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17 February 2022

Jacobs
Level 7, 177 Pacific Hwy
Sydney NSW 2060

Attn: Marisa Sidoti, Project Manager

Dear Marisa,

SINSW - GLENWOOD HIGH SCHOOL
RESPONSE TO SUBMISSION

Thank you for your email dated 23 December 2021, requesting the review and preparation of written responses to address concerns raised pertaining to the **SSD-23512960 - Glenwood High School Upgrade**.

Our responses to identified relevant concerns raised in the submission are outlined below:

Department of Planning, Industry & Environment

Trees and Landscaping

EES raises the following comments in relation to the impacts identified.

The report states that 'one high retention value tree (Tree 73) will be subject to high Impact from SSD works. There may be possibility for design changes which could allow for the retention of this tree however the current design does not allow this tree to be retained.' EES notes that the actual level of encroachment into the tree protection zone (TPZ) of the tree has not been documented in the report, however if there is potential for this tree to be retained and protected, this should be further explored.

A major encroachment into the TPZ of Tree 72 is also proposed under the subject SSD. The exact extent of encroachment is unclear however the report notes the tree may be retained subject to specific construction methodologies and timing of works. Further clarity should be provided regarding the actual measures required to retain and protect this tree.

In relation to the Early Works Development Application (DA), the report identifies trees numbered 118 and 120 will be impacted by major encroachment into their TPZ and should be subject to further root investigations. The trees are not documented for removal however given the recommendations of the BDAR to protect and restore the patch of CPW where the trees are located, further certainty should be provided for their retention. Based on the information provided, the only works within the TPZ of these trees is batter. The extent of batter should be refined so that it does not encroach in the TPZ of the trees. This requirement should be reflected in the Arboricultural Impact Assessment.

Response:

McIntosh & Phelps has developed design iterations to the existing design currently encroaching on the Tree Protection Zone (TPZ) of Tree 73 - *Eucalyptus tereticornis* (Forest red gum). The proposed design amendment option (Refer Appendix 1) minimises the encroachment to Tree 73 from 20% to 8.44% and should allow the tree to be retained.

The encroachment of the TPZ of Tree 72 - *Eucalyptus tereticornis* (Forest red gum) is 10.4% (Refer Appendix 1). Construction methodologies to reduce the impact on the TPZ identified by Eco-Logical could include;

- Root mapping investigation through hand / air spading is to be completed under the supervision of a AQF Level 5 consultant arborist to determine if roots are present.
- The position of pier footings for pathway arrangement are to be strategically placed around the existing tree roots (if found to be present in the root mapping exercise)
- AQF Level 5 Consulting Arborist to be present during all works when working with the TPZ of Tree 2.

Trees 118 and 120: The amended Arborist Report at Appendix I indicates that these trees are not subject to an impact because of the proposed development which is subject to this SSDA. These trees are subject to medium impact (<20% TPZ encroachment) becuase of under the early works DA, and mitigating measures are in place under that early works DA to ensure their retention.

Department of Planning, Industry & Environment

Attachment 1 - Key Issues

2. Built form and Urban Design

Further address the State Design Review Panel (SDRP) advice for the project dated 14 December 2021, read together with SRDP 2 advice letter dated 13 October 2021, in particular advice relating to:

Outline the reasons for the existing fence surrounding the Cumberland Plain Woodland is being retained which does not allow students to freely utilise the woodland area – if there are environmental reasons for doing so please identify.

Response:

The existing Cumberland Plain Woodland Patch includes a number of environmental constraints including:

- Hollow-bearing trees that provide important nesting habitat for a variety of local native woodland bird species. Ecologist from Kleinfielder have observed a number of woodland birds, including Red-rumped parrots using the hollows during there site inspections and recordings.
- Shallow drainage channel which the school has noted sometimes contains frogs, and
- Important fauna habitat features, including fallen timber

Further to the above:

- The hollow-bearing trees provide important nesting habitat, but potentially pose a health risk, from limb-drop to people occupying the woodland
- Removing the fence could potentially lead to uncontrolled access and further degradation to the ecological value

The ongoing management recommendations outlined in the Biodiversity Development Assessment Report, dated 10 November 2021, under section - 5.3 Mitigation and Manage Impacts on Biodiversity Values state that the "boundary of the Cumberland Plain Woodland Patch (Vegetation Zone 1) should remain delineated by retaining existing fencing until a time in which an appropriated management plan is developed and implemented for the community. The delineation of the boundary of the Cumberland Plain Woodland and managed exotic grassland will prevent encroachment into the woodland through mowing"(p.43).

To address the above environmental constraints the existing perimeter fence to the existing Cumberland Plan Woodland Patch will be retained. Sections of the existing fence that are damaged will be replaced or rectified to match existing.

Why the site cannot provide a higher percentage of tree canopy coverage (40%)

Identify and provide opportunities for the entire site to be able to benefit from additional tree plantings and not solely the area adjacent to the new buildings

Response:
Tree planting has been primarily focused in the areas immediately adjoining the proposed new buildings. The proposed new tree planting has greatly increased the canopy cover to the school from 17.8% to 24.38%.

McIntosh & Phelps could suggest future initiatives for additional tree planting to the remainder of the school site, noting constraints such as:

- Existing Parking and 'kiss and drop' to the west and south of the school
- Active and passive play requirements

Why the footpath has not been reinstated forming a pedestrian connection between end points of the new 'L' shaped building.

