PLANNING PROPOSAL FOR MIXED USE DEVELOPMENT

42 – 46 PARRAMATTA ROAD, HOMEBUSH

Assessment of Traffic, Transport and Parking Implications

February 2018
(Rev C)

Reference 17016

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1. INTRODUCTION

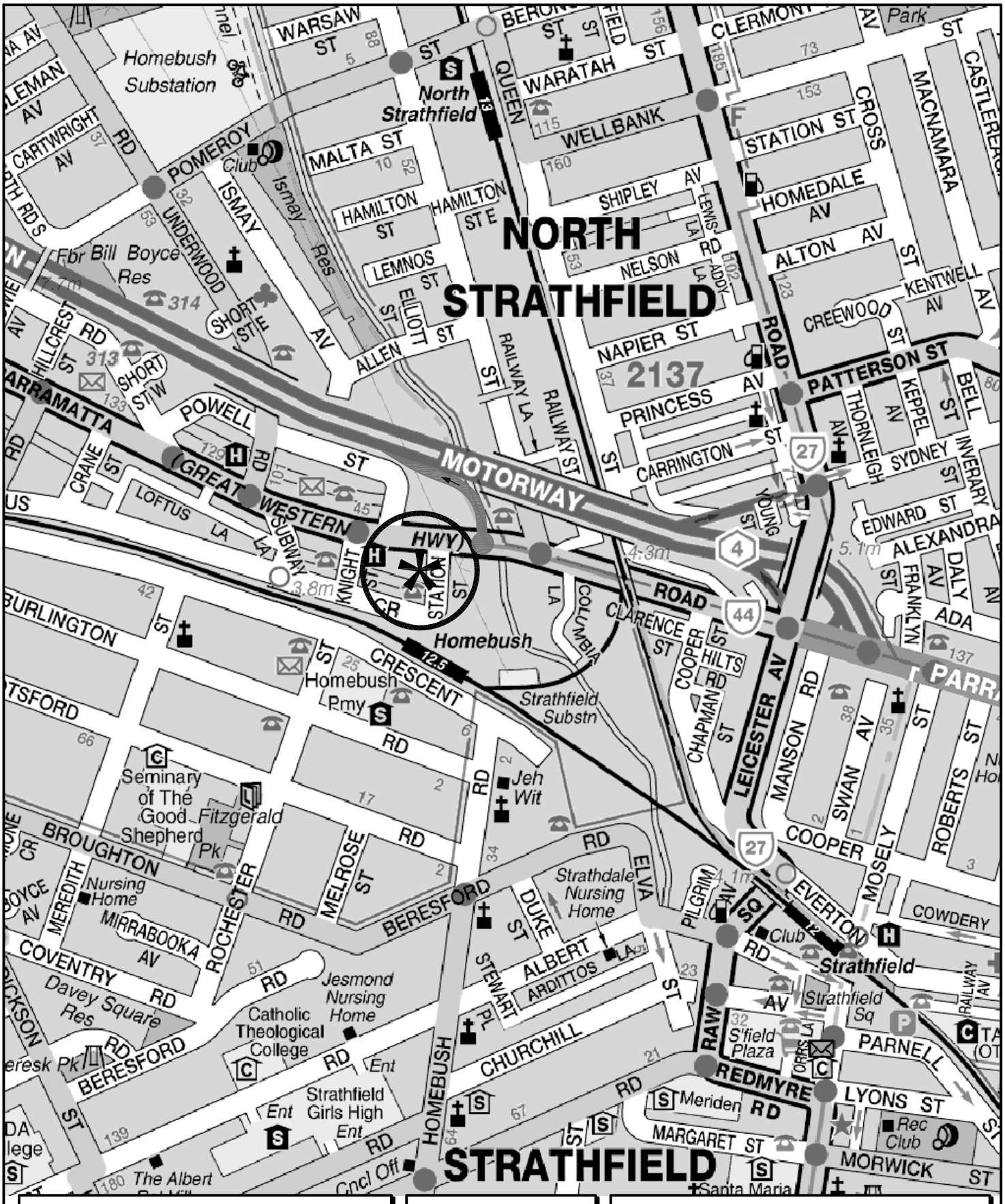
This report has been prepared to accompany a Planning Proposal to Planning and Environment NSW in relation to an approved mixed use development site at 42 – 46 Parramatta Road, Homebush (Figure 1).

Consent was granted for a development scheme for the site comprising 62 residential apartments and 362.3m^2 commercial floorspace with basement parking.

The Planning Proposal seeks to increase the permitted height to 80m and the FSR to 5:1. This proposal, which would increase the total yield by approximately 49 apartments.

The purpose of this report is to:

* describe the site, the approved development and the envisaged Planning Proposal outcome
* describe the road network serving the site, the traffic conditions and the available transport services
* to provide the traffic and transport assessment required and in particular:
  - assess the potential traffic implications of the increased density of development
  - assess the adequacy of the envisaged parking provision
  - assess the envisaged access, internal circulation and servicing arrangements


NORTH
STRATHFIELD
STRATHFIELD
Homebush Substation
North Strathfield
Fbr Bill Boyce Res
Ismay Res
Homebush
Strathfield Substn
Seminary of The Good Shepherd
Fitzgerald Pk
Nursing Home
Mirrabooka Av
Davey Square Res
Jesmond Nursing Home
Catholic Theological College
Strathfield Girls High
Strathdale Nursing Home
Strathfield Plaza
Strathfield Sq
Rec Club
Meriden
Santa Maria
MOTORWAY
HWY
Jeh Wit
Club
Cncl Off
Ent
WARSAW ST
MALTA ST
HAMILTON ST
LEMNOS ST
ELLIOTT ST
ALLEN ST
WARATAH ST
WELLBANK
SHIPLEY AV
NELSON RD
NAPIER ST
PRINCESS AV
CARRINGTON ST
STATION ST
HOMEDALE AV
ALTON AV
CREEWOOD AV
KENTWELL AV
PATTERSON ST
KEPPEL AV
THORNLEIGH AV
SYDNEY ST
INVERARY ST
BELL ST
EDWARD ST
ALEXANDRA
DALY AV
FRANKLYN ST
ADA
POMEROY ST
UNDERWOOD ST
ISMAY AV
SHORT ST E
SHORT ST W
HILLCREST RD
POWELL RD
CRANE ST
LOFTUS LA
GREAT WESTERN SUBWAY
KNIGHT ST
STATION ST
RAILWAY LA
RAILWAY ST
QUEEN ST
CLERMONT AV
CASTLEREAGH
MACNAMARA
CROSS
LEWIS LA
ADDY LA
YOUNG ST
CLARENCE ST
COOPER HILTS RD
CHAPMAN ST
LEICESTER AV
MANSON RD
SWAN AV
ROBERTS ST
COOPER MOSELY
EVERTON RD
COWDERY
PARNELL
LYONS ST
MORWICK ST
REDMYRE RD
MARGARET ST
CHURCHILL ST
HOMEBUSH RD
BERESFORD RD
COVENTRY RD
BROUGHTON RD
MEREDITH
ROCHESTER
MELROSE ST
DUKE ST
STEWART PL
ALBERT LA
ARDITTOS
ELVA
PILGRIM AV
BURLINGTON ST
CRESCENT
TSFORD
COLUMBIA LA
BURRAMATTA RD
ROAD
PARR
LOFTUS LA
LA
12.5
4.3m
5.1m
3.8m
4.1m
LEGEND
LOCATION
FIG 1

2. PLANNING PROPOSAL

2.1 SITE, CONTEXT AND FORMER USE

The site (Figure 2) is Lot 2 in DP 518578 which occupies an 'L' shaped area of some 2,251.6m^2 with frontages to Parramatta Road and Station Street.

The site is relatively level, rising slightly towards the southern boundary, and the adjoining uses comprise residential dwellings to the south, a new medium density residential building along part of the northern side and to the west. The other uses in the surrounding area an industrial building comprise:

- The older style residential flats buildings and single dwellings along Station Street
- The mixed commercial, industrial and retail uses extending along Parramatta Road
- The hotel located on the corner of Parramatta Road and Knight Street

The site, which was occupied by Bushs Meats for many years, is now cleared and largely vacant retaining one small building and a driveway on the Station Street frontage at the southern boundary.

2.2 APPROVED DEVELOPMENT

Consent (DA 2014/154) was granted to clear / excavate the site and construct two buildings above integrated basement levels with a total development outcome comprising:

3 x one-bedroom apartments
41 x two-bedroom apartments
18 x three-bedroom apartments
Total 62 apartments

362.3m^2 commercial floorspace

LEGEND

SITE

FIG 2

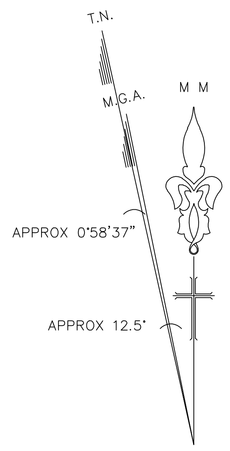
L.G.A. STRATHFIELD

SITE SURVEY

SHOWING SELECTED LEVELS AND DETAIL OVER
LOT 2 IN DP 518578 BEING No.42 PARRAMATTA ROAD, HOMEBUSH.

DATUM : A.H.D.

PLOT SCALE 1 : 100 ON A0 SHEET



PARRAMATTA ROAD

MULTI STOREY BRICK RESIDENTIAL & COMMERCIAL BUIDING
(CAR PARK UNDER)
(METAL ROOF)
No.52-58

BRICK BUILDING
(METAL ROOF)
No.62

CAR PORT
(METAL ROOF)

BRICK HOUSE
(TILE ROOF)
No.1

1 & 2 STOREY
BRICK HOUSE
(TILE ROOF)
No.5

GRAVEL CAR PARK

TARMAC & CONCRETE

GRASS

FOOTPATH

BUS STOP

STATION STREET

DP 1051111
SP 70067

DP 518578
2
2251.5m²

DP 128813
9

DP 665260
2

DP 665260
13

271°22'40" 51.855

271°22'40" 24.385

183°54'00" 30.48

183°58'20" 19.81

91°22'40" 76.25

3°54'00" 50.29

(10.975)

LEGEND

BALC	BALCONY
BW	BOTTOM OF WINDOW
BUS	BUS STOP SIGN
H	FIRE HYDRANT
IC	INSPECTION COVER
MH	MANHOLE
PP	POWER POLE
PARA	PARAPET
SI	ROAD SIGN
SV	STOP VALVE
TW	TOP OF WINDOW
TOW	TOP OF WALL
TOF	TOP OF FENCE
TG	TOP OF GUTTER
W	WATER LID
12/0.4/9	TREE WITH APPROX. – 12m SPREAD, – 0.4m DIAMETER, – 9m HEIGHT

NOTES.

