

**PROPOSED INDUSTRIAL ESTATE
60 WALLGROVE ROAD, EASTERN CREEK
STATE SIGNIFICANT DEVELOPMENT APPLICATION**

***Assessment of Traffic and
Parking Implications***

June 2015
(Rev F)

Reference 12186

TRANSPORT AND TRAFFIC PLANNING ASSOCIATES
Transportation, Traffic and Design Consultants
Suite 502, Level 5
282 Victoria Avenue
CHATSWOOD 2067
Telephone (02) 9411 5660
Facsimile (02) 9904 6622
Email: ross@ttpa.com.au

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1. INTRODUCTION

This report has been prepared for Mirvac to accompany a State Significant Development Application (SSD6962) to the Department of Planning for redevelopment of the site at 60 Wallgrove Road, Eastern Creek (Figure 1).

The subject site is within the Western Sydney Employment Hub where convenient access to the M7 and M4 motorways has acted to encourage the development of major warehouse and distribution facilities.

Previous processes for the proposed development of the site (Concept Plan MP09-0099 and S75W Application) have served to resolve a number of road and traffic issues with Roads and Maritime Services and establish/document the agreed vehicle access intersection arrangements.

The now proposed SSD Application is consistent with the S75W Application in relation to the vehicle access intersection, internal access road and warehouse use with ancillary office areas.

The proposed staged SSD development scheme comprises:

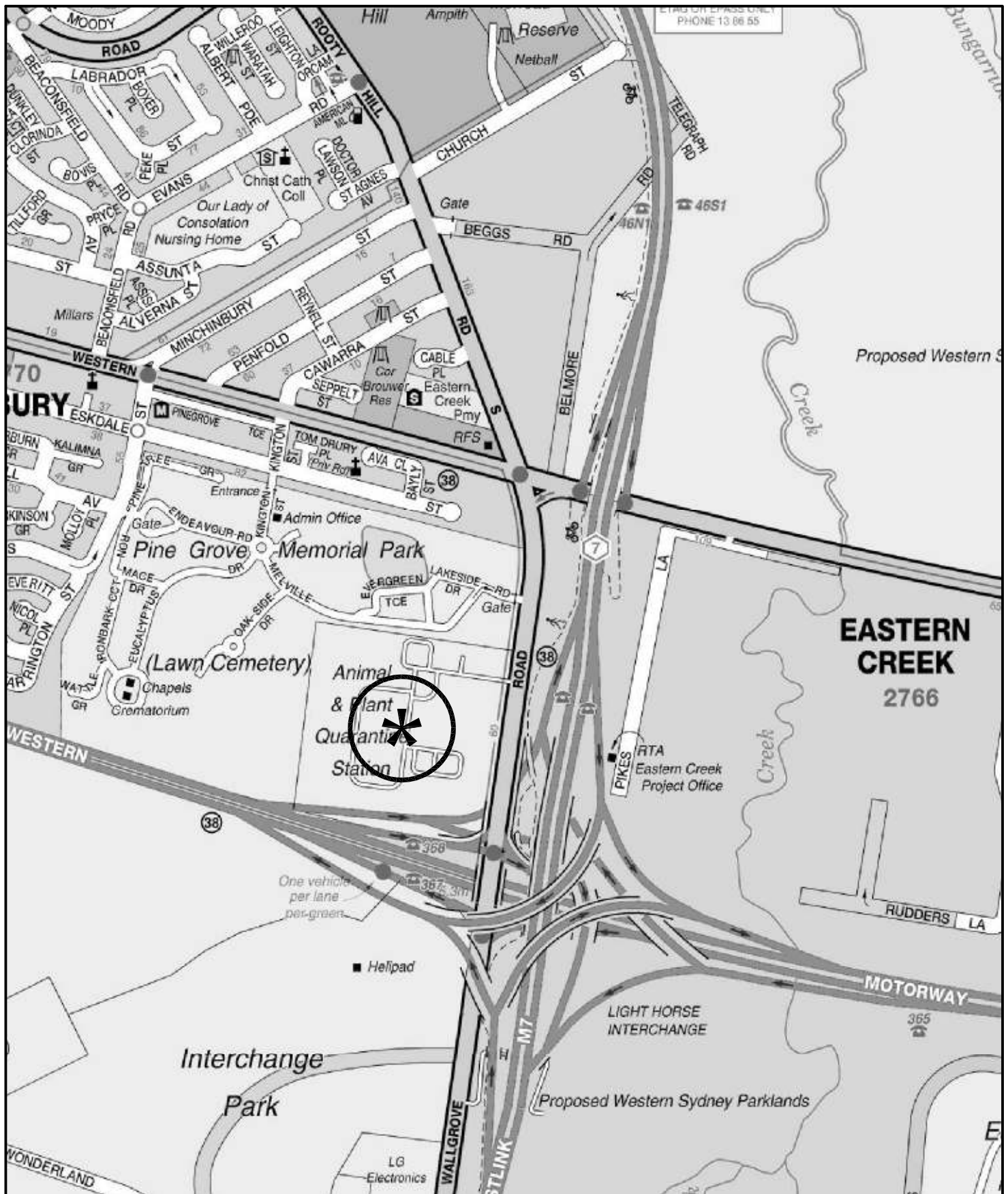
- * 5 lots and warehouse buildings with separate carparking and loading dock areas
- * a cul-de-sac access road with traffic signal controlled access to Wallgrove Road (with an interim turning head for Stage 1)
- * a total building area of 123,865m²

The Secretarys Environmental Assessment Requirements (SEARS) issued on 22.4.15 include the following:

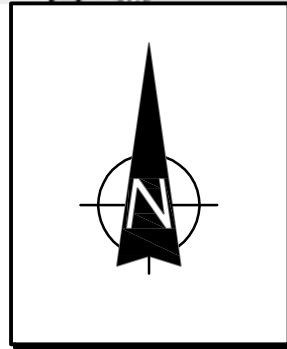
- *Traffic and Access:*
 - *a detailed traffic assessment of the potential impacts of the proposal on the capacity, efficiency and safety of the road network, including the truck routes and cumulative traffic generated. The assessment should be conducted for construction and operation in accordance with the Transport for NSW environmental assessment requirements;*
 - *details of any required upgrades to road infrastructure; and*
 - *details of site access, internal roads and vehicular parking required as a result of the development.*

The purpose of this report is to respond to the SEARS and in particular to:

- * describe the site and the proposed development
- * describe the road network serving the site and the prevailing traffic conditions
- * assess the suitability of the proposed vehicle access and associated intersection works in relation to the RMS agreed concept scheme
- * assess the potential traffic implications (operational and for construction) and the transport routes to be utilised
- * assess the adequacy of the proposed parking provisions
- * assess the suitability of the proposed internal circulation arrangements
- * assess the measures available to increase non-car travel
- * provide a Conceptual Construction Traffic Management Plan



LEGEND



LOCATION

FIG 1

2. DEVELOPMENT SCHEME

2.1 SITE, CONTEXT AND EXISTING USE

The site (Figure 2) is currently used for the Sydney Quarantine Station, which is operated by Australian Quarantine and Inspection Service (AQIS). The site occupies an area of 21.8ha located on the north-west corner of the M4 Motorway and Wallgrove Road intersection adjacent to the “Light Horse” interchange on the M7 Motorway.

The site is bounded to the north and west by the Pine Grove Memorial Park Cemetery while other significant development in the area includes the established Minchinbury Industrial Estate to the west and the extensive new industrial development of the former Wonderland site to the south of the M4 Motorway.

The site is conveniently located in relation to the arterial road network with ready access to the M4 and M7 Motorways and the arterial routes of Wallgrove Road and the Great Western Highway.

2.2 APPROVED CONCEPT PLAN

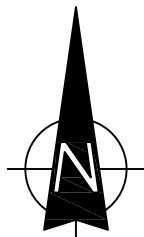
The Concept Plan approval, which was granted in June 2010, provided for a range of development (lot) outcomes premised on the provision of an access road with a traffic signal controlled access intersection on Wallgrove Road. Concept Plan MOD3 was approved in March 2015 and this scheme involved:

- * 3 large warehouse buildings with the flexibility to split up to 5 tenancies
- * a total of 113,710m² warehouse floorspace and 5,500m² ancillary office floorspace (total building area 119,210m²)
- * a new access intersection located just to the south of the existing access
- * a cul-de-sac access road



SITE

LEGEND



SITE

FIG 2

- * a shared path link across Wallgrove Road connecting to the existing shared path along the M7 corridor

Details of the proposed Concept Plan MOD3 development scheme are provided on the Concept Plan prepared by Mirvac which is reproduced in Appendix A along with the traffic signal design plan for the access intersection which was agreed with RMS as part of that process.

