

HENROTH GROUP

TRANSPORT REVIEW OF
PLANNING PROPOSAL FOR
PROPOSED MIXED USE
DEVELOPMENT,
CHULLORA MARKETPLACE,
GREENACRE

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I. INTRODUCTION

- I.1 Henroth Group engaged Colston Budd Rogers and Kafes Pty Ltd to review the transport aspects of a planning proposal to create a mixed use local centre within a revitalised Chullora Marketplace.
- I.2 Chullora Marketplace is located on the eastern side of Waterloo Road and north of Norfolk Road. An Islamic primary school bounds the site to the north with Norfolk Reserve to the east. It occupies land at 355 Waterloo Road, with two adjacent small residential lots acquired at 353 Waterloo Road and 87 Norfolk Road. The site location is shown in figure I.1 with an aerial view in figure I.2.

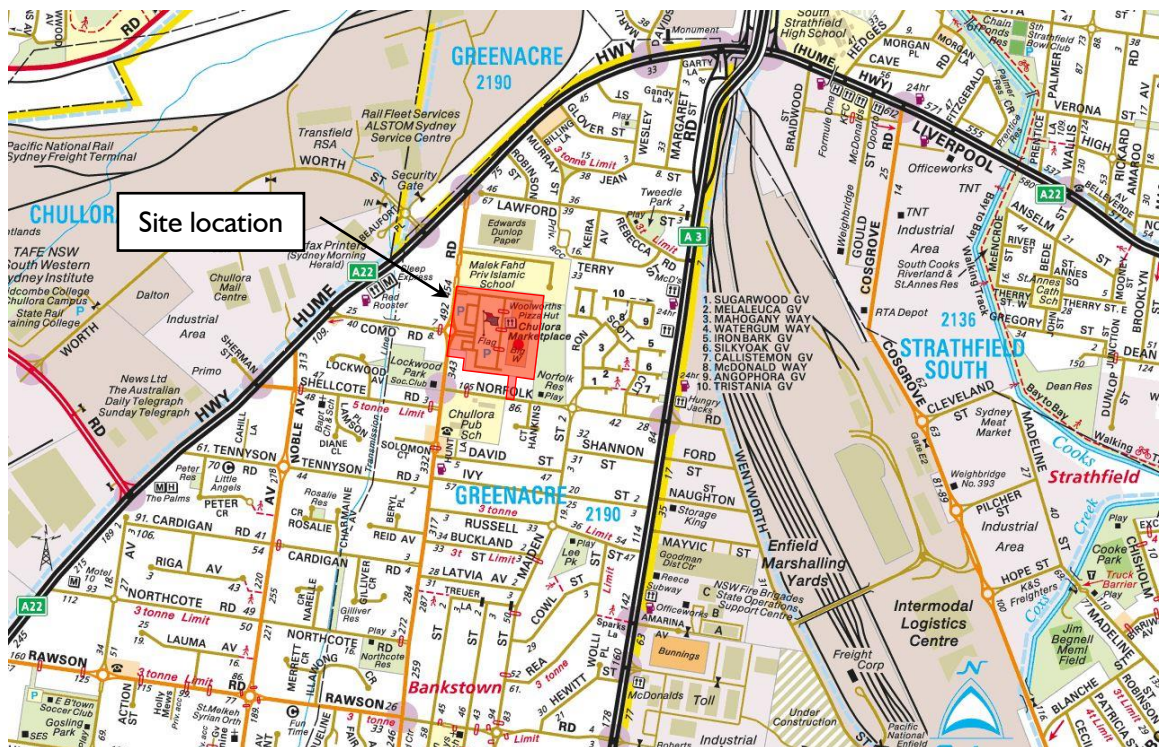


Figure I.1: Site Location

Source: Sydway



Figure I.2: Site Area

Source: Urban Design Report, GMU, 27/03/18

I.3 The existing applicable controls under Bankstown Local Environmental Plan 2015 are as follows:

- 355 Waterloo Road:
 - B2 local centre zoning;
 - 1:1 floor space ratio;
 - 11 metre height control.
- 353 Waterloo Road and 87 Norfolk Road:
 - R2 low density residential zoning;
 - 0.5:1 floor space ratio;
 - 9 metre height control.