1) SURVEY MARKS MUST BE PLACED PRIOR TO ANY CONSTRUCTION WORK.
2) ORIGIN OF LEVELS SSM 114919, RL=6.648 A.H.D.
3) BOUNDARY DIMENSIONS OBTAINED FROM DP 518578
4) SITE SURVEY HAS BEEN CARRIED OUT.
5) NO UNDERGROUND SERVICES SEARCH MADE, ONLY PITS ETC. VISIBLE AT TIME OF SURVEY PLOTTED.
6) BEARINGS ARE ON TRUE MERIDIAN
7) EXTENT OF TREE CANOPY IS APPROXIMATE & DIAGRAMMATIC ONLY.
8) THE INFORMATION ON THIS SURVEY IS TO BE USED FOR DESIGN AND DA PURPOSES ONLY. SURVEY MARKS MUST BE PLACED PRIOR TO ANY CONSTRUCTION.
9) SITE AREA CALCULATED BY SURVEY
10) THE RECORDS OF THE SERVICE AUTHORITIES HAVE NOT BEEN INVESTIGATED, ONLY THOSE SERVICES THAT ARE VISIBLE AND ACCESSIBLE AT THE DATE OF HAVE BEEN SHOWN.
11) SERVICES SHOWN ARE INDICATIVE ONLY, OTHER SERVICES MAY EXIST THAT ARE NOT SHOWN. THEREFORE FIELD CONFIRMATION OF THEIR EXACT POSITION SHOULD BE MADE PRIOR TO COMMENCEMENT OF EXCAVATION.
12) IF THERE IS ANY POINT OR FEATURE i.e (FLOOR LEVEL, WALL POSITION, ROOF, RIDGE ETC) CRITICAL TO THE PREPERATION OF DESIGN PLANS OR CONSTRUCTION, THAT POINT SHOULD BE ACCURATELY LOCATED PRIOR TO THE COMPLETION OF THOSE PLANS OR COMMENCEMENT OF CONSTRUCTION.
13) STAIR RISES, STEPS AND LANDINGS HAVE NOT BEEN INDIVIDUALLY LOCATED, AND ARE DIAGRAMMATIC ONLY.

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CONSULTING SURVEYORS
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DIAL 1100 BEFORE YOU DIG

DATE OF SURVEY: 31/07/13 REF No. 54945

CAD FILE: 54945001A.DWG

ISSUE "A"
FIRST ISSUE

A total of 103 parking spaces were proposed in basement levels with a combined ingress/egress driveway on the Station Street frontage.

Details of the approved development are provided on the plans prepared by Integrated Design Group which are reproduced in part in Appendix A.

2.3 ENVISAGED DEVELOPMENT

The Planning Proposal seeks to increase the permitted building height to 80m and the FSR to 5:1. The envisaged development outcome (which will be confirmed at DA Stage) with these provisions would be as follows:

15 x one-bedroom apartments
69 x two-bedroom apartments
27 x three-bedroom apartments
Total: 111 apartments
Commercial 457.96m^2

It is envisaged that 134 parking spaces would be provided in the basement levels. Details of the envisaged development are provided in the plans prepared by Integrated Design Group which are reproduced in Appendix B.

3. TRANSPORT CIRCUMSTANCES

The site is very conveniently located in relation to public transport services being only some 100m to the north of Homebush Railway Station and 650m west of North Strathfield Railway Station. Services on the lines through these stations operate at 5 to 10 minute frequencies in peak periods and 10 to 15 minute frequencies at other times. The stations provide access to the Metropolitan Railway Network and beyond.

Local and regional bus services (Sydney Buses) operate along Parramatta Road, with bus stops located close to the site, and include:

- Route 408 - Flemington Station or Rookwood Cemetery to Burwood via Homebush and Strathfield
- Route 458 - Ryde to Burwood via Rhodes, Concord Hospital, North Strathfield and Strathfield
- Route 459 - Macquarie University to Strathfield via Macquarie Centre and Ryde
- Route 525 - Sydney Olympic Park and Parramatta to Burwood via Newington and Strathfield
- Route 526 - Sydney Olympic Park Wharf to Burwood via Newington and Strathfield

It is apparent that the site has excellent convenient access to existing high frequency public transport services. The planned future improvements to transport services include:

- Increased rail frequencies at Homebush, North Strathfield and Concord West railway stations
- A potential new bus service between Parramatta and Burwood via Parramatta Road

The Parramatta Road Urban Transformation Program identifies that the Parramatta Road corridor will accommodate 27,000 new dwellings and 50,000 new jobs with the Homebush precinct providing for more than a third of the population growth in the corridor with some 9,500 dwellings and some 12,900 new jobs.

The West Connex Motorway is one of the infrastructure projects identified to cater for the increased development. This project includes widening of the M4 Motorway (completed), construction of the M4 East, the M4/M5 link and the new M5 with the M4 East currently under construction and expected to be open in 2019.

The program identifies the Parramatta Light Rail project as providing improved transport and it identifies the development potential around the key transport nodes, including Strathfield and Homebush stations.

The plan also identifies improvements required to accommodate the new development in the corridor, including transport infrastructure and for the Homebush precinct, this includes:

- a new cycle link along Queen Street, Parramatta Road and Cooper Street to Strathfield railway station with longer term cycle links to and from Mason Park
- through site pedestrian links, including to Concord West railway station
- extension or duplication of right turn lane from Parramatta Road into George Street
- improvements at intersections along Pomeroy Street
- provision of traffic signals at the Cooper Street/Parramatta Road intersection
- extension of Pomeroy Street to Parramatta Road via Derowie Avenue with traffic signal at the Parramatta Road/Derowie Avenue intersection

An infrastructure schedule has been prepared providing cost estimates and identifying the responsibilities for implementing the improvement measures by the Councils, RMS, TfNSW and developers. These cost estimates have been used to determine a “contribution per dwelling” to fund the improvement measures in each precinct.

The Planning Proposal development will be consistent with the governments objectives and the planning principles of:

- improving the choice of transport for travel purposes
- moderating growth in the demand for travel by private motor vehicle and the distances travelled
- improving accessibility to employment and services by walking, cycling and public transport
- supporting efficient and viable public transport services

4. ROAD NETWORK AND TRAFFIC CONDITIONS

4.1 ROAD NETWORK

The road network serving the site (Figure 3) comprise:

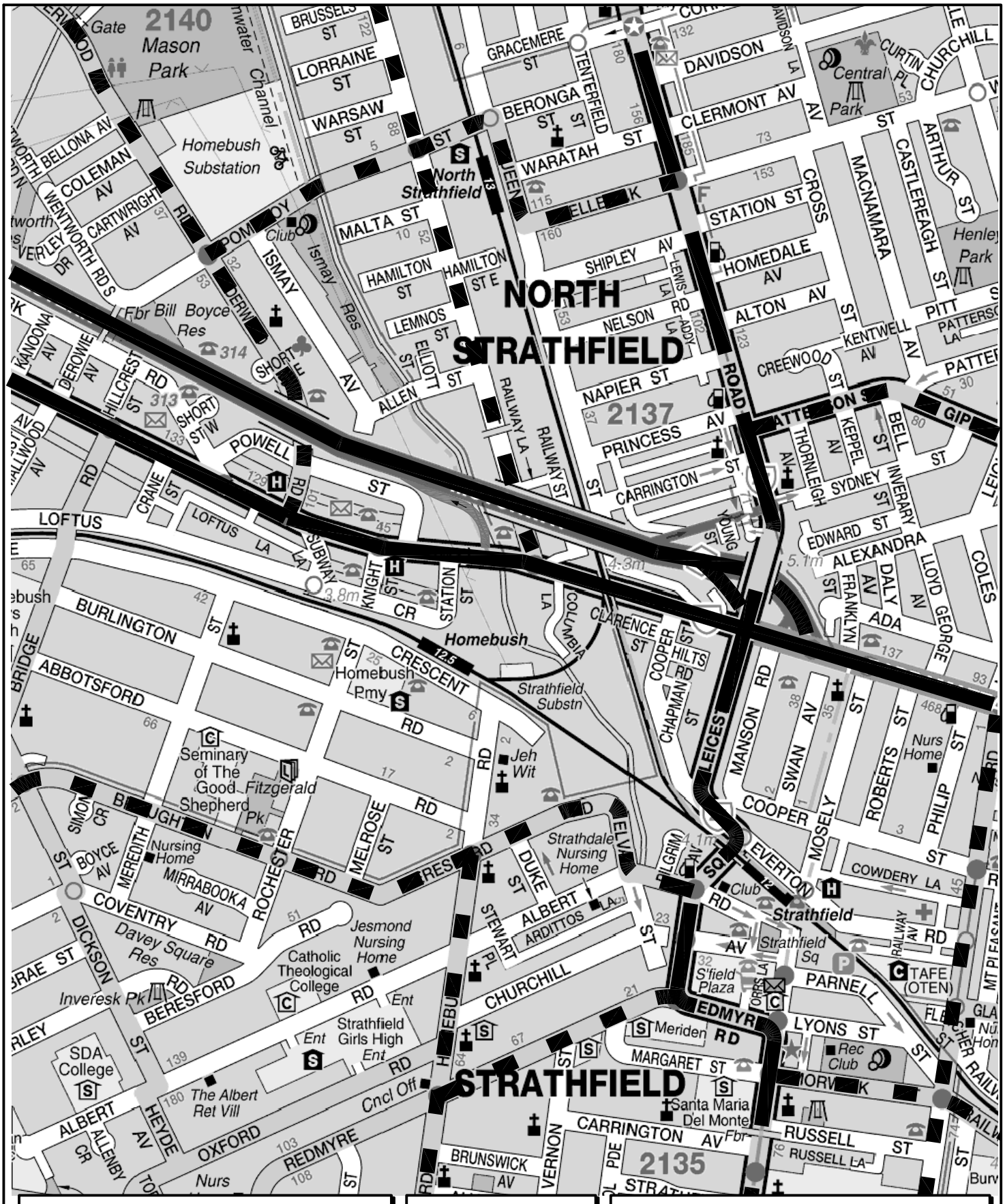
- *M4 Motorway* – a State Road and major arterial route linking between the City and Penrith
- *Parramatta Road* – a State Road and major arterial route
- *Concord Road* / *Leicester Avenue* / *Redmore Road* / *The Boulevarde* – a State Road and sub-arterial route
- *Homebush Road* / *Broughton Road* – Regional Roads and collector road routes
- Various major and minor collector road routes

Station Street, Loftus Crescent and Knight Street are essentially local access roads under the care and control of Strathfield Council although serving a minor collector road function to some extent in linking between Parramatta Road and The Crescent through the railway underpass.

