Our Ref: 20040l02A-200924

24 September 2020

Dangar St, Wickham Pty Ltd
Suite 107, 1 Cassins Avenue
NORTH SYDNEY NSW 2060

**Attention: Mr David Desson**

Dear David,

## RE: 10 DANGAR STREET, WICKHAM PROPOSED MIXED USE DEVELOPMENT (DA2018/01197) SECTION 4.55 (2) APPLICATION TRAFFIC AND PARKING REVIEW

As requested, MLA Transport Planning (MLA) has conducted a traffic and parking assessment for the above proposed development to accompany a S4.55 (2) application to be submitted to the City of Newcastle Council. The findings are contained herein.

## Background

In April 2019, the Hunter and Central Coast Regional Planning Panel granted development approval DA2018/01197 for a proposed mixed use development at 10 Dangar Street, Wickham.

The approval is for the demolition of the existing building and construction in its place a 14-storey mixed use development accommodating 97 residential units, ground floor retail use (1,159m$^2$), commercial use (4,386m$^2$), 198 on-site car parking spaces and other associated site works. In the approved scheme, the required on-site parking was accommodated in the basement levels (Basement Levels 1 and 2) as well as on four above ground levels (Ground Floor and Levels 1 to 3).

Following the approval of the original DA, a S4.55 (2) application is being prepared for submission to the City of Newcastle Council (Council) seeking approval to delete the approved above ground car parking Levels 1 to 3, add one additional basement car parking level, increase the approved non-residential use gross floor area (GFA), minor reconfiguration of the approved car park layout and vary the relevant on-site parking controls for non-residential uses.

This traffic statement assesses the traffic and parking implications arising from the proposed S4.55 (2) modifications.

## Approved Development

Development consent DA2018/01197 permits the site to be redeveloped into a 14-storey mixed use development comprising:

- residential use
  - 19 x 1-bedroom units
  - 68 x 2-bedroom units, and
  - 10 x 3-bedroom units
- 1,159m$^2$ retail floor space, and
- 4,386m$^2$ commercial floor space.

The consent permits a maximum of 197 car parking spaces to be provided. In addition, 10 motorcycle and 134 bicycle parking spaces have also been conditioned. The approved development includes two basement car parking levels and four above ground car parking levels.

## Site Description

The subject site is located at 10 Dangar Street, Wickham which is within the local government area of Newcastle City Council. The location of the subject site is shown in Figure 1.

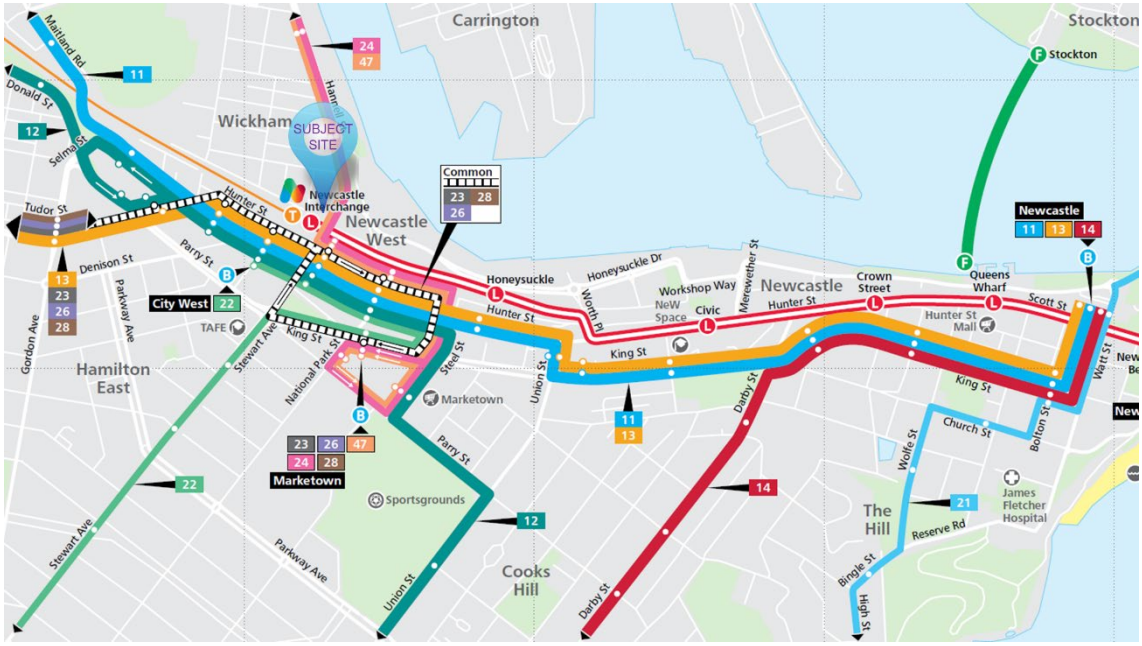
**Figure 1: Site Locality Plan**

The site is situated within the western fringes of Newcastle City Centre containing an abundance of services and amenities including shopping centres such as Marketown Shopping Centre and numerous retail strips including at the western end of Hunter Street containing an array of commercial and residential developments with a variety of shops, restaurants and other services. In addition, the site is located within a 10-minute walk to TAFE Hamilton Campus while the University of Newcastle and TAFE Newcastle can be accessed by public transport.

In addition, the Newcastle Interchange is located at the site's doorsteps providing good quality and high frequency public transport services. Newcastle Interchange serves as the terminus for the Central Coast & Newcastle Line and Hunter Line train services, Newcastle Light Rail services and Newcastle Transport bus services which was recently opened in July 2020. The location of the Newcastle Interchange was chosen at Wickham as Wickham is seen as the city's future CBD with further development and economic growth potential.

Figure 2 shows the available public transport services in the vicinity of the subject site.

**Figure 2: Public Transport Network Map**




The Newcastle Light Rail service has a service frequency of 7-8 minutes during peak time or 15 minutes outside of the peak periods. It provides direct services to Newcastle Beach via Newcastle central business district connecting to many commercial developments and services and amenities along it.

Newcastle Interchange also provides train services on the Central Coast & Newcastle Line and Hunter Line. The Hunter Line provides suburban train services connecting to suburbs north of Newcastle as well as other centres such as Thornton and Maitland with peak period frequency of 6-30 minutes. The Central Coast & Newcastle Line provides

intercity train services to other regional cities such as such Wyong, Gosford, Hornsby and Central as well as other major Sydney suburban railway stations interchanging with other suburban train lines providing access across the majority of Sydney metropolitan area. Services on the Central Coast & Newcastle Line have a frequency of 10-30 minutes throughout the day.

Bus services (including coach services to regional areas) operating at the Newcastle Interchange includes:

- 11 Charlestown to Newcastle via Jesmond
- 12 Maryland to Merewether Beach via Wallsend and Newcastle Interchange
- 13 Glendale to Newcastle via Cardiff & John Hunter Hospital
- 22 Newcastle West to Charlestown via Merewether
- 23 Wallsend to Newcastle West via Lambton & Newcastle Interchange
- 24 Wallsend to Marketown via Mayfield
- 26 Wallsend to Newcastle West via Kotara & Newcastle Interchange
- 28 Mount Hutton to Newcastle West via Broadmeadow & Newcastle Interchange
- 47 Jesmond to Marketown via Warabrook
- 130 Newcastle to Fingal Bay via Gan Gan Rd
- 131 Newcastle to Fingal Bay (Express Service)
- 138 Lemon Tree Passage to Newcastle via Newcastle Airport
- 140 Lakeside Shops to Newcastle via Raymond Terrace & Hexham
- 150 Newcastle to Taree via Forster, Hawks Nest & Tea Gardens
- 151 Newcastle to Taree via Forster & The Rock
- 152 Newcastle to Hawks Nest
- 160 Newcastle to Cessnock, and
- 266 Newcastle to West Wallsend.

