compliances, such as the distance between Buildings D2 and D3, F1 and F2, H1 and H2. Whilst these non-compliances can be addressed as part of any forthcoming DAs for the lots, Council is of the opinion that should the Department endorse the alternate layout, certainty on the delivery of the associated buildings must be provided. This should be provided by amending the DCP to ensure consistency with the master plan.

The proposed street setbacks in the indicative building layout show that in nearly all instances there will be a 3m setback at ground level for both residential and mixed use buildings with the upper levels built to a 0m setback. The built form outcome of these setbacks is not illustrated in the application. Sections through the street frontages should be provided so that the intent of the setbacks can be understood. Clarification is required as to whether the 3m setback is defining an articulation zone with the build-to line being at the 3m setback with balconies extending beyond the 0m setback line. In the event that this 0m setback is a build to line rather than an articulation zone, Council does not support this.

The current NRSP DCP details the setbacks for buildings surrounding many of the roads, however these have not been captured or reflected in the alternate layout. One particular area of concern is the 0m building setback to the Community Park. Whilst it is noted that the SSDA is seeking approval for subdivision and public domain works, given the significant deviation from the DCP, it is questionable what weight the DCP will have. The reduced setback from public domain areas may cause potential issues with individual access to units from the open space areas.

The interface between the buildings that are adjacent to the Community Park needs resolution. It is noted that a detailed section showing the relationship between the buildings and the park has not been provided. To satisfy CPTD requirements, surveillance of the park should be provided by these buildings. However, the detailed design will also need to ensure that overlooking of the park does not inhibit its use. It is noted that the 0m setback of the upper levels does not provide any buffer between the future dwellings and the park. This close proximity will be an issue as the concept for the park shows future exercise areas and gathering spaces adjacent to the property boundary. This should also include consideration of potential direct access from ground floor units to the park to encourage activation of the public space.

It is recommended that a minimum 2m landscape setback be included along the frontage to the Community Park to allow sufficient flexibility to resolve this interface. It is noted that Table 5 of the North Ryde Station Precinct DCP requires a building setback of 3m from the Bushland Park, Community Park and Central Open Space.

Whilst Council notes that many of the above issues are predicated on the building layouts which do not form part of the proposal, this information seeks to support / justify the alternate layout proposed. As such, it must form part of any forthcoming consent to ensure that the alternate layout and associated buildings are deliverable on site.

Gross Floor Area

It is noted that the overall Gross Floor Area is proposed to remain the same, but that the the disposition of that floor space on the site is proposed to be altered considerably. In this respect, Council notes the following:

- Zone Q has low FSR to transition to the business park and business core land zones and the permissible heights and FSRs within these. The low FSR within the LEP for Zone Q

recognises the fact that a road will go through the site. Indeed all of the existing FSRs within Ryde LEP recognise that there will be new public and estate roads delivered within the site.

- Zone V1 is proposed to have a small decrease in GFA in the order of 7%.
- Zone X is proposed to also have a decrease in GFA of approximately 14%.
- Zone V3 is proposed to have an increase in the order of 0.007%.
- Zone W is proposed to have an increase in GFA of approx.157%.

In response to these amendments, Council would like to raise the following:

- Zone W is the second smallest zone on the site with a height limit of 75m under the provisions of the Ryde LEP. Relocating substantial GFA to this zone without increasing the height limit will lead to bulky buildings with larger floor plates. Larger floor plate residential towers are less likely to meet SEPP 65 and more likely to cast shadows that are broad and deep. (Slender buildings cast shadows that move off other sites more quickly and therefore have less impact on neighbours). Council would not support any increases in heights.
- Under the provisions of the Ryde LEP Zones V1 and X have height limits of 99m. The height limits in the LEP are reflective of a principle to locate the densest development at the core of the site – furthest from sensitive natural landscapes or adjoining sites and to promote the development of tall slender buildings that will meet SEPP 65 and cast shadows that move off other sites as quickly as possible (given the scale of the development)
- The proposal to reallocate substantial Floor Space to zone W is not supported because:
 - FSR / permissible floor space is not a right and developers may choose to provide less – as this may lead to better design outcomes, respond to market conditions or other constraints.
 - Zone W and Zone Q are the least suited to an increase in FSR due to their small site area and the built form that will be created as a result.
 - Zones X and V1 are the better options for accommodating increased GFA because they have higher height limits and the built form outcomes will be better. Having said that the differences in relation to moving GFA should be minimal and in the order of +/- 10% for any zone.

