

Mr Andy Nixey  
Principal Planner  
Key Sites Assessments  
Department of Planning and Environment  
GPO Box 39  
SYDNEY NSW 2001

By email: [Andy.Nixey@planning.nsw.gov.au](mailto:Andy.Nixey@planning.nsw.gov.au)

18 June 2019

Our Ref: ENV/08/3/8/14/6

Dear Mr Nixey,

**Ivanhoe Estate Redevelopment Concept – development application (SSD 8707)**

Reference is made to the revised Concept Development proposal for Ivanhoe Estate, Macquarie Park.

Thank you for the opportunity for City of Ryde to make a further submission. Please find enclosed comments from Council staff to assist the Department of Planning and Environment's determination of this application.

At the outset I wish to state that City of Ryde is still concerned with a number issues with the proposal. That despite these being raised as part of previous submission, have not been adequately addressed by the proponent.

A review by City of Ryde staff of the concept raises the following key concerns:-

- The revised proposal does not satisfactorily deal with the matter of tree loss from the site and still results in significant loss of trees many of which have high retention value and belong to an endangered ecological community – Sydney Turpentine Ironbark Forest;
- Basement parking extends beyond than the footprints of the buildings above (Refer Ryde DCP part 9.3 Parking). Basement parking extends under proposed open space on the site impacting on the future potential of the site to support replacement trees;
- The Arborists Report cannot be relied upon for the reasons that the number of trees shown to be retained seem to be inaccurate and is further detailed in Attachment 1.
- Impact on the trees as a result of the proposed slip lane off Epping Road;
- Inadequate building setback to the boundaries (including basement and podiums) and from the proposed roads;

- Insufficient setback from the Riparian Corridor;
- Insufficient deep soil zone
- Non-compliance with RDCP in regards to the road width and width of the bridge;
- Lack of drop-off pick up zones;
- Lack of adequate open space and community facilities;
- Exceedance of the floor space ratio;
- Overdevelopment of the site.

Comments are also provided about the necessary roads, park, open space, drainage, bridge, amenity and public domain in terms of both design and quantum. Some suggested conditions are also included in the Attachment 1 (Column 3) and separately in Attachment 2. The provision of conditions should not be seen that Council supports a conditional approval.

I have to also advise that City of Ryde is yet to receive a formal offer for any public benefits that will form part of a Voluntary Planning Agreement.

Given the issues with the Concept Proposal, Council believes that the Stage 1 proposal (SSD8903) is premature and cannot be supported by Council.

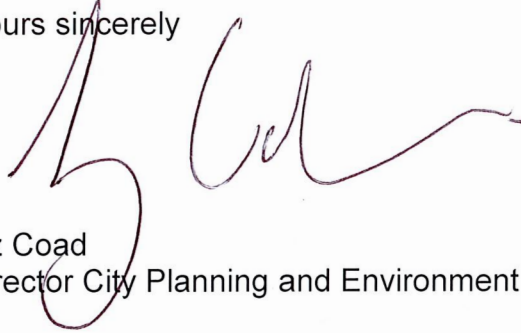
In summary the development as proposed remains too dense, has insufficient open space for residents and the school, does significant damage to the environment including an unknown number of tree removals some of which form a critically endangered community.

This is not a reflection on the development consortium but rather a direct result of the lack of appropriate planning controls and infrastructure in the Herring Road precinct.

These applications should be deferred (or refused) for a whole of Government approach and the preparation of a Master Plan led by the Greater Sydney Commission. A Master Plan that; reflects the goals of the North District Plan, provides good amenity and infrastructure for the future community, limits impacts on the wider community of Ryde and conserves the outstanding natural assets of this site and its surrounds.

Finally, City of Ryde staff will be happy to meet with you to clarify any issues and requests that to ensure there is full transparency in any decision made given this is a State Government initiated project this concept application should be referred to the Independent Planning Commission and a Public Meeting held.

Yours sincerely



Liz Coad  
Director City Planning and Environment

Attachments:

1. Submission with issues
2. Recommended Conditions

18/6/2019.



**ATTACHMENT 1 - TABLE OUTLINING ISSUES WITH REVISED CONCEPT DEVELOPMENT PROPOSAL/ RTS – SSD8707**

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
1	<p><b>Impact on Trees</b> Trees identified: 1089 trees; Trees to be retained: 231 <b>Proposed removal of 858</b> including 547 already approved under Part 5 application and 311 trees under concept proposal.</p> <p>Unacceptable level of tree removal. Also a number of trees not identified in tree report of significant concern. Tree removal to the extent proposed is unacceptable to Council as proposal disregards the significant negative impact on a large tract of Sydney Turpentine Ironbark Forest as well as the landscape character of the area.</p> <p>Council's submission requested that the setback be increased to protect this threatened ecological community.</p>	<p>Revised Arborists Report indicates the following: Trees identified: 1206 (incl. 117 trees in Polygon A &amp; B) Total to be retained: 350 (originally 231) <b>Total trees to be removed: 856</b> (incl. 547 under demolition). The following matters are noted with respect to the revised concept proposal and the Response To Submission (RTS):</p> <ul style="list-style-type: none"> <li>• Building D1 &amp; D2 (facing Epping Road) shows building setback increased by a mere 2m and still results in a similar number of tree removal along Epping Road;</li> <li>• Despite revision of footprints the newly revised setbacks fails to ensure that impacts are avoided;</li> <li>• ELA Report states; 'LAHC have begun demolition works onsite and have sought to retain trees where possible. Contractors operating on behalf of LAHC have retained numerous trees that had originally been identified for removal, by minimising ground disturbance during the demolition of buildings. This has resulted in a reduction in the number of trees removed during demolition, which will also be retained under the new masterplan'. (ELA Report 2019). Council has not been provided any detail of tree demolition occurring on the site despite</li> </ul>	<p>It would seem that the amendments made to the concept proposal are only tokenistic. Based on the minor changes shown on the Concept Plan not many trees can be retained. Only 11 of the additional trees to be retained are from STIF community, thus it would seem that the setback along Epping Road and along the western boundary has to be increased further to save more trees within the contiguous vegetation along Epping Road. The proposed removal of the Sydney Turpentine-Ironbark Forest and contiguous vegetation to facilitate the development is not supported by City of Ryde.</p> <p>Consistent with the concerns previously raised by Council regarding the extent of impact on trees, Council Resolution of 26 February 2019 seeks that: <i>Director City Planning and Environment ensure all available steps are taken to protect the Shrimptons Creek Corridor and the significant trees along Epping Road to ensure their long term conservation.</i></p> <ul style="list-style-type: none"> <li>• The changes made to the Concept Plan are not significant enough to enable protection of the contiguous vegetation comprising Sydney Turpentine Ironbark Forest within the site especially along the Epping Road and the western and northern sides of the site;</li> <li>• Council seeks that the building and basement setback along Epping Road be increased to reflect the general location of significant vegetation along Epping Road. Such a setback must be in the vicinity of 18-42m along Epping Road, generally reflecting the location of the trees.</li> <li>• Trees located on Lot 11 DP861433 &amp; north western end of the</li> </ul>

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
		<p>council objecting to the removal of any within the EEC impact zone.</p> <p>Noted are the 'polygon' areas in the first submission that failed to individually identify and count trees within both polygon A and B which now, with setbacks will retain some of these. It would seem that 119 additional trees would be saved. However it is not clear in the report how this number is derived since the number of trees proposed for removal is still approximately the same.</p> <p>Also proposed is planting of 'Forest Park' to the adjoining STIF EEC to 'maintain and strengthen' the biodiversity corridor through species selection that is complementary to the community.</p>	<p>site (adjacent to 137-147 Herring Road) be retained. This will ensure contiguous vegetation for ecological integrity of the threatened ecological community.</p> <ul style="list-style-type: none"> <li>• The trees located between Buildings D2 &amp; D3 along Epping Road should also be protected. Thus the basement needs to be further setback in line with the location of existing vegetation.</li> <li>• Arborists Report has picked up additional 117 trees that were previously unaccounted for. The methodology used for tree survey is highly questionable. It is still difficult to quantify/locate the exact number of trees that are newly 'being retained' versus those which were (as admitted in the Arborists Report) mistakenly counted or not counted entirely in the first submission. For this reason Council does not have faith in the final numbers claimed for retention under the new submission. The new submission continues to not include the full extent of the polygon A &amp; B areas despite species in these areas forming part of the STIF community. Area A is located along the northern boundary and Area B is located along the common boundary of 137 Herring Road site. All trees located in Polygon A and B will be subject to high impact and are proposed for removal;</li> <li>• Arborists Report states that an additional 119 trees will be saved but falls short of stating where these additional trees are located. A review by City of Ryde indicates that out of the 119 trees, 117 trees are those that were previously unaccounted for and all of the 117 trees will be removed since they are located in Polygon A &amp; B. Arborist Report indicates that a total of 350 trees will be retained (an increase of 119 trees from previously 231 trees); Based on the above it is not clear how it can be claimed that an additional 119 trees would be retained.</li> </ul>

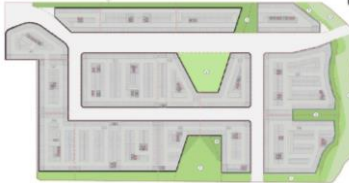
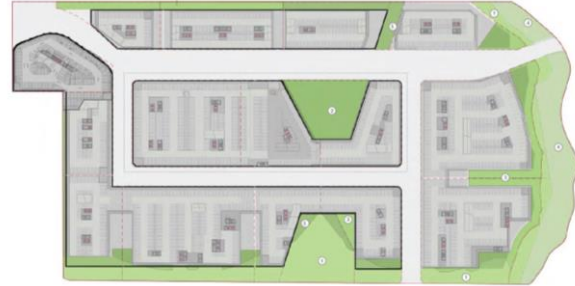
NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
			<ul style="list-style-type: none"> <li>• It is further noted that of the 350 trees earmarked for retention 38 will be subject to medium level construction impact and 52 will be subject to minor impact. In absence of detailed root mapping and details on the proximity of the tree from the basement it is highly questionable if the number of trees indicated to be retained will ever be capable of retention.</li> <li>• Council does not have faith in the final number of trees claimed for retention under the revised scheme. It is not possible to reconcile and quantify the exact number of trees that are newly 'being retained' versus those which were (as admitted below) mistakenly counted or not counted entirely in the first submission. The new submission continues to not include the full extent of the polygon A &amp; B areas despite species in these areas forming part of the STIF community. ELA Report states; <ul style="list-style-type: none"> <li>◦ <i>ELA notes that the field data capture for this AIA has been undertaken by multiple Registered Surveyors and Multiple Arborists, with several datasets merged together. This is further compounded by the time since survey, as many of the tree tags have been removed since surveys began in June 2017. As such there are data anomalies within the shapefile, whereby there may be duplications of tree points that may not exist on the ground.</i></li> </ul> </li> <li>• No details of the Habitat Assessment provided but mentioned – information on this required to support submission – this includes hollow bearing tree identification.</li> <li>• Despite revision of footprints the newly revised setbacks continue to fail to ensure that impacts are avoided and mitigated as per the NSW Biodiversity Offsets policy (Principle 1) and as nominated by the feedback of the OEH from the first</li> </ul>


NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	<b>OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW</b>
			<p>submission. The Framework for Biodiversity Assessment (FBA) requires proponents to 'identify and avoid direct impacts to threatened ecological communities'.</p> <ul style="list-style-type: none"> <li>• Report states that it is recommended that a monitoring program that assesses ongoing impacts to the Sydney Turpentine Ironbark Forest is implemented as part of a future Vegetation Management Plan. It is unclear as to who and how this can be done. Considering the building proximity from the trees, potential impacts will be unavoidable and is likely to result in further impact on trees earmarked for retention.</li> <li>• Building setbacks along Epping road corridor to be amended to push back to retain EEC corridor. Carpark basement opportunity to be provided under internal roadway.</li> <li>• Further to this, in section "4.1 Trees requiring detailed assessment." The Arborist states that 2 trees require detailed assessment, yet in section "3. Results" Medium Impact (&lt;20%)" the report states that 38 trees will require "further detailed assessment". No justification is given to why the number has reduced from 38 to 2. Also the Arborist as not nominated which are the 2 trees requiring further investigation.</li> <li>• Pg 17 – 'Impacts on Retained Vegetation' - As a result, it is recommended that a monitoring program that assesses ongoing impacts to the Sydney Turpentine Ironbark Forest is implemented as part of a future Vegetation Management Plan. Who is to do this and outcome from monitoring considering building footprints and any potential impacts will be unavoidable post construction. The OEH from the first submission note that baseline data monitoring must be set up to capture any effects of the project over the time on the STIF. When is this proposed to commence?</li> </ul>

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
			<ul style="list-style-type: none"> <li>• Pg 47 – Response to Submissions doc: A Biodiversity Management Plan and Construction Environment Management Plan will be implemented prior to construction, which will include operational measures relating to clearance supervision and vegetation management. How is this to be enacted and contain what? What purpose?</li> <li>• Planting of 'Forest Park' to the adjoining STIF EEC to 'maintain and strengthen' the biodiversity corridor through species selection that is complementary to the community and maximise through including the existing STIF community through reducing impacts on the existing corridor and building footprint.</li> <li>• Landscape plan species do not follow DCP. Landscape plan delivery difficult for species planted along areas with carpark underneath. Planting outcomes will not be able to be achieved as nominated.</li> <li>• Shrimptons Creek: <ul style="list-style-type: none"> <li>○ staging upgrade – to be undertaken in one stage to minimise disruption;</li> <li>○ As the space will be handed to council. Council to be the final design determining authority for this area. Council will not accept handover unless previously approved;</li> <li>○ Remove boardwalk and consolidate with footpath. Two paths further fragment and reduce ecological integrity of the biodiversity corridor long term through disturbance which will not serve to protect and enhance. One path can provide a shared user experience and must be placed in the upper 50% of the vegetated riparian zone (VRZ) as per the Office of Water Guidelines for permissible activity within a riparian zone.</li> </ul> </li> </ul>



NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
			<ul style="list-style-type: none"> <li>The Office of Environment and Heritage also support the removal of the slip access road from Epping road into the site as it will severe the connectivity of the corridor.</li> <li>Council supports the Office of Environment and Heritage submission in prioritizing the retention of the ecological community and adjoining vegetation;</li> </ul>
2	<p><b>Impact of basement and lack of deep soil zone.</b></p> <ul style="list-style-type: none"> <li>Original concept showed building setback was 10m from Epping Rd;</li> <li>A slip road for vehicle entry from Epping Road;</li> <li>Basement was estimated to be closer than 10m.</li> </ul> <p>Significant number of trees is being removed from along Epping Road, exacerbated by the lack of adequate basement setback to allow retention, long term conservation and ecological integrity of the threatened ecological community.</p>	<p>Building setback has been increased to 12m (2 buildings), 18m (2 buildings) and 24m (1 building). This results in only minor increase in deep soil area along Epping Rd by increased front setback however, does not do enough to protect the trees since the zone of impact has hardly changed.</p> <p>The modification to the basement setback does not go far enough to make any significant difference to the stock of trees that are affected. Significant number of trees is still being removed from along Epping Road and the rest of the site, exacerbated by the lack of adequate basement setback to allow retention, long term conservation and ecological integrity of the threatened ecological community.</p> <p>The revised basement plan in shown below and it is difficult to spot the changes (because the changes are not significant).</p>	<ul style="list-style-type: none"> <li>Council has concerns with respect to applicant's disregard for the serious impact the proposed development will have on the existing trees and EEC vegetation. Of particular importance are the stands of trees located along the Epping Road frontage and north-eastern boundaries. These stretches of buffer planting are considered to be a high priority for retention due to their contribution to the landscape character of the site and locality and it forms part of the STIF that has high ecological value and worthy of retention. Further, its ability to provide screening and softening to the proposed built form along the corridor of Epping Road and other site boundaries should not be disregarded. It is considered that these tracts of vegetation should be strengthened as part of the proposal rather than diminished as is currently the case.</li> <li>Council contends that the building footprints are not sympathetic to the existing vegetation on site and it is considered a more sensitive approach which considers trees as an important asset would result in a reduced level of tree loss. Given there appears opportunity to modify building envelopes, increased setbacks to Epping Road and the north-eastern boundaries are recommended.</li> <li>Proposed basement and building setback from Epping Road</li> </ul>

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
	<b>Original Basement Plan</b> 	<b>Revised Basement (not much has changed)</b> 	<p>be increased to reflect the existing vegetation line with the intent of retention and protection of majority of the trees.</p> <ul style="list-style-type: none"> <li>Create contiguous deep soil zone along all boundaries of the site. This will require design changes to both the built forms and the basement carparks, to create deep soil zones that will support retention of existing trees and promote new tree plantings.</li> </ul>
3	<b>Slip lane from Epping Rd (entry only)</b>  City of Ryde submission requested: <ul style="list-style-type: none"> <li>Access to be redesigned to minimise impact on trees;</li> <li>And that it must comply with RMS requirements.</li> </ul>	<p>Response To Submissions (RTS) indicates that there will be a loss of 8 trees as a result of the proposed slip lane from Epping Road. The 8 trees are a mix of exotic/ weed and native (3 being part of the STIF community in question). Significant number of trees is being removed from along Epping Road. This is exacerbated by the lack of adequate basement setback to ensure retention and ecological integrity of the threatened ecological community.</p> <p>Further, the configuration and location of the slip road from Epping Road is poorly defined and could change subject to RMS design requirements, thus potentially impacting on a greater number of trees. It is estimated that the length of the slip road may be in excess of 110m. Council believes that the slip road will have a significant impact on the contiguous EEC vegetation located along Epping Road.</p>	<p>Refer to the comments under "Impact on trees".</p> <p>Even though the slip lane may have benefits on traffic grounds, Council objects to the slip lane on the basis of its cumulative impact on the EEC vegetation along Epping Road, especially when the applicant has not shown any genuine attempt to increase the basement setback to retain additional trees. Council does not support the proposed slip road in light of the overall impact the development and the proposed slip road is likely to have on the high value vegetation along Epping Road.</p>
4	<b>Sediment Control Plan</b>	It seems that the hoarding and sediment control	