Response:
The path originally shown linking the 'L' shaped building (North homebase) was removed due to the business case and budget. The original path traversed an overland flow path, requiring the path to be elevated. The overland flow constraint, coupled with the path required to be elevated would required major engineering consideration and design including:

- Handrails and balustrades
- Pier footings
- Plank / decking type construction

The pathway has now been substituted with an informal arrangement of stepping stones with interpretation panels informing students of the Cumberland Plan Woodland.

McIntosh & Phelps has now proposed to increase stepping stone path linking the proposed new homebases to the north (Refer Appendix 1)

5. Tree Retention

The proposal includes the removal of a highly significant tree identified as Tree 73 in the submitted Arboricultural Impact Assessment (AIA). The AIA states that there may be possibility for design changes which could allow for the retention of this tree.

Include further justification, evidence and assessment as to why a design modification cannot be achieved to provide for the retention of Tree 73.

Response:
Refer above response; Department of Planning, Industry & Environment - Tree and Landscaping

We trust the above adequately addresses the issues raised by DPIE.

Please do not hesitate to contact us should you have any queries or require any additional information.

Yours faithfully,

Glenn McIntosh
Architecture Graduate
Landscape Architect
AILA

Appendix 1
Drawing amendments

- DA-LA-0002
- DA-LA-0003

GLENWOOD RESERVE

48 x As.

SCREEN PLANTING TO GLENWOOD PARK DRIVE

YARNING CIRCLE WEAVING

58 x As.

EXISTING TF

AUGMENT EXISTING CUMBERLAND PLAIN WOODLAND PATCH WITH NEW TREE PLANTING.

PLACE LOGS AND BRANCHES FROM TREES TO BE REMOVED ON SITE WITHIN CUMBERLAND PLAIN WOODLAND PATCH TO IMPROVE OPPORTUNITIES FROM HABITAT AND IMPROVED BIODIVERSITY

LOCALISED WEEDING AND GROUND PREPARATION / MULCHING TO 2m DIA. FOR NEW TREE PLANTING.

RECTIFY OR REPLACE DAMAGED PANELS / SECTIONS OF EXISTING FENCE TO MATCH EXISTING

WAKE GOOD

EXISTING FENCE

EXISTING GAMES COURT

EXISTING CUMBERLAND PLAIN WOODLAND

EXISTING COLA

1:10 TURF (TF) EMBANKMENT

IN GROUND CONCRETE PLANK (STEPPING STONES) WITH INTERPRETATION PANELS

YARNING CIRCLE

OSD

GLENWOOD PARK DRIVE

SCREEN PLANTING TO GLENWOOD PARK DRIVE

FFL60.900

DRAWING NORTH

JOINS DRAWING DA-LA-0003

JOINS DRAWING DA-LA-0003

LEGEND

- SITE BOUNDARY
- ENCROACHMENT TO TREE PROTECTION ZONE
- HARDWORKS AND BLEACHER SEATING ADJUSTED TO MINIMISE ENCROACHMENT TO THE TREE PROTECTION ZONE (TPZ) OF T73
- PROPOSED NEW INFORMAL STEPPING STONES TO CONNECT NORTH HOMEBASE
- EXISTING TREE TO BE RETAINED
- EXISTING TREE TO BE REMOVED. REFER TREE REMOVAL SCHEDULE ABOVE. # REFER ARBORIST REPORT
- EXISTING TREE PROTECTION ZONE (TPZ) FOR TREES 72, AND 73
- NEW TREE PLANTING. *Gs Genius species* REFER PLANTING SCHEDULE

Key Plan:

Drawing Disclaimer:
Do not scale from drawings.
Verify all dimensions on site before commencing work.
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Note
PTW takes no responsibility for external building elements. Anything connected with any design, materials selection, construction or installation of any cladding, facade or external building element must be checked by and remains the responsibility of others, including suitably qualified experts as may be required.

Rev	Amendment	By	Chk**	Date
A	SINSW - GHS, WRITTEN RESPONSE	GM	GM	22/01/21

***Registered Architect**
DHJ Diane H Jones NSW Arch 4778

****Registered Landscape Architect**
GM Glenn McIntosh AILA

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NSW Nominated Architects
S Parsons Architect No.6098
D Jones Architect No.4778

1:200 @ A1

Project
GLENWOOD HIGH SCHOOL
FORMAN AVENUE, GLENWOOD, NSW 2768

Status
SINSW - GHS, WRITTEN RESPONSE

Title
DETAIL LANDSCAPE PLAN
SINSW DEVELOPED DRAWING

Drawing Number DA-LA-0002a **Revision** A

A1

JOINS DRAWING DA-LA-0002

JOINS DRAWING DA-LA-0002

GLENWOOD PARK DRIVE

EXISTING COLA

IN GROUND CONCRETE PLANK (STEPPING STONES) WITH INTERPRETATION PANELS

EXISTING FENCE

ROOF SHOWN DASHED ABOVE

YARNING CIRCLE

EXISTING TURF MAKE GOOD

FFL60.900

FFL62.075

FFL64.000

T72 172m² (TPZ) 17.9m² (10.4 %)

T73 254.5m² (TPZ) 21.49m² (8.44%)

17.9m² (10.4%)

3.49m² (1.37%)

18m² (7.07%)

FALL 1:50

SSZ

TPZ

DRAWING NORTH

LEGEND

- SITE BOUNDARY
- ENCROACHMENT TO TREE PROTECTION ZONE
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Drawing Number DA-LA-0003a

Revision A

A1