Open Spaces

General Comments

It is noted that the subject site is in close proximity of significant bushland areas. Accordingly, Council requests that the *Fraxinus americana* 'Urbell' be replaced with an alternative suitable deciduous tree species such as *Waterhousia floribunda* or *Pyrus calleryana*

Also, Council's standard seat within open space areas is aluminium not timber. The references to timber seats should be removed from the documentation.

Bushland Reserve

Council acknowledges and supports the creation of an elevated boardwalk, however, across the City the standard width for elevated boardwalks is 1.5m. This width should be applied to this Reserve.

Further detail is needed on the planting species in the planter beds that run along the Spine Road towards the Bushland Reserve. These species must be suitable to the Shale Sandstone Transition Forest that is located in the Bushland Reserve. The use of these suitable species should be included in the planter beds from the northern most Mews Road towards the Reserve.



With regards to the construction works within the Reserve, methods of construction of all items in the Reserve must be referred to Council for review prior to commencement to ensure the protection of this significant vegetation community. It is preferred that the Bushland Reserve boardwalk is not accessible for bicycles. As such there is a need for a barrier design at the entry points of the boardwalk to prevent bicycle access.

Potential improvements to this area could include the extension of the elevated boardwalk area toward Wicks Road with an additional entry point to provide opportunity for the wider community access to the Reserve. Also, whilst it is recognised that the site is subject to flooding, the boardwalk should seek to interface with the creek to allow for stream watch programs and environmental education.

Community Park

The placement of the fitness equipment along the length of the Park is notionally a good idea however placement must consider the amenity of the adjoining residential properties. Given the high level nature of the building envelopes provided to date, the location of these areas should give consideration to potential ingress / egress points for the buildings. To a certain extent this can be 'locked in' through the design of the park but it must also consider individual access to the buildings. The current design of the park does not recognize or appear to allow for this as part of future buildings. This must be recognised and captured in the design of the park.

The location of the proposed gym equipment may find greater use by the community by being located within the Central Park instead.

As identified elsewhere in this submission, there is concern over the amount of activity along the shared bike path, including fitness areas, playgrounds, water features and seating areas. With increasing conflicts between bike riders and pedestrians on other shared paths across the City, consideration should be given to separating the bike path from the pedestrian and recreation area.

Council believes that the proposed play elements along the Community Park should be reduced and concentrated in the Central Park. Council is actively consolidating play areas across the City and in accordance with Council's Play Plan, the spreading out of play along this Park in addition to the playground in Central Park is not supported.

There is extensive use of water in Community Park that will be a cost and maintenance issue for Council if the long term decision is for this infrastructure to be managed and maintained by Council. Water gardens should be deleted from all public access areas. The use of water in private gardens should be considered. It is noted that the dedication of this area is subject to ongoing discussions with UGNSW and Council.

Central Park

Whilst the location of active retail edges fronting the central park is supported, the seating provided along the shop front should not be shown as public open space. Seating associated with café / restaurant should be treated like other areas across Council where a license is obtained to have café / restaurant seating in public open space.

The catchment for the Playground at this location would be, as a minimum, a "district" level playground. Under Councils' Play Plan, the size of this level playground should be 900 – 1950m². As such, the playground proposed is undersize and should be reviewed. There is possibility to include the deleted play elements from the Community Park to provide a wider play experience in Central Park. There should also be consideration of the inclusion of shade structures over the play area.



Within this area it is noted that there are two areas shown as mass planted garden beds. Given the high numbers of residents this area should be explored for conversion to turf surface to allow for additional passive recreation areas for the community. It is unclear from the submitted plans whether there is a bubbler or water bottle refill station within the Park. This should be provided with ready access afforded to cyclists.

The connection from the Central Park to the bridge of Delhi Rd is not centrally located to the park. It is suggested that either the location of the crossing be revisited or preferably that another additional crossing be provided. It is noted however that this may interfere with the bus stop area along Plaza Street.

Public Domain

Council requirements regarding finishes on footways, shared zones and street lighting in the public domain are outlined in the City of Ryde Public Domain Technical Manual Section 6 - Macquarie Park. The work shall include but not be limited to paving, multifunction light poles, street furniture and plantings.

