DA326/17

ttpp
transport planning

Our Ref: 16283

29 March 2018

Tresillian
c/o- Donald Cant Watts Corke
Level 10, Angel Place, 123 Pitt Street
SYDNEY NSW 2000

Attention: Mr Mick O'Driscoll

Dear Mick,

RE: TRESILLIAN FAMILTY CARE FACILITY, 25 SHIRLEY ROAD, WOLLSTONECRAFT
RESPONSE TO COUNCIL REQUEST FOR ADDITIONAL INFORMATION (DA 326/17)

As requested, The Transport Planning Partnership (TTPP) has reviewed North Sydney Council's (Council) letter dated 20 February 2018 requesting additional information in relation to Development Application (DA) 326/17 at 25 Shirley Road, Wollstonecraft.

Background

In 2017, a DA was lodged with Council seeking approval to introduce a new residential stay program to the existing Tresillian Family Care facility at 25 Shirley Road, Wollstonecraft. In addition to this, a new at-grade car park containing 11 spaces is proposed to the rear of the site, with access provided directly off Shirley Road.

The new residential stay program would be integrated with existing services at the Wollstonecraft Tresillian Family Care Centre (i.e. Tresillian Guthrie Child Care) and provide a capacity for 14 families to live-in.

As part of this DA, Council has requested additional information, including matters relevant to parking. We herein provide our response to the relevant parking items below.

The Transport Planning Partnership
Suite 402, 22 Atchison Street
ST LEONARDS NSW 2065

Response to Council's Parking Items

Item 4 (a) Parking Provision

- *It is noted that the expected parking demand for the proposed development has been estimated based on a similar facility in Willoughby. It is not stated what the clientele level was of the Willoughby facility at the time of the survey, or if the parenting programs were running at the time. Without this information it is difficult to extrapolate what the average or maximum parking demand from clients at the Wollstonecraft facility may be.*

Response:

On the date of the survey (Wednesday, 24 May 2017), there were 10-12 clients checked into residential stay program at the Tresillian facility at Willoughby. In addition to this, there were 16 staff during the morning, 20 in the evening and six during the night shift. As indicated from the car parking survey, there was an average car parking occupancy of 35% (11 vacancies out of the 17 spaces) and maximum car parking occupancy of 59% (7 vacancies out of the 17 spaces) within the on-site car park.

Given the constraints of the Wollstonecraft site, a maximum of 11 car parking spaces can be provided within the car park. This car park will be managed to ensure appropriate car parking allocation for staff and clients/visitors. Notably, all appointments would be booked well in advance such that car parking spaces would be appropriately allocated accordingly. The proposed management measures in place for the future Tresillian site is further detailed as part of Item 4.

- *Further clarification is needed as to whether child care staff have been accounted for and what the average and maximum client parking requirements are (for the residential stay facility and parenting programs).*

Response:

The existing on-site car parking area (which is unmarked but can accommodate some 3 car parking spaces) will be displaced to the new at-grade car parking area. The existing on-site car parking area currently serves both Tresillian's Guthrie Child Care Centre and Tresillian Family Care Service facility.

As indicated previously, given the constraints of the site, a maximum of 11 car parking spaces can be provided within the car park. The 3 existing car parking spaces will be displaced into the new car park, with appropriate allocation to child care staff and existing Tresillian Family Care staff. As such, 8 remaining car parking spaces will be allocated to the new Tresillian Family Care Service facility. However, it should be noted that all car parking spaces will be managed to ensure appropriate allocation for all staff (including child care staff), visitors/patrons and for servicing requirements.

***Item 4* (b) Green Travel Plan**

- *The TTPP report includes reference to a Green Travel Plan (GTP). Whilst the initiatives outlined in the GTP are supported, the GTP is broad and does not include any commitments specific to the proposed development. For example, the staff parking demand is known and the site conditions restrict the amount of parking that can physically be provided on-site. Therefore, clear and measurable objectives should be included in the GTP such that the demand for parking is less than or equal to the amount of staff parking provided (e.g., no more than 8 out of 17 staff drive to work). The GTP should be amended to provide more measurable objectives and commitments from management.*

Response:

The GTP section was included in the DA Traffic Report to provide a brief framework for the implementation of such a plan. It should be noted that the full details the GTP would be provided post-DA stage, prior to occupation or commencement of use, as it is envisaged that any approval of the proposed development would include a condition of consent requiring a GTP.

Notwithstanding the above, TTPP acknowledges that clear and measurable objectives would need to be included in the GTP to define the direction and purpose of the travel plan – e.g. a target of no more than 8 out of 17 staff driving to work (e.g. set a target of 50% of staff travelling to work by means other than car).

In particular, the GTP would ideally include:

- objective and targets, which adopt the S.M.A.R.T mode share targets – specific, measurable, achievable, realistic and time-based
- travel plan strategies and actions to align with key objectives and targets, e.g. incentives and/or preparation of a Transport Access Guide (TAG)
- systematic approach to measure the impact of the travel plan, including commitment of resources to allow for implementation, monitoring, review and continual improvement of the travel plan, including the appointment of a Travel Plan Coordinator who would nominally be a member of staff to oversee the Travel Plan measures.

However, as an indication, TTPP notes that the following management measures will be in place during the operation of the future Tresillian site (as agreed by Tresillian):

- All clients to the residential stay program will be booked-in several weeks in advance. Two weeks prior checking into the facility, Tresillian will issue a Welcome Pack, which will include information on what to bring, how to get to the site and a map indicating the transport hubs to access the site. In addition to this, clients will be advised about the parking constraints and strongly encouraged to use public transport or be dropped off to the site. Tresillian are committed to reimburse all clients to encourage public transport uptake to the site, if required. This commitment would form part of the GTP for the site.

- All staff, both residential stay and child care staff, will be required to go through an induction/orientation and training program as part of the operational management training for the new facility. The GTP will be detailed as part of this program to ensure all staff are aware of the public transport facilities available in the area and encouraged to use public transport to/from the site. Incentives will be put in place to encourage and create this culture of travelling to work via sustainable modes by providing staff with pre-loaded Opal Cards for public transport use.

***Item 4 (c)* Loading**

- *The TTPP report stages that deliveries will be made by small delivery vans. There are no dedicated loading facilities shown on the plans so delivery vehicles will also be sharing the off-street parking spaces. Clarification is sough on loading operations.*

Response:

One parking space within the at-grade car park will be designated for loading activities before the Tresillian facility opens (i.e. before 9am). All deliveries to the site will be managed by Tresillian to ensure appropriate scheduling and allocation of the parking spaces (e.g. loading to occur in the early morning before standard staff arrival hours). The scheduling of deliveries will form part of Tresillian's Operational Management Plan and Policies.

Summary and Conclusion

The proposed car parking arrangements are therefore considered acceptable as appropriate management measures would be in place to ensure minimal impact. It is expected that any approval of the site would impose a condition of consent requiring a GTP for the site. As such, it is envisaged that a full GTP would be prepared and submitted to Council prior to occupation or commencement.

We trust the above is to your satisfaction. Should you have any queries regarding the above or require further information, please do not hesitate to contact the undersigned on 8437 7800.

Yours sincerely,

Ken Hollyoak
Director

Tresillian Family Care Facility, 25 Shirley Road, Wollstonecraft

Traffic, Transport and Parking Assessment Report

Prepared for:

Donald Cant Watts Corke

1/09/2017

The Transport Planning Partnership Pty Ltd

ACN 607 079 005

Tresillian Family Care Facility, 25 Shirley Road, Wollstonecraft

Traffic, Transport and Parking Assessment Report

Client: Donald Cant Watts Corke

Version: V02

Date: 1/09/2017

TTPP Reference: 16283

Quality Record

Version	Date	Prepared by	Reviewed by	Approved by	Signature
V02	1/09/17	Jessica Szeto	Ken Hollyoak	Ken Hollyoak	

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APPENDICES

1 Introduction

This traffic, transport and parking assessment report relates to the proposed introduction of a new Residential Stay Program to the existing Tresillian Family Care facility at 25 Shirley Road, Wollstonecraft. The proposed development would provide an enhanced range of services to the existing Wollstonecraft Tresillian Family Care Centre to better meet the needs of families.