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
		<p>plan will disregard the vegetation/trees that Council seeks protection/ retention.</p> <p>Refer to the sediment control plan included in the application that shows the temporary basin.</p> 	<p>Drawing here conflicts tree retention nominated by the Arborist Plan and will result in the loss of trees if basin size is indicative of the footprint plus the batter of the basin slope. Size and dimensions not specified.</p>
5	Landscaping issues	<p>Only minor changes shown. Matters are still outstanding.</p> <p>Tree species from Arborist</p> <p>Tree species from Macquarie Park Public Domain Technical Manual (PDTM) have not been used.</p> <p>Ficus macrocarpa var. Hillii "Flash" This is an unsuitable species to be used as a street tree as it will break up paving and roads</p>	<p>The Arborist in "section 4.3 Offsetting" the Arborist nominates tree species to offset trees to be removed, only one species has been used in Indicative Tree Schedule. Council seeks that Tree Schedule be amended to includes more local native species.</p> <p>On page 23 of the PDTM tree species for Residential Streets have been set out. The Indicative Tree Schedule only contains 3 species from this list. Amend Schedule which includes more Species from the PDTM.</p> <p>On page 30 of the PDTM tree species for Open Space Network have been set out. . The Indicative Tree Schedule only contains 3 species from this list. Amend tree schedule</p>

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
		<p>when mature.</p> <p>Paving not correct type The PDTM nominates footpath paving to be "Granite – Raven Black"</p>	<p>Tree Planting over Basement around building A1 The Landscape Plan shows planting of large native canopy trees such as Eucalyptus saligna (Sydney Blue Gum) around the western boundary of building A1. The planting of these type of trees is encouraged, however they are planted over basement car parking not in deep soil. These trees will fail to thrive or blow over in a strong wind. This is typical for the whole site as basement car parking extends to the boundary in a number of locations. Amend Landscape Plan Legend</p>
6	<p><b>Voluntary Planning Agreement offer</b> Council received a letter from Frasers Property on 26 February 2018 outlining Public Benefit items that could be the basis of a Voluntary Planning Agreement with Council.</p>	<p>The VPA is in the early stages of negotiation with Frasers. The scope of some of the public benefits is still being considered by Frasers. The Public benefits being considered are:</p> <ul style="list-style-type: none"> <li>• Open Space in the centre of the site and Shrimptons Creek;</li> <li>• Community/Recreation Facility</li> <li>• Dedication of particular roads identified on DCP Macquarie Park Access Map;</li> <li>• Management of EEC Land</li> </ul> <p>In terms of staging, Council would be agreeable to conditions that bond the s7.11 contributions that would otherwise be payable until such time that the VPA is entered into. The bonds would be on the basis that they are normal s7.11 Contribution Amounts (at time of consent) +3% and be updated annually.</p>	<p>Should the Concept Proposal be approved, conditions of approval must ensure that the applicant has a VPA in place prior to the commencement of any building work on the site.</p> <p>"The Developer is to make payments in accordance with Council's Section 7.11 Contributions Plan in place at the date of the relevant development consents for each subsequent stage; or provide Public Benefits and/or Monetary Contributions as required under any Planning Agreement under Section 7.4 of the EPA Act 1979 entered into with Council in respect of the this Concept approval."</p>
7	<p><b>Concept Plan – layout and site planning issues</b></p>	<p><b>Unsatisfactory. The Concept Plan still shows a number of issues that are unresolved:</b></p> <ul style="list-style-type: none"> <li>• Road 1 has inconsistent width, that is narrow (18.9m) and wider (23.4m) than Council standards. Council seeks a standard 20m width.</li> <li>• Bridge width (11m) is inadequate – required</li> </ul>	<p>A number of issues have not been addressed in the revised proposal. Council seeks that the Concept Plan be amended to address each of the items identified in Column 2 as being unsatisfactory. The following concerns should be addressed:</p> <ul style="list-style-type: none"> <li>• The proposed Road No 1 still does not comply with the width required under RDCP2014, which is, 20m (see detailed</li> </ul>


NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
		<p>14m;</p> <ul style="list-style-type: none"> <li>• Road narrows close to the Herring Road entrance creating a bottle neck;</li> <li>• Building and basement setback from Epping Road is inadequate to retain the STIF vegetation;</li> <li>• All buildings are still proposed with zero setback to the proposed roads;</li> <li>• Podium and basement setbacks are unacceptable;</li> <li>• The proposed 5m setback along the riparian corridor (Shrimpton's Creek) is still unacceptable. This must be increased to at least 10m.</li> </ul>	<p>discussion under item 17). Ensure that the road is consistent 20m wide throughout its length;</p> <ul style="list-style-type: none"> <li>• Width of the bridge must be increased to at least 14m in order to accommodate two laneways (3.5mX2), a shared path on the northern side (4.0m), a footpath on the southern side (2.0m) and the required barriers on both edges (0.5m X2);</li> <li>• The proposed 5m setback along the riparian corridor (Shrimpton's Creek) is still unacceptable. This must be increased to at least 10m.</li> <li>• It would be prudent that all servicing / waste facilities for the development be provided off the public road areas as the applicants intentions/ proposal is ambiguous in this regard. Condition must be imposed should the Department be mindful of approving this application.</li> <li>• The applicant has maintained that the proposed school set-down / pickup be undertaken in the Public Domain. This is not supported as the excess traffic movements create a pedestrian and traffic safety issue and will contribute to congestion in the main road which is unlikely to have been accounted for in the traffic modelling.</li> <li>• The childcare centre must accommodate the parking requirements off the public road. The requirement for a circulatory parking configuration in the site (ie a separate traffic entry and exit) is warranted so as to facilitate vehicle movements in the site. This has been misinterpreted by the applicant in their response.</li> </ul>
	<b>Height of building</b> Initial proposal was fully	The revised proposal shows that the building	Council acknowledges that the redistribution of height results in an

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
	compliant with maximum height restriction under the RLEP 2014	<p>height have changed by removing GFA from the central part of the site and redistributing it to buildings towards the south eastern side of the site.</p> <p>Maximum building height has been reduced for Building A2 (from 75m to 45m), Building A3.3 (from 75m to 45m) and C2 (from 45m to 10m). This is to enable additional amenity and solar access to the open space and other buildings in light of the issues previously raised. To compensate for this, the proposal shows that height of the buildings B3, C4, D2 &amp; D4 have been increased.</p>	<p>improvement in the amenity in the Village Green and solar access to apartments within the site.</p> <p>It is further noted that sunlight access for the trees on the southern side of the site are still compromised especially to the vegetation along Epping Road. If the building mass (length of some of buildings exceed 40m) is reduced then sunlight access to open space and the EEC can be improved.</p> <p>Council believes that similar principles could be applied to increase the building setback along the boundaries and particularly along Epping Road to save more trees along the EEC corridor.</p>
8	<p><b>Floor Space Ratio (FSR)</b> RLEP2014 FSR: 2.90:1; Bonus (ARHSEPP): 0.42:1 TOTAL Permitted: <b>3.32:1</b> (261,217m<sup>2</sup>) TOTAL Proposed: 3.60:1 Exceeded by: 0.28:1 or 22,283m<sup>2</sup></p> <p>The proposed gross floor area (GFA) and subsequent environmental impacts were raised as an issue by both the Department and Council. City of Ryde had objected to the significant breach in FSR.</p>	<p><b>Proposed:</b> RLEP2014 FSR: 2.90:1; Bonus (ARHSEPP): 0.42:1 TOTAL Permitted: 3.32:1</p> <p>TOTAL Proposed: 3.53:1 Exceeded by: 0.21:1 or 16,783m<sup>2</sup> (reduced by 5,500m<sup>2</sup>)</p> <p>Further issues identified in the current proposal are that the documents show a range of floor spaces for some buildings. For example the gross floor space of the school is shown as 7,000m<sup>2</sup> to 12,500m<sup>2</sup>. Does this mean that the GFA will not be locked in for each proposed lot. It</p>	<p>It is evident that the proposed density is excessive and beyond what the site can appropriately accommodate and as a result it is City of Ryde's position that any proposed variation to the FSR standards cannot be supported from an urban design standpoint. Refer to further discussion under "Design Issues" included in this table.</p> <p>This matter still remains unsatisfactory. There is a need for further reduction in FSR in light of concerns regarding various non-compliances, excessive loss of trees, excessive bulk &amp; scale and overdevelopment of the site. In Council's view the arguments presented in the Clause 4.6 Submission in support of this overdevelopment are not well founded.</p> <p>Applicant should clarify this matter.</p>



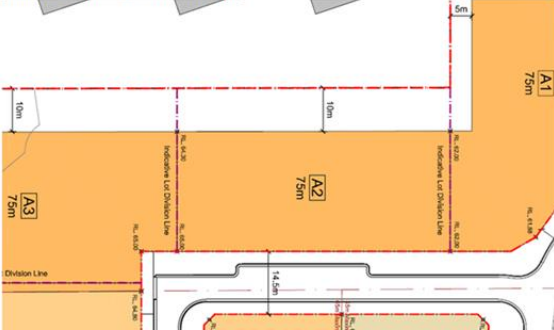
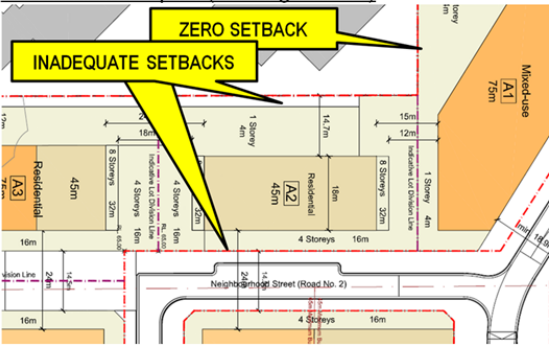
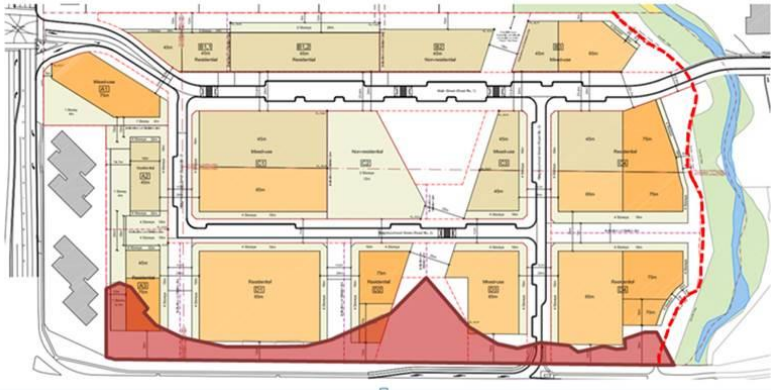
NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
		also gives uncertainty as to the required open space, parking and other amenity impact.	
9	<p><b>Design Issues Bulk and Scale</b></p> <p>City of Ryde had provided extensive comments regarding built form of the proposed concept plan in 2018. The concept plan has sidestepped many of the built form issues raised by City of Ryde (COR) by leaving them to be resolved at the detailed building design stage. COR is concerned that if the necessary parameters are not established at this stage, it is very likely that the design outcomes will be significantly compromised at the detailed building design stage.</p>	<p><b>Design Issues</b></p> <p>The concept plan includes signs of overdevelopment, such as excessive building length and depths, adverse visual impact, significant overshadowing, inability to achieve cross ventilation, etc. We are concerned by the concentration of substantial buildings of such a scale in one location. The proposed built form commonly exceeds the ADG's recommended maximum dimensions in terms of building lengths and depths by a large extent, while the separation provided between buildings merely meets the minimum requirements.</p> <p>The majority of these built form issues, including building length and depth, setbacks, building separation and lack of Deep soil, are critical parameters that have a direct correlation with the gross floor area of the development.</p> <p>Council's design guidelines have specified that "slender built forms" should be provided and the proposal has clearly failed to deliver the intended outcome.</p> <p><b>Building Length</b></p> <p>The lengths of some buildings in the revised proposal are still excessive. For example:</p> <ul style="list-style-type: none"> <li>• Building in lot B1.2 is 79m long</li> <li>• Building in lot B3 is 75m long</li> <li>• Building in lot D1 is 73m long</li> <li>• Building in lot C4 is 65m long</li> </ul>	<p>Council wishes to raise the following matters:</p> <ul style="list-style-type: none"> <li>• City of Ryde Urban Design Guidelines Ivanhoe Estate Redevelopment specifically require that buildings should not be greater than 40m long (section 4.4.2). However, not a single building complies with this provision;</li> <li>• Reducing the building length will also help comply with the building setbacks by providing appropriate setbacks from the road frontages;</li> <li>• The excessive building depths are likely to cause a range of amenity issues at the detailed design stage such as poor daylight access and poor natural ventilation in the deeper part of apartment units. It may lead to the reliance on snorkel bedrooms for air and encourage the creation of rooms without windows that end up being used for habitable purposes. The building depth must be reduced to comply with the ADG and this will also help minimize overshadowing to the EEC corridor and the open space area within the development;</li> <li>• Incorporate a slender built form for all buildings.</li> </ul> <p>It is evident that the proposed density is excessive and beyond what the site can appropriately accommodate and as a result it is City of Ryde's position that any proposed variation to the FSR standards cannot be supported from an urban design standpoint.</p>

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
		<ul style="list-style-type: none"> <li>• Building in lot A1 is 61m long</li> <li>• Buildings in lot C1 are each 58m long</li> <li>• Buildings in lot D2 are each 55m long</li> </ul> <p><b>Building depths</b> The proposed building depths from glass line to glass line are typically 24m to 25m, 38% greater than the maximum building depth (i.e. 18m) recommended by the Apartment Design Guide.</p>	
10	<p><b>Visual Impacts</b> Building A1 is 61m long and presents a significant mass when viewed from Herring Road and Epping Road. Similarly, the significant bulk and Building D4 will cause adverse visual impact when viewed towards the west from Epping Road.</p> <p>The cumulative mass of the Concept Plan will visually form a continuous wall when viewed towards the west from Epping Road. This is a result of the lack of height variation and physical building separation. An effective measure to reduce its visual impact is to ensure all buildings have a maximum length of 40m.</p>	<p>The response from the applicant is that a revised visual impact assessment maintains the finding that the Concept Plan will have an acceptable visual impact as it incorporates a number of measures to mitigate perceptions of bulk and is consistent with the desired future character of the area as identified in NSW Government strategic planning policy.</p>	<p>Due to the significant heights and excessive length of proposed buildings along the Epping Road and Shrimpton's Creek, it is essential to ensure the following:</p> <ul style="list-style-type: none"> <li>• Increase the setbacks from Epping Road so that the buildings appear further distance away and at the same time and at the same time allows for retention of trees along Epping Road for screening and ecological value;</li> <li>• Provide additional upper level setbacks to all towers to break up the verticality of the built form and articulate the façades;</li> <li>• Setback all buildings from the new roads in accordance with RDCP2014 &amp; Guidelines (5m clear setbacks from all internal roads);</li> <li>• This will also help create a human-scale streetscape character and visual relief. At corner locations, slender vertical forms without any upper level setback are encouraged to mark the street corners.</li> </ul> <p>The proposal presents substantial bulk when viewed from important vantage points in the public domain exacerbated by the increased for building facing Epping Road and those facing Shrimpton's Creek. The view impacts are a consequence of the excessive bulk and scale of the proposal, which lacks sufficient physical breaks/ separation in the built form, creating a continuous 'wall' of developments when viewed from an angle.</p>


NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
			 <p><b>Elevation showing Building D1 &amp; D4 excessively long and building clustered without much visual separation</b></p> <p>Council's design guidelines have specified that "slender built forms" should be provided and the proposal has clearly failed to deliver the intended outcome.</p> <p>The proposal should reduce the length of each building to no more than 40m and allow for meaningful physical separation between tall towers to reduce the perceived bulk.</p>
11	<p><b>Solar Access issues</b></p> <ul style="list-style-type: none"> <li>• Town Plaza would inadequate direct sunlight in the winter;</li> <li>• Shrimptons Creek Parklands corridor and the proposed Forest playground are overshadowed;</li> </ul>	<p><b>Solar Access in revised proposal</b></p> <p>The proposed buildings commonly rely on deep slots to visually break up the building mass. However, this technique will not help to maintain solar access through the site. As shown by the applicant's shadow diagrams on drawings DA21.MP.100[3], important public recreational areas and public domain including Shrimptons Creek, the main street and the tree protection zone along Epping Road are heavily overshadowed throughout the day in mid-winter. In addition, many internal open space in lots C1,</p>	<p>It is further noted that sunlight access for the trees on the southern side of the site are still compromised especially to the vegetation along Epping Road. If the building mass (length of some of buildings exceed 40m) is reduced and setback from Epping Road is increased then sunlight access to open space and the EEC can be improved.</p> <p>Council requests that the following changes be incorporated via a revised proposal:</p> <ul style="list-style-type: none"> <li>• Length of individual buildings must be reduced to be no more than 40m. It is more effective to improve solar access to these</li> </ul>

