

Transport Assessment

Planning Proposal

138 Cronulla Street, Cronulla

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1 Introduction

1.1 Overview

Ason Group has been engaged by Sammut Developments to prepare a Transport Assessment (TA) in regard to a Planning Proposal (PP) for a mixed-use development (the Proposal) at 138 Cronulla Street, Cronulla (the Site). The Proposal provides for the development of commercial and food & beverage floorspace, as well as on-site parking.

1.2 Transport Assessment Tasks

This TA provides an assessment of the relevant access, traffic and parking characteristics of the Proposal, and the potential impacts of the Proposal on the local road, parking and active transport environment. This has included a detailed assessment of:

- Existing local road network operations;
- Public and active transport services and infrastructure, and available sustainable transport strategies to reduce the future vehicular trip generation of the Site;
- The future peak period vehicle trip generation and distribution of the Site, and the potential impact of those trips on the local road network and means of mitigating any adverse impacts;
- Parking requirements and provision; and
- The general design of access driveways, parking and servicing areas.

1.3 Planning Controls

The Site lies within Sutherland Shire Council (Council) Local Government Area (LGA); as such, key Council planning controls and strategies referenced in the preparation of this TA include:

- Sutherland Local Environmental Plan 2015 (Sutherland LEP).
- Sutherland Development Control Plan 2015 (Sutherland DCP), with specific reference to:
 - Chapter 36: Vehicular Access, Traffic, Parking and Bicycles;
 - Chapter 19: B3 Commercial Core Cronulla;
 - Map: Bicycle Network Map (Bike Map); and
 - Map: Road Hierarchy Map (Road Map).

1.4 Traffic and Transport Guidelines and Standards

This TA also references general access, traffic and parking guidelines, including:

- Guide to Traffic Generating Developments 2002, Roads and Maritime Services (RMS Guide).
- Guide to Traffic Generating Developments – Updated Traffic Surveys 2013, RMS (RMS Guide Update).
- Australian Standard 2890.1: Parking Facilities – Off-Street Car Parking (AS 2890.1).

- Australian Standard 2890.2: Parking Facilities – Off-Street Commercial Vehicle Facilities (AS 2890.2).
- Australian Standard 2890.6: Parking Facilities – Off-Street Parking for People with a Disability (AS 2890.6).
- Transport for NSW Guide to Transport Impact Assessments.
- Integrated Public Transport Service Planning Guidelines, Sydney Metropolitan Area, TfNSW (IPT Guidelines).

1.5 Background Reports

Traffic submissions were recently prepared by Traffix in regard to an early Planning Proposal for the Site. While the Proposal that this TA accompanies provides for a significantly different development to that previously assessed by Traffix, Ason Group has nonetheless reviewed these documents as part of our assessment, which include:

- Traffic Impact Assessment; Planning Proposal; 138-142 Cronulla Street, Cronulla, October 2019 prepared by Traffix (Traffix TIA).
- Planning Proposal for 138 Cronulla Street, Cronulla; Response to Council Issues, February 2020 prepared by Traffix (Traffix RTI).

1.6 Data Limitations

At the time of preparing this report, many businesses and activities across NSW have either closed or are operating significantly below capacity as a result of the Covid-19 virus. As such, current traffic and parking conditions across NSW – and particularly in high activity areas such as the Cronulla Town Centre (the Town Centre) – do not present standard conditions by which to undertaken traffic and parking surveys or detailed observations of standard conditions.

Ason Group has discussed these issues with Council, and it was anticipated that some data might be available for the TA; however, no data has been made available at this time, and our research into recent Development Applications within the Town Centre has similarly provided no relevant data.

Notwithstanding, further to our assessment Ason Group has determined that the relevant traffic and parking characteristics of the Planning Proposal are not substantially different from those of a ‘compliant’ development of the Site in line with current zoning and floor space ratio (FSR) calculation.

In addition, it is essential to note that this TA examines a Planning Proposal, where the goal is to determine the broad merits of the proposed development with regard to access, traffic and parking. Ason Group acknowledges that additional data may be required to respond to specific issues as part of a future Master Plan/Development Application, but at this time it is our opinion that the available information and our assessment methodology provides for an appropriate level of certainty in regard to our conclusions.

2 The Existing Site

2.1 Location

The Site is located at 138 Cronulla Street, Cronulla. The Site is bordered by commercial buildings to the north, Beach Park Arcade to the south, Surf Lane to the east and Cronulla Street to the west. The Site is shown in its local context in **Figure 1**, and within the broader Town Centre environs in **Figure 2**.