There is an abundance of bus services at the doorstep of the subject site. These services fan out in all four directions providing access to Mayfield, Shortland, Wallsend, Jesmond, Lambton, John Hunter Hospital, Charlestown, Mereweather and Newcastle East.

Table 1 summarises the available public transport services during the weekday and Saturday peak periods.

**Table 1: Public Transport Services During Peak Periods**

| Public Transport Service Type | Morning Peak (6:30am – 9:30am) | Evening Peak (3:30pm – 6:30pm) | Saturday (10:00am to 2:00pm) |
|---|---|---|---|
| Train | | | |
| - Central Coast & Newcastle Line (CNN) | 6 (7) | 8 (7) | 4 (4) |
| - Hunter Line (HUN) | 9 (8) | 8 (9) | 4 (5) |
| Light Rail | | | |
| - Newcastle Light Rail | Every 7.5 minutes | Every 7.5 minutes | Every 15 minutes |
| Bus | | | |
| - 11 Charlestown to Newcastle via Jesmond | 10 (12) | 12 12) | 8 (8) |
| - 12 Maryland to Merewether Beach via Wallsend and Newcastle Interchange | 10 (13 | 12 (13) | 9 (8) |
| - 13 Glendale to Newcastle via Cardiff & John Hunter Hospital | 11 (11) | 13 (12) | 8 (8) |
| - 22 Newcastle West to Charlestown via Merewether | 5 (5) | 6 (6) | 4 (4) |
| - 23 Wallsend to Newcastle West via Lambton Newcastle Interchange | 6 (6) | 5 (6) | 4 (4) |
| - 24 Wallsend to Marketown via Mayfield | 5 (4) | 5 (4) | 4 (4) |
| - 26 Wallsend to Newcastle West via Kotara & Newcastle Interchange | 5 (6) | 5 (6) | 5 (4) |
| - 28 Mount Hutton to Newcastle West via Broadmeadow Newcastle Interchange | 5 (6) | 5 (5) | 4 (4) |
| - 47 Jesmond to Marketown via Warabrook | 3 (3) | 3 (5) | 3 (4) |
| - 130 Newcastle to Fingal Bay via Gan Gan Rd | 3 (5) | 3 (3) | 2 (2) |
| - 131 Newcastle to Fingal Bay (Express Service) | n/a | 1 (0) | n/a |
| - 138 Lemon Tree Passage to Newcastle via Newcastle Airport | n/a | 1 (0) | n/a |
| - 140 Lakeside Shops to Newcastle via Raymond Terrace & Hexham | 6 (6) | 6 (5) | 4 (4) |
| - 150 Newcastle to Taree via Forster, Hawks Nest & Tea Gardens | n/a | n/a | 0 (1) |
| - 151 Newcastle to Taree via Forster & The Rock | n/a | 1 (0) | n/a |

| Public Transport Service Type | Morning Peak (6:30am – 9:30am) | Evening Peak (3:30pm – 6:30pm) | Saturday (10:00am to 2:00pm) |
|---|---|---|---|
| - 152 Newcastle to Hawks Nest | 0 (1) | 1 (0) | n/a |
| - 160 Newcastle to Cessnock | 1 (1) | 1 (1) | n/a |
| - 266 Newcastle to West Wallsend | 2 (0) | 0 (1) | n/a |

Note: 10 (10) – inbound (outbound) services

As can be seen from the above, the subject site is well placed in terms of its access to good quality and high frequency public transport services as well as a plethora of other services and amenities in the local area.

## Proposed Modifications

This S4.55 (2) application seeks approval to modify elements of the approved development as follow:

- delete car parking Levels 1 to 3
- add one additional basement car parking level
- re-configure the car park layouts to suit the revised proposed development (whilst generally maintaining the approved car park layout), and
- increase the approved floor areas for retail and commercial uses.

The residential use will be retained as approved. The approved vehicular access and on-site loading area are also proposed to be retained.

The proposed changes to the approved apartment number and mix is presented in Table 2. Table 2 also compares the proposed modifications to the approved development.

In addition to the above proposed modifications, the S4.55 (2) application will also seek dispensation to vary the relevant parking controls relating to the retail and commercial uses and the required parking provision for residential visitors.

**Table 2: Revised Proposed Development**

| Land Use | Approved Development | Proposed Modifications | Change |
|---|---|---|---|
| Residential Use | | | |
| - 1-Bedroom Units | 19 | 19 | No Change |
| - 2-Bedroom Units | 68 | 68 | No Change |
| - 3-Bedroom Units | 10 | 10 | No Change |
| Non-Residential Use | | | |
| - Retail | 1,159m² GFA | 1,107m² GFA | - 52m² GFA |
| - Commercial | 4,386m² GFA | 7,120m² GFA | + 2,734m² GFA |

Note: The above gross floor area for the retail and commercial uses include amenity floor areas such as lobbies, bathrooms, end of trip facilities etc as this is required for the purposes of calculating floor space ratios. The above gross floor areas will be reduced to exclude these amnenity floor areas when estimating the traffic generation potential and the parking requirements for the proposed development.

## Traffic Implications of Section 4.55 Proposed Modifications

### Previous Scheme Traffic Assessment

The original development application was accompanied by a traffic assessment report (Ref: 18179r01 dated 16 October 2018) prepared by TTPP.

The DA traffic assessment report assessed the traffic based on a proposed development, which was subsequently approved (with some minor changes to the retail floor area), comprising the following land uses:

- 97 residential apartments
- 1,062m² of retail floor area, and
- 4,386m² of commercial floor area.

Using traffic generation rates sourced from traffic generation guidelines released by Transport for NSW (TfNSW) (namely Guide to Traffic Generating Developments (2002) and the updates in the Technical TDT2013/04a), the DA traffic report estimated the proposed development would generate 108 and 94 vehicle trips per peak hour in the morning and evening peak periods respectively.

Intersection analysis was conducted at the intersection of Hannell Street with Bishopsgate Street for the weekday morning and evening peak periods.

The DA traffic assessment found that under existing traffic conditions the assessed intersection has good level of service at LoS A with minimal delay in both peak periods. The DA traffic assessment also found that following the completion of the proposed

development, the assessed intersection would continue to have LoS A operation with the same intersection performance as reported for the existing condition.

The DA traffic assessment concluded that "*the nearby intersection of Hannell Street and Bishopgate Street would continue to operate satisfactorily with the additional development traffic*".

## Revised Scheme Traffic Assessment

As indicated previously, this S4.55 (2) application relates to modifying the approved mixed use development with a slight reduction of the approved floor area from 1,159m$^2$ to 1,107m$^2$ and increase of approved commercial floor area from 4,386m$^2$ to 6,741m$^2$. The residential component will continue to accommodate 97 apartments as approved.

Development traffic arising from the proposed development has been estimated adopting the same methodology as that used in the previous DA traffic assessment. This is presented in Table 3.