All public infrastructure works shall be designed and constructed in accordance with Ryde Environmental Standards - Development Criteria Section 4 - Public Civil Works, the City of Ryde Public Domain Technical Manual – Macquarie Park, and DCP 2010 Part 8.2 - Stormwater Management

Roads

Council is currently undertaking a review of its road construction standards which will be seeking to require all new roads to be constructed with concrete pavement. The initial specifications for these standards have been prepared and can be provided to UGNSW and the Department. Council anticipates the finalisation of these standards in short order and would seek to ensure that any future construction works on the site for the delivery of roads is achieved in accordance with these standards.

In the event that the Department seeks to approve the SSDA Council has standard requirements for the design and construction of road works that can be readily conditioned on any forthcoming application.

Vehicle Footpath Crossings

Footpath crossings shall be constructed at all locations where vehicles cross the footpath, to protect it from damage resulting from the vehicular traffic. The location, design and construction shall conform to Ryde Environmental Standards - Development Criteria Section 4 - Public Civil Works, and all relevant Australian Codes and Standards. Crossings are to be constructed to match the granite paving and finished levels shall conform to property alignment levels issued by Council's Public Works Group. Kerbs shall not be returned to the alignment line.

Street Lighting

All telecommunication and utility services are to be placed underground. Plans prepared and certified by a suitably qualified Electrical Design Consultant for decommissioning any existing network and constructing the new network are to be submitted to Council and Ausgrid for approval prior to commencement of work.

New street lighting serviced by underground power and on multifunction poles(MFPs) shall be designed and installed to Australian Standard AS1158.3.1-1999 Road Lighting, with vehicular

luminance category V3 and pedestrian luminance category P2 (Wicks Road and Epping Road) and categories V5 and P2 (all roads within the development site).

Any detailed design of these elements should involve detailed discussions with Council's Public Works staff to obtain details of Council's specifications for the provision of multi-function poles (MFPs) and LED luminaires for street lighting. Additionally, Council may also provide guidance in the form of a schema showing the proposed positioning of MFPs along the proposed roadways within the development site.

Street trees and landscaping

Street trees and landscaping are to be provided in accordance with the requirements outlined in the City of Ryde Public Domain Technical Manual Section 6 - Macquarie Park. Generally the submitted street trees appear to be satisfactory with the exception of specific references within this submission.

Notwithstanding the above it is noted that there appears to be a disconnect between the landscape plans and the utilities / services plan as part of the SSDA. It appears as though the proposed utilities / services will be located underneath planting areas and this should be amended to ensure that the root areas of trees are completely clear of utilities / services. Dwg No CO3-15 only shows trees within the parking lane, whereas trees are also proposed within the footpath on most streets. An easement within the footpath adjacent to the kerb for kerbside street tree planting needs to be allowed for and shown on the drawings

In addition to the above, it is noted that the submitted Services Plan has not identified NBN cabling. Any work undertaken on the subject site should be registered with the NBN co-development plan. More information can be found here: <http://www.nbnco.com.au/develop-or-plan-with-the-nbn/co-development-program.html>

Bus Stops

All bus stops shall be designed and installed in accordance with the requirements of the Disability Standards for Accessible Public Transport 2002.

Transport and Accessibility

Pedestrian and Cyclist Paths

The Macquarie Park Active Transport Spine (MATS) is identified within the SSDA and required to be delivered as Item 10 as part of the Infrastructure Schedule included in the Finalisation Report. Whilst it is noted that the spine road forms an integral part of the MATS, there is a missing portion along the northern side of Waterloo Road that is identified in the Public Transport Facilities Plan as being delivered at a later date, subject to Section 94 Contributions. This small section of the missing link is provided along the Southern Side of Waterloo Road.

This intersection of Wicks Rd, Waterloo Rd and the Spine Road should be designed to ensure that adequate access for Cyclist is built into the intersection to ensure ready access to any bike path located along the Spine Road. In this regard it is noted that the proposed route for Cyclist within the precinct is via a shared path within the Community Park. This will result in potential conflicts for:

- Cyclist navigating from the southern side of Waterloo road to the eastern side of the Spine Road.
- Cyclists and Pedestrians within the Community Park. This includes people using the Park and residents accessing the future residential buildings. Whilst this may be suitable for

children / families, in the event of commuter cyclists who may travel at significant speeds, it may result in significant conflict / accidents.