Figure 1: Site Location Local

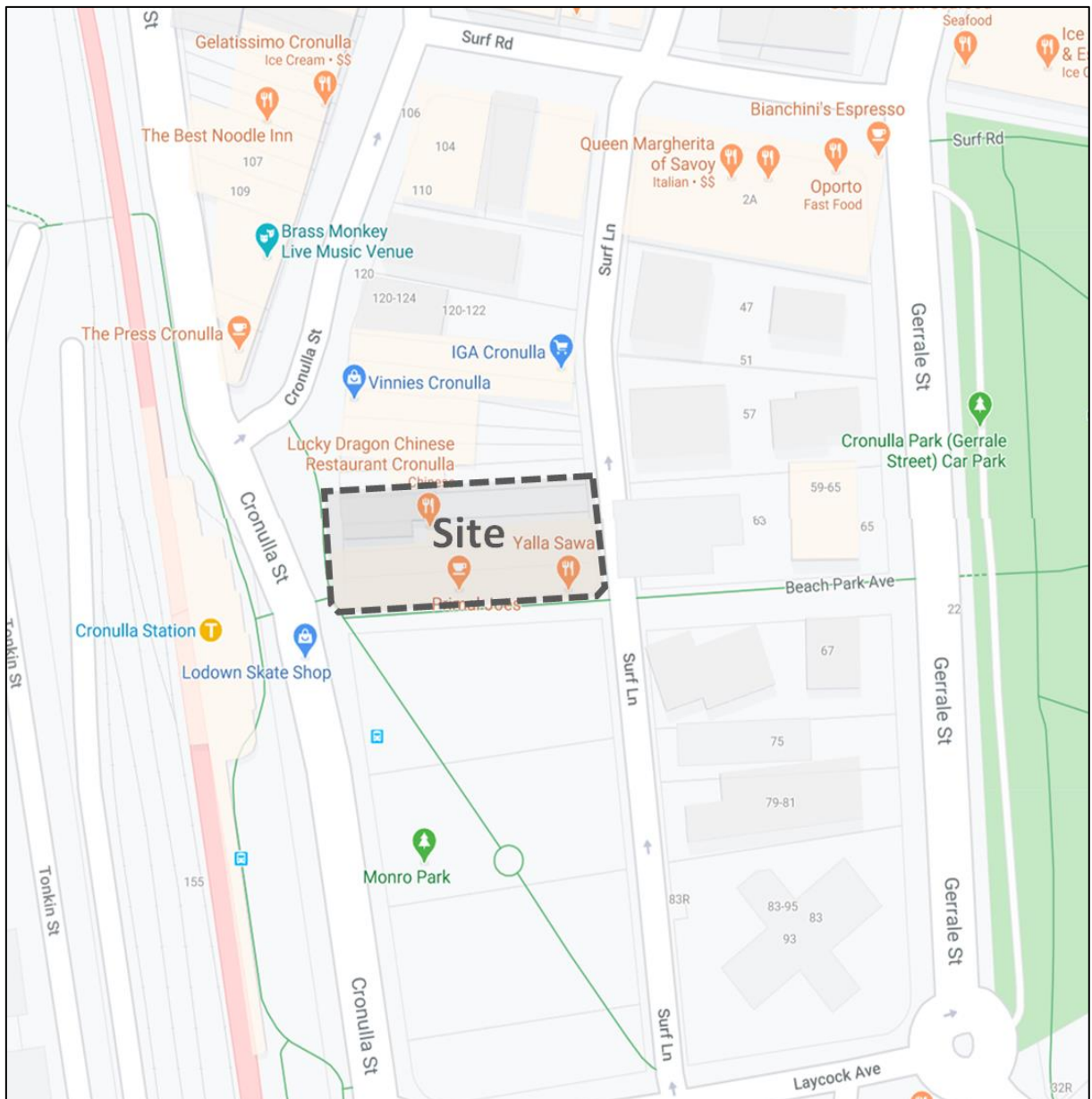
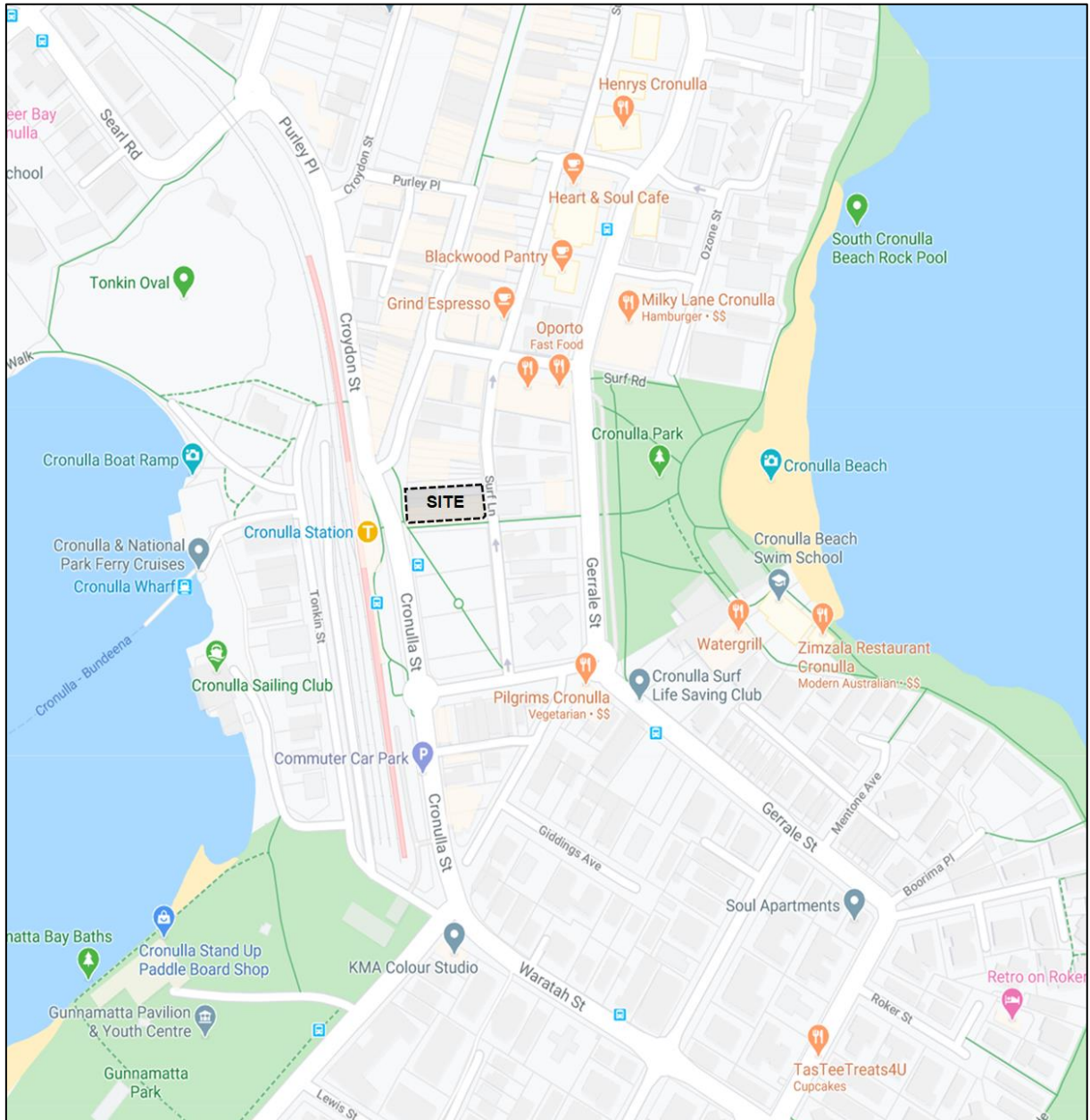


Figure 2: Site Location Broader Cronulla Town Centre



2.2 Current Floorspace and Use

The Site has an area of approximately 1,424m²; with no information available in regard to existing gross floor area (GFA) or gross leasable area (GLA), it is estimated (based on plans and Site observations) that GFA is generally consistent with the built portion of the Site (approximately 1,070m² having discounted the at-grade car park) and that GLA would represent approximately 80% of GFA (860m²).

The Site is currently occupied by a number of commercial tenancies, including restaurants, salons and homewares shops.

2.3 Existing Trip Generation

The traffic generation of the existing Site can be determined with reference to the RMS Guide calculations for shopping centres, which provides a breakdown of trip rates for the different components of a centre; we note that these are equally applicable to a Town Centre such as that in which the Site lies.

