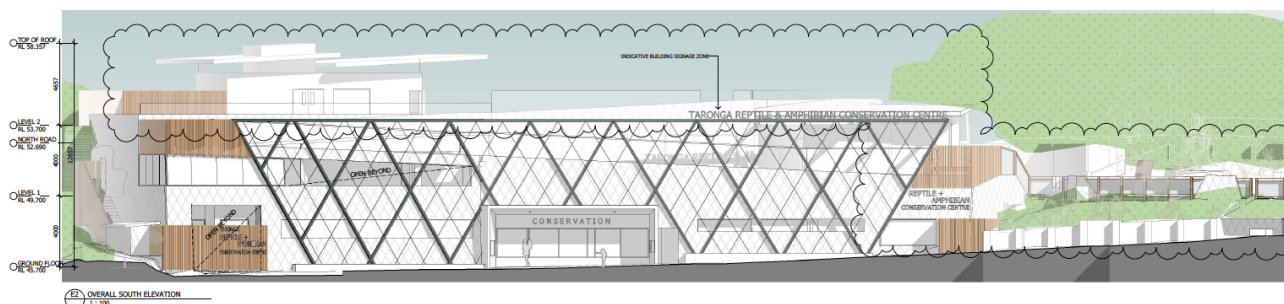
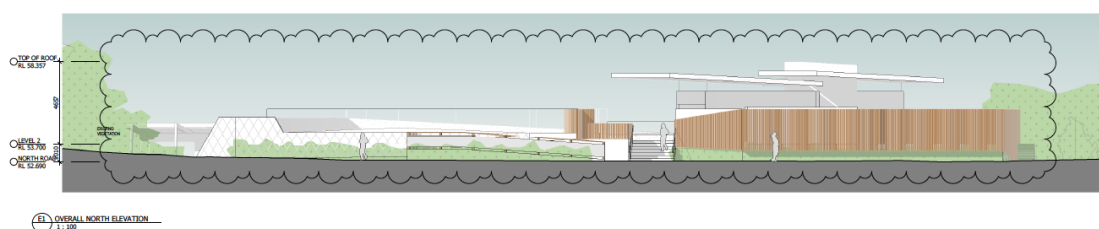


HIA Addendum

I Preamble

In July 2021 a Heritage Impact Assessment (HIA) report was completed as part of a Development Application (DA) submission package for a proposed Reptile & Amphibian Conservation Centre development at Taronga Zoo on behalf of the Taronga Conservation Society Australia (TCSA). Following further reviews by the TCSA, various (external and internal) architectural planning and design revisions have been made to the proposed schematic design by the architects (**dwp**). As a result of the external changes, some qualification has been required for the earlier heritage impact report.

While this Addendum responds to various revisions to the architectural DA drawings as well as updates findings and conclusions within the July 2021 HIA report, it does not preclude reading and referring to the earlier HIA report as important background and contextual information is contained in it with respect to the existing site area.



ABOVE Building elevations (north above and south below) from **dwp** drawing AA2000 and BELOW before and after 3-D views from **dwp** drawing AA0003. (Both images courtesy of **dwp** architects)



EXISTING - VIEW 2



NEW CONSTRUCTION - VIEW 2

2 Summary of Architectural Revisions relevant to the HIA

The following sections summarise the relevant key changes to the DA drawing package that the July 2021 HIA report used a basis of evaluation of potential heritage impact.

2.1 Ground Level Floor

Refer to **dwp** DA Drawings AA0001- AA0003, AA0101, AA1100, AA1150, AA1201, AA2000, AA2001

- * Revisions to the service access (no longer an internal dock area), waste store area and façade treatment at the SW corner;
- * Minor revision to the SE corner allowing views into holding area;
- * Perception of reduced bulk to west elevation through articulation of massing;
- * Additional identification sign to SE corner of building; and
- * Contraction of roof elements visible from southeast (lower level).

2.2 Entry Level Floor & Entry Portal

Refer to **dwp** DA Drawings AA1100, AA1200, AA1202, AA 2000, AA2001, AA3002

- * Remodelling of eastern end elevation;
- * Eastern access balustrading redesigned and now with various interpretive elements;
- * Perception of reduced bulk to eastern elevation; and
- * Eastern entry portal indicated in association with walling (entry sign) and (previous) road surface treatment.