2.3 PROPOSED SSD SCHEME

The proposed SSD development scheme very closely reflects the approved MOD3 scheme and involves:

- a traffic signal controlled access intersection on Wallgrove Road
- a cul-de-sac access road constructed in two stages
- 5 warehouse buildings with ancillary office elements
- Separate lot accesses, carpark and loading dock areas

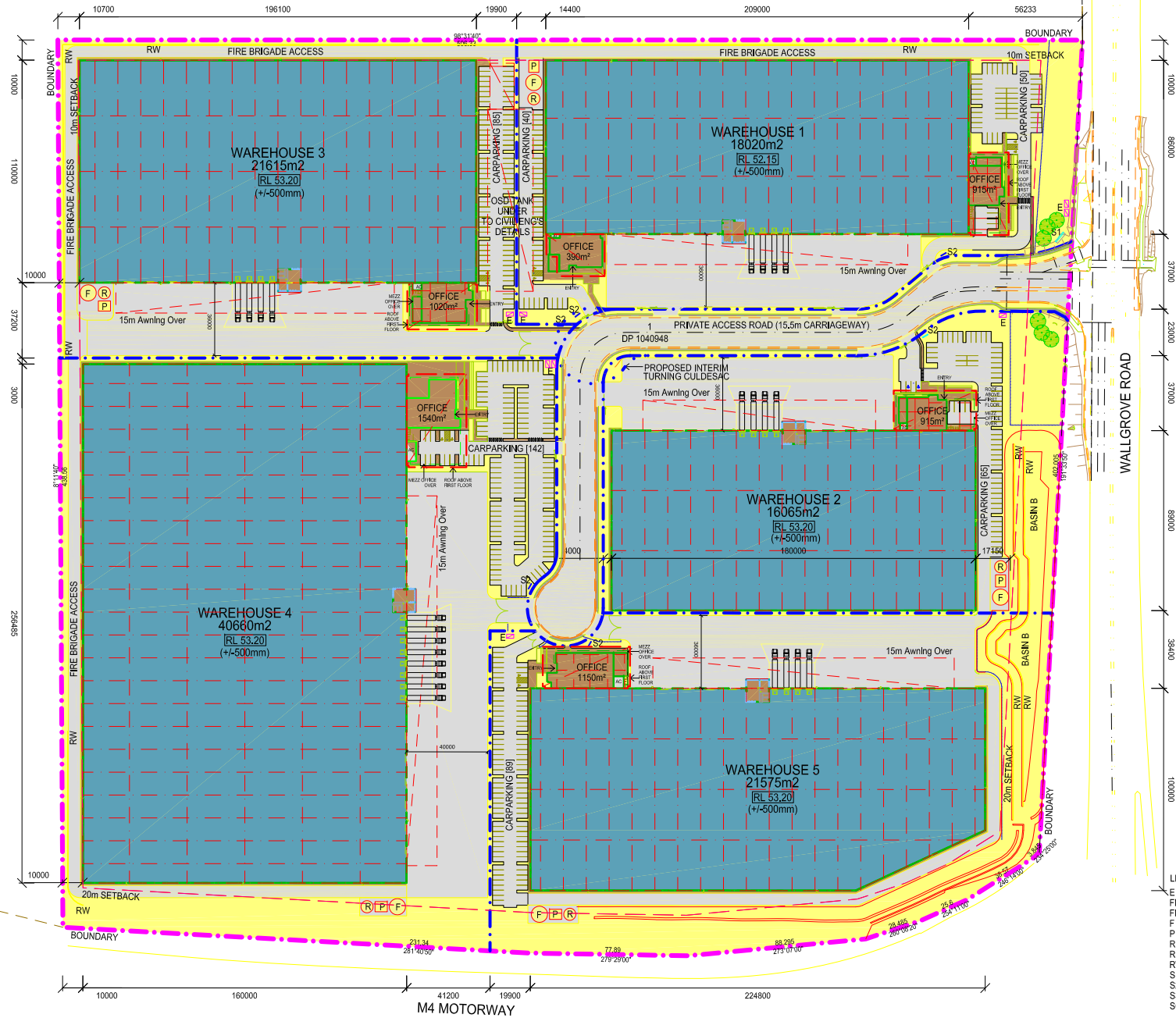
The development scheme comprises:

Warehouse floor area	117,935 m ² GFA
Office floor area	5,930 m ² GFA
Total Building Area:	123,865 m² GFA

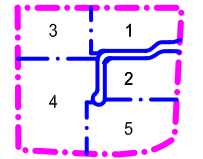
The individual elements proposed are as follows:

	Site Area	Warehouse Area	Office Area	Total	Parking
Warehouse 1	34,835 m ²	18,020 m ²	1,305 m ²	19,325 m ²	90 spaces
2	30,168 m ²	16,065 m ²	915 m ²	16,980 m ²	65 spaces
3	35,965 m ²	21,615 m ²	1,020 m ²	22,635 m ²	85 spaces
4	64,928 m ²	40,660 m ²	1,540 m ²	42,200 m ²	142 spaces
5	42,998 m ²	21,575 m ²	1,150 m ²	22,725 m ²	89 spaces

The proposed access intersection will exactly reflect the agreed arrangement with RMS (Appendix A plan) and details of the SSD scheme are provided on the plans prepared by SBA Architects which accompany the application and are reproduced in part overleaf.



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OVERALL DEVELOPMENT DATA

WH 1 Site Area	34,835 m ²
WH 2 Site Area	30,168 m ²
WH 3 Site Area	35,964 m ²
WH 4 Site Area	64,928 m ²
WH 5 Site Area	42,998 m ²
Road Reserve Area	9,865 m ²
Total Site Area	218,758 m ²
Total Office Area	5,930 m ²
Total Warehouse Area	117,935 m ²
Total Building Area	123,865 m ²

LOT 1

Site Area	34,835 m ²
Offices	1,305 m ²
Warehouse	18,020 m ²
Total GFA	19,325 m ²
Site Coverage	55%
Awning	2,235 m ²
Light Duty Pavement	3,525 m ²
Heavy Duty Pavement	5,475 m ²
Carpark Provided	90

LOT 2

Site Area	30,168 m ²
Offices	915 m ²
Warehouse	16,065 m ²
Total GFA	16,980 m ²
Site Coverage	56%
Awning	1,725 m ²
Light Duty Pavement	2,280 m ²
Heavy Duty Pavement	5,050 m ²
Carpark Provided	65

LOT 3

Site Area	35,964 m ²
Offices	1020 m ²
Warehouse	21,615 m ²
Total GFA	22,635 m ²
Site Coverage	63%
Awning	2,065 m ²
Light Duty Pavement	2,040 m ²
Heavy Duty Pavement	6,338 m ²
Carpark Provided	85

LOT 4

Site Area	64,928 m ²
Offices	1540 m ²
Warehouse	40,660 m ²
Total GFA	42,200 m ²
Site Coverage	65%
Awning	2,742 m ²
Light Duty Pavement	3,936 m ²
Heavy Duty Pavement	8,655 m ²
Carpark Provided	142

LOT 5

Site Area	42,998 m ²
Offices	1,150 m ²
Warehouse	21,575 m ²
Total GFA	22,725 m ²
Site Coverage	53%
Awning	2,235 m ²
Light Duty Pavement	2,225 m ²
Heavy Duty Pavement	6,325 m ²
Carpark Provided	89

- LEGEND**
- F ELECTRICAL SUBSTATION
 - FNC-1 CHAINWIRE FENCE 2.1m H
 - FNC-2 PALISADE FENCING 2.1m H
 - P PUMP ROOM
 - R RAINWATER TANK
 - RSD ROLLER SHUTTER DOOR
 - RW RETAINING WALL
 - S1 ESTATE PYLON SIGN
 - S2 TENANT PYLON SIGN
 - S3 5x2 TENANT IDENTIFICATION SIGN
 - SG SLIDING / SWING GATE

NOTE: REFER TO CIVIL DRAWINGS FOR PAVEMENT LEVELS

SBA ARCHITECTS

14/15 Mount Street, North Sydney NSW 2060
 Tel: 002 9929 8888 Fax: 002 9929 8899
 Email: info@sba.com.au Website: www.sba.com.au

CALIBRE INDUSTRIAL ESTATE

60 WALLGROVE ROAD, EASTERN CREEK



DRAWING TITLE
SITE PLAN

DATE: 05.05.15
 SCALE: 1:2000 @ A3
 JOB NO.: 14230 DA 002
 DRAWN BY: K



CP1001805

CP1001805

EXTERNAL INTERSECTION WORKS AND LEAD-IN SERVICES TO BE COMPLETED IN CONJUNCTION WITH STAGE 1 INTERNAL WORKS

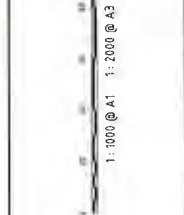
WALLGROVE ROAD

STAGE 1 ROAD AND EARTHWORKS

STAGE 2 ROAD EXTENSION

M4 MOTORWAY

Author	Checked	Drawn	Scale



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Scale	1:1000 @ A1
Drawn	
Checked	
Approved	

Project: 60 WALLGROVE ROAD INTERNAL WORKS
 Title: PROJECT STAGING PLAN

at&I
 Civil Engineers and Project Managers
 Suite 102, 128 Appleton Street
 St Leonards, NSW 2238
 Tel: 02 9433 3333
 Fax: 02 9433 3333
 Email: info@atandil.com.au

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 Drawing No: DAC005
 Project No: 12-108
 Title: A1
 Issue: B

3. ROAD NETWORK AND TRAFFIC CONDITIONS

3.1 ROAD NETWORK

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

- * *Westlink M7* – a State Road (private Motorway) and major arterial route connects between the South-Western Freeway at Prestons and the M2 Motorway at Seven Hills
- * *M4 Motorway* – a State Road and major arterial route connecting between Sydney and Penrith
- * *Great Western Highway* – a State Highway and arterial route connecting between Sydney, Penrith and the Blue Mountains crossing
- * *Wallgrove Road* – a State Road and sub-arterial route connecting between the Great Western Highway and Elizabeth Drive

The Light Horse Interchange, which is located adjacent to the south eastern corner of the site, forms a complex system of ramps and connections between the M4 and Wallgrove Road.