- Cyclist / pedestrians along the Park Street leading towards the bridge over Delhi Rd. From the submitted plans it appears as though cyclists at the southern end of the Community Park heading towards the bridge over Delhi Rd are required to utilise the shared path along the northern side of Park Street. This may cause potential conflict with entry / exit points for buildings along this section. This may not be an issue as long as the 3m Building Setback for all buildings along this side of the street is achieved as detailed within the Urban Design Report submitted with the SSDA.

Key solutions for this could include:

- Detailed planning of the intersection of Waterloo / Wicks and Spine Road to ensure dedicated lanes / signalling for cyclists through this intersection
- Clear connection and legibility for cyclists directly to a dedicated bicycle lane along the spine road not located within the Community Park.

At Council's meeting on the 28 October 2014, the connection of the cycle/ pedestrian bridge to the regional cycle network on the southern side of Epping Road was identified as a particular area of concern. Any forthcoming proposal must demonstrate satisfactory connection from this bridge to the cycle route along Epping Road.

In addition to the above, the footpath along Epping Road is to be full width granite paving with street trees in accordance with the Macquarie Park Public Domain Technical Manual.

In general, the footpath and road carriageway are of appropriate design and widths to cater for pedestrians and vehicles. In some instances, such as the intersection of the spine street with the retail street and the plaza street, the corner radii could be tightened to better facilitate pedestrian movement. It is noted that the pedestrian crossing on plaza street could be shortened if a tighter radii is provided.

The proposed master plan scheme appears to rely on several pedestrian through paths on Lots 104 and 105 that do not appear to have been captured by an easement or similar restriction upon these lots. This is particularly relevant given the significant amendments to the layout plan proposed and that the landscape / public domain plans clearly envisaged this being achieved on future lots.

Pedestrian / Cycle Bridge

The proposed pedestrian/cycle bridge crosses over Delhi Road and the M2 Motorway and connects the M2 site with the North Ryde railway station. The bridge is some 200m in length and could be a distinctive and iconic element for the North Ryde precinct. However, the proposed design is utilitarian in design and does not take advantage of the prominent nature of the bridge.

The physical constraints of a bridge over a motorway, such as the need for safety screens, are acknowledged. However, there are numerous examples of pedestrian bridges in other states in Australia and overseas that achieve design excellence whilst satisfying practical considerations. Examples have been provided in the Figures below. Typically the design of these bridges includes the expertise of architects working in collaboration with the structural engineer. The curved alignment of the proposed bridge lends itself to an unorthodox design solution which should be explored as part of the detailed design.



Figure 1 - Bridge by Enrique Brown at Zapaller, Chile



Figure 2 - Bridge by Tonkin Zulaikha Greer and Taylor Cullity Lethlean over Hume Highway, Melbourne



Figure 3 - Bridge by Bernard Tschumi and Hugh Dutton at La Roche-sur-Yon, France



In addition to the above, it is also noted that the southern end of the pedestrian bridge should be connecting to the plaza area to be provided by the future development of Station Site North. Whilst no definitive plans have been prepared for this site, the proposed bridge landing to the footpath of the southern side of Delhi Road.

Whilst Council acknowledges that there will be timing of delivery issues regarding access to the bridge, the current alignment will fail to take advantage of the 2,900m² plaza that should be delivered. It is noted that the alignment may have been proposed to maximise ease of access to the North Ryde Station but in Council's opinion this can still be achieved through the landing of the bridge at the edge of the plaza area.

It is noted that Council has commenced preliminary discussions with the landowner of the Station Site North and that the location of the plaza is yet to be fully determined. Given preliminary discussions with the land owner, it may be appropriate for the landing point of the bridge to be along Delhi Road, however there maybe issues regarding pedestrian / cyclist conflict along the southern side of Delhi Road. This has not been fully detailed within the SSDA. The discussions regarding the location of the landing point are still ongoing and at this time the location of the plaza is not known.

It is assumed that the Department will ensure that all the requirements of Section 4.3 of the NRSP DCP will be adhered to by the proposed bridge. In particular, the Departments attention is drawn to Control 10. Additionally it is noted that the southern landing of the bridge adjoining Bundarra Reserve may be in close proximity to existing rock anchors for the M2.

It is also noted that Council have been advised in meetings regarding the VPA that the design of the bridge is likely to be amended.