4.2 TRAFFIC CONTROLS

The existing traffic and parking controls in the vicinity of the site (Figure 4) comprise:

- the traffic signals along Parramatta Road including the Knight Street and Underwood Road intersections as well as the George Street intersection which are currently being modified to incorporated a new road intersecting from the south (details overleaf)
- the various right-turn movement restrictions including the restrictions on the turns from Parramatta Road to Knight Street and to Powell Street



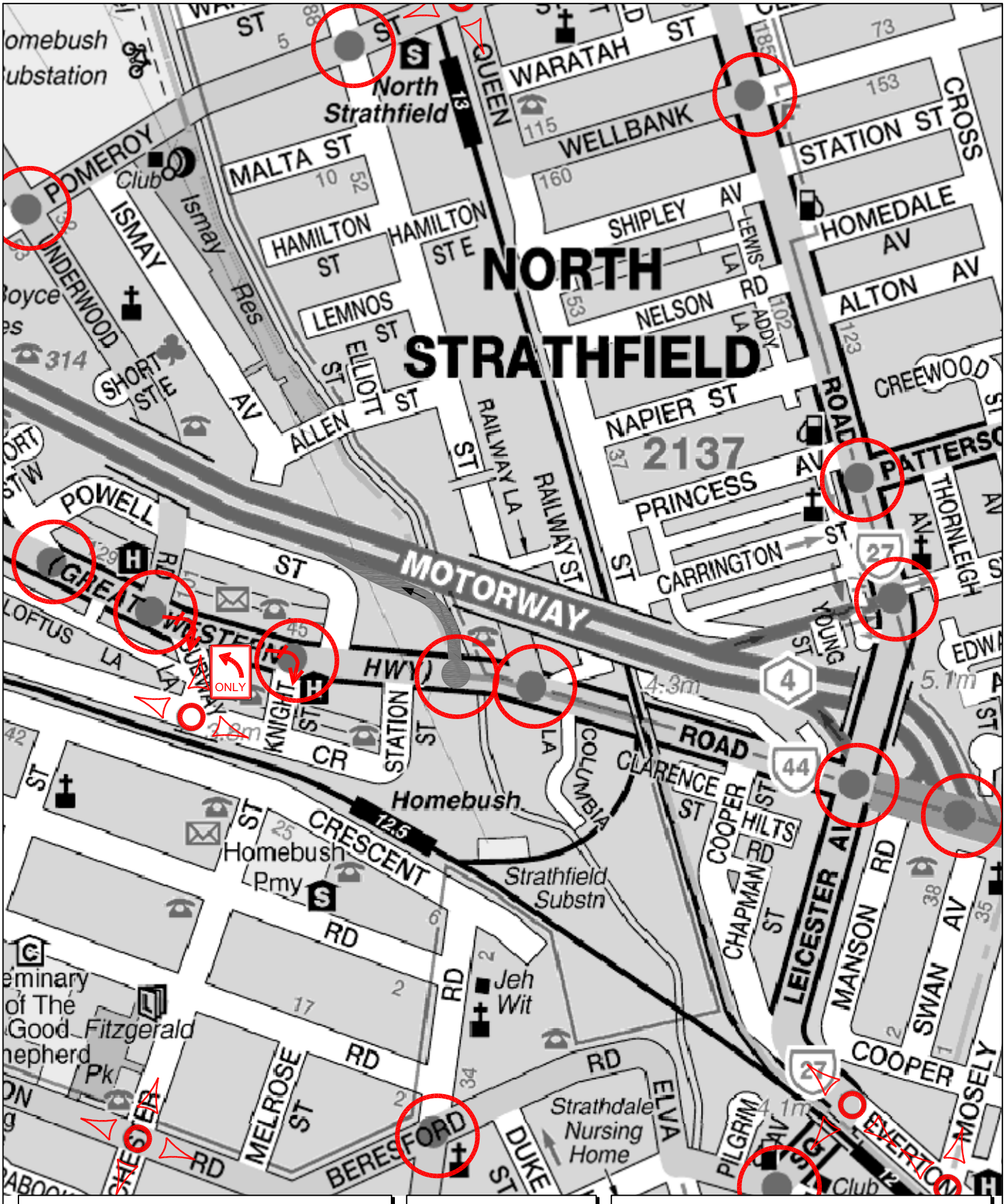
LEGEND

- ARTERIAL
- SUB-ARTERIAL
- COLLECTOR

N

ROAD NETWORK

FIG 3



LEGEND

- TRAFFIC SIGNAL CONTROL
- ROUNDABOUT
- RESTRICTED TURNING MOVEMENT

TRAFFIC CONTROLS

FIG 4

- the 50 kmph speed restriction on the local street system and 60 kmph on Parramatta Road
- the roundabouts on the Loftus Crescent and Knight Street and Subway Lane intersections
- the 1 HOUR PERIOD restrictions in Parramatta Road to the west of Knight Street
- the 2P SPECIAL EVENT parking restrictions on the local road system

4.3 TRAFFIC CONDITIONS

An indication of the traffic conditions on the roads in the vicinity is provided by data[1] published by Roads and Maritime Services and traffic surveys undertaken for this study. The RMS data which is expressed in terms of Annual Average Daily Traffic (AADT) is summarised in the following:

	AADT
Parramatta Road	40,139

Traffic surveys undertaken at the access intersections during the morning and afternoon peak traffic periods are provided in Appendix C and summarised in the following:

[1] *Traffic Volumes and Supplementary Data*
Roads and Traffic Authority

TCS 0834

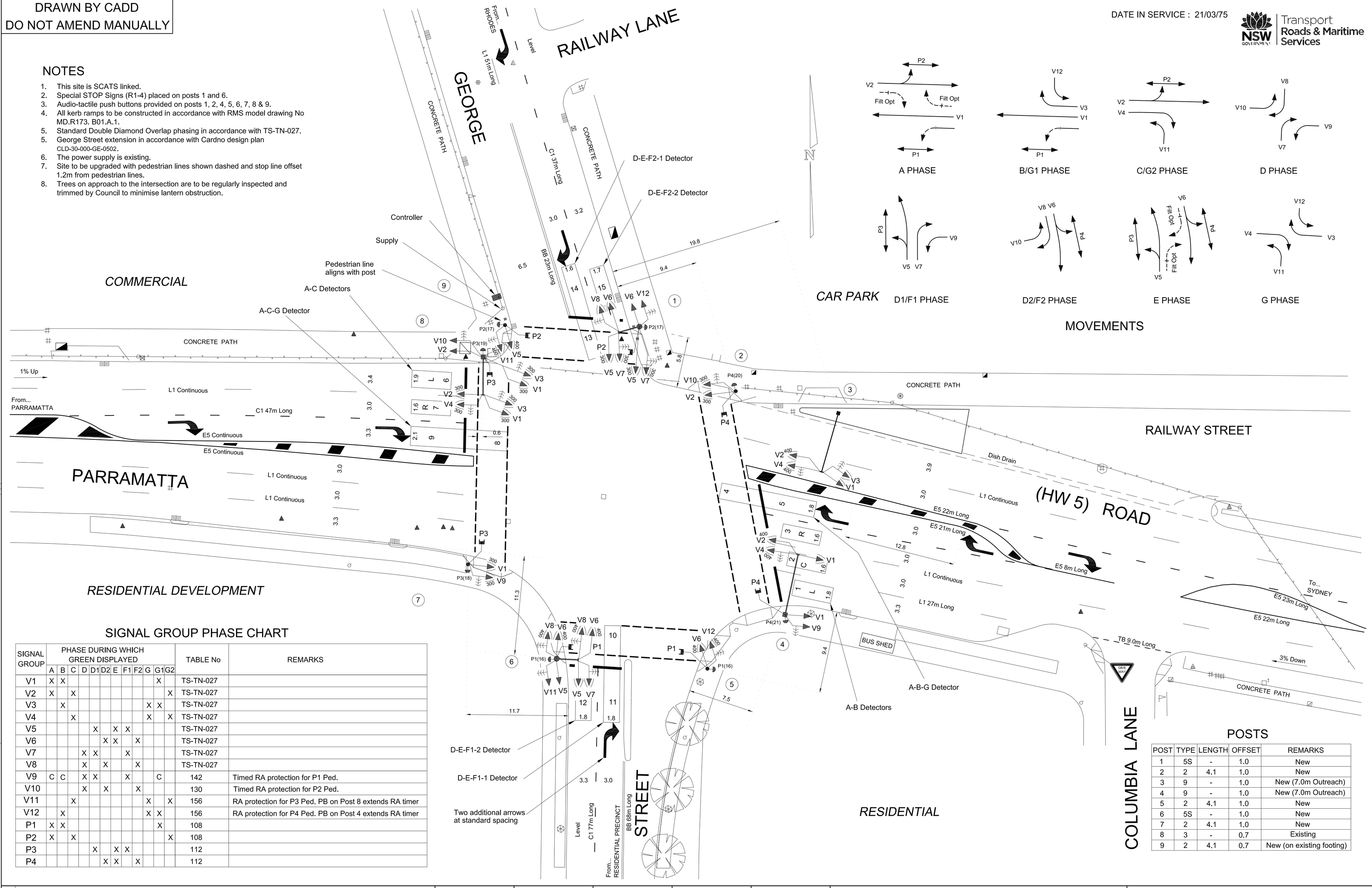
DRAWN BY CADD
DO NOT AMEND MANUALLY

DATE IN SERVICE : 21/03/75

Transport Roads & Maritime Services

NOTES

1. This site is SCATS linked.
2. Special STOP Signs (R1-4) placed on posts 1 and 6.
3. Audio-tactile push buttons provided on posts 1, 2, 4, 5, 6, 7, 8 & 9.
4. All kerb ramps to be constructed in accordance with RMS model drawing No MD.R173. B01.A.1.
5. Standard Double Diamond Overlap phasing in accordance with TS-TN-027.
5. George Street extension in accordance with Cardno design plan CLD-30-000-GE-0502.
6. The power supply is existing.
7. Site to be upgraded with pedestrian lines shown dashed and stop line offset 1.2m from pedestrian lines.
8. Trees on approach to the intersection are to be regularly inspected and trimmed by Council to minimise lantern obstruction.



SIGNAL GROUP PHASE CHART

SIGNAL GROUP	PHASE DURING WHICH GREEN DISPLAYED												TABLE No	REMARKS
	A	B	C	D	D1	D2	E	F1	F2	G	G1	G2		
V1	X	X									X		TS-TN-027	
V2	X		X									X	TS-TN-027	
V3		X								X	X		TS-TN-027	
V4			X							X		X	TS-TN-027	
V5					X		X	X					TS-TN-027	
V6						X	X		X				TS-TN-027	
V7				X	X			X					TS-TN-027	
V8				X		X			X				TS-TN-027	
V9	C	C		X	X			X			C		142	Timed RA protection for P1 Ped.
V10				X		X			X				130	Timed RA protection for P2 Ped.
V11			X							X		X	156	RA protection for P3 Ped. PB on Post 8 extends RA timer
V12		X								X	X		156	RA protection for P4 Ped. PB on Post 4 extends RA timer
P1	X	X									X		108	
P2	X		X									X	108	
P3					X		X	X					112	
P4						X	X		X				112	

POSTS

POST	TYPE	LENGTH	OFFSET	REMARKS
1	5S	-	1.0	New
2	2	4.1	1.0	New
3	9	-	1.0	New (7.0m Outreach)
4	9	-	1.0	New (7.0m Outreach)
5	2	4.1	1.0	New
6	5S	-	1.0	New
7	2	4.1	1.0	New
8	3	-	0.7	Existing
9	2	4.1	0.7	New (on existing footing)

A ORIGINAL ISSUE

PUBLIC UTILITY LEGEND		REFERENCE PLANS	
HYDRANT	☐	SYMBOLS/ABBS.	VD003-6
STOP VALVE	▲	STD POSIT	VD001-5
GAS VALVE	#	PRES. DETECT	VC005-17
SEWER MANHOLE	⊛	VEH. GROUP OP	TS-TN-019
TELECOM PIT	◪	DET. LOGIC OP	TS-TN-020
ELECT LIGHT POLE	☾	PED. MOVEMNT OP	TS-TN-021
POWER POLE	○		
STAY POLE	⊘		
TELEPHONE BOX	T	SURVEYOR : CARDNO	
TELECOM PILLAR	◕	DATE : 2014	

U.B.D. Ref. Map 233 E9
I.S.G. CO-ORDS E: 317 111 N: 1 251 144

DESIGNED J. SINGH
CHECKED C. TOMA
C. TOMA
SITE CHECKED
B. LO
RECOMMENDED

DESIGN APPROVAL
APPROVED
R. NETTLE
POSITION DIRECTOR
DATE 13/05/17
DESIGN PREPARED BY
TRANSPORT AND TRAFFIC PLANNING ASSOCIATES

RMS ACCEPTANCE
RECOMMENDED
POSITION
DATE
ACCEPTED
POSITION
DATE

ROADS AND MARITIME SERVICES

STRATHFIELD COUNCIL AREA
TRAFFIC SIGNALS AT
PARRAMATTA (HW 5) ROAD
AND GEORGE STREET
NORTH STRATHFIELD

DESIGN LAYOUT TCS No 834

EXISTING ☐ PROPOSED ☒

CADD FILE: VV0834_11A.dgn

SCALE (1:200) 5 0 5 10

ISSUE A

FILE SF2014/010053

SUPERSEDES SHEET/ISSUE 7/F

REG No. DS2014/001235

TCS No. 0834

SHEET 11

	AM	PM
Parramatta Road		
Eastbound	913	1,083
Left Turn	264	184
Westbound	1,258	1,119
Right Turn	356	197
Underwood Road		
Left Turn	120	188
Right Turn	155	399
Parramatta Road		
Eastbound Left Turn	25	7
Powell Street		
Left Turn	24	68

The operational performance of the Underwood Road intersection has been modelled using SIDRA and the results are summarised in the following while the criteria for interpreting SIDRA output are reproduced overleaf:

AM		PM	
LOS	**AVD**	**LOS**	**AVD**
B	14.9s	B	15.0s

Traffic conditions along Parramatta Road are largely influenced by the circumstances at the busy M4 and Concord Road/Leicester Avenue intersections however peak period operations at the vicinity of the site, including the Underwood Road and Knight Street intersections, are efficiently controlled by SCATS traffic signal coordination. It is apparent that the intersections in the vicinity are operating satisfactory with some reserve capacity.