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
		<p>C4, D1 and D4 will receive little sunlight in mid-winter.</p> <p>It is more effective to improve solar access to these locations by reducing building lengths to no more than 40m and increasing physical building separation to create wider corridors for solar penetration through the site.</p>	<p>locations by reducing building lengths to no more than 40m and increasing physical building separation to create wider corridors for solar penetration through the site;</p> <ul style="list-style-type: none"> <li>• Building depth for apartment buildings to be no more than 18m for improved solar amenity internally and externally;</li> <li>• Space between buildings facing Epping Road must be increased to open up additional area to allow sunlight penetration to the vegetation corridor along Epping Rd.</li> <li>• Building and basement setback along Epping Road be increased for the reasons discussed above.</li> </ul>
12	<p><b>Cross Ventilation</b></p> <ul style="list-style-type: none"> <li>• Inadequate units cross ventilated as compliance statistics questionable;</li> </ul>	<p><b>Cross Ventilation</b></p> <p>Not satisfactory - City of Ryde had previously raised concern over the exhibited proposal's ability to comply with the ADG's minimum requirements of cross ventilation. The revised proposal does not provide any new information to address this issue.</p>	<p>City of Ryde seeks that more details must be provided with reports demonstrating that compliance with this requirement can be met. Not just a statement stating that it can be complied with.</p>
13	<p><b>Building Setbacks</b></p> <p><b>Lack of regard for the adjoining approved building at 137-143 Herring Rd;</b></p> <p>Recently a major development was approved by the Sydney North Planning Panel comprising multiple apartment buildings on</p>	<ul style="list-style-type: none"> <li>• Proposed building setbacks are being made worse compared to the initial concept plan for the following reasons:             <ul style="list-style-type: none"> <li>○ The basement and the podium level have moved closer to the boundary of adjoining property located at 137-143 Herring Road. Buildings No. A1, A2 and A3 shows single storey elements located to the boundary joining up with all 3 buildings. This cannot be supported by Council as it will have the effect of creating a joined super long façade up to a height of 4 storey along the whole of the Road 2. This will have visual,</li> </ul> </li> </ul>	<p>The setbacks along north western side of the site, and north eastern has not been improved. In fact it has been made worse of by further reducing the setback and in some places buildings are proposed on the boundary with zero to 2m setbacks as shown in the comparison diagrams below. The design, setbacks, envelopes on the subject site should establish a positive relationship with adjoining sites and environmental features. However, City of Ryde is still concerned that the basement, podium and ground floor level are still proposed to the boundary for most of the buildings. Council seeks that:</p> <ul style="list-style-type: none"> <li>• The building setback between adjoining development at 137-143 Herring Rd and buildings A1, A2 &amp; A3 is estimated to be</li> </ul>

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
	<p>137-143 Herring Rd. Building footprint was partly dictated by the need to protect a number of trees on that site and also on the western side of the Ivanhoe site.</p> <p>The plans show a setback/ separation on only 10m from the adjoining site.</p>	<p>streetscape other amenity impacts on individual buildings. This type of design is not consistent with the type of buildings that Council has approved on the adjoining site at 137 Herring Rd.</p> <ul style="list-style-type: none"> <li>○ In addition the setback of these buildings are not adequate along its north western side (estimated at 2m on the plan that has not been dimensioned).</li> <li>○ The building wall and basement on some parts are proposed right up to the boundary of the adjoining site. This will have additional impact on the trees located on the western side of the site, that is, required to be protected. Original scheme showed a clear 10m setback (which was not adequate and Council had requested that this setback be increased).</li> <li>○ Building A1 has zero setbacks from all of its boundaries, including zero setback from adjacent lot, zero setback to Building A2, zero setback to proposed new 14m road and zero setback to majority of proposed 20m wide road;</li> <li>○ The proposed roads does not comply with the width required under RDCP2014, that is, 14.5m and 20m;</li> <li>○ Setbacks</li> <li>● Setbacks along north western side of the site has not been improved. In fact it has been made worse of by further reducing the setback and in some places buildings are proposed on the boundary with zero to 2m setbacks as shown in the comparison diagrams below.</li> </ul>	<p>‘zero’ to 2m and is deemed inadequate. The building wall and basement on some parts are proposed right up to the boundary of the adjoining site. This will have additional impact on the trees located on the western side of the site, that is, required to be protected. Original scheme showed a clear 10m setback (which was not adequate and Council had requested that this setback be increased). The setback should be increased to at least 12m from the boundary including the basement and podium level to establish a deep soil zone and retain the contiguous trees that joins with the Epping Road Corridor;</p> <ul style="list-style-type: none"> <li>● The setback of 12m - 18m from Epping Road is inadequate. The built forms, basement parking and podium must not be located within the EEC corridor and existing landscaped area along Epping Road.</li> <li>● The built forms, basement parking and podium must be increased along Epping Road with respect to Building A3, D1 &amp; D2 to remain clear of the EEC corridor and existing landscaped area along Epping Road. City of Ryde seeks that this setback should range from 18m to 42m;</li> <li>● The built forms, basement parking and podium must not be located within the Riparian Corridor – see red dashed line in figure below:</li> </ul>

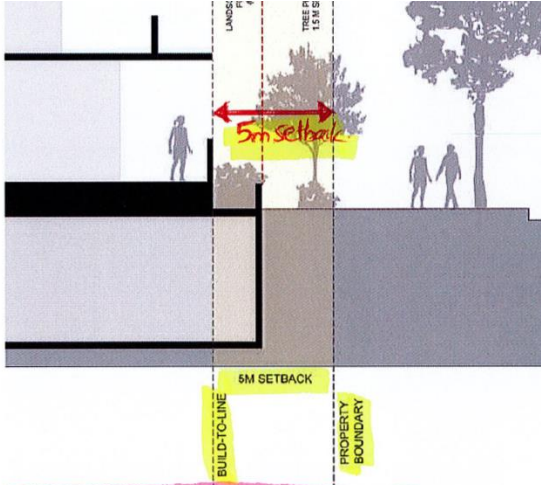
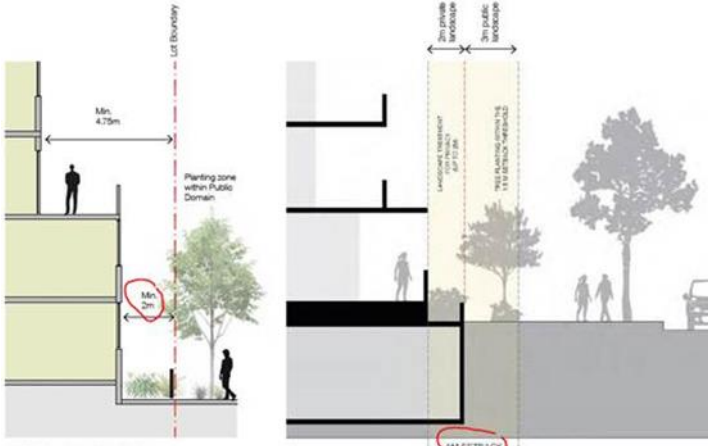
NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
		<p>Initial Masterplan setback</p>  <p>Amended Masterplan (showing setback)</p>  <ul style="list-style-type: none"> <li>The proposed setback will result in the removal of trees along this boundary and will not provide adequate building separation/amenity.</li> </ul>	 <p><b>EEC Corridor &amp; Riparian Corridor</b></p> <ul style="list-style-type: none"> <li>The built forms, basement parking, podium and the proposed 5 storey building component must not be located within 12m of the shared boundary with the properties fronting Peachtree Road (this is the approximate setback of the existing buildings to the boundary and as a result this landscaped area contains significant tree plantings);</li> <li>The built forms, basement parking, podium and the proposed 4 storey building component must not be located within 10m of the riparian zone along the Shrimptons Creek;</li> <li>The 6m setback shown on the northern eastern side Peach Tree Road side) is inadequate. Applicant states that this complies with RDCP. However, the DCP under Section 7.6(a) Part 4.5 requires a minimum of 10m setback along the rear of the site. These buildings will front on the Road 1 and therefore the north eastern boundary is deemed its rear boundary requiring at least 10m setback. In addition there are clusters of trees on the north eastern side of the site. These trees need to</li> </ul>



NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
			<p>be retained. Additional reasons for seeking a greater setback is for visual privacy, greater access to sunlight and improved separation given the density and scale of the proposed buildings and retention of trees. An increased setback will also enable retention of significant trees along the boundary.</p> <ul style="list-style-type: none"> <li>The built forms, basement parking and podium level must not be located within Lot 11 DP861433 – refer to the orange hatched area in the plan below:</li> </ul>  <p>Lot 11 DP861433 shown hatched</p>
14	<b>Building setbacks from north eastern boundary</b> (adjacent to lots fronting on Peach Tree Road)	The small part of Building B1.1 that was 75m in height is shown reduced to 45m and Building B3, that was 45m has been increased to 65m in	<p>Council seeks that:</p> <ul style="list-style-type: none"> <li>The 5m - 6m setback proposed along the northern boundary with respect to buildings B1.1 – B3 is inadequate. These</li> </ul>

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
	<p>B1.1: 12m setback required</p> <p>B1.2: 12m setback required</p> <p>B2: 12m setback required</p> <p>B3: 12m setback required</p> <p>The setback is required to enable building separation, amenity and retention of trees along the common boundary.</p> <p>In the initial concept the height of these buildings were 45m, except for a part of B1.1 which was 75m.</p>	<p>height. The rest of the buildings are all still up to 14 storey in height (45m). The setback has not improved. For example B3 that is 65m in height will be setback 5m from the adjoining park (Wilga Park) and Buildings B1.1, B1.2 &amp; B2 are still setback 6m to 10m from the adjoining boundary. Applicant's response to this issue still remains unsatisfactory.</p> <p>The 6m setback shown on the northern eastern side Peach Tree Road side) is inadequate. The applicant states that this complies with RDCP. However, the DCP under Section 7.6(a) Part 4.5 requires a minimum of 10m setback along the rear of the site. These buildings will front on the Road 1 and therefore the north eastern boundary is deemed its rear boundary requiring at least 10m setback with 24m building separation. There are clusters of trees on the north eastern side of the site. These trees need to be retained. Additional reasons for seeking a greater setback is for visual privacy, greater access to sunlight to proposed and improved separation given the density and scale of the proposed buildings and retention of trees. An increased setback will also enable retention of significant trees along the boundary.</p>	<p>buildings will be built to 14 storeys high and will require a separation of 24m between habitable rooms with respect to adjoining future developments along Peach Tree Road. A 12m clear separation setback is required from the boundary along the northern boundary. In order to comply with the ADG the proposal must provide increased setback of at least 12m along its northern boundary. This setback must also translate to the ground level and podium/basement.</p> <p>As mentioned earlier in this submission, the applicant states that this complies with RDCP. However, the DCP under Section 7.6(a) Part 4.5 requires a minimum of 10m setback along the rear of the site. These buildings will front on the Road 1 and therefore the north eastern boundary is deemed its rear boundary requiring at least 10m setback. In addition there are clusters of trees on the north eastern side of the site. These trees need to be retained. Additional reasons for seeking a greater setback are for visual privacy, greater access to sunlight and improved separation given the density and scale of the proposed buildings and retention of trees. An increased setback will also enable retention of significant trees along the boundary.</p> <ul style="list-style-type: none"> <li>• The built forms, basement parking, podium and the proposed 5 storey building component must not be located within 12m of the shared boundary with the properties fronting Peachtree Road (this is the approximate setback of the existing buildings to the boundary and as a result this landscaped area contains significant tree plantings);</li> <li>• The setback for Building B3 must also be no less than 12m.</li> </ul>
15	<b>Building Setbacks to New Roads</b>	Applicants response to submission states that	Contrary to the applicants assertion, Council's Ivanhoe Design

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
	<p>The setbacks as proposed (zero setback along main street and less than required setback along other street) are contrary to the general built form envisaged in Macquarie Park. It is also inconsistent with the requirements under Part 4.5 of RDCP2014 Part 4.5 and the Design Guideline that Council had prepared for this site. It would seem that the rationale for the setback is to create a street wall. However, given the height of the buildings (14 storeys to 24 storey towers) zero setback without any articulation and increased setback above the lower floor levels is likely to result in overwhelming presence of tall street walls without relief. Street walls may be appropriate for the retail precinct on lower floor levels, however, it is critical that the residential buildings provide a greater setback (minimum of 5m) from the street boundary. Whilst upper level</p>	<p>"setbacks from internal streets for buildings will be determined as part of the future development applications and will be determined in accordance with the Ivanhoe Concept Plan Design Guidelines". This is an unsatisfactory response to such a critical issue that is likely to determine the future built form since the content of the Concept Plan Design Guideline itself is unsatisfactory.</p> <p>No design changes have been made to address this matter. Instead the response to submission (RTS) states that:</p> <p><i>"The Ivanhoe Masterplan Design Guidelines prescribe a 2m landscaped setback to neighbourhood streets, and an average 2m setback to ground level on Main Street. This aligns closely with the recommendations of 'City of Ryde Urban Design Guidelines Ivanhoe Estate Redevelopment', which proposes a 2m landscape treatment for privacy beyond which is a 3m landscaped edge to the street. The only difference from Ryde's diagram is that the 3m landscaped edge is proposed within the public domain (in a wider footpath) rather than within the private domain".</i></p> <p>Contrary to the above assertion, Council's Ivanhoe Design Guidelines requires a 5m setback from the boundary (refer to Figure 4.4.2.3 from the Guideline prepared by Council). It is critical that this setback be provided for all buildings from the internal roads.</p>	<p>Guidelines requires a 5m setback from the boundary (refer to Figure 4.4.2.3 from the Guideline prepared by Council). It is critical that this setback be provided for all buildings from the internal roads.</p> <p>Council raises the following issues in relation to built form setback from the new roads:</p> <ul style="list-style-type: none"> <li>The street setback provisions in the Design Guidelines submitted by the applicant are much less stringent than the Apartment Design Guide (ADG). This will compromise the design outcomes at the detailed design stage. The proposed minimum street setback of 2m for the 14.5m wide neighbourhood streets is inadequate. The proposed public domain design indicates that there will be no landscaped setback in the public domain to set the public footpath away from the lot boundary. In such a case, the distance from the public footpath to the habitable room of the ground floor unit will be as little as 2m. This is clearly insufficient and will significantly compromise the privacy of the future occupants of the ground floor units.</li> <li>The applicant claims that the proposed setbacks align closely with the recommendations of City of Ryde Urban Design Guidelines Ivanhoe Estate Redevelopment. This is incorrect. City of Ryde's Design Guides requires a 2m landscaped setback from the lot boundary, with an additional 3m wide public landscaped setback from the public footpath, creating a combined 5m landscaped setback to maintain the privacy of the ground floor units (see comparison below). The applicant's proposed setback is effectively less than 50% of City of Ryde's required distance.</li> <li>This design response is insufficient to maintain the privacy of the future occupants and is inconsistent with the criteria of the</li> </ul>

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
	setbacks may be appropriate in some locations, they are considered not appropriate for this site. It is recommended that a more detailed approach to the built form is adopted to address site specific issues.	 <p>Figure 4.4.2.3 Build-to Line and Front Setback Treatment</p>	<p>ADG for '3C Public Domain Interface' and City of Ryde's Design Guidelines.</p>  <p>Source: CITY OF RYDE URBAN DESIGN GUIDELINE IVANHOE ESTATE REDEVELOPMENT Figure 4.4.2.3 Build-to Line and Front Setback Treatment</p> <p>A minimum of 5m landscaped setback should be provided at the public domain interface for privacy and security. This landscaped setback can be located partly within the public domain and partly behind the private lot boundary, as shown in City of Ryde's Urban Design Guidelines Ivanhoe Estate Redevelopment- Figure 4.4.2.3.</p>
16	<b>Applicants Concept Plan Design Guideline</b>	<p><b>Design Guidelines section 02(5)</b></p> <p>It states that "Each lot should provide a mix of public and communal open space with a combined minimum area equal to 25% of the lot area, except Lots A1 and B3 which are not</p>	<p>City of Ryde raises the following concerns that require further amendments of the Concept proposal:</p> <ul style="list-style-type: none"> <li>Application indicates that Lots A1 and B3 are not required to provide public or communal open space." The applicant does</li> </ul>

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
		<p>required to provide public or communal open space." The applicant does not seem to provide any justification for why Lot A1 is not required to provide public or communal open space.</p> <p>Design Guidelines section 03(2) A large connected single basement is proposed with inadequate deep soil zone.</p> <p>Design Guidelines section 04(1) This is discussed under 'Street Setbacks'.</p> <p>Design Guidelines section 06 The site's interface with Shrimptons Creek should be provided with secondary building entries to increase activation and passive surveillance.</p> <p>Design Guidelines section 07 The guidelines generally indicate a street wall height of 2-4 storey on the lowest levels of the building. This is not specific enough to ensure that the future development will achieve a consistent streetscape character. For instance, the future development may potentially have a 2 storey podium opposite a 4 storey podium while neighbouring a 3 storey podium. The street wall height provisions must be location-specific so that they are able to create a consistent streetscape. A street wall height controls diagram/plan should be included in this section.</p>	<p>not seem to provide any justification for why Lot A1 is not required to provide public or communal open space. There is no planning justification to not provide open space within individual lots as private or communal spaces. Ryde DCP2014 requires 20% of the site to be deep soil area;</p> <ul style="list-style-type: none"> <li>• A large connected single basement is proposed with inadequate deep soil zone. The minimum dimension of 2.5m for deep soil zones is not acceptable. For a large site like this one, the minimum dimension should exceed 6m as recommended by the ADG (3E-1).</li> <li>• As stated earlier the public domain interface for residential units is inappropriate. The 2m setback from the lot boundary is inadequate.</li> <li>• The site's interface with Shrimptons Creek should be provided with secondary building entries to increase activation and passive surveillance. Council seeks that applicant provide a revised Design Guide to address Council's concerns pertaining to building design.</li> <li>• The guidelines generally indicate a street wall height of 2-4 storey on the lowest levels of the building. This is not specific enough to ensure that the future development will achieve a consistent streetscape character. The Design Guidelines must limit the length of the buildings and include building length provisions that are consistent with City of Ryde's Design Guidelines.</li> </ul>

