Proposed Residential Development

116-124 Restwell Street, Bankstown

TRAFFIC AND PARKING ASSESSMENT REPORT

23 March 2016

Ref 15691

VARGA TRAFFIC PLANNING Pty Ltd
Transport, Traffic and Parking Consultants

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Document Verification

Location:	116-124 Restwell Street, Bankstown	**Job Number**		15691	
Revision	**Details**	**Prepared**		**Approved**	
Final	Final for DA Submission	**By**	**Date**	**By**	**Date**
		TN	23/03/16	CP	23/03/16

1. INTRODUCTION

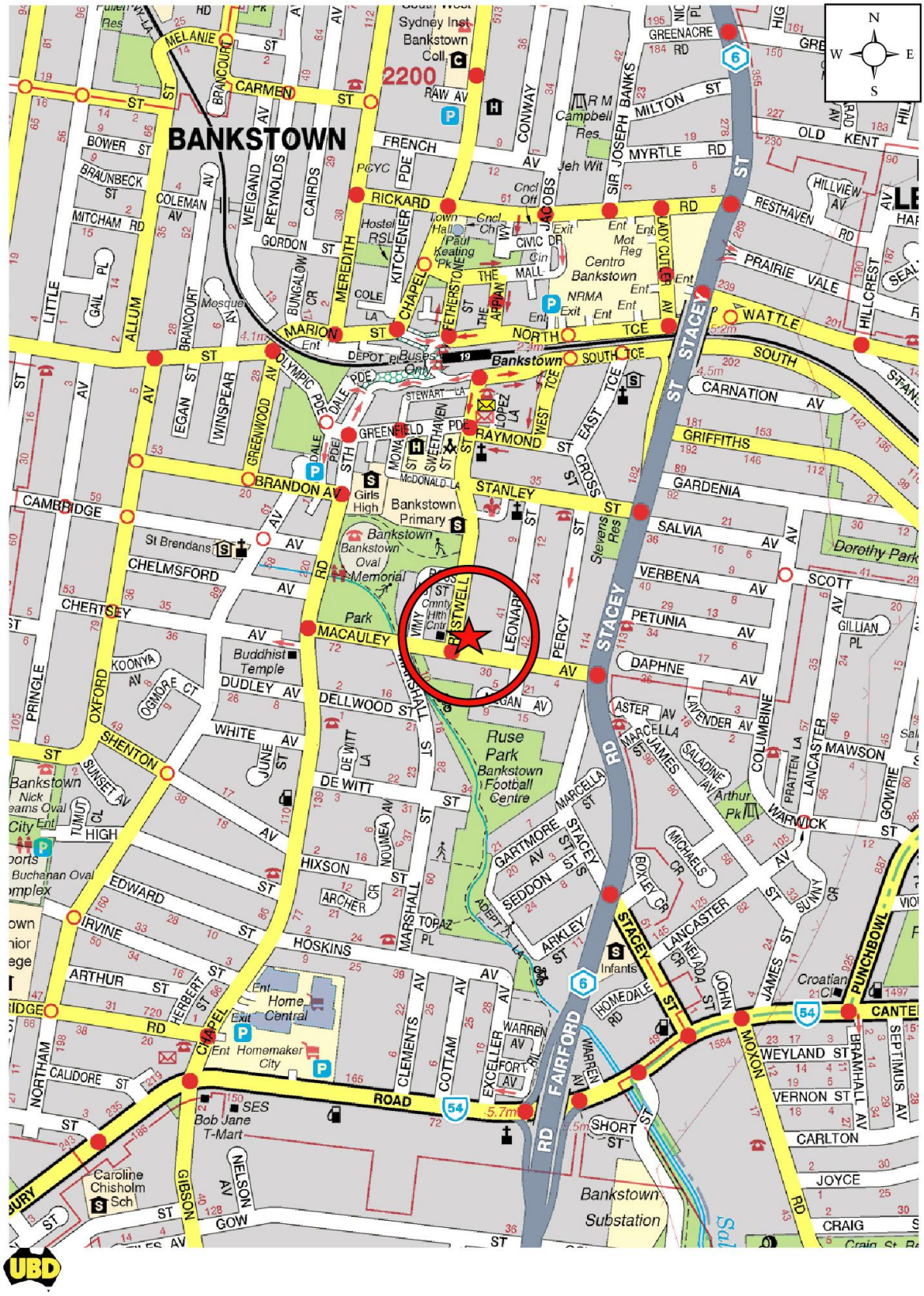
This report has been prepared to accompany a development application to Bankstown City Council for a residential development proposal to be located at 116-124 Restwell Street, Bankstown (Figures 1 and 2).

The proposed development involves the demolition of the five existing dwelling houses on the site to facilitate the construction of a new residential apartment development.

Off-street parking is to be provided in a new two-level basement car parking area for both residents and their visitors, in accordance with Council's requirements.

The purpose of this report is to assess the traffic and parking implications of the development proposal and to that end this report:

- describes the site and provides details of the development proposal
- reviews the road network in the vicinity of the site
- estimates the traffic generation potential of the development proposal
- assesses the traffic implications of the development proposal in terms of road network capacity
- reviews the geometric design features of the proposed car parking facilities for compliance with the relevant codes and standards
- assesses the adequacy and suitability of the quantum of off-street car parking provided on the site.


BANKSTOWN
2200
Sydney Inst Bankstown Coll
Centro Bankstown
NRMA
Bankstown Primary
Girls High
Bankstown Oval
Ruse Park
Bankstown Football Centre
Buddhist Temple
St Brendans
Caroline Chisholm Sch
Bankstown Substation
Bob Jane T-Mart
Home Central
Homemaker City
Arthur Pk
Dorothy Park
Stevens Res
Bankstown Nick Oval
Buchanan Oval
Croatian
Infants
Hostel RSL
Paul Keating Pk
Mosque
Depot
Bankstown
STACEY
FAIRFORD RD
PUNCHBOWL
ROAD
MACAULEY
RICKARD
RAYMOND
STANLEY
BRANDON AV
CAMBRIDGE
CHELMSFORD
CHERTSEY
OXFORD
SHENTON
DUDLEY AV
DELLWOOD ST
DE WITT ST
HIXSON ST
HOSKINS
ARTHUR ST
EDWARD ST
IRVINE
WHITE AV
HIGH
MARION ST
NORTH TCE
SOUTH TCE
EAST TCE
WEST TCE
GREENFIELD PDE
OLYMPIC PDE
DALE PDE
STH
MONA ST
SWEETHAVEN ST
STEWART LA
LOPEZ LA
McDONALD LA
CROSS ST
PERCY
LEONARD
PRESTWELL
VIMY
MARSHALL
NOUMEA AV
ARCHER CR
TOPAZ PL
ADEPT LA
GARTMORE AV
SEDDON ST
ARKLEY ST
HOMEDALE RD
WARREN AV
EXCELLER AV
FORT AV
CLEMENTS
COTTAM
CHAPEL
NORTHAM
CALIDORE ST
GIBSON
NELSON AV
GOW
SHORT ST
WEYLAND ST
VERNON ST
CARLTON
JOYCE
CRAIG
MOXON
JAMES ST
LANCASTER
BUNNY CR
MICHAELS CR
BOXLEY CR
NEVADA CR
JOHN
BRAMHALL AV
SEPTIMUS AV
MAWSON
WARWICK ST
GOWRIE
PRATTEN LA
COLUMBINE
LAVENDER AV
ASTER AV
MARCELLA ST
SALADINE AV
ST JAMES
GILLIAN PL
SCOTT
VERBENA AV
SALVIA AV
GARDENIA
GRIFFITHS
CARNATION AV
PRAIRIE VALE
RESTHAVEN RD
HILLVIEW AV
HILLCREST
WATTLE
OLD KENT
MILTON ST
MYRTLE RD
GREENACRE RD
SIR JOSEPH BANKS
CONWAY
FRENCH
PDE
PGYC
Jeh Wit
R M Campbell Res
JACOBS
LADY CUTLER AV
CIVIC DR
THE MALL
FETHERSTONE
THE APPIAN
KITCHENER
MEREDITH
BUNGALOW CR
COLE LA
GORDON ST
MITCHAM RD
COLEMAN AV
BRAUNBECK ST
BOWER ST
REYNOLDS
WEIGAND AV
CAIRDS
BRANCOURT AV
CARMEN ST
MELANIE ST
RAW AV
ALLUM
LITTLE
GAIL PL
EGAN ST
WINSPEAR
GREENWOOD AV
PRINGLE
KOONYA AV
OGMORE CT
SUNSET AV
TUMUT PL
JUNE ST
DE WITT LA
WARWICK ST
Ent
Exit
Cncl Off
Cncl Chs
Town Hall
Cin
Ent Mot Reg
Ent Exit
Exit Ent
Ent Exit Ent
Exit Ent
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Exit
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Exit
Ent