Traffic and Vehicular Access

The North Ryde Station Precinct is a Transit Orientated Development (TOD), and as such requires careful consideration of the pedestrian, cyclists and vehicle interaction. Council has identified some concerns which are detailed below:

Engineering

All raised platforms are to be in accordance with the RMS technical Direction TDT 2001/04a and if installed on a Bus Route shall comply with State Transit Authority (STA) Bus stop style design guide which recommends '*The height shall not exceed 75mm with ramp grades no greater than 1 in 16 (6.25%). The length of the central platform should be no longer than 5.5m with provision for 3.5m travel lanes in either direction.*'

There is an integration concern regarding the footpath and kerb ramps associated with the Epping Road access way. The path does not align with the current and proposed footpath and kerb ramp. See C-1-4-00.Rev.3

There is inconsistency in relation to the treatment of raised platforms. Specifically regarding the integration of the device with the adjoining footway reserve, as either a raised vehicle platform or a raised pedestrian platform. All Drawings should specify the type being used at each location. See C-O-3-00.Rev.3 in reference to the engineering drawing Civil details plan 1 of 2 – C-O-O-02.Rev.3

Access

Due to conflict issues for truck movements in achieving access to Lot 104 from the Spine Street, a vehicle access management plan for Lot 104 should be provided. This will ensure that the configuration of the access movements to Lot 104 are appropriate and achievable as proposed.



Access ways that generate more than 30 vehicle movements per hour (in/out combined) shall be designed as two way driveways with a nominal width of 6m minimum, however this is contingent on service vehicle movements as well. See vehicle swept path - view 6, 9 and 10 respectively. Drawing ref. C-O-3-41.Rev.3

It is noted that access to the stockpile area is proposed from the M2 which will require RMS approval. In the event that this is not supported, what are the alternative routes for heavy vehicles to access the Stockpile location in accordance with plan C-O-1-00.Rev.3?

It should be noted that all waste and recycling bins for future development will be required to be collected from within the basement of future buildings. The height required for the trucks to service bins from within the building is 3.8m for rear loader vehicles and 4.5m for side loaders which may be required to service the recycling bins. The truck should be able to enter and exit the building in a forward movement. The sweep path of the waste vehicle is required and must not impede traffic access entering the basement. Whilst this should be achievable for most areas, of concern is the vehicular access point for Lot 104 area as a shared zone.

Buses

With regards to the bus stop proposed on Epping Road, this bus stop does not detail the amenity provisions which are required under the Disability Discrimination Act. It is also noted that this bus stop is located within a Deceleration Lane on Epping Road. RMS approval will be required for this bus stop. Council would like it noted that this will result in buses 'weaving' across a number of traffic lanes when heading east along Epping Road towards Lane Cove Tunnel. This poses safety risks, which is undesirable.

It is noted that some plans show turning paths crossing over Kerb and Gutters. Turning Paths should be wholly contained within the road pavement and particular reference is made to C-1-3-40.Rev.3. These plans must show turning paths only over road pavement.

It is noted that initially the NRSP sought to require the accessing of buses to Station Street. The recent SSDA and various discussions with UGNSW has identified that this may no longer be required as bus layovers will be provided as part of the M2 Site SSDA. In reviewing the submitted plans it is unclear where this area is to be located. It is noted that there is a bus zone identified along the pedestrian plaza outside the proposed community facility. It is unclear whether this is to be a bus stop or simply a layover area. Each of these options has potential ramifications as to how this area should be treated.

Signs and Lines

In relation to the provision of 'No Stopping' signage, Council requests additional line marking enhancements to improve the visual cue of 'No Stopping' restrictions around the circular "hub" namely Lot 106. See C-0-5-01.Rev.3

The R3-1A pedestrian walking signs are to be condensed at all zebra crossing locations such that 'back-to-back' signs are installed at the vehicle approaches only. Refer to RMS TDT 2001/04a

Traffic Management

The Parsons Brinckerhoff (PB) report, dated 20 February 2014, specifies multiple intersection treatments that will require implementation in order to accommodate the anticipated increase in vehicles accessing the road network associated with the North Ryde Station Precinct (NRSP). The proponent should implement the items within the report to ensure that the traffic generation is managed appropriately.



