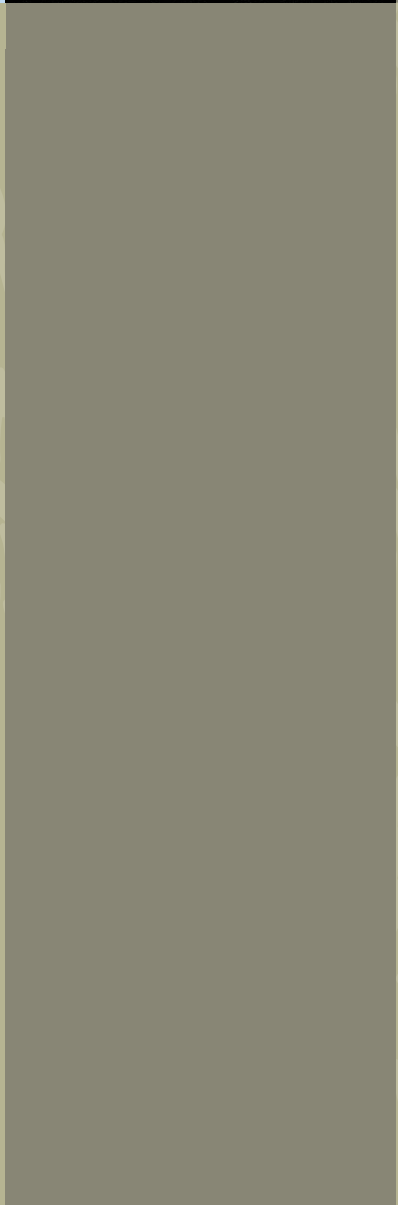




Ku-ring-gai Council  
**Town Centres Parking  
Management Plan 2010**

Adopted 21 September 2010



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# INTRODUCTION

PART

1



# 1 INTRODUCTION

During the preparation of the draft Town Centres LEP and DCP in 2005/2006, Council resolved, in relation to each centre, that a "Parking Management Plan (PMP) be prepared and reported to Council prior to gazettal of the Draft Local Environmental Plan".

The need for such a study was made further evident during the consultation and planning process for the town centres. The issue of car parking was one of the main concerns raised by residents and business owners. Typical concerns raised include:

- commuter parking in local streets;
- lack of commuter parking stations;
- lack of parking for people wishing to "park-and-ride";
- lack of public parking generally;
- school parking; and
- future undergrounding of public parking areas.

Arup was engaged in 2007 to prepare a background study. The objectives of the study was to develop a comprehensive plan for the long term management and provision of car parking within the main commercial centres of Ku-ring-gai LGA which:

- addresses existing Council resolutions in relation to parking within the town centres, particularly in relation to maintaining current levels of public off-street car parking (both time restricted and unrestricted);
- addresses recommendations made by the independent chairpersons in the town centre public hearing reports (in relation to reclassification);
- identifies links with town centre contributions strategy and development contributions plans;
- integrates with Council's long term financial model (CTFM);
- is consistent with the community's values and vision;
- is in accordance with State Government policies and guidelines;
- is consistent with Council's policies for parking, sustainability and ESD and the Environmental Levy;
- involves and effectively engages the Council, community and relevant stakeholders;
- is economically viable and commercially appropriate; and

## 1 INTRODUCTION (continued)

- meets access and disability requirements.

The Arup background study was completed in February 2009 and examined the existing parking conditions within the centres in terms of supply and demand (with respect to extent and time), examined the future growth of the centres. Estimates were made of the future parking demand based on the likely growth in development at the time. The background report also considered broad strategies for addressing parking issues in commercial centres; and make recommendations in relation to each centre as to how to address issues and provide for the future demand.

Arup was also commissioned to undertake a Traffic and Parking Study for the Wahroonga village in early 2008. One of the objectives of the study was to develop a master plan for car parking in the Wahroonga centre.

### ***Purpose of this PMP***

The *Ku-ring-gai Town Centres Parking Management Plan* expands on the Arup background study and considers parking strategies in each of the 6 town centres in more detail, particularly in relation to land uses, long/short term parking and parking for other modes of transport. Consideration is also given to ways of managing the potential redevelopment of Council car parks in order to minimise the impact due to the temporary loss of parking. As the Wahroonga centre was studied separately, the main parking outcomes of the *Wahroonga Traffic and Parking Study* are only shown within this report, with specific details available in the respective study.



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- 2 Arup Parking Study – Recommendations**
- 2.1 Roseville
- 2.2 Lindfield
- 2.3 Gordon
- 2.4 Pymble
- 2.5 Turramurra
- 2.6 St Ives
- 2.7 Wahroonga



## 2 ARUP PARKING STUDY – RECOMMENDATIONS

After analysing the future parking supply and demand in the town centres, p40 of the *Ku-ring-gai Town Centres Parking Management Plan* (ARUP, 2008) suggests that

*...the basis of the future car parking strategy should be to retain the current general availability of public car parking and for the future developers of large consolidated retail, commercial and residential development sites to accommodate all future car parking demand on site, including visitor car parking, such that Council will not have to operate future Section 94 contributions plans to construct any balance or future shortfall of car parking supply from this source.*

### **Centre-specific Recommendations from Arup Parking Study**

#### **2.1 Roseville**

Provide future car parking on site in all new retail / commercial and mixed use development in accordance with Council's Town Centres LEP, 2006.

No additional public car parking other than the Lord Street and Larkin Lane improvements will be required to be provided by Council.

#### **2.2 Lindfield**

Provide future car parking on site in major retail/commercial and mixed use developments in accordance with Council's Town Centres LEP 2006 and retaining existing public car park numbers.

Additional public car parking will be provided on the western side of the Pacific Highway/Railway Line primarily through the construction of new roads between Beaconsfield Parade, Bent Street and Balfour Street.

#### **2.3 Gordon**

Provide future car parking for retail / commercial and mixed use development on site in accordance with Council's Town Centres LEP 2006.

Additional public car parking will be provided on street along Wade Avenue and a new street which is to be constructed between Moree Street and St John's Avenue.

#### **2.4 Pymble**

Provide future car parking on site for major developments in accordance with Council Code requirements (Town Centres LEP 2006).

Proposed town centre urban design changes, between Grandview and Post Office Streets mainly, will result in an additional 50 public car parking spaces being provided for the centre.

## 2 ARUP PARKING STUDY – RECOMMENDATIONS (continued)

### **2.5 Turramurra**

Provide all future car parking on site for major developments in accordance with Council's Town Centres LEP 2006 retaining existing public car park numbers.

Additional public car parking is to be provided on street with the construction of a new road between Gilroy Road and Turramurra Avenue and the widening of Forbes Lane.

### **2.6 St Ives**

Provide future car parking on site in all new retail, commercial and mixed use development in accordance with Council's Town Centres LEP, 2006.

Additional public car parking will be provided by the construction of on street public parking improvements along Memorial Avenue and Stanley Lane.

### **2.7 Wahroonga**

The final list of parking recommendations is primarily aimed at improving parking turnover which would increase the number of spaces available at any given time. There is significant scope for increasing turnover in Wahroonga and such measures should be introduced before consideration is given to increasing parking supply.

While the provision of future car parking on site for major developments would address the needs of those land uses, there also are other peripheral parking issues and themes not directly related to major developments that also require discussion and appropriate strategies to address. These issues and themes are explored in the next section, where appropriate strategies are also recommended.



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### **3 Key Issues And Discussion**

- 3.1 Mixed use, retail, commercial & residential parking rates
- 3.2 Time management/enforcement & pay parking
- 3.3 Public car parking & undergrounding of at-grade car parking
- 3.4 Resident parking schemes/parking permits
- 3.5 Commuter parking
- 3.6 Bus zones
- 3.7 Loading zones
- 3.8 Accessible parking
- 3.9 Car share parking
- 3.10 Bicycle parking
- 3.11 Motorcycle/motor scooter parking
- 3.12 School parking
- 3.13 Taxi zones
- 3.14 Clearways

### 3.1 MIXED USE, RETAIL, COMMERCIAL & RESIDENTIAL PARKING RATES

In accordance with the recommendations in the Arup study, parking for mixed use, retail, commercial and residential land uses should be provided on site. On-site parking rates should reflect the accessibility of a centre, so in centres with good access to public transport (rail, bus), parking rates should be typically lower than centres with less access to public transport. This is one of the principles underpinning integrated land use and transport planning, and transit oriented development. The foreshadowed Metropolitan Parking Policy (NSW Department of Planning) and the yet to be released revision to the RTA Guide to Traffic Generating Developments are likely to set out parking provision rates based on accessibility to transport.

Lower parking provision in centres with good access to public transport would be consistent with State Government policy, and would support the role of public transport and therefore reduce congestion and emissions. Residents, employees and visitors to the town centres would therefore be encouraged to consider alternative forms of transport as their means of travel to or from the centre. Residents in town centres should not expect that they will necessarily be able to find convenient parking on-street immediately outside or even near their property.

Parking requirements are specified in terms of ranges, which give flexibility. For example, as the floorspace to be developed increases, the rate of total parking provision tends to be lower due multi purpose trips and non-conflicting parking demand peaks/"sharing". Ranges also take into account accessibility to public transport (e.g. rail, bus), and can improve economic viability by reducing depth of excavation for underground car parking. Parking can be provided which exceeds the upper range, however excess spaces will be included in the calculation of gross floor area.

Council's draft Town Centres DCP specifies the following for parking provision:

#### **Mixed Use Development – Car Parking Rates**

For mixed-use sites within 400m of a rail station and within a commercial centre, the following parking ranges would apply:

Land Use	Parking Space Requirement
<b>Office and business, including professional suites</b>	1 space/33m <sup>2</sup> GFA to 1 space/45m <sup>2</sup> GFA  Suggested split: 90% employee parking 10% visitor parking
<b>Retail/shops, including restaurants and cafes</b>	1 space/26m <sup>2</sup> GFA to 1 space/33m <sup>2</sup> GFA  Suggested split: 30% employee parking 70% shopper parking

### 3.1 MIXED USE, RETAIL, COMMERCIAL & RESIDENTIAL PARKING RATES (continued)

<b>Residential:</b>	
Studio	0- 0.5
1 bedroom	0.6 - 1.0
2 bedroom	1.0 – 1.25
3 or more bedroom	1.0 – 1.5
Visitor	1 space/6 units

**Note:** due to existing fragmented ownership patterns, some proposed mixed use sites (such as in Hill Street Roseville) would require significant amalgamation to achieve additional FSR in accordance with Clause 6.4 of the draft Ku-ring-gai LEP (Town Centres), to facilitate urban design excellence. To ensure the viability of mixed use development in such situations, a possible reduction in parking rates may be considered. Indicatively, this could be a reduction of 20%, although further detailed studies would need to be undertaken regarding the parking rate reduction to ensure no negative impact on the parking around the centre. It is recommended to accommodate the longer term parking needs (residents, employees) on-site and reduce the quantity of short term (retail, visitor) parking needs in centres where there is demonstrated spare short term capacity during peak times in the surrounding roads.

#### ***Business and Office Development - Car Parking Rates***

The following parking ranges apply for office, business premises and retail, where the development is within 400 metres of a train station and within a commercial centre:

<b>Land Use</b>	<b>Parking Space Requirement</b>
<b>Office and business, including professional suites</b>	1 space/33m <sup>2</sup> GFA to 1 space/45m <sup>2</sup> GFA* Plus, 1 space if resident/manager or caretaker Plus, 1 courier space for development in excess of 200m <sup>2</sup> GFA Suggested split: 90% employee parking 10% visitor parking
<b>Retail</b>	1 space/26m <sup>2</sup> GFA to 1 space/33m <sup>2</sup> GFA  Suggested split: 30% employee parking 70% shopper parking

\* Parking provision at a rate of less than 1 per 45m<sup>2</sup> GFA may be considered if accompanied by firm and ongoing proposals to encourage alternative means of transport. This may include strategies such as:

- transport Access Guides (TAG);
- staff discount/subsidy towards public transport costs;
- dedicated shuttle bus between the development and railway station;
- adoption and implementation of a car pool/ car sharing scheme;

### 3.1 MIXED USE, RETAIL, COMMERCIAL & RESIDENTIAL PARKING RATES (continued)

- use of taxis or public transport for work related journeys;
- priority parking for staff who pool with 2 or more passengers; and
- regularly publicise and monitor the scheme and establish a plan with measurable targets.

#### ***Residential Flat Building Development – Car Parking Rates***

For residential flat buildings, the following car parking ranges would apply:

	Parking Space Requirement
Studio	0- 0.5
1 bedroom	0.7 – 1
2 bedroom	1 – 1.25
3 or more bedroom	1 – 2
Visitor	1 space/4 units

#### ***Multi-Dwelling Housing Development – Car Parking Rates***

For multi-dwelling housing, the following car parking ranges would apply:

	Parking Space Requirement
1 bedroom	1
2 bedroom	1-1.5
3 or more bedroom	1-2
Visitor	1 space/4 units

#### ***Bicycle Parking Rates***

For mixed use and residential flat building development sites within the town centres, the following bicycle parking rates apply:

Land Use	Parking Space Requirement
Office and business	1 space/200m <sup>2</sup> GFA (for employees) 1 space/750m <sup>2</sup> over 1000m <sup>2</sup> (for visitors)
Retail/shops	1 space/300m <sup>2</sup> GFA (for employees) 1 space/500m <sup>2</sup> over 1000m <sup>2</sup> (for shoppers)
Residential	1 space/5 units (for residents) 1 space/10 units (for visitors)

For bicycle parking rates for other land uses, refer to Austroads Guide to



### 3.1 MIXED USE, RETAIL, COMMERCIAL & RESIDENTIAL PARKING RATES (continued)

Traffic Engineering Practice Part 14 – Bicycles.

**Note:** that connectivity of large publicly available basement car parks in retail/commercial cores of the town centres should be achieved where practical, so that individual basement car parks would act as a larger car park, improving parking opportunities within the one precinct and possibly reducing vehicle congestion and circulation at the surface.

For all other locations, car parking is to be provided in accordance with DCP43.

Parking spaces can be shared by more than one user, which allows parking facilities to be used more efficiently. Shared parking takes advantage of the fact that most parking spaces are only used part time by a particular land use, and many parking facilities have a significant portion of unused spaces, with utilization patterns that follow predictable daily, weekly and annual cycles. Efficient sharing of spaces can allow parking requirements to be reduced. The table below provides an indication of compatible land uses that could share parking facilities:

#### *Typical Peak Parking Demand Periods of Various Land Uses*

Weekday Peaks	Evening Peaks	Weekend Peaks
Retail	Auditoriums	Religious institutions
Medical centres	Bars and dance halls	Parks
Business/Offices	Meeting halls	Retail
Professional services	Restaurants	Restaurants/cafe
Schools	Theatres	
Medical		

#### **Recommendations**

- That on-site parking in Town Centres be provided in accordance with Council's draft Town Centres DCP.



## 3.2 TIME MANAGEMENT/ENFORCEMENT & PAY PARKING

Parking enforcement must be undertaken to ensure turnover of time-restricted spaces (particularly in high demand areas), as well as to maintain safety clearances and visibility at key restricted areas. The degree to which an area is enforced varies with factors including demand, the level of resources available and the perception by the users of "revenue raising". Arup elsewhere suggests that enforcement must be sufficient to give motorists a perception that they are likely to be caught if they exceed the posted limits.

Resident surveys in 2006 indicate that parking issues rate highly in town centres. Some of the parking issues may relate to not being able to find a space at the desired location and at the desired time, however in the Arup background study, surveys of parking areas and on-street parking show that most centres generally have adequate short term parking, although some car parks experience high levels of demand during certain times (typically the middle hours of the day). Surveys undertaken by Council staff in 2004 indicate that in some areas up to an average of 10% of vehicles in car parks overstay the posted limits. Turnover can also be impacted by longer term users moving their vehicles and returning to park in the same car park, extending their stay at the expense of other legitimate short term users.

Therefore, there may be a role for increased enforcement, to encourage turnover of high demand spaces. Enforcement could be increased by either increasing the patrols undertaken by Council enforcement officers or employing electronic enforcement options, including pay parking.

Both strategies require increased resources, however it is possible that in the future, car parks in large redevelopment sites (such as the St Ives Shopping Village and the Gordon Centre) would implement a scheme whereby the shopper can access the car park for a limited time (typically 2 or 3 hours). Any time spent over the time limit would incur charges, resulting in a more self-enforcing car park. This would better manage privately owned but publicly available car parks, but Council-owned car parks would require either more enforcement or other electronic means to further improve turnover.

To minimise the possibility for motorists to move their vehicles and returning to park in the same car park, multiple stays per day are discouraged in high utilisation car parks. Indicatively, this could be in car parks where peak weekday utilisation is typically greater than 80%, which includes Wade Lane car park, St Ives Village Green car park, Tryon Road car park and Gilroy Lane car park. Some car parks and most in smaller centres such as Pymble and Roseville are generally not utilised more than 80% during the weekday peak.

Council's Regulatory Services have recently acquired hand-held electronic enforcement units. These would speed up the process of infringing vehicles through the electronic issuing of tickets, which would potentially allow regulatory officers greater coverage.

The Arup background study suggests that paid parking is probably not warranted at the current vacancy rates experienced in the town centres. There are, however, some car parks and locations in various centres that experience either high levels of demand, or difficulties in enforcement.

### 3.2 TIME MANAGEMENT/ENFORCEMENT & PAY PARKING (continued)

Currently, Council operates paid parking only in the Culworth Avenue car park, in Killara. This car park is predominantly used by commuters. Users are required to pay a \$5 flat fee for all day parking, and no fee is charged on weekends. The only known paid parking scheme on privately owned land in Ku-ring-gai is at the San Hospital in Wahroonga, where visitors are charged on a sliding scale for stays longer than 15 minutes. Parking fees for outpatients are lower than those for visitors.

Paid parking could be a mechanism whereby overall turnover of parking spaces improves, providing more parking opportunities for a greater number of users. This would also result greater compliance, and the revenue streams generated could be directed to meet the capital costs of implementing the scheme in the early stages of implementation. Multiple stays per day or longer stays would be discouraged, as these would incur higher charges. In the subsequent stages, revenue would service the operational costs as well as contribute towards local parking/public domain improvements, new on-street parking, town centre parking management and improvements to public transport facilities including interchanges and shelters, as well as additional peak period feeder bus services. Funding shortfalls for key parking and transport related projects identified in the Town Centres Works Program would be reduced.

#### **Recommendations**

- *That Council seek to implement enforcement and compliance strategies that maximise turnover of parking spaces and opportunities for Council.*
- *That more than one stay per day in high utilisation car parks be discouraged.*

### 3.3 PUBLIC CAR PARKING & UNDERGROUNDING OF AT-GRADE CAR PARKING



Figure 3.3-1:  
Typical street parking sign.

Council has a number of public car parks in the town centres, with most spaces typically having 2 hour parking restrictions to ensure turnover while providing shopper convenience. Shorter term parking (1/2 or 1 hour) is usually located on the kerbside, and is intended for much shorter stay and quick access. Other privately owned but publicly available parking (such as the in Gordon Centre or St Ives Shopping Village) have notional time limits, including 3 hour limits.

Most Council car parks exist due to the surrounding older type strip shops/offices in the town centres generally not being able to provide parking on-site to service their needs and those of their customers. However, as redevelopment of the town centres occurs, new on-site parking would need to be provided to cater for the parking needs of the development. As this on-site provision increases, the role and importance of large at-grade Council car parks would be slowly diminished. New on-site parking would also help to address longer term (employee) parking which is currently transferred to surrounding roads and competes directly with commuters, residents and other longer stay users.

In 2006, Council resolved to ensure there is no loss of publicly available car parking in the town centres. It follows that if (subject to the outcomes of the reclassification of Council lands) Council car park sites were to be redeveloped, the existing publicly available car parking would have to be replaced, probably by undergrounding. However, as indicated in the Arup background study, the parking needs of the town centres would be met if redeveloped sites provided for their own parking needs on-site, which could gradually diminish the long term need for Council car park sites. There is therefore scope to reduce the quantity of car parking needed to be undergrounded. It is likely that the cost to underground public car parks where mixed use or other development is proposed above (such as the Wade Lane car park) would be considered through a planning agreement with a developer and as a result, these projects were not included in the *Ku-ring-gai Town Centres Development Contribution Plan*.

For shorter stays, it is envisaged that the bulk of on-street parking would be retained, with new roads and public domain improvements offering the opportunity to increase on-street parking. Depending on demand, it may be necessary to extend the times that period parking operates in key streets (and car parks) on weekends (eg Village Green Parade, Grandview Street, St Johns Avenue, Rohini Street, Lindfield Avenue, Hill Street) to ensure adequate turnover on Saturdays and Sundays.

New roads are appropriate projects for development contributions due to the benefits to vehicle access and circulation, as well as pedestrian/ bicycle permeability and the additional on-street public parking they provide (where appropriate). Some roads are critical to the traffic improvements being proposed in various town centres. These have been identified in the *Ku-ring-gai Town Centres Development Contribution Plan*.

### 3.3 PUBLIC CAR PARKING & UNDERGROUNDING OF AT-GRADE CAR PARKING (continued)

#### **Recommendations**

- *That new developments in the town centre provide for their own parking needs on site.*
- *That adjoining redeveloped sites allow for the possibility of interconnected car parks where possible.*
- *That times of operation of period parking be reviewed to ensure adequate turnover on weekends in high demand locations.*
- *That parking restrictions in major shopping centres, in particular, St Ives, be referred for further investigation as to appropriate parking restriction times and be referred to the Kuring-gai Traffic Committee, if necessary.*



### 3.4 RESIDENT PARKING SCHEMES/PARKING PERMITS

Resident parking schemes are used by some inner metropolitan councils with older dense development, including North Sydney, the former South Sydney, Randwick and Woollahra, where on-street parking can be in high demand and properties are too small to accommodate vehicles on-site. In such areas, residents do not have access to sufficient off-street parking, and parking may be heavily restricted near their residences.

Resident parking schemes are now regulated under the Road Transport (Safety and Traffic Management) Act 1999 along with business parking permits, commuter parking permits and residents' visitor parking permits. It is important to note that resident parking schemes must be implemented in accordance with the Roads and Traffic Authority's Permit Parking Manual, which include eligibility criteria. Most single dwelling properties in Ku-ring-gai have sufficient space on-site to provide for parking for more than one vehicle, and therefore, few areas would qualify for such schemes.

The Manual generally allows for a maximum of two resident parking permits per household reducing by one permit for each available off-street parking space.

There are a number of disadvantages to resident parking schemes:

- administrative costs, some of which could be recouped through charging for permits;
- tradespeople, visitors and residents themselves with new, hired or additional vehicles without a permit may be adversely affected by the restrictions; and
- other users, including those visiting affected areas, are adversely affected.

New development sites must comply with the requirements of Council's Town Centre DCP to provide for on-site resident and visitor parking requirements. These developments are assumed to provide adequately for the needs of their residents on-site, and therefore would not be eligible for a resident parking scheme. The introduction of any resident parking scheme could result in demands for their introduction in numerous other locations which may not comply with normal guidelines.

Council recently considered the use of resident parking schemes in Ku-ring-gai, and resolved (minute 102 of OMC 9 June 2009) that unless RTA eligibility criteria change, resident parking schemes not be introduced into Ku-ring-gai, but that the needs of residents and other stakeholders continue to be considered on their merit through the Ku-ring-gai Traffic Committee.

If paid parking is implemented in Town Centres, it is unlikely that resident parking schemes would be introduced, as the paid parking areas are likely to only affect the general commercial core and not residential areas.

#### ***Recommendation***

- *That resident parking schemes not be introduced in Ku-ring-gai.*

### 3.5 COMMUTER PARKING

Commuter parking is often perceived to be the responsibility of local councils, yet these facilities draw patronage to the City Rail network. While the majority of commuter car parks in Ku-ring-gai are located on railway land, the local roads surrounding railway stations in Ku-ring-gai also utilised for parking by commuters on weekdays.

Parking demand around rail centres in Ku-ring-gai is high, with commuter car parks generally at full utilisation, and significant numbers of unrestricted on-street parking spaces occupied by all-day parking (commuters). Surveys conducted in the Arup study in 2007 indicate that on average, 86% of commuters who drove a car to the railway station stated they were Ku-ring-gai residents. Therefore, the primary beneficiaries of commuter parking in Ku-ring-gai are its residents. The proportion of adult boarding passengers who were car drivers averaged 35%, and ranged from 17% at Roseville station to 52% at Gordon station.

The importance of commuter parking is recognised, particularly in the role it plays in reducing the length of vehicle trips and transferring part of a journey to another mode (rail). However, the impacts of extensive commuter car parking can be towards residents (through parking on local roads) or towards traffic congestion, as these car parks are typically located close to rail stations and town centres where congestion during commuter peak times is not desirable. Therefore, commuter parking and amenity have competing benefits and impacts.

#### *Off-street parking areas*

Surveys indicate that residents would like additional commuter car parking, and that the apparent lack of parking can be a deterrent to accessing the rail station. Indeed, the Pymble centre has no formalised off-street commuter car parking, so there is a high reliance on unrestricted on-street parking to cater for the demand. Other centres such as Lindfield has a small section of unrestricted car park on Council land (Woodford Lane), while centres such as Gordon have significantly higher amounts of commuter parking (on railway lands).

Consideration could be given to re-allocating underutilised sections of time restricted car parks to commuter parking. It is likely though, that additional commuter car parking provided by Council would incur a user charge similar to that currently operating at Council's Culworth Avenue commuter car park (Killara), which is equipped with a pay-and-display system.

While the provision of additional off-street car parking would create additional capacity, anecdotal evidence suggests that it does little to reduce the impact to on-street parking, as spare capacity created on-street is typically reabsorbed by other commuters.

The use of surplus railway lands for commuter parking may be increased in the future. However, in some centres, such as Gordon, there is relatively little spare space to accommodate additional commuter parking. Some potential sites would be affected by embankments or cuttings which reduces the feasibility of constructing car parking, and some sites would be located mid way between 2 stations (which would



Figure 3.5-1:  
Typical off-street parking sign.



## 3.5 COMMUTER PARKING (continued)

be less attractive for commuters). Also, if quadruplication of the North Shore railway occurs, it would have significant impacts to at-grade commuter car parks unless they were replaced in an alternate location or configuration. Discussion and consultation with Railcorp and Ministry of Transport regarding new commuter parking opportunities will continue, to encourage use of public transport by residents of Ku-ring-gai.

### ***On-street parking***

Unrestricted on-street parking tends to take a significant load of the total commuter parking at railway stations, even where there are a substantial number of formal off-street commuter car parking spaces. Commuters who leave their vehicles for the day generally accept that if parking is available to them on-street, they may have to walk further distances to their transport connections than shoppers.

Residents close to rail centres usually accept that convenient on-street parking is not necessarily available to them. However, residents close to rail centres should not expect that they will necessarily be able to find parking on-street immediately outside or even near their property.

It is likely that, as consolidation of lots and consequent development of medium density sites occurs, minor additional on-street parking will be available through the removal of redundant driveway crossings. Once removed, the additional space is likely to be occupied by commuters. Redevelopment of retail areas would result in improved provision for employee parking on-site, which could release additional unrestricted kerb side space for commuters.

Until such time as attractive alternatives to accessing railway stations can be provided, it is generally not recommended to alter existing unrestricted kerbside parking around railways stations. This would require a shift in modes of access to rail stations from car to other modes (bus, walk, cycle), which will be encouraged through the Public Domain Plan and improvements to bus interchanges and bicycle facilities.

### ***Passenger pick up and drop off***

Passenger pick up and drop off points at rail stations (commonly known as 'kiss and ride') is very short term parking which can encourage commuters (not near rail stations and bus routes) to use rail services, although it does not necessarily reduce vehicle trip generation and congestion around rail stations during peak times. Most town centres already have some kerbside space near rail stations set aside for passenger pick up and drop off, although these mostly operate on a part time basis (i.e. during peak periods), and are signposted with minimal 'No Parking' restrictions (which permits passenger set down and pick up, but not longer stays). Resident surveys suggest that current space for passenger pick up and drop off is inadequate.



### 3.5 COMMUTER PARKING (continued)

It should be noted that the spatial priority around transport interchanges should be towards pedestrians, buses and cyclists first, to encourage these modes over private vehicles. As a result, passenger pick up and drop off areas are proposed to be generally located somewhat further from the station entrances.

To improve passenger pick up and drop off, it is proposed to provide additional space and to extend part time areas to full time in the larger centres, while smaller centres would have new or increased passenger pick up and drop off zones. To improve visibility and user awareness, it is proposed to supplement signage with a plate displaying the words "Pick Up and Drop Off Only".

Improved commuter pick up and drop off facilities have been considered as part of general transport interchange upgrades in the rail centres. Where appropriate, interchange upgrades are projects that would attract development contributions, and have therefore been included in the *Ku-ring-gai Town Centres Development Contribution Plan*.

#### **Feeder bus services to railway stations**

From the Arup surveys conducted in 2007, the proportion of adult boarding passengers who travelled by bus to a railway station averaged 9%, and ranged from 2% at Roseville station to 19% at Turramurra station. The relatively low proportions could be attributed to low frequency bus services and route coverage, despite all the major rail stations in Ku-ring-gai being connected to bus services.