A Development Application (DA) is to be lodged with North Sydney City Council (Council) seeking approval of the proposed development.

A Pre-Lodgement Meeting Briefing, held on the 6th April 2017, confirmed that in terms of traffic, Council would require the following to be addressed: -

> **(g) Traffic**
>
> The proposal involves significant intensification of uses within the site; however, provides for 11 car spaces only. Careful consideration needs to be given to parking provisions for the proposed development site to ensure that adequate on-site parking is provided to avoid impacting the limited off-street street parking supply.
>
> The proponent will need to demonstrate that the car park is adequate to service the site by way of a detailed Traffic Assessment. This assessment should take into account all combined uses of the site (including the child care centre) and peak parking demands, and may include a comparison of parking generation for a similar existing family and child care centre developments.
>
> The proposed driveway could potentially be located to the north or south of the street frontage, with no preference based on traffic grounds.

The Transport Planning Partnership (TTPP)has prepared this report on behalf of Donald Cant Watts Corke to accompany the DA. This report has been prepared to assess the traffic, transport and parking implications arising from the proposed development.

The remainder of the report is set out as follows:

- Chapter 2 discusses the existing conditions including a description of the subject site,
- Chapter 3 provides a brief description of the proposed development,
- Chapter 4 assesses the proposed on-site parking provision and internal layout,
- Chapter 5 examines the traffic generation and its impact
- Chapter 6 presents a green travel plan framework for the site, and
- Chapter 7 presents the conclusions of the assessment.

2 Existing Conditions

2.1 Site Description

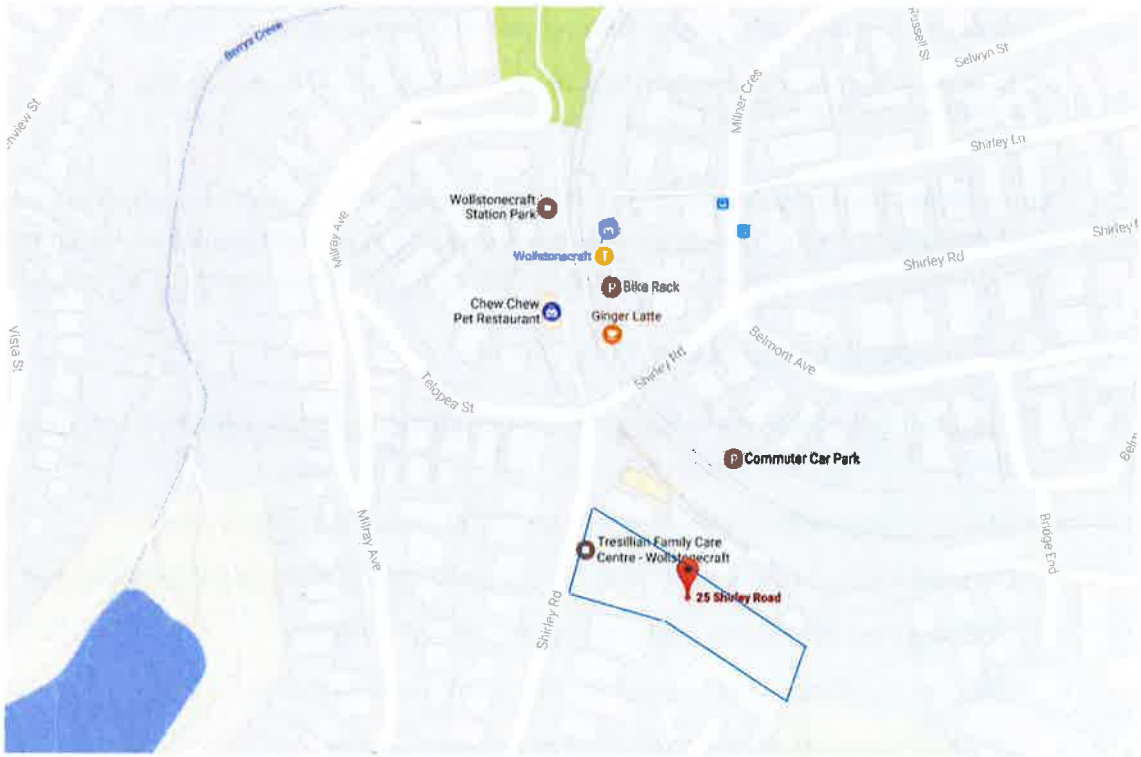
The subject site is located at 25 Shirley Road, Wollstonecraft, and falls within the North Sydney City Council local government area.

The site is currently occupied by a Tresillian Family Care Service facility, with the following services:

- day stay services with capacity of up to six clients per day,
- parenting programs involving group based educational sessions held twice per week with approximately ten parents and three child care workers,
- outreach services to visit the homes of parents and families within the Lower North Shore area, and
- Guthrie Child Care Centre with a capacity of up to 42 children.

The location of the subject site and its surrounds is shown in Figure 2.1.

Figure 2.1 Locality Map



Source: Google Maps Australia

Land use surrounding the subject site is primarily comprised of medium density residential developments to the north and south, with a public reserve located to the east of the site.

2.2 Abutting Road Network

The subject site fronts Shirley Road along the western perimeter of the site. A brief description of this road is shown below.

2.2.1 Shirley Road

Shirley Road functions as a two-way local road, aligned in a north-south direction in the immediate vicinity of the site. It has a posted speed limit of 50km/h. The road generally extends between Tryon Ave through to Pacific Highway along the south and north ends, respectively, providing good connectivity to the wider arterial network.

Unrestricted kerbside car parking is generally permitted on both sides of the road, with some short-term car parking located along the site frontage.

2.3 Existing Car Parking Conditions

2.3.1 Off-street Car Parking

There are currently some three car parking spaces on the Tresillian site for staff. Drop-off for the Guthrie Child Care Centre generally takes place in time-limited on-street car parking spaces along the Shirley Road site frontage.

Figure 2.2 Current on-site parking spaces

Vehicle access to the on-site car parking spaces is provided directly off Shirley Road via a single two-way driveway. Based on the existing site constraints, vehicle access is currently restricted to two-way one-lane arrangements.

2.3.2 On-street Car Parking

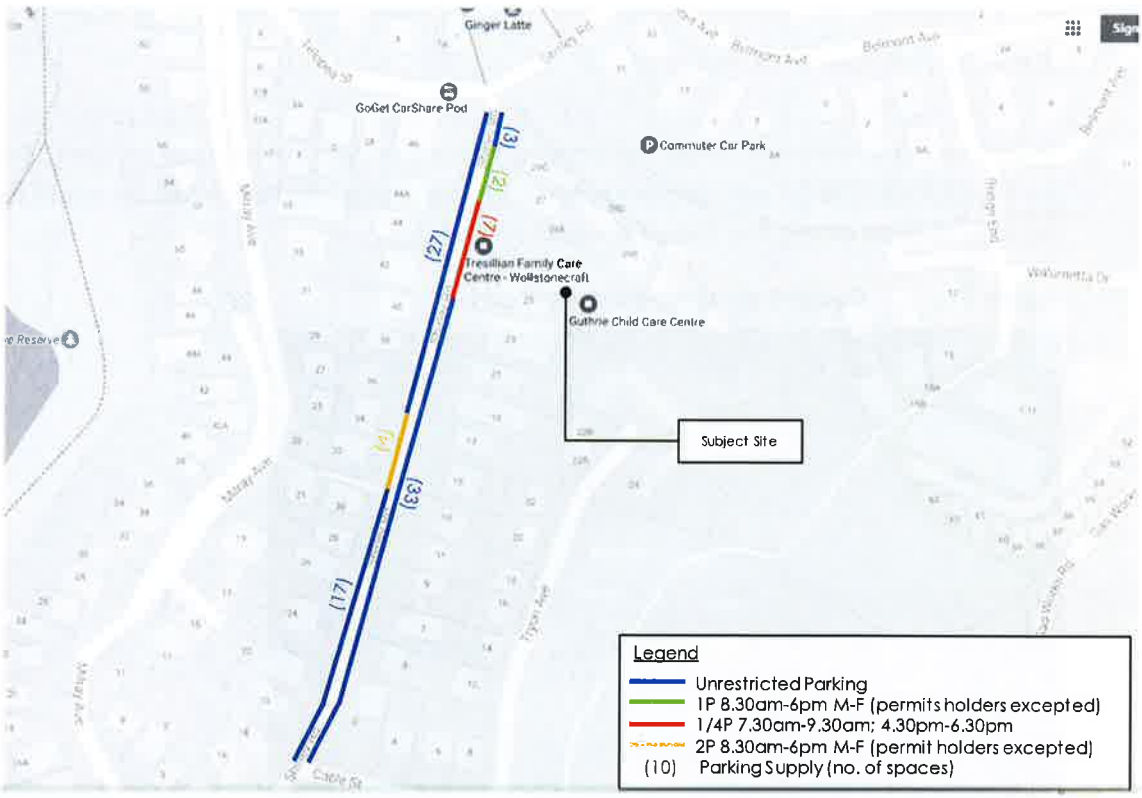
On-street car parking is provided within the vicinity of the subject site, comprised of a mix of long-term and short-term car parking. Within the immediate site frontage, short-term car parking is provided during morning and evening peak times, with a 15-minute parking restriction.

