

24<sup>th</sup> May 2022

JOB NO 21.41

## **NEW MULTI-DECK CAR PARK, LOT 245 FARROW ROAD CAMPBELLTOWN DESIGN STATEMENT**

### **The Multi-Deck Car Park**

The new multi-deck commuter carpark is located in the south-east corner of lot 245, Farrow Road opposite Campbelltown Station. The project occupies a corner of an existing at grade commuter carpark with 702 car spaces.

The new building will be adaptable and compact, with an integrated urban, landscape and architectural character. It will establish a benchmark for subsequent urban development on the western side of the railway line. Its siting and design have been considered as part of a master plan for this evolving precinct of Campbelltown, and it anticipates a new public space structure and rational development on the remainder site, including securing existing ecological values. The selected location is ideally located to accommodate a future elevated pedestrian connection to the railway station and central Campbelltown beyond, as anticipated by Council's recent planning initiatives.

The new multi-deck commuter car park building has a footprint of 2 777 sqm and will accommodate 502 commuter car spaces, 6 accessible commuter car spaces, 4 motorbike spaces and 14 secure bicycle parking racks. The accessible car spaces have been accommodated at ground with easy access to Farrow Road. Once the structured car park is complete there will be 427 at grade space remaining on Lot 245.

The building has been designed as an open carpark structure with an efficient network of one-way circulation ramps and aisles. A central landscaped garden opens up the floorplate, reducing the depth of the floor plate and maximising daylight. All sides are open allowing natural cross ventilation and negating the need for mechanical ventilation. The central garden further enhances user experience, with the internal ramps linking across this space as cars circulate. The 4 corners are occupied by screened escape stairs, with a pair of lifts at the street corner providing accessible access to all levels.

The carpark incorporates Water Sensitive Urban Design WSUD principles with a raingarden to capture and filter the polluted runoff from the building, before draining into the stormwater system. Rainwater reuse tanks utilise the spaces under the internal circulation ramps, collecting water from the shade structure on Level 4. This water can be used to irrigate the central garden and other landscaped areas. The overflow from these tanks will also be connected to the rain garden.

The shaded roof structure on Level 4 can accommodate Photovoltaic (PV) panels and will have capacity for future increases in the number of PV panels.

By nature, a commuter car park contributes to reducing transport-related green-house gas emissions by facilitating increased use of public transport for a part of the daily journey to work. It also provides an opportunity to support a transition to electric vehicles (EVs) and reduce the vehicle emissions associated with its use. The proposed building has been designed to easily facilitate the infrastructure upgrade required for future EV car demand. Future cabling can be run within cable trays along the soffit of the ground floor to new EV car spaces as their use increases. The site area of Lot 245 also offers the spatial capacity for any associated pad mount substations that may be required with any EV upgrades.

### **An Architectural Urban Presence**

The design of the facades along Farrow and New Farrow Road have a confident urban presence and distinctive character. Bold colours on the structure will serve to create interest and legibility in the public realm.

The main decorative facade will face Farrow Road and the city centre opposite. A metal screen consisting of coloured vertical battens on a steel frame will front Farrow Road, the main entry plaza and

pedestrian path to the station. The battens are arranged by colour, responding to the colour of each level, with some being interspersed between levels to generate a playful rhythm. This façade is intended to be considered as an integrated piece of public art fronting Farrow Road.

The New Farrow Road façade and the north façade facing the existing at grade parking have more of a transparent treatment offering views into the central garden and through the building. The architectural treatment of these facades will be through structural expression of the slab edges and columns as well as the use of colour to the reveals of the perimeter columns and edge beams. These facades also have more landscape and multi layers of trees to create urban forests.

These facades will also provide a playful civic presence along New Farrow Road and the at grade parking to the north-east. Additionally the tall height of the lower ground level also adds to the building's civic presence.

The colours will be developed further through detailed design and could serve as wayfinding and be interpretive.

### **Adaptability**

The design of the carpark considers the adaptability over time, to enable a range of future mixed uses.

The generous floor to floor height of the ground floor will enable retail and cafes to plug into the structure and activate the ground floor and street frontage along Farrow Road and potentially future streets within the site. The taller parts of the ground floor could have other uses such as a Council depot.

The ground floor is also capable of facilitating future end of trip facilities. The already proposed bicycle storage could be expanded and change room amenities introduced to support a growing active transport network in Campbelltown and improve the transport interchange experience for commuters.

