

# Stormwater Management Plan

## RSL LifeCare Montgomery Centre, ANZAC Village

Prepared for RSL LifeCare

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## 1.0 Introduction

Taylor Thomson Whitting (TTW) Pty. Ltd. has been engaged by RSL LifeCare to provide the associated Civil Stormwater Report and documentation in accordance with the requirements of Northern Beaches Council for the proposed development of RSL LifeCare Montgomery Centre, ANZAC Village at 10 Endeavour Dr, Narrabeen NSW 2101.

### 1.1 Existing Site

The address of the site is **Lot 1, DP 803645, 10 Endeavour Dr, Narrabeen NSW 2101** and falls within the **Northern Beaches** Council Local Government Area (LGA). The site currently consists of a multistorey brick hall with a curved metal roof. The building stands wholly within the boundaries of the subject property.

The site works has a total area of 1,640 m<sup>2</sup> and is bounded by the existing “Kokoda Hostel” building to the north, Edmondson Drive to the south, Endeavour Drive to the west and the Gallipoli building War Museum front entrance carpark and gardens. It should be noted that Endeavour Drive and Edmondson Drive both slope down to the south western corner of the site where the two roads intersect, which determines the downstream existing stormwater pit this site will connect to.



Figure 1 – Site Location (Nearmap)



## 1.2 Reference Documents

The following documents have informed the Civil Engineering design:

- Australian Standard AS3500.3 Plumbing and Drainage: Stormwater Drainage;
- Australian Rainfall and Runoff (2019);
- Managing Urban Stormwater – Soils and Construction ‘Blue Book’, Vol. 1, 4th Edition, Landcom;
- Northern Beaches Council (former Warringah) Local Environmental Plan 2011;
- Northern Beaches Council (former Warringah) Development Control Plan 2011;
- Northern Beaches Council Water Management for Development Policy V2 2021;
- Site Survey Survey Dwg No. 15445Q by Bee & Lethbridge,
- Architect Dwg No. + Title by McNally Architects.

## 2.0 Proposed Development

The proposed development at this site includes:

- Demolition of existing external structure to allow for a new ramp and stairs.
- Construction of new landscaped area and access to the site.
- Minor internal refurbishment of existing Montgomery Centre