TTPP undertook a car parking survey along Shirley Road in the vicinity of the site during May 2017. This survey recorded parking over the period of one day between 5am and 8pm.

It is noted that this survey was undertaken whilst the Guthrie Child Care Centre and existing Tresillian facilities were operational. Based on this, any off-site parking associated with these two uses will have been incorporated within this parking survey.

The extent of the survey and existing parking restriction and supply is shown in Figure 2.3.

Figure 2.3 Parking Survey Area – Existing Parking Restriction and Supply



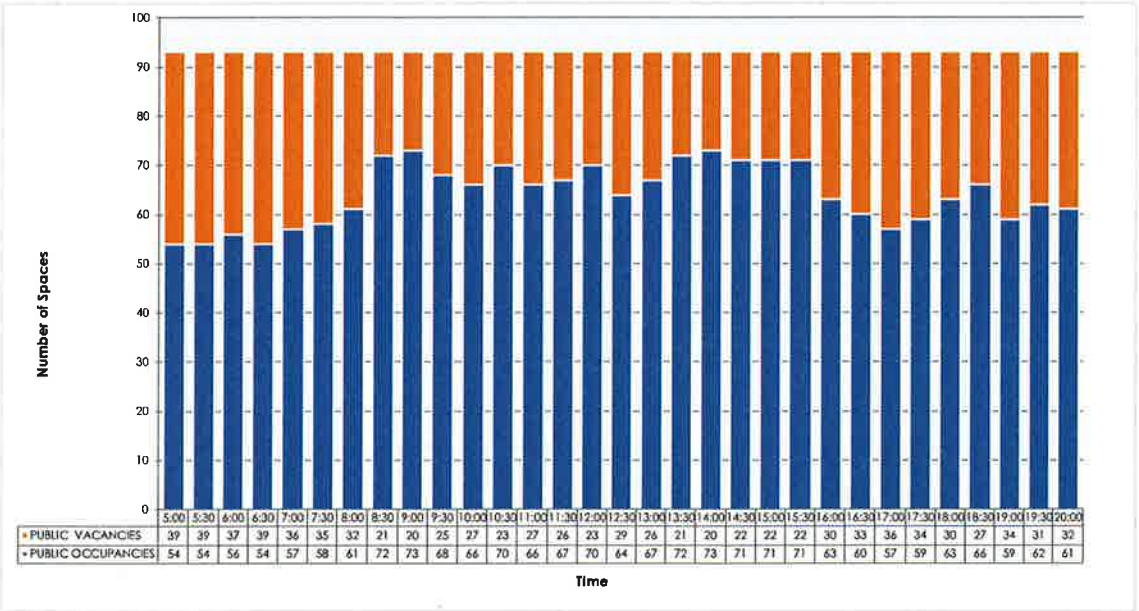
Baseman Source: Google Maps Australia

The results of the parking survey are summarised in Table 2.1 and graphically presented in Figure 2.4.

Table 2.1 Summary of Parking Inventory / Parking Occupancy

Location	Parking Restriction	Supply	Average car parking occupancy % (remaining vacancies)	Maximum car parking occupancy % (remaining vacancies)
Shirley Road (east side)	Unrestricted	36 spaces	33% (24 vacancies)	75% (9 vacancies)
	1P 8:30am-6pm M-F	2 spaces	84% (0 vacancies)	100% (0 vacancies)
	1/4P 7:30am-9:30am & 4:30pm-6:30pm	7 spaces	64% (3 vacancies)	86% (1 vacancy)
Shirley Road (west side)	Unrestricted	44 spaces	36% (28 vacancies)	59% (18 vacancies)
	2P 8:30am-6pm M-F	4 spaces	59% (2 vacancies)	75% (1 vacancy)

Figure 2.4 Graphical Summary of Parking Inventory and Occupancy



Based on the above, the parking survey indicates that the two 1P (1-hour duration parking) and seven 1/4P (15-minute duration parking) Zones along the immediate site frontage are generally well-utilised, albeit with some remaining parking vacancies throughout the day. Further away from the site (but within a 250m walk of the site), it is noted that there are a significant number of parking spaces available.

Thus, the existing on-street car parking in the vicinity of the site is considered to be in moderate demand based on the results of the parking survey, with a significant number of remaining parking vacancies available within 250m walking distance from the site.

2.4 Public Transport Facilities

The subject site is well-serviced by high frequency public transport services, being located within a 250-metre radius catchment from the Wollstonecraft railway station. In addition to this, the site is serviced by bus route 265 operated by Sydney Buses, with a number of bus stops located approximately 400-metres north of the site.

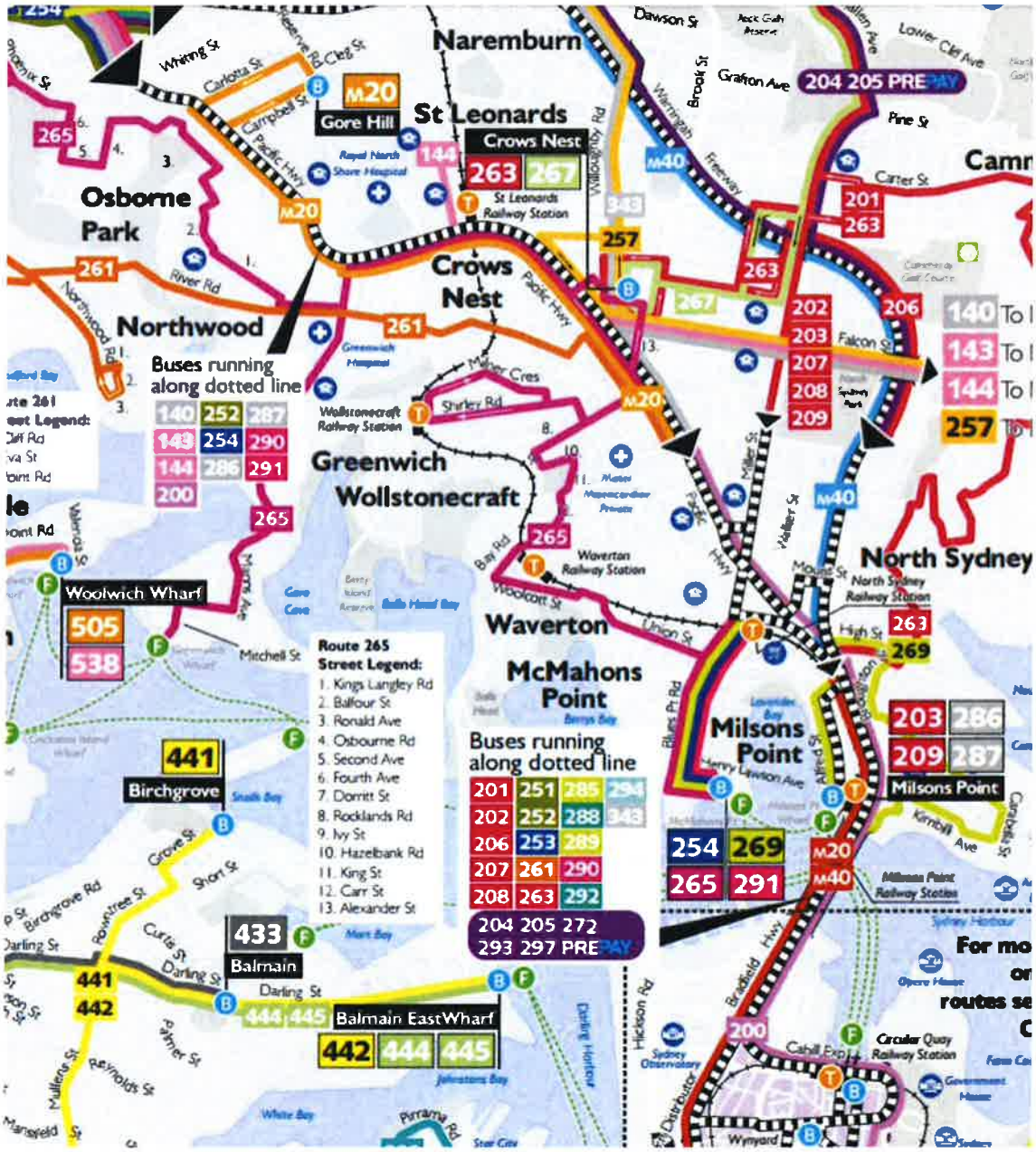
A summary of the existing public transport services surrounding the site and their associated frequencies is presented below.