2.3 Exit Level Floor

Refer to **dwp** DA Drawings AA1100, AA1203, AA1204, AA 2000, AA3001, AA3002

- * Reduced to one upper level pavilion with remodelled/reduced roofs – more open area;
- * Perception of a 'flatter' elevation;
- * Deletion of translucent roofing;
- * Exit arrangement changed – ramp and steps;
- * Extent of road surface treatment reduced;
- * Increased landscape area to north;
- * Extent of building along the northern edge has decreased;
- * Extent of 'timber' façade treatment to NW increased; and
- * Reduced opportunities for visibility of the new building from the harbour.

2.4 Site Areas around Proposed RACC Building

Refer to **dwp** DA Drawings AA0100, AA1204

- * NW corner of site – tree retention and relocation indicated; and
- * Additional landscape areas to the north of the building allow scope to enhance integration of the building within the contextual landscape setting.

2.5 Sun Access to Tamarin Island to the south

Refer to **dwp** DA Drawings AA7000-AA7001

- * Exhibit area to the south would result in less shadowing/shade through the winter months albeit there would still be slightly more than at present.

3 Consequent Revisions to the HIA Findings

3.1 Impact Summary Tables

The following tables (Tables 6.2 to 6.5) from the July 2021 HIA report summarise potential heritage impacts likely to arise from the RACC proposal. Where the recent revisions to the DA set have necessitated a re-evaluation of potential heritage impact, the updated comments are included below in *blue italic* text. Where there is no change to the earlier assessment, the comments from the HIA are left intact.

Table 6.2 ITEM/Significance	Existing Policy Status	Proposal	Likely Heritage Impacts
19B 'D-shaped' Aviaries (perimeter walls) Local/High	Conserve & interpret	Retention/reuse	Loss of some fabric
75L Natural Stone Features Local/High	As elements of the pre-European landscape all should be conserved	Largest outcrops relocated as site features	Neutral heritage impact
82A Taronga Zoo State/NA	State level listed site that should be managed to conserve key assets	Refer to details	Would result in a small area of the zoo site being modified with the introduction of a <i>building of, arguably, two levels with an accessible roof & small pavilion at one end.</i>
99L Original & Early Paths State/Exceptional	State level listed feature that should be conserved	Full retention	Positive outcome for the upper & lower roads though a neutral impact for the western path while no longer accessible to the public
116M Hallstrom Memorial Tablet replica (Formerly located at the area known as Hallstrom Square) Local/Moderate	Conserve	Relocation to more appropriate and permanent site	A positive heritage outcome
130L Steel pipe fence Local/High	Conserve	Retention	Positive heritage outcome
151L Rustic stone garden walls Local/Moderate	Conserve	Retention	Positive as far as retention is concerned though effectively 'moth-balled' (neutral)

163L <i>Waterhousea floribunda</i> avenue Local/High	Conserve & replace if lost	Retention	Positive heritage outcome (little impact – monitor any future excavation within root zone)
201L <i>Piccabeen</i> (<i>Archont. cunninghamiana</i>) Local/High	High significance at a local level – conservation required	Relocation	Positive where retained and relocated within the site
202L <i>Three palms</i> (<i>Livistona australis</i>) Local/High	Conserve & replace if lost	Retention for two + relocation of one (in Meerkat area)	Positive where 3 rd palm is retained and relocated within the site
258L <i>Camellia</i> group Local/Moderate-High (Uncommon cvv.)	Conserve & replace if lost	Retention	No impact
269L <i>Puriri</i> (<i>Vitex lucens</i>) N/A	N/A	Gone	Tree died & already removed

Table 6.2 Summary of Heritage Impacts on Significant Items within the RACC site

Table 6.3 ITEM/Significance	Existing Policy Status	Proposal	Likely Heritage Impacts
12B Fmr Upper Seal Pools (now play area) Local/High	Area already highly modified	Outside contract area	None
13B Floral Clock site State & Local/High Exceptional (Clock only)	Conserve	Outside contract area	None
21B Indian Elephant Temple State/Exceptional	Conserve	Outside contract area	Minimal
117B Elliptical aviary (Parrot aviary then repurposed for other animals before being subsumed into 1996 Gorilla area)	Area already highly modified	Outside contract area	None
118L Ponds/islands (Formerly for Gibbons, now Tamarin) Local/High	Conserve	Outside contract area	Likely shaded throughout winter months by new RACC building – <i>the extent of overshadowing would be reduced with less upper level structures though the Tamarin island would still remain mostly in shade during the winter months</i>

