



Architect Design Statement

Taronga Wildlife Hospital,
Nutrition Centre
Bradleys Head Road, Mosman

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Acknowledgement of Country

We acknowledge the Traditional Custodians of the Country upon which we live and work throughout Australia, and in relation to this project dwp acknowledges the Borogegal and Cammeraigal people and we pay our respects to Elders, past, present, and emerging. We recognise and respect their cultural heritage, beliefs, and relationship to the land. We are committed to our reconciliation journey. We proudly support The Uluru Statement from the Heart and encourage our colleagues and partners to join the support for the statement.

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Issue	Description	Date	Check	Authorised
A	Draft Issue for comment	30/07/2021	CM	CM
B	Final issue for comment	24/11/2021	DW	CM
C	SSDA Issue	01/12/2021	DW	CM



1. Introduction

This Architect Design Statement has been prepared by dwp, on behalf of Taronga Conservation Society Australia (TCSA), to respond to the Planning Secretary's Environmental Assessment Requirement [SEARs] for the State Significant development proposal for the new Taronga Wildlife Hospital, Nutrition Centre (SSD-17655146).

This proposal comprises a new building - that is a new Nutrition Centre

The statement provides an overview of the architectural design and specifically addresses the following SEARs Items:

- 2. Built form and urban design
- 3. Visual impacts
- 4. Heritage
- 7. ESD and Climate change



Figure 01. Render of the Proposed Nutrition Centre - Human eye perspective from the west



2. Project Summary and Vision

2.1 Overview of Project

The current Nutrition Centre facilities at Taronga Zoo, Sydney have reached the end of their useful life. New facilities are therefore required to meet best-practice standards in animal welfare and work health safety.

The Taronga Wildlife Hospital, TWH Nutrition Centre, together with the proposed Wildlife Hospital project will be world-class nutrition; veterinary and education facility, which will showcase Taronga's significant role in general conservation and animal care.

The proposed Taronga WLH Nutrition Centre will support the Zoo's logistical requirements for the provision of animal foods and the veterinary care of injured animals and wildlife. A key focus of the design of this facility is the health and wellbeing of animals that the Zoo cares for, but also for the humans who care for them.

The facility itself provides the nourishment and provision of food for Taronga's zoo animals, as well as wildlife that may be being cared for and rehabilitated temporarily.

The whole of the TWH Nutrition Centre incorporates the principle of wellness and nutrition through the design, function, and resulting actions of the facility. The facility itself provides the nourishment and provision of food for Taronga's zoo animals, as well as wildlife that may be being cared for and rehabilitated temporarily.

This project will dramatically increase Taronga's capability to respond to wildlife emergencies, save endangered species, support wildlife volunteers, and cement NSW as a global leader in wildlife conservation for future generations. Moreover, its role in educating students and the broader public will spread awareness of the importance of conservation through the community.

2.2 Project Aims and Vision

The following are the key Project Visions for this design proposal, as identified by Taronga:

- Animal Health and Welfare - The facilities will be designed to provide industry-leading preventative health care and nutrition program;
- Wildlife Rescue and Rehabilitation and Conservation - The entire project is NSW's most significant veterinary conservation program;
- Commercial - Innovation in the commercial offer, return, and competitiveness;
- Education - The project will inspire the community, and will include the upskilling and training of the next generation of wildlife vets;
- Health, Safety & Efficiency - The building is designed to keep people safe and spend more time on animal care and conservation.
- Sustainability - The buildings will be designed to be 5 Star Green Star and will sit in the existing Landscape. The landscaping and architecture will work hand-in-hand to enhance the workspace for the Taronga staff and volunteers working in both the Nutrition Building and the Wildlife Hospital.