In this regard, the RMS Guide provides the following formulas for the determination of trip generation for centres:

- *Thursday Peak Hour Trips* = 20 A(S) + 51 A(F) + 155 A(SM) + 46 A(SS) + 22 A(OM)
- *Friday Peak Hour Trips* = 11 A(S) + 23 A(F) + 138 A(SM) + 56 A(SS) + 5 A(OM)
- *Saturday Peak Hour Trips* = 38 A(S) + 13 A(F) + 147 A(SM) + 107 A(SS)

where:

- *A(S): Slow Trade gross leasable floor area (GLFA in square metres) – includes major department stores such as David Jones and Grace Bros., furniture, electrical and whitegoods stores.*
- *A(F): Faster Trade GLFA – includes discount department stores such as K-Mart and Target, together with larger specialist stores such as Fosseys.*
- *A(SM): Supermarket GLFA – includes stores such as Franklins and large fruit markets.*
- *A(SS): Specialty shops, secondary retail GLFA – includes specialty shops and take-away stores such as McDonalds. These stores are grouped as they tend to not be primary attractors to the centre.*
- *A(OM): Office, medical GLFA – includes medical centres and general business offices.*

The information available suggests that all of the existing Site tenancies would constitute *Specialty Shops* in accordance with the RMS Guide, and as such generate approximately 44 vehicle trips per hour (vph) per 1,000m² GLA. Applied to the estimated 860m² of existing Site GLA, this suggests an existing Site trip generation of:

- 40 vph in the Thursday PM peak;
- 48 vph in the Friday PM peak; and
- 90 vph in the Saturday Site peak.

2.4 Parking Demand

The RMS Guide also provides a formula for the determination of centre parking demands, though a single formula is provided which applies to all peak periods as – essentially – the peak demand (whenever it occurs) is required to be met.

This formula considers the same centre components as outlined in **Section 2.3** above, and is reproduced below:

- $Peak\ Parking\ Demand = 24\ A(S) + 40\ A(F) + 42\ A(SM) + 45\ A(SS) + 9\ A(OM)$

Applying this formula to the Site an existing peak parking demand for 39 parking spaces.

Alternatively, application of the Sutherland DCP retail parking rate of 1 space per 30m² GFA indicates a total requirement for 36 parking spaces.

The Site currently provides parking for 7 - 8 vehicles accessed via Surf Lane for private use; however, there are a number of waste bins and other plant etc that would generally provide fewer spaces than this potential total. As such, it is estimated that the Site currently generates a demand for some 30 off-site parking spaces, which would be accommodated either on-street or in local car parks.

2.5 Existing Site Benchmarks

The calculation of the existing Site's traffic and parking characteristics provides an important benchmark by which to measure the Proposal. In summary, the existing Site is estimated to:

- Generate some 40 vph and 48 vph in the Thursday and Friday PM peak periods respectively;
- Generate some 90 vph during the Saturday Site peak period; and
- Have a requirement for a minimum of 36 parking spaces in accordance with the Sutherland DCP, some 30 of which would be accommodated off-site.

2.6 Compliant Development

2.6.1 Yield

Information provided by Sammut Developments further to their discussions with Council officers indicates that the Site could be redeveloped as an essential 'compliant' development with regard to land use and FSR for up to 2,850m² GFA. Within these parameters, 2 compliant scenarios have been determined, including:

- **Scenario 1** would provide 1,200m² GFA of food & beverage area, and 17 residential units.
- **Scenario 2** would provide 1,200m² GFA of food & beverage area, and 1,650m² of commercial (office) area.

A summary of these scenarios (and the existing Site) is provided in **Table 1**.

Table 1: Existing & Compliant Site Yields

Land Use & Yield	Food & Beverage m ² GFA	Commercial m ² GFA	Apartments
Existing	1,424		
Scenario 1	1,200		17
Scenario 2	1,200	1,650	

2.6.2 Trip Generation

As well as the RMS Guide trip rates for the food & beverage components of these scenarios (as detailed in **Section 2.3**, the RMS Guide Update provides trip rates for the commercial and residential components of these scenarios, being:

- **Commercial:**
 - AM Peak Period: 2 vehicle trips per 100 m²
 - PM Peak Period: 1.5 vehicle trips per 100 m²
 - Saturday Peak Period: 0 vehicle trips per 100m²
- **Residential:**
 - AM Peak Period: 0.19 vehicle trips per dwelling
 - PM Peak Period: 0.15 vehicle trips per dwelling
 - Saturday Peak Period: 0.18 vehicle trips per dwelling

It is noted that the commercial rate adopted for the assessment are higher than the summary rates provided in the RMS Guide Update, and references similar centres such as Hurstville and Liverpool which were specifically surveyed by the RMS. Conversely, the residential trip rates reflect the RMS Guide Update summary rates, as the rates surveyed by the RMS in Cronulla itself were significantly lower than the summary rates.

In both instances, the use of these rates provides for a conservative estimate of trip generation, and importantly are the same rates applied in the assessment of the Proposal in sections below.

The resulting trip generation for each compliant scenario is summarised in **Table 2** for a Friday, which represents the highest generation of the Site (based on its land uses). It is again noted that GLA for the food & beverage component of both scenarios has been estimated at 80% of GFA.

Table 2: Existing & Compliant Site Tip Generation (Friday)

Land Use	Food & Beverage m ² GLFA			Commercial m ² GFA			Residential Units			Total		
	AM	PM	SAT	AM	PM	SAT	AM	PM	Sat	AM	PM	SAT
Peak												
Trip Rate	1.4	5.6	10.7	2.0	1.5	0.1	0.19	0.15	0.18			
Existing	12	48	92							12	48	92
Scenario 1	13	54	103				3	3	3	17	56	106
Scenario 2	13	54	103	33	25	2				46	79	104

With reference to **Table 2**, it is estimated that a compliant development of the Site could generate up to 46 vph and 79 vph in the weekday AM and PM peak periods respectively, representing an increase of up to 34 vph and 22 vph in the weekday AM and PM peak periods respectively over the existing Site generation. On a Saturday, a compliant development could generate up to 14 vph than the existing Site.

2.6.3 Parking Demand

Application of the Sutherland DCP parking requirements to the retail, commercial and residential components of these compliant scenarios is summarised in **Table 2**, again noting that the Sutherland DCP rates are applied to GFA.