Wallgrove Road has a straight and level alignment along the site frontage and comprises three north bound lanes and two southbound lanes divided by a central median. The southbound lanes are supplemented by a right turn lane and an acceleration lane, which form part of a seagull intersection providing the existing site access.

3.2 TRAFFIC CONTROLS

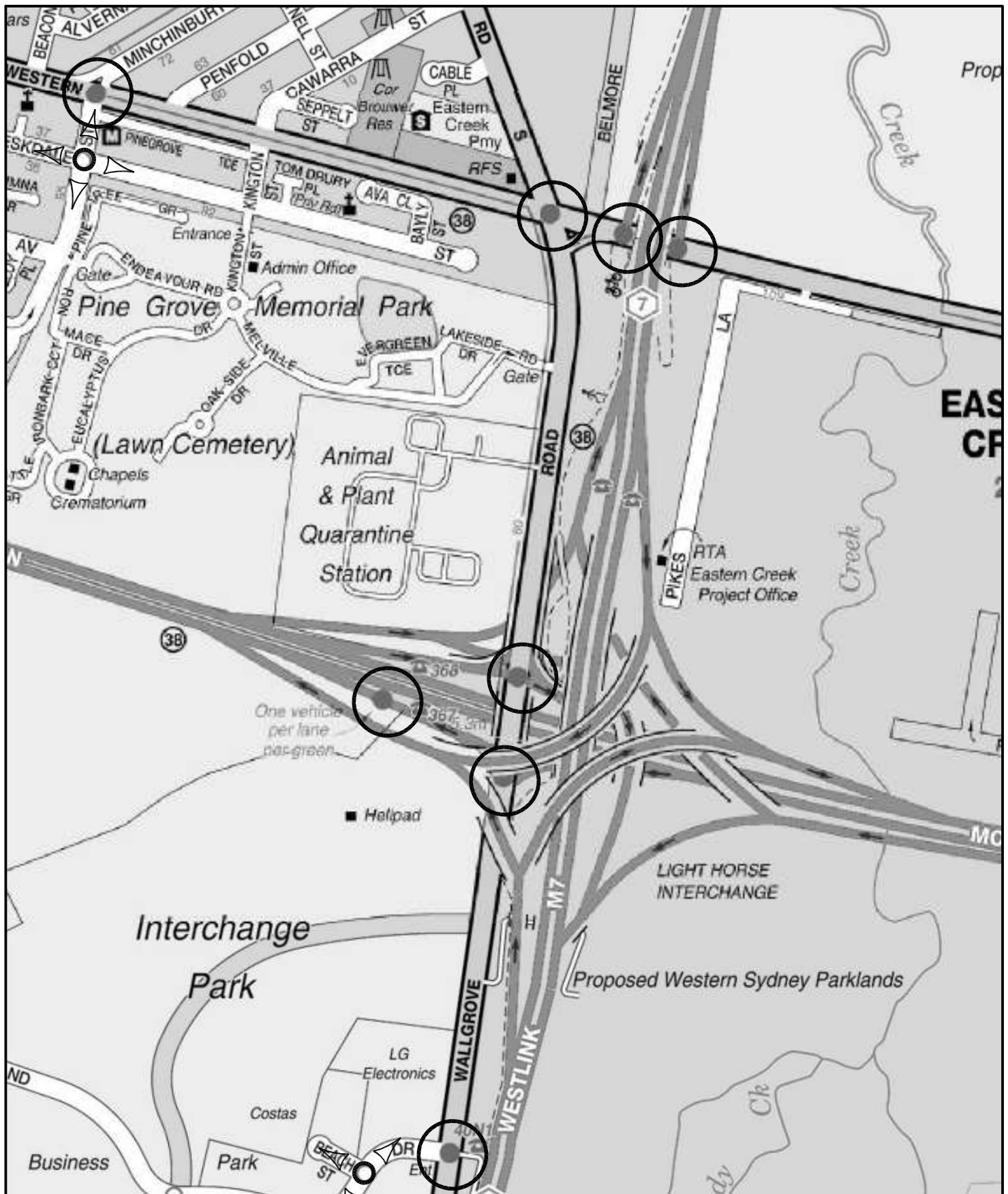
The existing traffic controls on the road system in the vicinity of the site (Figure 4) comprise:

- * The Light Horse Interchange connecting the M4 and M7 Motorways, which provides for all turning movements/directions
- * The traffic signals at the intersection of Wallgrove Road and the Great Western Highway to the north of the site (see Appendix B details) where the right turn movement in the Highway for the turn into Wallgrove Road has 2 lanes (1 lane 130m long and 1 lane 240m long)
- * the traffic signals at the Wallgrove Road and M4 ramp intersections to the south of the site. There are two separate intersections serving the eastbound and westbound ramps
- * the Seagull intersection arrangement, which currently forms the site access on Wallgrove Road
- * the approved 'B Double' truck routes along Wallgrove Road, the Great Western Highway and the Motorways




3.3 TRAFFIC CONDITIONS

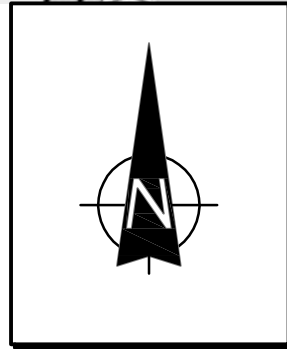
An indication of the traffic conditions on the road system serving the site is provided by data published by RMS and surveys undertaken for this study. The data published by RMS is expressed in terms of Annual Average Daily Traffic (AADT) and the most recent recorded volumes are provided in the following:

	AADT
Wallgrove Road North of M4 Motorway	39,904
Great Western Highway West of Wallgrove Road	31,827



LEGEND

-  TRAFFIC SIGNAL CONTROL
-  ROUNDABOUT
-  RESTRICTED TURNING MOVEMENT



TRAFFIC CONTROLS

FIG 4

The results of traffic surveys undertaken during the morning and afternoon peak periods at intersections serving the site are provided in Appendix D and summarised in the Figure 5.

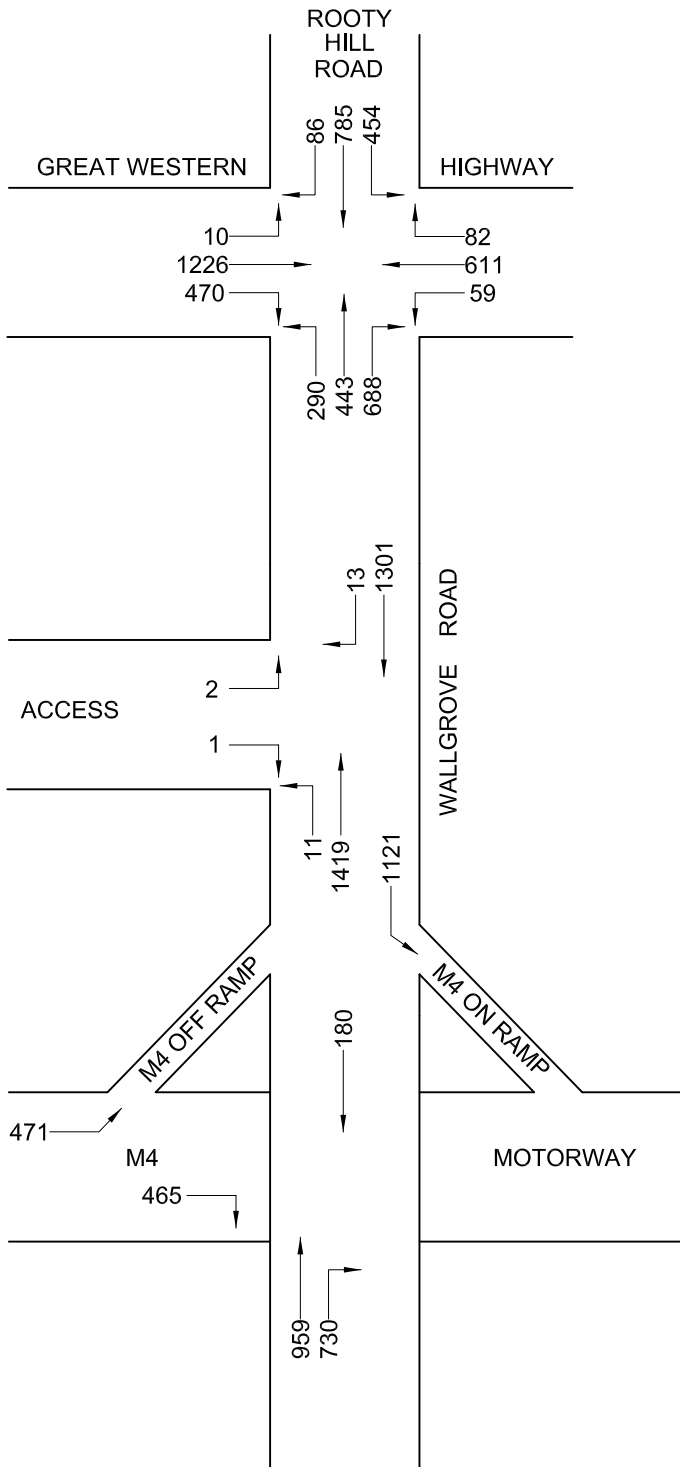
The operational performance of the Great Western Highway and Wallgrove Road intersection has been analysed using SIDRA and the results of that assessment are provided in the following table, while the criteria for interpreting the SIDRA output is provided overleaf.