Table 2.2 Existing Public Transport Services

Service	Route	Route Description	Proximity to site	Frequency (on-peak/ off-peak)
Rail	T1 North Shore, Northern and Western line	• Between City and Berowra via Gordon • Between City and Hornsby via Macquarie University	< 200m	3-mins on-peak/ 10-mins off-peak
Bus	265	• Between Lane Cove and McMahons Point via Wollstonecraft	< 400m	30-mins on-peak / hourly off-peak

A map of the surrounding public transport services surrounding the site is shown overleaf.

Figure 2.5 Map of Existing Public Transport Services



Source: Sydney Buses

2.5 Pedestrian and Cycling Facilities

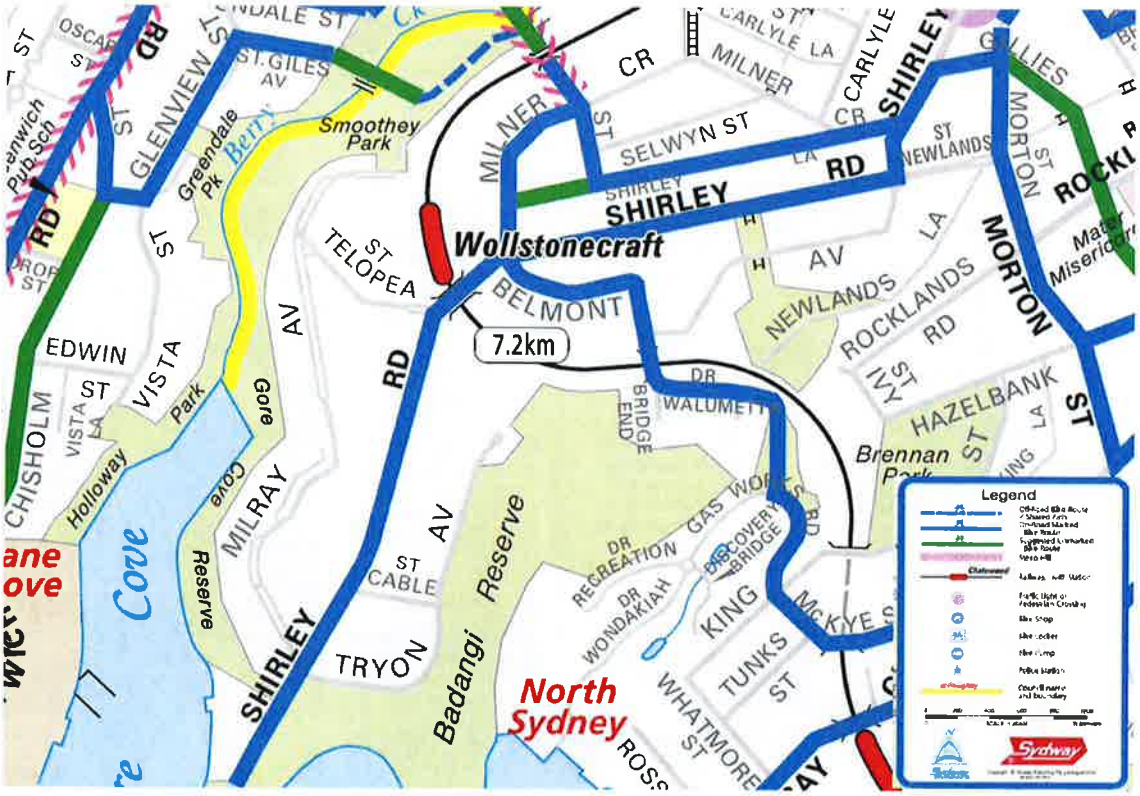
Well-established pedestrian facilities are currently provided within the vicinity of the site. In the immediate vicinity of the site, sealed 1.2m wide pedestrian paths are provided along both sides of Shirley Road, providing good connectivity to the Wollstonecraft railway station to the north of the site.

In addition to this, a number of pedestrian refuges and pedestrian crossings have been installed near Wollstonecraft railway station along Shirley Road and Telopea Street to provide safe dedicated crossing points for pedestrians travelling in the vicinity.

Further to this, a recognised on-road bike path is made available along Shirley Road, connecting to surrounding on-road paths via Milner Crescent, Belmont Avenue and Morton Street.

The existing bike map is shown Figure 2.6.