Strategies to improve access to the railway stations through bus services should provide a useful alternative to commuter parking. However, services have to be relatively direct, frequent and operate at the time commuters need them in order to be an attractive alternative. This would entail increasing the frequency of feeder services to at least 7.30pm.

The Ministry of Transport has undertaken Bus Reform Planning in NSW and currently, the contract regions where Ku-ring-gai is located have undergone network planning and review. These types of issues have been raised by stakeholders and were considered by the Ministry as part of the consultation process. The revised bus networks have been introduced and are now operating.

Part of the Bus Reform in NSW involves implementation of Strategic Bus Corridors, which are intended to be high frequency services connecting key regional centres in Sydney. Travel time improvements are proposed via measures such as bus priority and key intersections, dedicated bus lanes and clearways. One such route is the service between Mona Vale and Macquarie (route 36), via Gordon railway station. This service is operated by Forest Coach Lines and is particularly beneficial to residents of St Ives town centre as it would provide a frequent feeder service connecting St Ives to Gordon railway station. Strategic Bus Corridor route 7 (between Macquarie and Hornsby, via Turramurra) commenced operation on 23 March 2009 and provides an intermediate feeder role to Turramurra railway station.

### 3.5 COMMUTER PARKING (continued)

#### Recommendations

- *Forest Coach Lines, Shorelink Bus Company and the Ministry of Transport be lobbied to increase services to/from St Ives during critical peak times and to extend frequencies to 7.30pm, to absorb some the on-street commuter parking occurring around Gordon and other rail centres.*
- *Council continue to work with the Ministry of Transport and bus operators to achieve an attractive alternative to commuter parking by developing effective feeder services to railway stations.*
- *That buses, pedestrians and bicycles have priority over private vehicles in terms of commuter access and proximity of on-street parking to rail station entrances.*
- *Council work with the Ministry of Transport to implement Strategic Bus Corridors in Ku-ring-gai.*
- *Council generally not alter existing unrestricted kerbside parking around railways stations until such time as attractive alternatives for accessing railway stations can be provided.*
- *That discussion and consultation continue with the Ministry of Transport and Railcorp regarding new commuter car parking opportunities in the Ku-ring-gai town centres.*



Figure 3.5-2: Strategic Bus Corridors (source: NSW Metropolitan Transport Plan).

### 3.6 BUS ZONES



Figure 3.6-1:  
Typical bus zone sign.

Bus zones are critical to the effective operation of bus services in town centres. Competition for kerbside parking usually requires that bus stops be formalised through “Bus Zone” signposting, so that bus services have clear and specific space allocations in the town centres.

As noted elsewhere, the Ministry of Transport has undertaken bus network reviews and planning for the 2 contract regions within Ku-ring-gai. Some routes have become more direct to improve travel time and efficiency, while some routes have changed completely or were discontinued. This may have an impact on existing bus zones within the town centres. Therefore, Council will need to work with Ministry of Transport and bus operators when considering changes to bus stops.

Nonetheless, throughout the planning of the town centres, the role of bus services and bus stops were considered, with opportunities being taken to seek improvements where possible. For example, in the Gordon centre, it is proposed to upgrade the bus interchange in Henry Street to increase the available space for buses, as well as layover space. Similarly in St Ives, the intersection of 2 Strategic Bus Corridors in the town centre will require formalisation of existing bus stops into bus zones, as well as the creation of new bus zones. Bus interchange projects have been included in the *Draft Ku-ring-gai Contribution Plan 2010*.

#### **Recommendation**

- That Council work with Ministry of Transport and bus operators when considering new bus zones or changes to bus zones.

## 3.7 LOADING ZONES



Figure 3.7-1:  
Typical loading zones sign.

Loading zones should not be provided unless off-street loading facilities are not available, and the competition for kerbside space results in parking not readily being available for goods vehicles.

There are currently a large number of retail sites in town centres that do not have dedicated on-site loading facilities. These sites are frequently small strip shops, where the space or access at the rear of the site may be restricted. Some of the larger sites, such as the Gordon Centre, St Ives Shopping Village and Turrumurra Plaza, have dedicated on-site loading facilities. Some centres also have high demand for short term on-street parking, while others have sufficient spare capacity.

Town Centre redevelopment generally entails consolidation of sites, which would enable the provision of on-site loading and unloading facilities. For commercial sites, it may be sufficient to provide for courier space in accordance with Councils DCP43 (Car Parking), while larger retail and commercial sites will invariably be required to have on-site servicing for the largest vehicle expected to service the site.

Therefore, Council will be seeking the inclusion of on-site loading/servicing facilities as part of any retail or commercial development application, which would reduce the need for on-street loading areas. However, the presence of an existing on-street loading zone will not be considered as loading space for a new application.

A goods vehicle can park in a Loading Zone for 30 minutes and a station wagon can park for 15 minutes, whilst actually loading or unloading goods. Loading zones are typically approximately 9m long (or approximately 2 vehicle spaces), enough to accommodate a medium rigid truck, and are usually located at the approach end of a row of parallel parking spaces, for ease of entry and exit.

For smaller sites where a need for a loading area can be demonstrated and where competition for kerbside parking is high, consideration could be given to introducing loading zones (subject to technical and safety criteria). However, it is likely that loading zones would be available for a limited time only, to maximise the reduction in kerbside space and short term parking. Should requests for loading zones in a town centre arise, they should be evaluated on a centre-wide basis to maximise sharing, so as to avoid a proliferation of these spaces.

It is unlikely that the RTA will agree to installation of loading zones on Pacific Highway, Mona Vale Road/Ryde Road or Boundary Street/Babbage Road, or in areas signposted as No Parking or No Stopping.

### **Recommendation**

- *That on-site loading space and facilities be incorporated in future retail/commercial/mixed use developments in the Town Centres.*
- *That requests for loading zones be evaluated on a centre-wide basis.*



Figure 3.8-1:  
Typical accessible parking  
sign.

### 3.8 ACCESSIBLE PARKING

Car parks are required to have a proportion of their spaces allocated to drivers with mobility permits. Council's public car parks generally provide some accessible parking spaces. The proposed redevelopment of a number of Council car parks provides an opportunity to re-evaluate the number of accessible spaces available, as well as the opportunity to create a better quality space. Accessible parking in commuter car parks is generally the responsibility of Railcorp, and it is noted that the Turrumurra and Gordon centres have accessible parking spaces close to the station entrance.

Retail and commercial development in town centres will bring about additional parking, a component of which will be required to be accessible. Accessible parking within development sites in town centres should generally be provided in the following proportions (subject to demand):

Land Use	Minimum Rate of Provision (% of total number of parking spaces)
Retail/Commercial	1-2%
Civic/Community Centres	2-3%
Recreational Facilities	2-3%
Theatres/Entertainment Centres	3-4%
Medical Centres	3%

Accessible parking spaces are not normally provided on-street for safety reasons, as the lateral clearances to moving traffic required for those spaces is much greater than for normal kerbside spaces. Motorists with mobility parking scheme permits can usually park in time restricted parking spaces for longer periods than shown on the signs.

Opportunities may exist for on-street accessible parking in centres where on-street angle parking is proposed such as Grandview Street in Pymble and in Milray Street in Lindfield. Subject to adequate width and lateral clearances, on-street accessible parking could be considered in parallel parking spaces where road widening and modification is proposed eg. Forbes Lane.

Disabled parking has a regulatory function, and as such, on-street disabled car parking and disabled car parking in Council car parks can be enforced. However, there is no regulatory framework around the provision of preferential parking for parents with prams. These spaces are often provided in private car parks (in addition to disabled parking) and are typically located close to entrances or lifts, and wider than typical parking spaces. Preferential parking for parents with prams are provided, and operate, on a bona-fide basis and cannot therefore be enforced.

Council could encourage the provision of parking for parents with prams in private car parks. However Australian Standard 2890.1 - 2004 (Off Street Car Parking) requires that parking spaces in areas of short term, high turnover off-street car parking (such as shopping centres) be minimum 2.7m wide, to allow for full opening of all doors of adjacent vehicles. Carparks designed this way greatly improve the accessibility of



### 3.8 ACCESSIBLE PARKING (continued)

all users including parents with prams.

#### **Recommendation**

- *That accessible parking be incorporated in future retail/commercial/mixed use developments in the Town Centres.*
- *That accessible parking be incorporated in the redevelopment of Council car parks.*
- *That Council encourage the provision of preferential parking for parents with prams in private car parks.*

### 3.9 CAR SHARE PARKING

The Ryde Integrated Transport Strategy notes that car sharing

*..is a concept of sharing a car between a group of people. Commercial organisations allow members to rent a car per hour or for longer, with a designated pick up and drop off location. The benefits of a car sharing scheme is that members have access to a car when they need it, such as for doing the shopping or taking children to functions without having to purchase, park and maintain a private car. It is estimated that only 6 cars are needed to service the needs of 100 people.*

Such schemes are also gaining popularity with infrequent car users in areas where there is no provision for on-site parking and the demand for on-street parking is high. The Council of the City of Sydney and North Sydney Council have allocated on-street parking spaces dedicated to shared vehicles in convenient locations. Car share spaces could be provided on-site, incorporated into new residential development, as an alternative to vehicle ownership. One car share service provider has indicated that mixed use areas, comprising commercial and residential land uses create an environment where car sharing schemes is most likely to succeed, as the mix of commercial and residential provides a greater consistency of demand through the week than an area where a single land use type dominates. As an example, in the Ryde LGA, the area that was suggested would be able to support a car share scheme would be Macquarie Park, underpinned by its mixes of business, retail and educational uses.

Dedicated on-street spaces would need to be supported by a good mix of surrounding land uses. Gordon town centre would have a good mix of retail, residential and business uses to warrant further consideration of dedicated car share parking, but this would also be subject to operator's commercial viability. However, on 21 September 2010, Council resolved not to support the provision of car share parking spaces.

### 3.10 BICYCLE PARKING



Figure 3.10-1:  
Typical bicycle parking sign.

Bicycles are being encouraged as an alternative and low impact form of transport, particularly for trips under 5km. Bicycle parking/storage facilities should be provided at common destinations of bicycle trips such as schools, employers, railway stations, parks, bus interchanges and shopping strips.

Bicycle parking at railway stations requires a high level of security. Austroads recommends provision of bicycle lockers, cages and compounds supported by end of trip facilities such as change lockers and showers. Public bicycle parking in town centres is likely to be short term parking, so the guidelines suggest a lower security facility such as bicycle rails. All parking facilities should be located in areas of high visibility. Bicycle parking facilities are not normally provided on-street.

Under Council's DCP55 (multi-unit housing in the railway/Pacific Highway corridor and St Ives Centre), new developments are required to provide on-site bicycle parking to accommodate the needs of the residents and their visitors. However, there is a need to provide public bicycle parking in the town centre areas, to facilitate alternative modes of access to shops, community/commercial services and transport nodes. See section on parking rates (above) for bicycle parking requirements for specific land uses.

#### **Recommendation**

- *That Council incorporate the provision of bicycle parking in the town centres, including bicycle racks and lockers where appropriate and including locations identified in the Public Domain Plan.*





Figure 3.3-1:  
Typical motorcycle/motor  
scooter parking sign.

### 3.11 MOTORCYCLE/MOTOR SCOOTER PARKING

Motorcycles and motorised scooters are perceived as an economical and relatively fast alternative to the private motor vehicle. Given the state of fuel prices and congestion on roads, the popularity of motorcycles and scooters has grown considerably. Motorcycles use land more efficiently than other motorised transport modes by occupying less road space and parking space. However, parked motorcycles risk damage from being tipped over by careless drivers.

There is currently dedicated motorcycle parking at the lower level of the Wade Lane car park. All other motorcycle parking currently occurs in passenger vehicle parking spaces, although unauthorised motorcycle parking often occurs in road related areas such as nature strips or footpaths.

There are increasing requests for improved parking locations for motorcycles particularly at railway stations and general town centre precincts, as some users feel their motorcycles or scooters are vulnerable to damage or theft if left parked on the roadway or in poorly lit or quiet areas around railway stations. Cyclists have similar theft concerns with bicycles secured outside railway stations.

Surveys indicate Turrumurra railway station has the highest mode of access by motorcycle in Ku-ring-gai (although still very low compared to other modes). Other centres indicate little or no access to the railway station via motorcycle.

Consideration should be given to allocating a number of the parking spaces within public car parks for motorcycle parking, and should be located such that they are in a visible location and not subject to being tipped over by a manoeuvring car. Also, irregular or undersize spaces could be utilised for motorcycle parking. On-street motorcycle parking could be provided (subject to road crossfall and slope) by adapting existing parallel or angle parking (end) spaces. Conversion of parallel or angle parking spaces to motorcycle spaces could be considered if the demand for such spaces increases. Kerbing may be required where cars are found to occupy motorcycle spaces.

Within development sites, discretion by the applicant could be exercised in terms of the number of dedicated motorcycle spaces provided. As a guide, 1%-2% of the total parking spaces could be dedicated to motorcycle parking, particularly since 1 car space could yield up to 4 motorcycle parking spaces.

#### **Recommendation**

- That Council liaise with Railcorp regarding the provision of dedicated motorcycle/scooter parking in appropriate locations in commuter car parks.
- That dedicated motorcycle/scooter parking be incorporated in future Council-owned public parking areas.
- That development sites consider allocating spaces to motorcycle/scooter parking.

## 3.12 SCHOOL PARKING

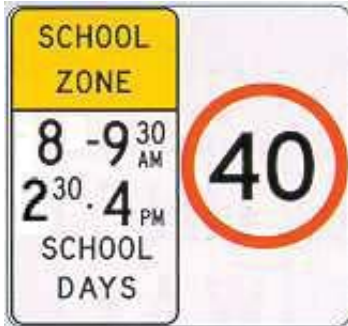


Figure 3.12-1:  
Typical school parking sign.

In 2009, Council adopted the updated Traffic and Transport Policy (minute 69, OMC 7 April 2009) which takes the position that all future development consents for schools include conditions requiring adequate parking and pick-up/set-down facilities be provided on-site. This reduces potential conflicts and minimises the impact to surrounding areas by concentrating set down and pick up on-site.

At schools where on-site parking and/or set-down/pick-up facilities are not provided, parents and carers seek parking close to the main school gates, which is where the greatest concentration of children cross the road and access buses. School communities should be encouraged to use the road space near the schools during school peak times, so that children are dropped off/picked up safely and efficiently. Some schools have a management policy or practice to speed up the process, particularly when picking children up in the afternoon.

The increased use of public transport, including buses, would reduce congestion and parking demand at most schools. It is therefore considered that convenient and safe bus zones and should be provided at schools and that schools be encouraged to promote the use of public transport or walking where appropriate.

### **Recommendations**

- *That requests for peak school period on-street parking restrictions to assist schools with set-down/pick-up activities at schools, be considered as being short term measures only.*
- *That all future development consents for schools in Ku-ring-gai Town Centres include conditions requiring adequate parking and pick-up/set-down facilities to be provided on-site.*

### 3.13 TAXI ZONES



Figure 3.13-1:  
Typical taxi zones sign.

Taxis play a role in providing a public transport service “at call”, and for those with mobility difficulties. There is a regular taxi presence at each of the rail centres in Ku-ring-gai. Taxi ranks at these centres typically have a capacity of 1 or 2 vehicles and are generally located adjacent to, or close proximity to, the station entrance.

Town centre planning undertaken allows for the continuing presence of taxi ranks within the town centres and in many cases, improvements to location and access. In the case of the Gordon town centre, additional capacity is proposed in the interchange area.

Where taxi zones are incorporated within a bus interchange upgrade project, these have been included in the *Ku-ring-gai Town Centres Development Contribution Plan*.

#### **Recommendation**

- That provision be made within the town centres for taxi parking at close proximity to rail station entrances/shopping centre entrances.

### 3.14 CLEARWAYS

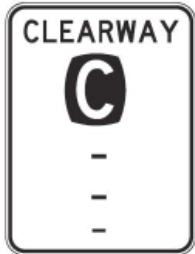


Figure 3.14-1:  
Typical clearway sign.

Clearways are implemented by the RTA on main roads, to improve capacity during periods of high demand. Typically in Ku-ring-gai, the Pacific Highway and Boundary Street have Clearway conditions imposed on them in peak directions during the morning and evening peaks. Mona Vale Road has limited Clearway conditions (north of about Link Road), with none signposted on Ryde Road.

Kerbside parking is not permitted in a Clearway area, resulting in those spaces being quarantined (usually on weekdays from 6am-10am and/or 3pm-7pm). Where appropriate, kerbside parking is permitted in off-peak periods, allowing passing trade to occur on retail frontages.

While Council has no control over implementation of Clearway conditions, it would not support the extension of Clearway conditions to between 10am and 3pm in town centres that have retail frontage to main roads.

The RTA has indicated that, to facilitate the operation of the Strategic Bus Corridor 36 (Mona Vale to Macquarie), at some point in time it may implement peak and contra-peak Clearway conditions on Mona Vale Road through the St Ives town centre, which is generally not affected by Clearway operation at the moment. While kerbside parking should still be available between 10am and 3pm, strategies to address the impact to parking are discussed in the centre-specific recommendations for St Ives.

# CONSULTATION

PART

4



## 4 CONSULTATION

As part of the consultation strategy for the Parking Management Plan and Action Plan, a Working Party was formed to provide input at key stages and assist in communication and engagement with the community. The Working Party comprised the Mayor/Deputy Mayor (Chair), interested Councillors, representatives from the Chambers of Commerce from each centre and resident representatives, and met twice during the life of the project.

### ***Town Centres Resident and Business Survey***

During the data collection process in September 2007, preliminary consultation with business owners and residents was undertaken using email surveys. In terms of business owners, the most common response was a request for Council to provide permits for business staff to park in Council car parks or for more unrestricted/all day parking, and provision of loading/courier spaces. Residents responses generally revolved around the provision of more parking (including more short term parking), commuter parking, drop off areas and enforcement.

### ***Parking Management Plan Information Briefing - 5 December 2007***

The Parking Briefing & Information Session was held on Wednesday, 5 December (7pm to 8.30pm). The purpose of this session was to:

- provide a concise summary of the context of parking planning;
- give a background briefing on current issues and approaches to parking management; and
- provide business and resident representatives with materials to take away and review about parking issues in their respective centres.

Participants were given time over the end of year break to review the material provided.

### ***Parking Management Plan Workshop and Plenary - 13 February 2008***

The second session was a Parking Workshop & Plenary, to encourage the centre-based groups to draw out key issues from the above materials, and points from representatives' own experience of parking in their respective centre. This will parallel other groups' work for parking in the other town centres. A plenary allowed sharing of ideas from each town centre's group.

Following the second session, the refined results of the workshops were considered and added to the other research work to support and direct the draft Parking Management Plan. A summary of the workshop responses is located in the Part A3 of the Appendix.

## 4 CONSULTATION (continued)

### ***Exhibition***

The plan is to be placed on public exhibition in conjunction with the Town Centres Public Domain Plan, where feedback from the wider community will be obtained prior to finalisation of the plan.

### ***Wahroonga Traffic and Parking Study***

Separate and extensive consultation was undertaken for the *Wahroonga Traffic and Parking Study*, including 3 stakeholder meetings and other community input. More information on the stakeholder meetings can be found in the study. The draft study report was placed on public exhibition and submissions from stakeholders were received.



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- 5 Long Term Parking Strategies**
- 5.1 Gordon
- 5.2 Lindfield
- 5.3 Pymble
- 5.4 Roseville
- 5.5 Turramurra
- 5.6 St Ives
- 5.7 Wahroonga



## 5 LONG TERM PARKING STRATEGIES

Analysis of future parking provision and future parking demand was undertaken for each of the 6 town centres on a precinct basis. For the purpose of the analysis, most centres typically were divided into 2 precincts: western and eastern, with the close proximity of Pacific Highway and the north shore railway line typically forming the boundary between precincts. While it is likely that in most centres there would be multi-purpose trips occurring (i.e. 1 trip/parking space serving multiple destinations within the centre), the separation into precincts allows for a finer grained analysis of potential parking demand and supply by considering spatial barriers such as railways and arterial roads, which may confine parking demand and behaviours to certain areas.

Development scenarios broadly consistent with the minimum and maximum growth scenarios were considered. Minimum scenario contemplates developments more likely to proceed based on viability and site ownership/amalgamations. The maximum scenario considers development which approaches full buildout, as well as some Council-owned sites subject to reclassification. The analysis serves as an indication of the parking space numbers and demand likely to be generated, and slight variations in floorspaces may produce slightly different results but unlikely to result in different strategies.

The long term parking strategies proposed below recognise the town centre studies undertaken to date, where the public domain plans and the traffic/transport models from the studies propose measures to accommodate additional parking on new roads (where appropriate).

In some centres, changes to traffic facilities and circulation patterns require modifications to parking layout to accommodate the new arrangements. There are also specific recommendations in the studies relating to new or expanded facilities such as rail/bus interchanges and commuter pick up and drop off zones.

Dedicated commuter parking is not specifically dealt with as it is not feasible for Council to provide dedicated off-street commuter parking to cater for the demand indicated in Table 7 (page 39) of the Arup study. As an example of the magnitude of demand and supply, the dedicated commuter parking in Gordon caters for approximately 50% of the demand, and in the other rail centres approximately 10%-15% of the demand. However, in many town centres, redevelopment of residential sites may reduce the number of driveway crossings, increasing on-street long stay parking. The Arup study also acknowledges that commuter parking demand should not increase with Town Centre development (except for St Ives) since new commuters would be living within walking distance of the rail stations

Resident and business workshops on parking management have highlighted areas for specific attention and reaffirmed the recommendations in the studies particularly relating to pick up/drop off areas.

## 5 LONG TERM PARKING STRATEGIES (continued)

### 5.1 Gordon

#### *Western Precincts*

The main parking demand generating uses in the western half of the Gordon town centre would be the Gordon Centre, the proposed mixed use development on the corner of Pacific Highway and St Johns Avenue, as well as the mainly commercial uses along Pacific Highway north of Dumaresq Street. The Gordon Centre's car park caters for a significant amount of this demand. Moree Street car park is located in this area.

For the minimum development scenario, the analysis indicates spare short stay parking capacity of approximately 480 spaces in the weekday peak, which suggests the majority of customer parking needs would be accommodated on-site. Also, it is estimated that there would be spare capacity of approximately 280 long stay spaces in the weekday peak, which indicates in general that there should be sufficient employee parking on site to cater for the demand. Long stay on-street parking was excluded from the analysis as these are likely to be occupied by commuters.

The above analysis includes parking changes resulting from new roads and circulation patterns, which are detailed below:

- additional on-site retail/business parking in Gordon Centre site (including eastern wing) as a result of redevelopment;
- additional on-site retail/business parking in St Johns Avenue/Moree Street site (precinct H) as a result of new development;
- redevelopment of the Chambers site will result in additional on-site business and community parking;
- extend 1hr parking on northern side of Dumaresq Street to whole of frontage of new urban park;
- minor reduction in kerbside parking on Pacific Highway due to installation of new pedestrian activated signals on Pacific Highway north of Moree Street;
- consolidation of residential sites in Moree Street, Dumaresq Street, McIntyre Street Merriwa Street and the subsequent reduction in the number of driveway crossings would result in minor additional on-street parking, the majority of which is likely to be unrestricted;
- introduce a car share parking space in the eastern end of Merriwa Street or the western end of Fitzsimons Lane, and possibly at the western end of Moree Street; and
- additional on-street parking on new roads between St Johns Avenue/Moree Street and Moree Street/Dumaresq Street. Introduce 1hr parking restriction.



## 5 LONG TERM PARKING STRATEGIES (continued)

### 5.1 Gordon (continued)

#### ***Eastern Precincts***

Short stay parking demand on the eastern side of Pacific Highway comes primarily from the strip shops adjacent to Pacific Highway. The short stay parking needs are currently serviced by the Wade Lane car park. Long stay parking demand comes about as a result of commuters and Ravenswood School, as well as retail/commercial employee parking (which is not effectively catered for on-site).

The minimum development scenario would result in spare capacity of approximately 390 short stay parking spaces. This is somewhat more than the existing capacity of the Wade Lane car park. Although this indicates the Wade Lane car park could be surplus to requirements, under a minimum development scenario there would still be strip shops that would not redevelop and would therefore still rely on short stay parking in Wade Lane. As a result, consideration could be given to removal of a level of parking in Wade Lane if only the sites likely to redevelop are actually redeveloped. If 100% of the strip shops were redeveloped, then it is conceivable that Wade Lane car park could be redeveloped to provide only 1 level of short stay parking (approx 120 spaces), since the majority of short stay parking needs would be catered on-site.

Long stay parking needs would be more adequately catered for under a minimum redevelopment scenario, with the analysis indicating a surplus of 6 long stay spaces. This would be further improved to 78 spaces if 100% of the strip shops were redeveloped.

The above analysis includes parking changes resulting from new roads and circulation patterns, which are detailed below:

- additional on-site retail/business parking under redeveloped strip shops along Pacific Highway and St Johns Avenue;
- additional on-site retail/business parking under redeveloped Council car park site in Wade Lane;
- transfer Wade Lane car park underground, allocate accessible parking and 1 utilise undersize spaces for motorcycles/motor scooters. Retain 2hr time restriction;
- new full-time commuter pick up and drop off zone at southern end of Wade Lane. Existing part time commuter pick up and drop off zone on both sides of Werona Avenue to remain. Reinforce with supplementary "Pick Up and Drop Off Only" plates;
- bicycle parking on footpath area outside main entrances to Gordon Centre and Gordon Shopping Village, as well as redeveloped Council Chambers site and St Johns Avenue strip shop precinct. Install bicycle parking at eastern end of St Johns Avenue in proximity to railway station entrance or alternatively install bicycle lockers on the western side of Werona Avenue in the vicinity of the railway station entrance;
- investigate possible part-time loading zone on west side of Wade Lane near Park Avenue, from 7am-10am (temporary, subject to redevelopment of nearby strip shops);

## 5 LONG TERM PARKING STRATEGIES (continued)

### 5.1 Gordon (continued)

- investigate possible part-time loading zone on the northern side of St Johns Avenue adjacent to the strip shops, from 7am-10am (temporary, subject to redevelopment of nearby strip shops);
- reallocation of majority of commuter parking spaces in bus interchange area to surrounding at-grade commuter car parks;
- revised bus interchange in Henry Street, incorporating extra bus capacity, bus parking (layover) and taxi zones. Bus interchange in Werona Avenue to remain largely unchanged; and
- new traffic signals at the intersection of Pacific Highway and Ravenswood Avenue will result in a minor reduction of unrestricted parking spaces on the southern side of Ravenswood Avenue near Pacific Highway.

See plan in Appendix 4.



## 5 LONG TERM PARKING STRATEGIES (continued)

### 5.2 Lindfield

#### ***Western Precincts***

Western precincts are characterised by the Balfour Centre and strip shops along Pacific Highway. Short term parking needs are catered for on-street and in Council's Woodford Lane car park. The Woodford Lane car park also caters for a small amount long stay parking typically used by commuters, otherwise the vast majority of commuter parking in Lindfield occurs on-street.

Under a future minimum redevelopment scenario, it is estimated that there will be approximately 160 surplus short term parking spaces in the western side of Lindfield. Redevelopment of 100% of the strip shops would increase the surplus to approximately 200 spaces. Given that the Woodford Lane car park currently contains 72 short stay parking spaces, there is the flexibility to reduce this amount in the future if strip shops along Pacific Highway redevelop.

Long stay retail/business employee parking would also effectively be catered for on site, with the analysis indicating a modest surplus of 6 spaces during the Thursday peak period. This would be an improvement over the existing situation, and the reduction in employee parking on-street would bring about additional parking opportunities for commuters.

Included in the future parking availability are the following:

- additional on-site retail/business parking in redeveloped strip shop sites on the western side of Pacific Highway;
- consolidation of residential sites in Bent Street and the subsequent reduction in the number of driveway crossings would result in minor additional on-street parking, the majority of which is likely to be unrestricted;
- 6 additional 1hr on-street spaces on the northern side of Balfour Street, as a result of relocation of Balfour Lane;
- transfer Woodford Lane car park underground, including parking for community uses, allocate accessible parking and utilise undersized spaces for motorcycles/motor scooters. Retain existing combination of 2hr time limit and unrestricted spaces;
- 13 new 1hr indented parallel parking spaces on western side of Woodford Lane;
- 28 new 2hr parking spaces on new road between Beaconsfield Parade and Bent Street;
- 5 new 1hr parking spaces on new road between Bent Street and Balfour Street; and
- consider formalised loading zone at the eastern end of either Beaconsfield Parade or Bent Street (temporary, subject to redevelopment of adjacent strip shops).

## 5 LONG TERM PARKING STRATEGIES (continued)

### 5.2 Lindfield (continued)

#### ***Eastern Precincts***

The main parking generating uses on the eastern side of the railway is Franklins supermarket, the strip shops on Lindfield Avenue and the commercial site at 12-16 Tryon Road (known as the 'pink building'). Tryon Road car park is the main short term parking facility, with the Havilah Lane car park catering for somewhat longer stays. A significant amount of commuter parking occurs in unrestricted portions of roads east of the railway station.