- I.4 An urban design study by GMU has found that there is opportunity to create much more than a stand-alone shopping centre for a site located close to a range of amenities and the Hume Highway corridor.
- I.5 The transport aspects of the planning proposal are reviewed in the following chapter.

2. TRANSPORT ASPECTS OF PLANNING PROPOSAL

2.1 The transport aspects of the planning proposal are reviewed through the following sections:

- site location and road network;
- existing traffic volumes;
- potential scale of development;
- policy context;
- public transport, walking and cycling;
- parking provision;
- access, servicing and internal layout;
- traffic generation; and
- summary.

Site Location and Road Network

2.2 Chullora Marketplace is located on the eastern side of Waterloo Road and provides some 24,600m² GLA including Woolworths and Aldi supermarkets, Big W and specialty shops. Access is via two separate driveways on Waterloo Road, one priority controlled access in the north-west corner and the main access at the roundabout with Como Road. On-site parking for approximately 860 cars is provided within at-grade and basement car parks.

2.3 Surrounding land use comprises the Islamic school to the north, Chullora Public School to the south and Lockwood Park to the west. Norfolk Reserve is east of the site with low density residential dwellings further east and to the south. Commercial and industrial properties are located along the Hume Highway corridor.

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- 2.4 The road network in the vicinity of the site includes Hume Highway, Waterloo Road, Como Road and Norfolk Road. Hume Highway is located north and west of the site. It provides an arterial road link within the Sydney road network, between Parramatta Road at Ashfield and the M5 Motorway at Prestons. In the vicinity of the site, Hume Highway provides a dual carriageway with three traffic lanes in each direction and additional lanes at major intersections.
- 2.5 Waterloo Road travels in a north south direction along the western boundary of the site, connecting the Hume Highway in the north with Greenacre town centre and Wattle Street to the south. It generally provides one traffic lane and one parking lane in each direction clear of intersections. The intersection of Waterloo Road and Hume Highway is signalised with all turning movements permitted. Parking restrictions and speed control associated with school activity apply in the vicinity of the site. Bus stops are located on each side of the road, adjacent to the site. Waterloo Road provides access to the site.
- 2.6 Como Road is west of the site and connects Waterloo Road with Hume Highway. It provides one traffic lane and one parking lane in each direction. The intersection of Como Road and Hume Highway is a priority controlled T-intersection with the right turn from Como Road prohibited. The roundabout controlled intersection of Waterloo Road and Como Road also provides access to the site.
- 2.7 Norfolk Road is south of the site and connects Waterloo Road with Roberts Road to the east. It provides one traffic lane and one parking lane in each direction and intersects with Waterloo Road south-west of the site. Norfolk Road functions as a collector road in the road hierarchy, with traffic signals at its intersections with Roberts Road and Waterloo Road to the east and west respectively.
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Existing Traffic Volumes

2.8 Traffic counts at key locations have been completed as part of previous development applications for Chullora Marketplace. These assessments indicate that:

- Hume Highway carried some 3200 to 4600 vehicles per hour (two-way) during the Thursday afternoon and Saturday peak periods. Traffic flows were highest east of Waterloo Road and in the Thursday afternoon peak period;
- Waterloo Road carried some 650 to 1150 vehicles per hour (two-way) during the respective peak periods peak periods.
- Como Road carried some 230 to 300 vehicles per hour (two-way) during the peak periods;
- Norfolk Road carried some 300 to 450 vehicles per hour (two-way) during the peak periods; and
- The shopping centre generated some 1000 and 1400 vehicles per hour (two-way) during the Thursday afternoon and Saturday peak periods respectively. The southern access, via the Como Road roundabout is busiest.