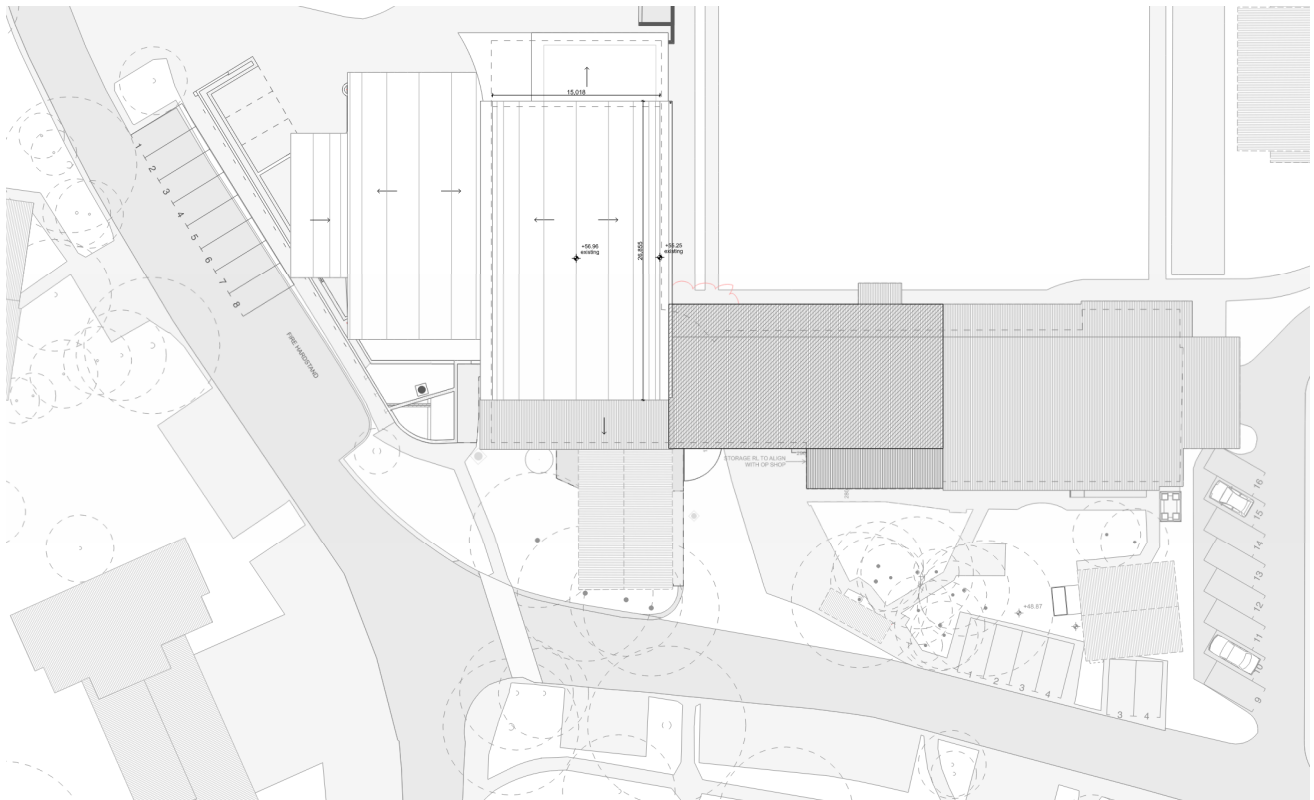


Figure 2 – Architectural Existing Site Plan dwg A002 (Source: McNally Architects);

Figure 3 – Architectural Proposed Site Plan dwg A100 (Source: McNally Architects)

## 3.0 Stormwater Management

### 3.1 Stormwater Quantity

There are no additional building areas proposed; thus, the only stormwater works are in relation to the proposed external site areas. Additional soft landscaping and deep soil planting areas are being provided in the reconfiguration of the external landscape areas. A catchment plan of the pre-development external areas are displayed below in Figure 4, in contrast with the catchment plan for the post development in Figure 5 below.