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
17	<p><b>Proposed new Roads (width) do not comply with RDCP2014.</b></p> <p>RDCP2014 Part 4.5 Figure 4.1.1 requires that main street on the Concept Plan is to be 20m wide roads 2 &amp; 3 to be 14.5m.</p>	<p>The concept proposal has not been revised to address this matter. Instead, the RTS stipulates a statement that <i>“the carriageway width of 3.5m is proposed to be maintained along entire length of main Street”</i>.</p> <p>It should be noted that the issue Council had raised is not in relation to the width of carriage way. It is regarding the width of road reserve and ensuring that all roads comply with Council's standards enshrined in the RDCP2014 and the Macquarie Park Public Domain Technical Manual.</p> <p>The requirements under the RDCP2014 have been disregarded in the Concept proposal and Council considers the proposed road width non-compliant and unacceptable.</p> <p>The Road No 1 still does not comply with the RDCP2014 in that the required 20m width has not been achieved. The 18.9m road width (including the road reserve) will depart from the standard road type adopted for Macquarie Park.</p>	<p>In relation to the road width City of Ryde had raised issue in relation to the substandard width of the road reserve and not the width of the carriageway. The issue is regarding the width of road reserve and ensuring that all roads comply with Council's standards enshrined in the RDCP2014 and the Macquarie Park Public Domain Technical Manual. The requirements under the RDCP2014 have been disregarded in the concept proposal and Council considers the proposed road width non-compliant and unacceptable.</p> <p>The Road No 1 still does not comply with the RDCP2014 in that the required 20m width has not been achieved. The 18.9m road width (including the road reserve) will depart from the standard road type adopted for Macquarie Park. Council seeks that:</p> <ul style="list-style-type: none"> <li>• Road 1 (Main Street) shall be 20m wide through its entire length.</li> <li>• The 20m road to have 11m wide carriageway width comprising 2 X 3.0m traveling lanes and 2 X 2.5m parking lanes. Road embellishment including the nature strip and services to be in accordance with the RDCP2014 &amp; the Macquarie Park Public Domain technical Manual.</li> <li>• Roads No 2 &amp; 3 shall be a 14.5m wide road.</li> <li>• The 14.5m road to have 8.5m carriageway width comprising of 2 X 3.0m travelling lanes plus 1 X 2.5m parking lane.</li> </ul>
18	<p><b>Setback from the Creek</b></p> <p>The RDCP2014 requires a 20m setback from the side of the creek line plus a 10m buffer to protect the riparian corridor zone. However, the proposal provides only a 5m setback to the corridor.</p>	<p>Response to submission states that the building envelopes are setback 5 metres in accordance with the RDCP2014 requirements for setbacks from parks. Future detailed applications for buildings within these envelopes would incorporate the applicable building separation distances.</p>	<p>City of Ryde seeks that the setback along the creek be increased to 10m from the edge of 20m wide riparian zone. This will provide a better interface with the park in light of the increased building height along the creek, minimization of overshadowing and improved amenity within the park.</p>



NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
	The proposed open space along the creek does not retain/improve some of the existing facilities i.e. skate park. The required setbacks should be provided	However it should be noted that the DCP requires a 20m setback from the side of the creek line plus a 10m buffer to protect the riparian corridor zone. In addition a 10m setback is also required from the rear boundaries.	
19	<p><b>Variation to Visitor Parking and car share spaces</b></p> <p>Applicant sought 50% reduction to visitor spaces (150 less visitor spaces).</p> <p>City of Ryde objected to this as it would result in undersupply of visitor parking given the mix of uses.</p> <p>Council's submission raised concern relating to the low residential visitor parking rate across the site. Council's DCP objectives for the Macquarie Park Corridor seek to reduce traffic congestion in the area by restricting the level of parking so as to shift the proportion of private vehicle mode share usage down to 60%.</p>	<p>As the development maximises the residential parking at the expense of visitor (public) parking capacity, this is contrary to the objectives of the DCP Part 9.3 (Parking Controls) for the Macquarie Park Corridor. It is also noted the applicant has applied the Macquarie Park commercial rate, applicable for business / office land use, to the retail component. This presents a much lower parking provision than that required under the DCP for retail land use and the probability of these areas being utilised as café's, eateries and restaurants. Under the DCP, such uses warrant a parking demand rate of 1 parking space per 25m<sup>2</sup>, which is a significant difference to the applied parking rate of 1 space per 100m<sup>2</sup>.</p> <p>It is emphasised that the development has sought to maximise the provision of private car parking and compromised on the provision of public parking demand (ie resident and retail visitor parking) and this is contrary to the DCP parking controls.</p> <p>This matter has not been addressed in the revised proposal. The application continues to seek a variation to this requirement. The</p>	<p>The car parking rate as provided in the RDCP2014 is already at a reduced rate as part of the most recent revisions of the parking rate in Macquarie Park. The number of visitor parking required for the development is being varied by 50%. This in real terms means approximately over 150 visitor car parking spaces not being provided on the site. It is expected that additional parking is provided on the site in accordance with the DCP requirement.</p> <p>The variation is likely to result in a significant parking undersupply that would impact on-street parking availability in the area and would also place pressure on Council to alter parking restrictions in the surrounding area or potentially implement a permit parking scheme. These ramifications are unacceptable.</p> <p>Parking levels for visitor spaces and car share spaces are to be strictly complied to align with RDCP2014. City of Ryde does not support any variations to the visitor parking and car share spaces required for the development.</p>

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
		<p>justification provided for such a significant variation in not acceptable.</p> <p>The justification that has been provided is not acceptable.</p>	
20	<p><b>Variations to Car Share</b></p> <p>Council had previously raised this issue and its strong disapproval of variation to visitor and car share spaces.</p>	<p>This matter has not been addressed in the revised proposal. The application continues to seek a variation to this requirement. The justification provided for such a significant variation in not acceptable.</p>	<p>It is also noted that the number of car share spaces is being varied by 50%. Given that the development proposed 3,500 residential units, a variation of this scale is likely to result in more pressure on existing car parking and street parking spaces. Council seeks that a condition be imposed to ensure that the car share spaces be provided in accordance with RDCP2014 and that these spaces are:</p> <ul style="list-style-type: none"> <li>• Publicly accessible 24 hours a day seven days per week;</li> <li>• Located together in the most convenient locations;</li> <li>• Located near and with access from a public road and integrated with the streetscape through appropriate landscaping where the space is external;</li> <li>• Designated for use only by car share vehicles by signage;</li> <li>• Parking spaces for car share schemes located on private land are to be retained as common property by the Owners Corporation of the site.</li> </ul>
21	<p><b>Lack of Open Space (Passive)</b></p>	<p>In the revised scheme the provision of open space, particularly for active recreation, does not meet the required amount to meet expected community demand. The Scheme does not provide sufficient open space for the recreational requirements of the development. The suggested increase of open space adjacent to the village green is of limited value due to the accessibility limitations of green roofs.</p> <p>This aspect of the proposal is not satisfactory.</p>	<p>City of Ryde is still concerned with the lack of adequate open space provided on the site given the scale of development. Council seeks that:</p> <ul style="list-style-type: none"> <li>• Additional open space must be achieved within the development by further adjusting the built form.</li> <li>• The scheme must provide additional active and passive recreation throughout the development. Space must be made available on the ground plane by adjusting built form and not on the green roof.</li> <li>• The proposed stormwater devices within the riparian corridor of Shrimptons Creek must be relocated out of any land to be dedicated to Council.</li> </ul>

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
			<ul style="list-style-type: none"> <li>• Council must be involved through the design development process for any land to be dedicated to Council.</li> <li>• All street trees to be planted in accordance with CoR Urban Forest Technical Manual</li> <li>• Any open space within the site would need to be publically accessible with a Right of Way over it or dedicated to Council through the VPA process.</li> <li>• Council's strategic document for Playgrounds will require these assets to be provided within 200m of high density development.</li> <li>• City of Ryde contends that limited open space provision with the school site will put additional pressure on existing Council managed public land. <ul style="list-style-type: none"> <li>• Stage 1 works to incorporate the pedestrian bridge beneath the road bridge over Shrimptons Creek.</li> <li>• Subject to Council approval and review, a landscape design package must be developed that includes the land beneath the bridge on the western side. This design is to be consistent with SSD8707.</li> <li>• The riparian corridor is to be delivered to Council as a single stage upon OC of the first building fronting the creek line.</li> <li>• The design of the riparian corridor is subject to Council approval.</li> <li>• All street trees to be planted in accordance with CoR Urban Forest Technical Manual</li> </ul> </li> </ul>
22	<b>No provision of active open space Limited capacity – given the proposed population density, types of uses and a school.</b>	Applicant's response to this matter on p4 of RTS is that this should be met by boosting capacity of existing sporting fields in the area.	No additional provision of active open space has been made. Limited capacity – given the proposed population density, types of uses and a school. Council raises concern in relation to this matter and the RTS. The existing sports fields are at capacity. It is not indicated as to how and which field should be boosted and by whom.
23	<b>Issues with Creek</b>		City of Ryde raises the following issues again as the matters

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
	<p><b>access, connectivity and open space</b></p> <p>Council submission required that a new park with active open space be provided adjacent to the Shrimptons Creek Corridor.</p> <p>The proposed configuration, length and proximity of towers on the edge of the Shrimptons Creek riparian corridor limits the opportunity to extend and integrate the forest into the precinct.</p>	<p>The applicant has adopted a new village green and main street in the centre of the site.</p> <p>Improvements to the Shrimpton's Creek Corridor including regenerated forest, running and cycle trails, exercise stations shaded areas and amphitheatre and stage for community events.</p> <p>Adequate details have not been provided on any of the proposed concepts.</p>	<p>previously raised have not been satisfactorily addressed. The development must:</p> <p><b>Access</b></p> <ul style="list-style-type: none"> <li>• Allow for equal access connections between Main St and Shrimptons Creek pathways heading north and south from each side of Main St;</li> <li>• Ensure Epping Rd Local Link 10 is seamlessly integrated into the Shrimptons Creek shared user path, that is, ramp connections;</li> <li>• Shrimptons Creek shared user path to be upgraded to 4m width as per Council's design north of the site to Waterloo Rd;</li> <li>• Further information required regarding the proposed playgrounds and which will be dedicated to Council. Any playground to be dedicated to Council must be designed in accordance with CoR's Children's Play Plan updated 2019. Council would only accept a single neighbourhood level playground as per Play Plan on any dedicated land;</li> <li>• Play elements within the road reserve is not supported due to ongoing compliance and maintenance issues. This must be removed.</li> </ul> <p><b>Shrimptons Creek &amp; Bridge;</b></p> <ul style="list-style-type: none"> <li>• Maximise and enhance where possible the unique naturalistic qualities of this area;</li> <li>• Provide equal access through 'Forest Threshold';</li> <li>• Combine the two north/south pathways into one sinuous 4m wide path. Match CoR's project to the north scheduled for construction in 2022/23;</li> <li>• Skate Park supported. Is there potential to include half court/ additional recreational infrastructure here? Concerns about passive surveillance in the area. Boulderling on concrete retaining walls?;</li> <li>• Ensure equal access between both sides of the Main St and</li> </ul>

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
			<p>the Shrimptons Creek pathway;</p> <ul style="list-style-type: none"> <li>• Support adjustments to the Epping Rd underpass. Ensure treatment responds to floods, sightlines. Provide equal access and cyclable connection between to the Epping Rd cycle way. Explore opportunities for public art;</li> <li>• Consolidate fitness equipment into skate area;</li> <li>• Pedestrian bridge connection beneath road design to allow for additional connection to the north for proposed pedestrian way in DCP;</li> </ul> <p><b>Village Green</b></p> <ul style="list-style-type: none"> <li>• Remove stairs on the 'Green Link' in the east of the drawing to improve equal access;</li> <li>• Incorporate a greater amount of recreational opportunities;</li> <li>• Refine alignment of the pedestrian crossing in the south and the Green Link;</li> <li>• Remove playground as it will be provided for in Forest Playground if these lots are to be dedicated.</li> </ul> <p><b>Forest Playground</b></p> <ul style="list-style-type: none"> <li>• Regrade to remove steps along Green Link;</li> <li>• Supportive of connection to Epping Rd. must be sympathetic to STIF.</li> </ul> <p><b>School Garden &amp; Playground</b></p> <ul style="list-style-type: none"> <li>• Insufficient recreational infrastructure to support 1,000 students;</li> <li>• Utilise NSW Education Educational Facilities Standards and Guidelines to inform design, spatial and recreational requirements for students.</li> </ul> <p><b>Neighbourhood Gardens/Mews;</b></p> <ul style="list-style-type: none"> <li>• Ensure elements that are not within Public Domain Technical Manual are within private land.</li> </ul> <p><b>Forest Thresholds;</b></p> <ul style="list-style-type: none"> <li>• Ensure equal access;</li> <li>• Where possible, integrate with surrounding pedestrian networks such as connections to Epping Rd and Shrimptons</li> </ul>

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
24	<p><b>Community Facility/ Community Centre</b></p> <p>Adequate community facilities co-located with open space is required.</p> <p>Adequate access to sunlight, car parking etc required</p>	<p>The revised concept plan shows that Building C2 will be deleted and the space used for a subterranean community centre (2 levels in the basement and 1 level above ground). This allows a minor expansion of the village green, although still affected by the future community building of up to 3 storeys (one storey above ground). The Concept Plan shows similar footprint coverage as earlier concept.</p> <p>It seems that Community centre with an estimated GFA of 2,000m2 would be required. Details are not clearly shown within the proposal.</p>	<p>Creek.</p> <p>The following concerns are raised with request for further clarification:</p> <ul style="list-style-type: none"> <li>• Further refinement of the drawings is required to better understand the spatial size of the 'Community Centre' within the 'Village Green'. The current drawing is misleading as the Village Green is not 6,000m2 as a significant component is taken up by the community centre as identified as C2 footprint;</li> <li>• Further information is required regarding the lot boundaries of the 'Village Green' and basements if the 'Village Green' is to become publically owned open space;</li> <li>• The lot would require stratum should the basements be located beneath publically owned open space;</li> <li>• The location of the community centre in the basement level is not supported for lack of sunlight access and amenity reasons;</li> <li>• Provide clarity with respect to the proposed swimming pool. It is not clear from the plans as to where this is proposed and how this will be managed.</li> <li>• Council will support the provision of approx. 2,900m2 of community facility space adjacent to the Village Green. This space should cater for a range of community uses and activities. A pool is not supported within the area adjacent to the community centre. A pool is not seen as complimentary to the uses described earlier within the community centre and would create significant car parking issues.</li> <li>• Parking for community centre is inadequate.</li> <li>• Concerns about natural light and ventilation for the community centre located next to a tall building.</li> <li>• A 25-metre aquatic facility has been proposed. It is not clear</li> </ul>



NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
			from the plans as to where this is proposed and how this will be managed.
25	<b>Stormwater Management</b>  Council submission included detailed requirements in relation to this matter	<b>Issues with the revised proposal are noted below</b>  <b>Trunk Drainage</b> –Reports and drawings do not show implementation of the trunk drainage system at an early stage. Not addressed/ Not satisfactory.  <b>TUFLOW flood model:</b> Electronic copy of input and output files for TUFLOW flood model and plans not provided to Council; Not satisfactory.  <b>Childcare centre</b> in H5 (high) flood hazard: Childcare centre relocated away from H5 hazard area and Shrimpton's Creek overbank floodplain. Addressed and satisfactory.  Mitigation of impacts on <b>riparian corridor</b> of Shrimptons Creek: Details have not been provided on whether there is a need, or not, for scour protection for the bridge structural design. Also, for riparian corridor erosion, there is no detail on whether having the "similar" erosional risk as the existing pre-development condition negates the need for any scour/erosion mitigation in Shrimptons Creek. Not satisfactory.  <b>Embankment blockage of waterway:</b> It is unclear what provisions for blockage has been applied for the proposed bridge across	The matters of concern cannot be verified as being satisfactory at this stage. The following issues remain outstanding:  <b>1. Stormwater Management</b>  a. <b>Trunk Drainage - Dedication</b> - The development is expansive and shall be done in multiple stages that will occur a long period of time. With regards to the trunk drainage infrastructure, it is requested that the Developer only dedicates the (intended) public infrastructure to Council prior to the issue of the Occupation Certificate of the final stage of the development (currently designated as Stage 8). The condition of the infrastructure at the time of dedication should be at Council's satisfaction.  b. <b>Adjoining Property Drainage</b> – Council does not support the proposed arrangement to divert the existing stormwater disposal easement for Lot 1 DP 609711 through basement A1 of the proposed development. Council recommends that the diverted easement shall be designed along the boundary of Future lot A2 as depicted in Concept Stormwater Plan Drawing 300001(1)-EX-001, Version C, prepared by ADW Johnson dated 4 October 2018.  c. <b>Proposed works over Council's existing drainage infrastructure:</b> Council's records indicate that there is an existing 1200 mm diameter pipeline that runs along the northern boundary of 2-4 Lyonpark Road (Lot 1 DP 859537). This pipe and outlet headwall/GPT has not been shown on the submitted stormwater concept plan and appeared to be affected by the proposed works for Road 1 as well as the bridge and embankment works. Updated

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
		<p>Shrimptons Creek. This includes debris blockage and structural element (piers) blockage. The Flood Impact Assessment for Ivanhoe Estate Master Plan prepared by BMT WBM dated June 2018 indicates 50% blockage is applied for bridges whose diagonal dimension exceeds 6 metres. The Shrimptons Creek Bridge Hydrologic and Hydraulic Assessment prepared by BMT WBM dated October 2018 indicates a 14% blockage has been applied for the L1 (waterway) area.</p> <p>Not satisfactory.</p>	<p>plans must be submitted to Council with details of this pipeline in relation to the proposed works and how this would be protected during construction. Council will also require maintenance access to this pipeline through the various construction phases of the proposed development. A plan showing access arrangements shall be provided to Council.</p> <p>d. <b>Maintenance Plan – Temporary Basins:</b> Further information is required with regards to temporary stormwater diversion works/ basins and maintenance of these Temporary Basins, regular monitoring, maintenance frequency and reporting/certification from a qualified engineer. It is not clear how these basins shall be decommissioned between the construction stages as the development progresses.</p> <p>e. <b>Water Quality Treatment Devices in Shrimptons Creek</b> – It is not clear what the strategy is with regards to Council water quality treatment devices (such as GPTs) in Shrimptons Creek. This includes provision of maintenance access to the existing water quality structures and the provision of new structures to treat runoff from the site. The Applicant shall consider provision of dedicated maintenance access routes at the bridge for maintenance of both the bridge, abutment and access to Shrimptons Creek on both banks. The grading of the maintenance access shall consider grades compatible with relevant Australian Standards for pedestrian and vehicular access.</p> <p><b>2. Overland Flow Path and Flooding</b></p> <p>a. <b>TUFLOW Model</b> – The TUFLOW models have not been provided to Council at this stage. An electronic copy of the input and output files of the TUFLOW model shall be submitted to Council in a form compatible with Council's computer software along with the plan and a hard copy of</p>