2.3 Project Functional Areas

The Nutrition Centre area calculations are shown on drawing AA7051 with GFA and FSR calculations tabulated below:

Level	Function	Gross Floor Area [GFA] <small>* as defined by Mosman Council LEP</small>
Level 1	- Liftwell, Staircase, and Lobby - Mechanical Plant	206.3 m ²
Level 2	- Food Preparation - Food storage areas - Meat Processing - Main Preparation - Loading Area - Plant and Services	913.4 m ²
Level 3	- Main guest Entrance - Reception - Staff Offices and Associated Facilities - Animal Holding Facilities - Loading and delivery area - Food Preparation and Storage Areas - Plant areas	1066 m ²
Level 4	- Plant areas	82.4 m ²
Total GFA		2268.2 m²
Site Area (approx)		3,775 m²
Floor Space Ratio		1 : 0.6



3. Aboriginal Culture Connections to Country

The Taronga Strategic Plan priority Commitment to Country; commits to and embeds a way of working that respects and includes Indigenous peoples, cultures, and places.

The TWH Nutrition Centre (TWH NC), will support the health and wellbeing of wildlife, and Taronga Zoo's animals, through the provision of veterinary services and dietary/nutritional requirements. The TWH NC will also support the health and wellbeing of staff through architectural design and focused spaces offering respite from daily stresses. The project will provide immersion and connection to the Indigenous landscape through retention of mature Eucalypt trees and new planting incorporating a diverse array of locally Indigenous plants.

Through respect for the Indigenous landscape, the healing of animals, and the nurturing of those who use the facility, the project aims to promote and support a Commitment to the Country. Throughout design development the project team will work together with Taronga Indigenous staff, Traditional Owners, TAAG Cammeraigal Country, and RAP incorporating the Connecting with the Country framework.

The consultation with TAAGs and First Nation Peoples is an ongoing process and will continue throughout the design and construction of the project.



4. Site Analysis

4.1 The Site

The site is located within the Taronga Zoo, Sydney campus, with a nominal site boundary, indicated on the site analysis plans (AA0501-AA0504). The site, in turn, is divided into two stages corresponding with the two proposed buildings. The buildings will be linked via a tunnel that feeds under the service road and takes advantage of the site topography to give clear access to and from the Nutrition and Wildlife buildings, with no traffic crossings.

The Nutrition Centre site encompasses the existing Store, Dry Feed, and Nutrition buildings and has a site area of 3,775sqm.



Figure 02. Location Plan

The main public approach to the Taronga site is from the northeast through the main entrance building (green arrow on plan). Their downhill path from there passes the TISL forecourt; the koala exhibits; the corroboree frog exhibits and the Serpentaria. From there the public typically continue down the hill to the southwest and the African exhibits (including Chimpanzees and Giraffes). Paying visitors will not access the Nutrition centre.

4.3 Site Topography and Landscape

Site topography and landscaping design are shown in detail on the Landscape Architects drawings. There is a steep fall across the site down to the south and west. Viewpoints through the site and from the site to the harbour are located on this plan. The following are the views around the site. The views described in Fig 04 below refer to the photos in the following pages.



Figure 04. Key to Photograph locations



View 1. shows the existing dry store (centre) and the back of the Serpentaria to the right.



View 2 shows the store building on the left and the nutrition building on the right



View 3 provides a closer view of the nutrition building.

These photographs show that this “back of house area is a largely utilitarian area with bitumen surfaces. They also show mature trees in the near distance, around this area which are concentrated in two zones on the site. One runs along the west side of the access road coming down from security, and the other is located immediately south of the access road between the Serpentaria and the TISL building.



The topography provides harbour views to the south and west as shown in Views 4, 5, 6, and 7.



View 4



View 5



View 6



View 7

4.4 Site Sun & Wind Study

Sun paths and prevailing winds on-site are shown on drawing AA0503. The site is largely sheltered from north and eastern climatic effects due to its topography. It is exposed to prevailing summer winds from the south and winter winds from the northeast. The orientation of sunrise and sunset throughout the year, relative to the 'centrepoint' of the site, is shown on the drawing. The resultant shadow diagrams for the existing site are shown on drawings AA7000-AA7011. These show that significant shadows are cast by the existing trees on site.