It is estimated that there would be approximately 215 surplus short stay parking spaces on the eastern side of the railway under a minimum redevelopment scenario. The redevelopment of the Minister's site on Lindfield Avenue and the retention of the Tryon Road car park would be the largest contributors to parking supply. There is expected to be modest surplus of on-site long stay parking spaces, despite the heritage site on Lindfield Avenue not expected to provide adequate long term parking on-site, and this would be expected to reduce competition between employees and commuters for long stay on-street spaces. If 100% of the strip shops were to be redeveloped in conjunction with Council-owned lands (Tryon Road car park), the surplus in short term parking spaces is expected to rise modestly higher. There would be a minor shortfall of long stay parking in the eastern precincts, although this shortfall is less than 10% of expected demand.

The substantial surplus in short term parking achieved as a result of redevelopment suggests that Council would have the option of reducing the quantity of parking in the redeveloped Tryon Road car park. It is suggested that reductions in Tryon Road car park could be considered once the Minister's site is redeveloped.

Below are the parking strategies proposed for the eastern part of Lindfield:

- additional on-site retail/business parking in Minister's site in Lindfield Avenue as a result of redevelopment;
- removal of the pedestrian activated signals in Lindfield Avenue and the installation of new signals at intersection of Lindfield Avenue and Tryon Road. This requires re-organisation of kerbside space in the area;
- on the western side of Lindfield Avenue, the Taxi Zone would be relocated immediately north of the new traffic signals, followed by the Bus Zone. The area south of the signals is required to be kept clear to accommodate a through lane (northbound) and a dedicated right turn lane into Tryon Road;
- on the eastern side of Lindfield Avenue, the area immediately north of Tryon Road is required to be kept clear to accommodate a through lane (southbound) and a dedicated left turn lane into Tryon Road. The existing bus zone on the south side of the intersection would be located immediately north of this clear zone. Locate a part time pick up and drop off area in place of the current bus zone, and reinforce with supplementary "Pick Up and Drop Off Only" plates;



## 5 LONG TERM PARKING STRATEGIES (continued)

### 5.2 Lindfield (continued)

- in Tryon Road, the existing part time pick up and drop off area would have to be removed to accommodate the approach lanes to Lindfield Avenue. One possibility is to relocate it further east, into the existing 2hr Parking zone. It is likely that the existing Loading Zone on the northern side of Tryon Road would have to be removed once the traffic signals are installed. As a replacement, a section of kerbside parking on the eastern side of Lindfield Avenue (just south of Kochia Lane) could be re-allocated as a part time Loading Zone, from 7am-10am, with 1/2hr parking thereafter;
- transfer Tryon Road car park underground, allocate accessible parking at surface and utilise undersized spaces for motorcycles/ motor scooters. Retain existing 2hr time restriction;
- retain Havilah Lane car park or incorporate into adjacent Minister's site. Retain 4hr time limit;
- consolidation of residential sites in Milray Street and the subsequent reduction in the number of driveway crossings would result in minor additional on-street parking, the majority of which is likely to be unrestricted;
- Bus Zones on Pacific Highway to remain unchanged; and
- possible commuter accessible parking space in Tryon Lane (in conjunction with new access roads between Pacific Highway and Tryon Lane).

See plan in Appendix 4.



## 5 LONG TERM PARKING STRATEGIES (continued)

### 5.3 Pymble

#### ***Southern Precincts***

The north shore railway line divides Pymble into northern and southern precincts. The main parking generating uses on the southern side are the strip shops on Pacific Highway opposite Livingstone Avenue, as well as commuters and PLC. Most of the short stay parking is located behind the shops on Pacific Highway but also on surrounding roads such as Livingstone Avenue and Everton Road.

No significant change is expected in this area, although the strip shops on Pacific Highway opposite Livingstone Avenue have the opportunity to redevelop, thereby providing their own parking on-site. This would be a significant improvement over the existing arrangements. Excluding this site, the analysis indicates satisfactory short stay parking, and a minor shortfall of long stay parking.

The above analysis includes parking changes resulting from new roads and circulation patterns, which are detailed below:

- consider full-time commuter pick up and drop off space at the north-western end of Everton Road (both sides). Reinforce with supplementary "Pick Up and Drop Off Only" plates.

#### ***Northern Precincts***

The main parking generating uses north of the railway line are the strip shops in Grandview Street, Pacific Highway and Post Office Street. Commuter parking also occurs on-street in unrestricted areas. Council owns 2 short stay car parks in the precinct – Alma Street car park and Grandview Lane car park.

Under a minimum redevelopment scenario, there would be approximately 185 surplus short term parking spaces. In terms of long stay (employee) parking, the analysis indicates a shortfall of approximately 18 spaces, reflecting a shortage of all-day parking for business uses on mixed use sites that would not redevelop. In a scenario where 100% of strip shops are developed, the long stay (employee) demand would be satisfied, with a minor surplus. Also, under this scenario, there would be approximately 200 spare short term parking spaces during the weekday peak.

Parking strategies in this precinct would be mainly in the following locations:

- additional on-site retail/business parking in redeveloped strip shop sites on Grandview Street and Pacific Highway;
- additional on-site business parking in redeveloped strip shop sites on Pacific Highway opposite Livingstone Avenue;
- re-design/expand Grandview Lane car park to create 23 additional 2hr parking spaces. Allocate accessible parking and utilise undersize spaces for motorcycles/motor scooters;



## 5 LONG TERM PARKING STRATEGIES (continued)

### 5.3 Pymble (continued)

- change layout of on-street parking on the northern side of Grandview Street (between Pacific Highway and Alma Street) to angle parking, to create up 10 additional 1/2 hr parking spaces. Utilise undersized spaces for motorcycle parking. Consider 1 accessible parking space;
- 10 additional parking spaces in new road connecting Post Office Street with Alma Street. Allocate 1hr time limit;
- existing Bus Zone in Grandview Street to remain;
- existing Taxi Zone in Grandview Street to remain, and introduce full-time commuter pick up and drop off space directly east of Taxi Zone. Reinforce with supplementary "Pick Up and Drop Off Only" plates; and
- consider possible part time Loading Zone from 7am-10am on the northern side of Grandview Street between Pacific Highway and Alma Street (temporary, subject to redevelopment of adjacent strip shops).

See plan in Appendix 4.

## 5 LONG TERM PARKING STRATEGIES (continued)

### 5.4 Roseville

#### ***Western Precincts***

Western precincts of Roseville are characterised by the strip shops along Pacific Highway, as well as the Roseville Cinema and the Roseville Memorial Club. Short term parking needs are catered for in Council's Larkin Lane car park and on-street. Anecdotally, the parking in the Larkin Lane car park is inadequate since the Roseville Cinema and the Roseville Memorial Club have no on-site parking for their patrons and the 2hr limit in the car park is generally not practical for typical duration of movie sessions. There is no formal commuter pick up and drop off point on the western side.

Analysis of the minimum development scenario indicates that the short stay parking needs of the western side of Roseville should be satisfied with the proposed measures below, with a surplus of approximately 25 spaces. Specific measures would be required to better accommodate cinema patrons during daytime peak periods, and as a suggestion, a portion of the redeveloped Larkin Lane car park could be allocated so as to permit 3hr stays with the purchase of a valid movie ticket from Roseville Cinema. Such a scheme is likely to require equipment that issues parking tickets with electronic validation.

However, there would be a shortfall in the long stay (employee) parking needs due to some sites not redeveloping, as well as minimal on-site provision for the Cinema and the Memorial Club. These users are likely to continue to compete with commuters for on-street long stay spaces.

If 100% of the strip shops are redeveloped on the western side, the surplus of short stay parking spaces is estimated to increase to 100 spaces. The shortfall in long stay (employee) is expected to be reduced significantly but not completely eliminated, again due to minimal on-site provision for the Cinema and the Memorial Club.

Parking strategies in this precinct would be mainly in the following locations:

- additional on-site retail/business parking in redeveloped strip shop sites on western side of Pacific Highway; and
- redevelopment of Larkin Lane car park over 2 levels to create approximately 36 additional spaces. Allocate accessible parking and utilise undersize spaces for motorcycles/motor scooters. Connect lower level to basement parking of redeveloped strip shops on Pacific Highway. Consider peak time commuter pick up and drop off zone on top deck of car park.

#### ***Eastern Precincts***

The Lord Street car park is the main short stay car park on the eastern side of Roseville, although there is also substantial short stay parking on Hill Street and the western end of the side roads. Short stay parking is used primarily by customers of the strip shops in Hill Street. A small commuter car park and the roads off Hill Street generally cater for long stay parking (employee and commuter), including (to some extent) parking for Roseville College.

## 5 LONG TERM PARKING STRATEGIES (continued)

### 5.4 Roseville (continued)

Under a minimum redevelopment scenario, it is estimated that there would be 138 surplus short term parking spaces, while the majority of long stay (employee) parking would be catered on-site. If 100% of the strip shops were to be redeveloped, the surplus short term parking spaces would rise to approximately 160, with the majority of long stay (employee) still catered for on-site.

As the redevelopment of the strip shops in Hill Street are subject to feasibility, consideration could be given to allow a further reduction in the parking provision for these sites. Indicatively, a parking reduction of 20% could be accommodated particularly given the estimated number of surplus short stay car parking spaces – reductions would be for short stay parking, with long-stay parking to be provided in full. Parking strategies in this precinct would be mainly in the following locations:

- additional on-site retail/business parking in redeveloped strip shop sites on Hill Street;
- transfer Lord Street car park underground, allocate accessible parking at surface and utilise undersized spaces for motorcycles/motor scooters;
- retain existing Bus Zone on western side of Hill Street (outside railway station entrance) and introduce new Bus Zone on eastern side of Hill Street, just south of Lord Street and across existing drive-through area (following redevelopment of corner site), resulting in loss of one 1/2hr parking space. Extend existing 1/2hr parking on southern side of Lord Street to (extended) Bancroft Lane, resulting in 2 additional 1/2hr parking spaces). Net increase of one 1/2hr parking space around corner site;
- taxi Zone on western side of Hill Street (outside railway station entrance) to remain as existing. Re-allocate 2 adjoining 1/2hr parking spaces as full-time commuter pick-up and drop-off zone and reinforce with supplementary "Pick Up and Drop Off Only" plates;
- re-allocate 2 spaces (currently 1/2hr parking) on eastern side of Hill Street (south of Roseville Avenue) adjoining existing Mail Zone as full-time commuter pick-up and drop-off zone, and reinforce with supplementary "Pick Up and Drop Off Only" plates;
- school pm period Bus Zone on eastern side of Hill Street (north of Roseville Avenue) to remain as existing;
- consider part time Loading Zone from 7am-10am on the southern side of Lord Street near Hill Street (temporary, subject to redevelopment of adjacent strip shops); and
- existing student pick-up and drop-off zone on the northern side of Victoria Street (outside Roseville College) to be retained, and reinforce with supplementary "Pick Up and Drop Off Only" plates.

See plan in Appendix 4.

## 5 LONG TERM PARKING STRATEGIES (continued)

### 5.5 Turramurra

#### ***Ray Street Precinct***

Land uses in the Ray Street precinct include strip shops on Pacific Highway and William Street, and the Coles Supermarket on Ray Street. Turramurra Library is located adjacent to Coles. A substantial at-grade car park at the rear of Coles and the strip shops (partly owned by Coles and partly by Council) caters for the short stay parking needs of shoppers, while parking adjacent to the railway line is unrestricted and is utilised by commuters. Some of the spaces in the car park are signposted with 4hr limits, to enable short commuter trips to CBDs such as Chatswood, North Sydney and the City.

Under a minimum redevelopment scenario, a surplus of approximately 210 short stay spaces is anticipated in the precinct, while the majority of long stay (employee) parking would be accommodated. In a maximum redevelopment scenario, similar levels of spare short stay parking spaces as the minimum scenario would be available. Theoretically, the option therefore exists to reduce the number of spaces Council eventually replaces (underground) in the Ray Street car park. Parking strategies in this precinct would be mainly in the following locations:

- additional on-site retail/business parking in redeveloped strip shop sites on northern side of Pacific Highway, between Ray Street and William Street;
- additional on-site retail/community parking in Ray Street precinct, associated with redevelopment of Coles/Ray Street car park site;
- transfer Ray Street car park underground, allocate accessible parking, 40 commuter parking spaces and utilise undersized spaces for motorcycles/motor scooters;
- new Taxi Zone on northern side of Forbes Lane, adjacent to station entrance and new town square; and
- widen Forbes Lane to permit kerbside parking on both sides, resulting in approximately 37 spaces. Allocate 30 spaces as 1/2hr parking. 3 spaces to be designated as full-time commuter pick-up and drop-off zone on the northern side of Forbes Lane, adjacent to new town square. Reinforce commuter space with supplementary "Pick Up and Drop Off Only" plates. Include 2 accessible parking spaces and 2 Taxi Zone spaces in the vicinity of railway station entrance.

#### ***Kissing Point Road Precinct***

Turramurra Plaza is currently the main land use in this precinct, supported by a car park at the rear of the site, which is mostly owned by Council. The majority of spaces in this car park are signposted with 2hr limits, for shopper convenience, with a small number of spaces reserved for the Turramurra Plaza.

Both the minimum and maximum redevelopment scenarios show modest surpluses in short stay parking, while being able to cater for the majority of the long stay (employee) parking needs on site.

## 5 LONG TERM PARKING STRATEGIES (continued)

### 5.5 Turramurra (continued)

Below are the parking strategies proposed for this precinct:

- additional on-site retail/business parking in redeveloped strip shop sites on southern side of Pacific Highway, between Kissing Point Road and Duff Street, incorporating Council's car park;
- revised parking layout on new Stonex Street (connecting Kissing Point Road with Duff Street), resulting in approximately 28 on-street spaces. Introduce 1hr time limit;
- bus Zone on eastern side of Kissing Point Road (north of Boyd Street) to remain as existing; and
- formalise part time No Parking zone on the northern side of Boyd Street as commuter pick-up and drop-off zone, and reinforce with supplementary "Pick Up and Drop Off Only" plates.

#### ***Rohini Street/Turramurra Avenue Precinct***

The dominant land use in this precinct is strip shop retail and business uses. The Turramurra Avenue/Gilroy Lane car park supports the strip shops by providing short stay parking. The bus interchange and railway station entrance is located in this precinct, and there is significant demand for commuter (long stay) parking as well as commuter drop off and pick up space.

Analysis of a minimum and maximum redevelopment scenario show substantial surpluses in short stay parking, while being able to cater for the majority of the long stay (employee) parking needs on site. The option would exist, therefore, for Council to reconsider the number of spaces in the Turramurra Avenue/Gilroy Lane car park that need to be relocated underground. Indicatively, the car park could be reduced by up to 60 spaces under the minimum development scenario, and by up to 75 spaces under a maximum development scenario.

Additional parking strategies in this precinct would be mainly in the following locations:

- additional on-site retail/business parking in redeveloped strip shop sites on northern side of Pacific Highway, between Rohini Street and Turramurra Avenue;
- additional on-site retail/business parking in redeveloped strip shop sites on Rohini Street;
- transfer Gilroy Lane car park underground, allocate accessible parking at surface and utilise undersized spaces for motorcycles/motor scooters;
- due to new traffic signals at the intersection of Pacific Highway and Turramurra Avenue, the 5 existing 1hr spaces on both sides of Turramurra Avenue (between Pacific Highway and Gilroy Lane) would have to be removed. However, due to the removal of the traffic signals at the intersection of Pacific Highway with Rohini Street, these spaces could be recovered in Rohini Street via the reduction of the extent of No Stopping restrictions near Pacific Highway;

## 5 LONG TERM PARKING STRATEGIES (continued)

### 5.5 Turramurra (continued)

- 20 new 2hr parking spaces in new road between Gilroy Road and Turramurra Avenue. Remove 5 unrestricted spaces on the western side of Turramurra Avenue to accommodate new road connection;
- revised bus interchange in Rohini Street, incorporating access from new Ray Street/Rohini Street bridge and shelters;
- relocate Taxi Zone from bus interchange to western side of Rohini Street, north of pedestrian crossing;
- full-time commuter pick-up and drop-off zone on the eastern side of Rohini Street in the vicinity of the pedestrian crossing. Reinforce with supplementary "Pick Up and Drop Off Only" plates; and
- potential to consider part time Loading Zone from 7am-10am on the eastern side of Rohini Street (temporary, subject to redevelopment of adjacent strip shops).

See plan in Appendix 4



## 5 LONG TERM PARKING STRATEGIES (continued)

### 5.6 St Ives

#### *Northern precincts*

St Ives Shopping Village and the St Ives Village Green are the main parking generators in this precinct, as well as strip shops on the northern side of Mona Vale Road. St Ives library is located at the northern edge of the Shopping Village. While there is extensive basement parking provision underneath the St Ives Shopping Village, a substantial number of spaces are also provided on the surface, partly on Shopping Village land and partly on Council land (including Village Green Parade). Significant parking demand in this area occurs daily, and is compounded on Saturdays when sporting activities on the Village Green coincide with peak shopper times.

Redevelopment of the St Ives Shopping Village would result in additional on-site parking provision (mostly underground), and a more logical and user friendly car park layout. Under a minimum redevelopment scenario of the northern precincts, it is anticipated there would be sufficient spare short-stay capacity during peak weekday times to cater for the demand.

However it is likely that the peak parking demand would arise on Saturdays when softball in the adjacent Village Green and William Cowan Oval overlap with the peak shopping period (typically 11am-12pm). Given the match times are generally spaced 2hrs apart, future strategies would be designed to permit players and spectators to attend, but also to encourage turnover of spaces at the 2 hour interval, accepting that a small proportion of players or visitors would stay longer than 1 match. The minimum redevelopment scenario was also analysed under these conditions and it is considered that while it is unlikely that there will be significant spare capacity, the short stay parking available in the vicinity of the Village Green and William Cowan Oval should be adequate for the demand.

To achieve satisfactory parking capacity and utilisation/turnover, the following parking provision and strategies are proposed for the northern precincts:

- additional on-site retail/business parking in redeveloped St Ives Shopping Village site, incorporating Council's car park;
- additional on-site retail/business parking in redeveloped strip shop sites on northern side of Mona Vale Road between Denley Lane and Memorial Avenue;
- redesign Village Green Parade to include 24 parallel spaces on northern side of roadway. Apply 1hr time limit. Restrictions to apply weekdays and to 4pm on Saturdays;
- 38 at-grade car parking spaces to be retained and redesigned at the eastern end of Village Green Parade. Allocate 21 spaces on southern side as 1hr parking and allocate 17 spaces on northern side as 2hr spaces. Restrictions to apply weekdays and to 4pm on Saturdays;
- 120 at-grade car parking spaces to be retained and redesigned at the western end of Village Green Parade, adjacent to Cowan Road. Alternatively, relocate parking underground as part of



## 5 LONG TERM PARKING STRATEGIES (continued)

### 5.6 St Ives (continued)

redevelopment of the site. Apply 2hr limit and allocate accessible parking spaces. Restrictions to apply weekdays and to 4pm on Saturdays;

- additional 43 short term spaces on Memorial Avenue including new 90 degree indented spaces Village Green frontage;
- additional 34 short terms spaces on Cowan Road including new 90 degree indented spaces on William Cowan Oval frontage;
- due to new traffic signals on Mona Vale Road and new Shopping Village entrance, existing 2hr parking on the northern side of Mona Vale Road (between Cowan Rd and Denley Lane will be removed. Also, unrestricted parking on the southern side of Mona Vale Road (opposite new Shopping Village entrance) will be removed. Retain existing 1hr parking on northern side of Mona Vale Road (east of Denley Lane), although this may be impacted by future Clearway restrictions imposed by RTA;
- new Bus Zones to be implemented on both sides of Mona Vale Road adjacent to new Shopping Village entrance;
- existing Bus Zones on Mona Vale Road east of Memorial Avenue/ Rosedale Road to be retained;
- redesign existing Bus Stop on western side of Memorial Avenue with improved bus accommodation, shelters and information;
- introduce Taxi Zone in redesigned section of Denley Lane opposite new town square;
- introduce 2hr parking restrictions on both sides of Memorial Avenue, generally between Mona Vale Road and Killeaton Street, and to the eastern side of Cowan Road generally between Village Green Parade and Kanoona Avenue. Restrictions to apply weekdays and to 4pm on Saturdays; and
- introduce 2hr parking restrictions to the eastern side of Cowan Road, from Village Green Parade and extending to Council's car park frontage. Restrictions to apply weekdays and to 4pm on Saturdays.

#### ***Southern precincts***

The southern precincts generally consist of strip shops on the southern side of Mona Vale Road, and mostly concentrated between Rosedale Road and Stanley Street. The Porters Lane car park and the Council car park on Mona Vale Road opposite Stanley Street generally service the short-stay parking needs of the strip shops between Rosedale Road and Stanley Street. Porters Lane car park is also the location of Council's YMCA facility and the former headmaster's cottage (currently operating as a café). Further to the northeast is the Masada College and Corpus Christi School, although parking associated with the schools does not directly affect the commercial and retail core of the St Ives Town Centre.

In a minimum redevelopment scenario, there is expected to be net surplus of short and long stay parking spaces. This would be despite a small reduction in car spaces in the Porters Lane car park to allow for



## 5 LONG TERM PARKING STRATEGIES (continued)

### 5.6 St Ives (continued)

their conversion to a public square.

While the surplus in short stay parking may warrant reconsideration of the need for the car park on Mona Vale Road opposite Stanley Street, there is merit in retaining it particularly for the convenience of northbound motorists on Mona Vale Road that wish to access the retail/business uses in this precinct.

Therefore, the parking strategies proposed for this precinct include:

- additional on-site retail/business parking in redeveloped strip shop sites on the southern side of Mona Vale Road, west of Stanley Street;
- additional on-site retail/business parking in redeveloped strip shop sites on the eastern side of Mona Vale Road, north of Shinfield Avenue;
- redesign/modify Porters Lane car park to accommodate approximately 50 spaces. Allocate accessible parking spaces and retain 2hr time limit;
- retain Council car park on Mona Vale Road, opposite Stanley Street;
- widen Stanley Lane to accommodate 16 kerbside parking spaces. Apply 1hr limit;
- retain existing 1hr parking on southern side of Mona Vale Road (west of Stanley Street), although this may also be impacted by future Clearway restrictions imposed by RTA; and
- introduce new Bus Zone on the north-eastern side of Stanley Street, south of Gillott Way.

See plan in Appendix 4.

## 5 LONG TERM PARKING STRATEGIES (continued)

### 5.7 Wahroonga

As significant redevelopment of the Wahroonga shopping village is not expected (particularly to the extent of the other town centres), this would not result in additional on-site parking being provided. However, parking demand is unlikely to change significantly in the short to medium term.

Arup suggests that the following measures should not be introduced in isolation, and that it is essential that modifications to parking time restrictions be accompanied by increased levels of parking enforcement. The measures are summarised below:

- reduce Parking Time Restrictions in Main Car Park and Village Streets. It is recommended that the current parking restrictions be modified so that the 4 hour bays in the main car park would be reduced to 2 hours, and time restrictions applied to Woodville Avenue;
- extend Parking Time Restrictions to Other Streets. It is recommended that the current parking restrictions be modified, where most of the changes involve converting unrestricted parking areas within short walking distance of the village to 2 hour parking, including sections of Warwilla Avenue and Neringah Avenue (south);
- introduce 3hr parking to sections of unrestricted parking around Wahroonga Park; and
- increased/more effective parking enforcement. It is recommended that Council investigate the provision of more rangers for parking enforcement and also investigate electronic parking enforcement.

Specific details of the measures can be found in Section 4 of the *Wahroonga Traffic and Parking Study*.



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## **6 Strategies To Manage Temporary Impacts Due To Reconstruction Of Parking Facilities**

- 6.1 General
- 6.2 Gordon Wade Lane Car Park
- 6.3 Gordon Moree Street Car Park
- 6.4 Lindfield Kochia Lane Car Park
- 6.5 Lindfield Woodford Lane Car Park
- 6.6 Pymble Grandview Lane Car Park
- 6.7 Roseville Larkin Lane Car Park
- 6.8 Roseville Lord Street Car Park
- 6.9 St Ives Shopping Village/Village Green Parade Car Park
- 6.10 Turrumurra Ray Street/William Street Car Park
- 6.11 Turrumurra Plaza Car Park
- 6.12 Turrumurra Gilroy Lane Car Park
- 6.13 Wahroonga Coonanbarra Road Car Park



## 6.1 GENERAL

During the public hearings into the reclassification of Council lands in 2007, the Chairperson recommended that in relation to public parking for the Turrumurra, Pymble and Lindfield centres

*...the manner in which any public car parking which is to be eliminated due to restructuring the centre, is to be replaced and managed to compensate for any parking which may be lost by the reclassification process.\**

During the Parking Management public workshops held in February 2008, participants raised this as a general concern. Therefore, strategies are proposed for the substantial car parks in all 6 centres, where those car parks are affected by the reclassification process and may result in significant parking impacts during their reconstruction.

Due to procedural issues associated with the hearings in 2007, the public hearings into the reclassification of Council lands were undertaken again in July 2008. It recommended that Council proceed with the reclassification of the sites, subject to the following:

- having regard to submissions presented to the public hearing, Council satisfy itself on the legal and procedural appropriateness of proceeding with the reclassifications under the exhibited draft Town Centres LEP;
- to address concerns raised in submissions to the public hearing in relation to Council's dealings with public land in the town centres Council prepare, place on public exhibition and adopt a policy for sale, long term lease or other transactions relating to public land, not covered by the Ku-ring-gai Planning Agreement Policy (2008);
- council enter into a dialogue with appropriate management committees and user groups where community facilities currently located on land proposed for reclassification will be affected by future land dealings to ensure that the community is involved in and consulted about the future planning for these community facilities; and
- council write to all persons and organisations that made a submission to the public hearing thanking them for their input and advising them of Council's decision.

Although the recommendation above does not specifically refer to the recommendations from the hearings in 2007, it is considered to be relevant and therefore requires addressing.

To this end, strategies are proposed to manage the way parking is replaced. In most cases, the temporary loss of car parking spaces in

\* Winnacott, LS 2008, "Report to Ku-ring-gai Council on Public Hearing into Reclassification of Community Land as Operational Land".

## 6.1 GENERAL (continued)

a large car park would impact on the availability of short term spaces for the surrounding shops/businesses. Due to the temporary nature of the impact, the strategy proposes reallocation of existing unrestricted parking (in close proximity to the town centre) to short term parking, to service the needs of shoppers and visitors. Where reallocation is undertaken, it is recommended that the time restrictions reflect those in the car park they replace. Typically, this would be 2hr parking from 8.30am-6pm (Mon-Fri) and 8.30am-12.30pm (Sat), but the Saturday restriction could be relaxed in certain areas (subject to demand).

Consideration is given to the parking impacts of redevelopment of car parks as standalone projects. If this would result in unsatisfactory parking impacts, redevelopment in conjunction with a major site is considered.

Temporary loss of unrestricted parking around town centres would impact on commuters who park around railway stations to catch trains, employees who drive to the town centre but have no on-site parking at their workplace, and other long term users. Some of the employee demand may be reduced if car park redevelopment is co-ordinated with a substantial retail/commercial site located nearby. With the temporary changes, however, it is likely that commuters and employees would be required to temporarily park further away from the town centres than they would otherwise be able to. This would be an opportunity for these users to consider alternative modes for travel to the town centres, such as bus, bicycle, car pooling or walking.

## 6.2 GORDON WADE LANE CAR PARK



Figure 6.2-1:  
Gordon Wade Lane Car Park.

### ***Strategy to cater for parking needs during redevelopment of the Wade Lane car park (site G9)***

The Wade Lane car park contains approximately 374 spaces, and it generally services the parking needs of the retail and commercial areas on the eastern side of the Pacific Highway. The typical peak weekday occupancy rate of the car park is 93%. These sites currently have limited on-site parking, and those that do have spaces tend to use them for employee (long stay) parking. Visitors to Gordon Library and even the Council Chambers are also likely to be users of the car park.

### ***Complete redevelopment of the Wade Lane car park in isolation***

#### **Impact to parking**

Redevelopment of the Wade Lane car park site would result in a loss of 374 short term car parking spaces. The limited on-site parking of the surrounding strip shops and library would not be able to cater for the demand.

The demand generated by the retail commercial land uses on the eastern side of Pacific Highway is estimated to be in the order of 590 spaces, which includes approximately 390 short term spaces, for shoppers/visitors.

It is unlikely that the number of spaces currently in the Wade Lane car park could be temporarily allocated elsewhere on the eastern side of Gordon. There would also be substantial impacts to commuter parking if this was to be undertaken. There are also connectivity issues related



## 6.2 GORDON WADE LANE CAR PARK (continued)

to the construction of the underground parking, as the draft Ku-ring-gai Town Centres DCP indicates the new Wade Lane underground car park being connected to the underground parking of the sites on the eastern side of Pacific Highway, under the existing Wade Lane roadway. Clearly, if the car park was to be redeveloped in isolation, the continuity and connection could be more difficult to achieve. Multiple disruptions to access along Wade Lane are also likely to occur.

As a result, it is not recommended that this car park be redeveloped in isolation.