Level 4 of the carpark structure has the potential to adapt to future commercial uses over time and the internal void could also be utilised for future adaptation and introduction of services that are not yet required such as mechanical risers or additional plumbing and the like.

### **Landscape**

The Landscape Design for the Farrow Road Carpark seeks to provide legible, amenable spaces around the perimeter and within the core that improve the ecological and social capacities of the current condition. The design will help to mitigate the urban heat island effect and establish a framework for further considered development of the Campbelltown Station Precinct.

It maximises unencumbered deep soil areas within generous building setbacks and utilises Water Sensitive Urban Design (WSUD) principles using passive irrigation, raingardens and suitable filtration species where possible. The ground cover species selected are also suited to flood environments, permitting easy waterflow.

The tree canopy cover is maximised, with climate responsive, native tree species, that contribute to amenity, minimise urban heat island effect and provide habitat for local fauna. It also utilises a robust, biodiverse, and low maintenance largely native planting palette to ensure longevity and viability of the public domain.

Complementary and identifiable furniture and materials will create a sense of place and logical wayfinding for the proposed building and surrounding context, providing easily distinguishable and accessible points of arrival and paths of travel.

The new generous pedestrian footpaths will provide direct accessible access from the new building to the train station along Farrow Road. Another pedestrian path along New Farrow Road will also offer an alternative route if people prefer to utilise the stairs and walk around the building.

### **Crime Prevention Through Environmental Design (CPTED)**

The orientation and glazed façade of the lift lobby offers surveillance to Farrow Road and the steel mesh screens to the perimeter faces of the escape stairs also promotes surveillance at the four corners of the building. Lighting will also provide a source of wayfinding and safety.

The landscaping considers CPTED principles, with a selection of tall trunked trees and appropriate shrub planting, facilitating open sightlines and passive surveillance through into the building.

At ground, CCTV for security will be accommodated at the entry/exit points to the building and the building perimeter, providing uniform surveillance. This will be in addition to the existing CCTV cameras installed on Lot 245 for the existing at grade parking. At all levels, CCTV is provided to the lift lobbies.

## **Structure**

The structure mainly consists of reinforced concrete columns and post tensioned concrete slabs. Based on the principles of minimising carbon footprint the building has been designed to minimise embodied energy. The structure has considered required loads for existing uses and proposed adaptation. The structure grid has been designed efficiently to minimise the structure of the horizontal elements. This reduces the volume of concrete. The use of PT slabs and band beams over standard RC concrete also reduces the volume of concrete required. It has been estimated that there is a 17% reduction in volume of concrete required.

Adaptability is also a consideration with the structural design. As mentioned the height of the ground floor will allow new raised floor levels to be inserted into the volume to meet floor level. The soffit can be utilised to upgrade services and infrastructure such as EVs.

The floor loading on the Level four slab will accommodate future office spaces which has a compatible loading and fire rating.

## **Flooding**

The new multi deck car park has been designed with flood risk management in mind. The building allows the 1 in 100 year flood water to flow through the ground floor which is virtually at grade with the existing ground level of the at grade commuter car park. The perimeter barriers are permeable allowing the water to pass through and the landscape species surrounding the building have been selected to minimise surface resistance.

A flood impact assessment of the new multi deck car park has been undertaken which predicts that the new building will produce some minor variances in the flood levels in the vicinity of the car park as well as across nearby properties. However, all flood level increases are contained to the existing car parking area, the Farrow Road reserve or the Bow Bowing Creek drainage reserve without impacting private properties.

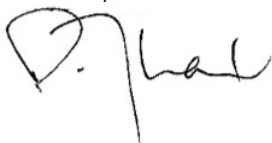
With regards to flood risk management, flood warning signs will be installed around the existing at grade car park and the ground floor level of the new multi deck car park as well as the entry.

## **Conclusion**

The new multi-deck car park will create a playful and civic building. Its design will be flexible, allowing the building to adapt to future uses. Through structure, landscape and water management, it adopts ESD principles and has the ability to upgrade to more environmentally friendly infrastructure such as EVs and increases in solar power.

The building has been wholistically designed, with a strong architectural presence and as a catalyst for future urban development of this precinct. It not only sets up foundations for future expansion of this side of the railway, but also considers future connectivity to the main centre of Campbelltown.

Yours faithfully,



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