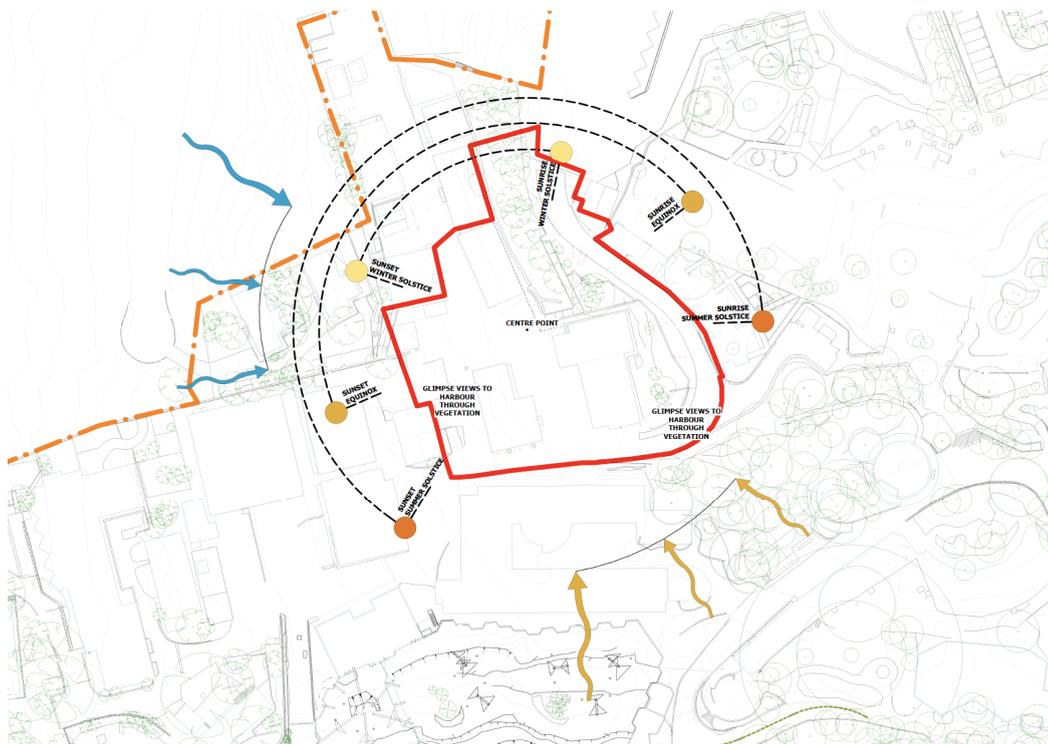


Figure 05. Sun and Wind analysis



4.5 Heritage Items

Site heritage items are shown on AA0504 and based on Taronga's 'Heritage and Conservation Register' 2014.

One item is identified on the Nutrition Centre site - a sandstone perimeter wall (07L - state significant). This wall is in close adjacency to the new building. It is the intention that this heritage wall be retained and celebrated within the layout and landscaping surrounding the new building.

There are a number of other items on or near the Wildlife Hospital site including:

- Serpentina Reptile Exhibit (102B - locally significant)
- Chimpanzee Park (100B - locally significant)
- Bangalay tree (187L - locally significant)
- Finch Aviaries (60B - locally significant)
- Carved Stone Blocks (143M - locally significant)
- Moreton Bay Fig tree (160L - state significant)
- Brown (Plum) Pine tree (168L - locally significant)
- Indigenous Vegetation (240L - locally significant)
- Koala House (77B - state significant)

The heritage impact on these items and the zoo campus due to the proposal is discussed in detail by the heritage consultant.



5. Design Summary

5.1 Key Design Strategies

The design provides a key facility for Taronga Zoo's Sydney Campus.

The new Nutrition Centre is proposed to be closely linked with the future Wildlife Hospital building with shared staff areas and functions that complement each other. (refer Figure 01).

These are designed to improve the Zoo's contribution to conservation; the welfare of animals under its care and the safety of its employees.