Figure 2.6 Existing Bicycle Network



Source: North Sydney City Council

3 Proposed Development

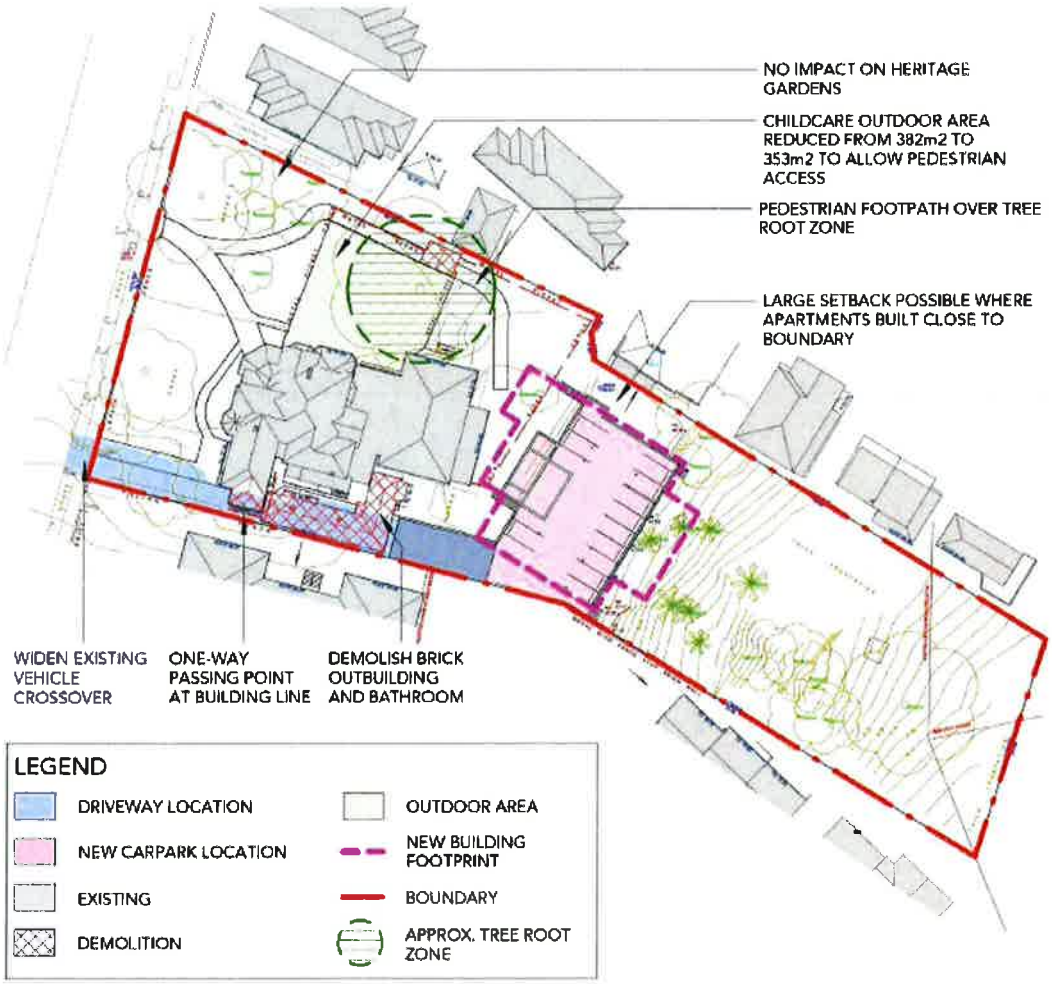
3.1 Proposal Description

It is proposed to introduce a new residential stay program to the existing Tresillian Family Care Centre at 25 Shirley Street, Wollstonecraft. The proposed development would involve the construction of a new three-level building to the rear of the existing Tresillian building.

The new residential stay program would integrate well with the existing services at the Wollstonecraft Tresillian Family Care Centre. The proposed residential stay program would provide a capacity for 12-14 facilities to live-in over four nights and five days, with an average of six visitors per day.

The proposed development is shown in Figure 3.1.

Figure 3.1 Proposed Development



Source: Client

3.2 Car Parking Provision

As part of the proposed development, it is proposed to install a new at-grade car park to the rear of the site. This car park would accommodate 11 car parking spaces, with vehicle access provided directly off Shirley Road.

It is noted that the existing on-site car parking area (which is unmarked but can accommodate some three spaces) would be displaced to the new car park.

The adequacy of the proposed car parking provision is assessed in Section below.

3.3 Vehicle Access Arrangements

Vehicle access to the proposed car park will be provided directly off Shirley Road via the existing vehicle access along south-west corner of the site.

Based on the site constraints, this is considered to be the most viable option in terms of vehicle accessibility to/from the site and the associated impacts on adjacent properties.

Whilst a range of locations were considered by the client team, there is no real difference in traffic term between the access being at the north or south of the site.

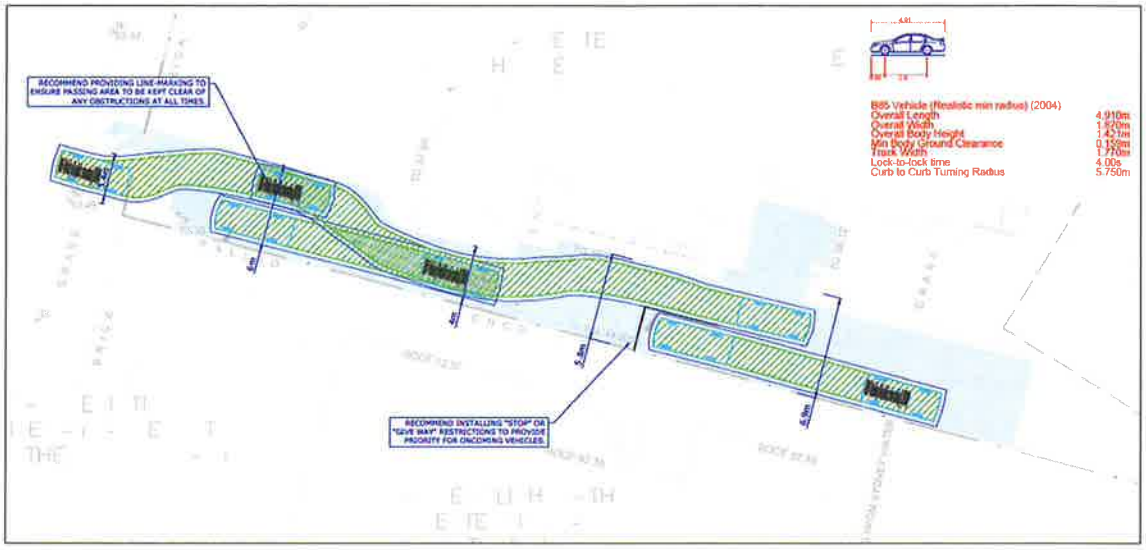
However, the retention of the existing access point is beneficial in so far that it does not impose any new impacts on local residents in terms of the access position, whereas a newly located access might introduce such impacts. In addition to this, it should be noted that the heritage landscape report, architectural documents and arborist report also support the use of the existing vehicle access on the south side of the site to serve the proposed development.

Notwithstanding this, it is noted that the driveway access to the car park is somewhat limited by the geometry of the existing heritage building. As such, a pinch point is located along this driveway across a short section. This section would be restricted to a one-lane arrangement with appropriate holding bays provided to provide priority for inbound vehicles to ensure queues do not overspill onto the road.

This arrangement is not unusual, especially for this development use, noting that a similar Tresillian Centre in Willoughby has similar access arrangements.

The proposed one-lane operation is shown in Figure 3.2.

Figure 3.2 Proposed One-Lane Operation



Further to this, a conflict analysis, based upon the estimated flows in each direction and the length of the conflict area, has been undertaken based upon the projected arrival and departure rates, which shows that the probability of a conflict occurring is less than 0.1%, which can be considered negligible.

Thus, the proposed vehicle access arrangements are considered satisfactory.

4 Parking Assessment

4.1 Car Parking Requirements

The proposed development of a residential stays program within the Tresillian Family Care Services Centre does not specifically fall under any one category within Council's DCP, nor any other guiding documents.

However, the RMS *Guide to Traffic Generating Developments* suggests that any "unique" development use should be compared to against a similar site to draw comparisons in terms of its traffic and parking implications.

Taking this into consideration, traffic surveys for comparable sites, (i.e. a Tresillian Centre with a residential stay program), would be beneficial to assessment traffic and parking impacts associated with such developments.

There is a comparable site at the Willoughby Tresillian Centre which is located at 2-6 Second Avenue. As such, traffic surveys were undertaken in May 2017 to gauge the existing car parking patterns associated with the current residential stay facility at the Willoughby site.

4.1.1 Willoughby Tresillian Residential Stays Program

It is understood that the Willoughby Tresillian Centre currently provides the following services:

- residential stay services, with a capacity of 12 clients per week (average of 6 visitors per day), and
- parenting programs involving group based educational sessions.

In addition, the typical number of staff on-site per shift is understood to be circa 17 staff during the morning, five during the evening and four during the night shift.

The Willoughby site currently provides a total of 17 car parking spaces, with the following breakdown:

- 10 x staff car parking spaces, and
- 7 x unrestricted car parking spaces.

TTPP commissioned a traffic survey count on Wednesday, 24 May 2017 between 7am and 6.30pm at the existing site accesses off Second Avenue and First Avenue. This survey recorded the existing on-site car parking occupancy.