N
W
E
S
MCDONALD LN
STANLEY ST
ST
ST
ST
ST
VIMY
RESTWELL
LEONARD
PERCY
MACAULEY AVE
STACEY ST
MARSHALL ST
MEGAN AVE
MEGAN AVE
DELLWOOD ST
ST SOUTH
FAIRFORD RD
STACEY
MARCELLA ST
Road Closure / Unformed Road
VARGA TRAFFIC PLANNING Pty Ltd
Traffic and Parking Consultants
SITE
FIGURE 2

2. PROPOSED DEVELOPMENT

Site

The subject site is located on the north-eastern corner of the Restwell Street and Macauley Avenue intersection. The site has street frontages approximately 64m in length Restwell Street, approximately 50m in length to Macauley Avenue and occupies a total area of approximately 3,194m².

The subject site is currently occupied by five dwelling houses, all with off-street parking. Vehicular access to the site is provided via respective four driveways off Restwell Street and one driveway of Macauley Avenue.

Proposed Development

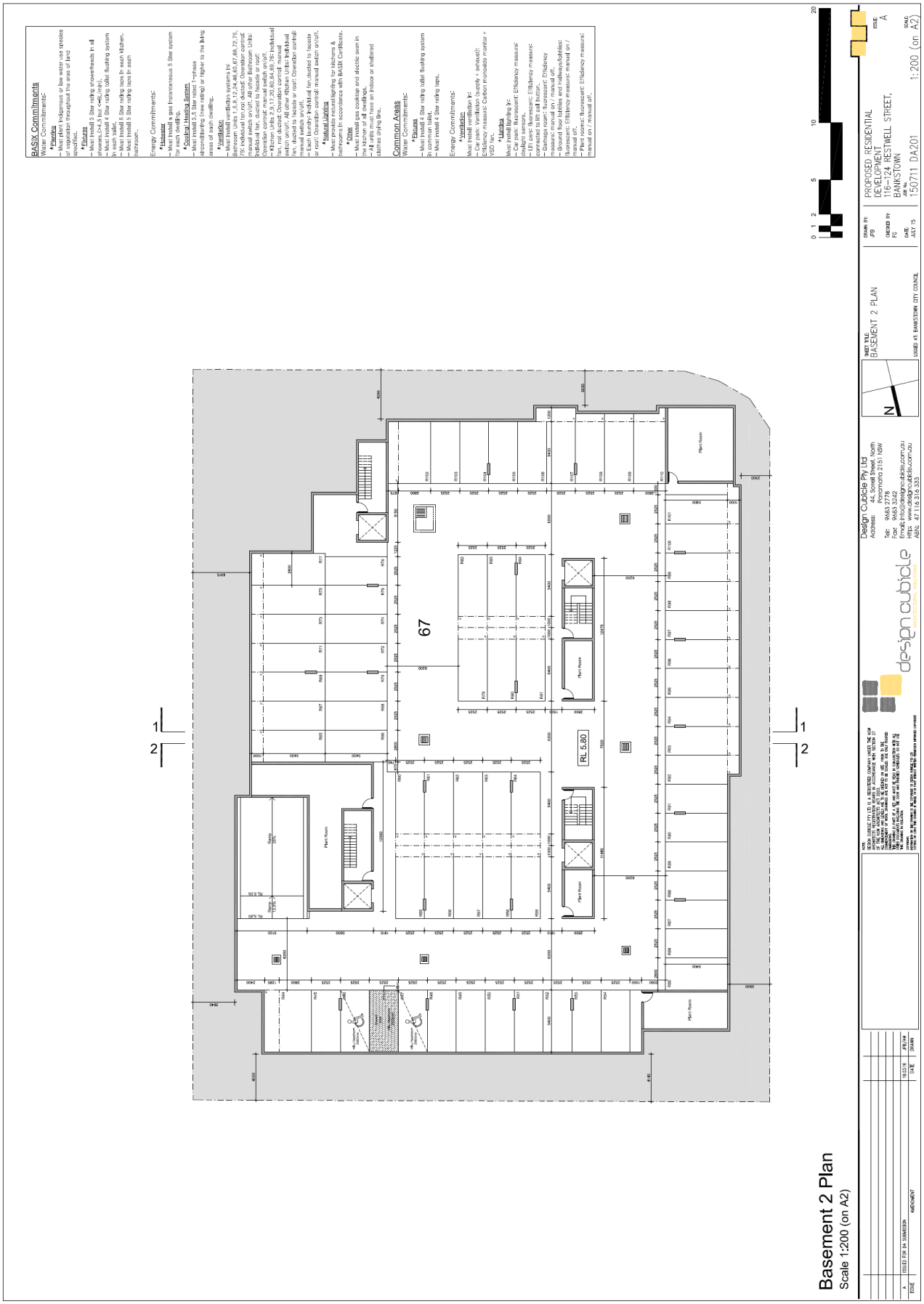
The proposed development involves the demolition of the five existing dwelling houses on the site to facilitate the construction of a new residential apartment development.