Criteria for Interpreting Results of SIDRA Analysis

1. Level of Service (LOS)

LOS	Traffic Signals and Roundabouts	Give Way and Stop Signs
'A'	Good	Good
'B'	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
'C'	Satisfactory	Satisfactory but accident study required
'D'	Operating near capacity	Near capacity and Accident Study required
'E'	At capacity; at signals incidents will cause excessive delays. Roundabouts require other control mode	At capacity and requires other control mode
'F'	Unsatisfactory and requires additional capacity	Unsatisfactory and requires other control mode

2. Average Vehicle Delay (AVD)

The AVD provides a measure of the operational performance of an intersection as indicated on the table below, which relates AVD to LOS. The AVD's listed in the table should be taken as a guide only as longer delays could be tolerated in some locations (ie inner city conditions) and on some roads (ie minor side street intersecting with a major arterial route).

Level of Service	Average Delay per Vehicle (secs/veh)	Traffic Signals, Roundabouts	Give Way and Stop Signs
A	Less than 14	Good operation	Good operation
B	15 to 28	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
C	29 to 42	Satisfactory	Satisfactory but accident study required
D	43 to 56	Operating near capacity	Near capacity and accident study required
E	57 to 70	At capacity; at signals incidents will cause excessive delays. Roundabouts require other control mode	At capacity and requires other control mode

3. Degree of Saturation (DS)

The DS is another measure of the operational performance of individual intersections.

For intersections controlled by **traffic signals**[1] both queue length and delay increase rapidly as DS approaches 1, and it is usual to attempt to keep DS to less than 0.9. Values of DS in the order of 0.7 generally represent satisfactory intersection operation. When DS exceeds 0.9 queues can be anticipated.

For intersections controlled by a **roundabout or GIVE WAY or STOP signs**, satisfactory intersection operation is indicated by a DS of 0.8 or less.

[1] *the values of DS for intersections under traffic signal control are only valid for cycle length of 120 secs*

The recent completion of the M4 widening works has been accompanied by the imposition of a toll resulting in some initial diversion of vehicles from the M4 to Parramatta Road. The recent traffic survey results in the proceeding section have regard for this circumstance however it is expected that the number of diverting vehicles will reduce overtime as drivers succumb to the travel time advantages on the West Connex route.

5. TRAFFIC

The RMS traffic generation criteria in relation to high density residential apartments have been updated with Technical Direction TDT 2013-04 which specifies traffic generation rates for sites with good public transport accessibility of 0.19 vtph per unit in the morning peak and 0.15 vtph in the afternoon.

The assessed traffic generation of the approved development was as follows:

62 apartments	12 vtph in the AM
	10 vtph in the PM
Commercial 362m^2 @ 2 vtph per 100m^2	8 vtph
Total:	**20 vtph AM, 18 vtph PM**

The development outcome under the Planning Proposal is assessed to have the following projected traffic generation:

111 apartments	
AM @ 0.19	21 vtph
PM @ 0.15	17 vtph
Commercial 458m^2 5 parking spaces @ 0.40 vtph/space	2 vtph*****
Total: AM 23 vtph, PM 19 vtph	

***** *Due to the "constrained" parking provision the superseded RMS rate of 2vtph/100m^2 is not appropriate. RMS Study for constrained parking shows 0.32vtph per space.*

The projected distribution of these access movements during the peak periods is as follows:

	AM		PM	
	IN	**OUT**	**IN**	**OUT**
Apartments	3	18	15	2
Commercial	2	-	-	2
Total:	**23 vtph**		**19 vtph**	

Thus, the projected total traffic movements resultant to the envisaged development under the Planning Proposal in the AM and PM peak traffic periods will in reality be very little to that assessed for the previously approved development.

It is apparent however that the relatively minor increase in traffic generation over the previously approved development (i.e. some 1-3 vtph) will have no perceptible adverse traffic impact on the access road system.

6. PARKING

The applicable minimum parking provision in relation to the proposed development is as follows:

One-bedroom apartments	0.5 space per apartment
Two-bedroom apartments	0.9 space per apartment
Three-bedroom apartment	1.2 spaces per apartment
Visitors	1 space per 5 apartments
Commercial	1space per 100m^2

Application of the criteria to the envisaged development indicates a provision of:

15 x one bedroom	7.5 spaces
69 x two bedroom	62.1 spaces
27 x three bedroom	32.4 spaces
Visitors (111 apartments)	22.2 spaces
Commercial 458m^2 @ 1 per 100m^2	5 spaces
Total	**132 spaces**

It is envisaged that some 134 parking spaces would be provided with 105 spaces for residents, 22 spaces for visitors and 5 commercial spaces with an appropriate quantum of accessible spaces and bicycle parking.

7. ACCESS, INTERNAL CIRCULATION AND SERVICING

The vehicle access, internal circulation and servicing arrangements will reflect that contained in the approved development scheme.

8. CONCLUSION

Assessment of the envisaged development under the Planning Proposal outcome indicates that:

- the traffic generation outcome will be very little more than that of the approved development scheme
- there will not be any unsatisfactory traffic implications
- the envisaged parking provision will be adequate and appropriate
- the envisaged vehicle access, internal circulation and servicing arrangements will remain suitable and appropriate
- the envisaged development will be consistent with the Governments objectives and the planning principles of:
    - improving accessibility to employment and services by public transport, walking and cycling
    - moderating the growth in demand for travel by private motor vehicle and the distance travelled
    - supporting efficient and viable public transport services
    - improving the choice of transport for travel purposes

APPENDIX A

APPROVED PLANS

drawing no:	description	issue
	cover page	
0100	site analysis and context	b
0101	streetscape elevations	b
0102	site plan	d
0200	demolition plan	b
0201	sediment and erosion control plan	d
1001	basement 1 plan	e
1002	basement 2 plan	d
1100	ground level plan	j
1101	level 1 plan	h
1102	level 2 plan	h
1103	level 3 plan	h
1104	level 4 plan	i
1105	level 5 plan	j
1106	level 6 plan	h
1107	level 7 plan	h
1108	level 8 plan	h
1109	mezzanine / roof level plan	f
1110	roof level plan	d
2000	north elevation	d
2001	south elevation	d
2002	east elevation	b
2003	west elevation	b
3000	section a-a	d
3001	section b-b	d
3002	external driveway section	a
3003	internal driveway section	a
9100	code compliance	a
9200	shadow diagrams (plan)	a
9301	post adaption: mar lane	b
9302	post adaption: commercial	a
9303	post adaption: adaptable units	b
9400	finishes schedule	c