### ***Coordinated redevelopment of the Wade Lane site***

#### **Impact to parking**

If the redevelopment of the car park was to be coordinated with redevelopment of an amalgamated site on the eastern side of Pacific Highway, the impacts resulting from the loss of the car park would be reduced, and would facilitate the connection of the car parks under Wade Lane. Some strip shops on the eastern side of Pacific Highway are unlikely to redevelop in the medium-long term, which will result in a reduced but ongoing demand for parking in the area.

#### **Strategy**

Assuming the sites likely to be developed on the eastern side of Pacific Highway are those along Pacific Highway between St Johns Avenue and Gordon Arcade, these should be co-ordinated with the redevelopment of the car park. The remaining sites have a total of approximately 4,930sqm of retail floor space and 3,900sqm of commercial floor space. In terms of parking spaces, a total of up to 305 spaces would be required (145 short term and 160 long term spaces) to service these areas.

As is the case now, Council's public parking areas generally do not cater for long term demand (which is typically met on-site or in surrounding roads). Therefore, the strategies below will focus on the short term parking needs.

During redevelopment of the above sites, it is estimated that the following peak period short term parking spaces would be available:

- 20 spaces in St Johns Avenue (east);
- 3 spaces in Henry Street (south of Churchill Lane);
- 18 spaces on the eastern side of Pacific Highway (between Park Avenue and St Johns Avenue);
- 5 spaces on the eastern side of Pacific Highway (south of St Johns Avenue); and
- 10 spaces spare capacity in the Pearson Street car park during the peak period of the Gordon town centre, which could be utilised for customer parking.



## 6.2 GORDON WADE LANE CAR PARK (continued)

This totals 56 spaces, which is some 89 spaces short of the needs of the surrounding retail/commercial land uses.

In addition to the above, it is considered that the following temporary measures could be implemented to increase parking availability on the eastern side of Gordon. However, given the presence of the North Shore railway line and the distance of some of these spaces to the commercial/retail areas, not all spaces may be attractive for customer parking. There would also be temporary impacts to commuters. These measures include:

- 11 spaces on the western side of Henry Street (opposite the at-grade commuter car park, opposite railway underpass) be reallocated from unrestricted parking to 2hr parking;
- 14 spaces in Werona Avenue (north of Khartoum Avenue) be reallocated from unrestricted/4hr parking to 2hr parking;
- up to 43 spaces in Robert Street reallocated from unrestricted parking to 2hr parking (as Robert Street has relatively good access to the Railway concourse across the North Shore railway line);
- 3 spaces on the southern side of Khartoum Avenue (between Werona Avenue and Khartoum Lane) be reallocated from unrestricted parking to 2hr parking;
- up to 11 spaces in Dumaresq Street reallocated from unrestricted parking to 2hr parking; and
- 6 spaces on the southern side of Moree Street reallocated from unrestricted parking to 2hr parking.

These measures would result in additional 88 short term parking spaces on the eastern side of the Pacific Highway.

The above also excludes sites which have a small amount of on-site customer parking (eg BWS and Westpac sites), which would further assist in addressing the demand. It is also likely that any spare capacity on the western side of Pacific Highway (eg Moree Street car park and possibly the Gordon Centre car park) would also be utilised by visitors to the eastern precincts.

By implementing these measures during construction of the Wade Lane car park site and redevelopment of part of the sites on the eastern side of Pacific Highway, it is considered that the interim parking needs of the eastern precincts of Gordon can be met.

See plan in Appendix 5 for details

### 6.3 GORDON MOREE STREET CAR PARK

The Moree Street car park contains 25 spaces, and it generally contributes to the parking needs of the retail and commercial areas on the western side of the Pacific Highway between St Johns Avenue and Moree Street. The typical peak weekday occupancy rate of the car park is 72% or 18 spaces. Redevelopment of this car park is unlikely to have an impact on parking needs, with spare capacity on the northern side of St Johns Avenue. Impacts would be further reduced if redevelopment is co-ordinated with the redevelopment of the nearby strip shops on the western side of the Pacific Highway between St Johns Avenue and Moree Street. No specific strategies are therefore proposed if this car park is redeveloped in isolation.

## 6.4 LINDFIELD KOCHIA LANE CAR PARK



Figure 6.4-1:  
Lindfield Kochia Lane Car Park.

### ***Strategy to cater for parking needs during redevelopment of the Tryon Road/Kochia Lane car park***

The Tryon Road/Kochia Lane car park contains approximately 138 spaces, and generally services the parking needs of the retail and commercial areas on the eastern side of the Pacific Highway. Typical weekday peak occupancy of the car park is 69%. Some of the retail and commercial sites on the eastern side of the Pacific Highway currently have limited on-site parking and tend to use them for employee (long stay) parking. Parking is available under the commercial development at 12-18 Tryon Road, although it is quarantined from public use by security gates. The Franklins supermarket site has a parking area under the building which is made available to customers and staff.

### ***Complete redevelopment of the Tryon Road/Kochia Lane car park in isolation***

Given the Lindfield Town Square proposal, and proposed underground car park connectivity to the adjoining site at 12-18 Tryon Road, it is likely that this car park would be redeveloped simultaneously with the adjoining site at 12-18 Tryon Road.

### **Impact to parking**

Redevelopment of the Tryon Road/Kochia Lane car park site would result in a loss of 138 short term car parking spaces. The limited on-site parking within the surrounding retail/commercial land uses alone would not be able to cater for the demand. The redevelopment in conjunction with the adjoining site at 12-18 Tryon Road would not offer short stay

## 6.4 LINDFIELD KOCHIA LANE CAR PARK (continued)

parking relief, as the majority of the site accommodates business (long stay/employee) parking, which is not currently catered for in the Tryon Road/Kochia Lane car park. Therefore the short-stay demand would have to be taken up on-street.

The demand generated by the retail and commercial land uses on the eastern side of Pacific Highway is estimated to be in the order of 384 spaces, which includes approximately 196 short term spaces.

### Strategy

As is the case now, Council's public parking areas generally do not cater for long term demand (which is typically met on-site or in surrounding roads). Therefore, the strategies below will focus on the short term parking needs to cater for the demand for 196 spaces.

During redevelopment of the above sites, it is estimated that the following peak period short term parking spaces would be available:

- 53 spaces in Lindfield Avenue;
- 41 spaces in Tryon Road;
- 14 spaces in Milray Street; and
- 25 spaces in the Havilah Lane car park (Council car park).

This totals 133 spaces, which would result in a temporary shortfall of 63 spaces.

Temporary additional parking could be created through the following measures:

- 19 spaces in Tryon Road reallocated from unrestricted parking to short term parking;
- 13 spaces on the southern side of Havilah Road reallocated from unrestricted parking to short term parking;
- 6 spaces on the eastern side of Lindfield Avenue (between Tryon Lane and Russell Avenue) reallocated from unrestricted parking to short term parking;
- 5 spaces on the eastern side of Milray Street (between Tryon Road and Kochia Lane) reallocated from unrestricted parking to short term parking;
- 5 spaces on the western side of Milray Street, outside 2-4 Tryon Road (2D3 site undergoing redevelopment); and
- 13 spaces on the northern side of Havilah Road (between Lindfield Avenue to opposite Havilah Lane) reallocated from unrestricted parking to short term parking.



## 6.4 LINDFIELD KOCHIA LANE CAR PARK (continued)

The additional 61 spaces above and the 133 existing spaces would address the demand for 196 short term spaces. However, there would be impacts to commuters and longer term parking needs for the area, therefore consideration will also be given to coordinating redevelopment of the car park site with other retail sites on the eastern side of Pacific Highway.

See plan in Appendix 5 for details of this option

### ***Coordinated redevelopment of the Tryon Road/Kochia Lane car park***

#### **Impact to parking**

In order to minimise the impact on parking in the area, the redevelopment of the Tryon Road/Kochia Lane car park could be coordinated with the redevelopment of a nearby retail site. Within the area around the car park, the redevelopment of the Minister's site (23-43 Lindfield Avenue, 2 Kochia Lane and Havilah Lane car park) offers the best opportunity to coordinate redevelopment. It is also the site in close proximity to the car park most likely to redevelop.

#### **Strategy**

The redevelopment of the Minister's site would temporarily remove demand for 92 short term parking spaces or almost 50% of the existing short term parking demand for the eastern side of Pacific Highway. A total of approximately 104 spaces would be required to service the remaining retail/commercial short term parking need.

During redevelopment of the car park and the Minister's site, it is estimated that the following peak period short term parking spaces would be available:

- 53 spaces in Lindfield Avenue;
- 41 spaces in Tryon Road; and
- 14 spaces in Milray Street.

This totals 108 spaces, which would effectively meet the short term parking needs of the remaining retail/commercial uses, and would not require reallocation of existing unrestricted spaces to short term parking spaces. However, the flexibility would exist to consider temporarily reallocating unrestricted spaces in Tryon Road and the southern end of Milray Street to short term parking, should the need arise. However, given the current peak occupancy rate of the existing car park (69%), consideration could be given to reducing the amount of unrestricted parking that is proposed to be reallocated.

Therefore, the impact of the redevelopment of the Tryon Road/Kochia Lane car park would be significantly reduced if coordinated with the redevelopment of the Minister's site.

See plan in Appendix 5 for details on this option.

## 6.5 LINDFIELD WOODFORD LANE CAR PARK



Figure 6.5-1:  
Lindfield Woodford Lane Car Park.

### ***Strategy to cater for parking needs during redevelopment of the Woodford Lane car park***

The Woodford Lane car park contains 72 short term parking spaces and 40 unrestricted parking spaces. Typical weekday peak occupancy of the short term parking spaces is 54% with the unrestricted spaces 100% occupied. The unrestricted parking spaces are regularly used by commuters on weekdays. The car park generally services the short term parking needs of the retail and commercial areas on the western side of the Pacific Highway. Some of these sites currently have limited on-site parking and tend to use them for employee (long stay) parking. 2hr parking is available under and adjoining the Coles site, off Balfour Street for the customers of Coles and the Balfour Centre. Some parking in the Coles at-grade car park is reserved for staff.

### ***Complete redevelopment of the Woodford Lane car park in isolation***

#### **Impact to parking**

Redevelopment of the Woodford Lane car park site would result in a loss of 72 short term parking spaces and 40 unrestricted parking spaces. The limited on-site parking within the surrounding retail/commercial land uses alone would not be able to cater for the demand. Therefore the demand would have to be taken up on-street.

The short term parking demand generated by the retail and commercial land uses on the eastern side of Pacific Highway is estimated to be in the order of 311 spaces.



## 6.5 LINDFIELD WOODFORD LANE CAR PARK (continued)

Only the short term parking needs will initially be considered, although strategies to temporarily accommodate the 40 long term spaces currently on the site will be explored.

### **Strategy**

As is the case now, Council's public parking areas generally do not cater for long term demand (which is typically met on-site or in surrounding roads). Therefore, the strategies below will focus on the short term parking needs to cater for the demand for 311 spaces.

During redevelopment of the car park site, it is estimated that the following peak period short term parking spaces would be available:

- 67 spaces on Pacific Highway;
- 2 spaces in Tryon Place;
- 9 spaces in Beaconsfield Parade (near intersection with Pacific Highway);
- 9 spaces in Bent Street (near intersection with Pacific Highway);
- 8 spaces in Balfour Street (near intersection with Pacific Highway); and
- 113 spaces in the car park off Balfour Lane, opposite Coles.

This totals 208 spaces, resulting in a shortfall of some 103 short term parking spaces. The only areas reasonably able to accommodate the shortfall would be on-street, in areas closest to Pacific Highway. This would require temporary reallocation of unrestricted parking to short term parking at the eastern ends of Balfour Street, Bent Street and Beaconsfield Parade. There would be impacts to commuters, and this would be compounded by the temporary loss of the 40 unrestricted spaces currently in the car park site. Therefore, this option is the least desirable.

### ***Coordinated redevelopment of the Woodford Lane car park***

#### **Impact to parking**

In order to minimise the impact on parking in the area, the redevelopment of the Woodford Lane car park could be coordinated with the redevelopment of a nearby retail site. Within the area around the car park, the redevelopment of southern half of the western side of Pacific Highway between Bent Street and Beaconsfield Parade (302-326 Pacific Highway) offers a good opportunity to coordinate redevelopment. It is also the site in close proximity to the car park most likely to redevelop.

#### **Strategy**

Coordinated redevelopment of 302-326 Pacific Highway would reduce the short term demand for parking in the area by 69 spaces. Therefore, the short term parking shortfall would effectively be approximately 34 spaces. Demand for longer term (employee) parking could also be temporarily reduced where it was not previously accommodated on site.



## 6.5 LINDFIELD WOODFORD LANE CAR PARK (continued)

In order to cater for the 34 space shortfall, the following temporary measures are proposed:

- 6 spaces on the southern side of Beaconsfield Parade (between Pacific Highway and Drivers Way) reallocated from unrestricted parking to short term parking;
- 10 spaces on the eastern side of Pacific Highway (south of railway underpass) reallocated from unrestricted parking to short term parking. Note these would be available after 10am due to Clearway restrictions on Pacific Highway; and
- 18 spaces reallocated from unrestricted parking to short term parking, distributed between Bent Street and Balfour Street. This is likely to occupy 4-5 car spaces on each side of these roads.

The above measures are likely to result in reduced long term parking impacts than if the car park was developed in isolation. Given the current peak occupancy rates of the existing car park (54%), consideration could be given to reducing the amount of unrestricted parking that is proposed to be reallocated.

To accommodate the 40 unrestricted spaces currently on the site, it would be desirable to prioritise construction of the new road to the south-west of the site. Within this new road, it is possible to accommodate at least 15 on-street parking spaces, and if extended to connect to Bent Street, could accommodate up to 28 spaces. This would address a reasonable portion of the 40 spaces, although competition with commuters may limit employee parking opportunities.

See plan in Appendix 5 for details on this option.



## 6.6 PYMBLE GRANDVIEW LANE CAR PARK

The Grandview Lane car park accommodates 49 short term car parking spaces. Utilisation surveys in Pymble indicate that in the northern precincts, short term parking is 57% utilised during the weekday peak period. This results in approximately 75 short term parking spaces in the area being available during the peak period. Therefore, if the Grandview Lane car park is redeveloped, it is considered that 49 spaces would be transferred to unutilised on-street short term parking. Similarly, demand from the Alma Street car park (14 spaces) could be transferred to unutilised on-street short term parking, should the car park be redeveloped. Therefore, no strategies would be necessary in the Pymble Town Centre.

## 6.7 ROSEVILLE LARKIN LANE CAR PARK



Figure 6.7-1:  
Roseville Larkin Lane car park.

### ***Strategy to cater for parking needs during redevelopment of the Larkin Lane car park***

The Larkin Lane car park contains 44 short term parking spaces, with a typical weekday peak occupancy of 86%. It generally services the short term parking needs of the retail and commercial areas on the western side of the North Shore railway line. Some of these sites currently have limited on-site parking and tend to use them for employee (long stay) parking. The Roseville Cinema site and the Roseville Memorial Club site effectively have no on-site parking, and therefore rely on the car park as one of the main parking areas for their customers. The 2hr restriction in the majority of the car park is not particularly suited to daytime patrons of the Roseville Cinema, where screening times can exceed 2 hours.

### ***Complete redevelopment of the Larkin Lane car park in isolation***

#### **Impact to parking**

Redevelopment of the Larkin Lane car park site would result in a loss of 44 short term parking spaces. The limited on-site parking within the surrounding retail/commercial land uses alone would not be able to cater for the demand. Therefore the demand would have to be taken up on-street.

The short term parking demand generated by the retail and commercial land uses on the western side of the North Shore railway line is estimated to be in the order of 120 spaces during the weekday peak hour (which occurs at 10am and 12pm).



## 6.7 ROSEVILLE LARKIN LANE CAR PARK (continued)

### Strategy

During redevelopment of the car park site, it is estimated that the following peak period short term parking spaces would be available:

- 31 spaces on Pacific Highway (available either after 10am or before 3pm);
- 7 spaces in Maclaurin Parade; and
- 10 spaces in Larkin Street.

This totals 48 spaces, which is 72 spaces short of the 120 spaces required.

The following temporary measures could be implemented in an attempt to address the shortfall:

- 25 spaces on the eastern side of Pacific Highway (south of Clanville Road) reallocated to short term parking (subject to RTA approval, and available after 10am Clearway conditions end);
- 7 spaces on the northern side of Maclaurin Parade reallocated to short term parking; and
- 14 spaces on the eastern side of Larkin Street reallocated to short term parking.

These 46 additional spaces would be the effective limit of temporary parking reallocation, as even the spaces in Maclaurin Parade and Larkin Street mentioned above would not be that attractive and convenient due to the steep grade of Maclaurin Parade. Furthermore, they would not effectively address the shortfall. It is noted though, that of the 92 short term spaces currently available on the western side of the North Shore railway line, the peak utilisation was 79 spaces, with the peak utilisation of the Larkin Lane car park was up to 38 spaces (out of 44).

Given the above, consideration should be given into coordinating the redevelopment of the car park with redevelopment of a nearby retail/commercial site.

### ***Coordinated redevelopment of the Larkin Lane car park***

#### **Impact to parking**

In order to minimise the impact on parking in the area, the redevelopment of the Larkin Lane car park could be coordinated with the redevelopment of a nearby retail site. Within the area around the car park, the redevelopment between The Rifleway and 80 Pacific Highway (80-96 Pacific Highway) offers the best opportunity to coordinate redevelopment. It is also the site in close proximity to the car park most likely to redevelop.

#### **Strategy**

Coordinated redevelopment of 80-96 Pacific Highway would reduce the short term demand for parking in the area by approximately 35 spaces to 85 spaces. Given there are currently 48 short term parking spaces in the

## 6.7 ROSEVILLE LARKIN LANE CAR PARK (continued)

area, the short term parking shortfall would be approximately 37 spaces. Demand for longer term (employee) parking could also be temporarily reduced where it was not previously accommodated on site.

In order to cater for the 37 space shortfall, the following temporary measures are proposed:

- 25 spaces on the eastern side of Pacific Highway (south of Clanville Road) reallocated to short term parking (subject to RTA approval, available after 10am); and
- 7 spaces on the northern side of Maclaurin Parade reallocated to short term parking.

These measures reduce the short term parking shortfall to 5 spaces. Further reallocations could be considered subject to suitability.

See plan in Appendix 5 for details on this option.

## 6.8 ROSEVILLE LORD STREET CAR PARK



Figure 6.8-1:  
Roseville Lord Street Car Park.

### ***Strategy to cater for parking needs during redevelopment of the Lord Street car park***

The Lord Street car park contains 58 short term parking spaces, with a typical weekday peak occupancy of 100%. It generally services the short term parking needs of the retail and commercial areas on the eastern side of the North Shore railway line. Some of these sites currently have limited on-site parking and tend to use them for employee (long stay) parking.

### ***Complete redevelopment of the Lord Street car park in isolation***

#### **Impact to parking**

Redevelopment of the Lord Street car park site would result in a loss of 58 short term parking spaces. The limited on-site parking within the surrounding retail/commercial land uses alone would not be able to cater for the demand. Therefore the demand would have to be taken up on-street.

The short term parking demand generated by the retail and commercial land uses on the eastern side of the North Shore railway line is estimated to be in the order of 106 spaces during the weekday peak hour (which occurs at 10am and 12pm).

## 6.8 ROSEVILLE LORD STREET CAR PARK (continued)

### Strategy

During redevelopment of the car park site, it is estimated that the following peak period short term parking spaces would be available:

- 90 spaces in Hill Street;
- 6 spaces at the western end of Roseville Avenue; and
- 11 spaces at the western end of Lord Street.

This totals 107 spaces, which would meet the requirements for the eastern side of Roseville. Further inspection of the short term on-street parking surveys shows that the utilisation is approximately 76%, and indicates that there is spare capacity on-street. Theoretically, the reconstruction of the Lord Street car park should not impact on the short term parking needs of the eastern side of Roseville.

Should the need for additional short term parking arise, it is possible to temporarily accommodate additional 45 short term parking spaces by considering the following measures:

- 21 spaces on the western side of Hill Street (adjacent to commuter car park) reallocated to short term parking;
- 12 spaces distributed equally between Roseville Avenue, and Bancroft Avenue (at their western ends) reallocated to short term parking. This would result in an extension of the time-restricted parking on each side of the above roads by 3 spaces, or approximately 20m; and
- 12 spaces at the western end of Lord Street reallocated to short term parking. This would result in an extension of the time-restricted parking on each side of Lord Street by 6 spaces, or approximately 40m.

These additional spaces would lie in close proximity to the retail core on the eastern side of Roseville, and could be implemented if and when required. Co-ordination with a development site on Hill Street would reduce the impact of the temporary loss of the car park.

See plan in Appendix 5 for details on this option.



## 6.9 ST IVES SHOPPING VILLAGE/VILLAGE GREEN PARADE CAR PARK



Figure 6.9-1:  
St Ives Shopping Village/Village Green Parade car park.

### ***Strategy to cater for St Ives Shopping Village redevelopment***

Strategies are based on the following redevelopment scenarios:

#### ***Complete redevelopment of St Ives Shopping Village***

##### **Impact to parking**

This is the scenario considered to have the least parking impact.

Complete redevelopment of the Shopping Village will temporarily make the basement parking levels (A, B1, B2 and C) under the Village unavailable. However, redevelopment of the entire site and the nearby strip shops on Mona Vale Road (176-188) will also effectively cancel the parking demand currently being generated by the Village.

The remainder of the commercial/retail land use in the precinct will be the sites between the new Denley Lane and Durham Avenue (1,537sqm retail and 853sqm commercial). The parking needs for these floor areas would be 116 spaces, of which 66 spaces would be short term parking (based on the parking rates in the draft DCP). It is assumed that the commercial development at the site located south-west from the Shopping Village is unlikely to redevelop and therefore will still make use of the 37 spaces on site.

##### **Strategy**

During redevelopment, the following parking would still be available in the precinct:

- 67 spaces, near the Memorial Ave entrance to the car park;



## 6.9 ST IVES SHOPPING VILLAGE/VILLAGE GREEN PARADE CAR PARK (continued)

- 110 spaces, in the Council car park at the intersection of Cowan Road and Village Green Pde; and
- 40 spaces (approx) on-site, within sites between the new Denley Lane and Durham Avenue (these would be unavailable if these sites are redeveloped at the same time as the Shopping Village).

These 217 spaces would be more than sufficient to service the needs of the remaining retail/commercial land uses in the precinct.

Considering the users of the Village Green on Saturdays, there would be some 174 spaces on street (Cowan Road, Kanoona Avenue, Collins Road, Memorial Avenue) to cater for the demand, as currently occurs. Conflicts between the needs of Village Green users and retail/commercial users are likely to be minimal due to the absence of the Shopping Village during its redevelopment.

### ***Staged redevelopment of St Ives Shopping Village***

This scenario requires management of existing sections of parking within the St Ives Shopping Village during staged redevelopment.

#### **Impact to parking**

Impacts to parking would depend on staging patterns. A scenario will be considered where the western half of the centre (from a line approximately extending north from the unnamed lane between the St Ives Shopping Village and the at-grade car park) will remain open for trading. The eastern portion could therefore redevelop independently of the western half. Under this scenario, it is assumed that a supermarket will still operate within this area.

#### **Strategy**

Under this scenario, parking levels B1, B2 and C (approximately 400 spaces) would still be available, in addition to the 177 spaces in the at-grade car parks near the Memorial Avenue and Cowan Road entrances. The trading space in the western portion of the centre is estimated to be some 11,000sqm gross floor area, which could require up to 650 car spaces (depending on retail mix). A shortfall of some 73 spaces would therefore result. This could be addressed by maintaining a row of angle parking in Village Green Parade, and possibly relocating it to the northern side. Some 70 spaces could be made available from this measure, which would effectively address the needs of the parking Village. As with the full redevelopment scenario, additional parking would be available on-street in Cowan Road and Memorial Avenue (and to a lesser extent, in Kanoona Avenue and Collins Road).

Therefore, if and when an application for staged development is received, the application could be designed and staged such that enough parking is retained on-site to support any retail/commercial activities still trading while other parts of the centre undergo reconstruction. This would also be included in a construction and traffic management plan for the development.

See plan in Appendix 5 for details on this option.

## 6.10 TURRAMURRA RAY STREET/WILLIAM STREET CAR PARK



Figure 6.10-1:  
Turramurra Ray Street/William Street car park.

### ***Strategy to cater for parking needs during redevelopment of the Town Square/Coles site (site A3)***

This site may develop in its entirety, although the possibility exists of a staged redevelopment, should the existing supermarket wish to continue trading. Therefore, parking management strategies are based on the full development scenario and a staged redevelopment. The typical peak weekday occupancy rate of the William Street/Ray Street car park is 73%.

### ***Complete redevelopment of Town Square/Coles site***

#### **Impact to parking**

The full redevelopment of the Town Square/Coles site would result the Coles and Ray Street car parks being unavailable, as well as a loss of the commuter parking in William Street along the railway line. However, the temporary removal of the supermarket would also bring about a significant reduction in parking demand.

Within the precinct, it is assumed that only the strip shops along Pacific Highway (between Ray Street and Forbes Lane) and the site on the northern corner of Pacific Highway and Ray Street would still be actively trading during the redevelopment of the Town Square/Coles site. This would result in the need for car parking for 2,126sqm of retail floor space and 360sqm of commercial floor space. In terms of parking spaces, a

## 6.10 TURRAMURRA RAY STREET/WILLIAM STREET CAR PARK (continued)

total of approximately 58 short term parking spaces would be required.

### Strategy

During redevelopment of the site, it is estimated that the following parking spaces would be available:

- 7 spaces in William Street near the roundabout with Forbes Lane, and near Pacific Highway; and
- 15 spaces in Ray Street.

This totals 22 spaces, which is some 36 spaces short of the needs of the surrounding retail/commercial land uses.

In addition to the above, it is considered that the following could be achieved to increase parking availability:

- a row of angle parking on the western side of Higgs Lane could be maintained during reconstruction work, resulting in approximately 15 additional spaces. Public domain works in this area could proceed after the main car park on the site is operational;
- the existing on-street parking in William Street (between the roundabout at Forbes Lane, and Higgs Lane) could be maintained during reconstruction work, resulting in approximately 18 additional spaces. Again, public domain works in this area could proceed after the main car park on the site is operational; and
- 11 spaces unrestricted spaces on the western side of Ray Street reallocated to 2hr parking.

These 41 additional spaces would result in a supply of approximately 63 spaces, which would satisfy the short term parking needs of the remaining businesses in the precinct.

See plan in Appendix 5 for details.

### *Staged redevelopment of Town Square/Coles site*

It is conceivable that the Coles supermarket may wish to continue trading while the remainder of the site is redeveloped. The staged redevelopment of the Town Square/Coles site would result the Coles and Ray Street car parks being impacted, as well as a loss of the commuter parking in William Street along the railway line.

Within the precinct, it is assumed that Coles, the strip shops along Pacific Highway (between Ray Street and Forbes Lane) and the site on the northern corner of Pacific Highway and Ray Street would still be actively trading during the redevelopment of the Town Square/Coles site. This would result in the need for car parking for 4,300sqm of retail floor space and 360sqm of commercial floor space. In terms of parking spaces, a total of approximately 106 short term parking spaces would be required.

### Strategy

To maintain short term parking for the strip shops along Pacific Highway it is assumed that the 'complete redevelopment' strategy (above) would



## 6.10 TURRAMURRA RAY STREET/WILLIAM STREET CAR PARK (continued)

be implemented to give 63 short term spaces as a first step.

Secondly, for the supermarket to continue trading, it would be in its own interest to provide adequate parking in order to continue attracting customers. It is considered that a minimum of approximately 50 short term spaces would be required to service the customer parking needs of the supermarket. Clearly, this would require some of the existing parking on the site to be retained during redevelopment, as there would be no other convenient and accessible short term parking nearby. It is recommended that the existing 2hr parking between the back of the Coles site and Higgs Lane be maintained in use during redevelopment, as well as the 6 parallel spaces along the access driveway adjacent to the Coles building. This would result in 52 short term spaces being available. In addition, there is capacity adjacent to and under the existing supermarket to accommodate over 11 staff vehicles, which should also be retained.

These measures should maintain access to adequate short term parking during the staged redevelopment of the site. Once the Ray St stage of the redevelopment is completed (complete with underground parking), car parking demand could be transferred to it while the existing Coles site is redeveloped as part of the next stage.

See plan in Appendix 5 for details.

## 6.11 TURRAMURRA PLAZA CAR PARK



Figure 6.11-1:  
Turrumurra Plaza Car Park.

### ***Strategy to cater for parking needs during redevelopment of Turrumurra Plaza site (C2)***

Given that the Turrumurra Plaza site is expected to be redeveloped entirely (not staged), there will effectively be no retail and commercial activity in the precinct during this time. Therefore, the demand for parking would effectively be removed for the duration of the construction.

It is considered unlikely that the Mobil service station site will redevelop, therefore this will remain the only active site in the Stonex Street precinct. However, this site has adequate on-site parking for its needs and should therefore be largely unaffected by the temporary loss of parking adjacent to it.