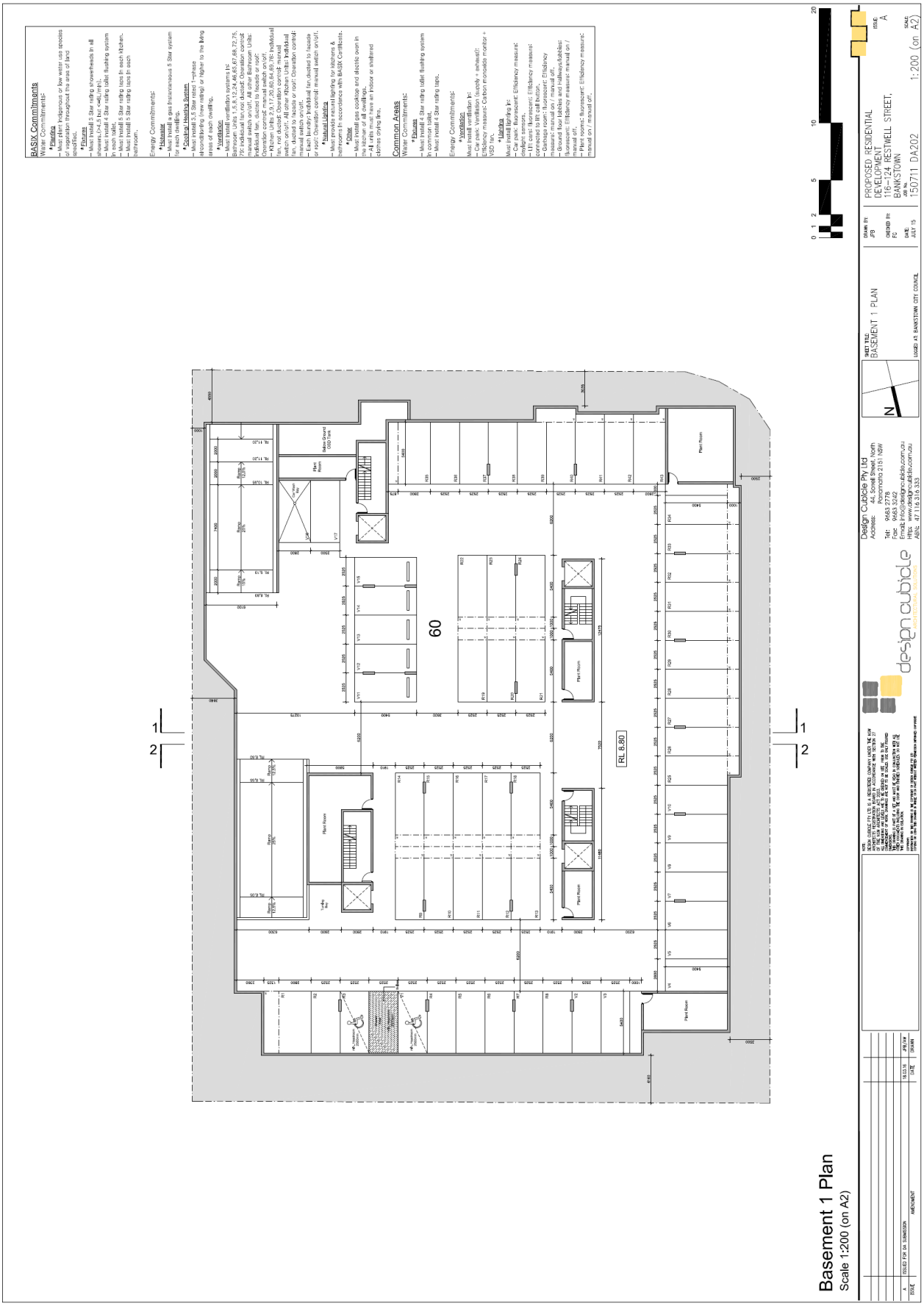
A total of 87 residential apartments are proposed in the new building as follows:

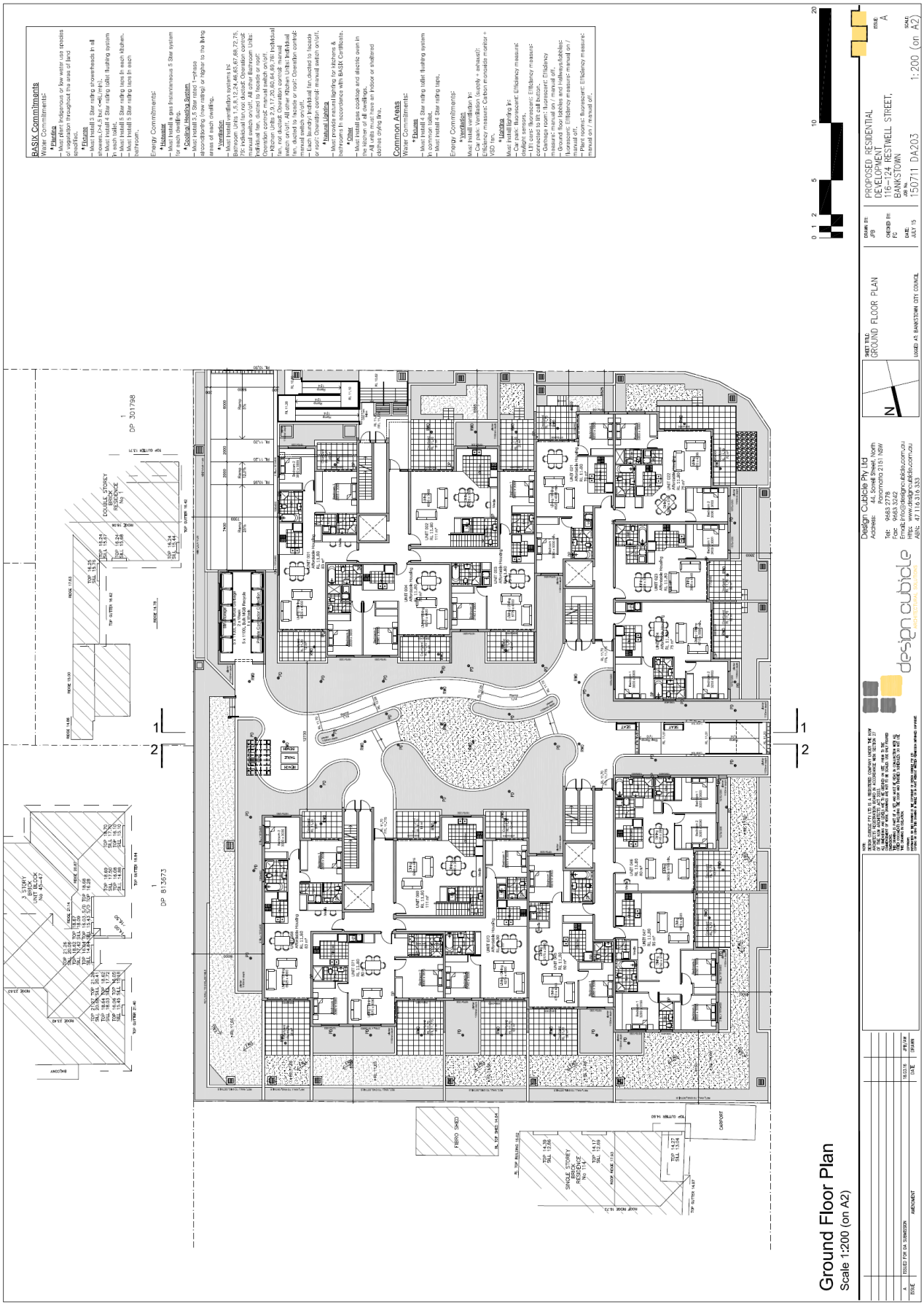
1 bedroom apartments:	15
2 bedroom apartments:	68
3 bedroom apartments:	4
TOTAL APARTMENTS:	**87**

Off-street car parking is proposed for a total of 127 cars, comprising 110 residential spaces and 17 visitor spaces (including a car wash bay) in a new two-level basement car parking area in accordance with Council's requirements. Vehicular access to the car parking facilities is to be provided via a new entry/exit driveway located at the eastern end of the Macauley Avenue site frontage.