**Table 3: Development Traffic Estimates**

| Land Use | Approved/Revised Proposed Development | Traffic Generation Rates (trips per apt/100m$^2$ GFA) | | Traffic Estimates (vehicles per hour, vph) | |
|---|---|---|---|---|---|
| | | Morning Peak | Evening Peak | Morning Peak | Evening Peak |
| Approved Development (as Assessed in the DA Traffic Report) | | | | | |
| - Residential Use | 97 Apts | 0.53 | 0.32 | 52 | 32 |
| - Retail | 1,062m$^2$ GFA | 1.03 | 1.14 | 11 | 12 |
| - Commercial | 4,386m$^2$ GFA | 1.03 | 1.14 | 45 | 50 |
| Total | - | - | - | 108 | 94 |
| Revised Proposed Development | | | | | |
| - Residential Use | 97 Apts | 0.53 | 0.32 | 52 | 32 |
| - Retail | 1,107m$^2$ GFA | 1.03 | 1.14 | 11 | 13 |
| - Commercial | 6,741m$^2$ GFA | 1.03 | 1.14 | 69 | 76 |
| Total | | - | - | 132 | 121 |
| **Net Change** | **-** | **-** | **-** | **+ 24** | **+ 27** |

Note: For the purposes of estimating the traffic generation potential arising from the proposed development, the above gross floor areas exclude the amenity floor areas as these do not generate additional traffic demand.

Using the same traffic estimation methodology as that in the DA traffic report, the revised proposed development is expected to generate 132 vph and 121 vph during

the morning and evening peak periods, respectively. This represents an additional 24 vph and 27 vph during the morning and evening peak periods respectively above that expected for the approved development.

An addition of some 27 vph generated by the revised proposed development is equivalent to on average one vehicle every two minutes. This level of additional development traffic is considered to be low and is not expected to create any adverse traffic impacts to the local road network for reasons explained below.

The minute change in the net additional traffic when input into a traffic modelling tool such as SIDRA, especially after the development traffic has been distributed to the local road, is unlikely to register any changes to the modelling output. This is demonstrated in the traffic assessment undertaken at the DA stage where a net addition of some 100 vph (as estimated in the DA traffic report for the approved development) was added to the existing traffic demand at the Hannell Street intersection without its intersection performance changing i.e. it continues to operate with the same level of service and traffic delays pre and post development traffic conditions.

Similarly, an addition of some 30 vph arising from the revised proposed development is not expected to result in any changes to the intersection performance, especially when the Hannell Street intersection has been assessed to operate with LoS A intersection performance.

Additionally, traffic surveys indicate that Hannell Street carries approximately 3,000 vph during the peak periods. The net additional traffic arising from the revised proposed development would be approximately one per cent of the overall traffic flows on Hannell Street. It is further noted that traffic flows can fluctuate from day to day with traffic variation as high as 15 per cent. As such, the expected additional traffic would not create any material adverse impacts to the operation of the intersection.

In addition, it is noted that the above estimated development has not taken into account the future reduction of development traffic due to the proposed reduction of on-site car parking provision and initiatives such as the implementation of a green travel plan to manage travel demand by encouraging more sustainable travel methods and reducing reliance on travel by private vehicles. This has the potential to reduce the development traffic for the revised proposed development to a level similar to that of the approved development.

In the light of the above, it is thus submitted that the traffic effects arising from the revised proposed development would be minimal and therefore satisfactory.

## Parking Implications of Section 4.55 Proposed Modifications

### Car Parking Requirements

A car parking assessment for the revised proposed development against the requirements stipulated in Newcastle Development Control Plan 2012, namely Section 7.03 (DCP) has been undertaken. This is presented in Table 6.

**Table 4: DCP Car Parking Requirements**

| Land Use | Proposed Development | DCP Car Parking Rates | DCP Required Car Parking Spaces |
|---|---|---|---|
| Residential Use | | | |
| - 1-Bed Units | 19 | 0.6 spaces per dwelling | 11 |
| - 2-Bed Units | 68 | 0.9 spaces per dwelling | 61 |
| - 3-Bed Units | 10 | 1.4 spaces per dwelling | 14 |
| - Visitors | - | 1 space first 3 dwelling plus 0.2 space per dwelling thereafter | 20 |
| - *Sub-Total* | 97 Apts | - | *106* |
| Non-Residential Uses | | | |
| - Retail | 1,107m$^2$ GFA | 1.0 space per 60m$^2$ GFA | 19 |
| - Commercial | 6,741m$^2$ GFA | 1.0 space per 60m$^2$ GFA | 112 |
| - *Sub-Total* | | | *131* |
| **Total** | **-** | **-** | **237** |

Note: For the purposes of assessing the parking requirements for the proposed development, the above gross floor areas for retail and commercial uses exclude the amenity floor areas of as they will not generate additional parking requirement.

The above assessment indicates that the required parking for the revised proposed development is 237 car parking spaces comprising:

- 87 resident car parking spaces
- 20 residential visitor car parking spaces
- 19 retail tenant car parking spaces, and
- 112 commercial tenant car parking spaces.

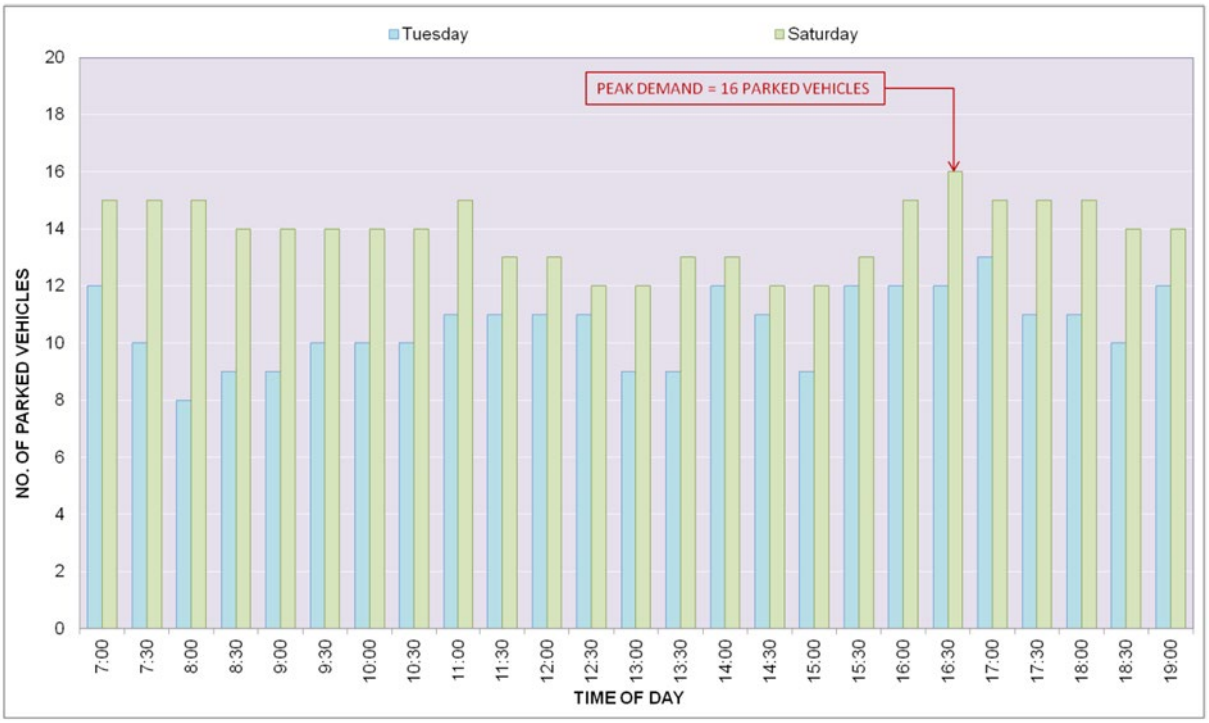
As indicated previously, at the doorstep of the subject site is the Newcastle Interchange which provides good quality and high frequency public transport services connecting passengers with trains, buses and light rail. In addition, the subject site is located within

the western fringes of the Newcastle City Centre containing a plethora of amenities and services located within a short stroll of the subject site. As such, the site is well placed to be leveraged off existing public transport services as well as its excellent access to services and amenities within the Newcastle City Centre.

