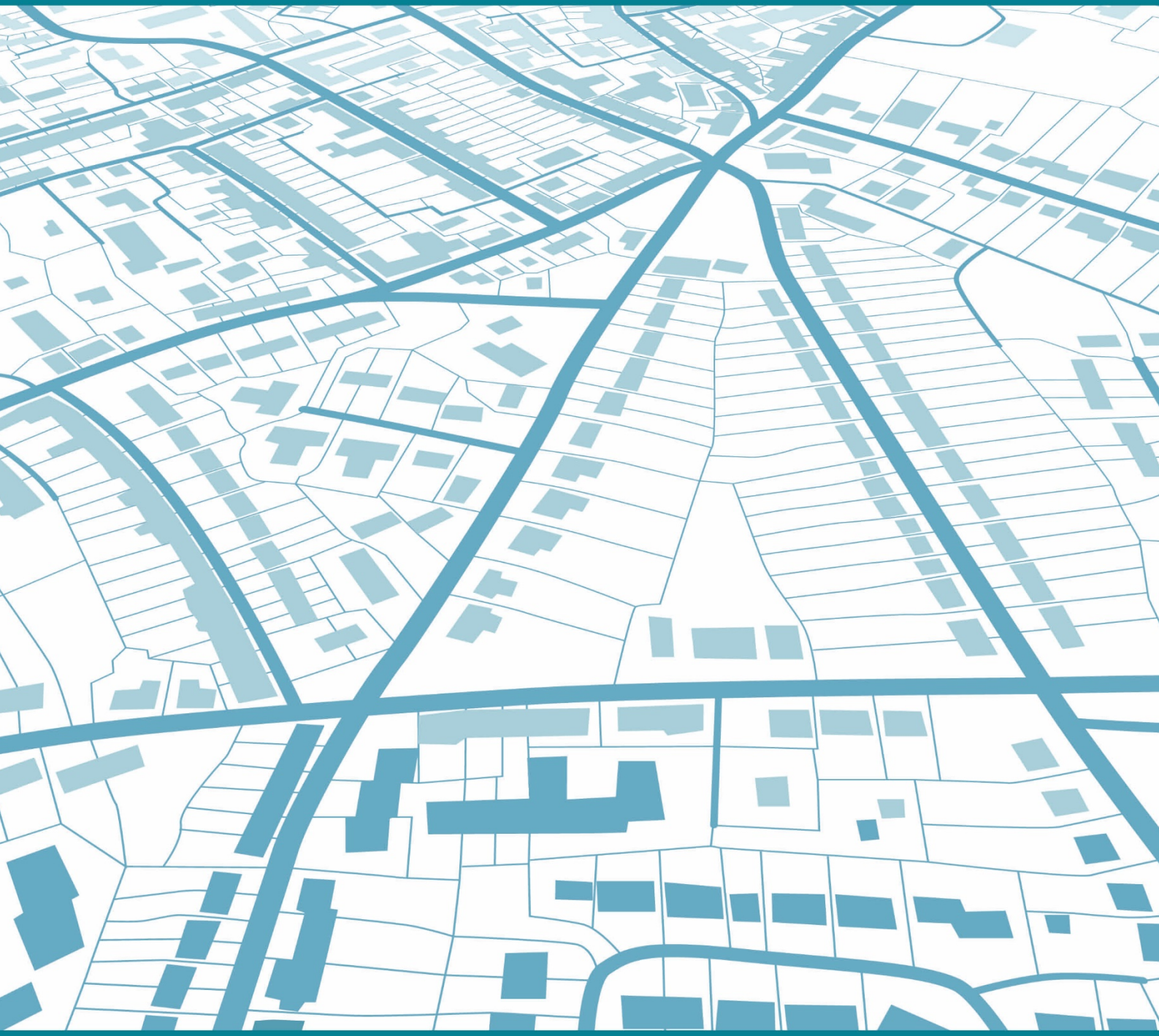
TRANSPORT AND TRAFFIC PLANNING ASSOCIATES
Established 1994

Suite 502, Level 5, 282 Victoria Avenue
Chatswood NSW 2067
T (02) 9411 5660 | F (02) 9904 6622
E info@ttpa.com.au | ttpa.com.au



Light Horse Business Hub, Eastern Creek

Site Remediation Process

Construction Traffic Management Plan

Ref: 21077 (a)
Date: November 2021
Rev: D

Table of Contents

List of Figures

List of Appendices

1.0 Introduction

Consent (SSD-9667) has been granted for the Concept Proposal and Stage 1 Works for development of the Light Horse Interchange Business Hub (LHBH) on the site known as 165 Wallgrove Road and 475 Ferres Road, Eastern Creek (Figure 1).