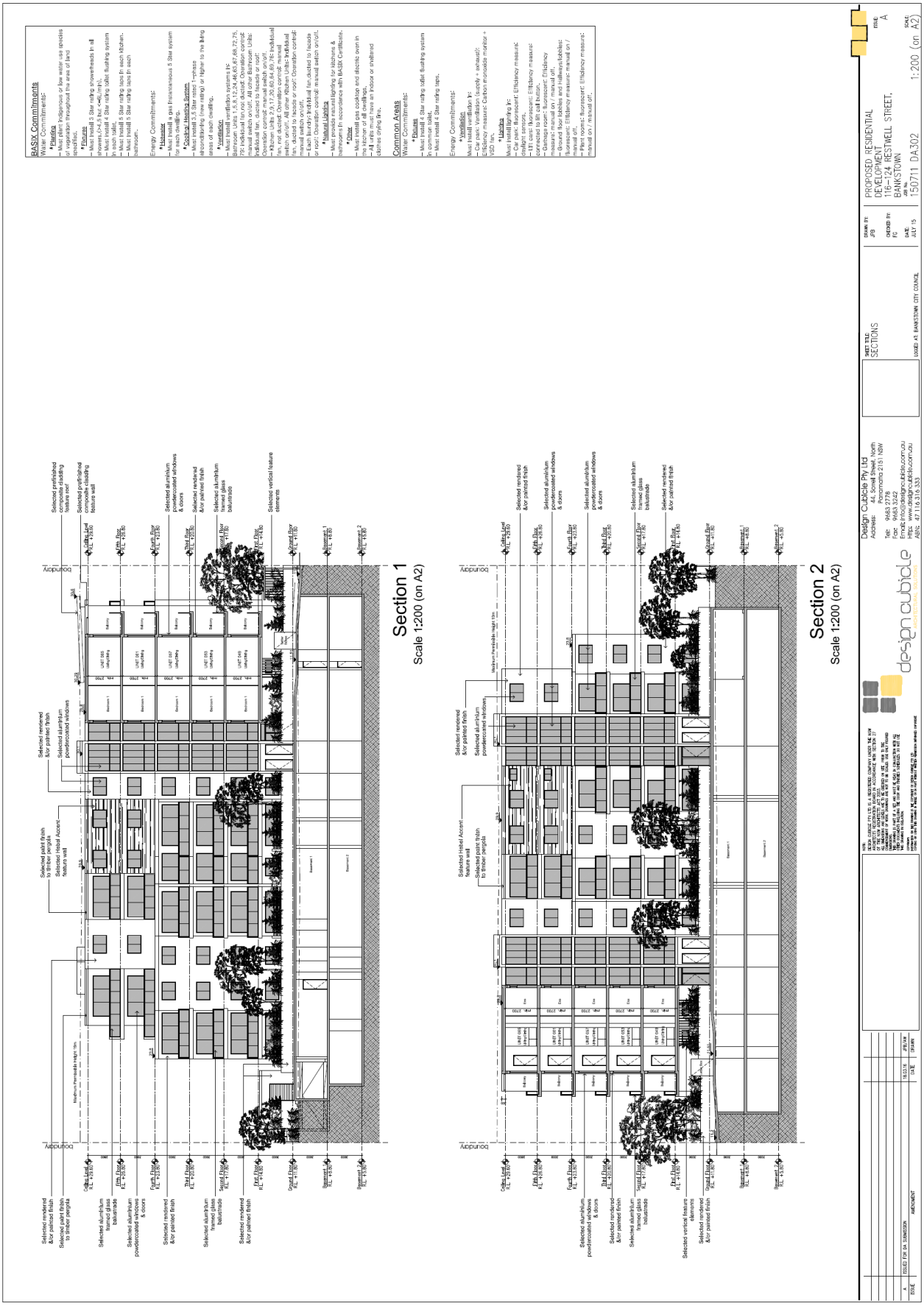
Plans of the proposed development have been prepared by *Design Cubicle* and are reproduced in the following pages.


BASIX Commitments
Water Commitments:
* Fixtures
—Must install showerheads in all showers (>4.5 but <=9L/min);
—Must install 4 Star rating toilet flushing system in each toilet;
—Must install 5 Star rating taps in each kitchen;
—Must install 5 Star rating taps in each bathroom.
Energy Commitments:
* Hotwater
—Must install a gas instantaneous 5 Star system for each dwelling.
* Cooling/ Heating System
—Must install 3 Star (new rating) or higher in the living areas of each dwelling.
* Ventilation
—Must install ventilation systems (ie: Bathroom: 1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33,35,37,39,41,43,45,47,49,51,53,55,57,59,61,63,65,67,69,71,73: individual fan, non ducted; Operation control: manual switch on/off.; All other Bathroom Units: individual fan, ducted to facade or roof; Operation control: manual switch on/off.;
—Kitchen Units 2,9,17,20,60,64,69,76: individual fan, not ducted; Operation control: manual switch on/off.; All other Kitchen Units: individual fan, ducted to facade or roof; Operation control: manual switch on/off.;
—Each Laundry: Individual fan, ducted to facade or roof; Operation control: manual switch on/off.
* Natural Lighting
—Must provide natural lighting for kitchens & bathrooms in accordance with BASIX Certificate.
* Other
—Must install gas cooktop and electric oven in the kitchen of all dwellings.
—All units must have an indoor or sheltered clothes drying line.
Common Areas
Water Commitments:
* Fixtures
—Must install 4 Star rating toilet flushing system in each toilet;
—Must install 4 Star rating taps.
Energy Commitments:
* Ventilation
Mechanical ventilation to:
—Car park: Ventilation System + exhaust;
Efficiency measure: Carbon monoxide monitor + VSD fan;
* Hotwater
Must install lighting to:
—Car park: fluorescent; Efficiency measure: daylight sensors;
—Foyer & lobby: fluorescent; Efficiency measure: connected to lift call button;
—Garbage room: fluorescent; Efficiency measure: manual on / manual off;
—Laundry: fluorescent; Efficiency measure: fluorescent; Efficiency measure: manual on / manual off;
—Plant room: fluorescent; Efficiency measure: manual on / manual off;
—Public toilet: fluorescent; Efficiency measure: manual on / manual off;
67
RL 5.80
Plant Room
1
2
0 1 2 5 10 20
Design Cubicle Pty Ltd
Address: 44, Sorrell Street, North Parramatta 2151 NSW
Tel: 9683 2720
Fax: 9683 3220
Email: info@designcubicle.com.au
Web: www.designcubicle.com.au
ABN: 47 119 315 953
design cubicle
DRAWN BY: JPB
DESIGNED BY: PC
DATE: JULY 15
PROPOSED RESIDENTIAL DEVELOPMENT
116-124 RESTWELL STREET, BANKSTOWN
DWG No. 150711 DA201
SCALE: 1:200 (on A2)
ISSUE: A
SHEET TITLE: BASEMENT 2 PLAN
LODGED AT: BANKSTOWN CITY COUNCIL
ISSUE: A
DESIGN CUBICLE PTY LTD IS A REGISTERED COMPANY UNDER THE NSW CORPORATIONS ACT 2001 AND IS THE OWNER OF COPYRIGHT IN ALL DESIGNS AND PLANS AND IN THE WORKS EXECUTED FROM THEM. THEY MUST NOT BE USED, REPRODUCED OR COPIED WHOLLY OR IN PART WITHOUT THE WRITTEN PERMISSION OF DESIGN CUBICLE PTY LTD. DO NOT SCALE DRAWINGS, VERIFY ALL DIMENSIONS ON SITE BEFORE COMMENCING ANY WORK OR PREPARING SHOP DRAWINGS. ALL DISCREPANCIES TO BE REPORTED TO DESIGN CUBICLE PTY LTD BEFORE PROCEEDING WITH ANY WORK OR PREPARING SHOP DRAWINGS. WORK TO BE IN ACCORDANCE WITH ALL RELEVANT STATUTORY REQUIREMENTS AND AUSTRALIAN STANDARDS.
ISSUE: A
DESCRIPTION: ISSUED FOR DA SUBMISSION
DATE: 15.07.15
DRAWN: JPB/JW
ISSUE: A
AMENDMENT
DATE: JULY 15
DRAWN: JPB
Basement 2 Plan
Scale 1:200 (on A2)