Wallgrove Road/Great Western Highway	AM Peak	PM Peak
Level of Service	D	C
Degree of Saturation	1.0	0.90
Av Vehicle Delay	52.2	36.1
Maximum RT Queue	132m	99m

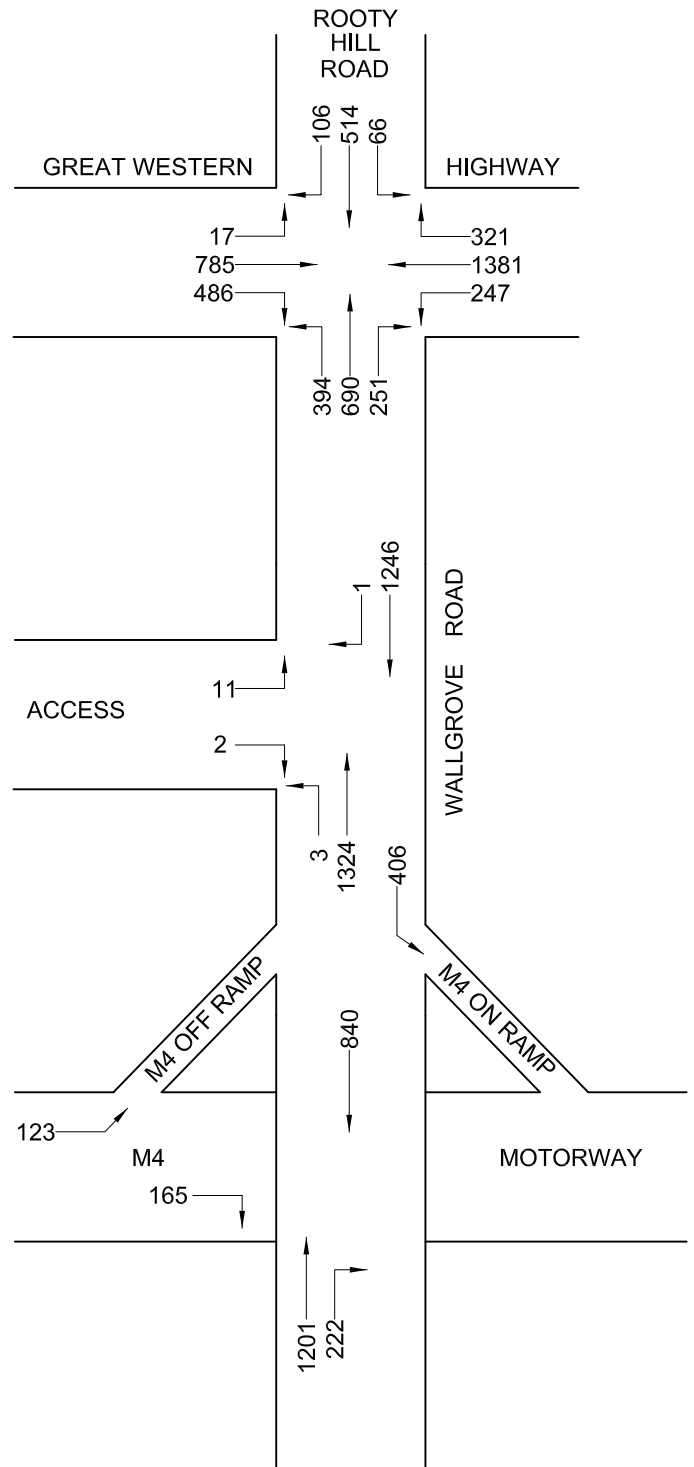
The results indicate that this intersection currently operates satisfactorily (for a major arterial intersection) during the morning and afternoon peak traffic periods and the right turn movement from the highway into Wallgrove Road is well contained in the existing 2 lanes provided.

3.4 TRANSPORT SERVICES

Public transport services in the vicinity of the site are provided by the 'Busways' bus routes 723 and 738, which run along Wallgrove Road past the site and linking Mount Druitt and Rooty Hill stations. Details of these services are provided in Appendix E.



AM PEAK



PM PEAK

LEGEND



EXISTING PEAK
TRAFFIC FLOWS

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

4. TRAFFIC

4.1 ACCESS

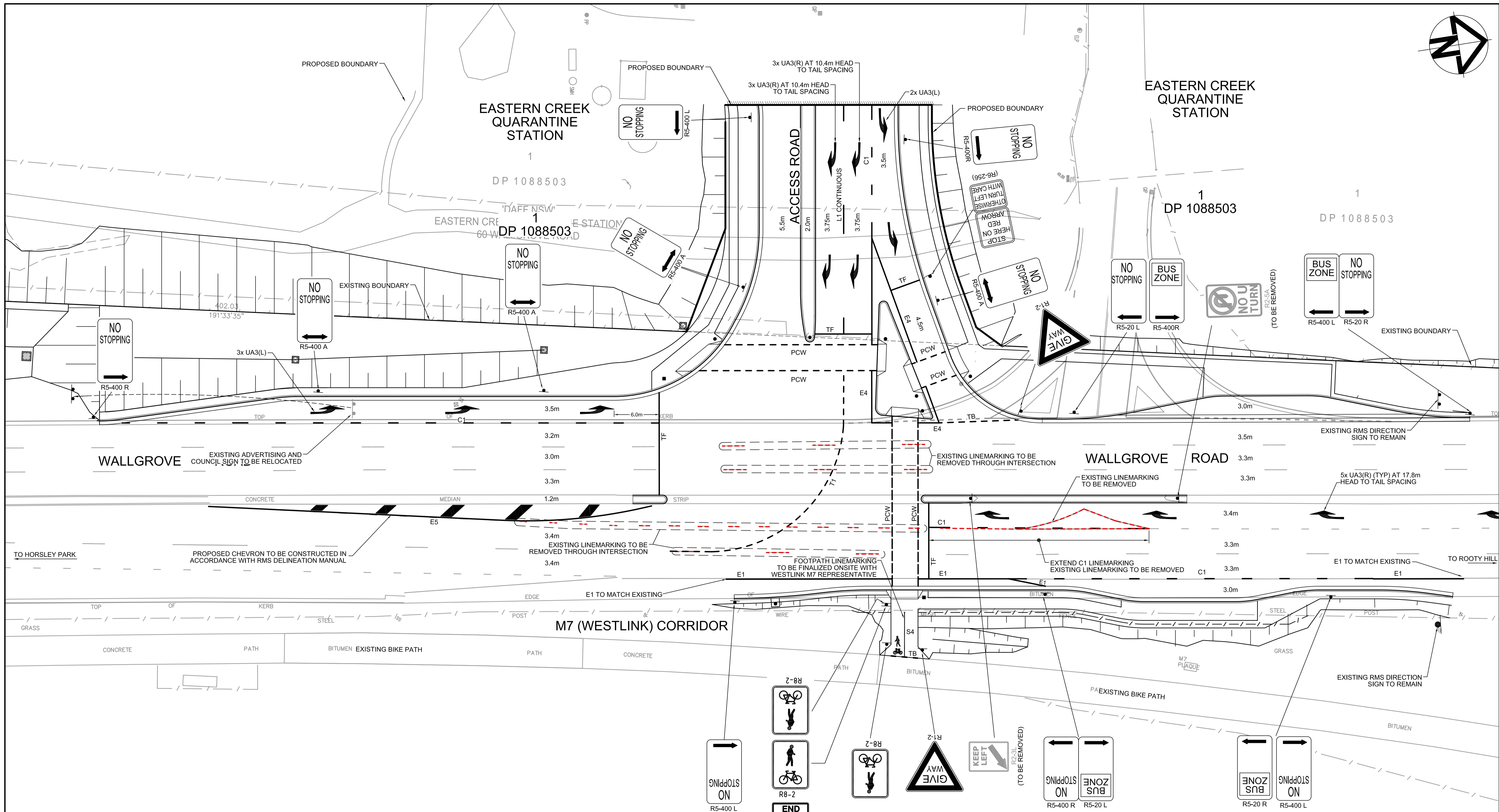
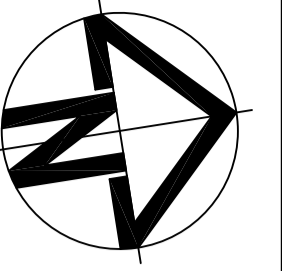
The proposed access intersection arrangement has been agreed with RMS as shown on the plans prepared by AT&L which is reproduced overleaf with the RMS advice and the traffic signal design plan provided in Appendix C. This work involves:

- * construction of a new access intersection for the site on Wallgrove Road incorporating right and left turn lanes and traffic signal control with removal of the existing seagull intersection
- * extension of the existing right turn bay in Wallgrove Road for the turn into the site as specified by RMS
- * construction of bus stops on both sides of Wallgrove Road in the vicinity of the new access intersection
- * construction of a shared pedestrian/cycle across Wallgrove Road connecting to the existing shared pathway running alongside the M7

After consultation with RMS, S75W MOD3 #3 approved by the Department of Planning on 5 March 2015, deleted consent conditions requiring a shared path to be constructed along the western side of Wallgrove Road, and the requirement to upgrade the existing Great Western Highway/Wallgrove Road intersection.

4.2 TRAFFIC

RMS recently released Circular TDT-2013(4b) which provides an update to the traffic generation characteristics of a number of landuses. Business Parks and Industrial Estates are included in that document, however in relation to the Sydney Metropolitan Area surveys were undertaken at 4 very disparate sites namely:

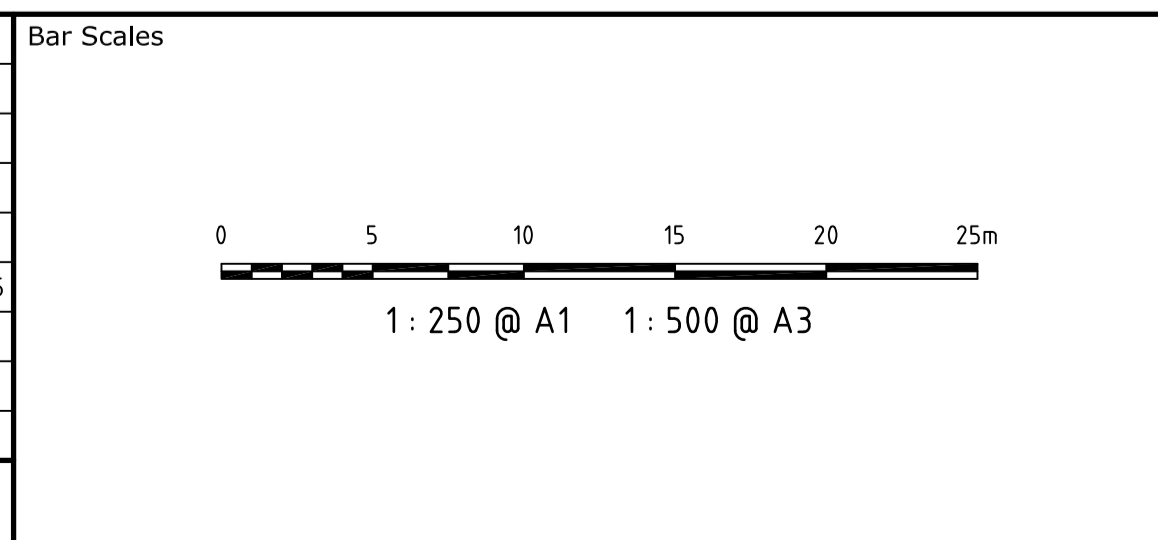


REFER TO TCS DESIGN DRAWING 0515.040.VV.4618 FOR ANY ADDITIONAL TRAFFIC SIGNAGE AND LINEMARKING. WHERE CONFLICT EXISTS THE RMS APPROVED TCS PLAN TAKES PRECEDENCE

NOTES

1. ALL PAVEMENT MARKING TO BE IN ACCORDANCE WITH RMS DELINEATION MANUAL
2. ALL SIGNPOSTING TO BE IN ACCORDANCE WITH AUSTRALIAN STANDARD AS1742
3. KERBSIDE LANE WIDTHS INCLUDE THE WIDTH OF THE GUTTER
4. CONTACT WEST M7 TO DETERMINE MUTUALLY AGREED POSITION OF DIRECTIONAL SIGNAGE FOR SHARED CYCLEWAY ON SITE. PREPARATION OF SIGN WILL TAKE APPROXIMATELY 4 WEEKS

Issue	Description	Date
D	RE-ISSUED FOR RMS APPROVAL	04-05-15
C	RE-ISSUED FOR RMS APPROVAL	30-01-15
B	RE-ISSUED FOR RMS APPROVAL	15-12-14
A	ISSUED FOR RMS APPROVAL	31-10-14



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Client

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Drawn: FX
Designed: FX
Checked: AMcL
Approved:

Grid

Height Datum

RMS Plan Registration Number: DS2014/006429

Project: PROPOSED INTERSECTION WALLGROVE ROAD

Title: PAVEMENT MARKING AND SIGNPOSTING PLAN

Civil Engineers and Project Managers

Suite 702, 154 Pacific Hwy
St Leonards NSW 2065
ABN 96 130 882 405
Tel: 02 9439 1777
Fax: 02 9460 8413
www.atl.net.au
info@atl.net.au

Status: FOR APPROVAL

Drawing No. C030	Project No. 12-108	Issue D
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- Erskine Park – 327ha and 693,605m² GFA
- Eastern Creek (Wonderland) – 115ha and 406,600m² GFA
- Helensburgh – 0.6ha and 1,605m² GFA
- Riverwood – 4.7ha and 29,983m² GFA

The latter 2 sites are not representative of large warehouse developments and to derive characteristics by averaging the 4 sites is errant to the extreme (e.g. if the averaged generation rate of 0.56vtph per 100m² is applied to the Erskine Park floor area it would indicate a total peak traffic generation of 3,884vtph whereas only 1,128vtph were recorded).

The relevant results of the surveys are as indicated in the Appendix F extract are as follows:

	vtpH per 100m²	
	AM	PM
Erskine Park	0.14	0.15
Eastern Creek	0.18	0.20
Average	0.16	0.18

Application of this criteria to the proposed development outcome of 123,865m² indicates the following traffic generation:

AM	198 vtpH
PM	223 vtpH

The projected distribution of these site generated traffic movements is 50% to/from the north and 50% to/from the south with a peak directional arrival/departure of 85%.

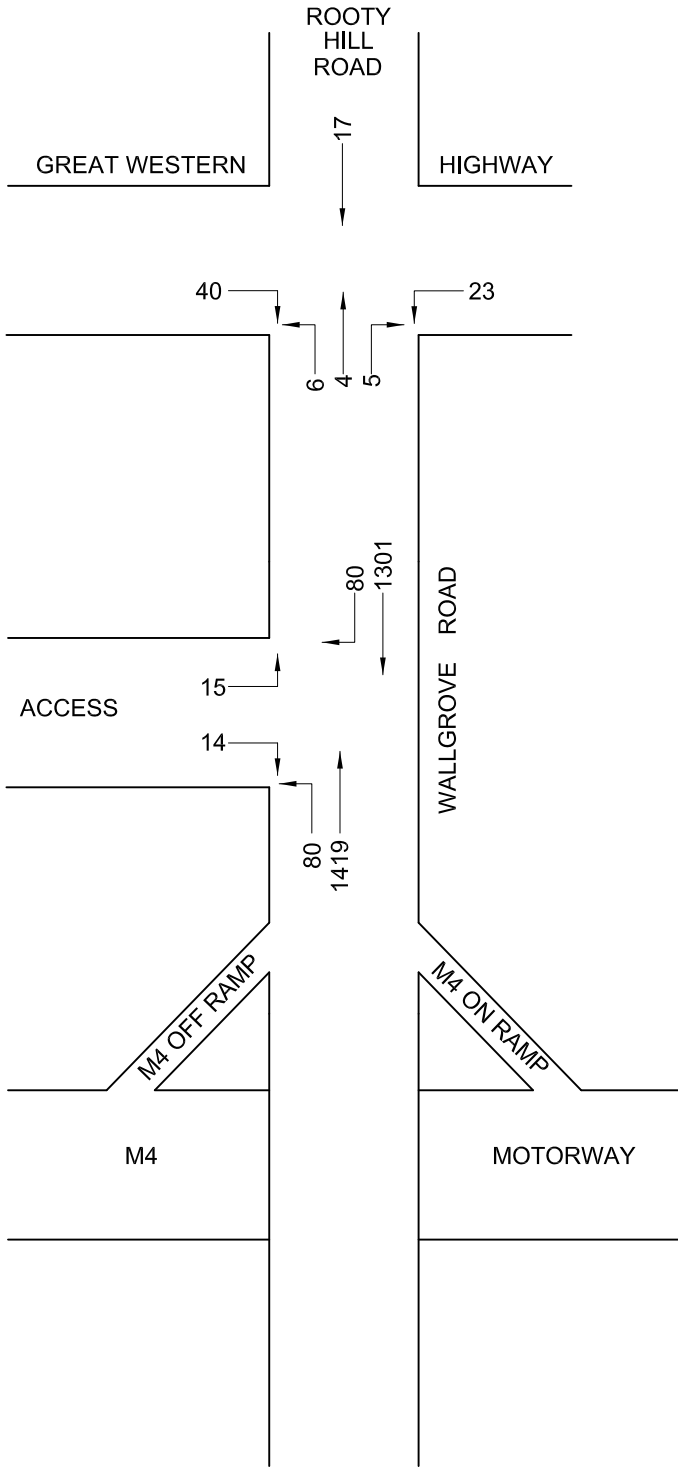
The projected future peak traffic movements at the access intersections on this basis are detailed on Figure 6.