Recognising the site's location being in close proximity to the Newcastle Interchange plus other City Centre services and amenities, it is considered the subject site has merits to reduce the required parking provisions for residential visitors and retail and commercial tenants reduced from those stipulated in the DCP.

In relation to reducing parking provision for residential visitors, it is noted a parking occupancy survey of the visitor car park at the East Quarter residential development indicates that visitor parking demand at residential developments peaked at around one car parking space per 10 dwellings. Figure 3 presents a summary of the parking occupancy survey results from East Quarter. The parking occupancy surveys were conducted over two days in August/September 2013.

**Figure 3: East Quarter Residential Visitor Car Park Occupancy Survey Results**




Source: GTA Consultants (Ref: East Quarter Stage 3 Proposed Mixed Use Development 93 Forest Road, Hurstville Traffic and Parking Impact dated 8 December 2015). The East Quarter development has a total of 168 residential apartments. The above parking demand translates to a visitor parking demand rate of approximately one space per 10 apartments.

It is noted that the East Quarter site is located within close proximity to railway stations on a major suburban railway line with direct train services to Sydney CBD, as well as a major transport interchange at Hurstville Railway Station with bus services to major centres around Sydney metropolitan area, and also within walking distances to

Hurstville CBD. The subject site has very similar transport access characteristics and CBD environment.

The surveys found that the parking demand in a residential visitor car park is typically around 12 to 14 parked vehicles with a peak demand of 16 parked vehicles at any one time. The peak parking demand occurred at 4:30pm on a Saturday afternoon. The peaked parking demand for Tuesday was 13 parked vehicles.

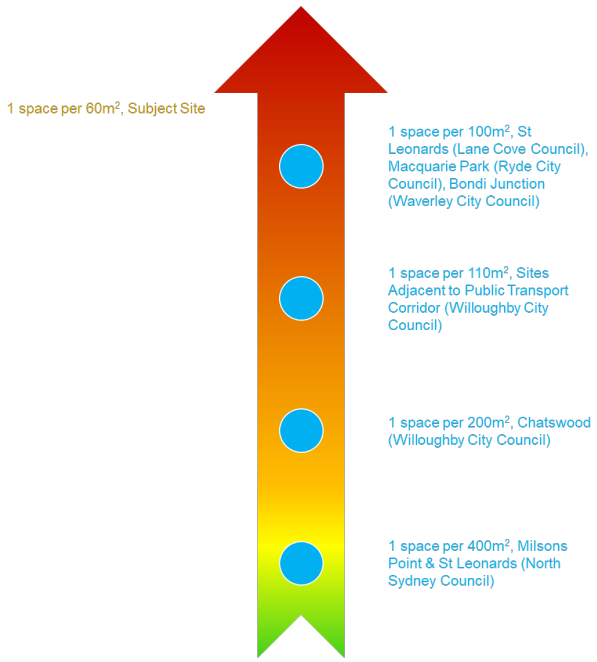
The parking surveys indicate a peak residential visitor parking demand equivalent to a rate of one space per 10 units which varies significantly with the DCP equivalent parking rate of approximately 1 space per 5 dwellings.

Based on the above data, it is appropriate to reduce parking provision for residential visitors at the subject site to reflect actual residential visitor parking demand.

Based on DCP parking requirement for residential visitors, the proposed development is required to provide 20 residential visitor car parking spaces. Using the surveyed parking demand, this requirement would reduce to 10 residential visitor car parking spaces.

In relation to car parking provisions for retail and commercial uses, given that Newcastle Interchange is located at the subject site's doorstep providing good quality and high frequency public transport services as well as the many nearby City Centre amenities and services, there are also merits to reduce parking for the proposed retail and commercial uses. In this regard, parking requirements for retail/commercial uses located in similar CBD locations have been reviewed. This is presented in Figure 4.

**Figure 4: Retail/Commercial Required Parking at Other Council Areas**



The above indicates that the required parking for retail and commercial uses is significantly higher than other similar sites at other Council areas.

In recognition of the above, approval is sought to vary the current DCP parking rate for retail and commercial use from 1 space per 60m$^2$ to 1 space per 75m$^2$. This represents a reduction of approximately 20 per cent.

The proposed car parking provision in the light of the above discussion is presented in Table 5 which also includes a comparison with the original DCP requirements.

**Table 5: Proposed Car Parking Provision**

| Land Use | Proposed Development | DCP Requirements | | Proposed Modified Requirements | |
|---|---|---|---|---|---|
| | | Car Parking Rates | Car Parking Spaces | Car Parking Rates | Car Parking Spaces |
| Residential Use | | | | | |
| - 1-Bed Units | 19 | 0.6 spaces per dwelling | 11 | 0.6 spaces per dwelling | 11 |
| - 2-Bed Units | 68 | 0.9 spaces per dwelling | 61 | 0.9 spaces per dwelling | 61 |
| - 3-Bed Units | 10 | 1.4 spaces per dwelling | 14 | 1.4 spaces per dwelling | 14 |
| - Visitors | - | 1 space first 3 dwelling plus 0.2 space per dwelling thereafter | 20 | 1 space per 10 dwellings | 10 |
| - *Sub-Total* | 97 Apts | - | *106* | - | 96 |
| Non-Residential Uses | | | | | |
| - Retail | 1,107m$^2$ GFA | 1.0 space per 60m$^2$ GFA | 19 | 1.0 space per 75m$^2$ GFA | 15 |
| - Commercial | 6,741m$^2$ GFA | 1.0 space per 60m$^2$ GFA | 112 | 1.0 space per 75m$^2$ GFA | 90 |
| - *Sub-Total* | | | *131* | | 90 |
| **Total** | **-** | **-** | **237** | | **201** |

Notes:

1. For the purposes of assessing the parking requirements for the proposed development, the above gross floor areas for retail and commercial uses exclude the amenity floor areas of as they will not generate additional parking requirement.
2. Proposed changes to parking requirements are highlighted in red.

From Table 5, it can be seen that adopting the proposed modified parking rates will result in a total of 205 car parking spaces down from 242 DCP car parking spaces comprising:

- 10 residential visitor car parking spaces down from the 20 DCP required spaces
- 15 retail tenant car parking spaces down from the 19 DCP required spaces, and
- 90 commercial tenant car parking spaces down from the 112 DCP required spaces.

The proposed residential visitor car parking represents a reduction of approximately 50 per cent when compared with the DCP requirement. Similarly, the proposed reduction in retail/commercial car parking spaces represent a reduction of 20 per cent. As will be demonstrated below, these proposed reductions are similar to previous approvals within Newcastle City Centre.

To support the above proposed reduction in car parking, it is proposed to implement travel demand measures to encourage travel using more sustainable modes such as public transport, active transport (walking and cycling) and reduce reliance on travel by private vehicles. These travel demand measures would be encapsulated in a green travel plan that would be applicable to non-residential tenants as well as residents. See section on Green Travel Plan later for further details.

In addition, a car share scheme operated by a commercial car share operator will be considered at time of construction completion to further encourage occupants to car share.

It is worthwhile to note that the revised proposed development includes additional bicycle and motorcycle parking spaces for retail and commercial uses in excess of the current DCP requirements to offset the proposed reduction in car parking and as a measure to reduce travel by private vehicles. See later sections for discussions of proposed bicycle and motorcycle parking provisions.

