

Item	Topic	Ref	Content	Response
1	Planning Panel	1.1	The Panel questioned the status and context of Glendale - regional commercial hub?	The Lake Macquarie City Local Strategic Planning Statement identifies Glendale within the North West Growth Area as a strategic economic centre, one of only three in the LGA. It is part of the North West Lake Macquarie Catalyst Area, which is said to <i>present opportunities for transformational urban development in a convenient central location with considerable existing economic endowments</i> .
		1.2	The Panel questioned why social/affordable housing wasn't being provided. As this is a Crown application the Panel would expect this to be included.	The panel's enquiry with regard to commitment to the delivery of affordable housing as an outcome of the Concept DA is acknowledged. The Concept DA does not include a planning assessment of affordable housing as Council does not have an Affordable Housing Policy. Notwithstanding the above, it is noted that the delivery of affordable housing is a focus of the NSW Government. Details will be provided as relevant with each subsequent development application.
		1.3	The Panel need to understand how ecology has been dealt with in terms of the avoid and minimise requirements under the Biodiversity Conservation Act. There is a potential jurisdictional matter related to the Planners North v Ballina LEC Judgement (para 173 and 174 in particular). Reliance on the use of the C2 zone as an avoidance measure may be problematic. Applicant is requested to address this.	Noted. As the Concept Plan has been revised in response to this RFI (see Attachments B & C), the Biodiversity Development Assessment Report (BDAR) is being revised to address the avoid and minimise requirements under the Biodiversity Conservation Act. It is anticipated their report will be available January 2025. See also response to Item 3 below.
		1.4	The Panel understands that Council will be requesting additional information in relation to traffic and flooding matters.	Noted. See response to Items 2 and 5 below.
		1.5	The Panel questioned the overall approach to the site with the four storey height limits proposed and whether there could be opportunities for further variety in heights across the site (mid-range) and that this could offer possible solutions to biodiversity and social housing. The applicant noted that mine subsidence is dictating the practical limit for 4 storey to avoid a grouting exercise.	ERM have identified opportunities for additional avoidance, including areas within Lot 2 and along Main Road, north of Glendale Drive. The BDAR Addendum Report will assess the updated Concept Plan and will adjusted BAM-C outputs inclusive of revised credit obligations. While the initial advice from Tetra Tech limited the height to 4 storeys, after working through the desktop study and feedback from Subsidence Advisory (SA) NSW they have confirmed (see Attachment D) that structurally, for construction costs versus floor space, there is little difference in designing for subsidence for 4 storeys and 8 storeys, given the rock is at a depth of 6m. See also item 7 below.
		1.6	The Panel noted the need for good public transport to service the site.	TTPP addendum includes comments about existing bus services at Attachment G .
		1.7	The applicant should clarify the government audit approach as discussed.	Site was identified as part of the government's housing audit in March 2024.

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2	Flooding	2.1	<p>The flood model that informs the FIA is an updated model from a 'Glendale Development Flood Risk Assessment' (FRA) completed by BMT in 2015 and updated to include current elevations and landforms within the study area. Council Staff are not aware of the 2015 FRA and as such are not certain if the report is supportable or accurate for the site.</p> <p>No qualitative or quantitative assessment against the WMA water Winding Creek and Lower Cockle Creek has been provided.</p> <p>In adopting the 2015 flood model, the FIA uses 1987 ARR rainfall data to develop the hydrology model. The more current 2019 ARR rainfall data shall be used to ensure accuracy.</p>	<p>BMT 2015 model (ref: R.N205391.001) was a local model based on the WMA 2013 model with refined grid size and other features, and results validated against the 2013 flood study report. The BMT 2015 report has been separately issued to Council, enabling appropriate review model details.</p> <p>Review of 2017 Flood Study mapping against results from the Glendale FRA was undertaken and confirmed overall consistency in results for this reach of Winding Creek. See FIA addendum report at Attachment E.</p> <p>Council's adopted flood study uses ARR1987, the approach used in this study is consistent. Evidence has been provided to support BMT's position that an update to ARR2019 methodology was not needed, which has been agreed and accepted by Council.</p>