The DPIE has issued SEARS for the proposed development and these include the following in relation to Traffic, Access and Parking together with the summarised responses:

	SEARs	Summary Response	CTMP Section
	Traffic and Access ***Construction Traffic Management Plan***		
B1.	*Prior to the commencement of construction, the Applicant must prepare a Construction Traffic Management Plan for the Stage 1 development to the satisfaction of the Planning Secretary. The plan must form part of the CEMP required by condition C2 and must:*		
	- *be prepared by a suitably qualified and experienced person(s);*	*This CTMP was prepared by Ross Nettle, a Director of TTPA. The TCP was prepared by Ronak Fendhi TCT0063633*	*N.A.*
	- *be prepared in consultation with Council and TfNSW;*	*Blacktown Council & TfNSW have endorsed the CTMP*	*Refer to Section 8.0*
	- *detail the measures that are to be implemented to ensure road safety and network efficiency during construction;*	*Right turn movements for heavy vehicles are to be prohibited at the access on Wallgrove Road*	*Refer to Section 4.2*
	- *detail heavy vehicle routes, access and parking arrangements;*	*Trucks routes have been designated and location of parking identified*	*Refer to Section 4.3 & 4.4*
	- *include a Driver Code of Conduct to:*	*Provided*	*Refer to Section 6.0*
	i. minimise the impacts of earthworks and construction on the local and regional road networks;	*Vehicle access and truck routes are essentially limited to State Roads*	*Refer to Section 4.3*
	ii. minimise conflicts with other road users;	*The site generated movements will be very minor and truck access limited to left turn IN/OUT*	*Refer to Section 4.2*
	iii. minimise road traffic noise; and	*For others*	
	iv. ensure truck drivers use specified routes;	*Included*	*Refer to Section 6.2*
	- *include a program to monitor the effectiveness of these measures; and*	*Included*	*Refer to Section 7.0*
	if necessary, detail procedures for notifying residents and the community (including local schools), of any potential disruptions to routes.	*Included*	*Refer to Section 7.3*

	SEARs	Summary Response	CTMP Section
	Environmental Management		
	Management Plan Requirements		
C1	*Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:* *(a) detailed baseline data;*	*Baseline data provided*	*Refer to Section 3.0*
	(b) details of: *i. the relevant statutory requirements (including any relevant approval, licence or lease conditions);*	*The TCP is prepared in accordance with AS1742.3*	
	ii. any relevant limits or performance measures and criteria; and	*Included*	*Refer to Section 7.2*
	iii. the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;	*Included*	*Refer to Section 7.2*
	(c) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;	*Included*	*Refer to Section 7.2*
	(d) a program to monitor and report on the: *i. impacts and environmental performance of the development; and*	*The plan outlines requirements for this plan to be updated*	*Refer to Section 7.0*
	ii. effectiveness of the management measures set out pursuant to paragraph (c) above;	*Included*	*Refer to Section 7.0*
	(e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;	*Included*	*Refer to Section 7.2*
	(f) a program to investigate and implement ways to improve the environmental performance of the development over time;	*The plan outlines the requirement for this plan to be updated*	*Refer to Section 7.0*
	(g) a protocol for managing and reporting any: *i. incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria);*	*Management and reporting protocols are outlined in the CEMP*	*-*
	ii. compliant;	*Included*	*Refer to Section 7.0*

	iii. failure to comply with statutory requirements; and	*Included*	*Refer to Section 7.0*
	(h) a protocol for periodic review of the plan.	*Included*	*Refer to Section 7.0*

***Note**: the Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans*

This Construction Traffic Management Plan has been prepared in relation to the Site Remediation process. It will be the initial process for development of the site and no other processes are permitted to commence until the Remediation process has been completed. Separate CTMP's will be prepared for the Site Preparation Work and the Road Construction Work for the project.