There is however, the potential for Hillview precinct (cnr Pacific Highway/ Kissing Point Road) to redevelop. As above, though, it is likely that these sites will be reconstructed entirely, resulting in demand for parking temporarily being removed. No significant car parking assets will be temporarily unavailable as a result of redevelopment of this site.

From the above, it is considered that additional parking management measures will not be required during the redevelopment of this precinct.

## 6.12 TURRAMURRA GILROY LANE CAR PARK



Figure 6.12-1:  
Turramurra Gilroy Lane Car Park.

### ***Strategy to cater for parking needs during redevelopment of the Turramurra Avenue/Gilroy Lane car park***

Redevelopment of the Council car park off Gilroy Lane will make the car park unavailable to customers of the surrounding shops/offices. Also, access along Gilroy Lane may be impacted, which suggests opening of the new road between Turramurra Avenue and Gilroy Road should be considered with the redevelopment of this site. The typical peak weekday occupancy rate of the Turramurra Avenue/Gilroy Lane car park is 86%.

### ***Complete redevelopment of Turramurra Avenue/Gilroy Lane car park in isolation***

#### **Impact to parking**

In the precincts north of Pacific Highway and east of Rohini Street, approximately 7,861sqm of retail space, 2,922sqm of commercial space, and the Turramurra Uniting Church would be the primary drivers for parking demand while redevelopment occurs. This would result in the need for approximately 220 short term spaces during the peak.

#### **Strategy**

During redevelopment of the site, it is estimated that the following short term parking spaces would be available:

- 36 spaces in Rohini Street, as existing on-street parking;
- 18 spaces in Eastern Road (between Rohini Street and King Street), as existing on-street parking;



## 6.12 TURRAMURRA GILROY LANE CAR PARK (continued)

- 11 spaces in Gilroy Road; and
- 13 spaces (approx) in sites at Woolworths service station and Masonic Hall which are generally utilised for customer parking.

This totals 78 short term parking spaces, or just over one third of those that would be required to service the precinct's needs.

Given that the existing Gilroy Lane/Turrumurra Avenue car park does not cater for long stay parking, the temporary loss of this car park will not impact on availability of long stay parking on weekdays. However, it is recommended that the amount of short term parking be temporarily increased during the time the Gilroy Lane/Turrumurra Avenue car park is unavailable. This will require reallocation of some existing unrestricted on-street parking to short stay parking (1hr or 2hr parking). By inspection of the existing unrestricted on-street parking in the vicinity, it is recommended the following changes be made:

- 23 spaces in Turrumurra Avenue (between Pacific Highway and new road connecting Gilroy Road with Turrumurra Avenue) be reallocated to short stay parking;
- 23 spaces in Rohini Street (between Eastern Road and the northern end of Rohini Street) to be reallocated to short stay parking;
- 16 spaces on the eastern side of Eastern Road (north of Cameron Park) to be reallocated to short term parking; and
- 10 spaces in north-south section of Gilroy Road to be reallocated to short term parking. This would result in 5 spaces or 30m on each side of Gilroy Road being reallocated to short term parking.

This would total approximately 150 spaces, which represents a shortfall of approximately 70 spaces. Re-allocating additional unrestricted spaces in residential streets to satisfy the expected demand would impact further on commuters and would not be an attractive option for shoppers due to the distance from the shops. Therefore it is not recommended that this car park be redeveloped in isolation.

### ***Co-ordinated redevelopment of Turrumurra Avenue/Gilroy Lane car park with other sites***

In this scenario, it is assumed the strip shops on Pacific Highway between Turrumurra Avenue and Rohini Street precinct would redevelop, with the strip shops in Rohini Street therefore unlikely to redevelop in the short to medium term.

#### **Impact to parking**

In the precincts north of Pacific Highway and east of Rohini Street, there would still be approximately 4,896sqm of retail space, 2,593sqm of commercial space. This would result in the need for approximately 140 short term spaces during the peak.



## 6.12 TURRAMURRA GILROY LANE CAR PARK (continued)

### **Strategy**

During redevelopment of the site, it was estimated above that 78 short term parking spaces would be available on-street or on some sites, which represents more than half those that would be required under this scenario.

As indicated above, temporarily re-allocating sections of unrestricted parking in Eastern Road, Turramurra Avenue, Rohini Street and Gilroy Road to 2hr parking would result in a total of 150 short term spaces available. These spaces should be adequate to cater for the temporary loss of the Gilroy Lane/Turramurra Avenue car park during its redevelopment.

See plan in Appendix 5 for details on this option.



### 6.13 WAHROONGA COONANBARRA ROAD CAR PARK

The main car park in Wahroonga (Coonanbarra Road) has not been considered for possible relocation underground, although during consultation suggestions were made as to the feasibility of an additional deck, which was ultimately discarded due to costs. As a result, the car park would be unaffected by this type of activity.



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**7 Statutory Processes**

- 7.1 Ku-ring-gai Traffic Committee
- 7.2 Ku-ring-gai Traffic Generating Developments Committee
- 7.3 Sydney Regional Development Advisory Committee (SDRAC)



## 7.1 KU-RING-GAI TRAFFIC COMMITTEE

The Ku-ring-gai Traffic Committee is a technical body made up of representatives of Council, the Police Service, the Roads and Traffic Authority and the local Member of State Parliament. The Committee's role is to consider and advise Council on local traffic related matters.

Alterations to on-street parking restrictions are required to be considered by the Ku-ring-gai Traffic Committee and Council, as they involve changes to traffic facilities. Consultation is undertaken with directly affected stakeholders and responses are considered when a report is submitted to the Committee.

As the majority of strategies proposed in the Parking Management Plan involve changes to on-street parking restrictions, these would be referred to the Ku-ring-gai Traffic Committee and Council for consideration. This would also apply to bus zones, loading zones and taxi zones.

## 7.2 KU-RING-GAI TRAFFIC GENERATING DEVELOPMENTS COMMITTEE

As the RTA functions as the central point for traffic matters under the *Traffic Act (1909)*, it also has a responsibility to provide advice about a development's impact on traffic generation, and to provide guidelines on vehicular movement and parking for such development.

The Ku-ring-gai Traffic Generating Developments Committee advises Council on the traffic and parking aspects of traffic generating developments. It is made up of representatives from Council, the Police Service, the Roads and Traffic Authority and Ministry of Transport (casual member). Referral of development applications to the Committee is triggered based on size or capacity of the development under Column 3 of Schedule 3 of SEPP (Infrastructure) 2007.

Applications that would typically be referred to the Committee include apartment buildings with 75-300 units, commercial buildings between 2,500sqm and 10,000sqm, and shops between 500sqm and 2,000sqm. This scale of development could be considered to be of medium traffic impact. Of particular scrutiny would be the parking provision and resulting traffic generation impacts. Notification of the development is undertaken in accordance with Council's notification policy.

It is likely that a number of mixed use, retail and commercial developments within the Ku-ring-gai Town Centres would be referred to this committee for RTA input into the development application process.



### **7.3 SYDNEY REGIONAL DEVELOPMENT ADVISORY COMMITTEE (SDRAC)**

The Sydney Regional Development Advisory Committee (SRDAC) is a committee created by the Roads and Traffic Authority to advise Council's on it's behalf.

It is made up of representatives from the Roads and Traffic Authority, the Police Service, and Ministry of Transport, Ministry of Transport (casual member) and Transport Workers Union (casual member).

Referral of development applications to the SRDAC is also triggered based on size or capacity of the development under Column 2 of Schedule 3 of SEPP (Infrastructure) 2007, which are of a larger scale/capacity than those considered by the Ku-ring-gai Traffic Generating Developments Committee.

Applications that would typically be referred to the Committee include apartment buildings over 300 units, commercial buildings greater 10,000sqm, and shops greater than 2,000sqm. This scale of development could be considered to be of medium-large traffic impact. The parking provision and resulting traffic generation impacts would be critical elements considered by this committee. Notification of the development is also undertaken in accordance with Council's notification policy.

It is likely that a number of larger mixed use, retail and commercial developments, particularly those Key Sites or Key Areas within the Ku-ring-gai Town Centres would be referred to this committee for RTA input into the development application process.

**A Appendices**

- A1 Ku-ring-gai Town Centre Parking Management Plan (Arup)
- A2 Wahroonga Traffic and Parking Study (Arup)
- A3 Parking Management Planning Workshop and Plenary Outcomes
- A4 Town Centre Plans Showing Long Term Parking Arrangements
- A5 Plans of Strategies to Manage Temporary Impacts due to Reconstruction of Council Owned Parking Facilities
- A6 Precinct by Precinct Analysis



**A1 KU-RING-GAI TOWN CENTRE PARKING  
MANAGEMENT PLAN (ARUP)**



**A2 WAHROONGA TRAFFIC AND PARKING STUDY  
(ARUP)**

## A3 PARKING MANAGEMENT PLANNING WORKSHOP AND PLENARY OUTCOMES

<b>ST IVES</b>	
<b>Issue/Comment</b>	<b>Response</b>
Concerned by numbers provided for car spaces. Need guarantees for future spaces. Developers to provide.	Adequate car parking will be provided in accordance with the Town Centres DCP. Developers will need to comply with the DCP and its parking requirements.
Meet needs of all stakeholders: community (shoppers, library/guides, sporting groups), business owners.	Parking in large redevelopment sites will be required to provide parking for all user groups, although there is likely to be some sharing of parking as peak times of some user groups do not coincide with others. Parking for sporting groups will be catered for in the 2hr parking areas off Village Green Pde as well as on Memorial Avenue and part of Cowan Road. Any spillover could be accommodated within the redeveloped St Ives Shopping Village, where additional parking spaces would be provided.
Some agreement to possible additional parking in Cowan Rd and Memorial Ave, but no loss of community land particularly in relation to Memorial Ave.	Revised parking arrangements in Memorial Ave are not expected to impact on community land.
Defined parking zones for all stakeholders	There is likely to be some sharing of parking as peak times of some user groups do not coincide with others. As a result, defined parking zones may result in the provision of more spaces than actually required
Need more detail in car park planning, particularly street level parking, including elderly, disabled, drop off zones (library etc), children/adults, bicycles (big focus on sustainability/green parking).	This has been broadly addressed in the attached plans, although specific details of provision within individual development sites would be known when a DA is lodged.
Suggest to segregate dynamic zones from static zones. Also consider commercial loading zones	On-site loading facilities would be a requirement of the Town Centres DCP. This will reduce or eliminate the need for on-street loading zones.
Long stay parking – need to provide for staff and businesses and get the balance right. Encourage staff to think green eg walk/ride to work	The Town Centres DCP suggests appropriate splits for employee and customer parking in retail/commercial/mixed use sites. The DCP also requires provision of bicycle parking, motorcycle parking and encourages car share parking on site.
Better parking on Stanley St side	The proposal to widen Stanley Lane would provide additional on-street parking and would act as a buffer for when the RTA introduces peak period Clearways on Mona Vale Rd. Redevelopment of strip shops would also require the provision of additional parking.
General concern regarding parking in surrounding residential streets including its impact on remaining road width.	Additional on-site parking in redeveloped sites is expected to reduce the need for long term parking in surrounding residential streets.
Suggest that No Parking be installed in Rosedale Rd (between Porters Ln and Shinfield Ave) and Shinfield Ave (between Rosedale Rd and Dorset Dr)	Parking restrictions in that section of Rosedale Rd are not being considered, and it is likely the additional on-site parking in redeveloped sites would reduce demand for on-street parking in Rosedale Rd.

### A3 PARKING MANAGEMENT PLANNING WORKSHOP AND PLENARY OUTCOMES (continued)

<b>ST IVES</b>	
<b>Issue/Comment</b>	<b>Response</b>
Parking impacts to residents in Kanoona Ave and Collins Rd (near St Ives Village Green)	Additional parking in the redeveloped St Ives Shopping Village site should reduce demand for parking in surrounding roads. 2hr parking in Memorial Avenue and parts of Cowan Rd should ensure access to the Village Green and provide turnover. This is expected to reduce the impact to Kanoona Ave and Collins Rd.
Could develop multi-level car park on vacant site on Mona Vale Rd adjacent to Mitre 10 hardware and opposite (near Shell service station)	This site is owned by the St Ives Shopping Village and is expected to be incorporated into a future redevelopment of the St Ives Shopping Village, which will include additional parking.



### A3 PARKING MANAGEMENT PLANNING WORKSHOP AND PLENARY OUTCOMES (continued)

<b>TURRAMURRA</b>	
Issue/Comment	Response
Truck issues at Coles loading dock	Redevelopment of the Coles site would require adequate on-site service vehicle provision. It is likely that the future loading dock area would be accessed from Ray Street.
Church functions on Mondays occupy much parking in Gilroy Ln car park. What happens during redevelopment of car park?	If the Gilroy Ln car park is redeveloped, it is likely that it will be co-ordinated with redevelopment of strip shops on Pacific Hwy and/or Rohini St, which will result in reduced demand for parking in the area. However, to cater for the remaining demand, it is proposed to temporarily re-allocate sections of unrestricted parking in Turramurra Ave, Rohini St, Eastern Rd and Gilroy Rd to 2hr parking, to cater for short term needs.
Concerns relating to redevelopment of car parks, and temporary parking provision during construction. Options to manage car parking include timing strategies (redevelop when a significant portion of nearby retail redevelop) and spatial strategies (temporarily apply time restrictions to unrestricted parking near retail/commercial – impacts to commuters?)	If public car parks are redeveloped, it is likely they will be co-ordinated with redevelopment of nearby strip shops to reduced demand for parking in the area. To cater for the remaining demand, sections of nearby unrestricted parking could be temporarily re-allocated to 1hr or 2hr parking to ensure access to retail and commercial services. There will be a temporary impact to commuters who park on surrounding roads and board trains, although the priority would lie in maintaining business activity by providing short term parking.

### A3 PARKING MANAGEMENT PLANNING WORKSHOP AND PLENARY OUTCOMES (continued)

<b>PYMBLE</b>	
Issue/Comment	Response
Construct short-stay parking in site known as 1 Alma Street (adjacent to Grandview Lane car park)	This site is proposed to be incorporated into the redesigned Grandview Lane car park, with the current access road realigned opposite Park Cr.
Agree with new angle parking in Grandview Street, particularly for elderly and disabled	Agreement noted
Suggest angle parking extend all the way to Station Street	This was considered, however preliminary investigations indicate it is only feasible between Pacific Highway and Alma Street due to the wider road reserve in that section. Additional parking would be available in new road connecting Post Office St with Alma St
Restrict parking on 1 side of Taunton St to maintain access	This can be considered separately, subject to directly affected residents agreeing to the proposal, and Ku-ring-gai Traffic Committee/Council approval. However it would result in a reduction of 8 unrestricted parking spaces which would impact on commuters and to a lesser extent, residents.
Agree with new vehicle access between Station Street and Robert Pymble Park [Alma Street]	Agreement noted
More signage needed indicating directions to Pymble shops	Additional directional signage could be considered, including directional signage to car parks, to improve visibility and access to the centre.

## A3 PARKING MANAGEMENT PLANNING WORKSHOP AND PLENARY OUTCOMES (continued)

<b>GORDON</b>	
Issue/Comment	Response
Recognition of 7 days/week trading of some businesses (eg, video shop, take-aways). Suggestions include 1/2hr parking on weekends in St Johns Ave, to cater for above.	To improve turnover on weekends, consideration could be given to extending sections of 1/2hr parking restrictions in St Johns Ave to 6pm on Saturdays and Sundays. This would be subject to shop owners in St Johns Ave agreeing to the proposal, and Ku-ring-gai Traffic Committee/Council approval. Proposal could be extended to key streets in other centres with similar trading characteristics/needs.
Large increase in residents in Gordon (new homes/units). Need to reflect this in the need for future parking numbers	New residential development in the Gordon Town Centre will require the provision of on-site parking for residents in accordance with the draft Town Centres DCP. Due to the proximity of new units to the town centre, it is unlikely that these residents will place significant additional pressure on parking numbers. Despite this, new retail/commercial/mixed use development would also be required to provide parking on site in accordance with the Town Centres DCP.
Resident parking in residential streets only	New retail/commercial development on Gordon will be required to provide parking on site, which would reduce some of the demand for parking in residential streets. However, the bulk of parking in residential streets is probably by commuters, the majority of which are Ku-ring-gai residents. It is not proposed to displace these commuters until such time as attractive alternatives for accessing railway stations can be provided.
In relation to commuter parking – do we need more? Global warming implications of more parking. Improvements to bus/train services, to reduce global warming. Constraints: convenience, co-ordination cost, will to change habits. Rather than larger commuter car parks at station, encourage people to use public transport	The amount of off-street commuter car parking in Gordon is not expected to change significantly as part of the Parking Management Plan and the draft Town Centres LEP/DCP. Strategies are focused more on improving access to railway stations by bus, walking, cycling and passenger pick up/drop off, including revised bus interchange at Gordon. New residential development in town centres also reduces the need for additional commuter parking, due to it's proximity to the rail station.
Pay parking – intermittent law enforcement	Council's rangers are being equipped with hand held enforcement units, which can speed up the enforcement process and therefore improve coverage. Paid parking tends to have an automatic enforcement effect and discourages longer term parking by commuters and staff, resulting in additional spaces available for shoppers. Paid parking may therefore be considered in the future for the 6 town centres.
Developers to provide parking for their residents in new buildings	The draft Town Centres DCP requires developers to provide parking on-site for residents, retail and business uses.
Redesign surface commuter car parks, to get more efficiency	Due to the revised bus interchange, the commuter parking spaces lost in this process will be accommodated in surrounding commuter car parks through redesign of the existing layout.

### A3 PARKING MANAGEMENT PLANNING WORKSHOP AND PLENARY OUTCOMES (continued)

<b>GORDON</b>	
Issue/Comment	Response
Future on-street parking in Wade Lane should be on left side travelling south	Noted – updated plan will show commuter pick up and drop off area on the eastern (left) side of Wade Lane.
Need to clarify section 7.3 of Arup study – Effect of future urban design – Wade Lane one way parallel parking 14 spaces, vs. what was on the background information CD.	It is proposed to permit short term parking along Wade Lane as part of the urban design, which would result in approximately 14 additional parking spaces. The future Town Centre car parking strategy map incorrectly indicates Wade Lane as being one-way northbound – Wade Lane is intended to be one-way southbound in the future with parallel parking on one side.
Consider duplicating bus interchange on eastern side of railway.	While improvements will be made to the bus interchange on the eastern side of the railway, it is not proposed to expand the bus interchange on the eastern side significantly, as the bulk of the bus services to/from Gordon originate and depart from the western side of the railway line.

## A3 PARKING MANAGEMENT PLANNING WORKSHOP AND PLENARY OUTCOMES (continued)

<b>LINDFIELD</b>	
Issue/Comment	Response
Strong disagreement with the option of installation of parking meters (via petition from business owners, 60 signatures). Will deter customers. Timed parking limits tends to push the problem elsewhere. Leakage to other centres.	Council's rangers are being equipped with hand held enforcement units, which can speed up the enforcement process and therefore improve coverage. Paid parking tends to have an automatic enforcement effect and discourages longer term parking by commuters and staff, resulting in additional spaces available for shoppers. Paid parking may therefore be considered in the future for the 6 town centres.
Underground car park at Kochia Lane should be multi-level, with upper level for short term parking, lower level/s for long term/commuter parking (could get Railcorp contribution?)	Should the Kochia Lane car park be transferred underground, then Council is committed to retaining the existing number of spaces of public parking. As a result, underground parking would retain the 2hr limit currently in place on the surface. It is unlikely that Railcorp would contribute to provide additional commuter parking – focus is more on alternative means of access to rail station, rather than more commuter parking.
Capacity of [Kochia Lane] underground car park to be of sufficient capacity to serve into the future	As noted above, Council is committed to retaining the existing number of spaces of public parking if the Kochia Lane car park is transferred underground. However, future development of retail/commercial/residential sites would be required to provide for their own parking needs, reducing the demand on public car parking.
Similar comments regarding Woodford Lane car park	See above
Proposed angle parking in Milray street indicates it may become one-way. Suggest to delay this as long as possible to preserve amenity	It is not intended to introduce one way flow in Milray St. Although further investigation needs to be undertaken, if angle parking requires one way circulation, then it is likely the existing parallel parking arrangements in Milray St will be retained.
Convenience is important, so short stay parking is a criterion	Sufficient short term parking will be available, both on-street, in Council car parks and within new retail/commercial development sites (which will be required to provide on-site parking for customers/visitors).
Provide commuter parking	Lindfield has a small number of unrestricted spaces in the Woodford Lane car park, which are mostly used by commuters. However, it is unlikely that Council will provide additional commuter parking. The focus is more on alternative means of access to rail stations, rather than more commuter parking.
Insufficient emphasis on impact of traffic flows on parking. e.g. Woodside Ave not wide enough for on-street parking on both sides. Similar situation in Lindfield Ave, Havilah Rd	On-street parking on both sides of a road tends to act as passive traffic calming, forcing 2 passing vehicles to slow down. Removal of parking on one side could create additional issues such as increased speeds.
Long term parking – rail commuters and employees	See comments above regarding commuter parking. Future retail/commercial development would be required to provide on-site parking, a proportion of which would be used by employees.



### A3 PARKING MANAGEMENT PLANNING WORKSHOP AND PLENARY OUTCOMES (continued)

<b>LINDFIELD</b>	
Issue/Comment	Response
Suggest a minibus service from East Lindfield to station, to reduce commuter parking	There is currently a Shorelink/Transdev bus service (route 558/556) from East Lindfield and East Killara to Lindfield station which operates on approx 1/2 hr frequencies during peaks. Council does not have funds to introduce minibus services, however it will continue to work with bus operators to improve services.
Utilise tennis court space near library/seniors centre for parking.	This site is expected to be redeveloped into mixed use development, which would include parking for residential and retail/commercial uses. Also, surrounding redeveloped retail/commercial sites will provide for their own parking needs on-site, reducing the need for public parking.
Impact of increase in traffic and residents that the Planning Panel approves not taken into account in any on-street parking.	Development is generally located in the core of the town centres, which would provide good access to retail and commercial services and transport, which in turn would reduce the need for vehicle trips and on-street parking. All new development would be required to provide for its own parking needs on site, reducing demand for on-street parking.
Increased residential densities seem to exacerbate parking problems notwithstanding what Council's intentions may be.	See above

## A3 PARKING MANAGEMENT PLANNING WORKSHOP AND PLENARY OUTCOMES (continued)

<b>ROSEVILLE</b>	
Issue/Comment	Response
Larkin Lane [car park] upgrade is positive	Comment noted
Lord St Village Green is positive (if no loss of parking as a result of undergrounding)	Council is committed (by resolution) to no loss of existing publicly owned car parking, therefore, the same number of surface parking spaces would be transferred underground.
Increase in commercial and retail floor space requires increase in customer parking	The draft Town Centres DCP requires developers to provide parking on-site for residents, retail and business uses.
Local people like a viable village shopping centre. Therefore, parking is important	See above.
Priority should be for residents, not commuters (61% of commuters who park at station are from within Ku-ring-gai – lower than other centres). Therefore, to accommodate additional parking, short stay on-street parking should be extended into existing long stay on-street parking	The Town Centres DCP required developers to provide parking on-site for residents, retail and business uses. This should reduce demand for on-street parking spaces. Short stay on-street parking typically extends as far as the retail/commercial areas, and does not typically spread into residential areas. The data shows that there is generally spare short term parking in Roseville, and the quantity of commuter parking in Roseville is generally lower than other centres, due to a higher proportion of commuters walking to the station (67%). Therefore, there is no plan to extend short stay parking further into residential areas.
Concern about loss of spaces (as noted in Arup report) in Lord Street car park	Council is committed (by resolution) to no loss of existing publicly owned car parking, therefore, the same number of surface parking spaces would be transferred underground.
Enforcement of parking restrictions is essential	Council's rangers are being equipped with hand held enforcement units, which can speed up the enforcement process and therefore improve coverage. However, to improve turnover, parking opportunities and enforcement, paid parking may be considered in the future for the 6 town centres.
Concern that an increase in residents will lead to an increase in use of unrestricted spaces by the residents	The draft Town Centres DCP requires developers to provide parking on-site for residents and visitors.
Victoria St not wide enough for on-street parking on both sides	On-street parking on both sides of a road tends to act as passive traffic calming, forcing 2 passing vehicles to slow down. Removal of parking on one side could create additional issues such as increased speeds. The width of Victoria St is considered adequate for local access and circulation. On-street parking on both sides of a road tends to act as passive traffic calming, forcing 2 passing vehicles to slow down. Removal of parking on one side could create additional issues such as increased speeds.

### A3 PARKING MANAGEMENT PLANNING WORKSHOP AND PLENARY OUTCOMES (continued)

<b>ROSEVILLE</b>	
Issue/Comment	Response
More disabled parking spaces needed	Sufficient accessible parking will be provided in Council's car park sites when they are redeveloped. Also, redeveloped retail/commercial sites will be required to provide parking on site, a proportion of which would be accessible. On-street accessible parking is not encouraged due to the additional width required and passing traffic. Drivers with mobility parking permits can park for longer than the signposted time limits.
Trucks parking in Hill St outside liquor store and grocery store obstruct visibility at the intersection of Hill St and Lord St	This would be resolved when the site is redeveloped since additional parking would have to be provided, including on-site servicing for loading/unloading. In the interim, a part time loading zone can be considered in Lord St near Hill St to enable businesses to load/unload in a dedicated space.
Suggest some seating areas in Hill St opposite the shops	This will be addressed separately in the draft Town Centres Public Domain Plan
Improve crossing conditions/ opportunities in Hill St	This is outside the scope of the Parking Management Plan although additional requests for crossing points in Hill St can be considered on their merits and technical aspects. It should be noted that additional crossing points generally require removal of kerbside parking spaces, for visibility and safety.
Need a crossing in Lord St (at the shops), to protect pedestrian	This is outside the scope of the Parking Management Plan, however there is the potential for the raised threshold in Lord St to be converted to a raised threshold crossing.
Easy Access upgrade needed for Roseville railway station	Railcorp has indicated that Roseville station is currently not a priority to receive an Easy Access Upgrade. Council will continue to lobby for upgrades, but in the meantime, Lindfield railway station is being converted to an accessible station.