		2.2	<p>The report proposes to elevate the developable proportion of lot 2 on a slab constructed on piers. This structure will have the residential property(s) at the flood planning level (FPL = 1% AEP plus 500mm) and the ground level below the suspended slab will be a car park set at the 5% AEP level. The report proposes to include a wall along the eastern side of the suspended structure to provide "flood immunity during the 5% AEP event". This statement raises a number of questions as the level of the carpark should already be set at the 5% AEP level, and therefore should not require additional flood protection for this event.</p> <p>It is not clear whether the proposed wall has been included in the post-development model as an obstruction, which may cause afflux to flow resulting in flood impacts on adjacent property. Furthermore, it is not clear whether the piers for the suspended structure have been included as obstructions within the model which may also cause afflux, particularly if they are constructed close together and could become blocked by debris and floating vehicles during a flood event greater than the 5% AEP.</p> <p>Clarity of what consideration have been made shall be provided, noting Council is unlikely to be supportive of the additional blockages within the 5% AEP.</p>	<p>The structure has been modelled as a layered flow constriction with obvert at 11mAHD, 10% blockage and a form loss coefficient of 0.1. Piers would be sufficiently spaced to avoid risk of blockage. The natural surface has been maintained underneath the structure to maintain flood storage in events greater than the 5% AEP event. See addendum reports at Attachments E & F.</p>
		2.3	<p>The FIA appears to have disregarded overland flow in the post development scenario when setting the FPL for lot 1. It proposes that inter-allotment drainage will be incorporated into the development to manage overland flows through his area.</p> <p>Pits and pipes become blocked during flood events and cannot be relied upon to manage flood flows (drainage pipes typically only account for the 10% AEP).</p> <p>DCP controls for the FPL should still be applied to overland flooding and under the current arrangement floor levels will be lower than the required level.</p>	<p>Overland flows were included, no local drainage was included. Modelling has been updated to include major swales designed to convey flows from north to south across Lot 1. Pits and pipes (minor drainage) are assumed to be blocked during a major event. See addendum reports at Attachments E & F.</p>

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		2.4	The FIA and attached mapping indicate flood impacts downstream of up to 40 mm over a broad area. In my experience flood impacts of less than 10 mm can be considered within the accuracy of modelling processes and anything greater than 10 mm unacceptable flood impacts. While the area subject to increased flood levels appears to be public land it is not overly good practice to accept this as potential future development or works on the land could be impacted. Increases to flood level are most critical to adjacent privately owned land as the increases in levels, even minor, can have a flow on effect to increasing potential flood damages, flood insurance costs and costs associated with constructing new flood compliant developments. There will be a direct impact to flooding of Main Road which is a Transport for NSW (TfNSW) asset. TfNSW requirements for increased impact on their assets are low and shall be confirmed with the TfNSW if they are willing to accept any increased flood in	The purpose of the flood impact criteria is to prevent 'adverse' impacts, being impacts that cause damage, disruption or inconvenience. Generally, no damage, disruption or inconvenience is caused by minor flood impacts on open space. Austroads suggests up to 400mm of impact on open space/forest is acceptable for major transport infrastructure (AGRD05-23 Guide to Road Design Part-5 Drainage General and Hydrology Considerations, section 6.10). Another consideration is cumulative impacts of future development. In this case, the upstream catchment is highly developed and so this is not considered a major concern. There is no impact to Main Road predicted. See addendum reports at Attachments E, F & G.
		2.5	Table 3.1 of the FIA seeks to address compliance of the development against all flood related development controls in the DCP. However, a number of the controls the table notes the development as being compliant, such as floor level controls, are not relevant to the concept subdivision stage of the development application process. This table should be updated to reflect the stages at which all controls will be completely resolved, and compliance achieved.	See FIA addendum report at Attachment E that has been updated to better reflect applicable controls.
		2.6	It is noted Council does not have software available to review TUFLOW models. The information above shall be reviewed and expanded to clarify modelling assumptions and internal review confirms that there is sufficient detail then third-party review may be avoided.	The FIA addendum at Attachment E has been updated to include previous (2015) reporting as an appendix and comparison between ARR 1987 and 2019 approaches.
3	Biodiversity	3.1	The Panel raised specific concern with the need to understand how ecology has been dealt with in terms of the avoid and minimise requirements under the Biodiversity Conservation Act. There is a potential jurisdictional matter related to the Planners North v Ballina LEC Judgement (para 173 and 174 in particular). Reliance on the use of the C2 zone as an avoidance measure may be problematic. Applicant is requested to address this consideration.	Noted. In assessing the revised Concept Plan, the BDAR Addendum Report is being revised to clearly identified and confirm that the C2 lands do not form part of the avoidance measures. The addendum report will detail further actions undertaken to avoid and minimise impacts to biodiversity, largely through increased avoidance to land surrounding the suspected nest tree/s.