LEGEND

N

LOCATION

FIG 1

2.0 Proposed Development Scheme

2.1 Site, Context and Existing Circumstances

The site (Figure 2) is Part Lot 10 in DP 1061237 and Part Lot 5 in DP 804051, being portion of the Western Sydney Parklands landholding at Eastern Creek. The site occupies an area of 34.4ha located on the south-east corner of the M4 Motorway and M7 Motorway intersection known as the “Light Horse Interchange”.

The site is bound to the north by the M4 Motorway and to the west by the M7 Motorway while the surrounding uses comprise:

- Western Sydney Parklands and the Huntingwood/Bungarribee Industrial Estates extending to the north
- Western Sydney Parklands and the Eastern Creek Waste Management Centre extending to the south
- Sydney Motor Sport Park and International Dragway to the east
- The Interchange/Wonderland Business Parks to the west of Wallgrove Road

The site is relatively “low lying” with Eastern Creek running through the eastern part and its tributaries including Reedy Creek running through the central part.

The site is largely grassland with scattered areas of shrubs and trees with a number of dams. There is a small group of vacant buildings in the central part with the only vehicle access being provided by an access track connecting under the M7 to Wallgrove Road where the intersection is provided with a right turn bay for vehicles approaching from the south and a left turn deceleration lane for vehicles approaching from the north.

The access also provides for vehicles to ingress and egress a materials storage depot for the M7 Motorway which extends southerly along the narrow strip between Wallgrove Road and the M7 (see details overleaf).

LEGEND

N

SITE

FIG 2

2.2 Concept Development

The Concept Plan approval, which was granted in March 2020, provided for:

- a total of 157,600m^2 warehouse etc. floorspace and 7,900m^2 ancillary office floorspace (total building area 165,500m^2)
- a new access intersection on Ferres Road with an emergency access (existing connection) on Wallgrove Road
- a cul-de-sac access road within the site
- a Shared Path link across the M7 Motorway and Wallgrove Road connecting to the existing shared path along the M7 corridor
- Site works including:
  - Demolition of existing structures;
  - Remediation of the site;
  - Site preparation and bulk earthworks;
  - Installation of essential infrastructure services;
  - Flood and stormwater management infrastructure works; and
  - Subdivision of the site into 11 Torrens title lots, including seven future development lots and four lots comprising the stormwater detention basin, access road reserve and residual land to remain within Western Sydney Parklands.

Details of the proposed development are provided on the Concept Plan prepared by Nettleton Tribe Architects which is reproduced in Appendix A.

2.3 Proposed Remediation Works

The remediation works will precede all other work on the site including demolition and details of the remediation process and requirements are provided in the Remedial Action Plan[1].

The temporary vehicle access for the remediation works will connect to the existing site access 'track' as indicated on the diagram overleaf which also shows the location of the proposed site "compound" (where worker parking will be provided) as well as the "cattle grid" for vehicle wheel cleaning.