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
			<p>the input and output data.</p> <p><b>b. Mitigation impacts on riparian corridor of Shrimptons Creek</b> - Details have not been provided on whether there is a need, or not, for scour protection for the bridge structural design. Also, for riparian corridor erosion, there is no detail on whether having the “similar” erosional risk as the existing pre-development condition negates the need for any scour/erosion mitigation in Shrimptons Creek. The bridge design report shall be amended to include discussion of this.</p> <p><b>c. Embankment blockage of waterway:</b> It is unclear what provisions for blockage has been applied for the proposed bridge across Shrimptons Creek. This includes debris blockage and structural element (piers) blockage. The Flood Impact Assessment for Ivanhoe Estate Master Plan prepared by BMT WBM dated June 2018 indicates 50% blockage is applied for bridges whose diagonal dimension exceeds 6 metres. The Shrimptons Creek Bridge Hydrologic and Hydraulic Assessment prepared by BMT WBM dated October 2018 indicates a 14% blockage has been applied for the L1 (waterway) area.</p> <p><b>d. Pedestrian Bridge under Road Bridge –</b> The “sinuous pedestrian bridge under road bridge” as documented in Appendix D – Supplementary Design Report Document No. S12067-R011, Issue D, prepared by Batesmart + Hassell dated September 2018 has not been accounted for the Flood Impact Assessment Reports to date. Council has the following concerns:</p> <p>a) The bridge will be affected and potentially overtopped by the 1% AEP and PMF flooding events.</p> <p>b) Shrimptons Creek is a high-risk flooding area. This</p>

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
			<p>pedestrian bridge amplifies use of a high-risk flooding area and poses a significant safety risk to life in the event that the bridge is overtopped.</p> <p>c) Flood mitigation measures such as flood gates and barriers will require extensive on-going maintenance and is not recommended above passive measures.</p> <p>d) The pedestrian acts as a hydraulic blockage and increases the risk of blockage from upstream debris. Council notes that alternative flood-safe access across Shrimpton's Creek may be provided across the road bridge if the shared paths are directed and graded within the site to tie into the new proposed road.</p> <p><b>3. Inconsistencies:</b></p> <p>a. Ivanhoe Estate Concept Plan Staging Plan referenced in various reports and plans should be updated to reflect the revised stages including Stage 1A, 1B and 1C.</p>
26	<b>Civil Engineering Plans – Temporary Basin adjacent to Shrimptons Creek</b>	The plans show a Temporary Basin which appears to be in conflict with existing trees to be retained shown on the Arboricultural Impact Assessment	Redesign basin so that it does not encroach into the Tree Protection Zones of trees to be retained along Shrimptons Creek
27	<b>Loading areas</b> Any loading / service facilities must be located in the site itself. In this respect, resident services are to be accommodated by an appropriate number of loading bays	The response from the applicant has simply provided a noted response however there is no further documentation clarifying the intentions of the applicant.	It is advised that Council stipulate that any consent issued include a condition that all subsequent development applications provide sufficient waste and servicing facilities to be accommodated in the footprint of the development, off the public road.

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
	accommodating SRV vehicles and waste services are to accommodate Council waste vehicles (to be 11.1m long vehicle with 4.5m height clearances).		
28	<b>School Drop Off Zone</b> It is considered crucial that the pickup-dropoff services for the proposed school be provided internal to the school site, clear of the public domain. Often such facilities are implemented from the street frontage however at cost of traffic congestion and jeopardising pedestrian safety. Accordingly such a service must be provided off the public road and within the site.	The revised plans have nominated the provision of a bus setdown- pickup zone at the front of the school site external to the site. This matter has not been addressed.	<ul style="list-style-type: none"> <li>• The development has maintained an external pickup-dropoff area at the front of the site. This arrangement reduces the level of traffic safety in the public domain, can generate excess congestion and impede on through traffic flow. It is warranted that the traffic congestion be implemented in the traffic modelling.</li> <li>• School drop off bay must be incorporated within the school site.</li> </ul>
29	<b>Child care Center Drop Off Zone</b> Council sought that the childcare centre to be implemented is to provide a circulatory parking area to facilitate safe and efficient pickup-dropoff activities clear of the public domain.	The applicant's response indicates that there has been a misinterpretation of the requirement. A circulatory parking area simply refers to the provision of a separate entry and exit be provided for the parking area so as to facilitate the concentrated levels of traffic generated.	The provision of onstreet parking spaces is not supported as this is at the expense of a public resource (onstreet parking) and will require Council resources to manage the ensuing installation of parking restrictions (ie Parking Enforcement Officers).

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
30	<b>Driveway Location</b> The proposed driveway servicing Stages 6 & 8 is noted to be located on an intersection of the new Roads No. 2 & 3. The location of the driveway is not in accordance with AS2890 .1 and will potentially complicate intersection movements thereby creating an unsafe traffic environment. It is suggested that the driveway entry be relocated clear of the intersection (as per AS 2890.1) or otherwise subsequent DA recommend traffic controls to be implemented in this location to address the situation.	The applicant has responded that the matter may be managed by “appropriate geometry, signage and sight distances can be determined in consultation with Council as part of a future Development Application.” There may be some merit for Council in this as the oneway entry from Epping Road will likely warrant traffic calming measures to be implemented in entry leg of Road 3 (between Epping Road and the internal circulatory road) and this can be conditioned in a subsequent development application.	Noted
31	<b>Traffic Issues</b> <ul style="list-style-type: none"> <li>• Intersection signals</li> <li>• Drop off Pickup</li> <li>• Traffic signal</li> <li>• Shared User Paths</li> <li>• Traffic generation</li> <li>• Bus serviceability</li> <li>• Indented parking bays</li> </ul>	These matters have not been clearly addressed in the Response to Submission (RTS);  <b>a. Intersection Configuration along Road No. 1 and potential traffic flow conflicts</b> Section 3.4.3 (U-Turn Facility) of the Transport Management and Accessibility Plan (TMAP) Addendum report stated that <i>“the redistribution of vehicles through the provision of connected streets within Ivanhoe Estate, effectively providing a “U-Turn” facility, has been reviewed and supported by the RMS subject to the</i>	<b>Intersection Configuration along Road No. 1 and potential traffic flow conflicts:</b> Council seeks that a condition be imposed requiring the applicant/ developer to construct a roundabout at the intersection of Road No. 1/Road No. 2 and Road No. 1/Road No. 3. This must be incorporated as part of the appropriate stages of construction. Suitably prepared civil plans shall be submitted to and approved by City of Ryde prior to the determination of any detailed application relevant to the particular stage.

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
		<p><i>following conditions...". The traffic report does not provide any substantive justification for not constructing a roundabout at Main Road (Road No. 1)/Road No. 2 and Main Road (Road No. 1)/Road No. 3 intersections. Hence, Council's concerns raised in the previous submission have not been addressed.</i></p> <p><b>b. School Drop-off/Pick-up Facilities</b> Applicant indicates that 25 drop-off and pick spaces are to be provided adjacent to the school. The new school being proposed relies heavily on the availability of parking within the local street and also is based on the assumption that majority of the attendees will be from the local vicinity or attend the school via public transport. Council's concerns raised in the previous submission have not been addressed.</p> <p><b>c. Herring Road/Ivanhoe Place Traffic Signals</b> The Addendum report is not clear on when and who will deliver the Herring Road/Ivanhoe Place intersection upgrade to traffic signals. According to RMS advice the developer is required to provide a contribution for road transport Improvements. Department of Planning &amp; Environment e-mail 26 June 2018 attached to the Addendum confirmed that the developer is to contribute <i>"an amount to be paid prior to construction certificate being issued for stage 1"</i>.</p> <p><b>d. Lyonpark Road/Main Road No. 1 Intersection Treatment</b> The applicant must propose an alternative traffic management measure (e.g. a roundabout) as the</p>	<p><b>School Drop-off/Pick-up Facilities:</b> Council seeks that a condition be imposed requiring an internal drop-off/pick-up zone within the school boundary to accommodate private vehicles and buses.</p> <p><b>Herring Road/Ivanhoe Place Traffic Signals:</b> Council seeks that a condition be imposed requiring the applicant to provide monetary contribution to RMS for the upgrade of the intersection of Herring Road and Ivanhoe Road to traffic signals prior to the issue of the Construction Certificate for Stage 1 development of Ivanhoe Estate.</p> <p><b>Lyonpark Road/Main Road No. 1 Intersection Treatment</b> The applicant shall construct, as a minimum, a roundabout at the intersection of Road No. 1 and Lyonpark Road. Suitably prepared civil plans shall be submitted to and approved by City of Ryde prior</p>

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
		<p>circulation demand on this intersection is anticipated to be considerably high. The applicant shall construct, as a minimum, a roundabout at the intersection of Road No. 1 and Lyonpark Road. Suitably prepared civil plans shall be submitted to and approved by the Certifying Authority (City of Ryde) prior to the release of any bonds associated with the civil infrastructure.</p> <p><b>e. Lyonpark Road/Epping Road Intersection Treatment</b> The report discusses the intersection treatment of Lyonpark Road and Epping Road. It then dismisses the option to upgrade the intersection to a traffic signal. Support modelling has been provided demonstrating that the proposed intersection will operate a poor level of service, introducing long delays and queuing. The proposal to upgrade this intersection has been abandoned as part of the Concept Plan proposal.</p> <p><b>f. Completion of Shared User Path (SUP) along Epping Road</b> The report does not provide detail regarding the required SUP along Epping Road, connecting the existing SUP, east of the site frontage, to Herring Road. This connection will provide a critical link in the pedestrian and cycle network and is required to be delivered as part of the public domain upgrades of the Epping Road frontage of the site.</p> <p><b>g. Traffic Modelling</b> Whilst the report stated that “following</p>	<p>to the release of any bonds associated with the civil infrastructure. Council seeks that the Concept Plan be amended to indicate this roundabout at the location and a condition be imposed requiring details to be submitted as part of any subsequent development application for approval by Council.</p> <p><b>Lyonpark Road/Epping Road Intersection:</b> Council is concerned with this approach and seeks that this matter be reconsidered by the applicant.</p> <p><b>Shared User Path (SUP) along Epping Road:</b> Council seeks that the applicant construct a Shared User Path (SUP) link along the Epping Road frontage of the development site, including a pedestrian and bicycle crossing over the slip lane and connecting to the existing SUP on-ramp to Shrimptons Creek (southern boundary of the site) to the Herring Road signalised intersection, to a minimum width of 3.0 metres. This should be shown on the Concept Plan.</p> <p><b>Traffic Modelling:</b> The traffic generation is considered underestimated/discounted, which is expected to have a</p>



NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
		<p><i>discussions with Council... the assumptions shown in Table 1 have been used to revise the trip generation of the site...</i>", there has been <b>no discussion</b> with Council to agree on the trip generation rates adopted for the updated traffic report.</p> <p>Based on RMS Trip Generation Surveys of Schools (2014) the following vehicle trip generation rates per student were reported for secondary schools within the Sydney Metropolitan area:</p> <ul style="list-style-type: none"> <li>• AM – average of 0.51, which ranges between 0.16 and 0.83</li> <li>• PM – average of 0.28, which ranges between 0.15 and 0.51</li> </ul> <p>The rates adopted in the updated traffic report are considerably lower than the average RMS rates. It is also worth noting that there is some uncertainty around the use of the proposed school such as primary and/or secondary and public, private or catholic school, which will influence the traffic generation.</p> <p>Furthermore, the updated traffic report does not provide any justification on child care centre trip rates (i.e. 0.1 trips/ child). RMS Guide stipulates a rate of 0.8 trips per child for AM peak hour and 0.7 trips per child for PM peak hour.</p> <p><b>g. Internal Road Assessment</b></p> <p>The Aimsun modelling indicates that the proposed link between Ivanhoe Place and Herring Road and Lyonpark Road will attract through traffic east-west along the Main Road</p>	<p>noticeable impact on the level of service of intersections immediately providing access to the development. Council's concerns raised in the previous submission have not been addressed. Council is of the view that the Transport Management and Accessibility Plan (TMAP) must be updated to reflect the impact of 800 vehicle trips during the AM peak hour.</p> <p><b>Internal Road Assessment</b></p> <p>Council is of the view that the Transport Management and Accessibility Plan (TMAP) must be updated to assess the implications of the level of traffic on the amenity and road user safety within the proposed internal road network.</p>

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW																							
		<p>(Road No. 1).</p> <table><tr><th rowspan="3">Comparison of Traffic flows</th><th colspan="2">AM (veh/hr)</th><th colspan="2">PM (veh/hr)</th></tr><tr><th>Trip Generation</th><th>Aimsun Modelling</th><th>Trip Generation</th><th>Aimsun Modelling</th></tr><tr><th>Table 1</th><th>(Base + Development)</th><th>Table 1</th><th>(Base + Development)</th></tr><tr><td>Inbound</td><td>266</td><td>844</td><td>369</td><td>1090</td></tr><tr><td>Outbound</td><td>426</td><td>1005</td><td>216</td><td>920</td></tr></table> <p>The level of the through traffic has not been identified or its implications assessed. The traffic report does not address the mid-block and intersection capacity of the proposed internal roads within the Ivanhoe Estate development.</p> <p><b>h. Pedestrian Crossing</b> Council supports, in principle the current plan illustrating three raised pedestrian crossings on Road No. 1 and one raised pedestrian crossing on Road 2.Further pedestrian facilities are likely to be required under a 40km/h High Pedestrian Activity Area.</p> <p><b>j. Footpath/Shared User Path (SUP)</b> Footpath clear widths shall be amended in line with the Transport for NSW Centre for Road Safety ‘Shared Paths’ to reflect a minimum of:</p> <ul style="list-style-type: none"><li>• 2.0m where pedestrian access is only intended</li><li>• 4.0m where a shared user path or cyclist access is anticipated.</li></ul> <p><b>k. Developer Bus Service</b> The updated traffic report does not discuss any details on the implementation of a new developer</p>	Comparison of Traffic flows	AM (veh/hr)		PM (veh/hr)		Trip Generation	Aimsun Modelling	Trip Generation	Aimsun Modelling	Table 1	(Base + Development)	Table 1	(Base + Development)	Inbound	266	844	369	1090	Outbound	426	1005	216	920	<p><b>Pedestrian Crossing:</b> The applicant is to undertake necessary actions to obtain approval from RMS for the implementation of a 40km/h HPAA zone throughout the Ivanhoe Estate to ensure maximum safety for all road user types. Exact locations must be confirmed with City of Ryde during detailed design stage.</p> <p><b>Footpath/Shared User Path (SUP):</b> Council seeks that a condition be imposed requiring the applicant/ developer to fund and operate the community bus services connecting the development with Macquarie Park employment zones and other local services. Details of how this is anticipated to be implemented and operated, on an ongoing basis must be provided prior to the issue of any Occupation Certificate.</p> <p><b>Developer Bus Service</b> Additional clarification must be provided in relation to this matter since updated traffic report does not discuss any details on the implementation of a new developer funded community bus.</p>
Comparison of Traffic flows	AM (veh/hr)			PM (veh/hr)																						
	Trip Generation	Aimsun Modelling		Trip Generation	Aimsun Modelling																					
	Table 1	(Base + Development)	Table 1	(Base + Development)																						
Inbound	266	844	369	1090																						
Outbound	426	1005	216	920																						

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
		<p>funded community bus connecting the development with Macquarie Park employment zones and other local services.</p> <p><b>I. Bus Access to Ivanhoe Estate</b> The applicant has advised that 14.5m long rigid buses will access the Main Road No.1. Bus bays minimum width to be 3.0m wide in accordance with Austroads Standard.</p> <p><b>m. Indented Parking Bays on Road No. 3</b> The indented parking bays on Road No. 3 close to the Epping Road slip lane are considered high risk due to its proximity to the deceleration lane. There is a high chance of rear end collisions for those exiting off Epping Road and those attempting to park.</p>	<p><b>Bus Access to Ivanhoe Estate:</b> Council seeks that a condition be imposed on design the Main Road (Road No. 1) to accommodate the swept path of a 14.5m rigid bus with 0.5m clearance to kerb alignment, medians and centreline of the road way. Bus bays are to be designed to have a minimum width of 3.0m in accordance with Austroads Standard.</p> <p><b>Indented Parking Bays on Road No. 3:</b> The applicant should relocate the indented parking bays closer to the Road No. 2. If no suitable location can be accommodated, the deletion of this space would be recommended.</p> <p><b>Road Safety Audits</b> Council seeks that a condition be imposed requiring road safety audits of all new traffic facilities including intersections and traffic devices to be undertaken by a qualified road safety auditor by the applicant. The road safety audit must be undertaken for all project phases such as pre-construction, construction and post-construction.</p>
32	<p><b>Public Domain</b></p> <ul style="list-style-type: none"> <li>• DCP2014 standards to be complied with;</li> <li>• Road width to be consistent with RDCP2014;</li> <li>• Proposed bridge to be wider;</li> <li>• Clarification on Staging and delivery of infrastructure.</li> </ul>	<p>Despite Council's submission of May 2018, the revised Concept Proposal do not appear to have acknowledged the public domain standards that are contained within the Council's Public Domain Technical Manual. These standards must be used to ensure consistency with the rest of Macquarie Park.</p>	<p>Given that this development is rather expansive, and would be done in Stages over a relatively long period of construction activity, it is envisaged that a large volume of construction traffic will be required to travel over the newly constructed roads and infrastructure. Therefore, in regard to the road infrastructure and hand-over staging, it would be ideal for Council to request the Developer/Applicant dedicate to the Council, all roads that are intended to be public roads, prior to the issue of the Occupation Certificate of the final stage of the development (currently designated as Stage 8). Applicant must ensure this is included in the VPA. Bus stops and bus shelters shall also be provided at no cost to Council.</p>