new residential apartments

aj bush & sons pty ltd | 42-46 parramatta road HOMEBUSH NSW

lot no | 2
dp no | 518578
site area | 2251.60 m²

integrated DESIGN group
architects bathurst | sydney

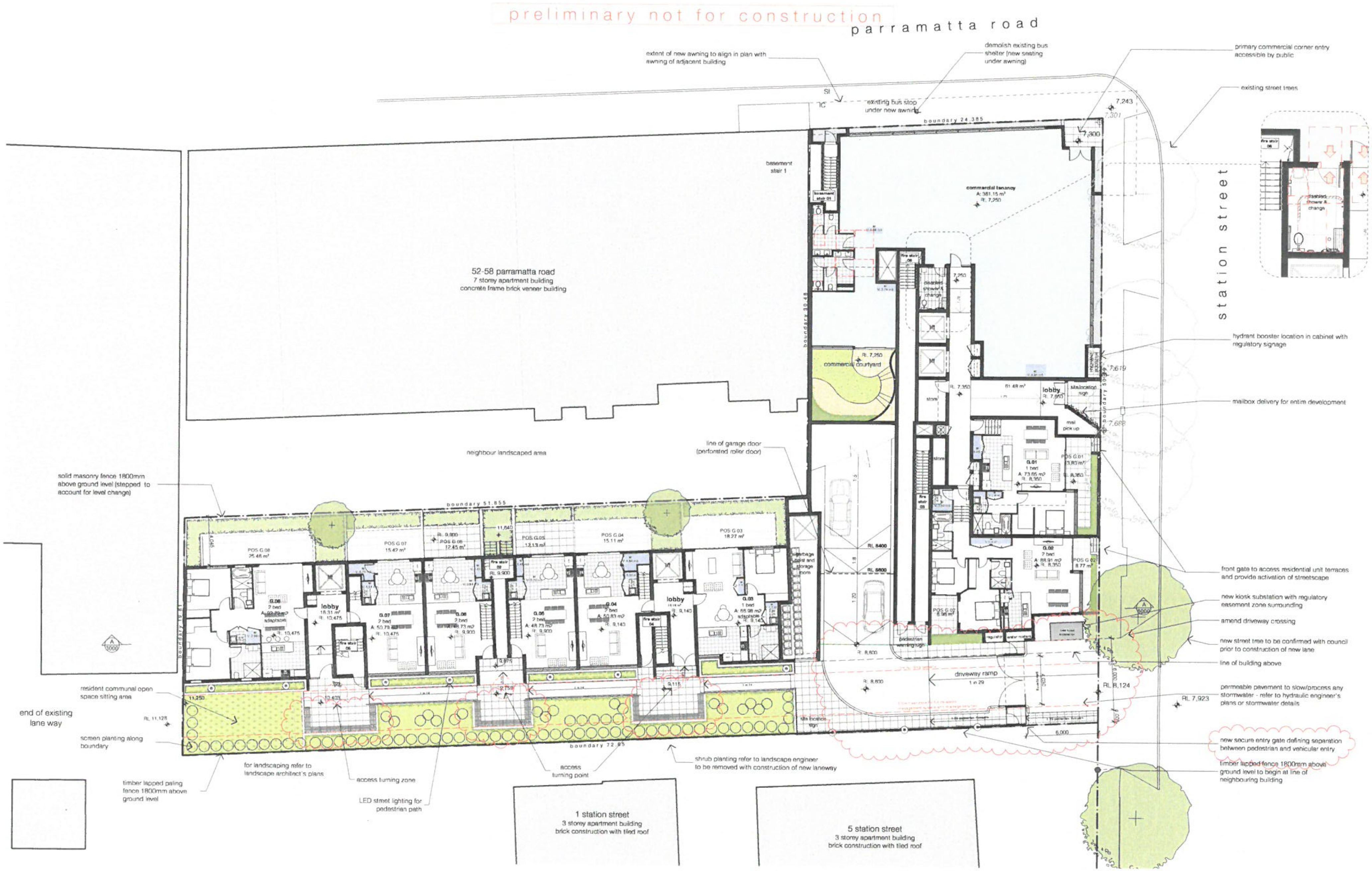
bathurst office
02 6332 6205 t

sydney office
02 9764 6100 t

AJB13036

DA

19 | 09 | 14



preliminary not for construction
parramatta road
extent of new awning to align in plan with awning of adjacent building
demolish existing bus shelter (new seating under awning)
primary commercial corner entry accessible by public
existing street trees
existing bus stop under new awning
boundary 24.385
basement stair 1
commercial tenancy
A: 381.15 m²
RL 7,250
52-58 parramatta road
7 storey apartment building
concrete frame brick veneer building
station street
hydrant booster location in cabinet with regulatory signage
commercial courtyard
lobby
mailbox delivery for entire development
neighbour landscaped area
line of garage door (perforated roller door)
solid masonry fence 1800mm above ground level (stepped to account for level change)
boundary 51.855
front gate to access residential unit terraces and provide activation of streetscape
new kiosk substation with regulatory easement zone surrounding
amend driveway crossing
new street tree to be confirmed with council prior to construction of new lane
line of building above
driveway ramp
1 in 29
permeable pavement to slow/process any stormwater - refer to hydraulic engineer's plans or stormwater details
resident communal open space sitting area
end of existing lane way
screen planting along boundary
boundary 72.85
new secure entry gate defining separation between pedestrian and vehicular entry
timber lapped fence 1800mm above ground level to begin at line of neighbouring building
for landscaping refer to landscape architect's plans
shrub planting refer to landscape engineer to be removed with construction of new laneway
access turning point
access turning zone
timber lapped paling fence 1800mm above ground level
LED street lighting for pedestrian path
1 station street
3 storey apartment building
brick construction with tiled roof
5 station street
3 storey apartment building
brick construction with tiled roof

integrated DESIGN group
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general notes

1. figured dimensions take precedence over scaled drawings
2. contractors to check and verify all levels datum and dimensions on site
3. all materials and workmanship to be in accordance with current written manufacturers instructions local regulations and SAA codes
4. conflicting information to be brought to notice of the architect and clarification sought before proceeding with any works

revision

03/10/13	a	preliminary issue to consultants
17/10/13	b	issue to consultants
06/11/13	c	issue for client review
15/11/13	d	issue to consultants
18/11/13	e	issue to traffic engineer
19/11/13	f	issue to council for pre DA
23/04/14	g	issue to landscape consultant
14/05/14	h	issue to client and consultants for review
02/07/14	i	issue to client for approval
19/09/14	j	DA issue
06/06/15	k	revised issue for DA (amended landscaping, driveway ramp, utilities)
17/09/15	l	revised issue for DA (amended driveway entry and pedestrian paths)

title

ground level plan

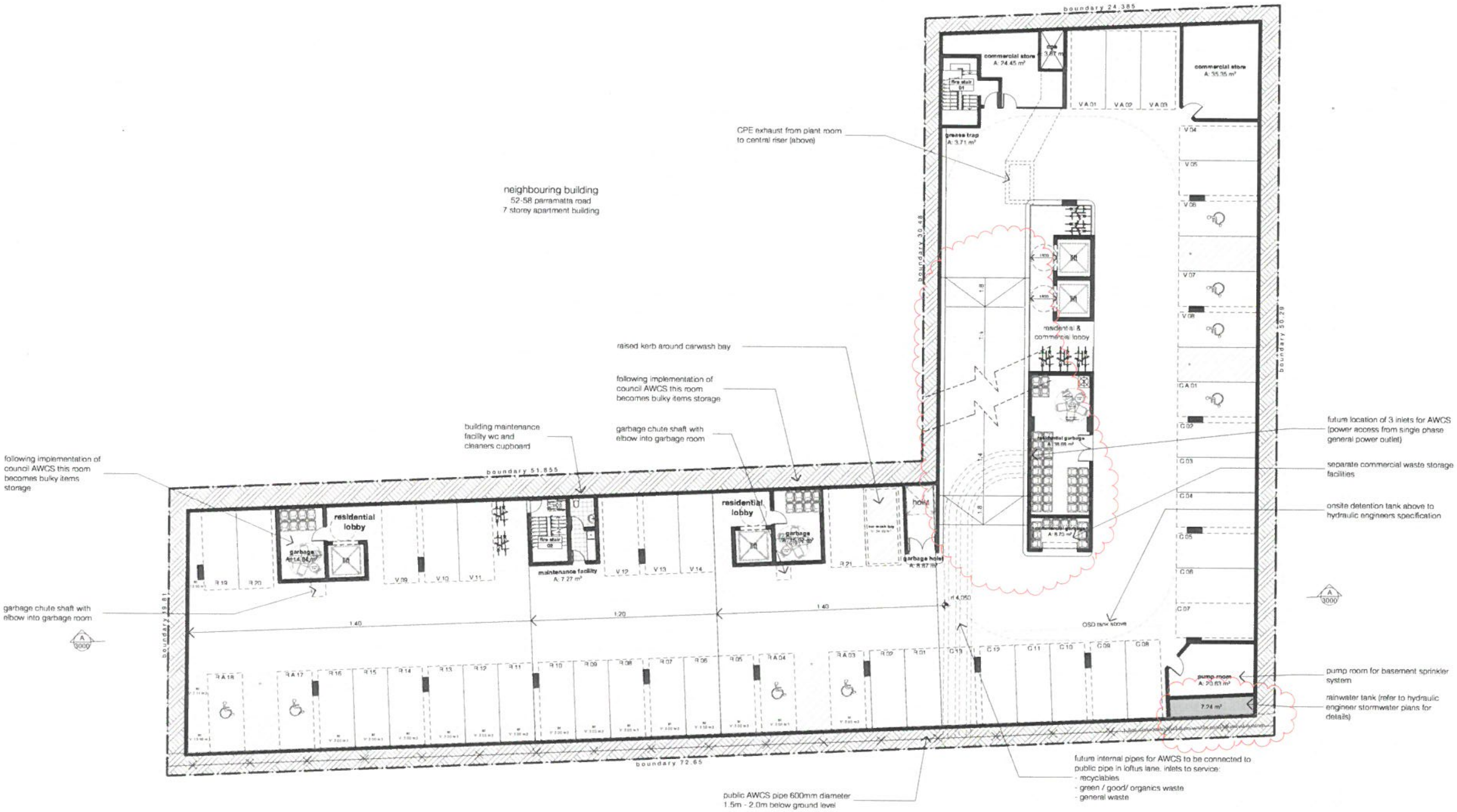
new residential apartments for aj bush & sons pty ltd
42-46 parramatta road HOMEBUSH NSW

project ref: AJB13036
drawn by: ED MB BS
checked by: AE ST
scale: 1:200, 1:100 @ a2

DA 1100

issue L

preliminary not for construction



neighbouring building
52-58 parramatta road
7 storey apartment building
boundary 24.385
boundary 30.48
boundary 30.29
boundary 51.855
boundary 72.65
commercial store A: 24.45 m²
commercial store A: 35.35 m²
fire stair 01
grease trap A: 3.71 m²
CPE exhaust from plant room to central riser (above)
residential & commercial lobby
raised kerb around carwash bay
following implementation of council AWCS this room becomes bulky items storage
building maintenance facility wc and cleaners cupboard
garbage chute shaft with elbow into garbage room
residential lobby
maintenance facility A: 7.27 m²
garbage hold A: 8.87 m²
hold
future location of 3 inlets for AWCS (power access from single phase general power outlet)
separate commercial waste storage facilities
onsite detention tank above to hydraulic engineers specification
OSD tank above
pump room for basement sprinkler system
pump room A: 20.63 m²
rainwater tank (refer to hydraulic engineer stormwater plans for details)
7.24 m²
future internal pipes for AWCS to be connected to public pipe in loftus lane. inlets to service:
- recyclables
- green / good/ organics waste
- general waste
public AWCS pipe 600mm diameter
1.5m - 2.0m below ground level
1:40
1:20
1:40
1:40

architect

integrated DESIGN group
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finishes

fixtures & levels

general notes

1. figured dimensions take precedence over scaled drawings
2. contractors to check and verify all levels datum and dimensions on site
3. all materials and workmanship to be in accordance with current written manufacturers instructions local regulations and SAA codes
4. conflicting information to be brought to notice of the architect and clarification sought before proceeding with any works

revision

17/10/13	a	preliminary issue to consultants
15/11/13	b	issue to consultants
19/11/13	c	issue to council for pre DA
02/07/14	d	issue to client for approval
19/09/14	e	DA issue
08/06/15	f	revised issue for DA (amended ramps)
10/06/15	g	revised issue for DA (rainwater tank & garbage storage)

title

basement 1 plan

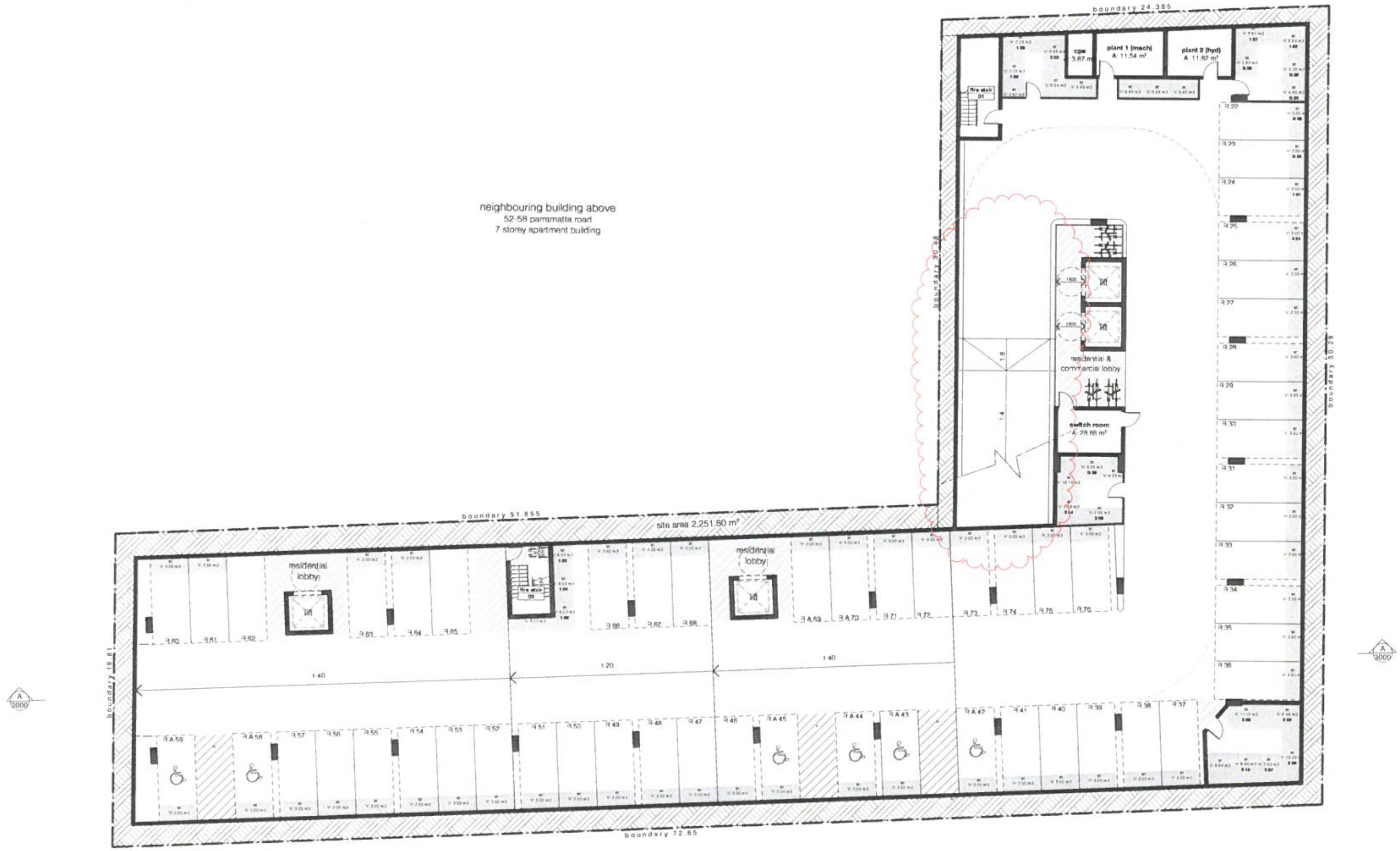
new residential apartments for aj bush & sons pty ltd
42-46 parramatta road HOMEBUSH NSW

project ref: AJB13036
drawn by: ED | MB | BS
checked by: AE | ST
scale: 1:200 @ a2