1 *Remedial Action Plan*
Light Horse Business Plan
WSP, Sept 2021

REMEDIATION SITE COMPOUND
SK01- REV 1
5/10/21

3.0 Road Network and Traffic Conditions

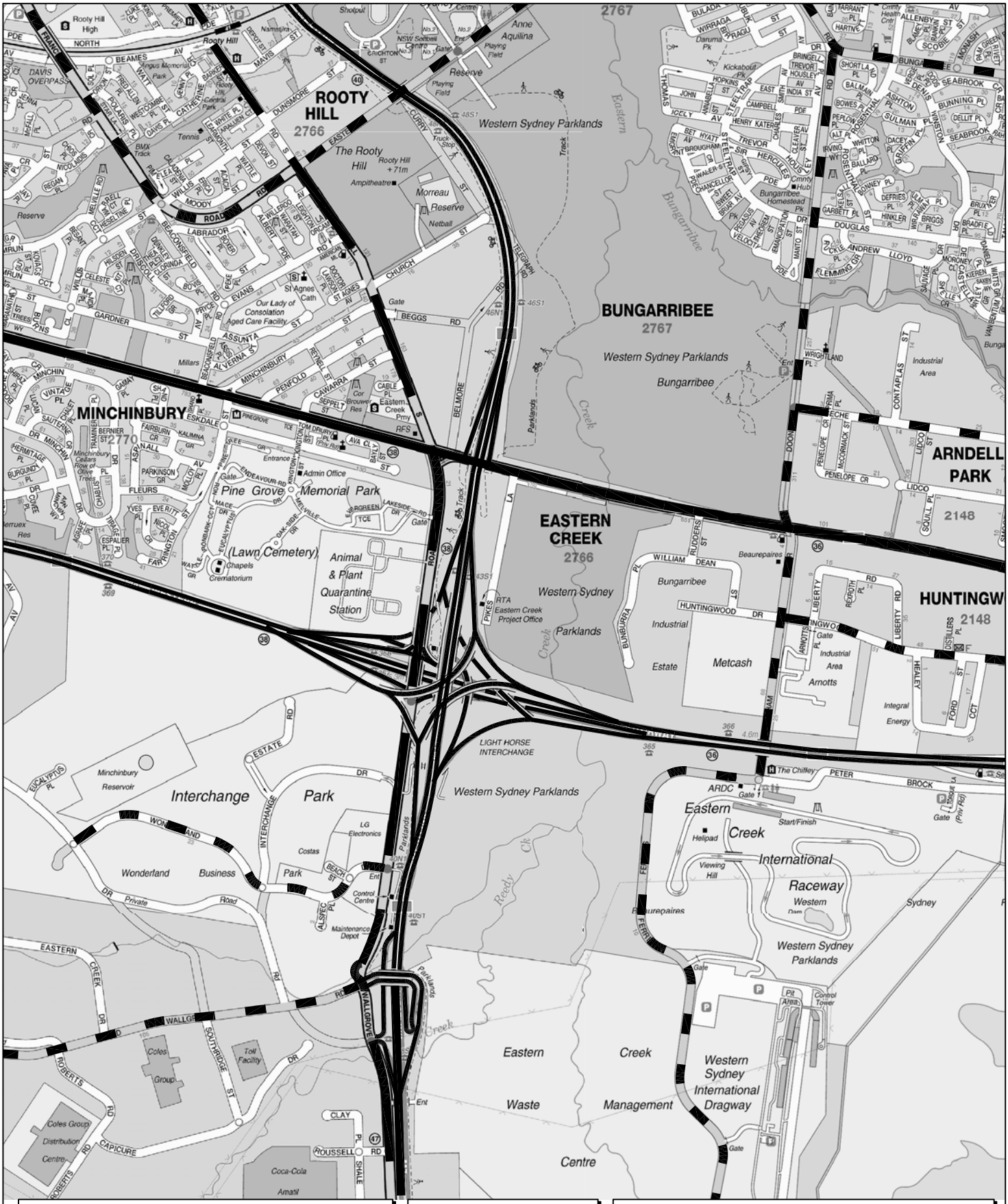
3.1 Road Network

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

- *Westlink M7* – a State Road (private Motorway) and major arterial route connecting between the Southwest Motorway and the Hume Motorway 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
- *Ferres Road/Brabham Drive* – a collector road connecting between the Great Western Highway and The Horsley Drive

The Light Horse Interchange is formed by a complex system of ramps and connections between the M4, M7 and Wallgrove Road with further ramp connections to the south to Wallgrove Road and to Great Western Highway to the north.

Wallgrove Road has a straight and level alignment along the site frontage and comprises two lanes in each direction divided by a central median. Details of the site access road intersection are provided on the image in Section 2.1 indicating the right turn bay and left turn deceleration lane for access into the site.