Table 3: Existing & Compliant DCP Parking Requirement

Land Use	Retail 1 per m ² GFA	Commercial 1 per m ² GFA	Residential per unit	Total
Parking DCP	30	30	1	
Existing	36			36
Scenario 1	40		17	57
Scenario 2	40	55		95

With consideration of the existing off-site parking demand generated by the existing Site (what might be considered as ‘parking credits’ – see also **Section 8.5**), and assuming the existing on-site car park would be removed to accompany these compliant development scenarios, it is estimated that Scenario 1 would generate an additional demand (over the existing Site demand) for 30 – 35 spaces, and Scenario 2 an additional demand for 70 – 75 spaces.

2.7 Compliant Site Development Benchmarks

The calculation of the traffic and parking characteristics of a compliant Site development again provide important benchmarks by which to measure the Proposal. In summary, a compliant development of the Site is estimated to:

- Generate up to 56 vph and 79 vph in the Thursday and Friday PM peak periods respectively;
- Generate up to 106 vph during the Saturday Site peak period; and
- Have a requirement for between 57 and 95 parking spaces in accordance with the Sutherland DCP.

3 The Road Network

Key roads and intersections in the vicinity of the Site are shown in **Figure 1** and described further in sections below.

3.1 Key Roads

3.1.1 Gerrale Street

Gerrale Street is a collector road which runs north-south between Kingsway and Ewos Parade respectively to the east of the site. In the vicinity of the Site, Gerrale Street provides 1 traffic lane in each direction and kerbside lanes providing restricted parking dispersed between No Stopping and Bus zones. Gerrale Street has a posted speed limit of 50km/h.

3.1.2 Surf Lane

Surf Lane is a local lane which runs north-south between Gerrale Street and Laycock Avenue respectively and forms the eastern boundary of the Site. In the vicinity of the Site, Surf Lane provides 1 southbound traffic lane and a single kerbside lane providing restricted parking dispersed between No Parking, No Stopping and Loading zones. Surf Lane currently provides an access driveway into the Site, and has a posted speed limit of 40km/h.

3.1.3 Cronulla Street

Cronulla Street is a collector road which runs north-south between Purley Place and Waratah Street respectively and forms the western boundary of the Site. In the vicinity of the Site, Cronulla Street provides 1 traffic lane in each direction and kerbside lanes providing restricted parking dispersed between No Stopping and Bus zones. Cronulla Street also provides a one-way shared zone to the north of the Site between Croydon Street and Purely Place. Cronulla Street has a posted speed limit of 50km/h.

3.1.4 Surf Road

Surf Road is a local road which runs east-west between Gerrale Street and Cronulla Street respectively to the north of the Site. In the vicinity of the Site, Surf Road provides 1 eastbound traffic lane and kerbside lanes providing restricted parking dispersed between No Stopping zones. Surf Road has a posted speed limit of 40km/h.

3.1.5 Laycock Avenue

Laycock Avenue is a local road which runs east-west between Gerrale Street and Cronulla Street respectively and to the south of the Site. In the vicinity of the Site, Laycock Avenue provides 1 traffic lane in each direction and kerbside lanes providing restricted parking dispersed between No Stopping zones. Laycock Avenue has a posted speed limit of 40km/h.

3.2 Key Intersections

The key intersections providing access to/from the Site are detailed in sections below, noting that further afield (from these intersections) the trip generation of the Site is expected to be very moderate, such that it is unlikely to have any significant impact on the operation of these intersections (see also **Section 6.1**).

3.2.1 Gerrale Street & Surf Road

This intersection operates under signal control, with signalised pedestrian crossings of the northern and eastern approaches.

3.2.2 Gerrale Street & Laycock Avenue

This intersection operates under roundabout control, and provides a pedestrian refuge within the median of the Laycock Avenue approach. Importantly, mid-block marked pedestrian crossings are provided in Gerrale Street and Laycock Avenue to meet pedestrian demands.

3.2.3 Laycock Avenue & Surf Lane

This intersection operates under priority (nominally Give Way) control, and provides a marked pedestrian crossing of the Laycock Avenue western approach.

3.2.4 Cronulla Street & Laycock Avenue

This intersection operates under roundabout control, and provides pedestrian refuges within the median on all approaches.

4 Public & Active Transport

The Site is provided with excellent and immediate access to public and active transport services and infrastructure, as described in sections below.

4.1 Rail

The Site is located directly adjacent to Cronulla Station, which operates on the T4 Eastern Suburbs & Illawarra Line. Services operate every 10 minutes during the AM and PM weekday peak period, and every 15 minutes during off peak periods. Importantly in the context of the Proposal, services operate every 15 minutes though until 10:pm, after which they operate every 30 minutes through until 12:30am.

The IPT Guidelines state that train services can significantly influence the travel mode choice for sites within 800m walking distance (approximately 10 minutes' walk) of a train station; given the immediate proximity of Cronulla Station to the Site, there is therefore excellent potential for future Site employees and visitors to utilise rail for the journey to and from the Site.

4.2 Bus Services

The ITP Guidelines also state that bus services can also influence the travel mode choice of sites within 400m (approximately 5 minutes' walk) of a bus stop. In this regard, the Site is accessible by a number of bus services operating along Cronulla Street, with bus stops provided outside Cronulla Station.

Bus services operating from these bus stops are detailed in **Table 4**.

Table 4: Bus Service Frequencies

Route No.	Route	Weekday Peak Hour Frequency	Weekend Peak Hour Frequency
969	Cronulla to Sutherland	AM Peak: 1 hour PM Peak: 1 hour	Midday Peak: 1 hour
971	Cronulla to Hurstville	AM Peak: 30 minutes PM Peak: 30 minutes	Midday Peak: 30 minutes
985	Cronulla to Miranda	AM Peak: 30 minutes PM Peak: 30 minutes	Midday Peak: 1 hour
987	Cronulla to Kurnell	AM Peak: 45 minutes PM Peak: 1 hour	Midday Peak: 90 minutes
988	Cronulla to Caringbah	AM Peak: 1 service PM Peak: 1 service	Midday Peak: No service
N11	Cronulla to Sydney Town Hall	AM Peak: No service PM Peak: No service	Midday Peak: 1 hour

4.3 Active Transport

4.3.1 Pedestrian Network

The Site provides a high level of pedestrian connectivity, including immediate and safe connections to public transport services and the broader Town Centre. All footpaths provided are of a high quality, with appropriate widths and ramps provided at carriageways.

4.3.2 Bicycle Network

The bicycle network in the vicinity of the Site is shown in **Figure 3** and **Figure 4** and again provides a high level of connectivity to both local and sub-regional centres, including links to Kirrawee, Sylvania, and Kurnell. A variety of cycling facilities are provided, including off-road shared paths, on-street cycle routes, and bicycle parking infrastructure.