DA 1001

issue G

preliminary not for construction



architect

integrated DESIGN group
architects bathurst | sydney

Member Australian Institute of Architects

finishes

BDRY	boundary	DP&S	downpipe & spreader	PFC	painted fibre cement
BOE	brick on edge	EGL	existing ground line	PWB	painted weatherboard
BPB	bagged paint brickwork	EMB	electrical meterboard	SC	soldier course
CGR	corrugated roof sheet	FB	face brick	TC	timbercrete
CF	colorbond fascia	FC	fibre cement	TFB	timber floor boards
CFC	compress. fibre cement	FFL	finished floor level	TRC	terracotta roof tiles
CONC	concrete	F	fixed glass	V	vinyl
CJ	control joint	FGL	finished ground line		
CT	ceramic tile	GM	gas meter		
CPT	carpet	HWS	hot water service		
CRT	concrete roof tile	PB	plasterboard		
CQG	colorbond quad gutter	PCR	painted cement render		
DP	downpipe	PFB	painted face brick		

fixtures & levels

general notes

1. figured dimensions take precedence over scaled drawings
2. contractors to check and verify all levels datum and dimensions on site
3. all materials and workmanship to be in accordance with current written manufacturers instructions local regulations and SAA codes
4. conflicting information to be brought to notice of the architect and clarification sought before proceeding with any works

revision

15/11/13	b	issue to consultants
19/11/13	c	issue to council for pre DA
02/07/14	c	issue to client for approval
19/09/14	d	DA issue
06/06/15	e	revised plans for DA (amended vehicle ramps)

title

basement 2 plan

new residential apartments for aj bush & sons pty ltd
42-46 parramatta road HOMEBUSH NSW

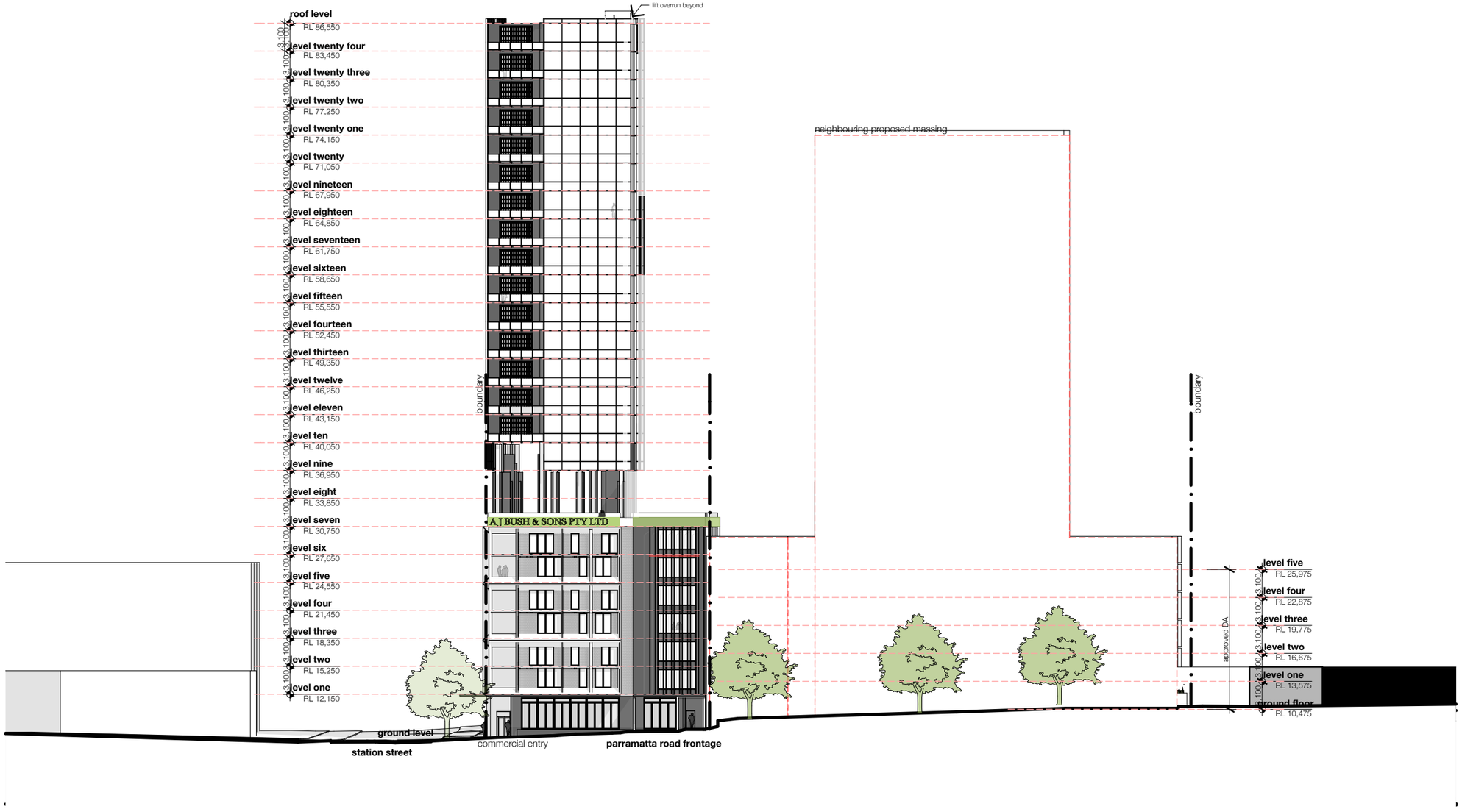
project ref: AJB13036
drawn by: ED | MB | BS
checked by: AE | ST
scale: 1:200 @ a2