195L Relocated palms (from Gorilla redevelopment) Local/High	Conserve	Outside contract area	None
196L Relocated palms (from former Penguin pond)	Conserve	Outside contract area	None

Table 6.3 Summary of Heritage Impacts on Significant Items in the Vicinity of the RACC site

Table 6.4 VIEWS from 2006 LMP	Existing Policy Implication	Proposal	Likely Heritage Impacts
LMP 2006 Views 14/44 from the Serpentine path and Helmore lawn area	Retain	Retained	New RACC building is likely to be visible though its capacity for convincing integration is enhanced with reduced upper level structures, choice of colours & materials and increased landscape areas to the north
LMP 2006 View 28 Glimpse	Retain	Harbour glimpse currently reduced or screened by vegetation	This view may be enhanced depending on landscape treatments associated with the new development
LMP 2006 View 30 Glimpse	Retain	Glimpse currently reduced or screened by bull elephant barn	None from RACC development
LMP 2006 View 36/46 Filtered view	Retain	Views currently reduced or screened by vegetation	Ditto comments for View 28 above
LMP 2006 View 49	Retain	Retained	None

Table 6.4 Summary of Heritage Impacts on Significant Views

Table 6.5 Additional Landscape Elements	Assessed Cultural Significance	Proposal	Likely Heritage Impacts
<i>Ficus craterostoma</i> x 2	High/Local (and, possibly, State)	Relocate	Positive where retained & relocated within the site
Old <i>Kentia</i> palm along upper access road	High	Relocate	Positive where retained & relocated within the site

<i>Old Piccabeen palm</i>	High	Relocate	Positive where retained & relocated within the site
<i>Various small plantings in Meerkat enclosure</i>	Moderate to some	Remove	None if relocated
<i>Group of young Cabbage palms</i>	Some	Remove	None if relocated

Table 6.5 Summary of Heritage Impacts on Additional Landscape Elements

3.2 Statement of Heritage Impact

The following statement of potential heritage impact from the July 2021 HIA report is given below and where, on the basis of recent revisions to the DA set, updated comments are warranted, they are included in *blue italic* text. Where there is no change to the earlier assessment, the comments from the HIA are left intact.

The following aspects of the proposal potentially provide **positive** responses to the Taronga Zoo site by retaining items or areas assessed as having cultural heritage significance:-

- * Substantial retention of existing built and landscape elements in the eastern half of the site including listed s170 Items 151L (Rustic walling), 163L (Satinash avenue), 201L (Piccabeen palm), 202L (Cabbage palms) and 258L (Camellia group);
- * Substantial retention of the 1915 aviary remnants (Item 19B) though with some modifications;
- * Retention of the upper and lower access roads as well as the former western stepped path section that is still intact (Item 99L) along with its associated Edwardian metal balustrading (Item 130L);
- * Intention to salvage and reuse on site various other plantings such as palms (including Items 201L and part 202L) and uncommon fig trees of cultural value;
- * Potential recovery of significant views out to the harbour and beyond from the upper level of the new RACC building; and
- * Potential to recover, transplant and reuse other existing plantings (such as those within the Meerkat enclosure as well as cycads, Gynura Lilies and other species) that need to be removed for the new building.

The following aspects of the proposal have the potential to modify the site in ways that would result in **neutral** impacts on heritage significance:-

- * Salvage and reuse of the more substantial sandstone outcropping (part Item 75L);
- * Continued closure to the public (for security and operational reasons) of the western stepped pathway and its intact balustrading (part Item 99L and Item 130L);
- * 'Moth-balling' of the rustic stone edging (Item 151L) with the proposed discontinuation of use of the pathways behind the aviaries; and

** An entry portal is proposed at the eastern end of the long access path to the new RACC building. It is shown on drawing AA1 200 as having a basic frame (presumably painted steel) with mesh infill resembling a reptilian scaly texture. The mesh is intended to have "green vines grown over" it. Where visually recessive, the portal structure and its associated entry sign wall and road surface treatment would be considered of a neutral impact in this context.*

Where there is the potential for **negative** heritage impacts, they appear to be mainly restricted to more subjective issues – an area of notorious unpredictability. The issues relate to the fact that, even with the employment of the best architectural design skill, the proposed RACC complex still involves the introduction of a large building that is also proposed in a location where there has never been a similar scaled building before. While the current schematic proposal goes a long way to mitigating most of these potential impacts, and there is certainly scope to refine this further at the detailed design stage, the following issues are noted:-