In summary, the development site is well placed in terms of its close proximity to existing and future public transport nodes. Newcastle Interchange and a plethora of nearby bus and light stops are located at the site's doorstep providing ample opportunities for the site to be developed as a transit oriented development. The proposed variation of the DCP parking requirements for residential visitors, retail and commercial uses would allow the proposed development to be leveraged off the excellent public transport opportunities and its proximity being within the Newcastle City Centre to provide the desired beneficial environmental outcomes. This is consistent with many of the transport policies prepared by the State Government where they have expressed goals of reducing travel by private vehicles and encouraging more sustainable travel methods.

## Parking Requirements from Recent Development Approvals

There is a number of recent development approvals within Newcastle City Centre with similar reduction of on-site parking requirements for residential visitors and retail/commercial uses. These examples are presented in Table 7.

**Table 6: Examples of Recent Developments with Reduced Car Parking**

| Site | Proposed Development | Approved Parking |
|---|---|---|
| 105-111, 121, 137-145, 147, 151-153, 163, 169-185 Hunter St; 22 Newcomen St; 3 Morgan St; 66-74, 98-102, 104, 108-110 King St, 14 Thorn St and 21, 31, 33, 58 Wolfe St, Newcastle | DA2017/00701, Development application for a concept proposal of major redevelopment of Hunter Street Mall, a mixed use development comprising retail, commercial, public spaces, residential (563 apartments), associated car parking & site works | Conditions 17(b) and 17(c) in the approval states:<br>*b) A minimum of 25% of the required number of residential visitor parking spaces shall be provided for residential visitor parking in each of the car parks for each Block contained in Stages 1-4 inclusive. These spaces are not to be subdivided, leased or controlled by or on behalf of particular unit owners or residents. Spaces cannot be allocated or deferred to different Blocks/stages. The remaining 75% is to be accommodated by the existing Council carpark and on-street parking.*<br>*c) Stages 1 to 4 of the development shall each provide on-site car parking for the parking for commercial and retail staff at the rate of 50% required by Council's DCP for commercial and retail use. The remaining 50% is to be accommodated by the existing Council carpark and on-street parking.* |
| 6 Stewart Ave, Newcastle West (854 Hunter St) | DA2018/01107.05, Erection of 12 storey commercial building with ground floor retail and basement car park | Council's assessment report states:<br>*Under Council's DCP 2012 a parking provision of 278 spaces is required for the commercial/retail space at a rate of 1 space per 60m2 of GFA. The proposal comprises car parking of 198 spaces representing a 30% reduction. In this regard the applicant is highlighting, the NSW Government as the major tenant with a reduced parking demand, the availability of alternate transport with the proximity of the site to the Newcastle Transport Interchange and the provision within the development of an increased number of secure bike storage and end of trip facilities as sufficient justification for this parking reduction. While a reduction in parking is supported based on the availability of alternate transport and the provision of end of trip facilities, I consider it inappropriate to further reduce the parking rate based on the parking requirements of a tenant. Should this tenant relocate in the future this would potentially result in a parking shortfall for this development. On this basis and acknowledging that CN under the 'Newcastle Transport Strategy' made a commitment to support the NSW* |

| Site | Proposed Development | Approved Parking |
|---|---|---|
| | | *Government's target of a 20% modal shift it is considered appropriate to reduce the parking by a maximum 20% resulting in a parking requirement of 223 spaces."*<br><br>Condition C21 in the approval states:<br><br>*On-site parking accommodation is to be allocated for the building for a minimum of 223 cars…* |
| 430 Hunter St, Newcastle | DA2018/00622, Erection of five-storey mixed use development, comprising 30 affordable rental apartments; three commercial tenancies (190m2) | Council's assessment report states:<br><br>*A variation to the number of parking spaces under both the Affordable Housing SEPP and the Newcastle DCP is proposed and, in that regard, a merit-based justification is provided for in the submitted Traffic and Parking Assessment Report. The development proposes a total of 10 car spaces, representing a deficiency of 8 car spaces. Upon review it is considered that this deficiency can be supported based upon the location of the development within the CBD with increased public transport options available and supporting pedestrian and cycleway networks.* |
| 7 Union St, 13 & 15 Wickham St, Wickham | DA2017/01532, Demolition of structures erection of fourteen storey mixed use development with 114 residential units and associated car parking and landscaping | Following an agreement reached during a S34 Conciliation Conference between the parties, the proposed development was approved with conditions. Condition 4 states that:<br><br>*On-site parking accommodation is to be provided for a minimum of 110 car spaces (out of which minimum 4 spaces are to be provided for commercial & 2 spaces for visitor/service bays parking)…*<br><br>The approved four visitor car parking spaces has been reduced from the original 24 DCP required spaces. |

In summary, the approved parking reductions in the above examples are as higher as 50 per cent of the DCP parking requirements.

## Accessible Parking Requirement

The DCP requires accessible parking to be provided in accordance with minimum requirements set out in the Building Code of Australia (BCA). In this regard, the BCA has the following requirements:

- retail use – one accessible car space per 50 car parking spaces provided, and
- commercial use – one accessible car space per 100 car parking spaces provided.

From the above, based on 15 retail and 94 commercial car parking spaces being proposed, the required accessible car parking spaces for the retail and commercial uses is one accessible car parking space.

The BCA has no specific requirements for residential developments similar to the subject proposed development. However, a total of 10 Specialist Disability Association (SDA) apartments are proposed (inclusive within the overall 97 proposed residential apartments). The SDA consultant has indicated that the 10 SDA apartments will require up to four SDA car parking spaces. The SDA consultant also indicated that the SDA car parking spaces are to be a minimum of 3.2m wide by 5.4m long.

The proposed development includes three accessible car parking spaces and four SDA car parking spaces.

The proposed accessible car parking spaces comply with DCP requirements.

### Bicycle Parking Requirement

Bicycle parking requirement for the revised proposed development has been assessed against those stipulated in the DCP.

**Table 7: DCP Bicycle Parking Requirements**

| Land Use | Proposed Development | DCP Bicycle Parking Rates | DCP Required Bicycle Parking Spaces |
|---|---|---|---|
| Residential Tenants | 97 Apts | 1 space per dwelling | 97 |
| Residential Visitors | 97 Apts | 1 space per 10 dwellings | 10 |
| Retail Tenants | 1,107m$^2$ GFA | 1 space per 200m2 GFA | 6 |
| Commercial Tenants | 6,741m$^2$ GFA | 1 space per 200m2 GFA | 34 |
| **Total** | **-** | **-** | **147** |

Note: For the purposes of assessing the parking requirements for the proposed development, the above gross floor areas for retail and commercial uses exclude the amenity floor areas of as they will not generate additional parking requirement.

The revised proposed development is required to provide a total of 147 bicycle parking spaces.

It is proposed to provide a total of 179 bicycle parking spaces – 32 bicycle spaces or 22 per cent more than the DCP requirement. The bicycle parking spaces are proposed to comprise a mixture of horizontal and vertical bicycle parking spaces located on all three basement levels as well as on the ground floor.

Therefore, the proposed provision of bicycle parking spaces is satisfactory.

## Motorcycle Parking Requirement

The DCP requires motorcycle parking spaces to be provided at a rate of one motorcycle parking space for every 20 car parking spaces. On this basis, the revised proposed is required to provide 10 motorcycle parking spaces.

It is proposed to provide a total of 19 motorcycle parking spaces. The proposed provision is nine motorcycle spaces or 90 per cent more than the DCP requirement.

The motorcycle parking spaces are proposed to be located across all three basement car parking levels.

Therefore, the proposed motorcycle parking spaces are satisfactory.

## Service Vehicle Requirements

Service vehicle requirements are specified in the DCP. The assessment of the requirements is presented in Table 8.