BASIX Commitments
Water Commitments
• Fixtures
– Must install 3 Star rating showerheads in all showers (>4.5 but <=9L/min);
– Must install 4 Star rating toilet flushing system in common toilet;
– Must install 5 Star rating taps in each kitchen;
– Must install 5 Star rating taps in each bathroom;
Energy Commitments
• Hotwater
– Must install a gas instantaneous 5 Star system in each dwelling;
• Cooling/ Heating System
– Must install 3.5 Star rated 1-phase airconditioning (new rating) or higher to the living areas of each dwelling;
• Ventilation
– Must install ventilation systems to: Bathroom: Units 1,5,8,12,24,46,65,67,68,72,75; Individual fan (no) ducted: Operation control: manual switch on/off; All other Bathroom: Units: Individual fan, ducted to facade or roof; Operation control: manual switch on/off;
– Kitchen: Units 2,3,11,20,60,64,69; Individual fan, ducted to facade or roof; Operation control: manual switch on/off; All other Kitchen Units: Individual fan, ducted to facade or roof; Operation control: manual switch on/off;
– Each laundry: Individual fan, ducted to facade or roof; Operation control: manual switch on/off;
• Natural Lighting
– Must provide natural lighting for kitchens & bathrooms in accordance with BASIX certificate;
• Other
– Must install gas cooktop and electric oven in the kitchen of all dwellings;
– All clothes drying must be indoor or sheltered clothes drying line;
Common Areas
Water Commitments
• Fixtures
– Must install 4 Star rating toilet flushing system in common toilet;
– Must install 4 Star rating taps;
Energy Commitments
• Ventilation
Must install ventilation to:
– Car park: Ventilation (supply + exhaust); Efficiency measure: Carbon monoxide monitor + VSD fan;
• Lighting
Must install lighting to:
– Car park: fluorescent: Efficiency measure: daylight sensors;
– Lift cars: fluorescent: Efficiency measure: daylight sensors;
– Bathroom: fluorescent: Efficiency measure: manual on / manual off;
– Garbage room: fluorescent: Efficiency measure: manual on / manual off;
– Ground floor lobbies and hallways/lobbies: fluorescent: Efficiency measure: manual on / manual off;
– Plant rooms: fluorescent: Efficiency measure: manual on / manual off;
60
RL 8.80
Plant Room
Garbage Room
Lift Pit
Lift Overrun
Ramp 25%
Ramp 12.5%
1
2
0 1 2 5 10 20
Design Cubicle Pty Ltd
Address: 44, Sorrell Street, North Parramatta 2151 NSW
Tel: 9683 3779
Fax: 9683 3242
Email: info@designcubicle.com.au
Web: www.designcubicle.com.au
ABN: 47 116 913 593
design cubicle
DRAWN BY: JPB
CHECKED BY: PZ
DATE: JULY 15
SCALE: 1:200 (on A2)
PROPOSED RESIDENTIAL DEVELOPMENT
115 - 124 RESTWELL STREET, BANKSTOWN
JOB No. 150711 DA202
ISSUE: A
DRAWING TITLE: BASEMENT 1 PLAN
LODGED AT BANKSTOWN CITY COUNCIL
ISSUE: A
AMENDMENT: ISSUED FOR DA SUBMISSION
DATE: 03.03.16
DRAWN: JPB/AM
Basement 1 Plan
Scale 1:200 (on A2)


BASIX Commitments
Water Commitments:
Planting
Pools
Hot Water System
Ventilation
Natural Lighting
Cooling
Energy Commitments:
Hot Water
Ventilation
Lighting
Common Areas
Water Commitments:
Fixtures
Energy Commitments:
Ventilation
Lighting
Ground Floor Plan
Scale 1:200 (on A2)
Design Cubicle Pty Ltd
PROPOSED RESIDENTIAL DEVELOPMENT
116-124 RESTWELL STREET, BANKSTOWN
GROUND FLOOR PLAN
1:200 (on A2)
150711 DA203
JULY 15
ISSUED FOR DA SUBMISSION
LODGED AT BANKSTOWN CITY COUNCIL


BASIX Commitments
Water Commitments:
Planting
Must plant indigenous or low water use species of vegetation throughout the area of land specified.
Pools
Must install a Star rating showerheads in all showers (>4.5 but <=6L/min).
Must install 4 Star rating toilet flushing system in each toilet.
Must install 5 Star rating taps in each kitchen.
Must install 5 Star rating taps in each bathroom.
Energy Commitments:
Hotwater
Must install a gas fired instantaneous 5 Star system for each dwelling.
Cooling, Heating System
Must install 5.5 Star rated 1-phase air-conditioning (new rating) or higher to the living areas of each dwelling.
Ventilation
Must install ventilation systems to:
Bathroom Units 1,5,8,12,24,49,63,67,68,72,75,75: individual fan not ducted: Operation control: manual switch on/off. Minimum rating of fan: Units: individual fan, ducted to facade or roof: Operation control: manual switch on/off.
Kitchen Units 2,3,17,20,60,64,69,76: Individual fan, ducted to facade or roof: Operation control: manual switch on/off. All other Kitchen Units: Individual fan, ducted to facade or roof: Operation control: manual switch on/off.
Each laundry: Individual fan ducted to facade or roof: Operation control: manual switch on/off.
Natural Lighting
Must provide natural lighting for kitchens & bathrooms (in accordance with BASIX Certificate).
Other
Must install gas cooktop and electric oven in the kitchen of all dwellings.
Must install a clothes drying line or sheltered clothes drying line.
Common Areas
Water Commitments:
Fixtures
Must install 4 Star rating toilet flushing system in common toilet.
Must install 4 Star rating taps.
Energy Commitments:
Ventilation
Must install ventilation to:
Car park: Ventilation (supply + exhaust): Efficiency measure: Carbon monoxide monitor + VSD fan.
Lighting
Must install lighting to:
Car park: Fluorescent: Efficiency measure: daylight sensors.
Lift cars: fluorescent: Efficiency measure: connected to lift call button.
Common area: fluorescent: Efficiency measure: manual on / manual off.
Ground floor lobbies and Hallways/lobbies: fluorescent: Efficiency measure: manual on / manual off.
Plant rooms: fluorescent: Efficiency measure: manual on / manual off.
East Elevation
Scale 1:200 (on A2)
West Elevation (Restwell Street)
Scale 1:200 (on A2)
Boundary
Roof RL +41.80
Fifth Floor RL +38.60
Fourth Floor RL +35.80
Third Floor RL +32.60
Second Floor RL +29.80
First Floor RL +26.60
Ground Floor RL +23.80
Basement 1 RL +20.60
Basement 2 RL +17.80
Selected rendered &/or painted finish
Selected aluminium powdercoated windows
Selected aluminium framed glass balustrade
Selected prefinished composite cladding articulate wall
Selected Hebel Accent feature wall
Selected Hebel Picture feature wall
Selected paint finish to timber pergola
Design Cubicle Pty Ltd
Address: 44 Sorrell Street, North Parramatta 2151 NSW
Tel: 9683 2778
Fax: 9683 3562
Email: info@designcubicle.com.au
Web: www.designcubicle.com.au
ABN: 47 116 316 333
SHEET TITLE: ELEVATIONS 2/2
DRAWN BY: JPB
CHECKED BY: PC
DATE: JULY 15
ISSUED AS BANKSTOWN CITY COUNCIL
PROPOSED RESIDENTIAL DEVELOPMENT
116-124 RESTWELL STREET, BANKSTOWN
JOB No. 150711 DA301
ISSUE A
SCALE 1:200 (on A2)
A ISSUED FOR DA SUBMISSION JPB/JW
DATE JW/MAR