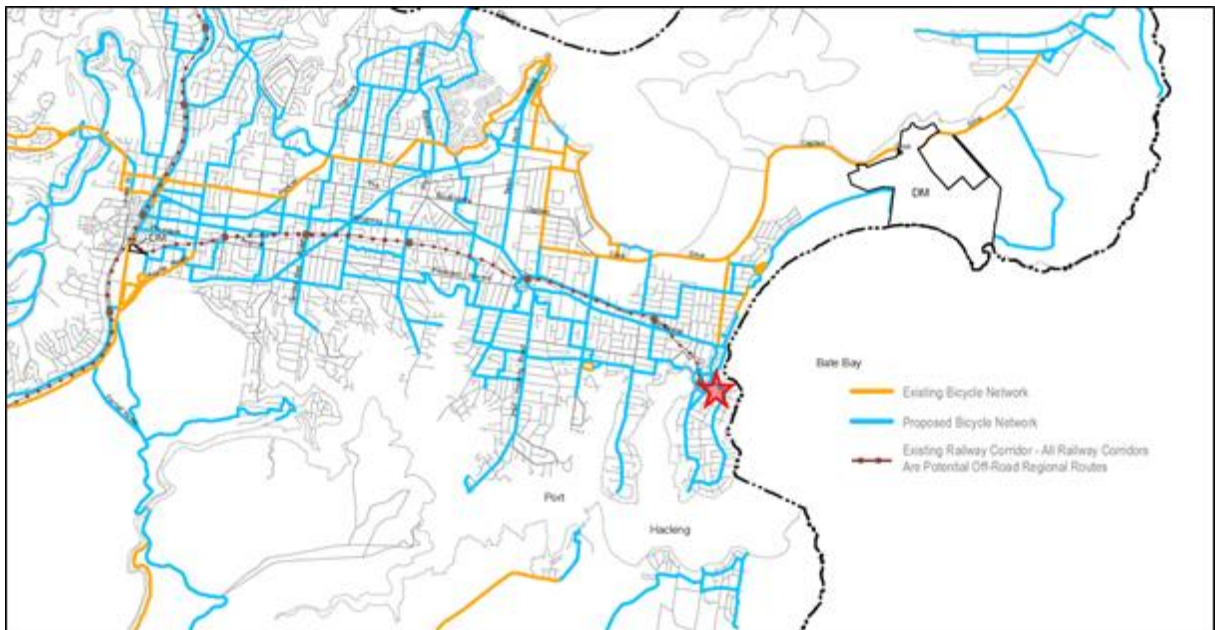


Figure 3: Existing and Proposed Bicycle Network

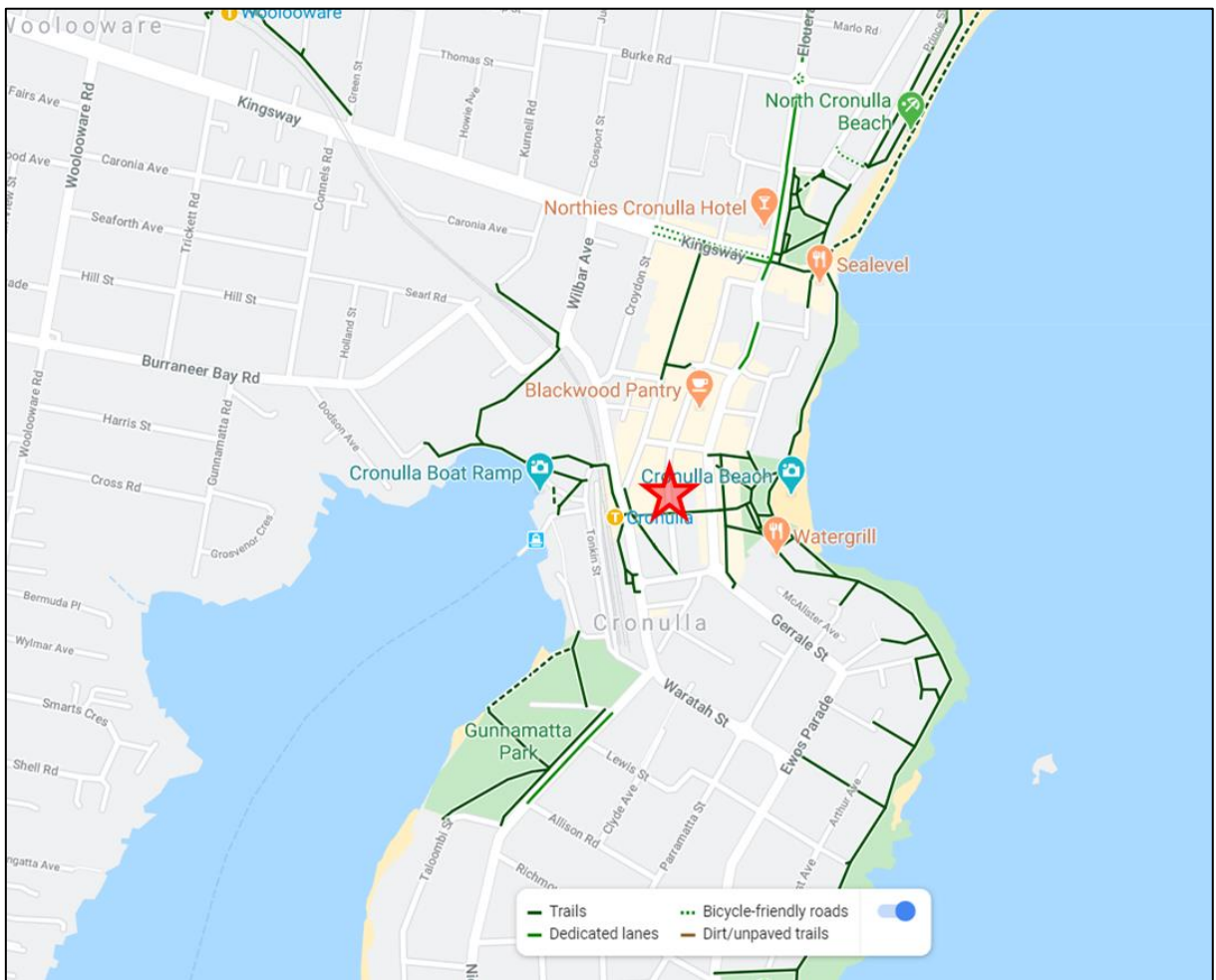


Figure 4: Local Bicycle Network

5 The Proposal

As previously discussed, the Proposal provides for a mixed-use development of the Site, including:

- 1,650m² GFA of food & beverage floorspace; and
- 2.480m² GFA of commercial floorspace;

Further details of the Proposal are provided within the broader Planning Proposal submission which this TA accompanies, including Concept Plans.