Potential Scale of Development

2.9 The planning proposal seeks to amend the provisions of Bankstown LEP 2015 to:

- retain B2 local centre zoning and 1:1 FSR for 355 Waterloo Road;
 - rezone 353 Waterloo Road to B2 local centre with 1:1 FSR;
 - amend zoning for 87 Norfolk Road to permit residential flat building uses for the purposes of access only; and
 - increase maximum building heights to between 14 metres and 20 metres.
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- 2.10 Apart from a notional potential increase in GFA of 347m² from the rezoning of 353 Waterloo Road, there is no change to the range of land uses or potential GFA allowable on the overall site.
- 2.11 The planning proposal has been informed by the urban design study prepared by GMU which, for the purposes of technical analysis and generation of proposed planning controls, incorporates the following:
- maintain similar retail/commercial GFA to existing;
 - 28,850m² of residential GFA (some 287 apartments);
 - some 1,295 parking spaces, including 860 retail/commercial and 435 residential spaces; and
 - FSR of 0.92:1.

Policy Context

- 2.12 There have been several strategic state policies which are relevant to future development in the Sydney metropolitan area. The policies include NSW: Making It Happen, A Plan for Growing Sydney and The NSW Long Term Transport Master Plan. These policies are discussed below.

NSW: Making It Happen

- 2.13 NSW: Making It Happen has 30 priorities, including the following relevant matters:
- Building infrastructure
 - 90 per cent of peak travel on key road routes is on time;
 - increase housing supply across NSW – deliver more than 50,000 approvals every year;
 - Better services
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- maintain or improve reliability of public transport services over the next four years;
- Safer communities
 - reduce road fatalities by at least 30 per cent from 2011 levels by 2021;

A Plan for Growing Sydney

- 2.14 A Plan for Growing Sydney provides a strategic plan to accommodate an additional 1.6 million people, 664,000 houses and 689,000 jobs.
- 2.15 The plan includes the following goals:
- a competitive economy with world class services and transport;
 - a city of housing choice, with homes that meet our needs and lifestyles;
 - a great place to live with communities that are strong, healthy and well balanced; and
 - a sustainable and resilient city that protects the natural environment and has a balanced approach to the use of land and resources.

NSW Long Term Transport Master Plan

- 2.16 The NSW Long Term Transport Master Plan has been developed, in association with A Plan for Growing Sydney and State Infrastructure Strategy, to support NSW: Making It Happen. The key measures identified are as follows:
- providing a fully integrated transport system;
 - providing a modern railway system and increase capacity by 60 per cent;
 - providing a modern light rail system in the CBD;
 - providing a modern bus system to complement the rail networks;
 - connect the motorway network, including WestConnex, NorthConnex and F6;
 - reduce congestion in the CBD, including light rail, improving pedestrian links, increasing ferry use, providing increased capacity on the rail system (Sydney Metro) and improved walking and cycling infrastructure;
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- ❑ support the growth of new economic centres including the north west and south west rail links with the Sydney Metro, new roads in growth areas and new bus infrastructure;
- ❑ connect regional communities through major highway upgrades, and improved rail, bus and air services;
- ❑ improve freight efficiency and productivity;
- ❑ improve access to Sydney Airport and Port Botany;
- ❑ boost walking, cycling and its integration with public transport; and
- ❑ preserve future transport corridors.

2.17 In addition to the above policies, the Greater Sydney Commission recently published Directions for a Greater Sydney 2017-2056 which aims to better integrate land use and infrastructure in a sustainable liveable Sydney. It builds on the Three Cities and Towards our Greater Sydney 2056 objectives of a productive, liveable and sustainable city. The South District Plan incorporates Chullora and includes an emphasis on Sydney becoming a 30 minute city, with residents having quicker and easier access to a range of jobs, housing types and activities. It prioritises housing diversity and choice within close proximity to shops, services and public transport. With a changing demographic that includes more single person, single parent and couple only households, smaller homes and apartments are also expected to be in high demand.