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
			<p>Given the proximity of the development to Shrimpton's Creek, the Developer is required to install a sedimentation basin at the downstream end of the site to prevent sediments entering the creek. This basin could be a temporary or permanent feature of the development site.</p> <p>A number of conditions would apply as included in <b>Attachment 2</b>.</p>
33	<b>Waste management</b>	Compliance details have not been shown in the revised proposal	<p>The following requirements will apply:</p> <ul style="list-style-type: none"> <li>• The waste and recycling is required to be serviced within the building to ensure that the amenity of the building is not compromised and the residents are not affected by the noise.</li> <li>• The height clearance required will be 4.5m for an 11m long truck. No conduit, ducting, signage or other objects should encroach on the required clearance space; this could prevent waste collection services being carried out by the waste collection vehicle. Council's waste collection trucks will service the buildings bins utilising a rear load vehicle.</li> <li>• Swept paths for the above 11m truck size must be considered as part of the SSD assessment to ensure that they can enter and exit the loading bay in a forward direction.</li> <li>• Trucks will be entering the building to service the bins, so a Positive Covenant will be required for Onsite Waste Collection.</li> </ul>
34	<b>Solar Energy/Sunlight access – Environmental consideration</b>  No details were provided with respect to solar panel	Solar Panels will be provided with future stages of development to contribute to achieving the sustainability targets for the development.	<ul style="list-style-type: none"> <li>• Solar access on the EEC corridor from late afternoon. Building design should include sunlight corridors enabling sunlight into the EEC and not compromise integrity of the corridor through overshadowing;</li> <li>• Response to Submissions states that "60% of apartments are capable of achieving cross ventilation in accordance with the design criteria recommended by the Apartment Design Guide."</li> </ul>

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
			<p>The application does not specify if this prioritises social and affordable housing units to ensure energy poverty is avoided through quality design. Currently 2hrs solar access;</p> <ul style="list-style-type: none"> <li>• Solar Technology – Frasers verbally presented to Council that the site would have a minimum of 50% of all buildings to have solar coverage and connect to a microgrid like distribution network. Those roofs without solar to have green roof spaces;</li> <li>• Radiant Heating technology in affordable/ social housing and 11mth utility billing cycle program as nominated verbally by Frasers in presentation (May 2019) no details on models/ energy use for this type of heating installation.</li> </ul>
35	<p><b>Water Quality</b> Various issues were raised in relation to this matter including:</p> <ul style="list-style-type: none"> <li>• Maximize water capture;</li> <li>• Monitoring to minimise water and energy waste;</li> <li>• Consider greywater reuse for toilet flushing;</li> <li>• Include BMS Monitoring and submetering for all major equipment and achieve at a minimum the following WELS ratings (in accordance with NSW Government Resource Efficiency Policy, July 2014);</li> <li>• Automatic Pool Cover</li> </ul>	Response to submission indicates that these concerns are “noted”.	<ul style="list-style-type: none"> <li>• Drainage outlets recommended from Council's first submission to reduce the number of drain outlets into the creek. The second submission still showing;</li> <li>• No future drainage lines identified on any plans to assess impacts of flows from the site directly entering the creek without treatment and their impact on water quality;</li> <li>• No provision for future access for vehicles to manage existing Gross Pollutant Traps (GPT) on the site;</li> <li>• Proponent should include treatment measures for capturing on site pollutants and litter and no treatment with direct flows into existing GPTs is not accepted. Council expectation that the existing GPTs would be decommissioned by Frasers as on site treatments (tree pits etc.) were to be provided. These are not mentioned to protect waterway health from site impacts;</li> <li>• Raingarden – no detail on when this will be constructed. Will this be built as part of Stage 1? If so what is the maintenance regime? What is the size of the raingarden? No evidence provided to demonstrate it will adequately reduce water pollution impacts from sediments and erosion on the site. How will sediments be captured under proposal with collapsed existing drainage network;</li> <li>• Erosion/ sediment control plans – not submitted for council review under Stage 1 approval to ensure no water pollution</li> </ul>

NUM	ISSUES PREVIOUSLY RAISED By COUNCIL (23/5/2018)	REVIEW OF REVISED PROPOSAL & APPLICANTS RESPONSE TO ISSUES	OUTSTANDING MATTERS WITH REGARD TO THE REVISED CONCEPT PROPOSAL: COUNCIL OBJECTION MAINTAINED AS PER MATTERS BELOW
	system for pool to reduce energy; • Backwash Reuse System and UV Treatment system on site (where suitable and volume dependant);		impacts.
36	<b>Soil</b>	Details have not been provided but response to submission states that the issues have been "noted".	<ul style="list-style-type: none"> <li>• As Remediation Action Plan and assessment could not conclusively determine the extent of vertical impact of hydrocarbons found on the site. All soils excavated must be done so in accordance with the RAP to ensure no opportunity for entering into Shrimptons Creek from weather/ water or dust events and securely contained as per the Managing Urban Stormwater, Soils and Construction, 4th Edition Landcom 2004, Site Sediment and Erosion Control Plan and RAP;</li> <li>• Controls to be monitored at the start and end of each day on site and immediately after rainfall events;</li> <li>• Waste soil sampling to be conducted as per the RAP at one sample per 25m3 of excavated material.</li> <li>• Stockpiling, waste classification and removal of associated soils in accordance with the Waste Classification Guidelines (NSW EPA, 2014);</li> </ul>

**END**

## ATTACHMENT 2 – RECOMMENDED CONDITIONS – FOR SSD 8707

Council requests that the issues raised in the submission be fully addressed by the applicant and changes reflected in a new Master Plan for the site.

Should the consent authority be recommending approval (subject to the changes or conditions), the following matters must be addressed by condition in addition to those that would typically be applied to consent approvals:

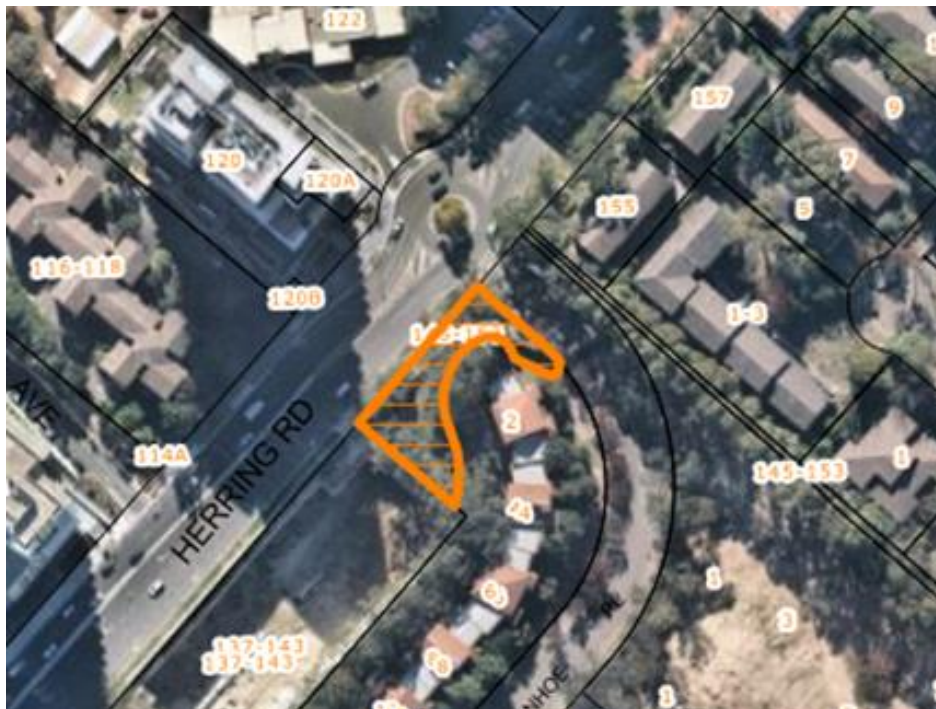
### TREES & SETBACKS

1. In order to address the concern regarding impacts on the health of the trees to remain due to overshadowing in particular City of Ryde suggests that the following conditions be imposed:
  - (a) That a clear unobstructed 12m wide setback be provided for buildings, podiums and basement car-parking from side boundaries on all sides except along the Shrimpton's Creek.
  - (b) The development within the site must comply with the Ryde DCP 2014 Part 4.5 Macquarie Park Corridor cl.5.2 provide 20m riparian corridor protection zone and embellished as per City of Ryde requirement.
  - (c) A 20m wide riparian zone setback must be provided throughout along the Shrimpton's Creek from the edge of the side of the Creek and an additional 10 setback from the riparian zone (total of 30m from side of the Creek).
  - (d) Council seeks that the building and basement setback along Epping Road be increased to reflect the general location of significant vegetation along Epping Road. Such a setback must be in the vicinity of 18-42m along Epping Road, generally reflecting the location of the trees and as per the area shown shaded red in the basement plan below which is based on Endangered Ecological Corridor:

*Epping Road Setback diagram – Built form and basement parking must not be located in the red hatched area*



- (e) Trees located on Lot 11 DP861433 & north western end of the site (adjacent to 137-147 Herring Road) be retained. This will ensure contiguous vegetation for ecological integrity of the threatened ecological community.
- (f) Setback from Herring Road – There are a number of significant trees located on 154A Herring Road site (this site falls part of Ivanhoe Estate redevelopment). These trees will be affected by the zero setback proposed for Building A1 (also subject of Stage 1 development). These trees must be retained thus requiring additional setbacks to be provided in accordance with condition below. The trees are show in the diagram below:



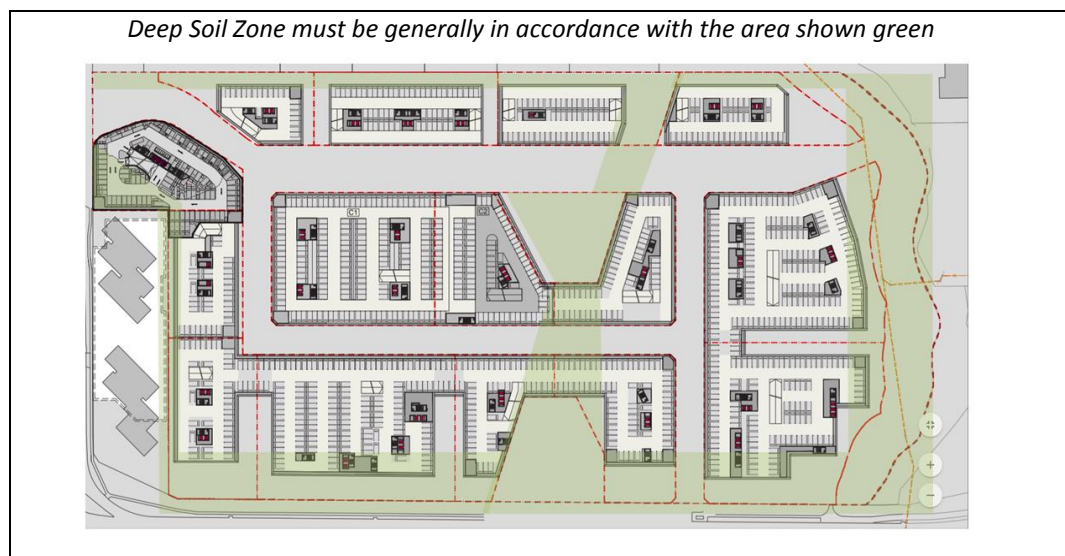
**Setback from Herring Road – Built form and basements should not encroach on Lot 11 DP861433 shown hatched**

The proposed 'zero' setback from Herring Road frontage (basement and podium), zero setback on southern side of Building A1 and zero setback from the proposed 20m wide road is NOT supported. The proposal must provide setbacks for Building A1 in the following manner:

- a. A minimum of 15m front setback must be provided from Herring Road. Basement and podium levels must also be setback 15m from herring Road boundary;
- b. A clear 12m setback must be provided on the southern side from the adjacent common boundary of 137-147 Herring Road;
- c. A clear 12m setback must be provided on the southern side of proposed Building A1 adjacent to Building A2;
- d. A clear unobstructed 5m setback must be provided from the proposed main road (Road No. 1);



- e. Zero setback at the intersection of Herring road and Road 1 is not permitted.
  - f. All other buildings must provide at least 5m setback from the new roads.
  - g. Buildings A2 and A3 must be setback a distance of 12m from the eastern boundary of 137-147 Herring Road. The 1 store podium and basement must be deleted from the setback area.
- (g) The trees located between Buildings D2 & D3 along Epping Road should also be protected. Thus the basement needs to be further setback in line with the location of existing vegetation.
- (h) Arborists Report: The methodology used for tree survey is highly questionable. It is still difficult to quantify/ locate the exact number of trees that are newly 'being retained' versus those which were (as admitted in the Arborists Report) mistakenly counted or not counted entirely in the first submission. A revised Arborists Report with tree details, location and tree protection. Root zone mapping be submitted.
- (i) Basement parking shall not extend under the proposed on site communal open space (Village Green and Forest Park) and deep soil zone generally must be in accordance with the following diagram:



## 2. **Additional Setbacks and Built Form/ Design excellence**

Council has raised issues with respect to design issues including bulk and scale, overshadowing and amenity impacts both within the site and on neighbours. There remains a significant issue due to:

- The level of proposed development on the site exceeds the permissible FSR
- Most building envelopes are proposed to exceed 40m in length contributing to significant overshadowing and unacceptable bulk and massing

- Lack of regard for neighbouring residential developments and potential lack of sunlight access for dwellings within the development.
- Overshadowing of proposed onsite open space, Shrimptons Creek Riparian Corridor and endangered ecological community
- Lack of appropriate setbacks to new streets resulting in lack of privacy, reduced ability to provide new street trees and landscaping
- The quality of the public domain as evidenced by overshadowing of open spaces and streets and lack of setbacks to new streets.
- Adequate building separation within the site. While it is acknowledged that the concept generally complies with the ADG with respect to building separations these are considered inadequate due to the impacts on the public domain and the scale of the developments.

In response to the issues outlined above, the following conditions of consent are requested by Council:

- (a) A minimum of 12m setback to buildings from side boundaries be provided for all buildings;
- (b) Maximum 40m length for all buildings in accordance with the City of Ryde Ivanhoe Estate Redevelopment Urban Design Guide. Create additional sunlight access to the EEC as far as practicable by designing buildings that are tall and slender in proportion;
- (c) Minimum sunlight access 3 hours midwinter to 75% of the Village Green and also of the Forest Playground;
- (d) Compliance with RDCP 2014 Part 4.5 cl.4.1 and with City of Ryde Ivanhoe Estate Redevelopment Urban Design Guidelines with respect to setbacks to buildings on new streets. This will assist to ensure better building separation.
- (e) Compliance with the permissible FSR on the site.  
Council strenuously argues that design outcomes are enhanced by appropriate setbacks and retention of mature trees. As a result the above setbacks 1.1, 1.2 and 1.3, should be imposed regardless.

## **TRANSPORT**

Council has raised issues with respect to access and school safety and the impact of the slip lane on the endangered ecological community. As a result the following conditions of consent are suggested by Council:

3. That the slip lane be deleted from the Epping Road frontage to ensure retention of additional trees.
4. All car parking must be provided in accordance with the RDCP2014 including visitor parking and car share spaces.
5. Development must ensure that the car share spaces be provided in

accordance with RDCP2014 and that these spaces are:

- Publicly accessible 24 hours a day seven days per week;
- Located together in the most convenient locations;
- Located near and with access from a public road and integrated with the streetscape through appropriate landscaping where the space is external;
- Designated for use only by car share vehicles by signage;
- Parking spaces for car share schemes located on private land are to be retained as common property by the Owners Corporation of the site.

## **VOLUNTARY PLANNING AGREEMENT**

6. The Developer is to make payments in accordance with Council's Section 7.11 Contributions Plan in place at the date of the relevant development consents for each subsequent stage; or provide Public Benefits and/or Monetary Contributions as required under any Planning Agreement under Section 7.4 of the EPA Act 1979 entered into with Council in respect of the this Concept approval.

## **OPEN SPACE/ PARK/ CREEK**

7. In relation to the parks, pathway and open space, the following must be complied with:
  - Allow for equal access connections between Main St and Shrimptons Creek pathways heading north and south from each side of Main St;
  - Ensure Epping Rd Local Link 10 is seamlessly integrated into the Shrimptons Creek shared user path, that is, ramp connections;
  - Shrimptons Creek shared user path to be upgraded to 4m width as per Council's design north of the site to Waterloo Rd;
  - Further information required regarding the proposed playgrounds and which will be dedicated to Council. Any playground to be dedicated to Council must be designed in accordance with CoR's Children's Play Plan updated 2019. Council would only accept a single neighbourhood level playground as per Play Plan on any dedicated land;
  - Play elements within the road reserve is not supported due to ongoing compliance and maintenance issues. This must be removed.
  - Development must combine the two north/south pathways into one sinuous 4m wide path. Match CoR's project to the north scheduled for construction in 2022/23;
  - Pedestrian bridge connection beneath road design to allow for additional connection to the north for proposed pedestrian way in DCP;
8. The quantum of community space must be increased to at least 2,900m<sup>2</sup> and the following must be complied with:
  - The location of the community centre in the basement level is not supported for lack of sunlight access and amenity reasons. The centre must be located such that the floor levels are above ground.