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### A4 TOWN CENTRE PLANS SHOWING LONG TERM PARKING ARRANGEMENTS

#### LEGEND

- 1/2 P PARKING
- 1P PARKING
- 2P PARKING
- 3P PARKING
- 4P PARKING
- UNLIMITED PARKING
- BUS STOPS
- TAXI ZONE
- KISS AND RIDE ZONE
- INTERIM LOADING ZONE



ST IVES



### A4 TOWN CENTRE PLANS SHOWING LONG TERM PARKING ARRANGEMENTS (CONTINUED)

#### LEGEND

- 1/2 P PARKING
- 1P PARKING
- 2P PARKING
- 3P PARKING
- 4P PARKING
- UNLIMITED PARKING
- B BUS STOPS
- T TAXI ZONE
- K&R KISS AND RIDE ZONE
- LZ INTERIM LOADING ZONE



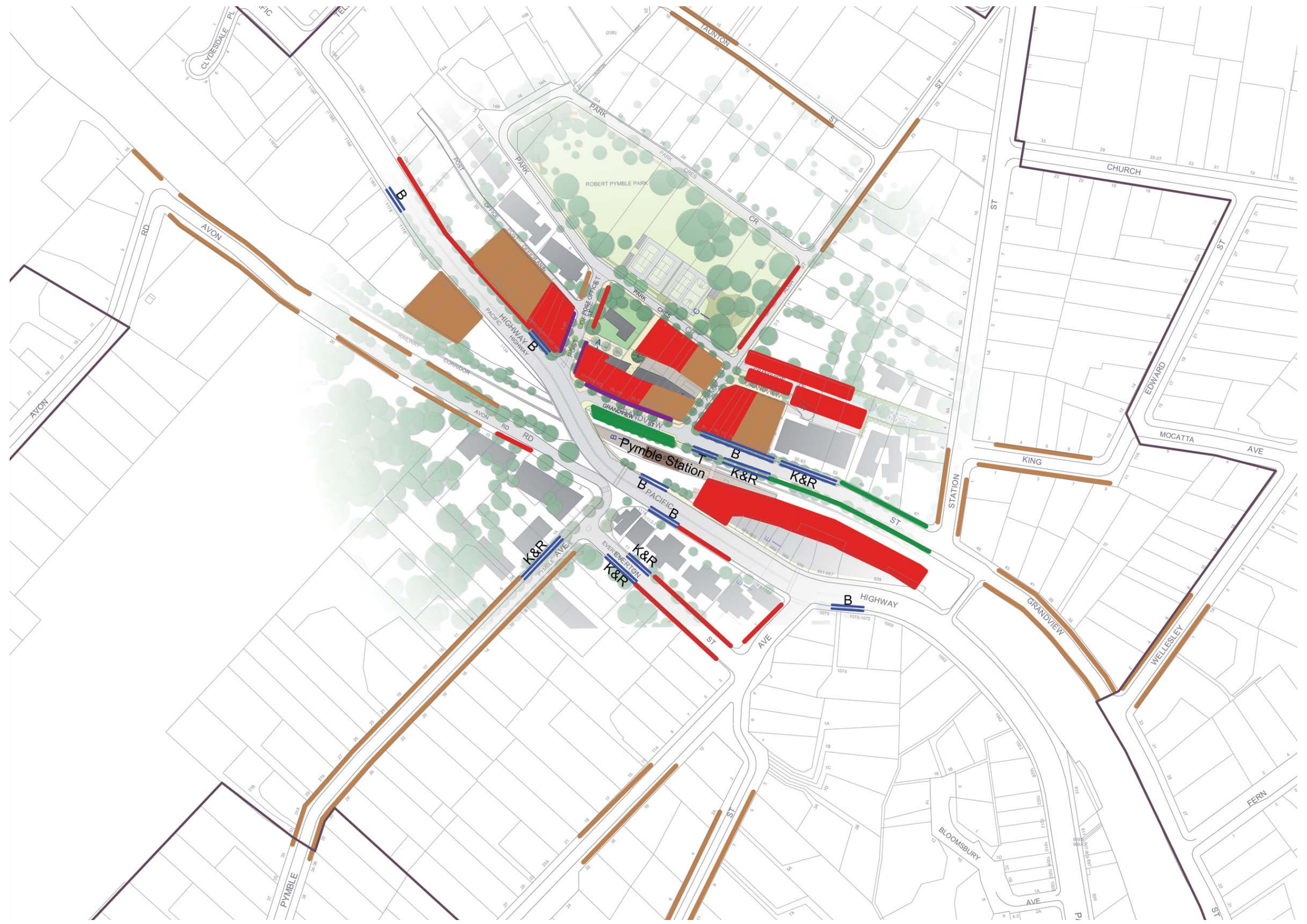
TURRAMURRA



### A4 TOWN CENTRE PLANS SHOWING LONG TERM PARKING ARRANGEMENTS (CONTINUED)

#### LEGEND

- 1/2 P PARKING
- 1P PARKING
- 2P PARKING
- 3P PARKING
- 4P PARKING
- UNLIMITED PARKING
- B BUS STOPS
- T TAXI ZONE
- K&R KISS AND RIDE ZONE
- LZ INTERIM LOADING ZONE



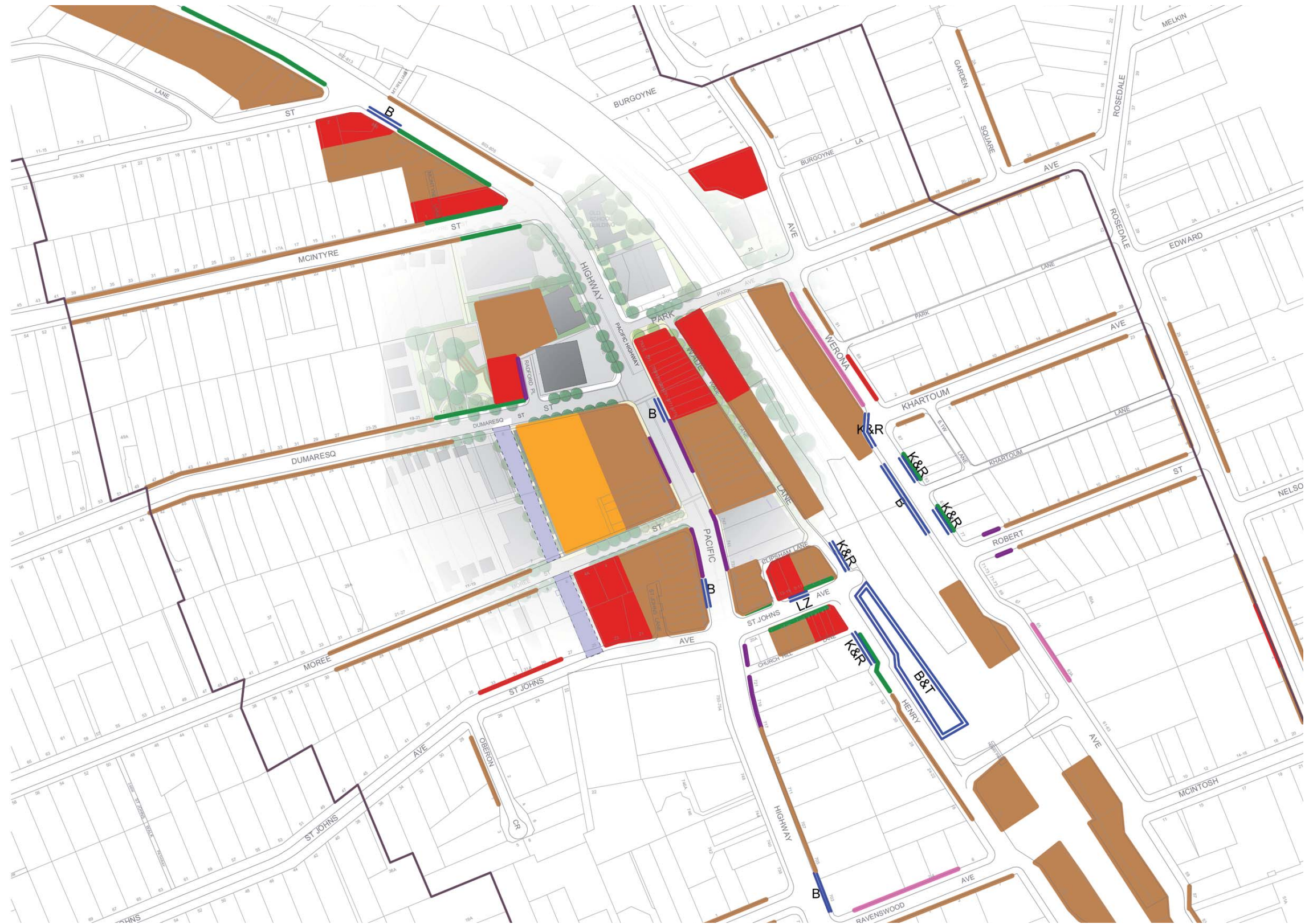
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### A4 TOWN CENTRE PLANS SHOWING LONG TERM PARKING ARRANGEMENTS (CONTINUED)

#### LEGEND

- 1/2 P PARKING
- 1P PARKING
- 2P PARKING
- 3P PARKING
- 4P PARKING
- UNLIMITED PARKING
- B BUS STOPS
- T TAXI ZONE
- K&R KISS AND RIDE ZONE
- LZ INTERIM LOADING ZONE



GORDON



### A4 TOWN CENTRE PLANS SHOWING LONG TERM PARKING ARRANGEMENTS (CONTINUED)

#### LEGEND

- 1/2 P PARKING
- 1P PARKING
- 2P PARKING
- 3P PARKING
- 4P PARKING
- UNLIMITED PARKING
- B BUS STOPS
- T TAXI ZONE
- K&R KISS AND RIDE ZONE
- LZ INTERIM LOADING ZONE



LINDFIELD





# A5 PLANS OF STRATEGIES TO MANAGE TEMPORARY IMPACTS DUE TO RECONSTRUCTION OF COUNCIL OWNED PARKING FACILITIES

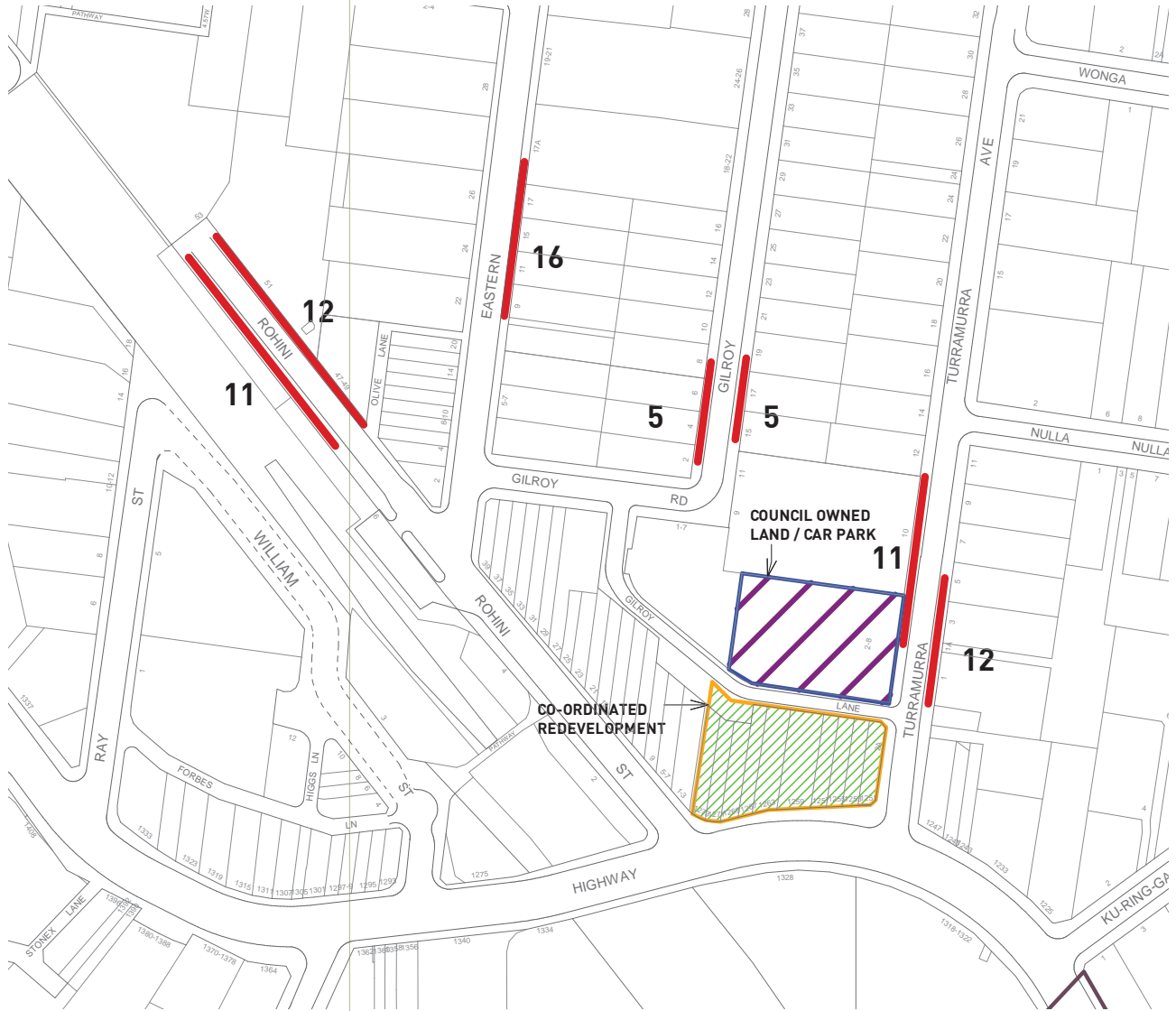


ST IVES TEMPORARY PARKING PLAN




- 2P PARKING
- COUNCIL LAND/CAR PARK
- CO-ORDINATED REDEVELOPMENT



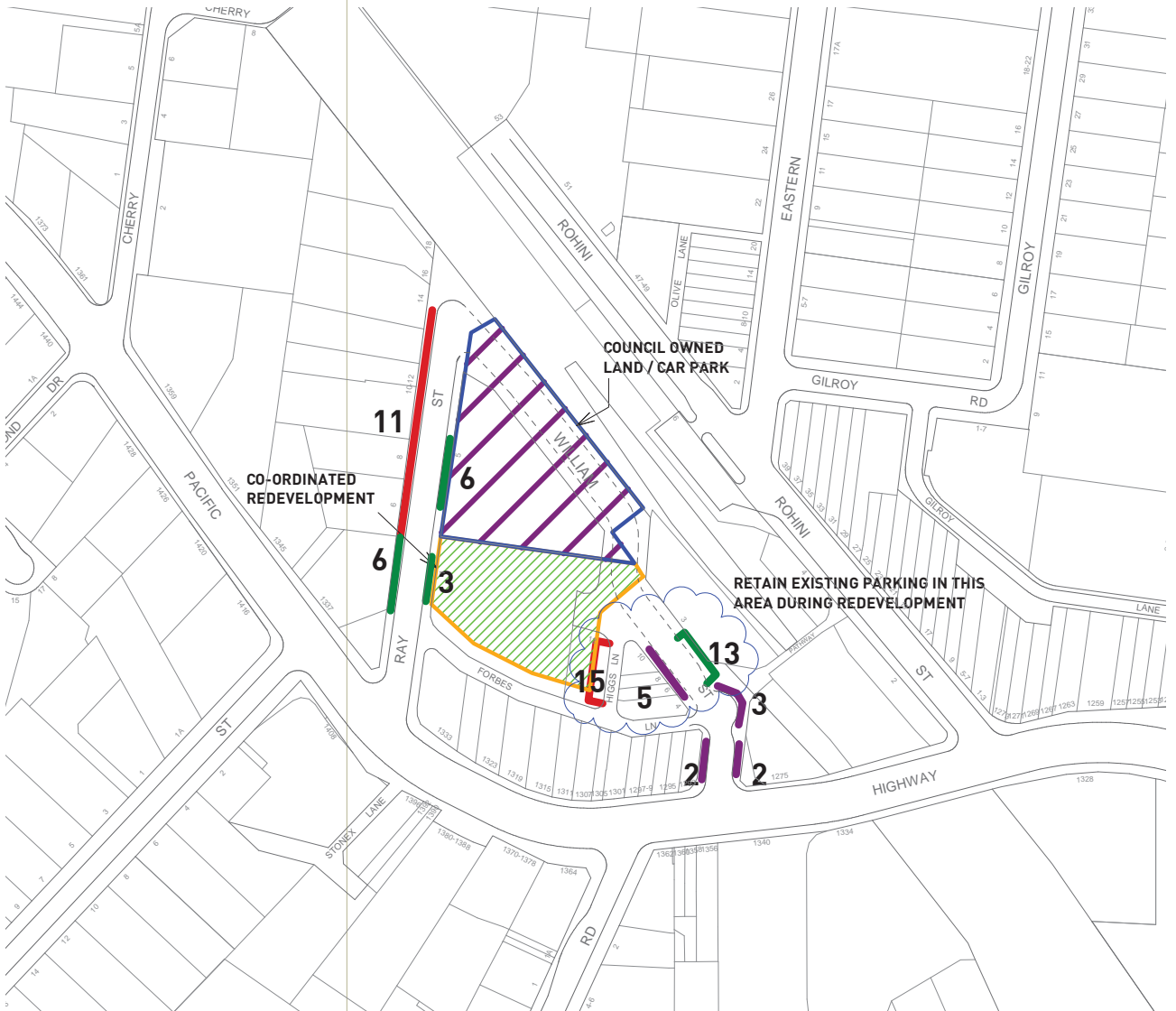
# A5 PLANS OF STRATEGIES TO MANAGE TEMPORARY IMPACTS DUE TO RECONSTRUCTION OF COUNCIL OWNED PARKING FACILITIES (CONTINUED)



**TURRAMURRA SITE 1 TEMPORARY PARKING PLAN**

-  2P PARKING
-  COUNCIL LAND/CAR PARK
-  CO-ORDINATED REDEVELOPMENT

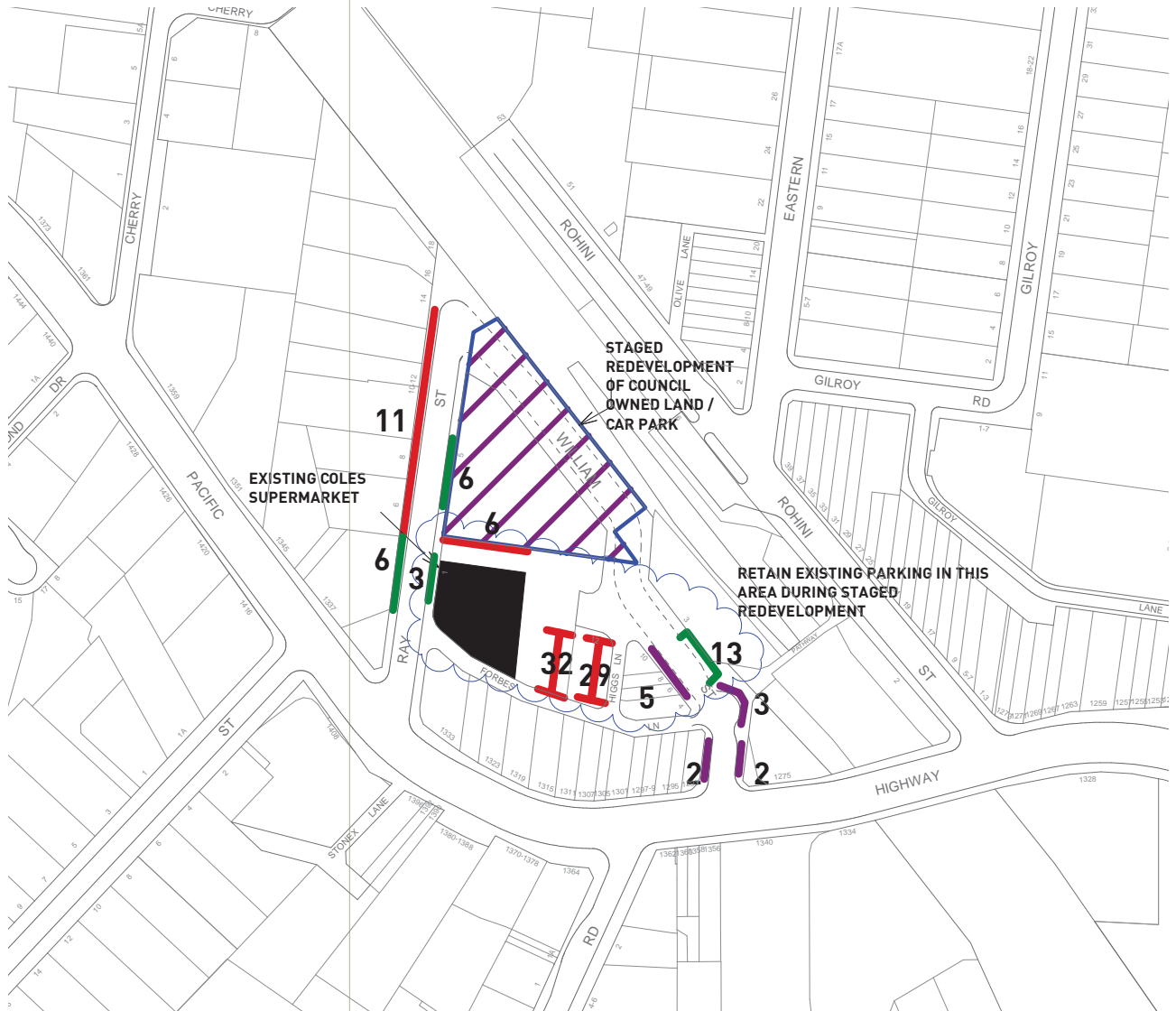
**A5 PLANS OF STRATEGIES TO MANAGE TEMPORARY IMPACTS DUE TO RECONSTRUCTION OF COUNCIL OWNED PARKING FACILITIES (CONTINUED)**



**TURRAMURRA SITE 2 TEMPORARY PARKING PLAN (COMPLETE REDEVELOPMENT)**

- 1/4-1/2P PARKING
- 1P PARKING
- 2P PARKING
- COUNCIL LAND/CAR PARK
- CO-ORDINATED REDEVELOPMENT

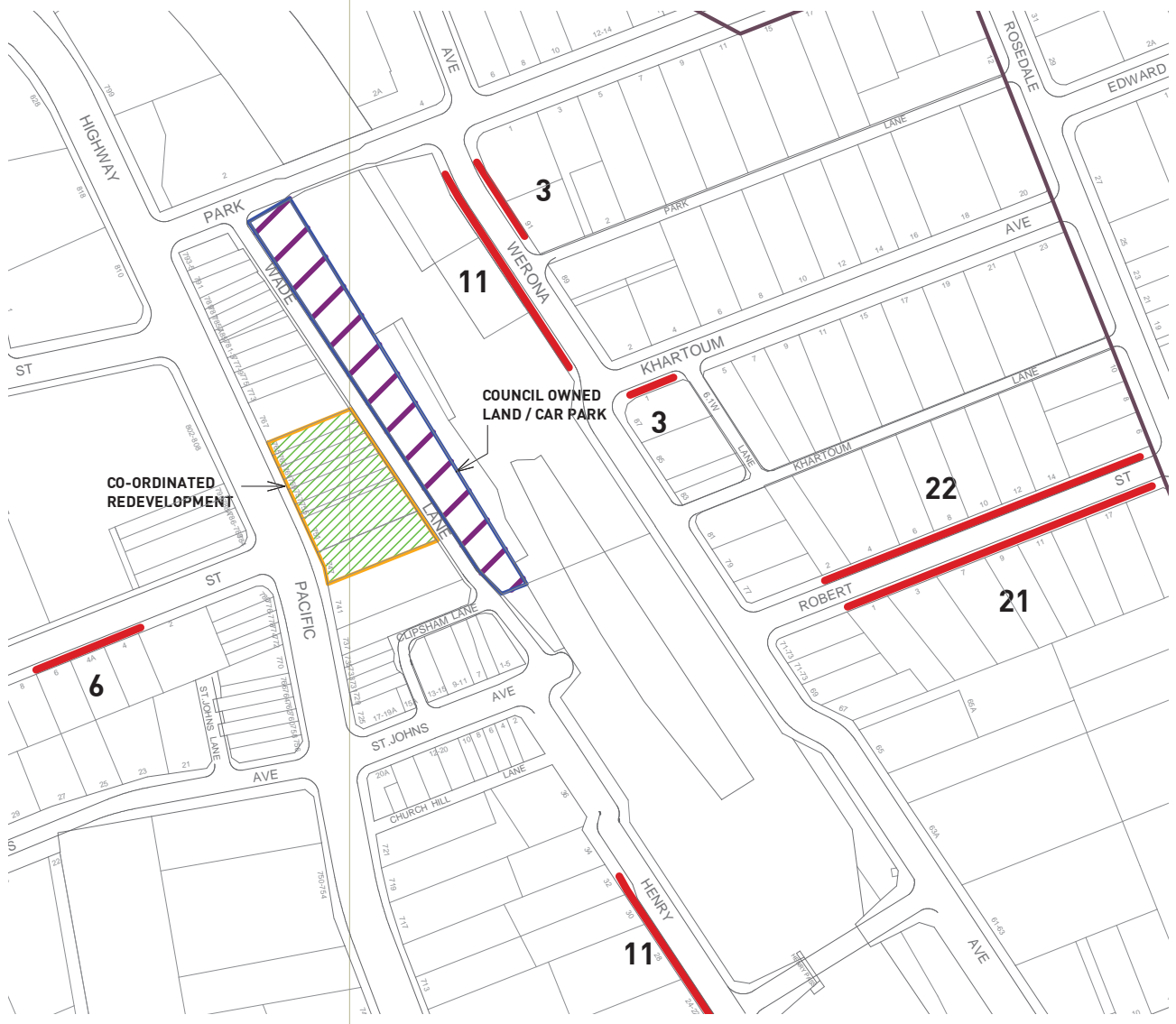
# A5 PLANS OF STRATEGIES TO MANAGE TEMPORARY IMPACTS DUE TO RECONSTRUCTION OF COUNCIL OWNED PARKING FACILITIES (CONTINUED)






**TURRAMURRA SITE 2 TEMPORARY PARKING PLAN (STAGED REDEVELOPMENT)**

- 1/4-1/2P PARKING
- 1P PARKING
- 2P PARKING
- COUNCIL LAND/CAR PARK

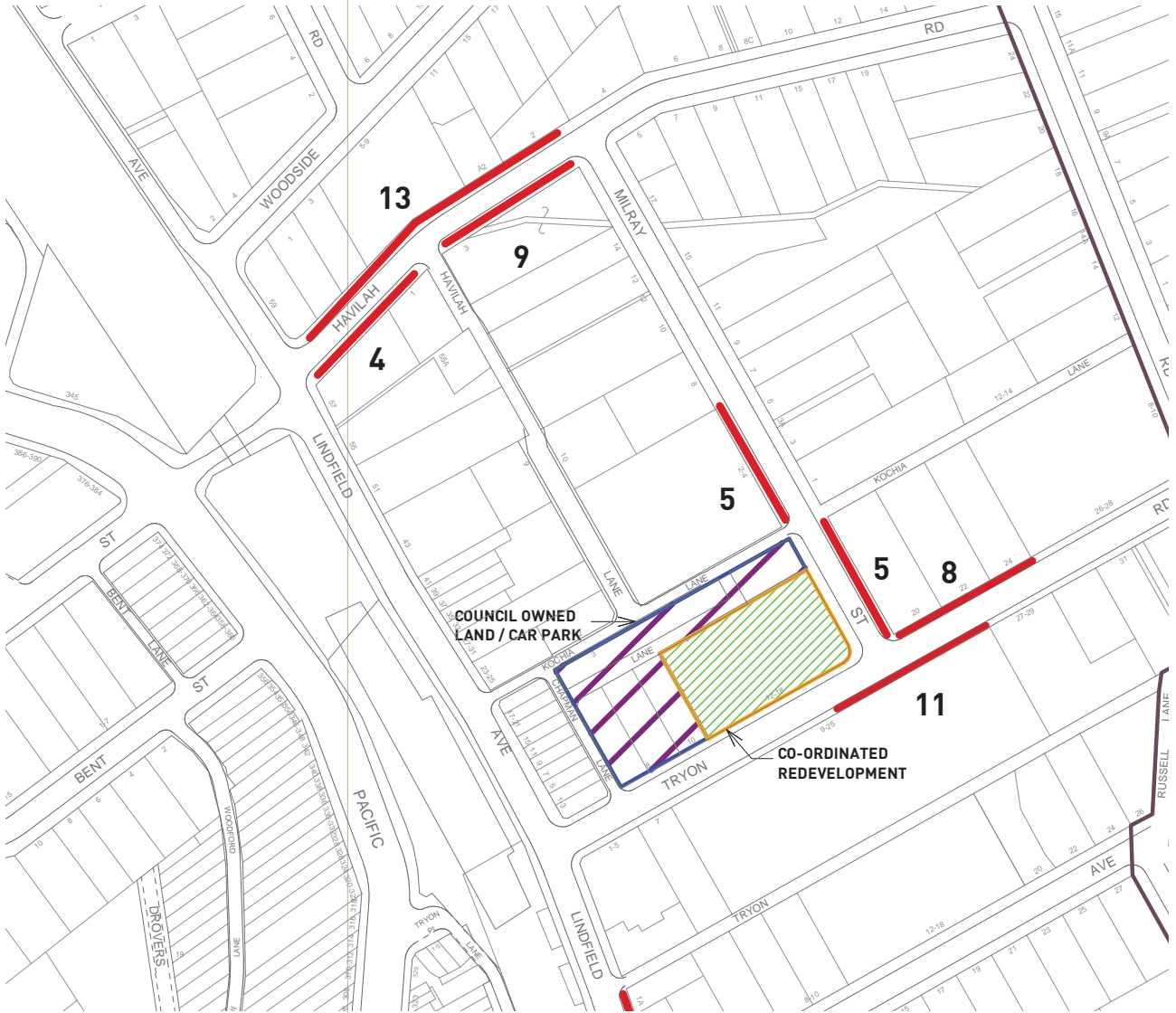
# A5 PLANS OF STRATEGIES TO MANAGE TEMPORARY IMPACTS DUE TO RECONSTRUCTION OF COUNCIL OWNED PARKING FACILITIES (CONTINUED)



**GORDON TEMPORARY PARKING PLAN**

-  2P PARKING
-  COUNCIL LAND/CAR PARK
-  CO-ORDINATED REDEVELOPMENT

# A5 PLANS OF STRATEGIES TO MANAGE TEMPORARY IMPACTS DUE TO RECONSTRUCTION OF COUNCIL OWNED PARKING FACILITIES (CONTINUED)