**Table 8: DCP Service Vehicle Requirements**

| Land Use | Proposed Development | DCP Service Vehicle Bay Rates | DCP Required Service Vehicle Bays |
|---|---|---|---|
| Residential Use | 97 Apts | 1 space per 50 units up to 200 units | 2 |
| Retail Use | 1,107m$^2$ GFA | 1 space per 400m$^2$ up to 2,000m$^2$ | 3 |
| Commercial Use | 6,741m$^2$ GFA | 1 space per 4,000m$^2$ up to 20,000m$^2$ | 2 |
| **Total** | **-** | **-** | **7** |

Note: For the purposes of assessing the parking requirements for the proposed development, the above gross floor areas for retail and commercial uses exclude the amenity floor areas of as they will not generate additional parking requirement.

From Table 8, it can be seen that the revised proposed development is required to provide a total of seven service vehicle loading bays.

It is considered the above service vehicle bay requirements are excessive in particular for the non-residential uses. It is noted that the approved development requires six service vehicle bays based on DCP requirements, but the approval includes three service vehicle bays.

In light of the above, it is proposed to continue to provide three service vehicle bays made up as follows:

- one small rigid vehicle (SRV) bay – 3.5m wide by 6.4m long with 3.5m headroom, and

- two light commercial van/utility type vehicle bays – 2.6m wide by 5.4m long with 3.5m headroom.

The proposed service vehicle bays are proposed to be located on the ground floor consistent with the approved development. The proposed loading facility will be shared between all tenants of the proposed development.

The SRV bay is proposed to be used by waste collection vehicles which will be undertaken by private waste contractor, and for the deliveries of large bulky items as required. The two light commercial van bays will be used by the retail/commercial tenants for all deliveries. In addition, the light commercial van bays will also be used by tradies such as electricians, plumbers servicing the residential tenants. If additional service vehicles for tradies are required, visitor car parking spaces are available for this purpose.

It is proposed for all loading and unloading activities including waste collection to be undertaken on-site within the service vehicle loading facilities discussed above.

From the above, the proposed service vehicle bay provision and arrangement is satisfactory.

### Car Park Design

The proposed car park for the revised development comprises of three basement levels plus half a level on the ground floor. The layout of the basement and ground floor parking levels is generally consistent with the approved development.

Consistent with the approved plans, vehicular access into the car park will continue to be provided off Charles Street. The configuration and arrangement of the vehicular access are consistent with the approved development i.e. the vehicular access is proposed to be configured as a combined entry and exit driveway located at the approximate midpoint of the Charles Street frontage.

Similarly, the internal floor to floor ramps are proposed to be located in the south western corner of the site consistent with the approved development. However, it is noted that the approved development requires vehicles entering the basement car park levels to circulate along the ramp in an anti-clockwise direction (and exiting vehicles in a clockwise direction) due to the existence of above ground car parking levels in the approved development. In the revised proposed development, the above ground parking levels have been removed, and as such vehicles entering the basement will travel in a clockwise direction (and exiting vehicles in an anti-clockwise direction).

The car parking spaces on all levels are also laid out generally in the same manner as that in the approved development.

Consistent with the approved development, the car park has been designed as an Australian Standard Class 1A car parking facility. The Australian Standard indicates that a Class 1A car park is appropriate for a resident and employee car park noting that the proposed development does not include any retail parking for customers. The required dimensions of Class 1A car parking spaces are 2.4m wide and 5.4m wide with 5.8m wide aisles. MLA's review of the basement plans indicates that the dimensions of the proposed car parking spaces comply with the Australian Standard.

The proposed accessible car parking spaces have been designed to comply with AS2890.6:2015 and the design requirements set out in the SDA Design Standard.

AS2890.6:2015 requires the designated car space and the adjacent shared area to have dimensions of 2.4m wide by 5.4m long. The SDA Design Standard requires the accessible car spaces to have dimensions of 3.8m by 5.4m long – see SDA consultant's report for further details.

The design of the proposed accessible car parking spaces complies with the above design requirements.

In addition, MLA's car park review also assessed the following (but not limited to) design elements within the car park:

- an additional of width of 0.3m has been provided for car spaces adjacent to obstructions higher than 0.15m
- where a parking aisle is confined by an obstruction higher than 0.15m, the aisle width is increased by 0.3m
- all columns are located outside of the parking space design envelope
- minimum clear head heights of 2.2m for residential car parking spaces and 2.5m for accessible parking spaces are provided within the basement car park as required by AS2890.1 and AS2890.6
- general car parking spaces are located with a maximum slope of 1:20, while accessible car spaces have a maximum slope of 1:40, and
- circulation ramps have a minimum width of 5.5m between kerbs plus an additional 0.3m wide kerbs on either side with a maximum vertical grade of 1:4.9 with appropriate transitions.

Our review indicates that the proposed parking layout generally complies with the design requirements set out in the Australian Standard for car parking facilities in AS2890.1 and AS2890.6 as well as the SDA Design Standard. Therefore, the design of the proposed car park is satisfactory.

Finally, it is noted swept path analysis has been conducted at the driveway and along the internal ramps using an Australian Standard 5.2m long B99 vehicle as the design

vehicle. The analysis indicates that a B99 vehicle can pass another B99 vehicle at the driveway on Charles Street as well as on the ramp.

The swept path diagrams are contained in Appendix A.

## Green Travel Plan Framework

### Preamble

This section provides an outline of a green travel plan. A detailed green travel plan applicable to all occupants of the proposed development will be prepared prior to the occupation of the proposed development.

The subject development site is well placed in terms of its close proximity to existing transport hub, namely Newcastle Interchange which allow passengers to transfer between train, bus and light rail services. It is also located within the Newcastle City Centre containing an abundance of services and amenities.

In light of the above, the applicant is committed to providing a sustainable development at this location. The applicant wishes to discourage residents, employees and visitors to/from this development from using private vehicles to access the site and encourage more sustainable transport methods.

To ensure that the proposed development will continue to be developed to encourage more sustainable travel methods, it is appropriate for Council to include a consent condition in the approval stipulating that a green travel plan be prepared and submitted to Council for approval prior to the issue of the Occupation Certification.

### The Role of a Green Travel Plan

The purpose of a green travel is to encapsulate a strategy for managing travel demand that embraces the principles of sustainable transport. The green travel plan encourages use of transport modes that have low environmental impacts, for example active transport modes including walking, cycling as well as public transport and the better management of private vehicle use.

The green travel plan should be in place prior to the occupation of the proposed development so that travel behaviours of the occupants and visitors can be influenced from Day One. The green travel plan is to be a living document that can easily be updated and adopted to suit the site's changing conditions. The measures documented in the green travel plan are to be reviewed on an annual basis and, if required, modified to better achieve the desired transport mode shares.

## Possible Methods of Encouraging Modal Shift

A summary of the travel demand management measures that could be implemented to encourage sustainable travel use is presented in Table 9.