BASIX Commitments
Water Commitments:
Planting
Must plant indigenous or low water use species of vegetation throughout the area of land specified.
Fixtures
Must install 3 Star (>6 but <=7.5 litres/minute) showerheads in all rooms except 2 x ensuites which must be 4 Star.
Must install 4 Star mid/dry toilet flushing system in each toilet.
Must install 5 Star mid/dry taps in each kitchen.
Must install 5 Star mid/dry taps in each bathroom.
Energy Commitments:
Hot Water
Must install a gas instantaneous 5 Star system for each dwelling.
Cooktop/ Heating System
Must install in the kitchen of each dwelling: 4 burner gas cooktop & electric oven.
Ventilation
Must install ventilation systems in: Bathroom: Units 2,9,17,20,60,64,69,76: Individual fan, ducted to facade or roof; Operation control: manual switch on/off. Kitchen: Units 2,9,17,20,60,64,69,76: Individual fan, not ducted; Operation control: manual switch on/off. Laundry: Units 2,9,17,20,60,64,69,76: Individual fan, ducted to facade or roof; Operation control: manual switch on/off.
Each laundry: Individual fan ducted to facade or roof; Operation control: manual switch on/off.
Natural Lighting
Must provide natural lighting for kitchens & bathrooms in accordance with BASIX Certificate.
Pools
Must not have a pool or spa.
Alternative Energy
Must install a gas cooktop and electric oven in the kitchen of all dwellings.
All units must have an indoor or sheltered clothes drying line.
Common Areas
Water Commitments:
Fixtures
Must install 4 Star mid/dry toilet flushing system in each toilet.
Must install 4 Star mid/dry taps.
Energy Commitments:
Mechanical ventilation
Must install ventilation in:
Car park: Ventilation (supply + exhaust): Efficiency measure: Carbon monoxide monitor + VSD fans
Lighting
Must install lighting in:
Car park: fluorescent: Efficiency measure: High frequency ballast
Lift cars: fluorescent: Efficiency measure: connected to lift call button.
Garbage room: fluorescent: Efficiency measure: manual on / manual off
Ground floor lobbies and hallways/lobbies: fluorescent: Efficiency measure: manual on / manual off
Plant rooms: fluorescent: Efficiency measure: manual on / manual off.
Section 1
Scale 1:200 (on A2)
Section 2
Scale 1:200 (on A2)
Design Cubicle Pty Ltd
Address 4/4 Solent Circuit Norwest Business Park Baulkham Hills NSW Postcode 2153
Tel: 9683 2778
Fax: 9683 2779
Email: info@designcubicle.com.au
Https: www.designcubicle.com.au
ABN: 47 116 316 333
design cubicle
SHEET TITLE
SECTIONS
ISSUE BY:
PB
DESIGNED BY:
PC
DATE:
AUG 15
ISSUED AT BANKSTOWN CITY COUNCIL
PROPOSED RESIDENTIAL DEVELOPMENT
116-124 RESTWELL STREET,
BANKSTOWN
1:200 (on A2)
150711 DA302
ISSUE
A
A
ISSUED FOR DA SUBMISSION
AMENDMENT
DATE
BY/ CHK

3. TRAFFIC ASSESSMENT

Road Hierarchy

The road hierarchy allocated to the road network in the vicinity of the site by the Roads and Maritime Services is illustrated on Figure 3.

Stacey Street and Fairford Road are classified by the RMS as *State Roads* which provide the key north-south road link in the area, linking Padstow to Bankstown. They typically carry two to three traffic lanes in each direction in the vicinity of the site, with turning bays provided at key locations.

Canterbury Road is also classified by the RMS as a *State Road* which provides the key east-west road link in the area, linking Bankstown to Hurlstone Park. It typically carries two traffic lanes in each direction in the vicinity of the site, with turning bays provided at key locations.

Macauley Avenue is classified by the RMS as a *Regional Road* which performs the function of an east-west *collector route* through the area. It typically carries two traffic lanes in each direction in the vicinity of the site with kerbside parking generally permitted outside of commuter peak periods.

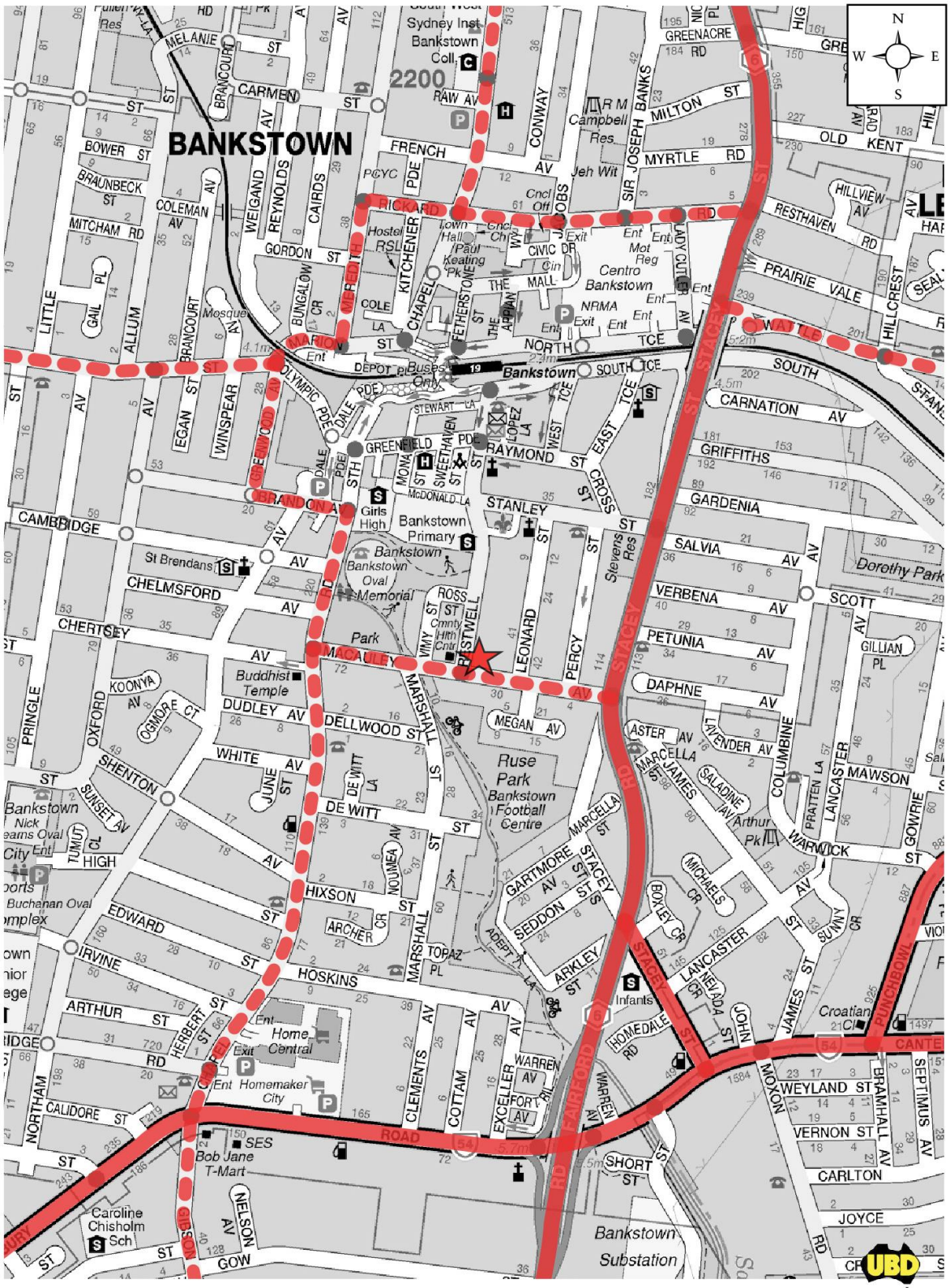
Restwell Street is a local, unclassified road which is primarily used to provide vehicular and pedestrian access to frontage properties. Kerbside parking is generally permitted on both sides of the road.