Parking

It is noted that the SSDA has identified that a total of 3 Car Share Spaces will be provided within the Mixed Use Precinct and 29 Spaces will be provided within the High Density Precinct. From the submitted plans it is unclear whether this will be provided within the roadway or within individual developments as they occur. In this respect, should the Department seek to approve these within the roadway, this should be subject to future licensing agreements with Council

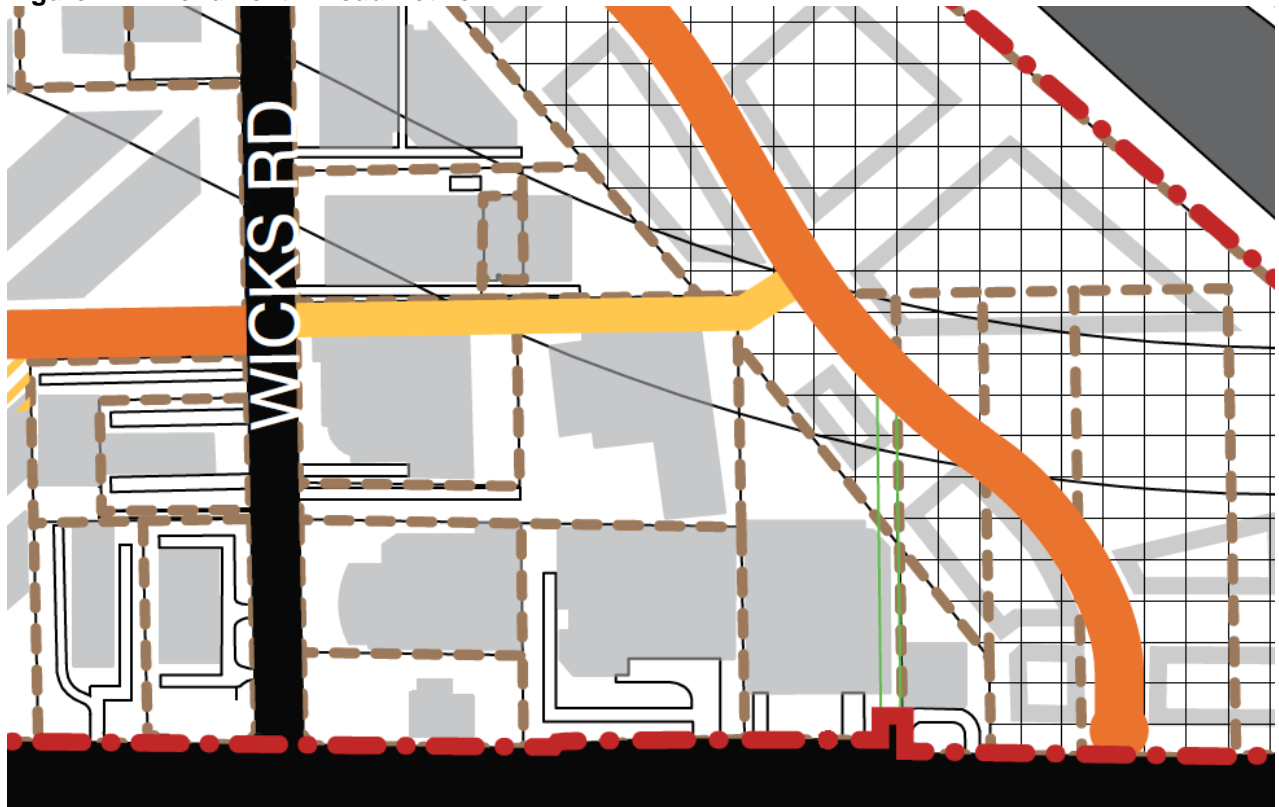
Shared Zone

It is noted that the vehicular access point for Lot 104 is to be achieved from Plaza / Retail Street. This area has been identified in much of the submitted documentation as being a shared area also. Clarity is required on the functionality and access of this area.

Road Connection

It is noted that the proposed subdivision plan has identified Lot 109 as being the location of a future road connection. Council is currently in the process of finalising a Planning Proposal for Macquarie Park which seeks to rationalise the road network detailed within the existing controls. This Planning Proposal and supporting documents is generally referred to as Amendment 1. Amendment 1 identifies that the proposed road connection is to be located at the northern most boundary of 11 and 113 Wicks Road. This proposed road network is detailed within Figure 4.