The operational performance of the Wallgrove Road access and Great Western Highway intersections with the projected development traffic generation and the proposed roadworks has been assessed using SIDRA. The results are provided in Appendix G and summarised in the following:

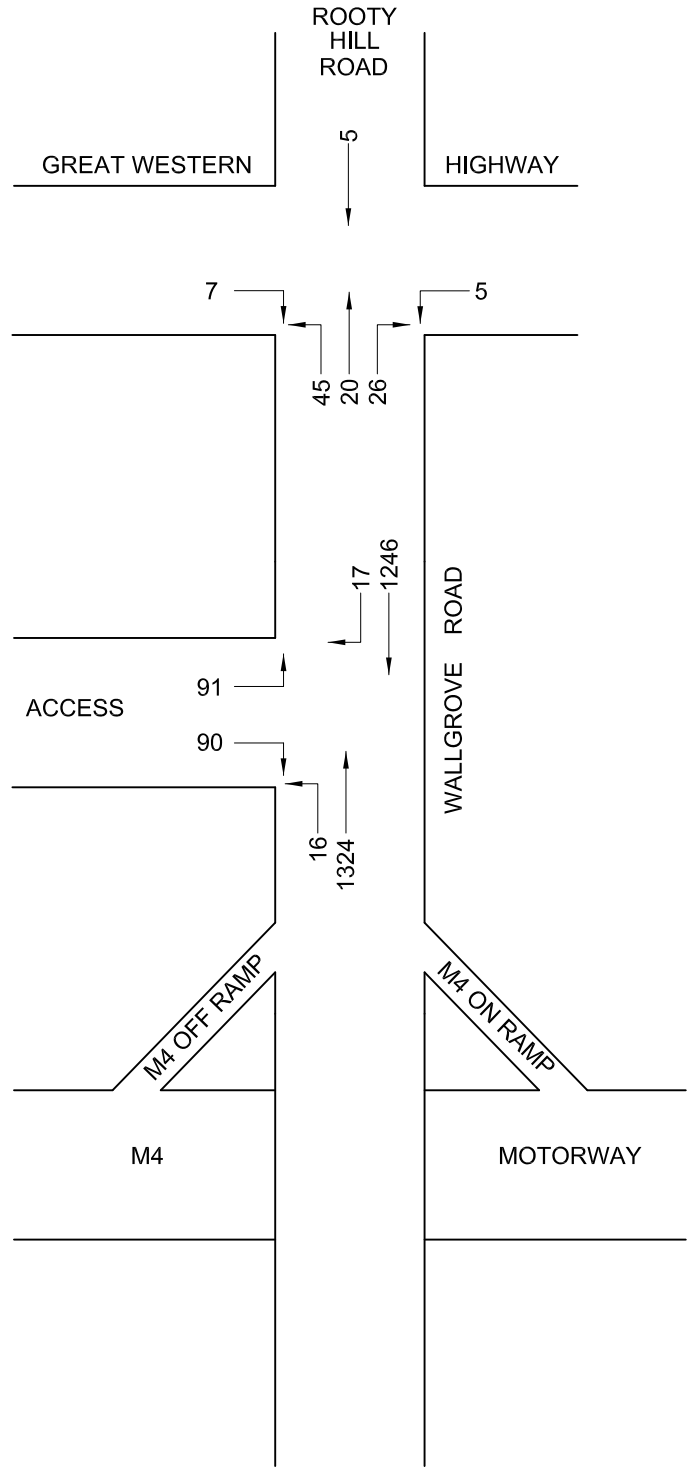
Wallgrove Road / Great Western Highway	AM Peak	PM Peak
Level of Service	D	C
Degree of Saturation	1.004	0.865
Av Vehicle Delay	51.6	35.8
Maximum RT Queue	152m	101.7m

Wallgrove Road / Site Access	AM Peak	PM Peak
Level of Service	A	A
Degree of Saturation	0.730	0.682
Av Vehicle Delay	10.7	10.0
Maximum RT Queue (av. 2 lanes)	12.4	10.8

The results indicate that the Wallgrove Road access intersection and the Great Western Highway and Wallgrove Road intersection will operate satisfactorily during the peak traffic periods.



AM PEAK



PM PEAK

LEGEND



PROJECTED PEAK
TRAFFIC FLOWS

FIG 6

5. PARKING

The Concept Plan was approved on the basis of car parking being provided in accordance with the criteria specified in the RMS Guide to Traffic Generating Developments (Director Generals Assessment Report June 2010). The RMS criteria for Warehouse use (including ancillary office area) is 1 space per 300m² GFA.

Application of this criteria to the proposed SSD scheme would indicate the following:

Building	Building Area	Proposed	RMS Criteria
Warehouse 1	19,325 m ²	90 spaces	65 spaces
Warehouse 2	16,980 m ²	65 spaces	57 spaces
Warehouse 3	22,635 m ²	85 spaces	76 spaces
Warehouse 4	42,200 m ²	142 spaces	141 spaces
Warehouse 5	22,725 m ²	89 spaces	76 spaces

The proposed parking provision will satisfy the RMS criteria and will include a suitable provision of accessible spaces for each building.

The proposed provision of parking reflects what has been proven in practice to be a sustainable and appropriate outcome for the needs of large contemporary warehouse development. The provision reflects a balance between the RMS and Council's criteria with respect to number of parking bays.

6. INTERNAL CIRCULATION AND SERVICING

The access provisions for trucks on each lot will very largely be separate to the carpark accesses and adequate provision for access, circulation and manoeuvring for large trucks is confirmed by the turning path assessment provided in Appendix H. The design of the access and internal circulation arrangements will comply with the requirements of AS2890.1, 2 and 6.

The large proposed hardstand areas will adequately provide for the standing of delivery, dispatch and service vehicles.

7. MEASURES TO INCREASE NON-CAR TRAVEL

The SSD scheme embraces the strategy for sustainable development with:

- the provision of a shared (pedestrian/cyclist) path connection to the site with traffic signal control crossing facilities at the access intersection linking to the regional shared path which runs along the M7 corridor
- the provision of new bus bays on Wallgrove Road adjacent to the access intersection with paved footway connections, shelters, lighting and information displays served by Routes 723 and 738 linking to Rooty Hill and Mount Druitt Railway Stations. The patronage generated by the proposed development will assist in supporting the bus services
- the proposed parking provision as compared to Council's DCP criteria for warehouse use
- the adoption of Transport Access Guides for each individual development
- the provision in each warehouse development for bicycle and motorcycle parking

8. CONSTRUCTION TRAFFIC MANAGEMENT

A detailed Construction Traffic Management Plan would be prepared for the Construction Certificate for site clearing, demolition, bulk earthworks and road construction with individual subsequent CTMP's prepared for each warehouse development.

ACCESS

The existing "seagull" island access intersection on Wallgrove Road will be utilised during the greater part of the demolition, bulk earthworks and road construction process. The new traffic signal controlled access intersection will be completed and brought into operation as early as practical and will certainly be operational prior to occupation of the first warehouse.

If required, alternative temporary construction access points off Wallgrove Road will be subject to approval by RMS.