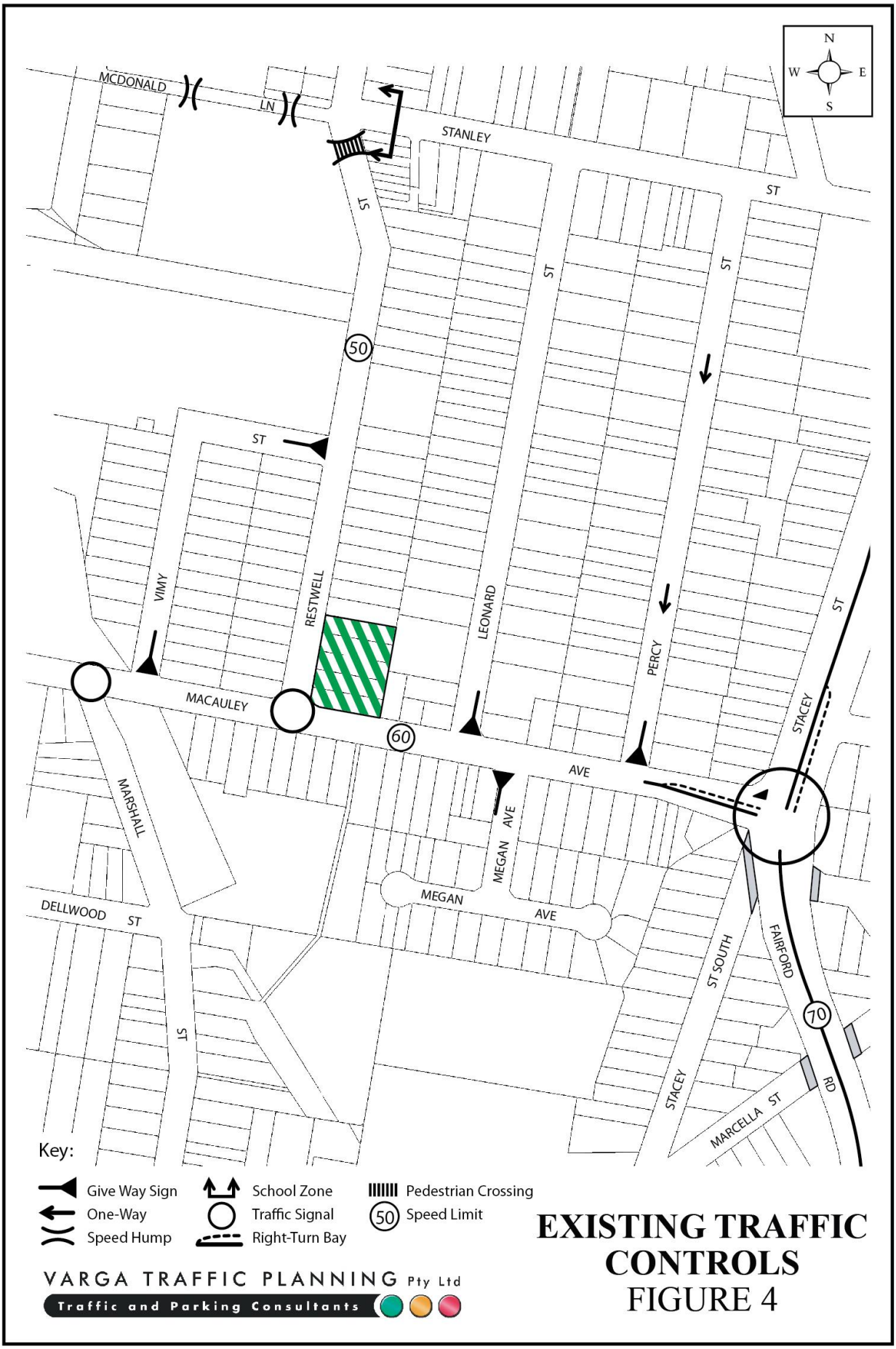
Existing Traffic Controls

The existing traffic controls which apply to the road network in the vicinity of the site are illustrated on Figure 4. Key features of those traffic controls are:

- a 70 km/h SPEED LIMIT which applies to Fairford Road and Stacey Street

- a 60 km/h SPEED LIMIT which applies to Macauley Avenue


BANKSTOWN
Sydney Inst Bankstown Coll
2200
Bankstown Primary
Girls High
Bankstown Oval
Memorial Park
Ruse Park
Bankstown Football Centre
Bankstown Substation
Buddhist Temple
St Brendans
Caroline Chisholm Sch
Bob Jane T-Mart
Homemaker City
Home Central
Centro Bankstown
Paul Keating Pk
Arthur Pk
Croatian Cl
Infants
Dorothy Park
Hostel RSL
Mosque
Stevens Res
R M Campbell Res
Jeh Wit
Cncl Off
Cncl Chbr
Town Hall
CIVIC DR
THE MALL
NRMA
Mot Reg
Bankstown
NORTH TCE
SOUTH TCE
EAST TCE
WEST TCE
DEPOT
Buses Only
Exit
Ent
Key:
State Road
Regional Road
VARGA TRAFFIC PLANNING Pty Ltd
Traffic and Parking Consultants
ROAD HIERARCHY
FIGURE 3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MCDONALD
LN
STANLEY
ST
ST
ST
ST
50
ST
VIMY
RESTWELL
LEONARD
PERCY
ST
STACEY
MACAULEY
60
AVE
MARSHALL
MEGAN AVE
MEGAN
AVE
DELLWOOD
ST
ST
ST SOUTH
FAIRFORD
70
RD
STACEY
MARCELLA ST
Key:
Give Way Sign
One-Way
Speed Hump
School Zone
Traffic Signal
Right-Turn Bay
Pedestrian Crossing
50 Speed Limit
VARGA TRAFFIC PLANNING Pty Ltd
Traffic and Parking Consultants
EXISTING TRAFFIC CONTROLS
FIGURE 4

- a 50 km/h SPEED LIMIT which applies to Restwell Street and all other local roads in the area

- TRAFFIC SIGNALS in Macauley Avenue where it intersects with Marshall Street, Restwell Street and also Stacey Street/Fairford Road

- a RIGHT TURN HOLDING BAY in Stacey Street for vehicles turning onto Macauley Avenue.

Projected Traffic Generation

An indication of the traffic generation potential of the Planning Proposal is provided by reference to the Roads and Maritime Services publication *Technical Direction TDT 2013/04a (August 2013)* which notes that the Technical Direction *must* be followed when the RMS is undertaking trip generation assessments.

The *Technical Direction* is based on extensive surveys of a wide range of land uses and nominates the following traffic generation rates which are applicable to the development proposal:

High Density Residential Flat Buildings

AM: 0.19 peak hour vehicle trips per dwelling

PM: 0.15 peak hour vehicle trips per dwelling

Application of the above traffic generation rates to the various components of the development proposal yields a traffic generation potential of approximately 17 vehicle trips per hour (vph) during the AM commuter peak period and 13 vph during the PM commuter peak period.