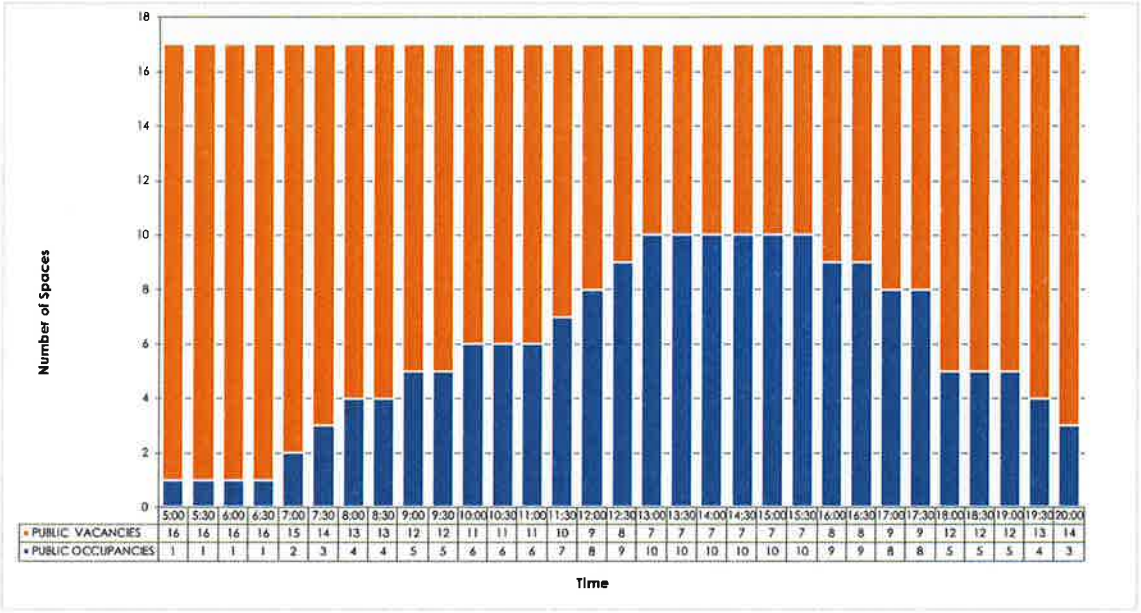
The average and maximum car parking occupancy of the current on-site car park within the Willoughby Tresillian Centre is shown in Table 4.1.

Table 4.1 Car Parking Occupancy of Willoughby Tresillian Car Park

Car Parking Occupancy	
Supply	17 spaces
Average car parking occupancy (remaining vacancies)	35% (11 vacancies)
Maximum car parking occupancy (remaining vacancies)	59% (7 vacancies)

In addition to this, the results of the parking survey during the survey period is graphically shown in Figure 4.1.

Figure 4.1 Graphical Representation of Tresillian Willoughby Parking demand.



Based on the survey, the car parking occupancy was observed to be in the order of 60% (with seven remaining parking vacancies available). It is noted that the parking demand was primarily generated by staff.

Given that the proposed development is envisaged to have similar provisions as the Willoughby Tresillian site, a similar car parking provision to the Willoughby site seems to be a reasonable first reference point.

However, it is noted that the proposed Wollstonecraft site has significantly better access to public transport, including a railway station in close proximity, compared to the Willoughby site which is only serviced by a number of bus routes. Consequently, a lesser requirement should be adequate.

It is also noted that the visitor element of the car park is not fully utilised as the clients of the facility tend to be dropped off rather than park at the facility during the day and / or overnight.

4.1.2 Existing Travel Patten Surveys

Existing travel demand surveys were also conducted at both Willoughby and Wollstonecraft Tresillian Centre sites to understand typical existing travel mode splits of staff movements to/from work.

A summary of the survey results is presented in Table 4.1.

Table 4.2 Existing Travel Mode Splits

Mode of Travel	Proportion (%)	
	Willoughby	Wollstonecraft
Drive Alone	94%	65%
Passenger	4%	12%
Bus	1%	0%
Train	1%	23%
Cycle	0%	0%
Walk	0%	0%

Based on the survey, the 22 staff at the Willoughby site responded and 13 responses were received from staff at the Wollstonecraft site. Out of the 22 responses at the Willoughby site, six full-time staff and 16 part-time staff (working on average 2.78 days per week) was recorded. Assuming a full eight-hour work day, there would, on average be approximately 5 part-time staff on-site, plus the six full-time staff, at any one time. This equates to a total of 11 staff on-site at any given time.

Consequently, it is noted that some 10 staff drive to work alone during the busiest peak at the existing Willoughby site, which is consistent with the car parking survey conducted on Wednesday, 24 May 2017. However, it is noted that PM part time/late shift staff do park on site but the PM staff parking demand does not coincide with the AM shift staff parking demand. Similarly, the late shift staff parking demand does not coincide with the shift workers or the full-time staff.

It should be noted that the existing travel mode surveys indicate that there is an increased uptake of public transport services (i.e. train) with 23% at the Wollstonecraft site in comparison to 1% using train at the Willoughby site. On this basis, the Wollstonecraft survey shows the potential to generate a modal shift away from car travel to more sustainable transport, such as via train.

4.2 Adequacy of Car Parking Provision

Given the constraints of the site, a maximum of 11 car parking spaces can be provided within the car park.

Survey data indicates that some ten car parking spaces are typically used at a comparable Tresillian Centre in Willoughby. It is also noted that these car parking spaces are primarily occupied by staff, rather than visitor parking.

However, it is more likely that staff at Wollstonecraft site would use public transport than those at the Willoughby site. Furthermore, it is intended to implement a green travel plan (plan) at the site to encourage staff to use public transport services. This green travel plan is described in Section 6. The implementation of this plan seeks to reduce the parking demand by some 20%, equating to the car parking requirement reducing from ten to eight spaces.

Further to this, it is noted that around three car parking spaces at the Wollstonecraft site are currently located near the site frontage are proposed to be displaced to the car park, thus leaving the eight remaining spaces for the new facility.

It is also noted that all appointments associated with the proposed residential stay service would be booked well in advance such that car parking arrangements could be appropriately managed. Again, as described above, the clients of this facility are generally dropped off thereby only requiring a drop off space as opposed to a parking space.

Thus, the proposed car parking provision is considered satisfactory.