**Table 9: Potential Travel Demand Measures**

| Type of Measures | Potential Travel Demand Measures |
|---|---|
| Car Parking Provision | • Reducing the on-site car parking provision for all proposed land uses by adopting a lower parking provision rate than those stipulated in the current planning controls.<br>• Prohibiting residents of the proposed development from applying for any existing and future residential parking permit schemes. |
| Sales of On-site Car Parking Spaces | • Establishment of a by-law of the strata management to prohibit the selling and/or renting of any on-site car parking spaces to non-occupants of the proposed development. |
| Car Share Facilities | • Provision of additional car parking spaces within the site as car share spaces for dedication to a commercial car share operator.<br>• The applicant is to subsidy the initial occupants the cost of the car share membership. |
| Cycling | • Provision of on-site bicycle parking spaces exceeding Council's current DCP requirements.<br>• Bicycle parking spaces and associated elements such as access paths within the development to bicycle parking spaces to comply with the Australian Standard.<br>• Provision of cycling infrastructure on public roadway with end-of-trip facilities, subject to agreement with relevant Road Authorities.<br>• Provision of bicycle maps displaying all existing cycling routes, available on all noticeboards, newsletters, websites and etc. Tenants to be informed of new cycling routes available in the local areas.<br>• Recreational cycling group are to be encouraged by organising a cyclist's breakfast or lunch at a nearby café.<br>• Promotion of annual cycling events such as 'Ride to Work Day'.<br>• Provision of bicycle workshop within the basement car park for occupants to repair and maintain their bicycles. The workshop is to include maintenance toolkits that may include bike pump, puncture repair equipment.<br>• Encourage a bicycle shop (including bicycle repairing facility) to operate from one of the tenancies within the proposed development by offering attractive rental rates and terms.<br>• Provide end of trip facilities (e.g. shower and change room) for staff to encourage staff to cycle to and from the site. |
| Walking | • Implementation of a "10,000 steps per day initiative" to encourage tenants to walk to/from the site.<br>• Tenants who achieve the "10,000 steps per day" for seven consecutive days are to be rewarded with a $50 gift card.<br>• Establishment of a walking group, inviting occupants to walk together around the local neighbourhood for social and recreational activities. This could be achieved on annual |

| Type of Measures | Potential Travel Demand Measures |
|---|---|
| | holidays such as Easter, where an Easter Egg Hunt could be organised for tenants to participate. |
| Public Transport | • Provision of public transport information on all noticeboards and website to provide awareness to occupants and visitors of alternative transport options available.<br>• Initial occupants of the development will be provided with a pre-loaded Opal cards with $100 credit when the tenant occupies the site.<br>• The public transport information and the pre-loaded $100 Opal cards are to be provided in the form of a welcome pack for all initial occupants of the building. |
| Car Pooling | • Establishment of a car-pooling forum or board to encourage and organise occupants to travel in groups. Information on the car-pooling forum will be posted on the building website, noticeboards and/or newsletters.<br>• Investigate the feasibility of expanding the car-pooling forum to include other occupants living and working in adjoining developments to improve the possibility of connecting people with similar origins and destinations. |
| Transport Access Guide (TAG) | • A TAG to be developed prior to the occupation of the proposed development and distributed to all occupants and visitors advertising all available alternative transport modes for accessing the site in an easy format to read and understand.<br>• The TAG is to be provided on all noticeboards throughout the development as well as on a web page accessible by all occupants as well as the public. The TAG could also be in the form of a map provided at the back of a business card or envelope.<br>• The TAG provides customised travel information in an easy to understand format for people travelling to and from the site using sustainable forms of transport (i.e. walking, cycling and public transport). |
| Travel Plan Coordinator | • Appoint a travel plan coordinator to prepare, implement, monitor and update the green travel plan as required. |

## Summary and Conclusion

MLA has conducted a traffic and parking review for the subject Section 4.55 application to modify the approved development at 10 Dangar Street, Wickham.

The proposed modifications in this S4.55 (2) application includes deletion of car parking Levels 1 to 3, addition of one basement car parking level, minor reconfiguration of the basement car parking levels, increase the approved non-residential floor areas and reduction of on-site car parking spaces. The residential use is proposed to be retained as approved.

In terms of the traffic effects of the proposed modifications, the review indicates that the revised proposed development would generate an additional 27 vph during the peak periods. It is considered that the additional development traffic is low and is not expected to create any noticeable change in intersection performance. That is, the

revised proposed development is not expected to create any traffic impacts worse than the original approved scheme.

The proposed parking provision for the residential component in the revised proposed development complies with current DCP parking and is consistent with the approved development.

In recognition of the site's locality in relation to the Newcastle Interchange which provides good quality and high frequency public transport services, and Newcastle City Centre environ providing an abundance of services and amenities, the site has merits for on-site parking to be reduced. As such, this S4.55 (2) application seeks dispensation to reduce car parking for the residential visitors and the non-residential uses as discussed in this report. It is noted the proposed parking reduction is consistent with some recent approved developments in Newcastle City Centre. It is also proposed to provide bicycle and motorcycle parking spaces in excess of the current DCP requirements to offset the proposed reduction in car parking.

It is also proposed to prepare and implement a green travel plan to encourage more sustainable travel methods and discourage private vehicle usage. It is envisaged that the green travel plan will be introduced prior to occupation of the proposed development.

Overall, the traffic and parking aspects of the revised proposed development are satisfactory.