6 Traffic Assessment

6.1 Trip Generation

6.1.1 Trip Rates

The RMS Guide and RMS Guide Update trip generation rates outlined in **Section 2.3** and **Section 2.6.2** have again been adopted for the assessment of the Proposal.

6.1.2 Trip Generation

Further to the above – and again considering GLA to represent 80% of GFA - the Site’s trip generation further to the Proposal is summarised in **Table 5**, including a the comparative trips generated by the existing Site operations and by compliant Site developments.

Table 5: Planning Proposal Trip Generation Comparison

Land Use	Food & Beverage m ² GLFA			Commercial m ² GFA			Residential Units			Total		
	AM	PM	SAT	AM	PM	SAT	AM	PM	Sat	AM	PM	SAT
Peak Trip Rate	1.4	5.6	10.7	2.0	1.5	0.1	0.19	0.15	0.18			
Existing	12	48	92							12	48	92
Scenario 1	13	54	103				3	3	3	17	56	106
Scenario 2	13	54	103	33	25	2				46	79	104
Proposal	18	74	141	50	37	2				68	111	144

6.2 Traffic Impacts

With reference to **Table 5**, the trip generation of the Proposal would represent an increase over the compliant development scenarios, being:

- 22 vph in the AM peak period;
- 32 vph in the PM peak period; and
- 42 vph in the Saturday peak period.

In and of themselves, it is the opinion of Ason Group that these increases could not be considered significant in the context of the Site and local traffic environment. In this regard, we provide the following comments:

- **Trip Generation:** The trip generation of the Proposal represents less than 1 additional vehicle trip per minute to the local road network than generated by the existing Site, and fewer still when compared to a compliant development of the Site.

- **Trip Distribution:** While it is anticipated that commercial and employee parking will be provided on-site, the majority of Site trips in the key weekday PM and Saturday peak periods will be generated to off-site parking, either on-street or in local car parks. As such, these additional trips would not be concentrated at the Site itself (or in Surf Lane, from where access to on-site parking is proposed) but rather dispersed across the Town Centre. This in turn reduces the potential for traffic impacts in any one location.
- **Commercial Trip Generation:** With reference to **Section 7** below, it is the opinion of Ason Group that there is significant potential to reduce vehicle trips given the excellent public and active transport provisions available to the Site. Parking reductions must also be considered a viable mechanism by which to reduce vehicle trips, noting that many similar sub-regional centres require significantly less parking than that required under the Sutherland DCP. An appropriate and sustainable reduction in parking requirements would potentially reduce trip generation to a level below that of a complaint development (without parking reductions).

In summary, it is the conclusion of Ason Group that the Proposal is supportable with consideration of traffic issues.

7 Parking Requirements

7.1 Parking Requirements

7.1.1 Parking Rates

The parking rates detailed in the Sutherland DCP as outlined in **Section 2.6** have again been adopted for the assessment of the Proposal, being 1 space per 30m² GFA for both the food & beverage and commercial components of the Proposal.

7.1.2 Parking Requirement

Further to the above, the Proposal would require some 138 parking spaces to provide compliance with the Sutherland DCP.

7.1.3 Parking Comparison

As discussed in **Section 2.6**, the compliant development scenarios provide a benchmark by which to assess the Proposal in regard to parking requirements. **Table 6** below provides a comparison of parking requirements between the Proposal and both the existing and compliant scenarios.

Table 6: Planning Proposal Parking Requirement Comparison

Land Use	Retail 1 per m ² GFA	Commercial 1 per m ² GFA	Residential per unit	Total
Parking DCP	30	30	1	
Existing	36			36
Scenario 1	40		17	57
Scenario 2	40	55		95
Proposal	55	83		138

With reference to **Table 6**, the parking requirement of the Proposal would represent an increase over the compliant development scenarios by some 43 parking spaces.

7.1.4 Parking Provision

The Concept Plans indicate the provision of some 77 parking spaces.

8 Parking Considerations

Sections below provide a review of the current parking requirements for the Site and broader Town Centre, and moreover comment in regard to an appropriate and sustainable reduction in on-site parking provision.

8.1 Sutherland Integrated Transport Strategy

8.1.1 Overview

Council's aims, policies and controls for transport within the LGA are outlined in the Sutherland ITS, which establishes the base for the future transport network as such:

The burgeoning impact of the changing population and increased usage of motor vehicles, have turned the seemingly humble trip 'from A to B' into a burden on our environment and our society.

Private vehicle numbers on our roads are increasing at a current rate of 2% each year. This, coupled with our Shire's peculiar preference for the private vehicle (82% of trips compared to Southern Sydney regional average of 72%), is contributing to increased noise and air pollution, and water quality deterioration from road runoff, not to mention driver stress levels.

These conditions do not make for a society in which future generations can function effectively. In other words, the current situation is 'un-sustainable'.

This document describes a vision for a Shire where:

Public transport is widely available, efficient and a viable alternative to the private car.

Traffic is managed so that arterial routes are efficient and local areas are protected from the negative impacts of through traffic and where a safe network of pedestrian and bicycle routes is available.

8.1.2 Priority Actions

The Sutherland ITS then provides more than a dozen Priority Actions for consideration; with specific reference to the Proposal, these include:

link popular pedestrian, bus, rail, taxi and cycle routes whilst maintaining the highest possible standards of safety

give public transport priority lanes, signalling, turning and exclusive mall entry, and where such entry is deemed inappropriate, provide alternative routes which do not result in increased trip time

provide interchanges at major public transport nodes, which are highly visible and user friendly and provide shelter, seating public telephones and information as to services available

coordinate bus and train (or other future forms of public transport) timetables

locate public transport nodes (bus stops, taxi ranks, etc) in places which are most convenient and accessible for the majority of passengers and do not relocate such nodes if public transport industry representatives consider that such relocation would be less convenient for users

pursue integrated transport and landuse planning, that has regard to the impacts of development on traffic generation and the efficiency of the public transport network

provide parking in moderation, which does not discourage the use of public transport

include extra provisions in the development approvals process which take movement of pedestrian, bicycle and access for public transport into account

8.1.3 Current Sutherland DCP Parking Requirements

The provision of 1 parking space per 30m² within the Town Centre is in our opinion entirely at odds with the mode share targets established in the Sutherland ITS.