## GENERAL

9. **Contamination.** A Detailed Environmental Site Assessment (DESA) must be submitted for Council's consideration with any relevant Stage 2 development application. The DESA must comply with the Guidelines for Consultants Reporting on Contaminated Sites (EPA, 1997) and demonstrate that the site is suitable for the proposed use, or that the site can be remediated to the extent necessary for the proposed use. If remediation is required, the report should also set out the remediation options available for the site and whether the work is considered to be category 1 or category 2 remediation work. If requested by Council, the proponent must submit a site audit statement and a site audit summary report from an accredited site auditor under the Contamination Land Management Act 1997, verifying the information contained in the DESA.
10. **Construction Noise Management Plan.** A Construction Noise Management Plan must be prepared and submitted with any Stage 2 Development Application. This Plan must be prepared by a suitably qualified acoustic consultant and must detail, but not be limited to, the following:
  - a. The equipment to be used during the construction on site, the quantity of all equipment and a plan of how equipment will be operated on site cumulatively;
  - b. The type of work that will be conducted during the construction process;
  - c. Details of any respite periods and any noise mitigation measures required;
  - d. Details of any work proposed to occur outside of Council's standard construction hours;
  - e. Details of any community consultation to be undertaken.
11. **SEPP 65.** The residential components of the development must be designed to comply with the principles of "State Environmental Planning Policy No. 65 – Design Quality of Residential Apartment Development" and the accompanying Apartment Design Guide.
12. **Noise impact assessment report** - A noise impact assessment report is to be submitted with any relevant Stage 2 Development Application. The report must be prepared by a suitably qualified acoustical consultant and demonstrate that the noise levels emitted from the premises will comply with the noise criteria specified in the *New South Wales Industrial Noise Policy* (EPA, 2000).

The report must include the following information:

- a. details of the site and the surrounding locality;
- b. a description of the proposed use;
- c. the proposed times of operation;
- d. the existing background noise and ambient industrial noise levels;
- e. the project-specific noise levels for the proposed use;

- f. details of all potential noise sources associated with the proposed use;
  - g. details of any measures proposed to control or mitigate noise;
  - h. sound pressure levels at a preferred measurement distance or sound power levels, in dBA, for all major noise sources;
  - i. the predicted cumulative noise levels at all nearby affected residential premises; and
  - j. an assessment of the noise impact.
13. The parking provision of any future development must strictly comply with Council's DCP part 9.3 (*Parking Controls*). Visitor parking must be provided at councils maximum rate to ensure there are no adverse impacts to on street parking capacity in the surrounding area.
  14. All stormwater management must comply with Council's DCP part 8.2 (*Stormwater and Floodplain Management*). Stormwater components serving developments must be contained wholly within the development site, off the public road.
  15. Any loading / service facilities must be located in the site itself for individual buildings/ lots specified on the Masterplan. In this respect, resident services are to be accommodated by an appropriate number of loading bays accommodating SRV vehicles and waste services are to accommodate Council waste vehicles (to be 11m long vehicle with 4.5m height clearances).
  16. It is considered crucial that the pickup-dropoff services for the proposed school be provided internal to the school site, clear of the public domain. Often such facilities are implemented from the street frontage however come of cost of traffic congestion and jeopardising pedestrian safety. Accordingly such a service must be provided off the public road and within the site.
  17. All subsequent development applications must make provision for on site servicing and waste collection needs of the site.
  18. The trunk drainage system will need to be implemented at the initial stage of works to provide a trunk drainage system to service the development in the upper reaches of the site. The implementation of the trunk drainage infrastructure which is to be dedicated to Council under public roads, will require conceptual road alignment plans to ensure the nominated levels of these services are consistent with the satisfactory road levels.
  19. The nominated OSD design rational is supported as the adopted approach (elected to achieve a Green Star Credit Rating) is considered conservative in comparison to Council's requirements.
  20. Each of the stages will warrant on-site detention which ideally should be provided at the lowest point of the site prior to the point of discharge. The OSD storage (whether it be comprised of a tank or basin) must be designed in accordance with Council's DCP part 8.2 (*Stormwater and Floodplain Management*).

21. The analysis has nominated that public road and driveway areas are 80% impervious (Section 3.1.1 of the report). Further justification is warranted for these figures, particularly road pavements which are considered as 100% impervious. It is understood these areas may comprise of (or partially be comprised of) permeable pavers however should be clarified.
22. The WSUD measures nominated include “end-of-line” treatments (ie implemented at the point of discharge) as well as implementation of pit baskets in each of the kerb inlet pits. Such measures will significantly increase the level of Council resources required to maintain such devices. It is advised that the WSUD treatments of public domain areas be undertaken in accordance with Councils public domain/ sustainability section and suggested any such treatment be consolidated. Ideally the WSUD targets should be addressed by devices/ measures internal to the development themselves and such measures be implemented at the discharge point of each of the stages.
23. It is understood that the applicant is in the process of formalising the drainage system servicing the corner property (137 to 143 Herring Road). It is understood the developer of this site is currently seeking to formalise an easement through the Ivanhoe Estate and this matter is currently being considered by the courts. It is advised that this development should make provision for a an accessible, unobstructed flowpath and drainage services to be located between Stages 1 and 2 to the proposed new road and there does not appear to be any imposition on the applicant to provide this.
24. The portion of land along the northern boundary are anticipated to be below the public trunk drainage system accommodated by Road 1. Accordingly a private drainage easement will be required to be formed along the northern boundary to service Stages 7, A & B (in the anticipation these stages will be subdivided in separate lots). The land currently accommodates an easement and overland flowpath and this should be replicated in similar form through this region. The concept stormwater plan has nominated drainage infrastructure along the northern boundary and the works look to be capable of accommodating an easement. The matter must be addressed on an application for subdivision/concept proposal.
25. **Stormwater – Standards and Guidelines** – The drainage system in Public Roads that will be handed over to the Council of City of Ryde must be designed in accordance with City of Ryde DCP (2014) Part 8.2 – Stormwater and Floodplain Management, City of Ryde DCP (2014) Part 8.2 – Stormwater and Floodplain Management Technical Manual, NSW Floodplain Management Manual (2005), Australian Rainfall and Runoff 2019 and any other relevant Australian Standards.
26. **Stormwater – Trunk Drainage Works - Detailed Design Submission**– All Engineering works required by this consent must be designed and undertaken in accordance with the relevant aspects of the City of Ryde DCP 2014 Part 8.2, Australian Rainfall and Runoff (ARR) 2019, NSW Floodplain Development Manual 2005 and any other relevant Australian Standards. Detailed design plans, calculations and other supporting documentations

prepared by a Chartered Civil Engineer (registered on the NER of Engineers Australia) must be submitted to, and approved by Council's City Works Directorate prior to the issue of any Construction Certificate.

The detailed design documentations shall be generally in accordance with the Concept Stormwater Plan Drawing 300001(1)-EX-001, Version C, prepared by ADW Johnson dated 4 October 2018 subject to any amendments warranted by Council's City Works Directorate as a result of the review and approval of the design plans.

The design submission shall address the following as a minimum:

- a) The drainage system layout plan shall be documented on a detailed features survey plan.
- b) Details of any proposed drainage easement over the proposed trunk drainage system in accordance with City of Ryde DCP 2014 Part 8.2 shall be shown on the drainage system layout plan.
- c) A drainage system layout plan and structural details shall be drawn at a scale of 1:100, 1:200 or 1:250 and shall show the location of drainage pits and pipes, overland flow paths and any other information necessary for the design and construction of the drainage system (i.e. utility services).
- d) A drainage system longitudinal section shall be drawn at a scale of 1:100 or 1:200 horizontally and 1:10 or 1:20 vertically and shall show the underground channel and pipe size, class and type, pipe support type in accordance with AS 3725 or AS 2032 as appropriate, pipeline chainages, pipeline grade, hydraulic grade line and any other information necessary for the design and construction of the drainage system (i.e. utility services).
- e) A design documentation shall be accompanied by a design certificate issued to Council confirming that drainage design has been undertaken in accordance with City of Ryde DCP 2014 Part 8.2, Australian Rainfall and Runoff (ARR) 2019, NSW Floodplain Development Manual 2005 and any relevant Australian Standards.
- f) Special details including non-standard pits, pit benching and transitions shall be provided on the drawings at scales appropriate to the type and complexity of the detail being shown.
- g) Details of the decommissioning of Council's existing water quality treatment assets and reconstruction of new water quality treatment assets to suit the new trunk drainage works shall be implemented.
- h) Details of the proposed raingarden and associated elements.
- i) Scour protection works at the proposed outlets to the Creek are to be designed and constructed in accordance with the principles found in the publication "Guidelines for Outlet Structures on Waterfront Land", published by the NSW Office of Water, while having regard to the requirements of the publication "Managing Urban Stormwater – Soils and Construction (4th Edition, 2004).

**27. Stormwater – Water Sensitive Urban Design (WSUD) – Detailed Design**

**Submission** - Detailed design documentation for the WSUD components shall be prepared by a suitably qualified Chartered Civil Engineer (registered on the NER of Engineers Australia), or equivalent, experienced in Water Sensitive Urban Design (WSUD). The documentation shall be submitted to Council's City Works Directorate for approval prior to the issue of any Construction Certificate.

Details shall include but not limited to:

- a) batters,
- b) levels,
- c) underdrains,
- d) high flow bypass details,
- e) clean out points,
- f) filter media details,
- g) mulching details,
- h) material specification,
- i) planting details,
- j) inlet scour protection areas,
- k) maintenance access ramps and
- l) maintenance schedule(s)

**28. Stormwater – Temporary Works – Detailed Design Submission** - All temporary works stormwater works required by this consent must be designed and undertaken in accordance with the relevant aspects of the City of Ryde DCP 2014 Part 8.2, Australian Rainfall and Runoff (ARR) 2019, NSW Floodplain Development Manual 2005 and any other relevant Australian Standards.

Detailed design plans of the temporary works stormwater design, calculations and other supporting documentations prepared by a Chartered Civil Engineer (registered on the NER of Engineers Australia) must be submitted to, and approved by Council's City Works Directorate prior to the issue of any Construction Certificate.

The detailed design of temporary works drainage shall be subject to any amendments warranted by Council's City Works Directorate as a result of the review and approval of the temporary works design plans.

The design submission shall address the following as a minimum:

- a) The drainage system layout plan shall be documented on a detailed features survey plan.
- b) A drainage system layout plan and structural details shall be drawn at a scale of 1:100, 1:200 or 1:250 and shall show the location of drainage pits and pipes, overland flow paths and any other information necessary for the design and construction of the drainage system (i.e. utility services).
- c) A drainage system longitudinal section shall be drawn at a scale of 1:100 or 1:200 horizontally and 1:10 or 1:20 vertically and shall show the underground channel and pipe size, class and type, pipe support



type in accordance with AS 3725 or AS 2032 as appropriate, pipeline chainages, pipeline grade, hydraulic grade line and any other information necessary for the design and construction of the drainage system (i.e. utility services).

- d) A design documentation shall be accompanied by a design certificate issued to Council confirming that drainage design has been undertaken in accordance with City of Ryde DCP 2014 Part 8.2, Australian Rainfall and Runoff (ARR) 2019, NSW Floodplain Development Manual 2005 and any relevant Australian Standards.
- e) Special details including non-standard pits, pit benching and transitions shall be provided on the drawings at scales appropriate to the type and complexity of the detail being shown.
- f) Details to be provided of the commissioning and decommissioning of all temporary works stormwater systems including pits, pipes and temporary basins between the various stages of the development

**29. Stormwater - Trunk Drainage Works – Bond** - To ensure satisfactory performance of the excavation, laying of pipes, back filling, disposal of excess soil and restoration including new kerb and gutter works, a maintenance period of twelve (12) months shall apply to all trunk drainage works following completion of the final stage of the development.

The maintenance period shall commence from the date of issue by Council, of the Compliance Certificate for the Trunk Drainage Works. The applicant shall be liable for any part of the work which fails to perform in a satisfactory manner as outlined in Council's standard specification, during the twelve (12) months' maintenance period. Any defects identified during the maintenance period shall be rectified at their cost within a period of thirty (30) days after notification from Council. The details of the defects and repairs shall be documented and certified by a suitably qualified Civil Engineer (registered on the NER of Engineers Australia), or equivalent.

A bond in the form of a cash deposit or Bank Guarantee of \$200,000 shall be lodged with the City of Ryde prior to the issue of any Construction Certificate to guarantee this requirement will be met.

Council engineers from the City Works Directorate shall be notified in writing three (3) months prior to the expiry of the maintenance period for the inspection of the trunk drainage works and restored areas. Details and certifications of the defects and repairs shall be provided to Council's City Works Directorate at this notification. The inspection shall be jointly conducted between Council engineers and the applicant's site engineers.

Notifications and inspections may be arranged by telephoning Council's Customer Service Section on 9952 8222 during office hours. A minimum of five (5) working days' notice shall be given to Council to inspect the works.

The bond will only be refunded when the works are determined to be satisfactory to Council, in writing, after the expiry of the twelve (12) months maintenance period.

30. **Stormwater – Trunk Drainage Works – Hydraulic Models** - Electronic copies of the input and output files of the RAFTS and DRAINS models shall be submitted to Council in a form compatible with Council's computer software along with the plan and a hard copy of the input and output data prior to the issue of any Construction Certificate.
31. **Stormwater – Temporary Works – Diversions and Bunding** - Any temporary bunding and water diversions should be designed by an appropriately qualified Civil Engineer (registered on the NER of Engineers Australia), or equivalent. The bunding and diversions shall be monitored, especially at the onset of a storm event and measures put in place to remove or modify the structures (without compromising work health and safety standards) so that adjoining properties are not exposed to any greater flood impact.
32. **Flooding – Hydraulic Models** - The applicant shall provide a copy of the hydrological and hydraulic models (including TUFLOW) used to prepare the relevant flood impact assessment and stormwater design reports for the developments prior to the issue of any Construction Certificate.
33. **Bridge – Detailed Design Submission** – Detailed design plans, calculations and other supporting documentations prepared by a Chartered Structural Engineer (registered on the NER of Engineers Australia) must be submitted to, and approved by Council's City Works Directorate prior to the issue of any Construction Certificate for the proposed bridge structure to be built across Shrimptons Creek connecting the proposed development to Lyonpark Road.

The details shall include, but not limited to, the following:

- a) Provide the minimum height of the trafficable, including vehicle & pedestrian, areas of the bridge. From a stormwater perspective, the report shall clearly demonstrate the impact of the proposed bridge including but not limited to abutments, piers, wing walls etc.
- b) Maintain the height of the lowest structural element of the bridge at the 1% AEP (100 year ARI) flood level + 500 mm freeboard as a minimum.
- c) The report shall assess the impact of embankment works on both north-western and north-eastern sides of the bridge on the proposed approach roads and the surrounding properties to ensure any adverse impact from ponding of water (if any) is alleviated.
- d) Concept drawings, correspondence and approvals from utility authorities shall be provided to Council with regards to any utility services that will need to be installed in the proposed bridge.
- e) Scour protection shall be provided for the bridge piers, abutment and constricted creek waterway and riparian corridor for events up to the 2% AEP (50 year ARI). Provision for appropriate plant access to the bridge for maintenance, including for repair and replacement of the scour protection, shall be provided.

**34. Prior to Commencement of Construction: Pre-Construction CCTV**

**Report** - To ensure Council's stormwater infrastructures are adequately protected, a pre-construction CCTV report on the existing stormwater pipeline and the existing kerb lintel pit through Lot 1 DP 859537 is to be submitted to Council prior to the commencement of any construction works.

An electronic closed circuit television report (track mounted CCTV camera footage) prepared by an accredited operator that assesses the condition of the existing drainage line adjacent to the site is required. This report shall include the date of CCTV inspection and shall be submitted to Council's City Works Directorate for approval prior to commencement of any works.

The applicant shall contact Council's Stormwater and Catchments section to obtain a map of Council's existing Stormwater network in the vicinity prior to conducting the CCTV survey.

**35. During Construction - Stormwater – Trunk Drainage Works – Hold Points**

**during Construction** Council requires inspections to be undertaken by a suitably qualified Chartered Civil Engineer (registered on the NER of Engineers Australia), or equivalent, for all Council trunk drainage works.

The Applicant shall submit to the Principal Certifying Authority, certification from the Engineer, at each stage of the inspection listed below, stating all civil and structural construction works have been executed as detailed in the stamped approved plans, and in accordance with the relevant Australian Standards, City of Ryde standards and specifications within 24 hours following completion of the relevant stage/s. The certificates shall contain photographs of the works in progress and a commentary of the inspected works, including any deficiencies and rectifications that were undertaken.

- a) Upon excavation of trenches as per the approved drainage drawings.
- b) Upon installation of pit reinforcement but prior to concrete pour for cast in-situ pits.
- c) Upon installation of pipes and other drainage structures prior to backfilling.
- d) Upon backfilling of excavated areas and prior to the construction of the final pavement surface.
- e) Final inspection - upon the practical completion of all drainage and associated works (including road pavements, kerb & gutters, footpaths and driveways) with all disturbed areas satisfactorily restored.
- f) Any stormwater pit with a depth greater than 1.8 metres shall be certified by a suitably qualified Structural Engineer

**36. Stormwater – Trunk Drainage Works – Council Inspection during**

**Construction** - Joint inspections shall be undertaken with Council's Engineer and the Site Engineer to confirm the construction for the stormwater drainage is to Council's satisfaction.

The scope and number of inspections required shall be discussed and mutually agreed with Council's Engineer at the construction commencement

stage. Council shall be given a minimum 7 days' notice prior to the commencement of drainage Construction works.