** Potential to register the development as a dramatic and substantial transformation of the hitherto landscape-dominated precinct of the zoo to a dominant urban landscape character. This is particularly the case in views from southern side. Since the July HIA report the upper level of the proposed building has been substantially scaled back such that it is arguably basically an accessible roof area with a pavilion at the western end. The pavilion roof now takes the form of two smaller planes further reducing any potential impact on the overall landscape setting. Approached from the upper access road level and with the expectation that landscape treatments would also be apparent, this elevation of the RACC building is possibly in the category of a neutral impact;*

** Loss of the ability to readily 'read' or appreciate the intrinsic natural topographic character of the site as a sloping landform featuring a part of the zoo's main creek line; and*

** Potential visibility of the upper level pavilions from Sydney Harbour and beyond. Since the July HIA report the upper level of the proposed building has been substantially reduced in scale and form. The only upper level component requiring a taller roof structure is the remaining pavilion that is located at the western end where there would be opportunities to integrate it within the landscape setting. The combination of a scaled back upper level, the use of colours and materials of a recessive nature and more opportunities for plantings along the northern side of the site would considerably reduce the potential of visibility from the harbour. It should be noted too that views of the zoo campus from the harbour would take into account the cumulative effect of all visible structures within the zoo. There are already a number of buildings that are clearly visible from the harbour and in this context, the upper level of the proposed RACC building is unlikely to be prominent.*

On balance, and given the size and scale of the proposed RACC building fitted to the study site, the overall heritage outcomes are mostly positive and far outweigh those that are neutral or potentially negative. *With the latest architectural revisions to the new building, of the three potential negative impacts mentioned above, it could be reasonably argued that two of these considerations now scale more to neutral impacts.* That virtually all of the listed or assessed fabric and layout of exceptional or high cultural significance can be retained intact or relocated within the site or retained with only minor modifications is a positive project outcome.

3.3 Recommendations

With the prospect of a large building and its various outlying components being constructed in close proximity to so many retained elements of high conservation value, guiding conditions need to be applied at a more detailed level of planning, design and site management. The July 2021 HIA report included a number of recommendations to assist in negotiating this subsequent process and ensure Taronga Zoo's cultural significance is retained. Where the recent DA set revisions warrant updated comments, they are included in *blue italic* text. Where there is no change to the earlier assessment, the comments from the HIA are left intact.

'D-shaped' Aviaries: Conservation Actions

- 1 Where former 'D-shaped' aviary wall panels have been previously removed for earlier development, or are proposed to be removed as part of the current development, ensure the original layout of the wall elements (including walls, engaged piers and gate openings) is recorded in a lasting, distinctive and appropriate way on the ground plane in order to interpret the original, and characteristic, plan of the structures. Notwithstanding the need to remove fabric for this proposal, the extent of removal should be minimised and such removal, and any interpretation in the ground, should be in consultation with the Taronga Zoo heritage advisor.
- 2 In consultation with the Taronga Zoo heritage advisor, ensure the design of the proposed entry pathway (and any associated structures) on the eastern side of the new building remains visually subordinate and appears to convincingly 'fit' into its landscape setting. *Proposed materials and treatments for the long entry to the RACC building are indicated to be generally visually recessive and consistent with respecting the overall landscape setting.*
- 3 Continue ongoing, cyclical conservation works to the remaining fabric of the former 'D-shaped' aviaries – including replacing rusted gate rails/framing and mesh where necessary, stabilising rusting structural components along the walls, repairing/replacing render using the same textured finish and removing opportunistic fig tree seedlings. All such conservation works should be documented and undertaken as part of the project with the specialised conservation documentation developed in consultation with (or by) the Taronga Zoo heritage advisor.
- 4 Include as part of an interpretation program, information about this study site area that enables visitors to understand that the remnant 'D-shaped' aviaries were some of the first structures to be built at the zoo and how the aviary remnants were formerly presented (including an apparent design failure that occasioned the later addition of large, unsightly concrete skins (see **Appendix B**) to block southerly winds) while contrasting this with more recent approaches using the larger walkthrough examples nearby.
- 5 Given the inclusion of the 1915 remnant aviaries within the project site, heritage interpretation should be an integral part of the project and should include images of the aviaries in their original form. All such interpretation should be undertaken in consultation with the Taronga Zoo heritage advisor.
- 6 Ensure future planting within the larger 'D-shaped' aviary that enables a clear appreciation of its original spatial scale and remnant walling with its detailed textural treatments by, for example, using mainly ground cover species throughout with tall palms as a means of interpreting the former aviary canopy structure. Any landscape plan (including an indication of proposed species) should be undertaken in consultation with the Taronga Zoo heritage advisor.