TIMING

The envisaged timeframe for development is:

Demolition, bulk earthworks and access road construction	5 months
Warehouse construction (envisaged to be consecutive)	8 months each

TRUCK MOVEMENTS

Because the bulk earthworks will be a balanced "cut & fill" outcome there will not be any significant import or export of fill. The envisaged truck movements for the initial process is:

Clearing and demolition	Truck & Dog	6 visits per day
Bulk earthworks	Semi-trailer* plus Truck & Dog	8 visits per day
Road Construction	Various**	10 visits per day

* *Earth moving equipment etc*

** *More during concrete pour and laying asphalt*

The movements of trucks (and smaller vehicles) will very largely occur to/from the M4 and the Great Western highway/M7 with a directional split of 50/50. The volume of total vehicle movements (peak period and daily) will be similar to that of the existing use on the site and substantially less than that of the completed development.

The truck movements associated with construction of the warehouses is not known at this time and there will be overlap between the operation of initially constructed warehouse/s and ongoing warehouse construction. However, the total vehicle movements during the warehouse construction processes will not exceed that of the completed development and the size and number of truck movements will also be less.

It is anticipated that individual Construction Management Plans will be a Construction Certificate requirement for each individual warehouse.

WORKING HOURS

The permitted hours of work will be established in the consent for the SSD.

SECURITY AND SAFETY

The existing secure fencing and gated access will be maintained for the initial process and individual sites will be fenced during their construction processes.

TRAFFIC CONTROL

Any required traffic control will be provided by RMS qualified Traffic Controllers. Any traffic control required for work on Wallgrove Road would be subject to Traffic Control Plans being approved by RMS as part of the WAD process. Stage construction plans would form part of the road design documentation to be submitted to and approved by RMS.

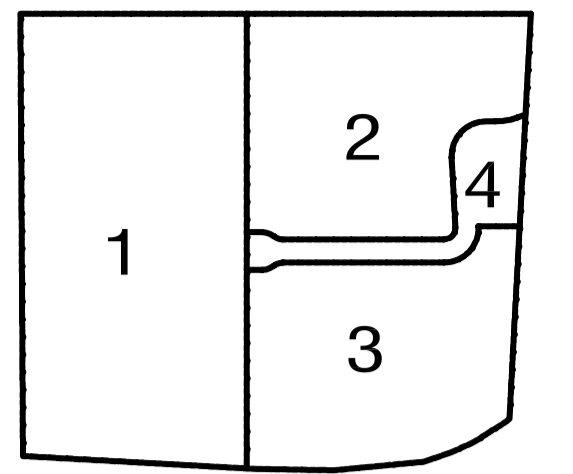
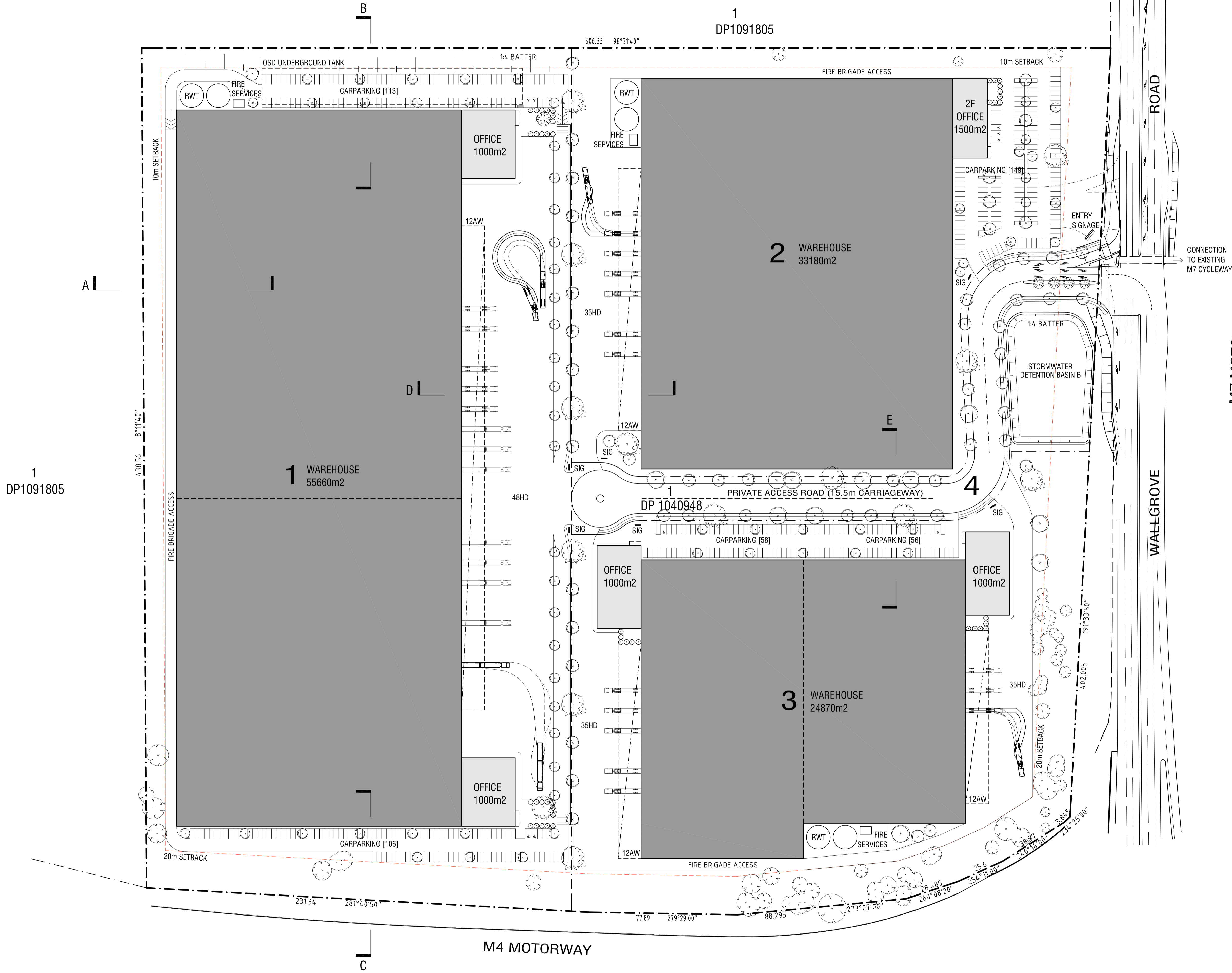
9. CONCLUSION

The traffic assessment undertaken for the proposed development of 60 Wallgrove Road, Eastern Creek under the SSD Scheme has concluded that:

- * there will be no unsatisfactory traffic implications consequential to the construction phase and subsequent operation of the development
- * the proposed parking provision will be suitable and appropriate
- * the access, internal circulation and servicing arrangements for each site will be satisfactory
- * the proposed Construction Traffic Management arrangements will be suitable and appropriate
- * appropriate provisions will be made for pedestrians, cyclists and bus services and measures will be available to increase non-car travel

APPENDIX A

**DETAILS OF CONCEPT PLAN
MOD3 SCHEME**



OVERALL DEVELOPMENT DATA

LOT 1 Site Area	99,297 m2
LOT 2 Site Area	53,679 m2
LOT 3 Site Area	53,048 m2
LOT 4 Site Area	12,734 m2
Total Site Area (approx.)	218,758 m2
Total Office Area	5,500 m2
Total Warehouse Area	113,710 m2
Total Building Area	119,210 m2

LOT 1

Site Area	99,297 m2
Offices	2,000 m2
Warehouse	55,660 m2
Total Building Area	57,660 m2
Carpark Provided	219

LOT 2

Site Area	53,679 m2
Offices	1,500 m2
Warehouse	33,180 m2
Total Building Area	34,680 m2
Carpark Provided	149

LOT 3

Site Area	53,048 m2
Offices	2,000 m2
Warehouse	24,870 m2
Total Building Area	26,870 m2
Carpark Provided	114

LEGEND

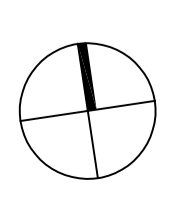
AW	AWNING
HD	HEAVY DUTY PAVEMENT
SIG	BUILDING SIGNAGE
RW	RETAINING WALL
FN	FENCE

1
DP1091805

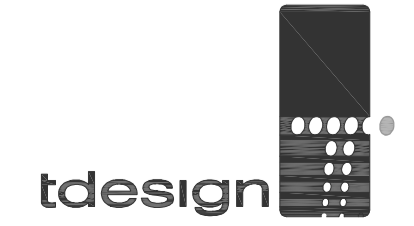
1
DP1091805

DP 1040948

EASTERN CREEK
60 WALLGROVE ROAD, EASTERN CREEK, NSW



www.tdesign.net.au
TDESIGN Pty Ltd
m 0418 857 602
e studio@tdesign.net.au



SITEPLAN

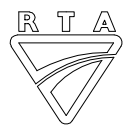
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drawing no.	ECK_MP110	rev	C