		3.2	The following information is required in order to appropriately assess impacts to flora and fauna values:	

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		3.2.1	• Redesign of proposed Lot 32 shall be considered to avoid further removal of native vegetation. The lot contains vegetation mapped as EEC and is susceptible to water logging and semi-permanent water standing which may not be suitable for development. Consideration should be given avoid the development of proposed Lot 32 entirely.	<p>The BDAR addendum report will provide (based on publicly available information in the TBDC) additional information of the habitat requirements of the EEC and demonstrate that the proposed concept design will not result in any significant changes from the existing hydrological conditions.</p> <p>Refer to addendum to the Civil Engineer report regarding the hydrology assessment at Attachment F.</p> <p>Refer Tetra Tech advice at Attachment D.</p>
		3.2.2	• The Powerful Owl nest/roost tree requires a buffer of 100m (nest) or 50m (roost) as per the Large Forest Owl Planning and Management Guidelines (LMCC 2014). While it is understood that a 100m buffer might not be achievable, the development should be adjusted to significantly increase the buffer possibly to 50m. Further tree retention within this buffer zone should be provided. Trees to be retained are to be clearly shown on relevant maps. If a larger buffer is not possible then consideration must be given to retaining additional suitable Powerful Owl nest trees.	The BDAR addendum report will address any increased buffer to be applied to the suspected owl nest tree for avoidance. Where project design was able to be amended to retain additional potential nest trees, details have been provided within the addendum.
		3.2.3	• Serious and Irreversible Impacts (SAIL) concluded that it is uncertain as to whether the proposed 30m riparian buffer will be sufficient to maintain viable resources for a Powerful Owl breeding pair. This means that SAILs have not been adequately mitigated and more consideration must be given.	The BDAR addendum report will aim to include additional evidence to support that the retention (and rehabilitation) of the Winding Creek corridor will support viable resources (populations of known prey species) for the local Powerful Owl pair.
		3.2.4	• Basin shall be removed from C2 lands entirely. If it is demonstrated that alternate locations are not possible (must be discussed), they must be included within the BDAR as direct and indirect impacts with all plans and calculations of impacts amended accordingly.	The BDAR addendum report will demonstrate that alternative options have been explored for basins in the C2 zone, and provide an assessment of direct and indirect impacts.
		3.2.5	• Post construction impacts should be discussed, particularly changes in hydrology during normal and flooding levels of rain.	To be addressed in the BDAR addendum. See also revised Flood Impact Assessment and Civil Engineering Report at Attachments E & F .
		3.2.6	• The impacts of the shared path should be discussed and assessed, while it is understood that detailed design is not proposed at this stage it needs to be demonstrated it can be feasibly achieved.	Addressed in addendums to Traffic & Transport Assessment, Civil Engineering Report and Landscape Plans and reports at Attachment F & G .
		3.2.7	• Squirrel glider has been excluded from the site but proposals to improve connectivity through the use of glider poles and rope bridges is proposed and supported. A proposal for the locations of these structures should be included in the VMP.	ERM addendum at Attachment H includes indicative locations of glider poles, also to be included within updated VMP at Attachment L .
		3.2.8	• Asset protection zones and batters are not supported within C2 zoned land.	BEMC addendum at Attachment I

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4	Active Transport	4.1	Council does not have plans to build a path and bridge over Winding Creek to Glendale Drive (the North South Pedestrian Link). The path and bridge are identified within the pedestrian network strategy and the Glendale Town Centre Area Plan however are required to be provided as part of the future development as the link will provide access between the development and Glendale centre.	Revised Concept Plan has resulted in the deletion of the bridge and a redesign of 'civic park' as originally identified in the Contributions Plan. See revised landscape design and review of open space policy at Attachments J & K .
		4.2	The proposed pathway network is to be reconsidered to ensure future residents are not required to cross major roads multiple times to access destinations. Where existing pathways are available missing links should be identified and safe access to all stages of the development is to be identified.	Proposed pedestrian pathways are shown on the revised Concept Plan in Attachment B , Addendum Report to the Traffic and Transport Assessment at Attachment G and the revised landscape plan at Attachment J .
5	Traffic	5.1	We are unaware of any funded proposal to upgrade Main Road from Glendale Drive to Lake Road as indicated in section 3. The assessment will need to be revised to consider what upgrades are required due to development impacts, including written advice from TfNSW, rather than assume TfNSW have a plan to provide these upgrades that will coincide with the timing of the development.	New traffic forecasts in the TfNSW strategic modelling team do not include the duplication of Main Road. This is reflected in the addendum report to the Traffic and Transport Assessment report in Attachment G , including updated modelling.