Figure 4 - Amendment 1 Road Network



The road connection as identified is predicated on a recent planning proposal that was not supported by Council seeking residential land uses on 111 Wicks Road, 29 Epping Road, 31-35 Epping Road, Macquarie Park. This planning proposal is currently undergoing a Gateway Review with no definitive outcome at this stage.

As such, Council strongly recommends the amendment of the SSDA to reflect the future controls proposed for Macquarie Park.

Further works to be undertaken

An independent design road safety audit must be undertaken, for the full public road architecture, in accordance with RMS Guidelines. Concerns are raised with regard to Swept Path View 4 which clearly shows conflict between bus and vehicle turn movements. This may potentially require relocation of driveway access that serves Lot 107.

An independent bicycle road safety audit of the bridge design should be undertaken and should consider the transition points from the bridge to the adjoining footway/shared path at both ends. This may require suitable RMS approved fencing. Further, the audit should detail the integration of the shared Bridge onto the Delhi Road access near the sub-station.

It is noted that the Parsons Brinkerhoff report demonstrates a minimalistic approach to the traffic generation of the M2 site. As such, RMS approval should be obtained on this reduced rates. In the event that no RMS approval has been obtained, the proponent will need to run a SIDRA analysis for the base case + Development impact. RMS will have to agree to the results of the assessment as there will be expected discounts based on the fact that the site is a Transit Oriented Development.

The Traffic Control Signals (TCS) phasing plan for Wick's and Waterloo Road is showing preferential vehicular access towards Spine Street, from the Western approach of Waterloo Road, and the southern approach of Wicks Road, which is NOT supported by Council. With regards to the intersection phasing, Council will need the SIDRA files and supporting documentation to understand the applicants proposed signal configuration. See C-1-5-00.Rev.3

Riparian Corridors / Biodiversity

In considering the proposed works, it should be noted that Bundarra Reserve is Turpentine Ironbark Forest, which is an Endangered Ecological Community. It does not appear as though due consideration has been given to this EEC that may be affected by the proposed Pedestrian Bridge. In particular, this EEC may extend into the adjoining RMS land to the east of the Park.

It is also noted that the bridge at the curve near Bundarra Reserve appears to be much wider and this will have impact on the canopy layer of the Reserve. This may unduly impact upon Bundarra Reserve and that may be potential for seating to be located elsewhere to reduce the impacts upon the reserve. Additionally it is noted that the ARUP Structural Report on page 3 identifies that the piers will be "*located in the north eastern corner of Bundarra Reserve*". However the accompanying plans show the piers are located outside of the Reserve boundary. This must be clarified. In particular it is noted that Section 5.6 of the NRSP DCP identifies that no overshadowing of Bundarra Reserve is to occur after 9am on June 21.

With regards to the proposed Vegetation Management Plan, the Oculus Report commissioned by Council has a contradictory assessment of the vegetation community on the Site. Oculus identifies the community as Shale Sandstone Transition Forest which is an EEC and this will drastically impact the development of the site. The Vegetation Management Plan and the Ecological Impact Assessment has not considered the potential impacts upon Bundarra Reserve, both during construction and from shading following construction.

Additionally, it is noted that page 5 of the Vegetation Management Plan states that "*SWR recorded on the M2 site is on poor condition as shown in Figure 4*". However, Figure 4 actually

identifies two categories of Sandstone Ridgetop Woodland on the site. Figure 4 maps both "low condition" or "moderate to high condition" woodland.

The Ecological report identified two categories of Sandstone Ridgetop Woodland on the site. Figure 4 maps both "low condition" or "moderate to high condition" woodland and hollow bearing trees. In review of this document and the proposed development area, the areas with the all hollow bearing trees and "moderate to high condition" woodland will be removed. There does not appear to be any discussion as to why this decision has been made nor does there appear to be any consideration for the retention of the "moderate and high condition" area.

Council also notes that there are significant areas of confusion between the Arborist Report (Appendix Q) which details which trees are to be retained on site with protection fencing. Many of these are unlikely to be retained due to the location and extent of works to be undertaken on site.

Heritage

Heritage With regards to heritage, it is noted that the NRSP DCP Section 8.9 provides detailed requirements for how heritage is to be considered on the subject site. Whilst it is acknowledged that a detailed Archaeological Assessment has been prepared it does not address the DCP controls, specifically Control 2 a, b & c. Additionally it is noted that the DGRs require consultation with the Office of Environment and Heritage, but this does not appear to have occurred.