The total briefed area for the proposed facilities is larger than the current areas for the following reasons:

- Best practice animal welfare requires more space to house, transfer and treat the animals under care than is currently provided in out-dated facilities.
- Best practice veterinary/keeper work flow requires more specialised area; more sophisticated equipment and storage than is currently provided to improve work health safety.
- Staff wellbeing and safety;
- Promoting a call to action;
- Concealing and nestling the building within the existing site context, including topographical and natural features;
- Careful consideration of Aboriginal and European heritage and culture;
- Consideration of both views to and from the site;
- Incorporate interpretation of country through landscape elements.
- Sustainability

5.2 Building Layout

The Nutrition centre is a two storey building with accommodation located in Level 2 and level 3 with minimal plant on the roof:

- Level 2 Floor is where the loading and deliveries related to the use of the building will take place. Freezers and coolrooms will store the food and nutrition items that will be served to the animals. This is carefully monitored as the diets are carefully maintained. There is also a food prep area at this level.
- Level 3 contains more feed preparation areas. It also includes the office and administration areas, including amenities and kitchenette, for the Wildlife Hospital staff and a reception where members of the public will bring injured animals that are to be treated. The animals are then transferred to the Wildlife hospital for treatment.

In addition to the main floor plans there is a small basement plant and access tunnel to the future proposed WildLife Hospital and a small plant room on the roof contains minimal items of mechanical and electrical plant.

5.3 Height, Bulk and Scale

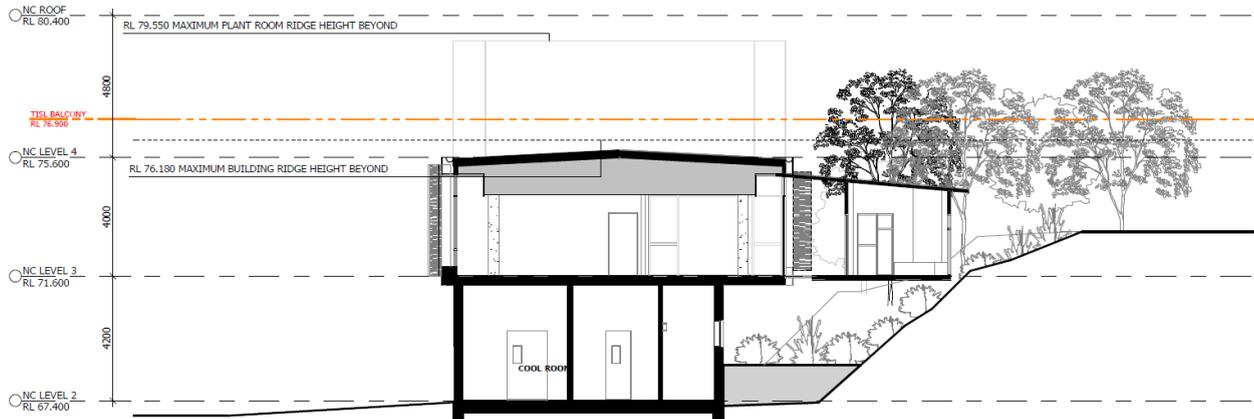


Fig 06. Section Through Site - max ridge height of RL 76.180

The building is nestled into the site, to lessen the overall bulk and scale of the built form. The section on Fig 06 shows the way that the floor levels are designed to allow access from the east on the upper floor and access from the west on the lower plan

The top floor is split into two separate zones. The staff area and Food Prep area.

The severe slope of the site allows the staff zone to sit above the western side of the site, allowing for expansive views to the west and views of the landscaped bank to the east.

Servicing of the upper floor building takes place on grade as the road around the building flows down the hill.

The lower floor is level with the western ground level and is where the main loading dock for food deliveries takes place. The slope of the site allows sufficient height for loading on the lower level, but safe and separate access for staff on the upper level as indicated on the section above.

Summary of building heights:

- The overall height of the main building ridge is RL 76.180.
- The Northern Plant room has an maximum height of RL79.550



5.4 Visual Impacts

The Visual Impact Images are taken from locations nominated in the SEARS. Three visual impact studies were carried out.