4.3 Car Parking Layout

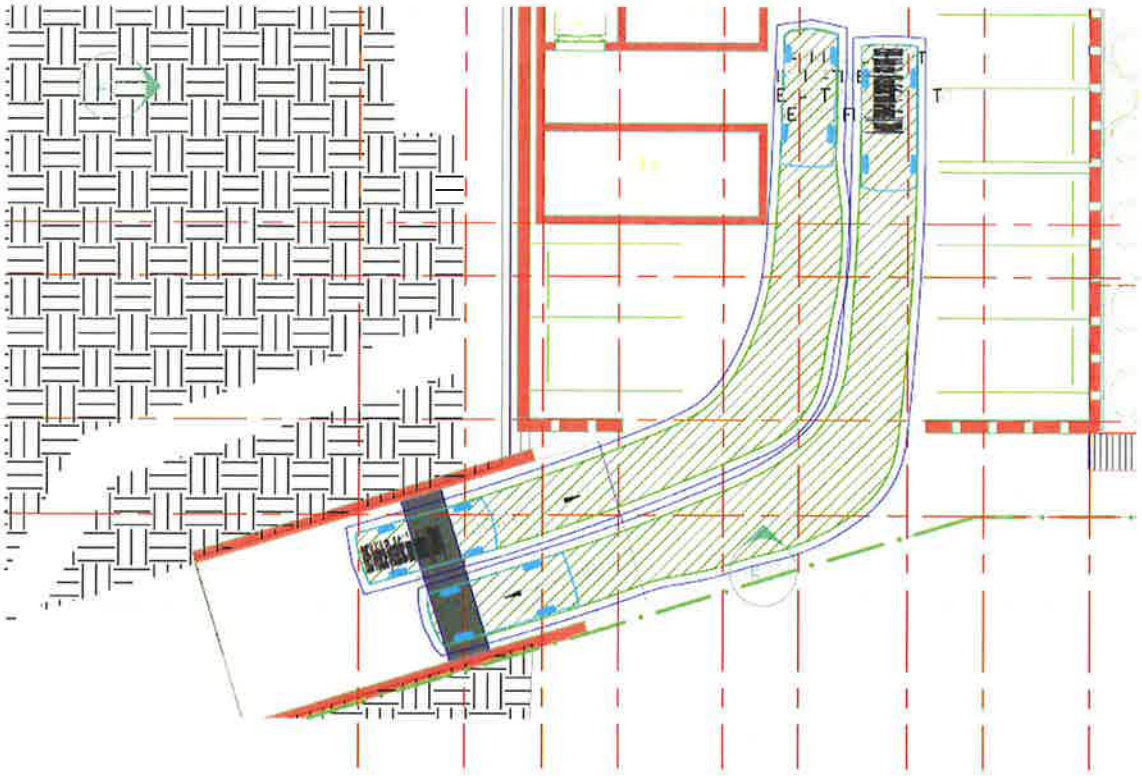
4.3.1 Design of Parking Modules

- The staff car parking spaces are to be designed as a Class 3 parking facility which will allow the spaces to be used by staff and parents. Class 3 car parking spaces are required to have the dimensions of 2.6m wide by 5.4m long with an aisle width of 5.8m.
- The disabled parking spaces and associated shared area are to be designed in accordance with AS2890.6. These parking spaces are required to have the dimensions of 2.4m wide by 5.4m long, with the associated shared area with the same dimensions.

4.3.2 Vehicle Access Ramps

- The ramps associated with the car park shall be designed with a maximum grade of 20% (1 in 5) to the public accessible car park with the appropriate grade transitions in accordance with AS2890.1.

Figure 4.2 Proposed Ramp Arrangement into Car Park



- The swept paths of vehicles entering and leaving the site simultaneously is shown at Figure 4.2 and in Appendix A.
- Deliveries will be made with small vans which comply with the requirements of the B99 vehicles specified in AS2890.1

4.3.3 Headroom Clearance

- A minimum vertical clearance of 2.2m is required within the basement car park. The accessible car parking space is required to have a minimum vertical clearance of 2.5m above these spaces in accordance with AS2890.6.

4.3.4 Other Considerations

- All columns, walls and obstructions are to be located outside of the parking space design envelope in accordance with AS2890.1.

In summary, the car park and associated elements are proposed to comply with design requirements set out in the Australian Standard, namely AS2890.1:2004 and AS2890.6:2009. It is however, envisaged that a condition of consent would be imposed requiring compliance with these standards and as such, any minor amendments can be dealt with prior to the issue of a Construction Certificate.

4.4 Bicycle Parking

The Development Control Plan gives some guidance on parking provision but not specifically for such a use as Tresillian.

Table 4.1 – DCP Parking Requirements

Community		
Child care centre	1 / 10 staff	2 / centre
Medical centre, Health consulting rooms	1 / 5 practitioners	1 / 200m² GFA
Tertiary educational institution	1 / 10 staff	1 / 10 students
Swimming pool	1 / 10 staff	2 / 20m² of pool area
Library	1 / 10 staff	2 + 1 / 200m² GFA
Art gallery or museum	1 / 1000m² GFA	1 / 200m² GFA
Other		
	On merit. Council will give consideration to the rates contained within the *Planning guidelines for walking and cycling 2004.*	

The Planning Guidelines for Walking and Cycling 2004) suggests that bicycle parking should be provided at a rate of 3-5% of staff.

Table 4.2 – Planning Guidelines for Walking & Cycling Parking Requirements

Land-use type	Resident/staff (Long-term use)	Customer/visitor (Short-term use)
Health, education, community and cultural facilities		
Hospitals — doctors and staff	5–10%S or 10–15%B[3]	5–10%S
Health and medical centres	5–10%P[3]	5–10%S
Professional consulting rooms	5–10%P[3]	5–10%S
Nursing/convalescent homes	3–5%S[1]	5–10%S
Childcare centres	3–5%S[1]	5–10%S
Primary schools	3–5%S[1]	5–10%S
Secondary schools	3–5%S[1]	5–10%S
Tertiary education establishments, Universities/TAFEs	3–5%S[1] 5–10%Fts[2]	5–10%S
Business and language schools	3–5%S[1] 5–10%Fts[2]	5–10%S
Museums and art galleries	3–5%S[1]	5–10%S
Libraries and community centres	3–5%S[1]	5–10%S
Places of assembly and worship	3–5%S[1]	5–10%S
Public/town halls	3–5%S[1]	5–10%S

Key: S=Staff; Gfa=Gross floor area; Fts=Full time students; Pts=Part time students; P=Practitioners, professional; B=Beds

Assuming that there will be 17 staff on-site at any one time, this would result in a bicycle provision of some 2-3 spaces (1 staff and 1-2 visitor bicycle spaces)

As a result, two "U-rails" will be provided which would accommodate two bikes each.

5 Traffic Impact Assessment

5.1 Traffic Generation

The proposed residential stay program services generally do not have any "typical" peak hour traffic generation rates as trips occur at varying times throughout the day. In addition, trips are solely based on whether there are any booked appointments for such services.

On this basis, traffic generation of comparable site (i.e. Willoughby Tresillian Centre) has been used for the purpose of estimating the proposed traffic implications of the development. As indicated earlier, traffic surveys were undertaken on Friday, 3 February 2017 and May 2017 at the Willoughby Tresillian Centre located at 2-6 Second Avenue, Willoughby. The busier morning peak surveys revealed the following in terms of its trip generation (See Table 5.1).

Table 5.1 Existing Trip Generation of Willoughby Site (Feb 2017)

Vehicle Movement	Total No. of Trips	Mode of Travel	
		Car	Walking
Entry	4	1	2
Exit	6	4	2
Overall	**10**	**5**	**4**

Table 5.1 indicates that the Willoughby Tresillian site generated in the order of 10 trips in the morning peak hour, with 5 of those trips by car. It is noted that the modal split of visits to the site is currently 56% drive and 44% walking.

An additional count was undertaken in May 2017, and this confirmed that the maximum traffic generated by the Willoughby site was 5 trips in the peak hour.

Table 5.2 Existing Trip Generation of Willoughby Site (May 2017)

Vehicle Movement	Total No. of Trips	
	Morning Peak	Evening Peak
Entry	4 trips	1 trip
Exit	1 trip	1 trip
Overall	**5 trips**	**2 trips**

Assuming a similar facility at Wollstonecraft, an additional five vehicle trips could be expected from the proposed development peak periods, which is considered negligible. Thus, the additional development traffic arising from the proposed development is not considered to result in any noticeable impacts on the surrounding road network.

6 Green Travel Plan

6.1 Overview

The key role of a Green Travel Plan (GTP) is to bring about better transport arrangements to manage travel demands, particularly promoting more sustainable modes of travel, modes which have a low environmental impact such as walking, cycling, public transport and better management of car use.

The key objectives of a GTP are as follows:

- to adopt policies and procedures which encourage transport choice
- to minimise rates of private use for commuters and business (particularly lone driver) trips and achieve a transport modal shift towards public transport and active travel use
- to support public transport, car-sharing, car-pooling, walking, taxi and bicycle users by enhancing amenities and infrastructure
- to more effectively manage the use of private vehicle trips and parking within the area
- reduce congestion and the cumulative impacts of vehicle emissions upon air quality.

Thus, it is envisaged that any approval of the proposed development would include a condition of consent requiring a GTP to be prepared to promote sustainable travel.

This section provides a framework for the implementation of such a travel plan.

6.2 The Plan

The transport sector is a large contributor of Australia's energy-related greenhouse gas emissions through fossil fuels such as petrol, oil, diesel and gas. Whilst transport is a necessary part of life, the effects can be managed through the implementation of a travel plan.

A GTP is a package of coordinated strategies and measures to promote and encourage sustainable travel, such as walking, cycling and public transport etc. Such plans aim to influence the way people move to/from a business, residential complex or any other organisation to deliver better environmental outcomes and provide a range of travel choices, whilst also reducing the reliance on private car usage, particularly single occupancy car trips.