Ason Group would agree that *the current situation is 'un-sustainable'*, but mode share targets of 35% to public transport by 2030 are unrealistic unless supported by new parking strategies prioritising public and active transport. This target (and indeed the broader Objectives of the Sutherland ITS) will simply not be achieved based on such a high parking provisions within a Town Centre with such a high standard of public transport (and active transport) services.

8.2 Existing Mode Share

Importantly, the parking rate of 1 space per 30m² is adopted across all of the Sutherland LGA town centres uniformly, with (it appears) little consideration of local transport characteristics.

In this regard, it is noted that the Sutherland ITS statement in regard to the *Shire's peculiar preference for the private vehicle (82% of trips compared to Southern Sydney regional average of 72%)* may be correct at a LGA level, but in Cronulla itself reference to the TfNSW Household Travel Survey and Census data indicates that the mode to car driver is 59.5%, with some 20% of residents using public or active transport for the trip to work.

This certainly provides much room for improvement in regard to a shift to public and active transport modes, which again would be significantly assisted by a reduction in parking in the Town Centre.

8.3 Comparative Parking Rates

8.3.1 Sub-Regional Centres DCP Parking Rates

Further to the above, the Sutherland DCP parking rates are significantly higher than other sub-regional town centres with similar levels of public transport and land uses.

For example, the Liverpool and Penrith DCPs require 1 space per 100m² in their town centres, while the Georges River DCP requires 1 space per 60m² in the Hurstville, and even in smaller centres such as Kogarah and Ramsgate rates for retail and commercial development of 1 space per 40m² - 50m² GFA.

8.3.2 RMS Parking Rates

With regard to commercial developments, the RMS Guide provides a parking rate of 1 space per 40m² in unrestrained areas, i.e. where mixed-use development and public transport opportunities are limited, inherently supporting lower levels of parking provision where these opportunities do exist. Again, this is not the case in the Town Centre.

8.4 Shared Use Parking

The parking rates for other centres discussed in sections above also provide consideration of shared parking, that is parking spaces that are utilised by different land uses at different times of the day. This concept is actually specifically outlined in the Sutherland DCP, which states:

Where a proposed development comprises two or more land uses with different peak parking demands, the total requirement may be reduced such that the peak demand is met at any one time where supported by a study by a suitably qualified traffic engineer.

In this regard, the 2 components of the Proposal generate parking (and traffic) demands at different times of weekday, with the commercial floorspace peaking mid-morning and then tapering off through the afternoon (to virtually no demand by 6:00pm), while the food & beverage floorspace is moderate through the early afternoon and then increases to a peak mid-evening (around 8:00pm). On Saturdays, there is little or no commercial demand at any time of the day, while the food & beverage demand again builds across the day to a mid-even peak.

An overview of parking demand peaks for different land uses is provided in **Table 7**.

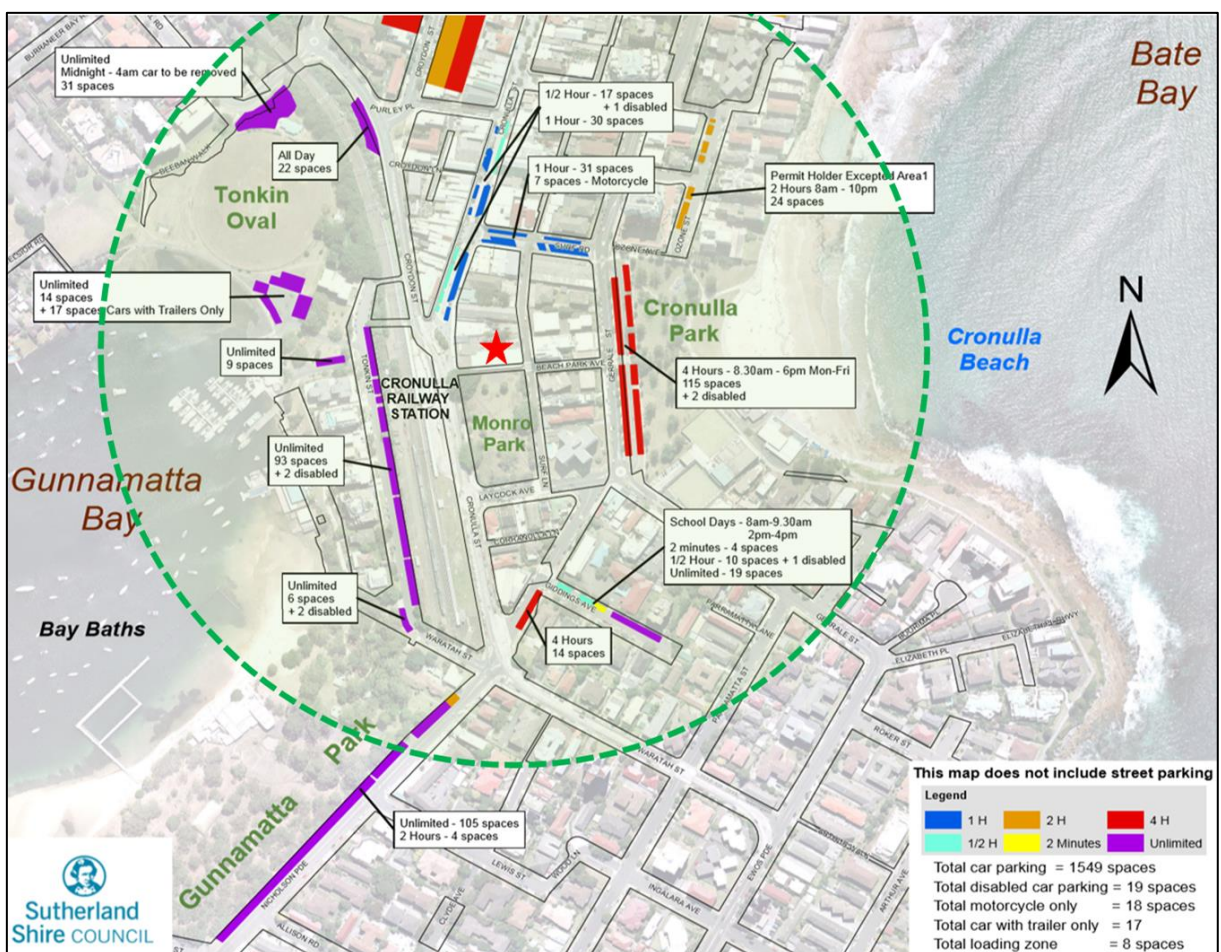
Table 7: Land Use Parking Demand Peaks

Weekday Peak	Evening Peaks	Weekend Peaks
Offices	Restaurants	Recreational
Retail	Places of Gathering	Restaurants
Manufacturing	Cinemas	Retail
Schools	Residents	Places of Worship
Medical		
Services		

When discussing the food & beverage component of the Proposal with its later weekday and then weekend peak demand periods, it should also be noted that a significant amount of what is essentially commuter parking is located within 100m of the Site, i.e. the food & beverage peak demand would occur when the demand for these commuter car parks is reduced. Of course, significant retail, commercial and other demands are also reduced during the food & beverage peaks, leaving a significant amount of parking within 200m (a few minutes' walk) of the Site

Existing parking areas and their capacities are shown in **Figure 5**, noting that this figure does not include on-street parking which is also provided across the Town Centre.