Public Transport, Walking and Cycling

2.18 Sydney Buses operates the 900 bus service along Waterloo Road past the site. This service connects Burwood with Bankstown and Liverpool, with 10 to 20 minute headways during peak periods. Veolia Transport (913 service) and Punchbowl Bus Company (941 service) also operate buses on Norfolk Road south of the site. These connect the site with Bankstown, Hurstville and Strathfield.

- 2.19 Pedestrian connections are proposed to better link the site with the surrounding streets, available bus services, residential areas and recreational facilities. This primarily includes the Waterloo Road frontage, with the new civic space to provide for a variety of users. Secondary connections on Norfolk Road and to/from Norfolk Reserve east of the site are also key.
- 2.20 There is opportunity to further improve pedestrian connections across Waterloo Road with provision of a pedestrian crossing at the existing traffic signals at Norfolk Road. This would ensure greater connectivity between the site and surrounding areas, and Lockwood Park to the west. This builds on existing facilities, including crossings of the southern and eastern approaches to the intersection, and the Norfolk Road raised marked pedestrian crossing at Chullora Public School.
- 2.21 The planning proposal would increase residential densities close to existing public transport services, and in-turn promote greater use of such services. To support accessibility for cyclists, appropriate bicycle parking should be included.
- 2.22 The planning proposal will therefore satisfy the government objectives as follows:
- enabling residents to readily access regular buses close to the site;
 - providing pedestrian connections to and through the site, to improve accessibility for users and the general public;
 - providing an appropriate level of on-site parking, with reference to existing centre activity and relevant council and RMS requirements, to encourage greater public transport use and increase the proportion of trips by public transport;
 - providing a mixed use development, including retail, commercial and residential uses within the existing centre, close to other commercial and recreational facilities to reduce the need for external travel;
 - being located within a major employment and retail centre, as well as being readily connected to surrounding areas; and
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- providing for an increase in population living within 30 minutes by public transport of a city or major centre in the metropolitan area.

Parking Provision

- 2.23 Bankstown DCP 2015 includes the following parking requirements for residential developments in B2 zones:
- one space per one bedroom apartment;
 - 1.2 spaces per two bedroom apartment;
 - 1.5 spaces per three or more bedroom apartment; and
 - one space per five dwellings for visitors.
- 2.24 By comparison, RMS guidelines suggest the following parking requirements for high density residential in metropolitan sub-regional centres:
- 0.6 spaces per one bedroom apartment;
 - 0.9 spaces per two bedroom apartment;
 - 1.4 spaces per three bedroom apartment; and
 - one space per five apartments for visitors.
- 2.25 Table 2.1 sets out the additional residential parking requirements based on DCP and RMS parking rates.

Table 2.1: Summary of Parking Provision					
Component	Number of Apartments	Rate		Parking Required (Spaces)	
		DCP	RMS	DCP	RMS
Residential					
1-bed	42	1	0.6	42	25
2-bed	101	1.2	0.9	121	91
3+ bed	144	1.5	1.4	216	202
visitor		1/5	1/5	57	57
Total				436	375

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- 2.26 With minor change in the existing retail/commercial floor space, the existing 860 parking spaces will be retained.
- 2.27 Based on the above, the provision of 375 parking spaces (RMS rates) and 435 parking spaces (council rates) would be appropriate, with the potential to share residential visitor and retail parking. Further details on parking provision should be provided at the development application stage, based on the above rates. Appropriate disabled and motor cycle parking should be included in the development.
- 2.28 The development will provide a mix of uses which will have overlapping parking demands. For example, retail parking spaces will be busier during the day and residential visitor parking demands will be higher at night. There is therefore the opportunity to share parking between the various uses.