Inspections shall typically occur at the following hold points:

- a) Upon installation of pipeline in the trench and installation of other drainage structures, prior to backfilling.
- b) Upon backfilling of excavated areas and prior to the construction of the final pavement surface.

An inspection fee is applicable for each visit, and at least 48 hours' notice will be required for the inspections. Please contact Council's Customer Service Section on 9952 8222 to book an inspection.

Further work is not to proceed until the works are inspected and approved by Council in writing.

**37. Stormwater - Trunk Drainage Works - Asset Handover & Final**

**Inspection** –For the purpose of the handover of the trunk drainage assets to Council, a final inspection shall be conducted in conjunction with Council's Engineer from the City Works Directorate following the completion of the trunk drainage works. Defects found at such inspection shall be rectified by the Applicant prior to Council issuing the Compliance Certificate for the trunk drainage works. Additional inspections, if required, shall be subject to fees payable in accordance with Council's Schedule of Fees & Charges at the time.

**38. Stormwater - Maintenance access for Existing GPT (S1200020) –** Council will require maintenance access to the existing GPT located at the rear of 2-4 Lyonpark Rd Macquarie Park, within Shrimptons Creek, until works are completed as part of Stage 1. A plan and letter confirming the location and permission for Council to access the site shall be provided to Council's City Works Directorate prior to the commencement of construction. The maintenance access shall remain open for all stages of the development.

**39. Stormwater – Construction – Water Quality Targets:** Water quality targets in accordance with City of Ryde DCP 2014 Part 8.2 and all relevant guidelines must be maintained throughout all construction phases. Testing shall be carried out at a frequency of no less than every three (3) months and inspections and certification shall be undertaken by a suitably qualified Chartered Civil Engineer (registered on the NER of Engineers Australia), or equivalent. The certifications shall be submitted to Council's City Works Directorate for written approval.

**40. Soil and Water – Management Measures –** During construction, the following measures should be incorporated with direction from a suitably qualified Chartered Civil Engineer (registered on the NER of Engineers Australia), or equivalent:

- Construction equipment, materials, stockpile, access roads and work platforms should not be sited within floodways where the distribution of

flood flows will be significantly altered and increase flood impacts on adjoining properties.

- Hazardous material should be sited so that the risk of such material entering a watercourse during a flood event is minimised.
- Generally, appropriate activities and methodologies should be put in place that addresses awareness, preparedness, response and recovery from a flood event in regard to such things as work health and safety, waterway impacts, site impacts and site reestablishment should a flood event occur during construction.
- Temporary measures shall be provided and regularly maintained during demolition, excavation and construction to prevent sediment and polluted waters discharging from the site.

41. **Prior to Occupation Certificate - Stormwater - Trunk Drainage Works – Compliance Certificate** – Prior to the issue of any Occupation Certificate for the final stage of the Development (currently designated as Stage 8), a compliance certificate shall be obtained from Council's City Works Directorate confirming that all trunk drainage and associated restoration works have been completed to Council's satisfaction and in accordance with the Council approved drawings. The applicant shall be liable for the payment of the fee associated with the issuing of this Certificate in accordance with Council's Schedule of Fees and Charges at the time of issue of the Certificate.
42. **Stormwater – Trunk Drainage Works - Maintenance Period** – The trunk drainage system servicing the new Roads No.1, No.2, No.3 and any proposed pedestrian links shall be maintained by the Developer until dedication is provided to Council via the registration of Council Easements as per condition "Stormwater - Council Easements - Creation of a Council Drainage Easements".
43. **Stormwater - Trunk Drainage Works - Works-As-Executed Drawings** – Prior to the issue of any Occupation Certificate, Works-As-Executed Drawings prepared by a registered surveyor for all new trunk drainage works shall be submitted to and approved by Council's Stormwater Engineer.  
  
The Works-As-Executed Drawings shall be accompanied by a certificate from a suitably qualified stormwater engineer (registered on the NER of Engineers Australia), or equivalent, certifying the drawings are a true and accurate representation of the constructed works.
44. **Stormwater - Post-Construction CCTV Report** - To ensure Council's existing and new stormwater infrastructures are adequately protected, there are no damages and the construction has been completed to Council's satisfaction, a post-construction CCTV report on Council's existing stormwater drainage pipeline and all new trunk drainage works through the proposed development site and to the downstream discharge point is to be submitted to Council.

An electronic closed circuit television report (track mounted CCTV camera footage) prepared by an accredited operator (with a certificate of attainment in NWP331A Perform Conduit Condition Evaluation) that assesses the condition of the existing drainage line adjacent to the site is required. The report is to be dated and submitted to, and accepted by Council's City Works Directorate, prior to issue of the Occupation Certificate.

The report shall be used by Council to compare with the pre-construction CCTV footage report, and to assess whether any rectification works will be required to Council's satisfaction at no cost to Council. The applicant shall obtain written approval from a Council Engineer prior to the issue of the Occupation Certificate.

The applicant shall contact Council's Stormwater and Catchments section to obtain a map of Council's existing stormwater network in the vicinity prior to conducting the CCTV survey.

- 45. Stormwater - Council Easements – Extinguish Redundant Existing Council Drainage Easements** – Existing Council easements within the site which will not convey runoff from an upstream catchment, public park, public road reserve or other public owned land shall be released. Council requires a certificate to be prepared by a suitably qualified Chartered Civil Engineer (registered on the NER of Engineers Australia), or equivalent, confirming that the existing Council drainage easement is redundant and can be extinguished.

The release of the easement shall be registered and a registered copy of the document shall be submitted to and approved by Council prior to the issue of any Occupation Certificate for the final stage of the Development (currently designated as Stage 8).

- 46. Stormwater - Council Easements - Creation of a Council Drainage Easements** - Easements in favour of Council shall be created over all existing and new pipes or channels that convey runoff from a public park, public road reserve or other public owned land and traversing any future lots. This shall include overland flow paths for conveying surface runoff. The easement shall be for the purpose of Council constructing and maintaining stormwater drainage structures.

The easement must be centrally located over the pipeline. The wording of the dedication shall be submitted to, and approved by Council's City Works Directorate prior to lodgement at NSW Land Registry.

The easement shall be registered and a registered copy of the document shall be submitted to and approved by Council prior to the issue of any Occupation Certificate for the final stage of the Development (currently designated as Stage 8).

- 47. Stormwater - Trunk Drainage Works – Post Construction Certifications** - Following completion of the final stage of the drainage and associated works and prior to the issue of the Occupation Certificate, the applicant shall submit

all certifications from the Supervising Engineer for each hold point inspection required for the drainage works, as outlined in the condition for “Stormwater – Trunk Drainage Works – Hold Points during Construction” to Council’s City Works Directorate.

The certificates shall contain photographs of the completed works and commentary of the inspected works, including any deficiencies and rectifications that were undertaken.

The Applicant shall obtain a written approval from Council’s City Works Directorate confirming acceptance of all the above-mentioned certificates.

48. **Stormwater – Operational Management and Maintenance Report** - An Operational Management and Maintenance Report is required to be submitted to Council’s City Works Directorate Prior to the issue of any Occupation Certificate for the final stage of the Development (currently designated as Stage 8). The report shall provide an outline of the proposed long term operational management and maintenance requirements of the stormwater quality management system on the site.  
A schedule or timetable for the proposed regular inspection and monitoring of the devices, maintenance techniques, reporting and record keeping requirements and associated rectification procedure shall be included in the report. Council recommends a visual inspection at least 2 times per year. Inspection should be made not less than 24 hours and not more than 72 hours after the cessation of rainfall if the total rainfall on any day exceeds 30 mm.
49. **Flooding - Flood Emergency Response Plan** - A Detailed Flood Emergency Response Plan (FERP) is to be developed for all buildings within the Ivanhoe Estate. The FERP shall consider floods up to and including the Probable Maximum Flood (PMF). Implementation and maintenance of the FERP shall be the responsibility of the relevant owner’s corporation and relevant building management. All owners and tenants of the building must be made aware of the FERP. Details of the FERP prepared by a qualified Engineer are to be submitted to Council for approval prior to issue of any Occupation Certificate.
50. **Flooding - Flood Impact Statement** - The applicant shall comply with the flood recommendations provided in the Flood Impact Assessment prepared by WBM BMT Ref no. L.S20319.03.Rev4.Flood Impact dated June 2018. A certificate from a suitably qualified Drainage Engineer (registered on the NER of Engineers Australia), or equivalent, shall be submitted to the Principal Certifying Authority stating compliance with these recommendations prior to the issue of any Occupation Certificate.
51. **Flooding – Building Components – Structural Design** - A certificate from a suitably qualified Chartered Structural Engineer (registered on the NER of Engineers Australia), or equivalent, shall be provided to the Principal Certifying Authority, prior to the issue of any Occupation Certificate, confirming the building structures are able to withstand the forces of floodwaters having regard to hydrostatic pressure, hydrodynamic pressure,

the impact of debris and buoyancy forces up to the Probable Maximum Flood (PMF) event.

- 52. Flooding - Bridge – Structural Design-** A certificate from a suitably qualified Chartered Structural Engineer (registered on the NER of Engineers Australia), or equivalent, shall be provided to the Principal Certifying Authority, prior to the issue of any Occupation Certificate, confirming that all bridge structures are able to withstand the forces of floodwaters having regard to hydrostatic pressure, hydrodynamic pressure, the impact of debris and buoyancy forces up to the Probable Maximum Flood (PMF) event.

The bridge structural design shall include serviceability allowances for bridge scour of the piers, abutments and embankments for ultimate limit states design for events up to the 0.05% AEP (2000 year ARI) storm event.

- 53. Public Domain Requirements:** The development is subject to the standards and requirements of the City of Ryde Development Control Plan DCP 2014 Part 4.5 *Macquarie Park Corridor*, and the City of Ryde *Public Domain Technical Manual* (PDTM) Section 6 – *Macquarie Park Corridor*.

- 54. New Roads width and layout - Road No. 1 and Road No. 3:** According to Figure 4.1.1 Access Network in the City of Ryde Council DCP 2014 Part 4.5 *Macquarie Park Corridor*, the new public roads identified on the submission as Road No. 1 and Road No. 3, shall be 20m wide. The pavement of the footway and the elements of the road shall be designed according to the requirements of the *Public Domain Technical Manual*, Section 6 - *Macquarie Park Corridor* and City of Ryde technical standards and specifications. The new public roads Road No.1 and Road No. 3 shall be in accordance with figure 6.1.1 (with 2 X 3.0m travelling lanes, and 2 X 2.5m parking lanes).

- 55. New Road width and layout - Road No. 2:** According to the City of Ryde *Public Domain Technical Manual*, Chapter 6 – *Macquarie Park Corridor*, Road No. 2 is not included in the proposed public road network for that precinct. Refer to Figure 3.1.1 *Macquarie Park Corridor Road Type Plan*. Road No. 2 may remain as private access road, however in order to maintain consistency for the precinct, it shall be of 14.5 m wide, and with the elements as shown in figure 6.3.1 of the *Public Domain Technical Manual*, Section 6 - *Macquarie Park Corridor* (with 2 X 3.0 m travelling lanes, and 1 X 2.5m parking lane). A threshold treatment shall be introduced in the road pavement to delineate between the public road and private access road.

- 56. Full Design Engineering plans:** The applicant shall provide Council's City Works & Infrastructure Directorate engineering plans prepared by suitably qualified Engineer, registered on the NER of Engineers Australia, providing details of the new roads including the smooth connections to existing infrastructure along Herring Road, Epping Road and Lyonpark Road. Pavement testing and design shall be carried out in accordance with Council's Road Pavement Guidelines, specifically conforming to the following:

Sampling, testing and evaluation of pavement materials;



Pavement design and performance requirements; and  
Placing and compaction of the materials in the construction of the pavement

57. **Underground Utility Services:** All telecommunication and utility services are to be placed underground along the new Roads and servicing the proposed bridge.

Note: The Proposed gas mains have not been shown on the submitted Civil drawings (sheet 300001-DA-501).

The relocation/adjustment of all public utility services affected by the proposed works shall be clearly indicated in proposed design. Written approval from the applicable Public Authority shall be submitted to Council along with the public domain plans submission. All the requirements of the Public Authority shall be complied with.

58. **Street lighting:** Street lighting shall be provided along all new roads and pedestrian links in accordance with the City of Ryde Public Domain Technical Manual Section 6 – Macquarie Park Corridor. Reference shall also be made to Council's Street Lighting Schema for Macquarie Park and Design Guide for Council-owned Street Lighting, design template and checklist.
59. **Shared User Paths:** According to Section 3.3 Access Network – Cycleway Strategy of the City of Ryde Public Domain Technical Manual - Section 6 Macquarie Park Corridor, the bicycle network is to be implemented as off-street shared cycleway along Regional Bicycle Route in Epping Road and Shrimpton's Creek pathways. Cycleways are to be located, as per approved concept plan from Council's Traffic Transport and Development Department adjacent to the property, to minimise conflict with street trees, lighting, signage and other public domain elements. The Local Bicycle Network is to be implemented as off-street shared cycleway in accordance with the Ryde Bicycle Strategy 2014 (refer also to Figure 4.3.1 Indicative Cycleways of the DCP 2014 Part 4.5 Macquarie Park Corridor).
60. **Design of Works in Public Road:** The public domain works shall be designed and constructed in accordance with City of Ryde DCP 2014 Part 4.5 Macquarie Park Corridor, Part 8.5 - Public Civil Works, and Part 8.2 - Stormwater Management, where applicable and City of Ryde Public Domain Technical Manual Section 6 – Macquarie Park Corridor.
61. **Bus Stops and Shelters:** The applicant shall provide details of any proposed bus stops and provide illuminated bus shelters to meet Disability Discrimination Act standards. Bus stops and bus shelters shall be provided at no cost to Council. (Note: Plan 300001-DA-101 refers to a bus bay which is not annotated on the drawing. No details of shelters have been provided.)
62. **Public Infrastructure Works Stage 1:** In order to ensure the public amenity to the proposed development is achieved, the public domain works associated

with the new roads, Road No. 1 and Road No.3, including the pedestrian links, kerb and gutter, footpath, vehicular crossings and stormwater drainage works shall be completed in accordance with Council's specifications and to the satisfaction of Council prior to issue of any Occupation Certificate for the first stage of the development.

63. **Public Infrastructure Works Stage 2:** In order to ensure the public amenity to the proposed development, the public domain civil works associated with the new Road 2, pedestrian link and all other road works, kerb and gutter, footpath, vehicular crossings and stormwater drainage works for this development site shall be completed in accordance with Council's specifications and to the satisfaction of Council prior to issue of any Occupation Certificate for stage 2.
64. **Design of Retaining Walls:** Any proposed retaining wall must be designed in accordance with the requirements of the detailed geotechnical report. In accordance with Council's DCP all proposed retaining walls including the footings, shall be located within private property and not within any proposed public road corridor.
65. **Dedication of Land - Road No. 1 and Road No. 3:** The Applicant shall without compensation dedicate to the Council, Road No.1 and Road No.3 prior to issue of any Occupation Certificate for the final stage of the Development (currently designated as Stage 8).
66. **Dedication of Land - Road No. 2:** If applicable, the Applicant shall without compensation dedicate to the Council Road No. 2 prior to issue of any Occupation Certificate for the final stage of the Development (currently designated as Stage 8).
67. **Dedication of Land:** The Applicant shall without compensation dedicate to the Council the Lyonpark Road Bridge, Shrimptons Creek open space corridor and Road No.1 within 2 - 4 Lyonpark Road, prior to issue of any Occupation Certificate for the final stage of the Development (currently designated as Stage 8).
68. **Structural Details for Lyonpark Road Bridge and Barriers:** The Applicant shall submit, for approval by Council, structural design details prepared by a suitably qualified and experienced Structural Engineer (registered on the NER of Engineers Australia) for the proposed bridge and any required balustrade/barriers. The Applicant shall cover Council's costs in obtaining an independent review of the proposed bridge and associated structures prior to Council granting the approval to the design plans.

The following shall be addressed by the Engineer:

- The minimum overall width of the bridge is to be 14 metres in order to accommodate two laneways (3.5m X 2), a shared path on the northern side (4.0m), a footpath on the southern side (2.0m) and the required barriers on both edges (0.5m X 2).

- To prevent structural damage from flooding, the proposed structure must be designed to withstand inundation and overland flows, including debris and buoyancy forces as appropriate.
- The provision of a suitable guardrail along both edges of the bridging structure that complies with Section 2.4.5.3 of AS2890.1-2004 and RMS requirements.

69. **Public Trunk Drainage System:** The drainage system in the roads that will be handed over to the Council shall be designed in accordance with City of Ryde DCP 2014 Part 8.2, Stormwater and Floodplain Management, Stormwater Management Technical Manual, NSW Floodplain Management Manual, Australian Rainfall and Runoff 2016 and any other relevant Australian Guidelines. Refer also to other requirements of Council's Stormwater and Catchments Section.

## WASTE

70. Where it is necessary for waste collection vehicles to enter the property to service the waste containers, A Positive Covenant must be created on the property title(s) pursuant to the relevant section of the Conveyancing Act (1919), ensuring that future owners provide and maintain the access driveway and loading bay accommodating waste collection services undertaken by Council. The terms of the instrument are to be generally in accordance with the standard terms (available from Council) and any amendments undertaken in accordance with the City of Ryde DCP 2014 - Part 8.4 (Title Encumbrances) - Section 7. The terms of the covenant are to be to the satisfaction of Council prior to endorsement and are to be registered on the title prior to the release of any Occupation Certificate. The application to Council for endorsement of the positive covenant must be accompanied by a Works-As-Executed plan of the service area ensuring there is adequate swept path and height clearances so as to accommodate Council waste vehicles. A swept path analysis may also be required to clarify this.
71. **Aboriginal Cultural Heritage:** An Aboriginal Cultural Heritage Assessment should be undertaken prior to the determination of the Concept Approval (also recommended by the Office of Environment and Heritage).

END