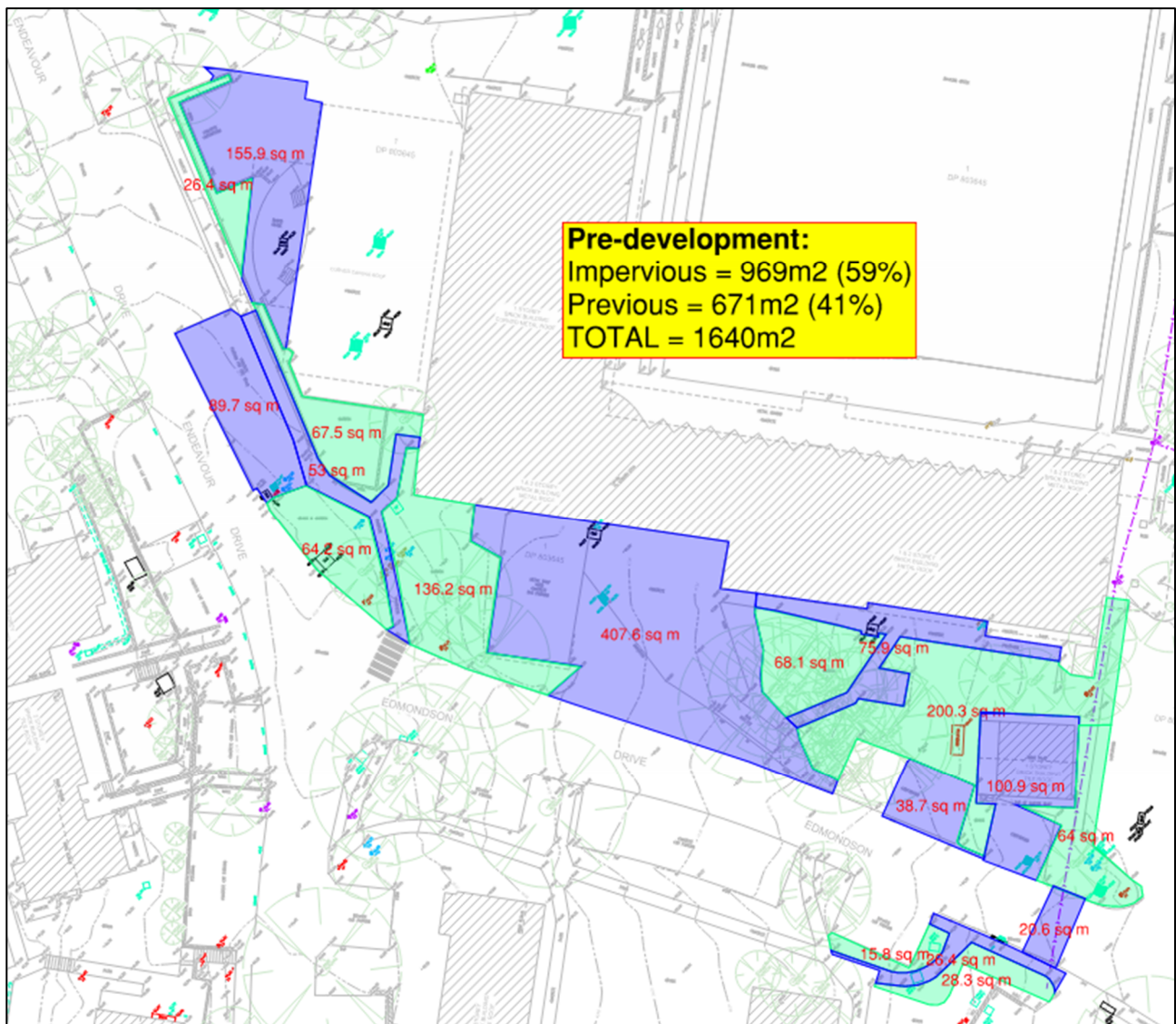


Figure 4: Pre-development Catchment Area

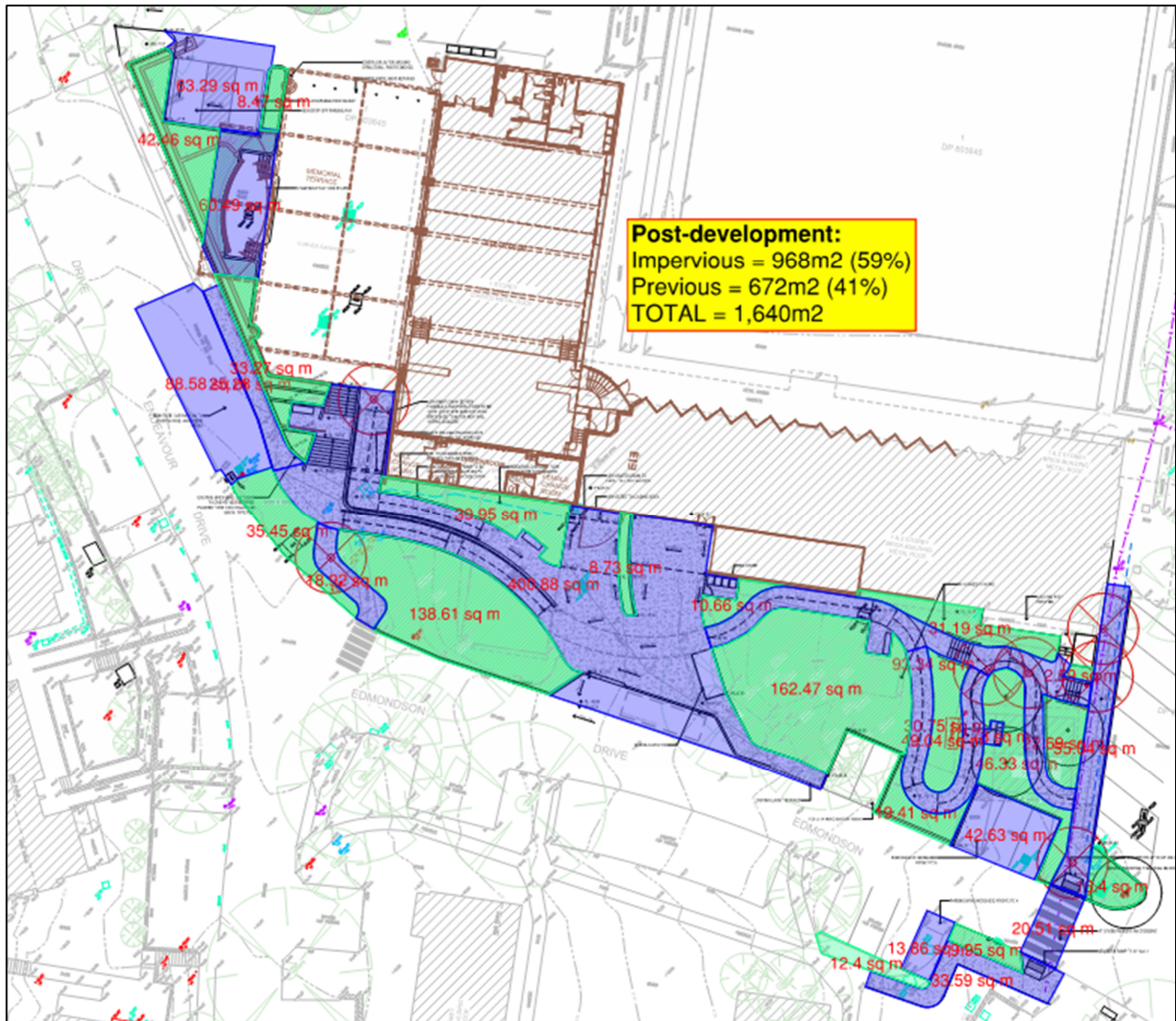


Figure 5: Post-development Catchment Area

The Table 1 below shows that the impervious areas are not increasing. Since there are no changes to existing building the post development flows will match pre-development flows and any detention of stormwater is not necessary.

Table 1: Catchment Areas

Catchment	Impervious Area (m <sup>2</sup> )	Pervious Area (m <sup>2</sup> )	Total Siteworks Area (m <sup>2</sup> )
Pre-Development	969	671	1640
Post-Development	968	672	1640

## 3.2 Stormwater Quality

Since, there is no increase in impervious area from pre-development, the runoff pollutants will not be increasing, therefore, no water quality reduction targets are necessary. However, to control gross pollutants, Ocean Guards from Ocean Protect will be installed in all proposed pits. This will also enhance water quality by effectively removing gross pollutants, total suspended solids, and attached pollutants from stormwater runoff.



## 4.0 Erosion and Sediment Control

The disturbance of the site during construction must be controlled through erosion prevention and sediment control measures. Silt fence will be installed to prevent silt and waste being washed into the proximity of the site and neighbouring properties. A catch drain with hay bales will be utilised to carry and treat site runoff which will then be transferred to the lowest point of site excavation. The existing pits on site will require sandbags or geotextile pit insert until the surface has been demolished. At the point of entry to site, cattle grids will