Visual Impact Study A demonstrates that almost the entire facade of the proposed Nutrition Centre is positioned behind the existing tree canopy. The small element of the building that is visible will be largely green cladding, that will match in with the tree canopy to a degree, and glazing that is protected by grey louvres. The impact from the view is therefore minimal.

Visual Impact study B demonstrates that the majority of the proposed Nutrition Centre is positioned behind the existing tree canopy. The small element of the building that is visible will be largely green cladding, that will match in with the tree canopy to a degree, and glazing that is protected by grey louvres. The impact from the view is therefore minimal.

Visual Impact Study C demonstrates that the majority of the proposed Nutrition Centre is positioned behind the existing tree canopy. The small element of the building that is visible will be largely green cladding, that will match in with the tree canopy to a degree, and glazing that is protected by grey louvres. The impact from the view is therefore minimal.

5.5 Separation and Setbacks

The WLH Nutrition Centre building sits well within the Taronga site boundary and there are therefore no formal site setbacks required. The building does, however, sit adjacent to an existing Hay Store to the North that is being retained and across the access road from the proposed new Wildlife Hospital.

All other buildings surrounding the proposed Nutrition centre are located either across the service road that winds down to the loading areas or across that loading area. This can be seen in the Site Plan diagram earlier in this report.

5.6 Sustainability

The building is being designed to meet a 5 Star Green Star Rating. Materials and services will be chosen with sustainability and climate change at the forefront of the design. The methods of delivering this rating are discussed further in the ESD report.

5.7 Facade Design and Articulation

To ensure the built form nestles into the existing natural site context, the building facades have been designed to mimic and correspond to both the natural and physical environment surrounding the site.

The East elevation shows just how nestled into the site the building is, and how it fits well within the existing sloping topography. The Eastern Elevation, which is where staff and visitors will enter from is also a glass curtain wall framed by green cladding positioned over a brick wall. There are two “wellness pods” - refer to the image below, that sit proud from the elevation and are supported over the existing embankment. These are located between the trees and are designed to give staff an immersive experience under the tree canopy and within the landscape.



Figure 07: East Elevation

The western elevation, 3d perspective shown below, is the most visually prominent element of the site. On the upper level, a glass curtain wall framed by green cladding gives harbour views from the office, staff wellbeing and kitchenette area sits on top, and cantilevers over a brick wall that forms the loading and delivery area of the building. The glass curtain wall is protected from the western sun via v-shaped louvres that deflect direct sunlight, but also give clear views out to the harbour.