LEGEND

- ARTERIAL
- SUB-ARTERIAL
- COLLECTOR

N

ROAD NETWORK

FIG 3

3.2 Traffic Controls

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

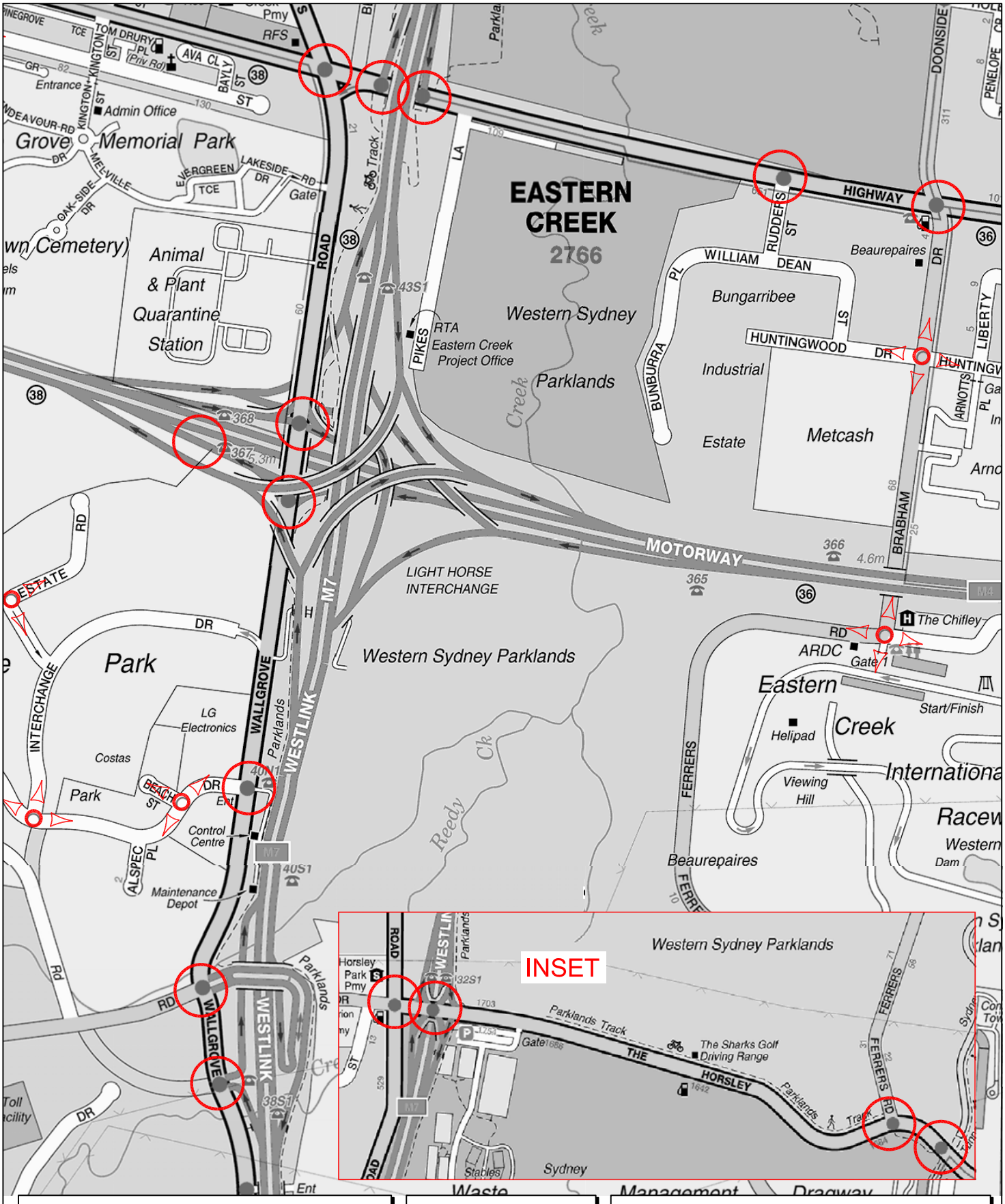
- the traffic signals at the Great Western Highway, Brabham Drive and Doonside Road intersection
- The traffic signals at the Wallgrove Road and the Great Western Highway intersection
- The traffic signals at the Wallgrove Road and M4 ramp intersection where there are two separate intersections serving the eastbound and westbound ramps
- The traffic signals at the intersection of The Horsley Drive and Ferres Road
- The roundabouts at the intersections of Brabham Drive/Huntingwood Drive and Brabham Drive/Ferres Road
- The 70 kmph speed restriction on Wallgrove Road and 60 kmph on Ferres Road

3.3 Traffic Conditions

An indication of the traffic conditions on the road system serving the site is provided by data published by TfNSW and other available data. The data published by TfNSW 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

Non Covid affected traffic data for the morning and afternoon peak periods at intersections serving the site as provided by TfNSW and the SSD Traffic Study is reproduced in Appendix D and summarised in the Figure 5.