The assessment commits to the removal/demolition of the cistern with no consideration of the significance of the item. From the DCP, it is clear that the cistern is to be subject to further investigations and reporting by a qualified Archaeologist and that the destroying of the cistern has not been approved. The cistern is considered to potentially have local heritage significance and may yield specific artefacts relating to the previous use and occupation of the site.

In the event that the proposed masterplan for the site is to inform a DCP, Shadow diagrams must be provided to ensure that the proposed building envelopes do not unduly affect the heritage listed cemetery.

As such, Council is of the opinion that following must be required in the event of future development of the site:

- Should the cistern / well be identified during excavation / construction works, all works within 15 m of the cistern must cease and a heritage / archaeological consultant is to be engaged.
- Protective fencing is to be installed at a 15 m perimeter setback from the base of the cistern whilst all archaeological/investigation works are being undertaken.
- The archaeologist must identify, investigate and appropriately report the finding of the excavation of the cistern in a clear and concise manner that complies with the NSW Heritage Division guidelines.
- This Archaeological Investigation report must be submitted to the Council and a site visit undertaken by the Council.
- Once Council are satisfied the appropriate research and investigations have been undertaken and that the methodology has been prepared, written approval is to be issued by Council prior to ANY excavation or construction works occur within the 15 m radius restrictive protection zone of the cistern.
- A qualified Archaeologist must be located on site during construction and ANY excavation/earthworks works that are within 15m of the cistern.
- All contractors working on site must be inducted into the potential heritage significance of the cistern.

- The protective fencing is to contain a jersey kerb base is to be erected at the 15 m perimeter protection zone to ensure protection from large machinery and trucks located onsite.
- A layout plan must accurately detail the location of the existing cistern in relation to the proposed buildings, this must be at a scale that provides clarification in relation to the 15 m restricted radius Protection Zone that surrounds the cistern.
- It is recommended that an Interpretation Strategy be prepared by a qualified heritage consultant for the entire subject site and must include details and findings from the investigation of the cistern.
- A separate interpretation strategy should be prepared for the inclusion of signage on the proposed bridge where the seating overlooks the cemetery. This could include detailing the historical significance of the Cemetery.

Construction Impacts

Council has concerns regarding the potential building construction noise which the documentation has suggested will, from time to time, exceed allowable noise levels. Additional measures would be required to mitigate the impacts of those exceedances to comply with EPA standards.

It is also noted that there appears to be existing issues with gas pipelines located along the M2 Sites western most boundary. Jemena has contacted Council regarding this matter and Council would like to ensure that adequate consultation occurs with Jemena as part of the proposal.

Flooding and Drainage

In general, Council supports the proposed concept drainage system augmentation scheme detailed in the Flood Assessment Report by Cardno. However it is noted that the models were not provided to Council and therefore unable to comment on the results.

Cardno has recommended exempting the future development on the individual lots from the requirements of an OSD system. The site area is about 9.2 hectares and is located in the middle of the catchment. Council is unable to comment on this due to insufficient information in the report. Council recommends that the models are independently reviewed and verified. Any future development must ensure that the structural integrity of the downstream conduits should not be compromised.

The report did not address the flooding impacts on the downstream reaches by the proposed development. It is noted the maps covers areas up to M2 freeway. This may be of significant concern due to the existing areas of fill and associated leachates in adjoining land. In particular, the protection of the wetlands from stormwater flows through a range of measures including lot size and pipe infrastructure must be delivered by the proposal. It should be noted that this item is of particular concern to Council as it was specifically identified in a Council meeting on 28 October 2014.

With regards to Stormwater management, the methodology adopted by the consultant is acceptable. Council notes that stormwater quality modelling has been undertaken for the Public Domain areas and that the supporting report listed Tree pits and Stormwater 360 Enviropod as water quality treatment devices for a catchment area of 2.75 ha. These devices are likely to require frequent maintenances.



City of Ryde recommends vegetated swales and Bio-retention swales or similar treatment devices where appropriate to avoid ongoing high maintenance costs. These devices will be required to be installed within the public domain areas.

As with the flooding report, no models were provided for Council's review. As such Council is unable to comment on the accuracy of the report findings without reviewing the models.