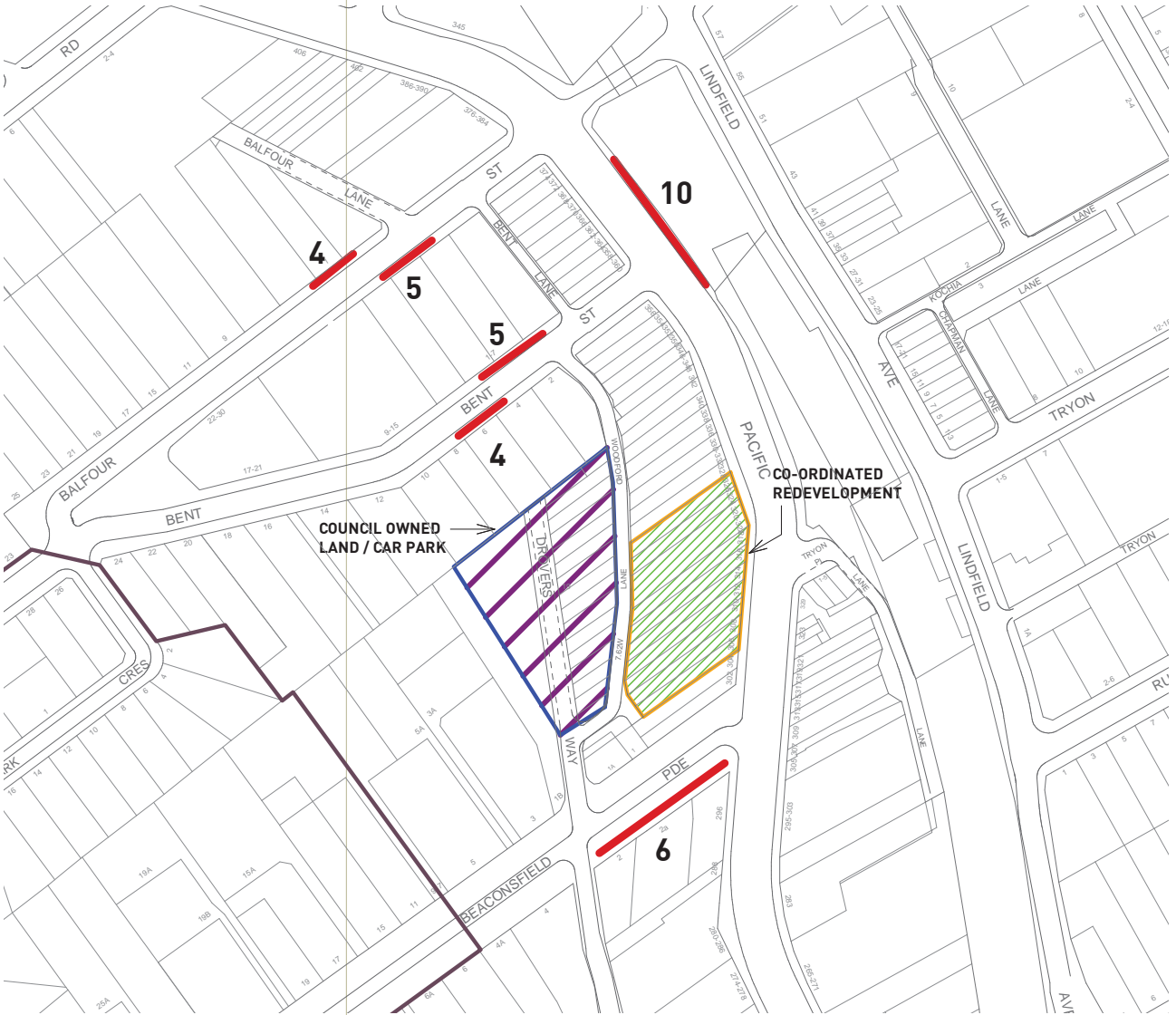


**LINDFIELD SITE 1 TEMPORARY PARKING PLAN**

- 2P PARKING
- COUNCIL LAND/CAR PARK
- CO-ORDINATED REDEVELOPMENT



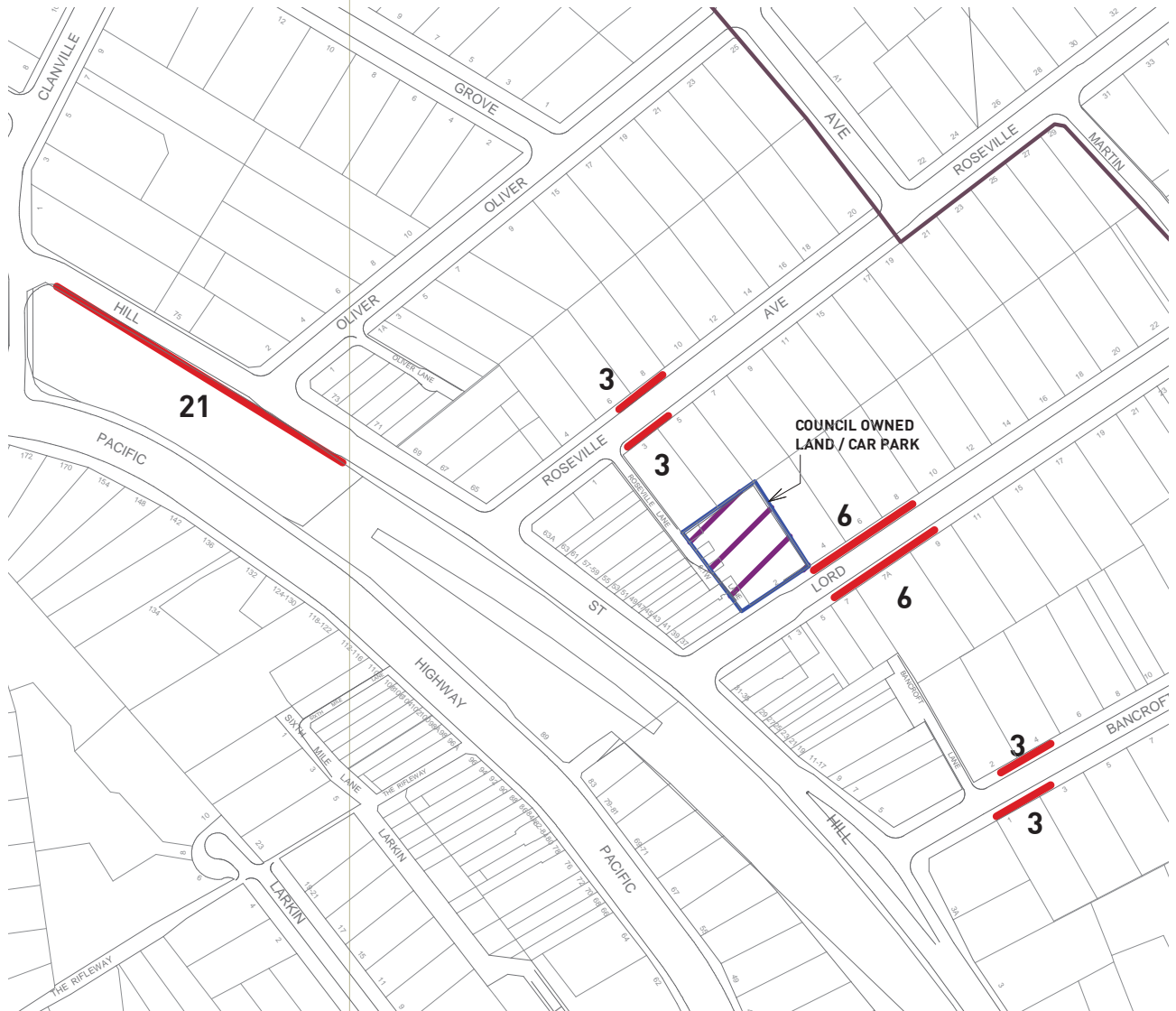
**A5 PLANS OF STRATEGIES TO MANAGE TEMPORARY IMPACTS DUE TO RECONSTRUCTION OF COUNCIL OWNED PARKING FACILITIES (CONTINUED)**






**LINDFIELD SITE 2 TEMPORARY PARKING PLAN**

- 2P PARKING
- COUNCIL LAND/CAR PARK
- CO-ORDINATED REDEVELOPMENT

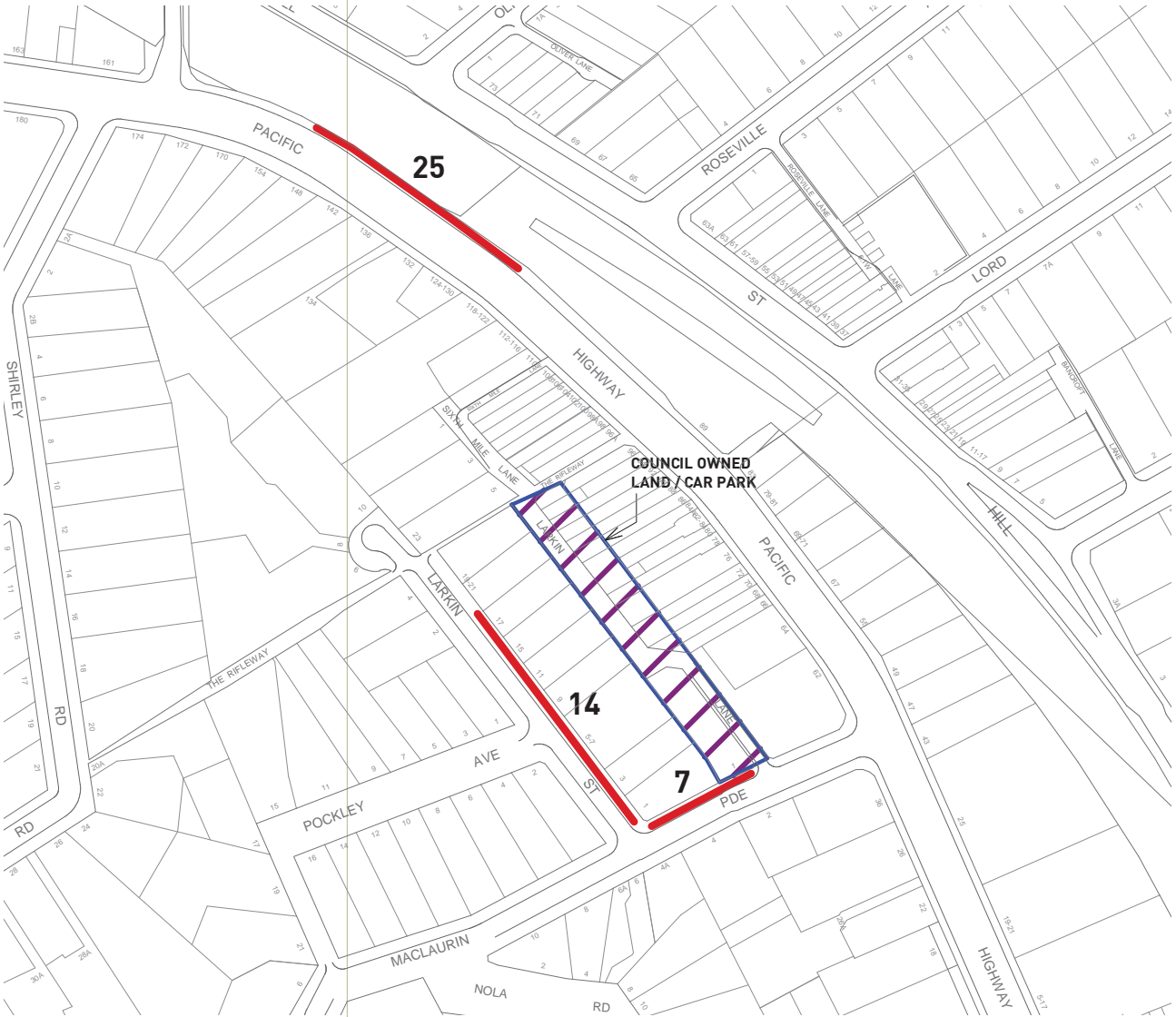
# A5 PLANS OF STRATEGIES TO MANAGE TEMPORARY IMPACTS DUE TO RECONSTRUCTION OF COUNCIL OWNED PARKING FACILITIES (CONTINUED)



**ROSEVILLE SITE 1 TEMPORARY PARKING PLAN**

-  2P PARKING
-  COUNCIL LAND/CAR PARK
-  CO-ORDINATED REDEVELOPMENT

**A5 PLANS OF STRATEGIES TO MANAGE  
TEMPORARY IMPACTS DUE TO  
RECONSTRUCTION OF COUNCIL OWNED  
PARKING FACILITIES (CONTINUED)**



**ROSEVILLE SITE 2 TEMPORARY PARKING PLAN**

- 2P PARKING
- COUNCIL LAND/CAR PARK
- CO-ORDINATED REDEVELOPMENT

## A6 PRECINCT BY PRECINCT ANALYSIS

St Ives Northern precincts						
			Thursday		Saturday	
	GFA	Spaces	Short Stay	Long Stay	Short Stay	Long Stay
St Ives Shopping Village			967	141	967	141
Denley Lane/Durham Avenue			15		15	
Mona Vale Road (cnr Denley Lane)				60		60
On-site parking Mona Vale Road shops			11	82	11	82
On-street parking			40	165		174
<b>Total Existing Parking Supply</b>			<b>1033</b>	<b>448</b>	<b>993</b>	<b>457</b>
Theoretical demand retail	23,942	1,408	986	423	986	423
Theoretical demand business	5,956	180	18	162	18	162
Theoretical demand recreation				47	390	29
<b>Total Theoretical Demand</b>			<b>1004</b>	<b>632</b>	<b>1,394</b>	<b>614</b>
<b>Existing peak demand</b> (assumes 100% Thu and 30% Sat occupancy of existing on-site commercial/ retail parking)			<b>947</b> (92% of exist supply)	<b>339</b> (76% of exist supply)	<b>722</b> (73% of exist supply)	<b>283</b> (62% of exist supply)
<b>Balance</b>			<b>86</b>	<b>109</b>	<b>271</b>	<b>174</b>

St Ives southern precincts						
			Thursday		Saturday	
	GFA	Spaces	Short Stay	Long Stay	Short Stay	Long Stay
On-site parking provision Mona Vale Road/Stanley St shops			41	82	41	82
208-210 Mona Vale Road car park			25		25	
On street parking			28	145	28	145
Old School car park			58	12	58	12
<b>Total Existing Parking Supply</b>			<b>152</b>	<b>239</b>	<b>152</b>	<b>239</b>
Theoretical demand retail	3,499	206	144	62	144	62
Theoretical demand business	3,586	109	11	98	11	98
Theoretical demand community	850	26	21	5	4	1
<b>Total Theoretical Parking Demand</b>			<b>176</b>	<b>165</b>	<b>159</b>	<b>161</b>
<b>Existing peak demand</b> (assumes 100% Thu and 30% Sat occupancy of existing on-site commercial/ retail parking)			<b>50</b> (33% of exist supply)	<b>114</b> (48% of exist supply)	<b>56</b> (37% of exist supply)	<b>41</b> (17% of exist supply)
<b>Balance (supply - demand)</b>			<b>102</b>	<b>125</b>	<b>96</b>	<b>198</b>

## A6 PRECINCT BY PRECINCT ANALYSIS (continued)

St Ives northern precincts - minimum development scenario						
			Short Stay	Long Stay	Short Stay	Long Stay
	Gross floor area	Spaces required	Thursday		Saturday	
Precinct A St Ives Shopping Village retail	36,416	1,655	1,159	497	1,159	497
Precinct A St Ives Shopping Village business	5,417	164	16	148	16	148
Precinct A Community (library, neighbourhood centre)	2,100	64	51	13	10	3
Precinct A 164/A Mona Vale Road business (existing), no change	2,405		4	52	4	52
Precinct D (part) business	3,551	108	11	97	11	97
New parallel parking Village Green Parade			26		26	
New angle parking Memorial Avenue and Cowan Road			90		90	
New ground level parking adjacent to Memorial Avenue			38		38	
Ground level parking adjacent to Cowan Road			120		120	
Village Green Parade car park			105		105	
On-street parking			56	92	56	92
<b>Total Future Parking Supply</b>			<b>1,676</b>	<b>898</b>	<b>1,635</b>	<b>888</b>
Theoretical demand retail	36,416	1655	1,159	497	1,159	497
Theoretical demand business	11,373	345	34	310	3	31
Theoretical demand community	2,100	64	51	13	10	3
Theoretical demand recreation				47	390	29
<b>Total theoretical demand</b>			<b>1,244</b>	<b>866</b>	<b>1,562</b>	<b>559</b>
<b>Balance (supply – demand)</b>			<b>432</b>	<b>31</b>	<b>73</b>	<b>329</b>

St Ives southern precincts - minimum development scenario						
			Short Stay	Long Stay	Short Stay	Long Stay
	Gross floor area	Spaces required	Thursday		Saturday	
Precinct B existing (Shell service station)	180			19		19
Precinct B business	5,786	175	18	158	18	158
Precinct C retail	3,586	211	148	63	148	63
Car park 208-210 Mona Vale Road			25		25	
On street parking			28	135	28	135
Old School car park (less 15 spaces for conversion of parking spaces to public square Old School car park)			54		54	
New Stanley Lane Parking			16		16	
<b>Total Future Parking Supply</b>			<b>288</b>	<b>375</b>	<b>288</b>	<b>375</b>
Theoretical demand retail	3,766	222	155	66	155	66
Theoretical demand business	5,786	175	18	158	2	16
Theoretical demand community (current allocation in Porters Lane car park)			12		12	
<b>Total Theoretical Parking Demand</b>			<b>185</b>	<b>224</b>	<b>169</b>	<b>82</b>
<b>Balance (supply – demand)</b>			<b>104</b>	<b>151</b>	<b>119</b>	<b>293</b>

## A6 PRECINCT BY PRECINCT ANALYSIS (continued)

St Ives northern precincts - maximum development scenario						
			Short Stay	Long Stay	Short Stay	Long Stay
	Gross floor area	Spaces required	Thursday		Saturday	
Precinct A St Ives Shopping Village retail	45,107	2,050	1,435	615	1,435	615
Precinct A St Ives Shopping Village business	9,120	276	28	249	28	249
Precinct A Community (library, neighbourhood centre)	2,100	64	51	13	10	3
Precinct A 164/A Mona Vale Road business (existing), no change	2,405		4	52	4	52
Precinct D (part) business	3,551	108	11	97	11	97
New parallel parking Village Green Parade			26		26	
New angle parking Memorial Avenue and Cowan Road			90		90	
New ground level parking adjacent to Memorial Avenue			38		38	
Ground level parking adjacent to Cowan Road			120		120	
Village Green Parade car park			105		105	
On-street parking			56	92	56	92
<b>Total Future Parking Supply</b>			<b>1,964</b>	<b>1,117</b>	<b>1,923</b>	<b>1,107</b>
Theoretical demand retail	45,107	2050	1,435	615	1,435	615
Theoretical demand business	15,076	457	46	411	5	41
Theoretical demand community	2,100	64	51	13	10	3
Theoretical demand recreation				47	390	29
<b>Total theoretical demand</b>			<b>1,532</b>	<b>1,086</b>	<b>1,840</b>	<b>688</b>
<b>Balance (supply - demand)</b>			<b>432</b>	<b>31</b>	<b>83</b>	<b>419</b>

St Ives southern precincts - maximum development scenario						
			Short Stay	Long Stay	Short Stay	Long Stay
	Gross floor area	Spaces required	Thursday		Saturday	
Precinct B existing (Shell service station)	180			19		19
Precinct B business	5,786	175	18	158	18	158
Precinct C retail	6,561	386	270	116	270	116
Car park 208-210 Mona Vale Road			25		25	
On street parking			28	135	28	135
Old School car park (less 15 spaces for conversion of parking spaces to public square Old School car park)			54		54	
New Stanley Lane Parking			16		16	
<b>Total Future Parking Supply</b>			<b>411</b>	<b>428</b>	<b>411</b>	<b>428</b>
Theoretical demand retail	6,741	397	278	119	278	119
Theoretical demand business	5,786	175	18	158	2	16
Theoretical demand community (current allocation in Porters Lane car park)			12		12	
<b>Total Theoretical Parking Demand</b>			<b>307</b>	<b>277</b>	<b>291</b>	<b>135</b>
<b>Balance (supply - demand)</b>			<b>104</b>	<b>151</b>	<b>119</b>	<b>293</b>

## A6 PRECINCT BY PRECINCT ANALYSIS (continued)

Turramurra - Ray and William Streets precincts						
			Thursday		Saturday	
	GFA	Spaces	Short Stay	Long Stay	Short Stay	Long Stay
Ray/William Street car park			160		160	
Commuter parking (William Street)				40		40
Ray Street on-street parking			15	11	15	11
Turramurra Library			8		8	
William Street on-street parking			27		27	
Existing on-site commercial/retail parking				48		48
<b>Total Existing Parking Supply</b>			<b>210</b>	<b>99</b>	<b>210</b>	<b>99</b>
Theoretical requirement retail	5,526	213	149	64	149	64
Theoretical requirement commercial	615	19	2	17	0	2
<b>Total Theoretical Parking Requirement</b>			<b>151</b>	<b>81</b>	<b>149</b>	<b>65</b>
<b>Existing peak demand</b> (assumes 100% Thu and 30% Sat occupancy of existing on-site commercial/retail parking)			<b>146</b> (70% of existing supply)	<b>99</b> (100% of existing supply)	<b>98</b> (47% of existing supply)	<b>40</b> (40% of existing supply)
<b>Balance (existing supply – existing demand)</b>			<b>64</b>	<b>0</b>	<b>112</b>	<b>59</b>

Turramurra Turramurra Plaza and Stonex Street precincts						
			Thursday		Saturday	
	GFA	Spaces	Short Stay	Long Stay	Short Stay	Long Stay
Existing on-site commercial/retail parking (Pacific Highway shops)				40		40
Turramurra Plaza car park			152		152	
On street parking (Duff Street, Boyd Street, Catalpa Crescent, Jersey Street)				98		98
<b>Total Existing Parking Supply</b>			<b>152</b>	<b>138</b>	<b>152</b>	<b>138</b>
Theoretical requirement commercial	1,802	55	5	49	1	5
Theoretical requirement retail	5,290	203	142	61	142	61
<b>Total Theoretical Parking Requirement</b>			<b>148</b>	<b>110</b>	<b>143</b>	<b>66</b>
<b>Existing peak demand</b> (assumes 100% Thu and 30% Sat occupancy of existing on-site commercial/retail parking)			<b>109</b> (72% of existing supply)	<b>118</b> (86% of existing supply)	<b>122</b> (80% of existing supply)	<b>31</b> (22% of existing supply)
<b>Balance (existing supply – existing demand)</b>			<b>43</b>	<b>20</b>	<b>30</b>	<b>107</b>

## A6 PRECINCT BY PRECINCT ANALYSIS (continued)

Turramurra Rohini Street, Eastern Road, Gilroy Road and Turramurra Avenue precincts						
			Thursday		Saturday	
	GFA	Spaces	Short Stay	Long Stay	Short Stay	Long Stay
Existing on-site commercial/retail parking			15	135	15	135
Gilroy Lane car park			142		142	
On-street parking			70	368	70	368
Rohini Street commuter car park				36		36
<b>Total Existing Parking Supply</b>			<b>227</b>	<b>539</b>	<b>227</b>	<b>539</b>
Theoretical demand retail	7,932	305	214	92	214	92
Theoretical demand commercial	3,568	108	11	97	1	10
<b>Total Theoretical Parking Requirement</b>			<b>224</b>	<b>189</b>	<b>215</b>	<b>101</b>
<b>Actual peak demand</b> (assumes 100% Thu and 30% Sat occupancy of existing on-site commercial/retail parking)			<b>175</b> (83% of existing supply)	<b>494</b> (89% of existing supply)	<b>109</b> (51% of existing supply)	<b>185</b> (33% of existing supply)
<b>Balance (existing supply – existing demand)</b>			<b>52</b>	<b>45</b>	<b>118</b>	<b>354</b>



## A6 PRECINCT BY PRECINCT ANALYSIS (continued)

<b>Turrumurra Ray and William Streets precincts</b>						
Minimum redevelopment scenario						
	Gross floor area	Spaces required	Thursday		Saturday	
			Short Stay	Long Stay	Short Stay	Long Stay
Precinct A existing retail	460					
Precinct A existing business	115					
Precinct A retail	4,332	131	92	39	92	39
Precinct A community existing (library)	470	8	6	2	1	2
Precinct B business		0	0	0	0	0
Precinct B retail	4,664	141	99	42	99	42
Precinct G retail	1,706	52	36	16	36	16
New Forbes Lane on-street parking			35		35	
On-street parking			20		20	13
Ray/William St parking			132		132	40
<b>Total Future Parking Supply</b>			<b>420</b>	<b>99</b>	<b>415</b>	<b>152</b>
Theoretical requirement retail	9,456	287	201	86	201	86
Theoretical requirement business	115	3	0	3	0	0
Theoretical requirement community	470	14	10	4	10	4
<b>Total Theoretical Parking Requirement</b>			<b>211</b>	<b>93</b>	<b>211</b>	<b>90</b>
<b>Balance (future supply – theoretical requirement)</b>			<b>210</b>	<b>6</b>	<b>205</b>	<b>62</b>

<b>Turrumurra Turrumurra Plaza precincts</b>						
Minimum redevelopment scenario						
	Gross floor area	Spaces required	Thursday		Saturday	
			Short Stay	Long Stay	Short Stay	Long Stay
Precinct C existing business	282		10	4	10	4
Precinct C existing (incl Council car park)			79	7	79	7
Precinct C retail	5,582	169	118	51	118	51
Precinct H retail	2,112	64	45	19	45	19
Precinct H existing business	956			19		19
On-street parking						98
<b>Total Future Parking Supply</b>			<b>242</b>	<b>96</b>	<b>242</b>	<b>194</b>
Theoretical requirement retail	7,694	233	163	70	163	70
Theoretical requirement business	1,238	28	3	25	0	2
<b>Total Theoretical Parking Requirement</b>			<b>166</b>	<b>95</b>	<b>163</b>	<b>72</b>
<b>Balance (existing supply – existing requirement)</b>			<b>76</b>	<b>1</b>	<b>79</b>	<b>122</b>

## A6 PRECINCT BY PRECINCT ANALYSIS (continued)

Turrumurra Rohini Street, Eastern Road, Gilroy Road and Turrumurra Avenue precincts						
Minimum redevelopment scenario						
			Thursday		Saturday	
	Gross floor area	Spaces required	Short Stay	Long Stay	Short Stay	Long Stay
Precinct D retail	9,351	283	198	85	198	85
Precinct D business		0	0	0	0	0
Precinct E existing business	212		5	8	5	8
Precinct F retail existing	1,054			36		36
Precinct F business existing	1,054					
Turrumurra Avenue car park			142		142	
On-street parking			67		67	399
<b>Total Future Parking Supply</b>			<b>412</b>	<b>129</b>	<b>412</b>	<b>528</b>
Theoretical requirement retail	10,405	315	221	95	221	95
Theoretical requirement business	1,266	28	3	25	3	25
<b>Total Theoretical Parking Requirement</b>			<b>224</b>	<b>120</b>	<b>224</b>	<b>120</b>
<b>Balance (future supply – theoretical requirement)</b>			<b>189</b>	<b>9</b>	<b>189</b>	<b>408</b>

## A6 PRECINCT BY PRECINCT ANALYSIS (continued)

<b>Turramurra Ray and William Streets precincts</b>						
Maximum redevelopment scenario						
			Thursday		Saturday	
	Gross floor area	Spaces required	Short Stay	Long Stay	Short Stay	Long Stay
Precinct A existing retail						
Precinct A existing business						
Precinct A retail	11,249	341	239	102	239	102
Precinct A community (library etc)	2,250	68	55	14	11	2
Precinct B business		0	0	0	0	0
Precinct B retail	4,664	141	99	42	99	42
Precinct G retail	1,706	52	36	16	36	16
New Forbes Lane on-street parking			35		35	
On-street parking			20		20	13
Ray/William St parking			132		132	40
<b>Total Future Parking Supply</b>			<b>615</b>	<b>174</b>	<b>572</b>	<b>215</b>
Theoretical requirement retail	15,913	482	338	145	338	145
Theoretical requirement business	0	0	0	0	0	0
Theoretical requirement community	2,250	68	55	14	11	2
<b>Total Theoretical Parking Requirement</b>			<b>392</b>	<b>158</b>	<b>348</b>	<b>147</b>
<b>Balance (future supply – theoretical requirement)</b>			<b>223</b>	<b>16</b>	<b>223</b>	<b>69</b>

<b>Turramurra Turramurra Plaza precincts</b>						
Maximum redevelopment scenario						
			Thursday		Saturday	
	Gross floor area	Spaces required	Short Stay	Long Stay	Short Stay	Long Stay
Precinct C existing business	282		10	4	10	4
New Stonex Street parking			28		28	
Precinct C retail	8,405	255	178	76	178	76
Precinct H retail	2,112	64	45	19	45	19
Precinct H existing business	956			19		19
On-street parking						98
<b>Total Future Parking Supply</b>			<b>251</b>	<b>115</b>	<b>251</b>	<b>213</b>
Theoretical requirement retail	10,517	319	223	96	223	96
Theoretical requirement business	1,238	28	3	25	0	2
<b>Total Theoretical Parking Requirement</b>			<b>226</b>	<b>120</b>	<b>223</b>	<b>98</b>
<b>Balance (existing supply – existing requirement)</b>			<b>25</b>	<b>-6</b>	<b>28</b>	<b>115</b>

## A6 PRECINCT BY PRECINCT ANALYSIS (continued)

Turramurra Rohini Street, Eastern Road, Gilroy Road and Turramurra Avenue precincts						
Maximum redevelopment scenario						
	Gross floor area	Spaces required	Thursday		Saturday	
			Short Stay	Long Stay	Short Stay	Long Stay
Precinct D retail	9,351	283	198	85	198	85
Precinct D business	4,876	108	11	98	1	10
Precinct E existing business	212		5	8	5	8
Precinct F retail existing	1,054			36		36
Precinct F business existing	1,054					
Turramurra Avenue car park			142		142	
On-street parking			67		67	399
<b>Total Future Parking Supply</b>			<b>423</b>	<b>227</b>	<b>413</b>	<b>538</b>
Theoretical requirement retail	10,405	315	221	95	221	95
Theoretical requirement business	1,266	28	3	25	3	25
<b>Total Theoretical Parking Requirement</b>			<b>224</b>	<b>120</b>	<b>224</b>	<b>120</b>
<b>Balance (future supply - theoretical requirement)</b>			<b>200</b>	<b>107</b>	<b>190</b>	<b>418</b>