		5.2	The upgrades shown to Main Road on the preliminary concept plans should be extended west to Lake Road to ensure Main Road can function logically and safely as a dual carriageway road between Lake Road and the Stevens Avenue intersection. This extension will be required to ensure the intersections can safely operate together with adequate capacity. Note: Main Road upgrades are to include pathways.	Traffic modelling has been updated and the need for this upgrade will be assessed. Refer to Attachment G .
		5.3	Our preference is for the proposed intersection of lot 1 and Glendale Drive to be signalised. This is to ensure safe crossings can be provided at the intersection for future residents in all directions. If this is not considered suitable, a signalised Pelican Crossing is to be provided south of Winding Creek on Glendale Drive where the regional shared pathway is proposed to cross.	The revised Concept Plan proposes a signalised intersection at the junction of Lot 1 and Glendale Drive that will enable safe crossing for pedestrians and cyclists and a direct connection to the pathways utilising the former road bridge. Refer to Attachments B & G .
		5.4	The report notes a significant limitation in the traffic modelling provided, in that the connection of Glendale Drive to Pennant Street has not been considered, and the resulting traffic generated by this connection has not been considered.	This project is not funded and beyond the scope of this assessment. Further there are no traffic forecasts for this connection. Refer to section 7.6 of Attachment G for further information.
		5.5	The assessment does not consider trips generated by lots 2,3,31,32 and 33, which could significantly change the forecast traffic volumes and patterns and add further pressure on the road network. The assessment is to consider the full development to ensure proposed road upgrades are sufficient to mitigate development impacts.	All lots were included in the traffic forecasts. However, as the precise nature of each of the developments is not known the details were not included. This will be clarified in updated traffic modelling response. Notwithstanding, it will be noted that future developers will need to assess their proposal.

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		5.6	Concerns raised by Transport for NSW in their letter dated 12 June 2024 shall be addressed.	These comments are addressed concurrently, including the updated of the traffic modelling and access and construction impacts, in the Traffic and Transport addendum at Attachment G .
6	Subdivision Design	6.1 6.1.1 6.1.2	<p>The following items are to be clarified with the subdivision design:</p> <ul style="list-style-type: none"> • Outside of remaining in transport ownership it is not demonstrated what proposed Lots 34, 35 and 36 will be utilised for and why should be supported. This is to be clarified. • Confirmation of legal access from the existing driveway stub from Glendale Drive shall be provided or alternate access arrangements are to be demonstrated. 	<p>There is no change of existing use proposed for these lots.</p> <p>The existing driveway stub is not a declared road. Access to Lot 31 is available off Glendale Drive and Stockland Drive. This assumption is included in the Traffic and Transport addendum at Attachment G.</p>
7	Activation of Main Road Frontage	7.1	<p>Presentation of commercial frontages to main road is supported however lot 103 appears to interrupt this. To ensure the commercial presence is enforced the use of 103 as residential is to be reconsidered.</p> <p>In addition, the interface of residential development to Main Road is to be considered with intention of retaining mature vegetation to this frontage.</p> <p>There may be scope to increase height of development around the commercial precinct to ensure yields are maintained.</p>	<p>The use of Lot 103 has been revised to shop top housing such that the ground floor would be used for commercial premises or health services facilities, consistent with the approach to Lots 104 and 105 and to improve the street level relationship across Lots 101-105. This is reflected in the revised Concept Plan and addressed in the Urban Design Addendum. Refer Attachments B & C.</p> <p>The design of the residential interface with Main Road, which will be addressed in subsequent development applications, would seek to retain as much mature vegetation to this frontage as possible to enhance the appeal of the development and soften its presentation in the surrounding area.</p> <p>The Concept Plan has been revised to increase the height of buildings on Lots 103, 104, 105, 115 and 116 from 4 storeys to 6-8 storeys. As this exceeds the LEP height a clause 4.6 variation request has been prepared. Refer Attachment Q.</p>
8	Parks	8.1	<p>A Local Park is required, with Council's Parks and Play Strategy requires an approximate park area of 6,000m².</p> <p>Two separate spaces are not Council's current preferred outcome and a consolidated arrangement in an area accessible to residents could be considered, noting there is low desire for Civic Park in its identified location.</p>	<p>The configuration of the open space has been revised as part of the revised Concept Plan. The Open Space Policy Review at Attachment I sets out the justification for the extent and configuration of the proposed open space. However, as this application is for a Concept DA, it is anticipated that the final design will be addressed in subsequent applications.</p>
9	Landscape	9.1	<p>Details the cover crops species for development lots shall be provided which align with the plant community types found throughout the site. Species which pose risk to the native bushland will not be supported in these areas.</p>	<p>Council has confirmed by email dated 8 October 2024 that the cover crop species can form a condition of consent.</p> <p>Refer also the revised Landscape Report at Attachment J.</p>

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10	Contamination	10.1	The detail of the Remediation Action Plan (RAP) Phase 2, Lot 3 Subdivision, define the material from Lot 31 will be moved to Lot 33 for fill does this require an NSW Environment Protection Authority Environmental Licence. Please confirm if the requirement for Environmental Protection Licence is required to implement the RAP.	Regarding the process of applying for and the EPA approving the EPL, the Development Approval will need to include the EPL as a condition of consent. The EPA will consider issue of the EPL only when EPA is certain that Council has included the requirement for an EPL as part of the planning approval for the development of the site. Refer Tetra Tech advise at Attachment D .