The planning of the new development would need to accommodate innovative ideas to better manage the transport demand of the project. It will be necessary to introduce

new measures to ensure that trips generated by the proposed development are not solely private car based, particularly single occupancy trips.

6.3 Potential Measures

The subject site is located within close proximity to a wide range of sustainable transport, including high frequency public transport services and a well-established pedestrian and cycle network. The GTP would put in place measures to encourage a modal shift away from car usage.

Notably, TTPP staff have been involved in a number of green travel plans (much like GTPs) for an array of different land uses, including sites at the Australian Catholic University, Macquarie University and Harold Park in Sydney.

At these sites, the following measures are provided:

- Provision of a Transport Access Guide (TAG) which would be given to all staff and visitors
- Provision of public transport noticeboards to make staff and visitors more aware of the alternative transport options available to them. The format would be based upon the Transport Access Guide.
- Provision of yearly membership to a GoOccasional car share which would have dedicated cars and dedicated parking spaces reasonably close to the proposed development.
- Provision of Opal cards to staff so that staff will be encouraged to make public transport their modal choice from the day they occupy the property.
- Provision of bicycle facilities including bicycle parking for staff and visitors, bicycle racks for visitors

Much like these sites, the proposed development would benefit greatly from the implementation of the above measures to promote the use of more sustainable modes of travel, pertinently public transport, car-share, walking and cycling.

6.4 Monitoring of the GTP

Whilst there is no standard methodology for monitoring ta GTP, it is recommended that the GTP be monitored on a regularly basis to ensure that the desired benefits are achieved or otherwise, suitable measures be implemented to reduce the private car usage (particularly single car occupancy trips).

At this early stage, it is not possible to identify what additional modifications may be required to reach the desired outcomes of the GTP as this would be dependent upon the particular circumstances at the time.

Thus, it is recommended that the GTP be monitored on a regularly basis, e.g. yearly, through travel surveys or similar. Travel surveys would show how staff/visitors travel to/from the site and assist identify whether the proposed initiatives and measures outlined in the GTP are effective or are required to be replaced or modified to ensure that the best outcomes are achieved. Regular consultation with staff and visitors would also be beneficial to help understand people's reasons for travelling the way they do and help identify any potential barriers to change their travel behaviours.

In order to ensure successful implementation of the GTP, a Travel Plan Coordinator (TPC) who would nominally be a member of staff should be appointed to oversee the measures and resultant impacts of the GTP.

6.5 Summary

Although it is difficult to predict what measures might be achievable until the building is occupied, the above paragraphs provide a framework for the development and implementation of a future travel plan for the site.

On the basis of all such measures being fully incorporated into the development, it is anticipated that the subject site would generate less traffic and have lower parking demands.

Subsequently, this would have the positive effect in reducing the traffic impact associated with the proposed development on the surrounding road network.

7 Conclusions

A new Residential Stay Program to the existing Tresillian Family Care facility at 25 Shirley Road, Wollstonecraft.

The facility will be provided with 11 parking spaces in a basement car park and it has been shown that this is adequate to cope with the anticipated demand. Vehicle access will be provided via the existing driveway located on the south side of the site, which is considered the most viable option in terms of vehicle accessibility to/from the site and the associated impacts on adjacent properties.

The car park and associated elements are proposed to comply with design requirements set out in the Australian Standard, namely AS2890.1:2004 and AS2890.6:2009. It is however, envisaged that a condition of consent would be imposed requiring compliance with these standards and as such, any minor amendments can be dealt with prior to the issue of a Construction Certificate

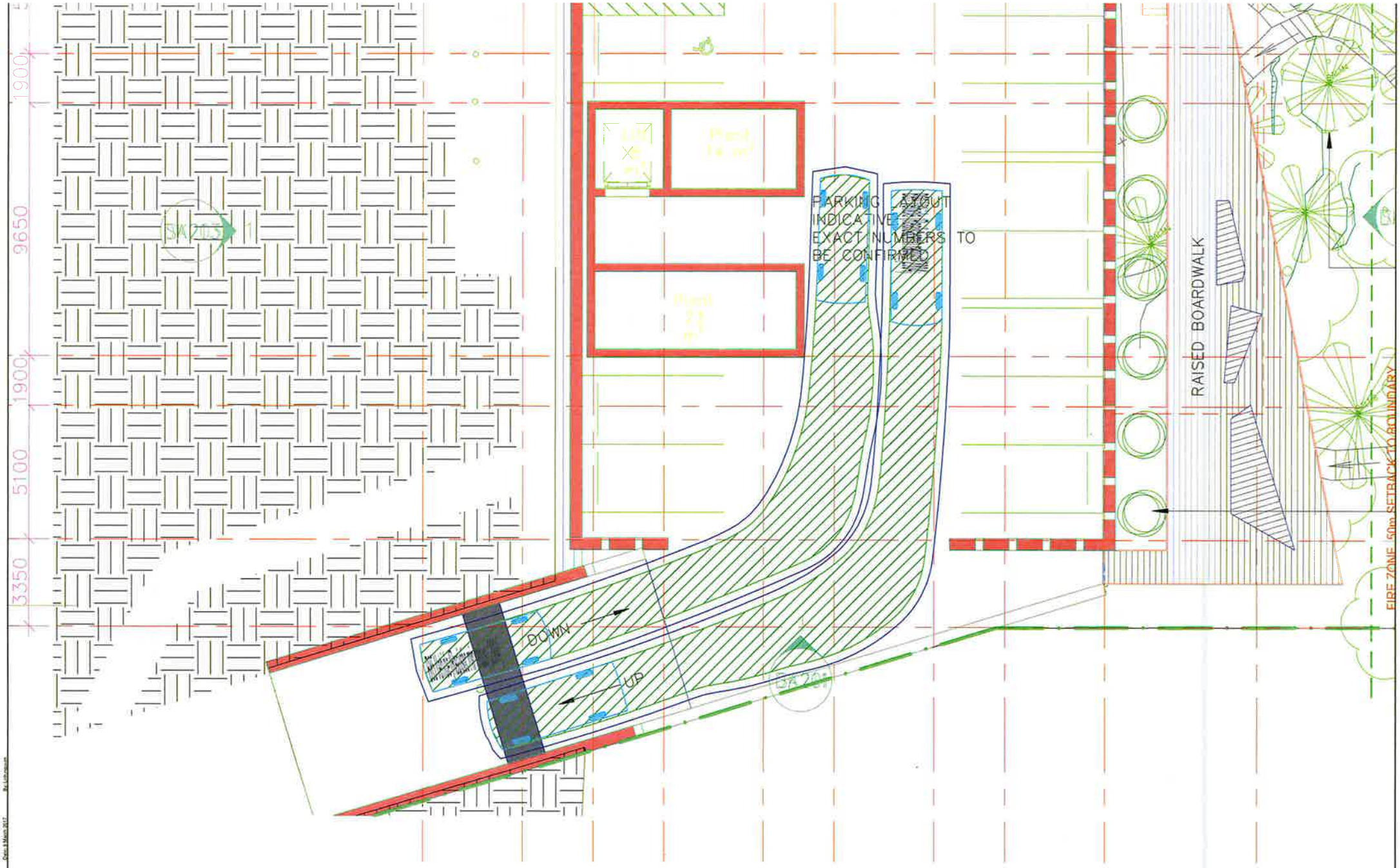
The traffic generation is likely to be in the order of 5 vehicles maximum in the peak period. This will not have a significant impact on the road network.

A green travel plan will be implemented which will have a positive impact in reducing the traffic impact associated with the proposed development on the surrounding road network.

There is therefore no valid traffic or parking reason why the proposed development should not proceed.

Appendix A

Swept Path Drawings



REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	LN	KH	KH	09/03/2017

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PROJECT: TRESILLIAN FAMILY CARE SERVICES, WOLLSTONECRAFT

TITLE: DRIVEWAY REVIEW

DWG No.: FIGURE 1

DATE STAMP: 09 MARCH 2017

PROJECT No.: 16283

SCALE: N.T.S

REV.: A