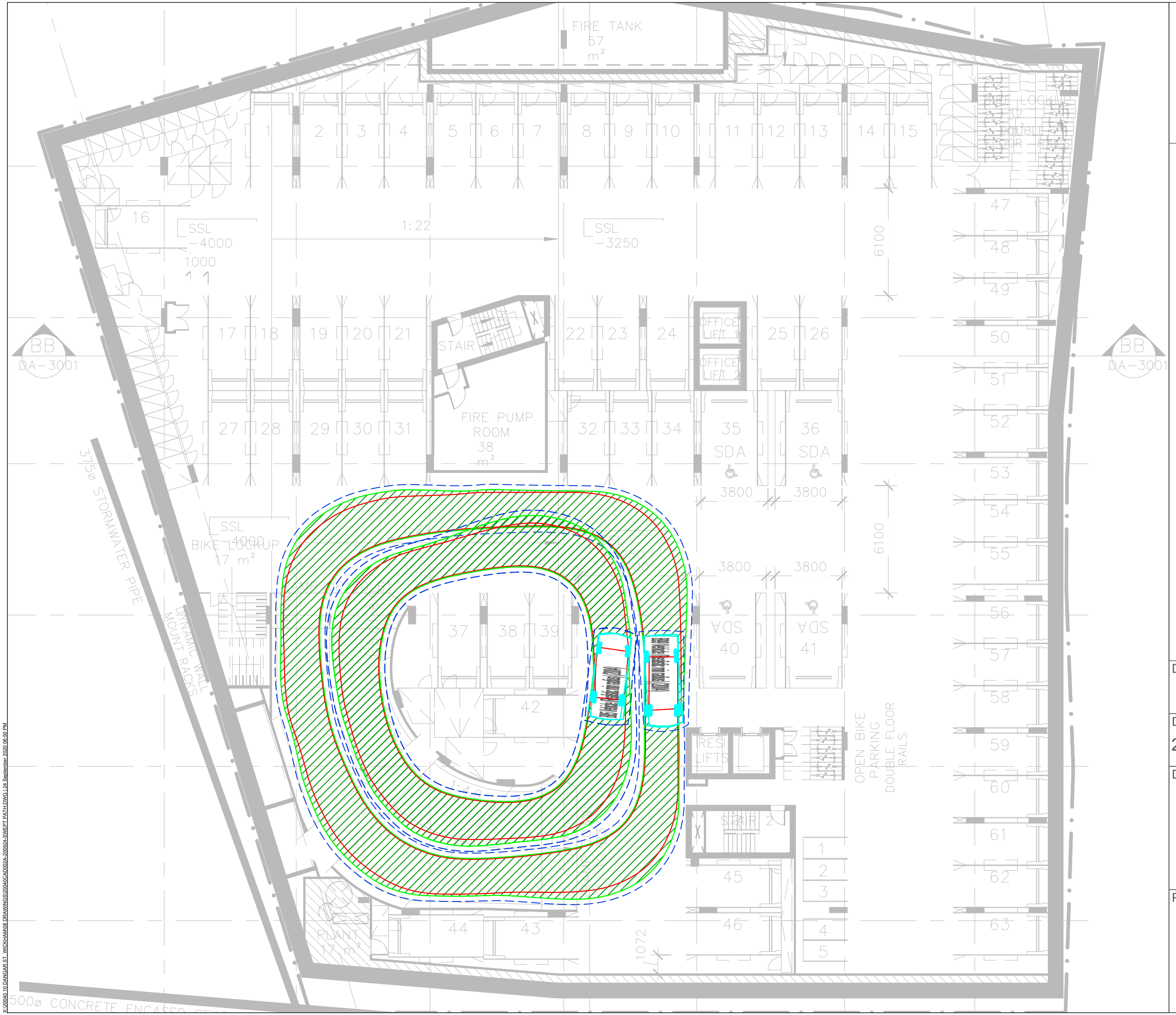
Yours sincerely,

Michael Lee
Director

Encl. Attachment One – Swept Path Diagrams

# Attachment One

## Swept Path Diagrams



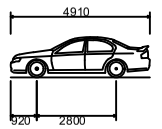


Transport Planning

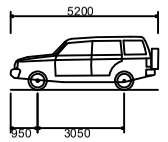
Zenith Towers | Level 20 | Tower A | The Zenith
821 Pacific Highway | Chatswood | NSW | 2067


KEY:

| | Forward | Reverse |
|---|---|---|
| Wheel Path | | |
| Body Envelope | | |
| Clearance (300mm) | | |




| B85 Vehicle (Realistic min radius) (2004) | |
|---|---|
| Overall Length | 4910mm |
| Overall Width | 1870mm |
| Overall Body Height | 1421mm |
| Min Body Ground Clearance | 159mm |
| Track Width | 1770mm |
| Lock-to-lock time | 4.00s |
| Curb to Curb Turning Radius | 5750mm |




| B99 Vehicle (Realistic min radius) (2004) | |
|---|---|
| Overall Length | 5200mm |
| Overall Width | 1940mm |
| Overall Body Height | 1878mm |
| Min Body Ground Clearance | 272mm |
| Track Width | 1840mm |
| Lock-to-lock time | 4.00s |
| Curb to Curb Turning Radius | 6250mm |

| DATE: | SCALE: |
|---|---|
| 24 SEPTEMBER 2020 | 1:200@A3 |
| DRAWING NO.: | REV: |
| 20040CAD002A-001 | A |

DRAWING TITLE:

SWEPT PATH ANALYSIS - BASEMENTS 1/2/3 & GF INTERNAL RAMPS - AS2890.1 5.2M B99 & 4.9M B85 VEHICLES

PROJECT:

10 DANGAR ST, WICKHAM

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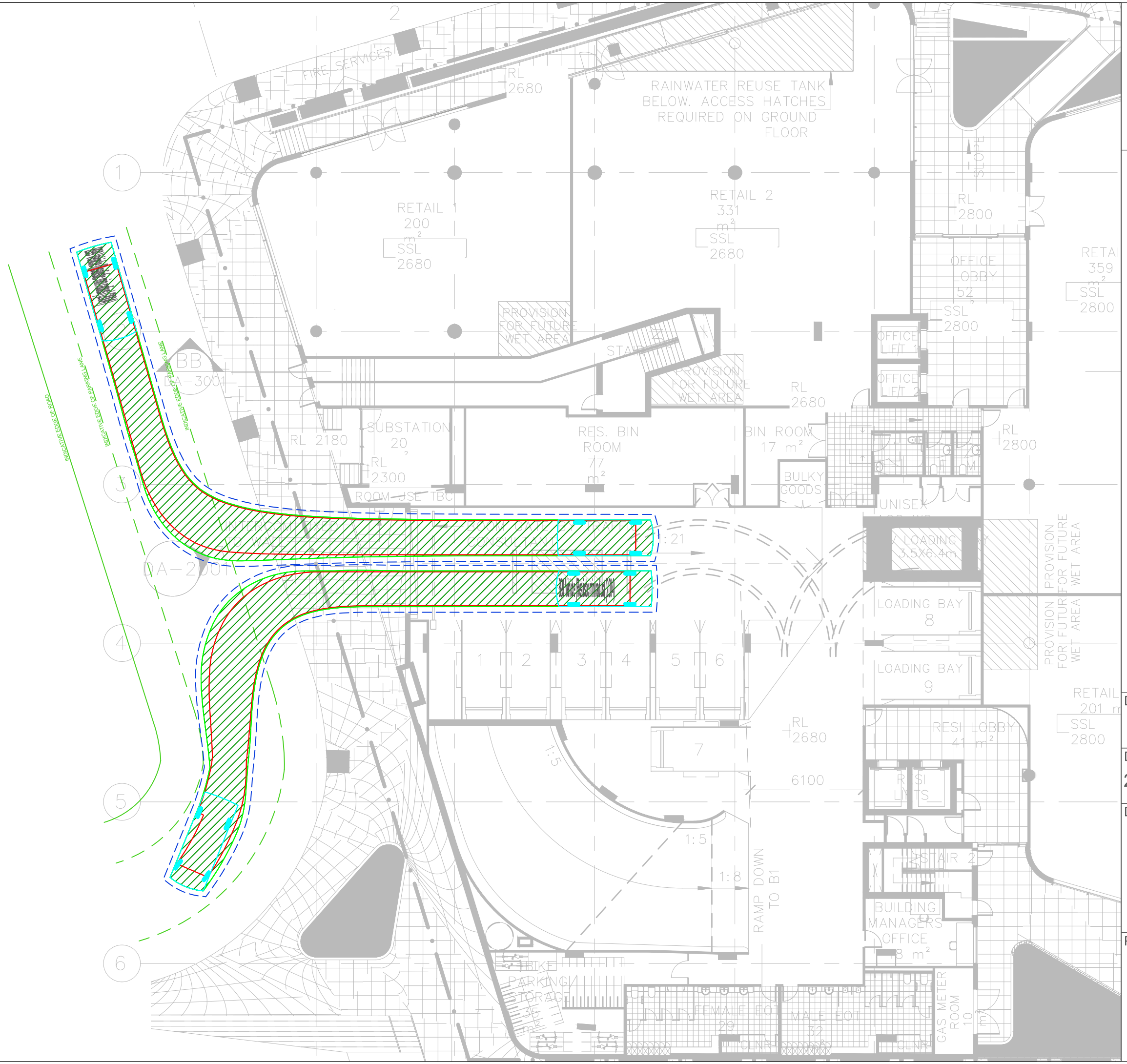
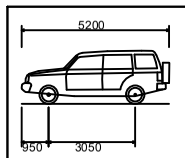



Transport Planning

Zenith Towers | Level 20 | Tower A | The Zenith
821 Pacific Highway | Chatswood | NSW | 2067

KEY:

| | Forward | Reverse |
|---|---|---|
| Wheel Path | | |
| Body Envelope | | |
| Clearance (300mm) | | |




B99 Vehicle (Realistic min radius) (2004)

| | |
|---|---|
| Overall Length | 5200mm |
| Overall Width | 1940mm |
| Overall Body Height | 1878mm |
| Min Body Ground Clearance | 272mm |
| Track Width | 1840mm |
| Lock-to-lock time | 4.00s |
| Curb to Curb Turning Radius | 6250mm |

| DATE: | SCALE: |
|---|---|
| 24 SEPTEMBER 2020 | 1:200@A3 |

| DRAWING NO.: | REV: |
|---|---|
| 20040CAD002A-002 | A |

DRAWING TITLE:

SWEPT PATH ANALYSIS - GROUND FLOOR DRIVEWAY - AS2890.1 5.2M B99 VEHICLE

PROJECT:

10 DANGAR ST, WICKHAM

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