be provided to ensure that vehicles and machinery leave the site with clean wheels. Additionally, the builder will be required to implement dust and noise control measures in order to minimise disruption to the neighbouring properties. The contractor will be required to demonstrate the proposed works equipment to be within acceptable limits for noise and vibration as determined by a registered acoustic consultant.

An erosion and sediment control plan (ESCP) is to be implemented during the construction stage to mitigate soil erosion and control the discharge of stormwater laden with sediment, nutrients and other pollutants to adjoining properties, bushland, roadways or receiving water bodies. Stormwater controls on site are detailed in ESCPs which will be in accordance with regulatory authority guidelines including Landcom NSW's Managing Urban Stormwater, Soils and Construction ("Blue Book").

## 5.0 Conclusion

This report provides a summary of the proposed stormwater management for the RSL LifeCare Montgomery Centre, ANZAC Village development at 10 Endeavour Dr, Narrabeen NSW 2101. Since the external impervious areas will not increase and there are no changes to the existing buildings or roofs, the post-development flows will match the pre-development flows, and detention of stormwater is not required. Similarly, no water quality reduction targets are necessary. However, to control gross pollutants, Ocean Guards from Ocean Protect will be installed in all proposed pits. Erosion and sediment control measures have been proposed for the site during construction.

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Appendix A

Civil Drawings