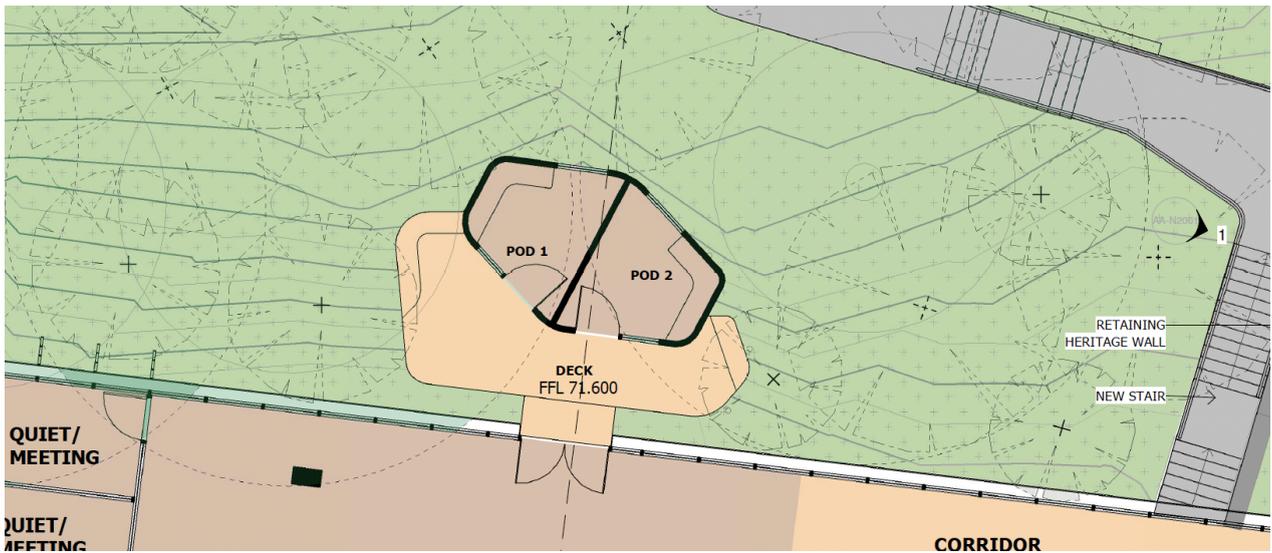


Fig 08. Wellness Pods



The remainder of the building is brick with windows and louvred plant screens nestled within the landscape.



Figure 09: West View 3D Perspective

5.8 Materiality, Finishes, and Colours

The materiality and finishes of WLH Nutrition Centre have been derived and informed from the surrounding zoo context. It is important that the materiality complements the existing built form language and history of the zoo.

The proposed materiality, finishes, and colours are:

- The predominant west facade material is a curtain wall structure, with a cladding frame top and bottom to articulate the horizontality of the facade. The western-facing facade is protected from the sun with v-shaped metal louvres equally spaced along the facade. This horizontal feature cantilevers over the base, brick story
- The main building is made up of brickwork
- Timber and glass wellness pods sit in the landscape and are constructed of glass and timber facades with a metal roof. These sit within a timber feel deck giving staff access to engage with the landscape.
- Roofing finishes of level 1 consists of a mixture of light grey metal sheet roofing;
- Window frames and accent features are dark monument grey colour;
- Hardscape paving treatments and retaining wall elements are intended to be natural earth-toned coloured elements.

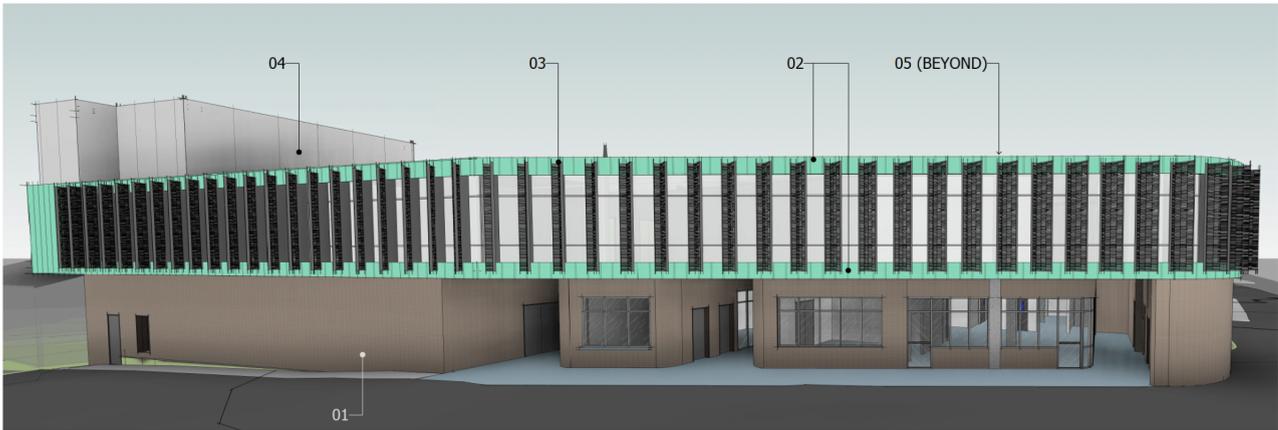


Figure 010: 3D Elevation



01
STACKED BOND BRICKWORK

02
METAL CLADDING
- LIGHT GREEN

Figure 11: Materials



03
PERFORATED METAL LOUVRE
(CUSTOM PATTERN) - DARK GREY

04
PERFORATED METAL SCREENS
(CUSTOM PATTERN) - GREY

05
COLOURBOND METAL ROOFING
- SURFMIST+

Figure 12: Materials