Figure 5: Parking within 200m of the Site



8.5 Parking Credits

While not stipulated in the Sutherland DCP, reference to **Section 2.4** above suggests that the existing Site operations generate an off-site demand for some 30 parking spaces (in accordance with the Sutherland DCP parking requirement). These could be considered as ‘parking credits’, i.e. spaces that are required by the existing Site, provided either on-street or in public car parks, that would be essentially available to a new development of the Site without impacting that existing parking environment.

8.6 Parking Summary

With reference to sections above, it is the opinion of Ason Group that the Proposal will require significantly fewer parking spaces than determined with reference to the Sutherland DCP, and moreover **should be required to provide fewer parking spaces** to reflect:

- Council's mode share targets as detailed in the Sutherland ITS;
- The excellent accessibility to public and active transport;
- The shared use of parking given the peak demands for the different Site components are off-set; and
- The off-site parking demand generated by the existing Site operations.

Accounting for these issues, Ason Group would recommend a significant reduction in on-site parking be examined as part of a future Master Plan/Development Application process. Moreover though, and for the purpose of this Planning Proposal assessment, it is the conclusion of Ason Group that an appropriate and sustainable level of on-site parking can be determined through that process such that the future development of the Site in line with the Proposal would have no significant impact on the local parking environment.

8.7 Additional Parking Considerations

In addition to car parking requirements, the Sutherland DCP also provides the following parking requirements:

- 1 motorcycle space per 25 car parking spaces or part thereof; and
- 1 bicycle space per 10 car parking spaces, as well as appropriate End of Journey facilities

Ason Group would certainly recommend that these motorcycle and bicycle parking requirements be met if not exceeded, as they themselves further encourage a mode shift away from private car travel.

It is noted that the Sutherland DCP does not provide a parking requirement in regard to accessible parking; as with the above, accessible parking should certainly be provided as part of the future Master Plan, and provide as a minimum compliance with the Building Code of Australia accessible parking requirements.

Finally, there is also the potential to investigate car share options (i.e. Go Get or the like) within any on-site parking areas, particularly to support the commercial operations.

8.8 Service Vehicle Provisions

The future service vehicle requirements for the Site will be determined as part of the Development Application process, and consider the type(s) of service vehicles required to service the Site, including both waste vehicles and general delivery vehicles and the like.

9 Design

As part of a future DA, the Site's access, car park and loading areas will necessarily be designed to comply with the following relevant Australian Standards:

- AS2890.1 for car parking areas;
- AS2890.2 for commercial vehicle loading areas; and
- AS2890.6 for accessible (disabled) parking.

Based on our review of the Proposal's concept plans, there is no evidence to suggest that compliance with these requirements can not be provided, with specific consideration to be given to the following:

- All employee spaces are to be designed in accordance with User Class 1A and provided with a minimum space length of 5.4m, a minimum width of 2.4m and minimum aisle width of 5.8m.
- All visitor spaces are to be designed in accordance with User Class 2 and provided with a minimum space length of 5.4m, a minimum width of 2.5m and minimum aisle width of 5.8m.
- All accessible parking spaces are to be provided in accordance with AS2890.6, which requires a space with a clear width of 2.4m adjacent to an unobstructed 'shared space' of minimum 2.4m width.
- The access driveway is to be designed in accordance AS2890.1, and provide appropriate sight lines to Surf Lane.
- All spaces located adjacent to obstructions greater than 150mm in height (including landscaping items) are to be provided with an additional width of 300mm.

In summary, there is no information to suggest that the future access and parking infrastructure required for the Proposal could not be provided in accordance with the relevant Australian Standards. Regardless, compliance with those Standards would necessarily need to be demonstrated as part of a future DA.

10 Conclusions

Further to a detailed assessment of the access, traffic and parking characteristics of the Proposal, Ason Group provides the following conclusions:

- The Site is very well serviced by public transport, being literally across the road from Cronulla Station and within 50m of bus stops providing a number of local, sub-regional and regional routes across the day, including high frequency services during the peak periods. The Site is also provided with access to high quality pedestrian and cycle infrastructure.
- It is estimated the Site would generate a total of 68 vph, 111 vph and 144 vph in the weekday AM and PM and Saturday peak periods respectively. These trip totals represent very moderate increases over the trips which would be generated by a compliant Site development, and are not expected to have any significant impact on the operation of the local road network as a function of:
 - Moderate trip generation increases in and of themselves;
 - Dispersion of trips through the Town Centre rather than a singular generation to the Site itself;
 - Significant potential for even lower trip generation, particularly for the commercial component of the Proposal, further to the preparation of a site-specific Green Travel Plan and on-site parking reductions in line with those evidenced in other sub-regional centres.
- It is our opinion that the Sutherland DCP parking rates do not accurately reflect a reasonable and sustainable parking demand, as a factor of:
 - The Sutherland ITS mode shift targets;
 - The Site's proximity to excellent public and active transport facilities
 - The Site's location within the Town Centre itself;
 - The shared use of parking spaces given the demand peaks of the Site components occur at different times of the day; and
 - The existing off-site parking demand generated by the existing Site operations.

Given these considerations, it is anticipated that further consultation with Council and key stakeholders through the future Development Application process will provide the opportunity to reduce on-site parking while ensuring that the Site's parking demands have no significant impact on the local parking environment.

- As appropriate at this Planning Proposal stage, a holistic review of the design of access, parking and service provisions has been undertaken, and it has been determined that there is no information to suggest that the future design or access, parking and servicing areas could not be provided in full compliance with the relevant Australian Standards.

In summary, it is the conclusion of Ason Group that the Planning Proposal is supportable on access, parking and traffic planning grounds.