Architectural Design Issues

- 7 Consider the 'cumulative' effect of any future new entry portal structure at the eastern end of the long pathway in relation to its context where there are already various architectural forms and styles including the former Indian Elephant Temple and the 'cloud' shelter structure within the smaller 'D-shaped' aviary. *The revised DA set includes an indication that an entry portal structure would comprise a basic framed form clad with mesh over which climbing vegetation would be planted. This treatment would likely assist in integrating the structure into its landscape setting and minimise any potential visual clash with other architectural elements already in the same general area.*
- 8 Ensure potential views of the new RACC building – particularly upper level pavilions - from Sydney Harbour are minimised through a careful choice of materials, colours and relative reflectivity of exposed/prominent surfaces. *The revised architectural scheme shows a substantially redesigned upper level area where only one pavilion remains and that at the western end of the building. As a result of these changes as well as the intention to use visually recessive colours and materials of low reflectivity, opportunities to view the new building from the harbour would be substantially reduced.*
- 9 Consider including within the building design, provision for deep soil planters to enable the inclusion of spreading canopy trees to soften the outline of the new building and reinforce the canopied context of the broader site setting. *With the design revisions to the upper level come opportunities to exploit additional landscape areas within and beyond the building.*

Landscape Issues

- 10 Ensure the peripheral on-grade spaces to the northwest and northeast of the new building are planted out with suitable large canopy trees to assist in integrating the new building into the existing landscape setting. *The revised architectural scheme allows for an additional area of new landscape between the upper access road and the new building.*
- 11 Apart from those plantings already intended to be relocated, ensure the careful removal and transplanting of all other palms and plantings readily capable of transplanting (such as cycads, smaller palms, Gyneria Lilies as well as those within the Meerkat enclosure) for reuse elsewhere – preferably within the site. *The revised DA scheme now indicates all larger plantings within the site needing to be salvaged are annotated accordingly. The smaller plantings mentioned above should still be salvaged and recycled within the zoo.*

Updating the s170 Register

- 12 Update the Taronga Zoo s170 register to reflect that Item 269L (*Vitex lucens*) has now gone; that Item 163L Weeping Satinash (*Waterhousea floribunda*) is a remnant avenue of 5 trees (with one tree on the eastern side of road near the large walkthrough aviary); to clarify that Item 201L (consisting of two Piccabeen palms and is further west of the Satinash avenue) is relocated; and clarify that Item 202L (Cabbage palms) consists of the two palms at the eastern end of the site with a third old palm currently within the Meerkat enclosure (and to be relocated).

- 13 Update the Taronga Zoo s170 register to include the two African strangling fig trees (*Ficus craterostoma*) (Trees T9 and T10 on the tree survey) and the mature Kentia palm (*Howea forsteriana*) (T16) with notes about their intended relocation.

Construction Provisos

- 14 Ensure appropriate protection for all built and landscape elements proposed for retention in proximity to any building works as part of the RACC construction phase.
- 15 Before building works commence on site, ensure appropriate archival recording of the large rock outcrops (Item 75L) proposed for salvage and relocation.
- 16 Ensure qualified arboricultural advice is sought **before** excavating within the canopies/ root zone of the *Waterhousea* avenue for footings or road surface replacement.

Future Zoo Planning

- 17 Where future zoo estate planning and new development allows, consider reinstating missing parts of the pathway and reactivating the western stepped path as part of a public access that links the other retained flights of steps (s170 items 25L and 56L) as originally intended as part of the zoo's convenient circulation system.

3.4 Summary

The revised architectural scheme is now arguably no longer a three-storey building but one of two storeys with an accessible roof area and a small pavilion located at the western end of the upper level. This is essentially a matter of perception and would greatly assist in integrating the new structure into its contextual landscape when approached from the upper roadway. It is also likely that the building's potential to be seen from the harbour would be, potentially, considerably reduced. A proposed recessive colour scheme would further enhance the new RACC building's capacity to be convincingly integrated within the landscape.

Since the July HIA, the perception of the building's bulk at the western and eastern elevations is further reduced as a result of other design and compositional revisions. It is anticipated that through the ongoing design process there will be further opportunities to refine the presentation of the building to ensure its convincing integration within this landscape. Overall, the proposed RACC scheme would offer limited negative heritage impact potential and many positive opportunities.