## A6 PRECINCT BY PRECINCT ANALYSIS (continued)

Pymble Southern Precincts -- Existing Parking Situation						
	GFA	Spaces	Wednesday		Saturday	
			Short Stay	Long Stay	Short Stay	Long Stay
Car park (behind shops, between Pacific Highway and railway)			23		23	
On-street parking (Pacific Highway, Orinoco Street, Livingstone Avenue, Everton Road, Pymble Avenue, Avon Road)			37	194	37	194
Existing on-site retail/commercial parking				62		62
<b>Total Existing Parking Supply</b>			<b>60</b>	<b>256</b>	<b>60</b>	<b>256</b>
Theoretical demand retail	841	32	23	10	23	10
Theoretical demand commercial	2,952	89	9	81	1	8
<b>Total Theoretical Parking Requirement</b>			<b>32</b>	<b>90</b>	<b>24</b>	<b>18</b>
<b>Existing peak demand</b> (assumes 100% Thu and 30% Sat occupancy of existing on-site commercial/retail parking)			<b>33</b> (55% of existing supply)	<b>238</b> (93% of existing supply)	<b>10</b> (17% of existing supply)	<b>26</b> (10% of existing supply)
<b>Balance (existing supply – existing demand)</b>			<b>27</b>	<b>18</b>	<b>50</b>	<b>230</b>

Pymble Northern Precincts – Existing Parking Situation						
	GFA	Spaces	Wednesday		Saturday	
			Short Stay	Long Stay	Short Stay	Long Stay
Car park – Alma Street			14		14	
Car park – Grandview Lane			49		49	
On-street parking (Pacific Highway, Grandview Street, Post Office Street, Alma Street)			113	251	113	251
Existing on-site retail/commercial parking				59		59
<b>Total Existing Parking Supply</b>			<b>176</b>	<b>310</b>	<b>176</b>	<b>310</b>
Theoretical demand retail	3,819	147	103	44	103	44
Theoretical demand commercial	9,558	290	29	261	3	26
<b>Total Theoretical Parking Requirement</b>			<b>132</b>	<b>305</b>	<b>106</b>	<b>70</b>
<b>Existing peak demand</b> (assumes 100% Thu and 30% Sat occupancy of existing on-site commercial/retail parking)			<b>101</b> (57% of existing supply)	<b>428</b> (90% of existing supply)	<b>68</b> (40% of existing supply)	<b>116</b> (24% of existing supply)
<b>Balance (existing supply – existing demand)</b>			<b>75</b>	<b>-118</b>	<b>108</b>	<b>194</b>

## A6 PRECINCT BY PRECINCT ANALYSIS (continued)

Pymble Southern Precincts						
Minimum redevelopment scenario						
	Gross floor area	Spaces required	Thursday		Saturday	
			Short Stay	Long Stay	Short Stay	Long Stay
Precinct B existing retail	841		23	40	23	40
Precinct B existing business	1,962					
Precinct F existing business	195			2		2
On-street parking			37		37	194
<b>Total Future Parking Supply</b>			<b>60</b>	<b>42</b>	<b>60</b>	<b>236</b>
Theoretical demand retail	841	25	18	8	18	8
Theoretical demand business	2,157	48	5	43	0	4
<b>Total Theoretical Parking Demand</b>			<b>23</b>	<b>51</b>	<b>18</b>	<b>12</b>
<b>Balance (supply - demand)</b>			<b>37</b>	<b>-9</b>	<b>42</b>	<b>224</b>

Pymble Northern Precincts						
Minimum redevelopment scenario						
	Gross floor area	Spaces required	Thursday		Saturday	
			Short Stay	Long Stay	Short Stay	Long Stay
Precinct A existing						
Precinct A retail	4,526	137	96	41	96	41
Precinct E existing retail	376			2		2
Precinct E retail	3,072	93	65	28	65	28
Precinct G existing business	4,347		2	97	2	97
Precinct G retail	2,254	68	48	20	48	20
Precinct G business						
Precinct H retail (no change)	795			20		20
Alma St car park						
New parking area - Post Office Lane (east)			10		10	
New car park - Grandview Lane			72		72	
New on-street parking - Grandview Street (between Pacific Highway and Alma Street)			29		29	
On-street parking			92		92	251
<b>Total Future Parking Supply</b>			<b>414</b>	<b>209</b>	<b>414</b>	<b>460</b>
Theoretical demand retail	11,023	334	234	100	234	100
Theoretical demand business	4,347	97	10	87	1	9
<b>Total Theoretical Parking Demand</b>			<b>243</b>	<b>187</b>	<b>235</b>	<b>109</b>
<b>Balance (supply - demand)</b>			<b>171</b>	<b>21</b>	<b>179</b>	<b>351</b>

## A6 PRECINCT BY PRECINCT ANALYSIS (continued)

Pymble Southern Precincts						
Maximum redevelopment scenario						
	Gross floor area	Spaces required	Thursday		Saturday	
			Short Stay	Long Stay	Short Stay	Long Stay
Precinct B existing retail	841		23	40	23	40
Precinct B existing business	1,962					
Precinct F existing business	195			2		2
On-street parking			37		37	194
<b>Total Future Parking Supply</b>			<b>60</b>	<b>42</b>	<b>60</b>	<b>236</b>
Theoretical demand retail	841	25	18	8	18	8
Theoretical demand business	2,157	48	5	43	0	4
<b>Total Theoretical Parking Demand</b>			<b>23</b>	<b>51</b>	<b>18</b>	<b>12</b>
<b>Balance (supply - demand)</b>			<b>37</b>	<b>-9</b>	<b>42</b>	<b>224</b>

Pymble Northern Precincts						
Maximum redevelopment scenario						
	Gross floor area	Spaces required	Thursday		Saturday	
			Short Stay	Long Stay	Short Stay	Long Stay
Precinct A existing						
Precinct A retail	6,547	198	139	60	139	60
Precinct E existing retail	376			2		2
Precinct E retail	3,072	93	65	28	65	28
Precinct G existing business	4,347		2	97	2	97
Precinct G retail	2,254	68	48	20	48	20
Precinct G business						
Precinct H retail	2,119	64	45	19	45	19
Alma St car park						
New parking area – Post Office Lane (east)			10		10	
New car park – Grandview Lane			72		72	
New on-street parking – Grandview Street (between Pacific Highway and Alma Street)			29		29	
On-street parking			92		92	251
<b>Total Future Parking Supply</b>			<b>502</b>	<b>226</b>	<b>502</b>	<b>477</b>
Theoretical demand retail	14,368	435	305	131	305	131
Theoretical demand business	4,347	97	10	87	1	9
<b>Total Theoretical Parking Demand</b>			<b>314</b>	<b>218</b>	<b>306</b>	<b>139</b>
<b>Balance (supply - demand)</b>			<b>187</b>	<b>9</b>	<b>196</b>	<b>338</b>

## A6 PRECINCT BY PRECINCT ANALYSIS (continued)

Gordon Western Precincts						
	GFA	Spaces	Thursday		Saturday	
			Short Stay	Long Stay	Short Stay	Long Stay
Gordon Centre car park			405	132	405	132
Moree Street car park			25		25	
Existing on-site commercial/retail parking				448		448
Council Chambers			12	84		96
On-street parking (Pacific Highway, McIntyre Street, Dumaresq Street, Moree Street, St Johns Avenue)			62	333	40	356
<b>Total Existing Parking Supply</b>			<b>504</b>	<b>997</b>	<b>470</b>	<b>1032</b>
Theoretical demand retail	10,635	409	286	123	286	123
Theoretical demand commercial	27,907	846	85	761	8	76
<b>Total Theoretical Parking Requirement</b>			<b>371</b>	<b>884</b>	<b>295</b>	<b>199</b>
<b>Existing peak demand</b> (assumes 100% Thu and 30% Sat occupancy of existing on-site commercial/retail parking)			<b>425</b> (80% of existing supply)	<b>697</b> (73% of existing supply)	<b>265</b> (54% of existing supply)	<b>265</b> (26% of existing supply)
<b>Balance (existing supply – existing demand)</b>			<b>79</b>	<b>572</b>	<b>45</b>	<b>607</b>



## A6 PRECINCT BY PRECINCT ANALYSIS (continued)

Gordon Eastern Precincts						
	GFA	Spaces	Thursday		Saturday	
			Short Stay	Long Stay	Short Stay	Long Stay
Wade Lane car park			326	19	326	19
Pearson Avenue car park			23		23	
Existing on-site commercial/retail parking				99		99
Existing on-site/reserved educational parking (Ravenswood)				105		
Existing on-site community parking (library/Police)			3	27	3	27
Werona Avenue commuter car park (cnr Park Avenue)				104		104
Werona Avenue commuter car park (opp Robert Street)				35		35
Werona Avenue commuter car park (opp McIntosh Street)				91		91
On-street parking			147	313	95	384
Henry Street multi-storey commuter car park				340		340
Henry Street at-grade commuter car park				55		55
Henry Street interchange commuter car park				22		22
<b>Total Existing Parking Supply</b>			<b>499</b>	<b>1,210</b>	<b>447</b>	<b>1,176</b>
Theoretical demand retail	9,265	356	249	107	249	107
Theoretical demand commercial	6,797	206	21	185	2	19
Theoretical demand community		56	11	45	11	45
Theoretical demand educational		185		185		
<b>Total Theoretical Parking Requirement</b>			<b>281</b>	<b>522</b>	<b>263</b>	<b>170</b>
<b>Existing peak demand</b> (assumes 100% Thu and 30% Sat occupancy of existing on-site commercial/retail parking)			<b>482</b> [96% of existing supply]	<b>1,163</b> [96% of existing supply]	<b>272</b> [61% of existing supply]	<b>350</b> [30% of existing supply]
<b>Balance (existing supply – existing demand)</b>			<b>17</b>	<b>47</b>	<b>175</b>	<b>826</b>

## A6 PRECINCT BY PRECINCT ANALYSIS (continued)

Gordon Western Precincts						
Minimum redevelopment scenario						
	Gross floor area	Spaces required	Thursday		Saturday	
			Short Stay	Long Stay	Short Stay	Long Stay
Precinct C (part, mixed use business)	3,179	71	7	64	7	64
Precinct E (part, existing business), no change likely	21,388		12	483		399
Precinct F retail	19,101	579	405	174	405	174
Precinct H retail	4,849	147	103	44	103	44
Precinct H business		0	0	0	0	0
On-street parking			59		59	355
Moree Street car park (underground)			25		25	
<b>Total Future Parking Supply</b>			<b>611</b>	<b>764</b>	<b>599</b>	<b>1035</b>
Theoretical demand retail	23,950	726	508	218	508	218
Theoretical demand business	24,567	546	55	491	5	49
<b>Total Theoretical Demand</b>			<b>563</b>	<b>709</b>	<b>513</b>	<b>267</b>
<b>Balance</b>			<b>48</b>	<b>55</b>	<b>86</b>	<b>768</b>

Gordon Eastern Precincts						
Minimum redevelopment scenario						
	Gross floor area	Spaces required	Thursday		Saturday	
			Short Stay	Long Stay	Short Stay	Long Stay
Precinct D business	1,066	24	2	21	2	21
Precinct E part (existing library/Police) no change	2,700		3	27	3	27
Precinct G (existing PO site, retail)	1,813		10	40	10	40
Precinct G (existing PO site, business)	777					
Precinct G retail	15,805	479	335	144	335	144
Precinct J						
Precinct J business	1,687	37	4	34	4	34
Precinct O (existing) no change	258			3		3
Ravenswood school				185		
On-street parking			147		95	384
Wade Lane car park			326	48	326	48
Werona Avenue commuter car parks						271
Henry Street multi-storey commuter car park						340
Pearson Ave car park			23		23	
<b>Total Future Supply</b>			<b>850</b>	<b>502</b>	<b>798</b>	<b>1312</b>
Theoretical demand retail	17,876	542	379	163	379	163
Theoretical demand business	3,530	78	8	71	1	7
Theoretical demand community (library and Police)	2,700	82	57	25	11	2
Theoretical demand educational		185		185		
<b>Total Theoretical Demand</b>			<b>444</b>	<b>443</b>	<b>391</b>	<b>172</b>
<b>Balance</b>			<b>406</b>	<b>59</b>	<b>407</b>	<b>1140</b>

## A6 PRECINCT BY PRECINCT ANALYSIS (continued)

<b>Gordon Western Precincts</b>						
Maximum redevelopment scenario						
	Gross floor area	Spaces required	Thursday		Saturday	
			Short Stay	Long Stay	Short Stay	Long Stay
Precinct C (part, mixed use business)	3,179	71	7	64	7	64
Precinct E business (incl Council offices)	10,239	228	23	205	23	205
Precinct E Auditorium	300 seats	15	12	3	12	3
Precinct E Community/Cultural	5,500	61	49	12	49	12
Precinct E Library	3,000	33	27	7	27	7
Precinct F retail	19,101	579	405	174	405	174
Precinct H retail	10,551	320	224	96	224	96
Precinct H business						
On-street parking			59		59	355
Moree Street car park (underground)			25		25	
<b>Total Future Parking Supply</b>			<b>830</b>	<b>560</b>	<b>830</b>	<b>915</b>
Theoretical demand retail	29,652	899	629	270	629	270
Theoretical demand business	13,418	298	30	268	3	27
Theoretical demand Auditorium	300 seats	15	12	3	12	3
Theoretical demand Community/Cultural	5,500	61	49	12	49	12
Theoretical demand Library	3,000	33	27	7	27	7
<b>Total Theoretical Demand</b>			<b>746</b>	<b>560</b>	<b>720</b>	<b>318</b>
<b>Balance</b>			<b>84</b>	<b>0</b>	<b>111</b>	<b>597</b>

<b>Gordon Eastern Precincts</b>						
Maximum redevelopment scenario						
	Gross floor area	Spaces required	Thursday		Saturday	
			Short Stay	Long Stay	Short Stay	Long Stay
Precinct D business	1,066	24	2	21	2	21
Precinct E (Police)	1,200	36	7	29	7	29
Precinct G retail	24,244	735	514	220	514	220
Precinct J						
Precinct J business	1,687	37	4	34	4	34
Precinct O retail (existing)	258			3		3
Ravenswood school				185		
On-street parking			147		95	384
Wade Lane car park			374		326	48
Werona Avenue commuter car parks						271
Henry Street multi-storey commuter car park						340
Pearson Ave car park			23		23	
<b>Total Future Supply</b>			<b>1072</b>	<b>493</b>	<b>972</b>	<b>1351</b>
Theoretical demand retail	24,502	742	520	223	520	223
Theoretical demand business	2,753	61	6	55	1	6
Theoretical demand community (Police)	1,200	36	25	11	5	2
Theoretical demand educational		185		185		
<b>Total Theoretical Demand</b>			<b>551</b>	<b>474</b>	<b>525</b>	<b>230</b>
<b>Balance</b>			<b>520</b>	<b>19</b>	<b>446</b>	<b>1120</b>

## A6 PRECINCT BY PRECINCT ANALYSIS (continued)

Lindfield Western Precincts						
	GFA	Spaces	Thursday		Saturday	
			Short Stay	Long Stay	Short Stay	Long Stay
Car park – Woodford Lane			72	40	72	40
Car park – Balfour Lane (includes parking under Coles building)			113	32	113	32
On-street parking			95	321	106	323
Existing on-site commercial/retail parking				315		315
<b>Total Existing Parking Supply</b>			<b>280</b>	<b>708</b>	<b>291</b>	<b>710</b>
<b>Existing peak demand</b> (assumes 100% Thu and 30% Sat occupancy of existing on-site commercial/retail parking)			<b>209</b> (75% of existing supply)	<b>538</b> (76% of existing supply)	<b>141</b> (48% of existing supply)	<b>178</b> (25% of existing supply)
Theoretical demand retail	9,779	376	263	113	263	113
Theoretical demand commercial	15,776	478	48	430	5	43
<b>Total Theoretical Parking Demand</b>			<b>311</b>	<b>543</b>	<b>268</b>	<b>156</b>
<b>Balance (supply – demand)</b>			<b>-31</b>	<b>165</b>	<b>23</b>	<b>554</b>

Lindfield Eastern Precincts						
	GFA	Spaces	Thursday		Saturday	
			Short Stay	Long Stay	Short Stay	Long Stay
Car park – Tryon Road			138		138	
Car park – Havilah Lane			25		25	
Existing on-site commercial/retail parking				229		229
Existing on-street parking			123	392	108	404
<b>Total Existing Parking Supply</b>			<b>286</b>	<b>621</b>	<b>271</b>	<b>633</b>
<b>Existing peak demand</b> (assumes 100% Thu and 30% Sat occupancy of existing on-site commercial/retail parking)			<b>176</b> (62% of existing supply)	<b>515</b> (83% of existing supply)	<b>179</b> (66% of existing supply)	<b>260</b> (41% of existing supply)
Theoretical demand retail	4,542	175	122	52	122	52
Theoretical demand commercial	6,899	209	21	188	2	19
<b>Total Theoretical Parking Demand</b>			<b>143</b>	<b>241</b>	<b>124</b>	<b>71</b>
<b>Balance (supply – demand)</b>			<b>143</b>	<b>380</b>	<b>147</b>	<b>562</b>

## A6 PRECINCT BY PRECINCT ANALYSIS (continued)

<b>Lindfield Western Precincts</b>						
Minimum redevelopment scenario						
	Gross floor area	Spaces required	Thursday		Saturday	
			Short Stay	Long Stay	Short Stay	Long Stay
Precinct B retail	3,083	93	65	28	65	28
Precinct B business	2,058	46	5	41	5	41
Precinct C retail	8,584	260	182	78	182	78
Precinct C business						
Precinct D retail	1,762	53	37	16	37	16
Precinct E retail	7,868	238	167	72	167	72
Precinct E existing business	190			5		5
Precinct J existing business	2,500		7	69	7	69
Precinct K existing retail	390					
Precinct K existing business	3,900			108		108
Woodford Lane car park			72		72	40
On-street parking			95		106	323
New Drovers Way parking			28		28	-6
New Woodforde Lane parking			13		13	
New Lane between Pacific Highway and Tryon Place			2		2	
New road between Bent Street and Balfour Street			5		5	-6
<b>Total Future Parking Supply</b>			<b>678</b>	<b>417</b>	<b>689</b>	<b>768</b>
Theoretical demand retail	21,687	657	460	197	460	197
Theoretical demand business	8,648	192	19	173	2	17
<b>Total future demand</b>			<b>479</b>	<b>370</b>	<b>462</b>	<b>214</b>
<b>Balance (future supply - future demand)</b>			<b>199</b>	<b>47</b>	<b>227</b>	<b>553</b>

<b>Lindfield Eastern Precincts</b>						
Minimum redevelopment scenario						
	Gross floor area	Spaces required	Thursday		Saturday	
			Short Stay	Long Stay	Short Stay	Long Stay
Precinct A existing retail on heritage site	1,012					
Precinct A additional retail on heritage site (assume additional parking cannot be provided on-site)	1,147	35				
Precinct A retail other	928	28	20	8	20	8
Precinct A business	5,104	113	11	102	11	102
Precinct A community (library)	1,160	26	21	5	21	5
Precinct H retail	6,134	186	130	56	130	56
Havilah Lane car park			25		25	
Tryon Road car park			138		138	
On-street parking			123		123	392
Milray Street new angle parking			5		5	
<b>Total Future Parking Supply</b>			<b>473</b>	<b>171</b>	<b>473</b>	<b>563</b>
Theoretical demand retail	9,221	279	196	84	196	84
Theoretical demand business	5,104	113	11	102	1	10
Theoretical demand community	1,160	35	28	7	6	2
<b>Total Theoretical Parking Demand</b>			<b>235</b>	<b>193</b>	<b>202</b>	<b>96</b>
<b>Balance (supply - demand)</b>			<b>238</b>	<b>-22</b>	<b>270</b>	<b>467</b>

## A6 PRECINCT BY PRECINCT ANALYSIS (continued)

Lindfield Western Precincts						
Maximum redevelopment scenario						
	Gross floor area	Spaces required	Thursday		Saturday	
			Short Stay	Long Stay	Short Stay	Long Stay
Precinct B retail	3,083	93	65	28	65	28
Precinct B business	7,945	177	18	159	18	159
Precinct C retail	11,384	345	241	103	241	103
Precinct C business						
Precinct D retail	1,762	53	37	16	37	16
Precinct E retail	7,868	238	167	72	167	72
Precinct E existing business	190			5		5
Precinct J existing business	2,500		7	69	7	69
Precinct K retail	4,344	132	92	39	92	39
Woodford Lane car park			72		72	40
On-street parking			95		106	323
New Drovers Way parking			28		28	-6
New Woodforde Lane parking			13		13	
New Lane between Pacific Highway and Tryon Place			2		2	
New road between Bent Street and Balfour Street			5		5	-6
<b>Total Future Parking Supply</b>			<b>843</b>	<b>491</b>	<b>854</b>	<b>842</b>
Theoretical demand retail	28,441	862	603	259	603	259
Theoretical demand business	10,635	236	24	213	2	21
<b>Total future demand</b>			<b>627</b>	<b>471</b>	<b>606</b>	<b>280</b>
<b>Balance (future supply – future demand)</b>			<b>216</b>	<b>20</b>	<b>248</b>	<b>563</b>

Lindfield Eastern Precincts						
Maximum redevelopment scenario						
	Gross floor area	Spaces required	Thursday		Saturday	
			Short Stay	Long Stay	Short Stay	Long Stay
Precinct A existing retail on heritage site	1,012					
Precinct A additional retail on heritage site (assume additional parking cannot be provided on-site)	1,147	35				
Precinct A retail other	928	28	20	8	20	8
Precinct A business	5,104	113	11	102	11	102
Precinct A community (library)	1,160	26	21	5	21	5
Precinct H retail	6,134	186	130	56	130	56
Havilah Lane car park			25		25	
Tryon Road car park			138		138	
On-street parking			123		123	392
Milray Street new angle parking			5		5	
<b>Total Future Parking Supply</b>			<b>473</b>	<b>171</b>	<b>473</b>	<b>563</b>
Theoretical demand retail	9,221	279	196	84	196	84
Theoretical demand business	5,104	113	11	102	1	10
Theoretical demand community	1,160	35	28	7	6	2
<b>Total Theoretical Parking Demand</b>			<b>235</b>	<b>193</b>	<b>202</b>	<b>96</b>
<b>Balance (supply – demand)</b>			<b>238</b>	<b>-22</b>	<b>270</b>	<b>467</b>

## A6 PRECINCT BY PRECINCT ANALYSIS (continued)

Roseville Western Precincts						
			Thursday		Saturday	
	GFA	Spaces	Short Stay	Long Stay	Short Stay	Long Stay
Larkin Lane car park			44		44	
On-street parking			48	83	84	83
Existing on-site commercial/ retail parking				110		110
<b>Total Existing Parking Supply</b>			<b>92</b>	<b>193</b>	<b>128</b>	<b>193</b>
<b>Existing peak demand</b> (assumes 100% Thu and 30% Sat occupancy of existing on-site commercial/retail parking)			<b>79</b>	<b>148</b>		<b>51</b>
Theoretical demand retail	3,840	148	103	44	103	44
Theoretical demand commercial	5,310	161	16	145	2	14
<b>Total Theoretical Parking Demand</b>			<b>119</b>	<b>189</b>	<b>105</b>	<b>59</b>
<b>Balance (supply – demand)</b>			<b>13</b>	<b>45</b>	<b>128</b>	<b>142</b>

Roseville Eastern Precincts						
			Thursday		Saturday	
	GFA	Spaces	Short Stay	Long Stay	Short Stay	Long Stay
Lord Street car park			58		58	
Hill Street commuter car park				31		31
Existing on-site commercial/ retail parking				165		165
Existing on-street parking			116	530	124	528
<b>Total Existing Parking Supply</b>			<b>174</b>	<b>726</b>	<b>182</b>	<b>724</b>
<b>Existing peak demand</b> (assumes 100% Thu and 30% Sat occupancy of existing on-site commercial/retail parking)			<b>144</b>	<b>628</b>		<b>233</b>
Theoretical demand retail	3,588	138	97	41	97	41
Theoretical demand commercial	3,117	94	9	85	1	9
<b>Total Theoretical Parking Demand</b>			<b>106</b>	<b>126</b>	<b>98</b>	<b>50</b>
<b>Balance (supply – demand)</b>			<b>30</b>	<b>98</b>	<b>182</b>	<b>491</b>

## A6 PRECINCT BY PRECINCT ANALYSIS (continued)

Roseville Western Precincts						
Minimum redevelopment scenario						
	Gross floor area	Spaces required	Thursday		Saturday	
			Short Stay	Long Stay	Short Stay	Long Stay
Precinct A Cinema (assume 600 seats)						
Precinct A retail	7,099	215	151	65	151	65
Precinct A business	1,226	27	3	25	3	25
Precinct B retail (heritage, assume no additional parking possible on-site)	708					
Precinct B retail	1,057	32	22	10	22	10
Precinct B business	264	6	1	5	1	5
Precinct I business – no change	700		2	6	2	6
Larkin Lane car park			80		80	
On-street parking			48		84	83
<b>Total Future Parking Supply</b>			<b>306</b>	<b>110</b>	<b>342</b>	<b>193</b>
Theoretical demand retail	8,864	269	188	81	188	81
Theoretical demand business	2,190	49	5	44	0	4
Theoretical demand cinema		60	26	5	36	6
<b>Total Theoretical Parking Demand</b>			<b>218</b>	<b>129</b>	<b>224</b>	<b>91</b>
<b>Balance (supply – demand)</b>			<b>88</b>	<b>-19</b>	<b>118</b>	<b>102</b>

Roseville Eastern Precincts						
Minimum redevelopment scenario						
	Gross floor area	Spaces required	Thursday		Saturday	
			Short Stay	Long Stay	Short Stay	Long Stay
Precinct C retail	4,185	127	89	38	89	38
Precinct C business	1,046	23	2	21	2	21
Precinct C special reduction			-30		-30	
Precinct D retail	2,689	81	57	24	57	24
Precinct D business	672	15	1	13	1	13
Precinct D special reduction			-19		-19	
Lord Street car park			58		58	
Hill Street commuter car park						31
On-street parking			116		124	528
<b>Total Future Parking Supply</b>			<b>274</b>	<b>97</b>	<b>282</b>	<b>656</b>
Theoretical demand retail	6,874	208	146	62	146	62
Theoretical demand business	1,718	38	4	34	0	3
<b>Total Theoretical Parking Demand</b>			<b>150</b>	<b>97</b>	<b>146</b>	<b>66</b>
<b>Balance (supply – demand)</b>			<b>125</b>	<b>0</b>	<b>136</b>	<b>590</b>



## A6 PRECINCT BY PRECINCT ANALYSIS (continued)

Roseville Western Precincts						
Maximum redevelopment scenario						
			Thursday		Saturday	
	Gross floor area	Spaces required	Short Stay	Long Stay	Short Stay	Long Stay
Precinct A Cinema (assume 600 seats)						
Precinct A retail	7,415	225	157	67	157	67
Precinct A business	1,987	44	4	40	4	40
Precinct B retail (heritage, assume no additional parking possible on-site)	708					
Precinct B retail	1,057	32	22	10	22	10
Precinct B business	264	6	1	5	1	5
Precinct I business – no change	700		2	6	2	6
Larkin Lane car park			80		80	
On-street parking			48		84	83
<b>Total Future Parking Supply</b>			<b>315</b>	<b>128</b>	<b>351</b>	<b>211</b>
Theoretical demand retail	9,180	278	195	83	195	83
Theoretical demand business	2,951	66	7	59	1	6
Theoretical demand cinema		60	26	5	36	6
<b>Total Theoretical Parking Demand</b>			<b>227</b>	<b>147</b>	<b>231</b>	<b>96</b>
<b>Balance (supply – demand)</b>			<b>88</b>	<b>-19</b>	<b>120</b>	<b>115</b>

Roseville Eastern Precincts						
Maximum redevelopment scenario						
			Thursday		Saturday	
	Gross floor area	Spaces required	Short Stay	Long Stay	Short Stay	Long Stay
Precinct C retail	4,185	127	89	38	89	38
Precinct C business	1,046	23	2	21	2	21
Precinct C special reduction			-30		-30	
Precinct D retail	2,689	81	57	24	57	24
Precinct D business	672	15	1	13	1	13
Precinct D special reduction			-19		-19	
Lord Street car park			58		58	
Hill Street commuter car park						31
On-street parking			116		124	528
<b>Total Future Parking Supply</b>			<b>274</b>	<b>97</b>	<b>282</b>	<b>656</b>
Theoretical demand retail	6,874	208	146	62	146	62
Theoretical demand business	1,718	38	4	34	0	3
<b>Total Theoretical Parking Demand</b>			<b>150</b>	<b>97</b>	<b>146</b>	<b>66</b>
<b>Balance (supply – demand)</b>			<b>125</b>	<b>0</b>	<b>136</b>	<b>590</b>



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