Access, Servicing and Internal Layout

- 2.29 The preferred concept plan includes improved access arrangements on Waterloo Road via a new civic space that aims to integrate vehicular set-down/pick-up with pedestrian activity. The access will be designed to align with the existing roundabout at Como Road. Access to on-site retail/commercial and residential parking will be limited to the peripheries with all retail/commercial and the majority of residential traffic arriving and departing via Waterloo Road. This includes retaining the northern priority controlled access with the addition of a new access in the south-west corner of the site. A residential only access on Norfolk Road in the south-east corner of the site will provide access to a small proportion of apartments. Access for the resident parking and publicly accessible parking would be appropriately separated within the site. Internal ramps will connect the basement parking levels.
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- 2.30 Service vehicles will continue to circulate around the perimeter of the site, similar to existing arrangements. All service vehicles will enter and exit the site via Waterloo Road. A covered loading dock in the south-east corner of the site would complement existing loading facilities.
- 2.31 The existing access arrangements could be upgraded to better provide for the proposed uses, and to better distribute traffic on Waterloo Road. Waterloo Road will remain the primary access with a secondary resident only access on Norfolk Road. The northern Waterloo Road access would be retained as a priority controlled access with full turning movements. The new civic space would better provide for set-down/pick-up activity and align with the existing roundabout at Como Road. The proposed southern access would be configured to permit left-in/left-out movements. The new resident only access on Norfolk Road will be located in the south-east corner of the site and designed to provide for full turning movements. The site access arrangements and associated infrastructure improvements will be detailed as part of any future application and in consultation with council.
- 2.32 The access driveways to on-site parking and loading docks should be provided in accordance with the Australian Standard for Parking Facilities (Part 1: Off-street car parking and Part 2: Off-street commercial vehicle facilities), AS 2890.1:2004 and AS 2890.2:2002.
- 2.33 Within parking areas, parking space dimensions, aisle widths, ramp grades, transitions, column locations and height clearances would be provided in accordance with AS 2890.1:2004 and AS 2890.2:2002.
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Traffic Generation

- 2.34 RMS has provided traffic generation rates for a range of land uses including high density residential development (based on surveys of similar developments) close to public transport. The applicable rates are 0.19 and 0.15 vehicles per hour per apartment during the morning and afternoon peak hours respectively. In adopting these rates, the 287 residential apartments could generate between 45 and 55 additional vehicles per hour two-way in weekday peak hours, with similar activity on Saturdays. The minor change in retail/commercial floor area will also result in a modest change to traffic generation associated with these uses.
- 2.35 Overall, the planning proposal would generate a modest increase in vehicle movements in peak hours. Traffic increases on the key roads in the vicinity of the site (Waterloo Road Norfolk Road and Como Road) would be less than some 40 vehicles per hour two-way at peak times. This equates to less than one vehicle per minute. The increases on Norfolk Road as a result of a new resident only access would likely be some 10 vehicles per hour two-way in peak periods. These small increases in traffic flows would have minor effects on the operation of the surrounding road network. Based on the above, residential development could have access from Norfolk Road without any adverse traffic effects.

Summary

- 2.36 In summary, the main points relating to the transport aspects of the planning proposal are as follows:
- i) the planning proposal would increase employment, retail and residential densities close to existing public transport services and is consistent with government objectives to reduce private car travel and encourage public transport use;
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- ii) access, internal circulation and layout should be provided in accordance with Australian Standards;
- iii) appropriate on-site parking for cars and bicycles should be provided, consistent with the site's moderate public transport access;
- iv) the overall retail/commercial floor space will remain relatively unchanged;
- v) the residential uses would generate modest additional traffic, with Norfolk Road likely to have an additional 10 vehicles two-way during peak periods;
- vi) the surrounding road network will be able to cater for the additional traffic associated with the residential uses;
- vii) residential development could have access from Norfolk Road without any adverse traffic effects.