11	Heritage	11.1	Updated Statement of Heritage Impact is required which discusses the appropriate heritage curtilage and considers the previous heritage reports, in particular the Conservation Plan by Suters Architects Snell, dated 1996. Should any aspects of the Conservation Plan require updating, an updated Conservation management document should also be provided. It should be noted the conservation policies are largely dependent on the item's significance, and therefore drastic changes to the policies are not anticipated.	An updated Statement of Heritage Impact (Attachment N) has been prepared with reference to the 2002 CMP for Cardiff Workshops by Suters Architects. The Significance Assessment (Section 5) and Assessment of Heritage Impact (Section 6) have been revised. Additional recommendations relating to landscape character, heritage interpretation and the requirement to update the 2002 CMP have been incorporated in Section 7.2.
		11.2	A revised Aboriginal Cultural Heritage Assessment Report that contains the following:	
		11.2.1	a) Presentation of maps through the report, unredacted. The area of assessment will need to reflect plans submitted for the development application.	A revised Aboriginal Cultural Heritage Assessment has been prepared (Attachments O & P). Two versions have been supplied; one without redactions (for Council review), and one with redactions (for public viewing).
		11.2.2	b) Consideration of archaeological test excavations of potential archaeological deposits and areas of archaeological sensitivity.	A dotpoint has been added to Section 11.2 'Recommendations' of the revised ACHAR stating that no Artefact sites are proposed to be harmed. Additionally, no Potential Archaeological Deposits have been identified within the Project Area. As such, there is no requirement for salvage or test excavation for the Concept DA and first stage of development.
		11.2.3	c) Where potential archaeological deposits/ areas of archaeological sensitivity are proposed to be impacted, please present the results of archaeological test excavation. Revise the significance and impact assessment and management recommendations to reflect test excavation results.	Please refer to above response.

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		11.2.4	d) Work to revise plans to avoid harm to culturally modified trees and develop strategies to protect these trees.	Additional dotpoints have been added to Section 11.2 'Recommendations' of the revised ACHAR stating that avoidance of sites and areas of high archaeological sensitivity within the proposed development footprint should be prioritised as part of future detailed DAs. Should avoidance not be possible, an AHIP would be required to address impacts. Furthermore, consideration should be given to incorporating the two culturally modified trees within the development footprint into proposed landscaping designs or interpretation/signage devices, following their removal. These options should be finalised in consultation with the registered RAPs during the AHIP stage of the project.
12	Subsidence Advisory	12.1	Subsidence Advisory have conducted a review of the Tetra Tech Coffey Report 'Concept Development Application and First Stage Development 65 Glendale Road', Glendale' Ref: 754-TLGE320046-AC. Rev3, dated 20 February 2024. An amended report for the application is requested which provides consideration of: •Table 4 (summary of uncertainty factors) states a weighting of 2 for the Geotechnical Environment (R1). Under our subdivision and merit assessment policies this weighting value should be 3. •The report advises the subsidence mechanism is residual subsidence over extracted mini walls. For this mechanism of subsidence, application of our design requirements in our policies should be as per pillar factors of safety not being met.	All items raised by Subsidence Advisory NSW have been included in the Revision 4 of the mine subsidence report (Ref: 754-NTLGE320046-AC. Rev 4, dated 25 June 2024). This document was an update that was completed following the provision of inputs from post DA submission in Attachment Q .
13	Water NSW	13.1 13.2 13.3	Water NSW have requested the following additional information to complete their assessment: •Clarify the number of outlets (stormwater drain, flood mitigation channels) to the stream and their location and specifications/drawings. •Clarify how the stormwater quality (from contamination, erosion/sediment) will be maintained before being drained into the stream.	This item has been addressed in the addendum to the Civil Engineering Report including amended Civil Engineering addendum at Attachment F . This item has been addressed in the addendum to the Civil Engineering Report including amended Civil Engineering addendum at Attachment F .