LANDSCAPE ARCHITECTURE DESIGN REPORT - ADDENDUM 02

New Primary School in Mulgoa Rise

APPLICATION NO. SSD-11070211

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1 Executive Summary

This LANDSCAPE Design Report – Addendum 02 has been prepared in response to agency comments to the proposed development and to highlight items requiring endorsement from the various planning agencies & stakeholders.

This addendum must be read in conjunction to the LANDSCAPE Design Report dated August 2021 (SSDA 11070211), Addendum 1 and the advice letters received during the public exhibition.

2 Agency Recommendations and Responses

The following table sets out the relevant Agency Recommendations and the Project response

AGENCY	ISSUE	AGENCY RECOMMENDATIONS	REPONSES
PCC	1. Planning Considerations	**P.2.1.(a)(i)** The Department is urged to have strong regard to the need to ensure (in line with the Premiers Priorities and the Minister's recently issued Planning Principals), the need for high levels of canopy tree planting and green streets, Council raises that regard is to be had to Council's previous comments provided in cover letter dated 1 October 2021 including: (i) It is critical that planting within the front setback at this location is proposed where there are no street trees (also refer comments below in relation to street tree removal and recommended actions). The development of the site shall achieve and provide continuous canopy tree planting around the periphery of the development to screen the hard stand / manoeuvring area associated with the waste facilities.	A continuous tree canopy has been provided to street frontages where possible. However there is an opportunity to provide a staggered tree alignment to further increase the tree canopy and screening, via adding 7 additional trees @ 100L pot size.
	4. Landscape Design Considerations	**P.8.4.(a)** (a) Landscape plans and cross sections represent proposed level changes and thus must take into consideration proposed engineering and infrastructure and this is to be demonstrated in detailed sections and details.	Currently 3 sections & 1 sectional elevation with design levels and engineering elements included; NBRS to propose 2 additional sectional elevations of both entries for clarity
		P.9.4.(b) (b) Streetscapes Fencing details are lacking - for streetscape amenity fences should be setback from the boundary with landscaping to reduce the visual impact of the fence. Street trees are proposed to be removed to enable accessible parking bays. These street trees should be replaced at a 2 for 1 ratio. Council supports street trees of a suitable size above and below ground in between kerb ramps at accessible parking bays. Additional street trees should be considered in the verge north of playing courts. To further support amenity in the streetscape and wayfinding, the site corner has capacity for large feature trees in association with walls and signage Consistent with Council's Cooling the City Strategy, a continuous and effective street tree canopy is preferred. Street trees should be planted in accordance with Council's Street and Park Tree Management Plan and Appendix. Protection of existing street trees to be retained should be in accordance with Australian Standards and documented.	Fence location is proposed to avoid stormwater infrastructure in the area. Understory planting has been included to reduce the visual impact of the 2.1m palisade fence (EFSG requirement). A greater than 2:1 Ratio is currently achieved along Deerubbin drive (and the remaining site). However, we have adjusted the tree planting in this area to be a staggered line of trees which provide an additional 7 trees. There is an opportunity for additional tree planting to the north of the playing courts, but this area is not within this projects scope of works and any works in this area would be completed by others. A feature tree (Araucaria cunninghamii) will be relocated next to the signage wall to act as a wayfinding element as requested.

		P.10.4.(c) (c) Tree Canopy Cover There is a lack of detail regarding tree species and the corresponding canopy dimensions on the plan. Whilst the canopy cover appears to meet targets, large tree species are not identified on the plan, nor their mature canopy spread represented on the plan. Depending on the species and where they are planted, there is potential for tree canopies to damage building awnings or impact building maintenance regimes, and rootzones to damage paths and paving. Tree locations should be appropriate for the available volume above and below ground for canopies and rootzones respectively and the minimum 40% cover target would still be achievable. Assuming the unidentified open space along the access to Forestwood Drive is intended for parking, additional shade planting is appropriate to cast shade onto pavement areas. A kerb edge is required to contain parking to formalized carparks. Overflow and unauthorized parking in landscaped areas compromises soil compaction and tree health.	Drawing L-SSDA-0010 Planting Zone Plan provides the locations of tree planting across the site. This corresponds with the planting schedule provided on sheet L-SSDA-0011 Planting Schedule - Trees. The canopy dimension shown on plan is based on an average mature canopy dimension to account for variance in growth. Large canopy trees are located away from building awnings where possible to minimise the impact on maintenance. Correct the mulched area to the south of stage car park is intended to be a future extension of the stage 2 car park area. Tree planting has not been included in this area as tree planting in this area will be removed during construction of the stage 2 car park. A kerb has been included in the car park design.
		P.12.4.(e) (e) Accessibility DDA compliant seating, incorporating universal design principles, should be provided in close proximity to accessible drop-off and pickup parking areas.	Typically students, especially those with special needs, are encouraged to wait for parent pick up at the COLA, OSHC & Support Unit Hub for better after hour supervision while waiting in weather protected areas
		P.13.4.(f) (f) Maintenance and operational Details of maintenance access have not been provided and are required. A plant establishment period of 52 weeks is considered minimum industry practice.	Maintenance access point is provided at the southern end of the stage 1 car park (adjacent bay 11). Plant establishment period/requirement will be provided in the Landscape technical specification at Detail design stage.