DA 1002

issue E

APPENDIX B

CONCEPT PLANS



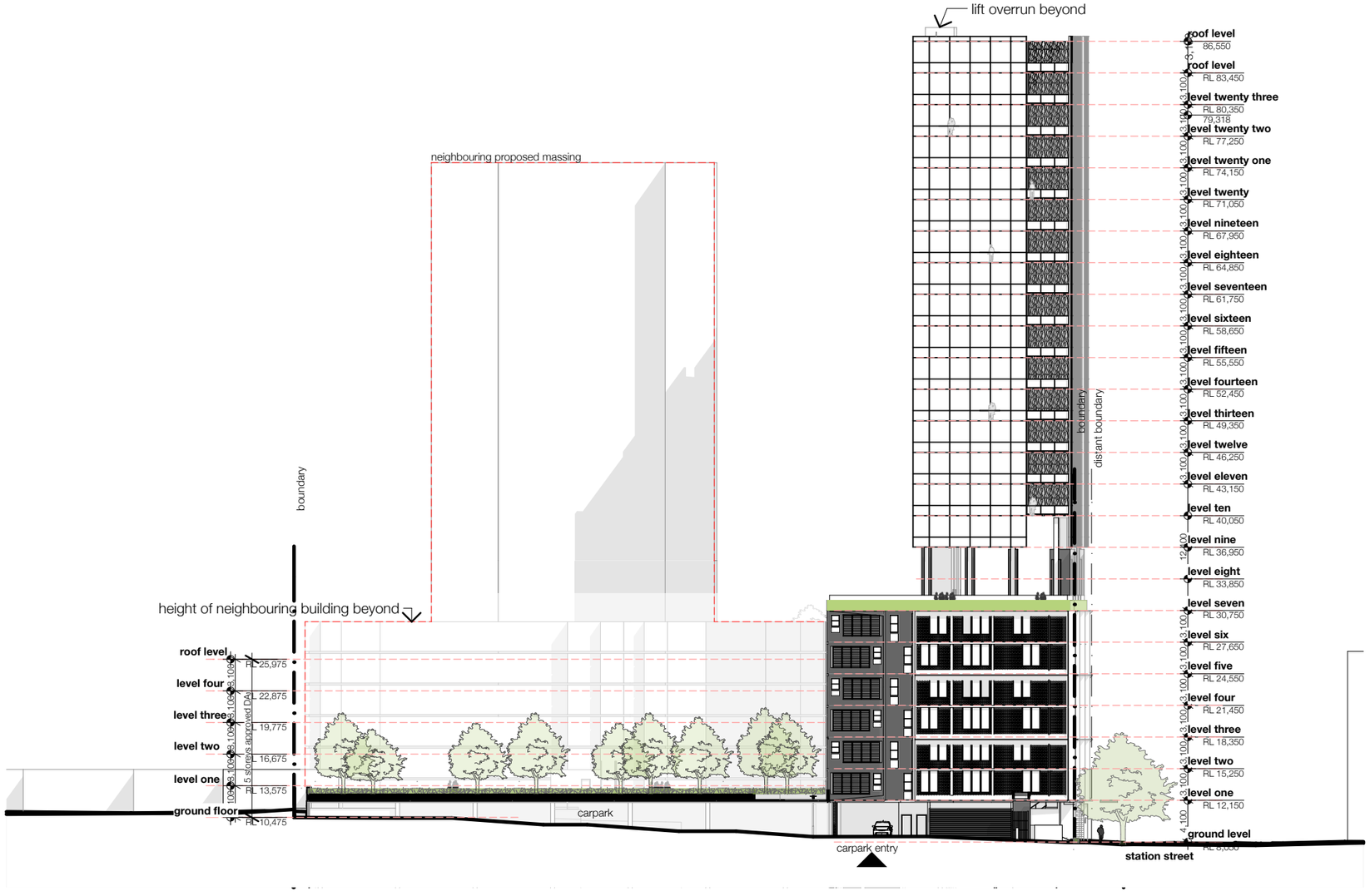
north elevation

new residential apartments

AJB13036 | aj bush & sons pty ltd | 42-46 parramatta road HOMEBUSH NSW

integratedDESIGNgroup
architects | bathurst penrith sydney

true north | 1:500 @ a3 | SK 2000 | issue A | current issue 3/11/17



south elevation

new residential apartments

AJB13036 | aj bush & sons pty ltd | 42-46 parramatta road HOMEBUSH NSW

integratedDESIGNgroup
architects | bathurst penrith sydney

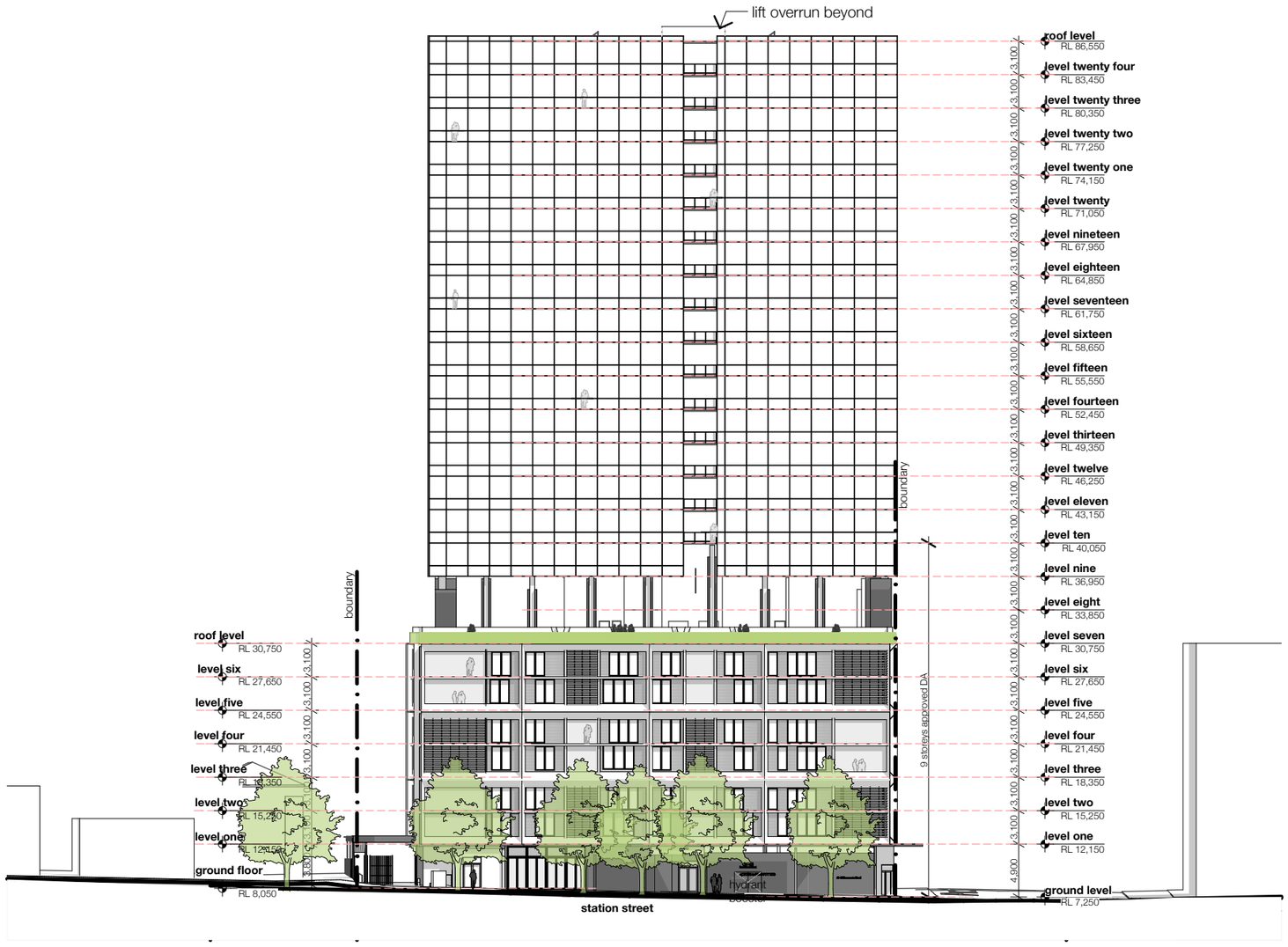
nominated architects tony mcburney reg. no. 5273 | simon thorne reg. no. 7093

true north

SK
2001

1:500 @ a3

issue
A
current issue
3/11/17



east elevation

new residential apartments

AJB13036 | aj bush & sons pty ltd | 42-46 parramatta road HOMEBUSH NSW

integrated DESIGN group
architects | bathurst penrith sydney

SK 2002

issue A
current issue
3/11/17

true north 1:500 @ a3

APPENDIX C

TRAFFIC SURVEY RESULTS

Traffic Information Specialist

Location	Underwood Road	Duration	0700 - 0900
	Parramatta Road		1600 - 1800
	-		-
	Parramatta Road	Day/Date	Tuesday, 19 September 2017
Suburb	HOMEBUSH	Weather	-

All Vehicles Time Per 15 Mins	NORTH Underwood Road				EAST Parramatta Road				SOUTH -				WEST Parramatta Road				
	L	T	R	TOTAL	L	T	R	TOTAL	L	T	R	TOTAL	L	T	R	TOTAL	TOTAL
7:00 - 7:15	20		36	56		245	79	324				0	58	235		293	673
7:15 - 7:30	33		40	73		284	85	369				0	54	230		284	726
7:30 - 7:45	35		45	80		294	84	378				0	50	188		238	696
7:45 - 8:00	41		37	78		282	85	367				0	59	206		265	710
8:00 - 8:15	34		30	64		332	89	421				0	64	199		263	748
8:15 - 8:30	32		43	75		309	89	398				0	67	239		306	779
8:30 - 8:45	26		43	69		313	92	405				0	71	218		289	763
8:45 - 9:00	28		39	67		304	86	390				0	62	257		319	776
Period End	249	0	313	562	0	2363	689	3052	0	0	0	0	485	1772	0	2257	5871
16:00 - 16:15	34		92	126		266	49	315				0	47	230		277	718
16:15 - 16:30	42		92	134		254	46	300				0	31	240		271	705
16:30 - 16:45	47		91	138		251	48	299				0	41	230		271	708
16:45 - 17:00	43		98	141		221	55	276				0	38	296		334	751
17:00 - 17:15	47		91	138		295	51	346				0	48	262		310	794
17:15 - 17:30	52		118	170		302	49	351				0	50	249		299	820
17:30 - 17:45	46		92	138		301	42	343				0	48	276		324	805
17:45 - 18:00	63		67	130		242	30	272				0	54	243		297	699
Period End	374	0	741	1115	0	2132	370	2502	0	0	0	0	357	2026	0	2383	6000

Traffic Information Specialists
ABN: 42 613 389 923
Email info@trafficinfospecialist.com.au

All Vehicles Time Per Hour	NORTH Underwood Road				EAST Parramatta Road				SOUTH -				WEST Parramatta Road				
	L	T	R	TOTAL	L	T	R	TOTAL	L	T	R	TOTAL	L	T	R	TOTAL	TOTAL
7:00 - 8:00	129		158	287		1105	333	1438				0	221	859		1080	2805
7:15 - 8:15	143		152	295		1192	343	1535				0	227	823		1050	2880
7:30 - 8:30	142		155	297		1217	347	1564				0	240	832		1072	2933
7:45 - 8:45	133		153	286		1236	355	1591				0	261	862		1123	3000
8:00 - 9:00	120		155	275		1258	356	1614				0	264	913		1177	3066
Period End	667	0	773	1440	0	6008	1734	7742	0	0	0	0	1213	4289	0	5502	14684
16:00 - 17:00	166		373	539		992	198	1190				0	157	996		1153	2882
16:15 - 17:15	179		372	551		1021	200	1221				0	158	1028		1186	2958
16:30 - 17:30	189		398	587		1069	203	1272				0	177	1037		1214	3073
16:45 - 17:45	188		399	587		1119	197	1316				0	184	1083		1267	3170
17:00 - 18:00	208		368	576		1140	172	1312				0	200	1030		1230	3118
Period End	930	0	1910	2840	0	5341	970	6311	0	0	0	0	876	5174	0	6050	15201

Traffic Information Specialists

ABN: 42 613 389 923

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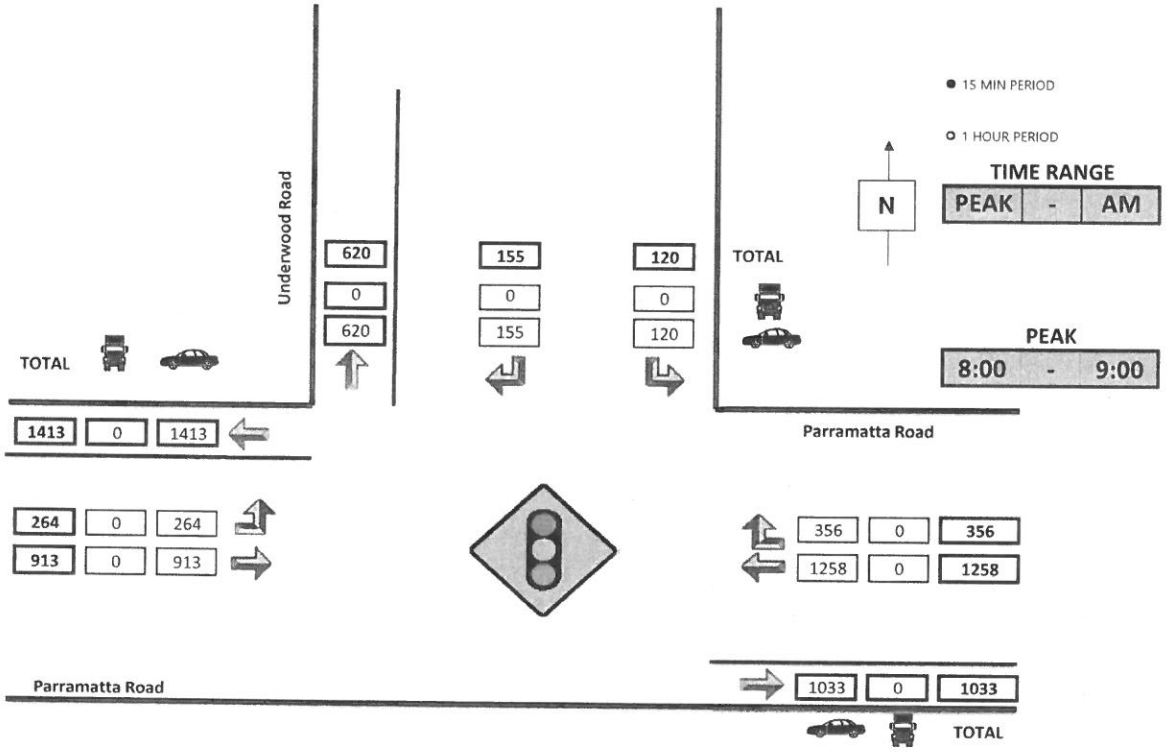
Location	Underwood Road	Duration	0700 - 0900
	Parramatta Road		1600 - 1800
	-		-
	Parramatta Road	Day/Date	Tuesday, 19 September 2017
Suburb	HOMEBUSH	Weather	-