That projected future level of traffic generation potential should however, be offset or *discounted* by the volume of traffic which could reasonably be expected to be generated by the existing uses of the site, in order to determine the *nett increase* in traffic generation potential of the development proposal.

The *Technical Direction* nominates the following traffic generation rates which are applicable to the existing development on the site:

Low Density Residential Dwellings

AM: 0.95 peak hour vehicle trips per dwelling

PM: 0.99 peak hour vehicle trips per dwelling

Application of the above traffic generation rates to the five existing dwelling houses on the site yields a traffic generation potential of approximately 5 vph during both the AM and PM commuter peak periods.

Accordingly, it is likely that the proposed development will result in a *nett increase* in the traffic generation potential of the site of approximately 12 vph during the AM commuter peak period and 8 vph during the PM commuter peak period, as set out below:

Projected Nett Increase in Peak Hour Traffic Generation Potential of the Site as a Consequence of the Development Proposal

	AM	**PM**
Projected Future Traffic Generation Potential:	16.5 vph	13.1 vph
Less Existing Traffic Generation Potential:	-4.8 vph	-5.0 vph
NETT INCREASE IN TRAFFIC GENERATION POTENTIAL:	**11.7 vph**	**8.1 vph**

That projected increase in traffic activity as a consequence of the development proposal is minimal, consistent with the rezoning objectives of the area, and will clearly not have any unacceptable traffic implications in terms of road network capacity.

4. PARKING IMPLICATIONS

Existing Kerbside Parking Restrictions

The existing kerbside parking restrictions which apply to the road network in the vicinity of the site are illustrated on Figure 5 and comprise:

- NO STOPPING restrictions in the vicinity of the Restwell Street and Macauley Avenue intersection, including the majority of the two site frontages

- NO PARKING (AM/PM) restrictions along both sides of Macauley Avenue in the vicinity of the site during the morning and afternoon commuter peak periods

- generally UNRESTRICTED kerbside parking along both sides of Restwell Street, north of the site

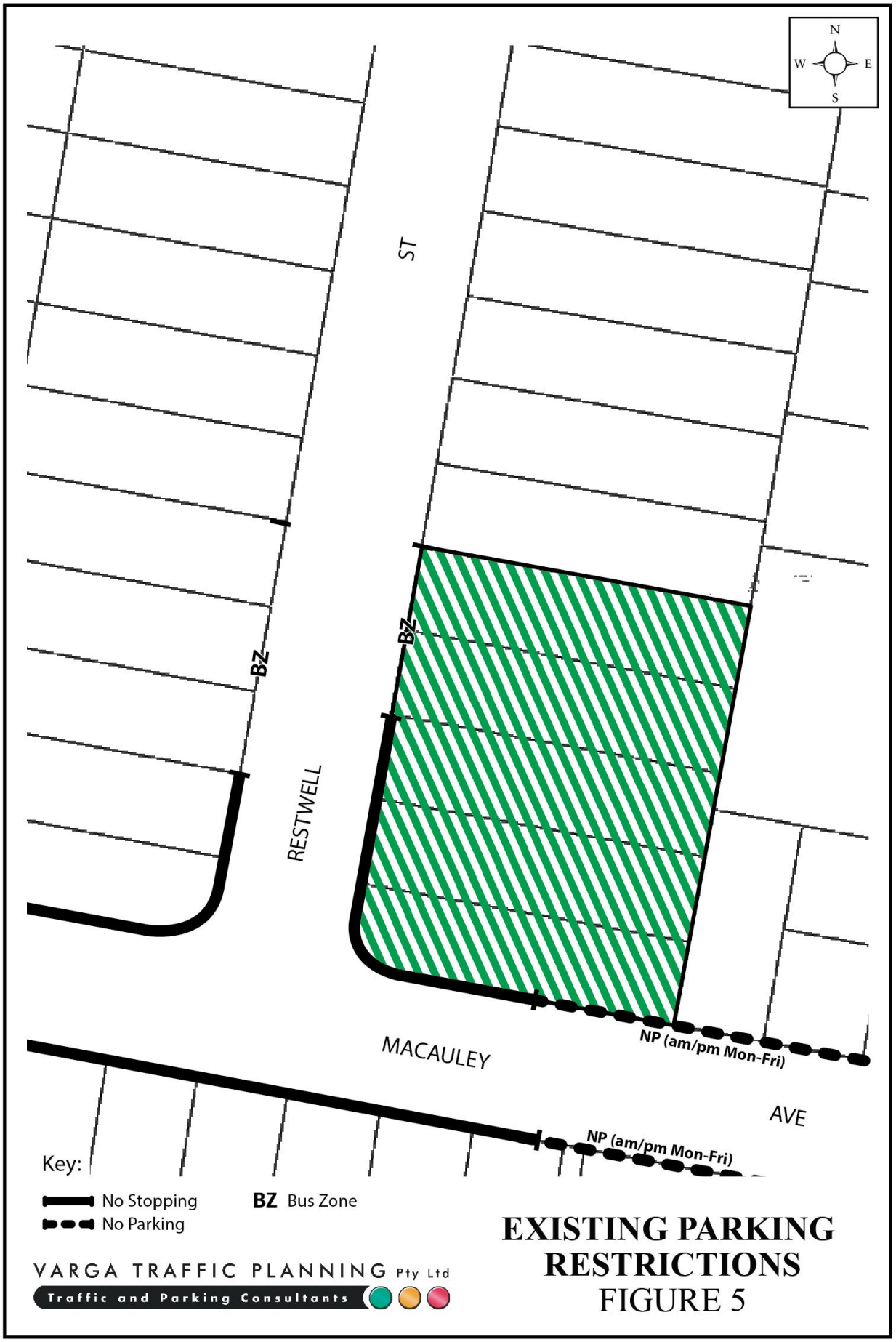
- BUS ZONES located along both sides of Restwell Street including directly outside the site.

Off-Street Parking Provisions

The off-street parking requirements applicable to the development proposal are specified in Council's *Development Control Plan 2015, Part B5 – Parking* document in the following terms:

Residential Flat Buildings (Zone 4)	
One bedroom dwellings:	1 space per dwelling
Two bedroom dwellings:	1.2 spaces per dwelling
Three bedroom dwellings:	1.5 spaces per dwelling
Visitors:	1 space per 5 dwellings

Application of the above parking requirements to the 87 residential apartments outlined in the development proposal yields an off-street parking requirement of 120 parking spaces as set out below: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No Parking
BZ Bus Zone
VARGA TRAFFIC PLANNING Pty Ltd
Traffic and Parking Consultants
EXISTING PARKING RESTRICTIONS
FIGURE 5

Residents (87 Apartments):	102.6 spaces
Visitors:	17.4 spaces
TOTAL:	**120.0 spaces**

The proposed development makes provision for a total of 127 off-street parking spaces, comprising of 110 residential spaces and 17 visitor spaces (including a car wash bay), thereby satisfying Council's parking code requirements.

The geometric design layout of the proposed car parking facilities have been designed to comply with the relevant requirements specified in the Standards Australia publication *Parking Facilities Part 1 - Off-Street Car Parking AS2890.1 - 2004* in respect of parking bay dimensions, ramp gradients and aisle widths.

In summary, the proposed parking facilities satisfy the relevant requirements specified in both Council's Parking Code as well as the Australian Standards and it is therefore concluded that the proposed development will not have any unacceptable parking implications.