EES	Site Landscaping / Habitat Improvement	**E.1** Use of local native provenance species In its submission on the EIS, EES recommended the SSD uses a diversity of local provenance native species from the relevant native vegetation community (or communities) that once occurred on the site/locality, rather than use exotic species or non-local native species. EES recommended this particularly as the site is located near the Mulgoa Nature Reserve and Surveyors Creek Nature Reserve, both of which are mapped as containing biodiversity values. The EIS notes Mulgoa Nature Reserve contains good quality Cumberland Plain Woodland, which is listed as a critically endangered ecological community under the Biodiversity Conservation Act 2016 (BC Act), while Surveyor's Creek Reserve contains River Flat Eucalypt Forest, which is an endangered ecological community. EES also recommended in its submission on the EIS: • The RtS and Landscape Design Report should identify the native vegetation community that once occurred on the site, or in the locality. • The Landscape Design Report should provide a list of local native species from the relevant vegetation community to be planted and demonstrate that the plant species to be used are of local provenance. • the Planting Palette and Planting Schedule in the Landscape Design Drawings are amended to use local native provenance species and identifies which species are local native provenance species and any non-local native or exotic species.	A updated planting schedule will be included to identify species from local plant communities. This will be also included in the report appendix C, L-SSDA-0011 Planting Schedule Planting palette images will be updated to reflect selected species. Exotic species have been removed from the design.
		In response, the RtS states "where possible species from the local plant communities have been included in the design (subject to availability & EFSG requirements). To supplement these species local natives or robust native species have been selected to suit the site conditions". The RtS does not specifically identify which native vegetation community once occurred on the site, or in the locality and it is unclear why the local native species need to be supplemented by other 'robust native species'. EES notes in the RtS that Council recommended alternative tree species be identified that are more consistent with Shale Plains woodland. It is noted the Planting Schedule in Appendix C identifies plant species that are from Cumberland Plain Shale Woodlands and the Shale-Gravel Transition Forest Community but the Planting Schedule also includes numerous species that are not identified from these communities.	An updated planting schedule will be included to provide information regarding species locality plant communities. Native species from local planting communities will be prioritised based on availability & suitability for school environment.

	Site Strategy and Landscape	EES repeats its recommendation that a condition of consent is included for any planting / landscaping associated with the SSD to use a diversity of local provenance native trees, shrubs and groundcover species (rather than exotic species or non-local native species) from the relevant native vegetation community that once occurred in this locality (see below). EES recommends an appropriately qualified bush regenerator is engaged by the proponent to provide advice on appropriate local native species that can be used on the site and to revise the Planting Schedule.	The project proposes the Bush Regenerator Consultant to peer review NBRS Landscape documentation and provide a "compliance" statement. An updated planting schedule will be included to provide information regarding species locality plant communities.
		E.2 Installation of Habitat Features EES recommended the school installs habitat features such as logs, a range of artificial nest boxes which are suitable for native fauna likely to utilise the site such as mobile birds and bats and bee hotels. The RtS notes reclaimed logs, boulders and the use of native trees have been included to provide habitable spaces, and that other habitat features will be considered where appropriate. EES recommends the installation of habitat features on the site is included as a condition of consent.	Habitat elements will be included and integrated into the landscape design. As no significant existing trees occur on site mobile bird & bats accommodation is not achievable (until trees mature). as such we have prioritised bug hotels, logs and boulders.
		E.4 Recommended Conditions EES recommends the following conditions of consent are included: • Any planting/ landscaping associated with the SSD shall use a diversity of local provenance native trees, shrubs and groundcover species (rather than exotic species or non-local native species) from the relevant native vegetation community that once occurred in this locality. • Tree planting shall use advanced and established native trees with a minimum plant container pot size of 100 litres, or greater for native tree species which are commercially available. Other native tree species which are not commercially available may be sourced as juvenile sized trees or pre-grown from provenance seed	Native species from local planting communities will be prioritised based on availability & suitability for school environment. Non local native have been included to supplement the local species as they are generally more robust for school environments.
		A Landscape Plan is to be prepared and implemented by an appropriately qualified bush regenerator and include details on: a. the type, species, size, quantity and location of trees b. the species, quantity and location of shrubs and groundcover plantings c. the native vegetation community (or communities) that once occurred in this area and the plan demonstrates that the plant species consist of local provenance d. a list of local provenance species to be used e. the quantity and location of plantings f. the pot size of the trees to be planted g. the area/space required to allow the planted trees to grow to maturity h. plant maintenance regime. The planted vegetation must be regularly maintained and watered for 12 months following	NBRS Landscape architect's plans/schedules have information required as stated in the comments. The project proposes the Bush Regenerator Consultant to peer review NBRS Landscape documentation and provide a "compliance" statement.

		planting. Should any plant loss occur during the maintenance period the plants should be replaced by the same plant species. • Habitat features shall be installed at the site to improve biodiversity such as logs, bee hotels and a range of artificial nest boxes suitable for native fauna likely to use the site. • The development shall incorporate cool roofs into the design.	

In conclusion, the items raised in the above comments have been adopted and implemented where suitable where it aligns with the landscape design intent and meets the Educational Guidelines.