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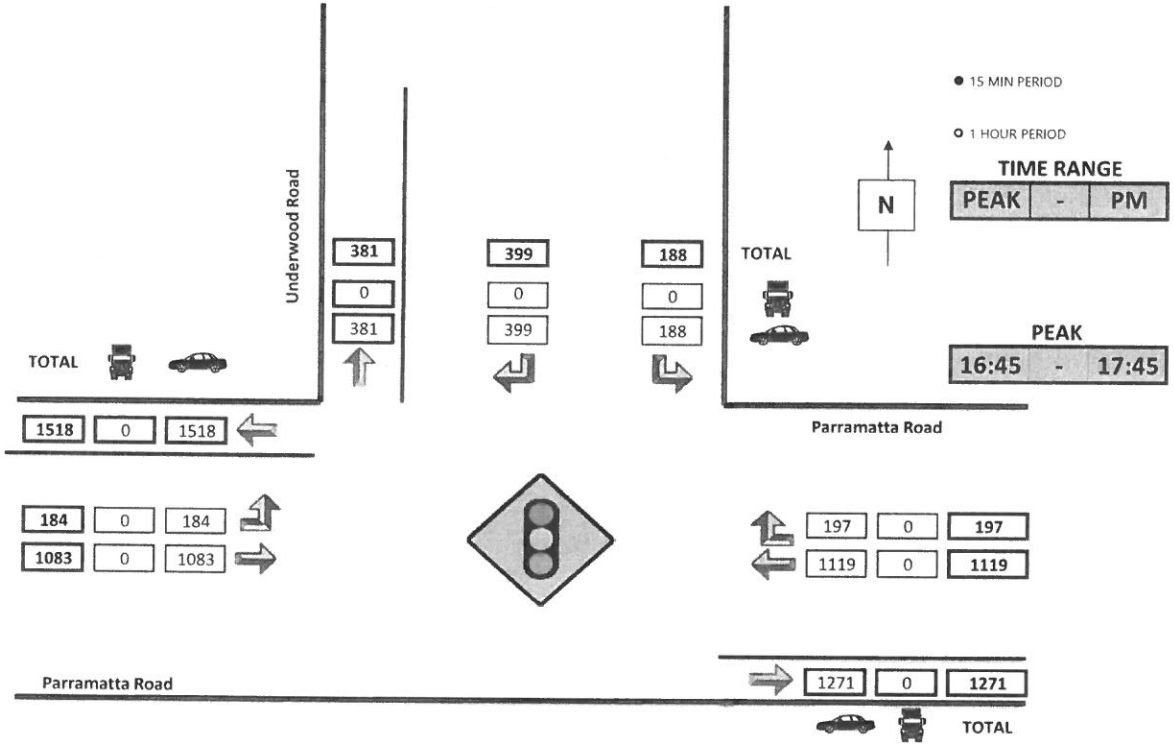
Traffic Information Specialist

Location	Underwood Road	Duration	0700 - 0900
	Parramatta Road		1600 - 1800
	-		-
	Parramatta Road	Day/Date	Tuesday, 19 September 2017
Suburb	HOMEBUSH	Weather	-



Traffic Information Specialists
ABN: 42 613 389 923
Email info@trafficinfospecialist.com.au

Traffic Information Specialist

Location	Powell Street	Duration	0700 - 0900
	Parramatta Road		1600 - 1800
	-		-
	Parramatta Road	Day/Date	Tuesday, 19 September 2017
Suburb	HOMEBUSH	Weather	-

All Vehicles Time Per 15 Mins	NORTH Powell Street				EAST Parramatta Road				SOUTH -				WEST Parramatta Road				
	L	T	R	TOTAL	L	T	R	TOTAL	L	T	R	TOTAL	L	T	R	TOTAL	TOTAL
7:00 - 7:15	4		0	4			0	0				0	4			4	8
7:15 - 7:30	5		0	5			0	0				0	1			1	6
7:30 - 7:45	4		0	4			0	0				0	2			2	6
7:45 - 8:00	5		0	5			0	0				0	4			4	9
8:00 - 8:15	4		0	4			1	1				0	6			6	11
8:15 - 8:30	10		0	10			0	0				0	4			4	14
8:30 - 8:45	5		0	5			0	0				0	8			8	13
8:45 - 9:00	5		0	5			0	0				0	7			7	12
Period End	42	0	0	42	0	0	1	1	0	0	0	0	36	0	0	36	79
16:00 - 16:15	18		0	18			0	0				0	0			0	18
16:15 - 16:30	12		0	12			0	0				0	2			2	14
16:30 - 16:45	12		0	12			0	0				0	0			0	12
16:45 - 17:00	14		0	14			0	0				0	1			1	15
17:00 - 17:15	23		0	23			0	0				0	1			1	24
17:15 - 17:30	20		0	20			0	0				0	2			2	22
17:30 - 17:45	11		0	11			0	0				0	3			3	14
17:45 - 18:00	9		1	10			0	0				0	1			1	11
Period End	119	0	1	120	0	0	0	0	0	0	0	0	10	0	0	10	130

Traffic Information Specialists

ABN: 42 613 389 923

Email info@trafficinfospecialist.com.au

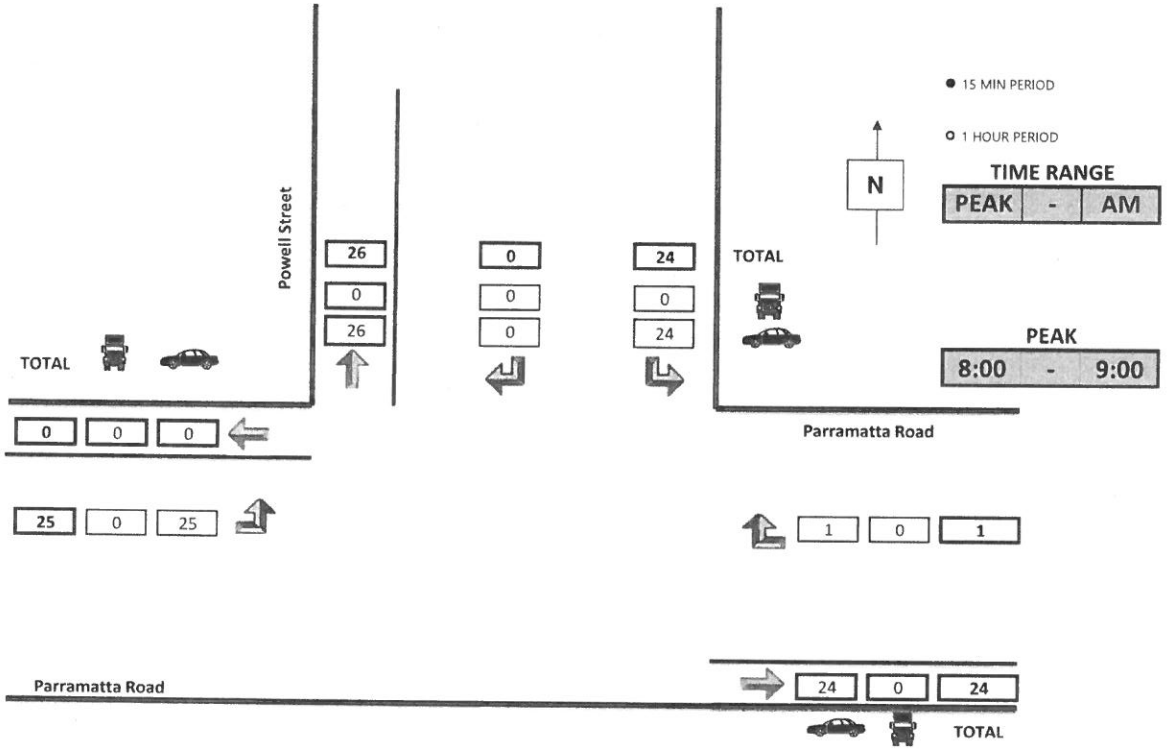
All Vehicles Time Per Hour	NORTH Powell Street				EAST Parramatta Road				SOUTH -				WEST Parramatta Road				
	L	T	R	TOTAL	L	T	R	TOTAL	L	T	R	TOTAL	L	T	R	TOTAL	TOTAL
7:00 - 8:00	18		0	18			0	0				0	11			11	29
7:15 - 8:15	18		0	18			1	1				0	13			13	32
7:30 - 8:30	23		0	23			1	1				0	16			16	40
7:45 - 8:45	24		0	24			1	1				0	22			22	47
8:00 - 9:00	24		0	24			1	1				0	25			25	50
Period End	107	0	0	107	0	0	4	4	0	0	0	0	87	0	0	87	198
16:00 - 17:00	56		0	56			0	0				0	3			3	59
16:15 - 17:15	61		0	61			0	0				0	4			4	65
16:30 - 17:30	69		0	69			0	0				0	4			4	73
16:45 - 17:45	68		0	68			0	0				0	7			7	75
17:00 - 18:00	63		1	64			0	0				0	7			7	71
Period End	317	0	1	318	0	0	0	0	0	0	0	0	25	0	0	25	343

Traffic Information Specialists
ABN: 42 613 389 923
Email info@trafficinfospecialist.com.au

Traffic Information Specialist

Location	Powell Street
	Parramatta Road
	-
	Parramatta Road
Suburb	HOMEBUSH

Duration	0700 - 0900
	1600 - 1800
	-
Day/Date	Tuesday, 19 September 2017
Weather	-



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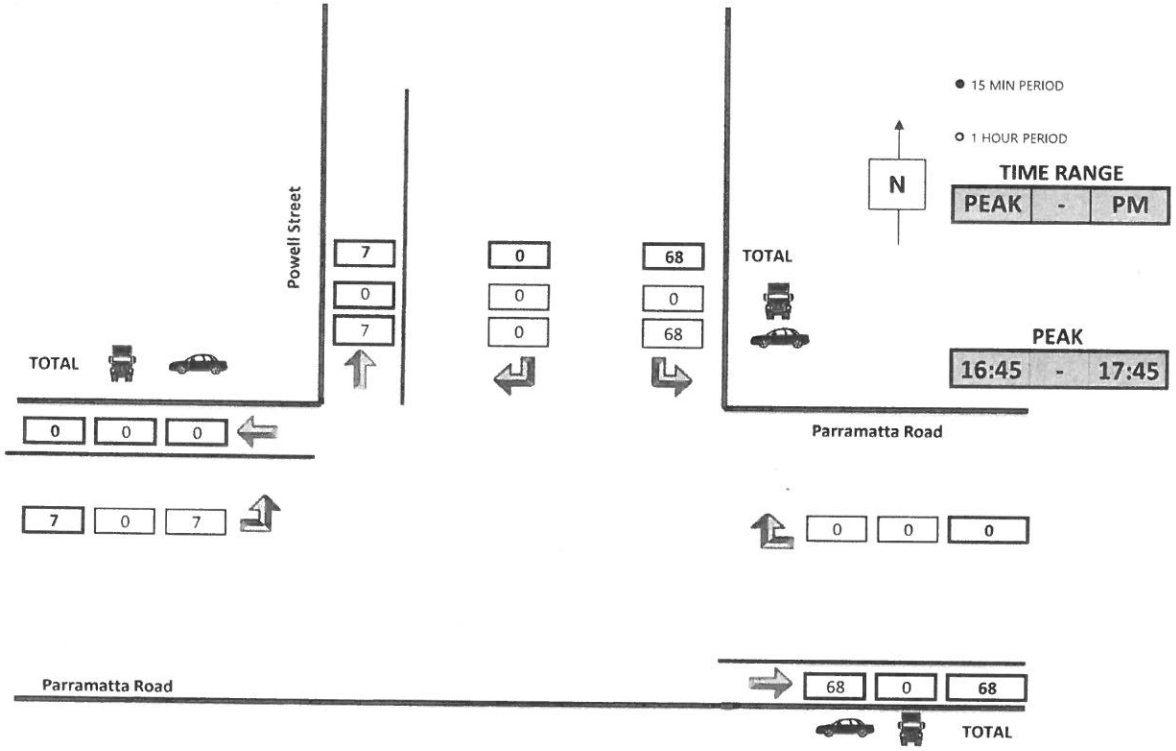
Location	Powell Street	Duration	0700 - 0900
	Parramatta Road		1600 - 1800
	-		-
	Parramatta Road	Day/Date	Tuesday, 19 September 2017
Suburb	HOMEBUSH	Weather	-



Traffic Information Specialists
ABN: 42 613 389 923
Email info@trafficinfospecialist.com.au