APPENDIX B

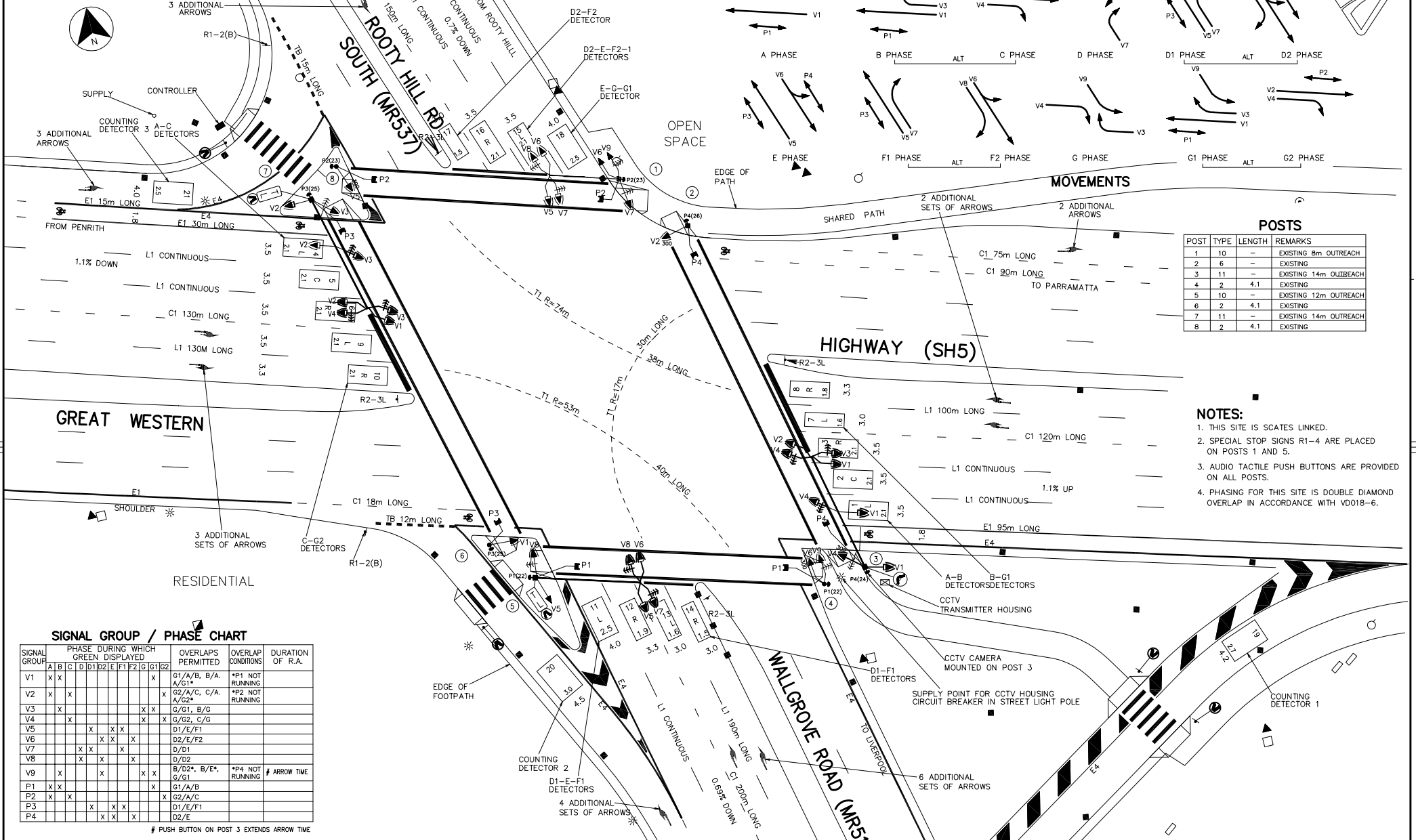
PLANS OF EXISTING INTERSECTIONS

0005.040.VV.0779

**DRAWN BY CADD
DO NOT AMEND MANUALLY**



DATE IN SERVICE :



POSTS			
POST	TYPE	LENGTH	REMARKS
1	10	-	EXISTING 8m OUTREACH
2	6	-	EXISTING
3	11	-	EXISTING 14m OUTREACH
4	2	4.1	EXISTING
5	10	-	EXISTING 12m OUTREACH
6	2	4.1	EXISTING
7	11	-	EXISTING 14m OUTREACH
8	2	4.1	EXISTING

- NOTES:**
- THIS SITE IS SCATES LINKED.
 - SPECIAL STOP SIGNS R1-4 ARE PLACED ON POSTS 1 AND 5.
 - AUDIO TACTILE PUSH BUTTONS ARE PROVIDED ON ALL POSTS.
 - PHASING FOR THIS SITE IS DOUBLE DIAMOND OVERLAP IN ACCORDANCE WITH VD018-6.

SIGNAL GROUP / PHASE CHART

SIGNAL GROUP	PHASE DURING WHICH GREEN DISPLAYED												OVERLAPS PERMITTED	OVERLAP CONDITIONS	DURATION OF R.A.			
	A	B	C	D	D1	D2	E	F	F2	G	G1	G2						
V1	X	X															G1/A/B, B/A, A/G1*	#P1 NOT RUNNING
V2	X	X															G2/A/C, C/A, A/G2*	#P2 NOT RUNNING
V3	X									X	X						G/G1, B/G	
V4			X							X	X						G/G2, C/G	
V5			X	X	X	X											D1/E/F1	
V6			X	X	X	X											D2/E/F2	
V7			X	X	X	X											D/D1	
V8			X	X	X	X											B/D2*, B/E*, G/G1	#P4 NOT RUNNING
V9	X	X	X	X	X	X				X	X						G1/A/B	
P1	X	X	X	X	X	X											G2/A/C	
P2	X	X															D1/E/F1	
P3			X	X	X	X											D2/E	
P4			X	X	X	X												

PUSH BUTTON ON POST 3 EXTENDS ARROW TIME

<p>A ORIGINAL ISSUE</p> <p>BY: JASPER PETERSON DATE: 07/05</p>	<p>PUBLIC UTILITY LEGEND</p> <p>HYDRANT: □ STOP VALVE: ▲ GAS VALVE: ■ SEWER MANHOLE: ○ TELECOM PIT: ▭ ELECT LIGHT POLE: ⚡ POWER POLE: ⚡ STAY POLE: / TELEPHONE BOX: ☎ TELECOM PILLAR: ⚡</p>	<p>REFERENCE PLANS</p> <p>SYMBOLS/ABBVS: V0003-6 STIP. POST: V0001-6 DET. SCHED EXP: V0018-10 PRES. DETECT: V0005-17 SSG. DIS. SEQ.: V0018-8</p>	<p>U.B.D. Ref. 107 68</p> <p>E.S.G. E: 284 412 G.O.-ORDS. N: 129 794</p>	<p>DESIGN APPROVAL</p> <p>APPROVED: H. Poologasundram Project Manager 17.05.04</p>	<p>RTA ACCEPTANCE</p> <p>RECOMMENDED: NETWORK OPERATIONS POSITION: TEAM LEADER DATE: 13.5.04</p> <p>ACCEPTED: ROAD NETWORK MANAGER WEST POSITION: ROAD NETWORK MANAGER WEST DATE: 17.5.04</p>	<p>RTA and Traffic Authority, N.S.W</p> <p>CITY OF BLACKTOWN</p> <p>TRAFFIC SIGNALS AT GREAT WESTERN HWY (SH5) & WALLGROVE RD / ROOTY HILL RD STN EASTERN CREEK</p>	<p>EXISTING <input checked="" type="checkbox"/> PROPOSED <input type="checkbox"/></p> <p>CADD FILE: VV0779_17B.DGN</p> <p>SCALE: 1:200</p> <p>FILE: 40TS154</p> <p>RECN: 0005.040.VV.0779</p>	<p>ISSUE: B</p> <p>SUPPESSES SHEET/ISSUE: 14A</p> <p>SHEET: 17</p>
	<p>DESIGN PREPARED BY: M. Mammill</p>							
	<p>DESIGN PLAN TCS No 0779</p>							
	<p>© COPYRIGHT ROADS AND TRAFFIC AUTHORITY</p>							

APPENDIX C

RMS ADVICE AND TRAFFIC SIGNAL PLAN

23 September 2014

Our Reference: SYD13/00348/04 (A7581496)

Senior Development Manager
Mirvac Group
Level 26, 60 Margaret Street
Sydney NSW 2000

Attention: Fabian Nager

Dear Sir,

60 WALLGROVE ROAD, EASTERN CREEK

Thank you for your letter dated 2 September 2014, Roads and Maritime Services (Roads and Maritime) has reviewed the letter and traffic lights plan (Drawing Number SKC46 issue P2) and advises Roads and Maritime previous concerns/items have now been addressed.

Roads and Maritime provides in principle agreement to the proposed traffic lights as shown in Drawing Number SKC46 issue P2.

Any inquiries in relation to this matter can be directed to Angela Malloch on 8849 2041 or development.sydney@rms.nsw.gov.au

Yours sincerely

A handwritten signature in black ink that reads "O. Hodgson".

Owen Hodgson
**Manager Land Use
Network and Safety Section**