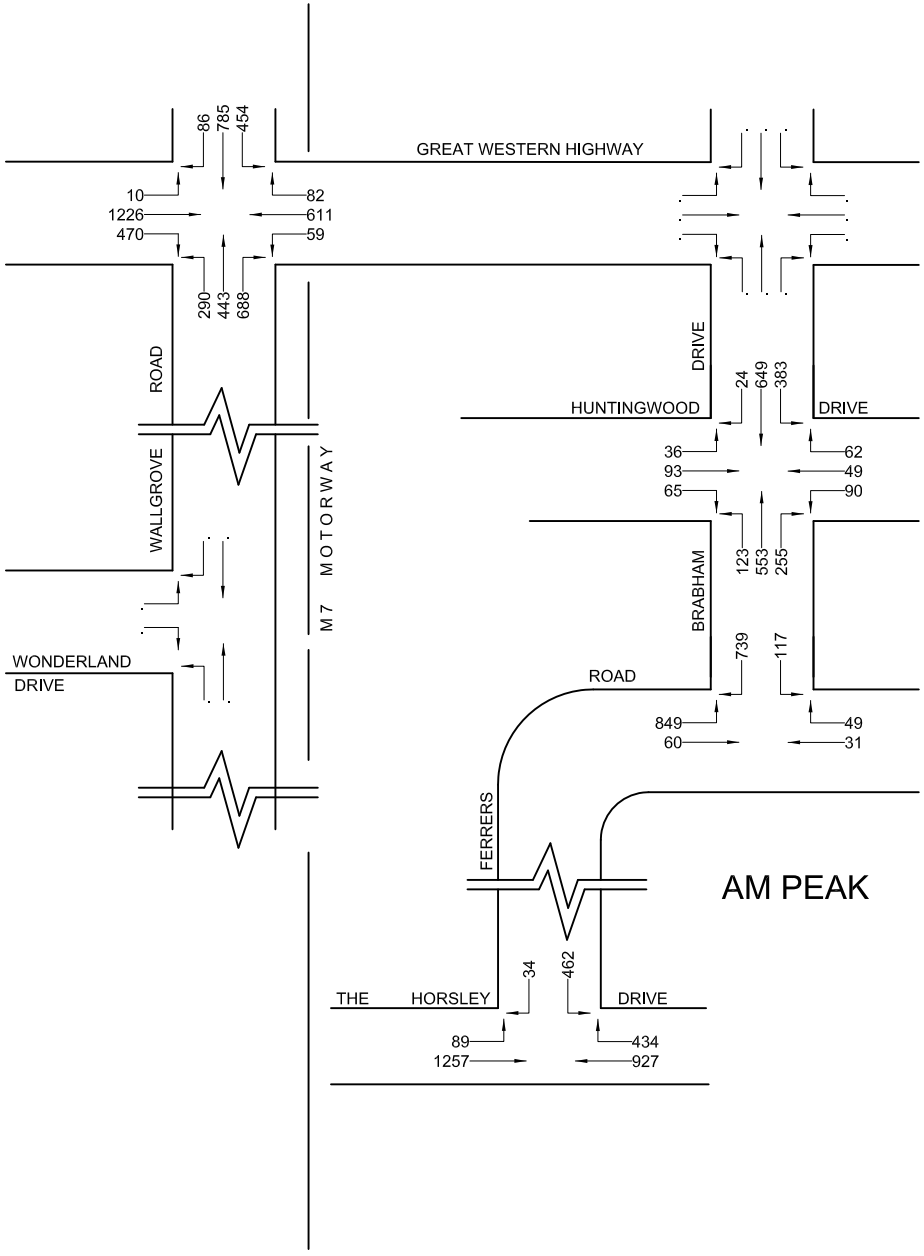
LEGEND

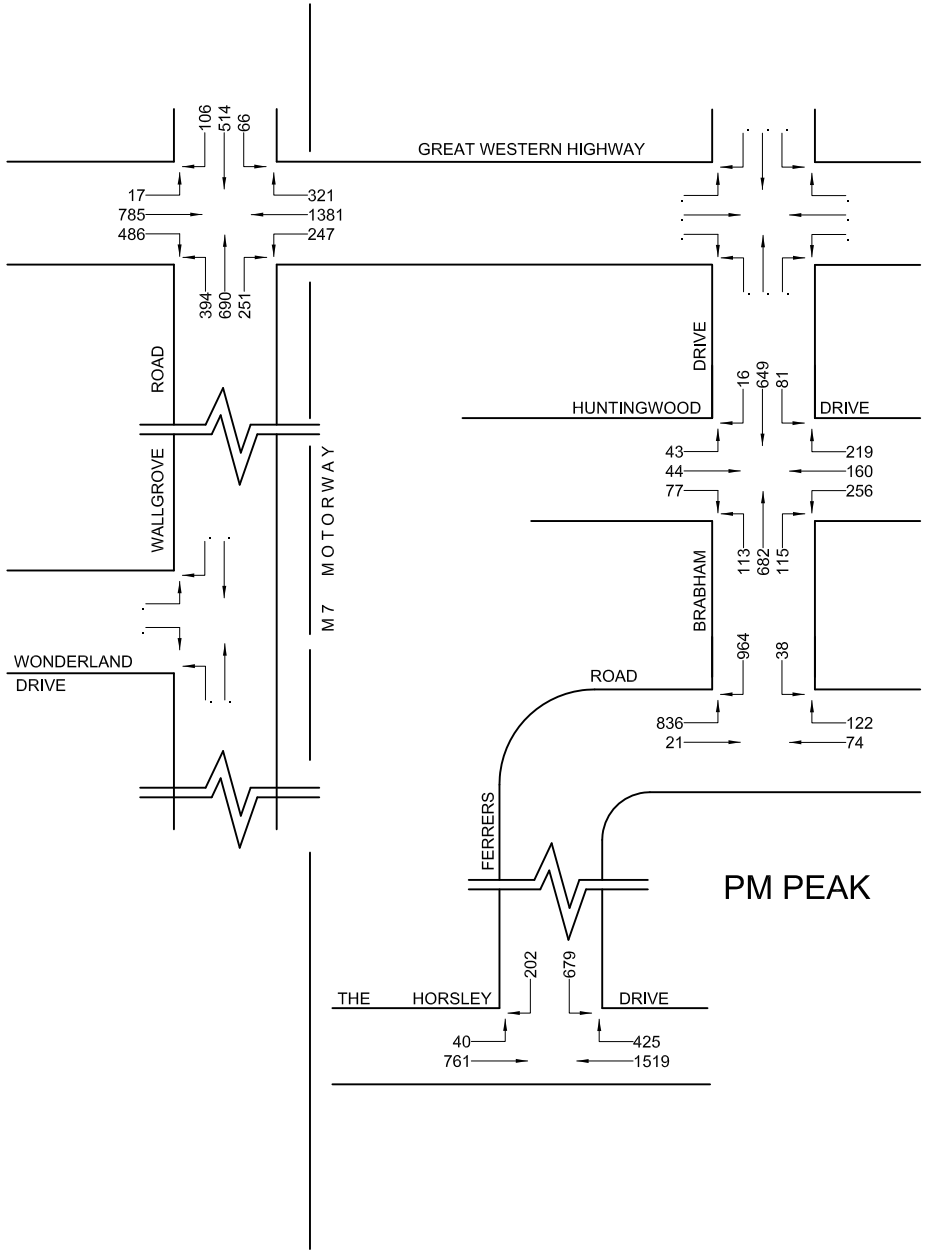
- TRAFFIC SIGNAL CONTROL
- ROUNDABOUT
- RESTRICTED TURNING MOVEMENT

N

TRAFFIC CONTROLS

FIG 4





LEGEND

EXISTING PEAK TRAFFIC VOLUMES

FIG 5

The operational performance of intersections has been analysed using SIDRA and the results of that assessment[2] are provided in the following table, while the criteria for interpreting the SIDRA output is provided overleaf.

	AM		PM	
	LOS	**AVD**	**LOS**	**AVD**
Great Western Highway/ Brabham/ Doonside	E	57	D	52
Great Western Highway/ Doonside	D	52	C	36
Brabham/Huntingwood	A	14	A	14
Brabham/Ferres	A	11	B	15
The Horsley/Ferres	C	38	B	20

The results indicate that these intersections currently operate satisfactorily during the morning and afternoon peak traffic periods.

3.4 Transport Services

Public transport services in the vicinity of the site are provided by the 'Busway' bus routes 723 and 738, which run along Wallgrove Road past the site and linking Mount Druitt and Rooty Hill stations. Route 724 also operates along Peter Brock Drive to the north of the site providing a link to Blacktown Railway Station.

[2] *Light Horse Interchange (SSD 9667)*
Traffic Impact Assessment
Ason Group, May 2019

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** 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.

4.0 Site Remediation Process

4.1 Timing

The remediation work will occur over a 6 week period with site establishment completed in Week 1 and trucked export commencing in Week 3. The demolition and site clearing processes will only proceed after the remediation process is completed.

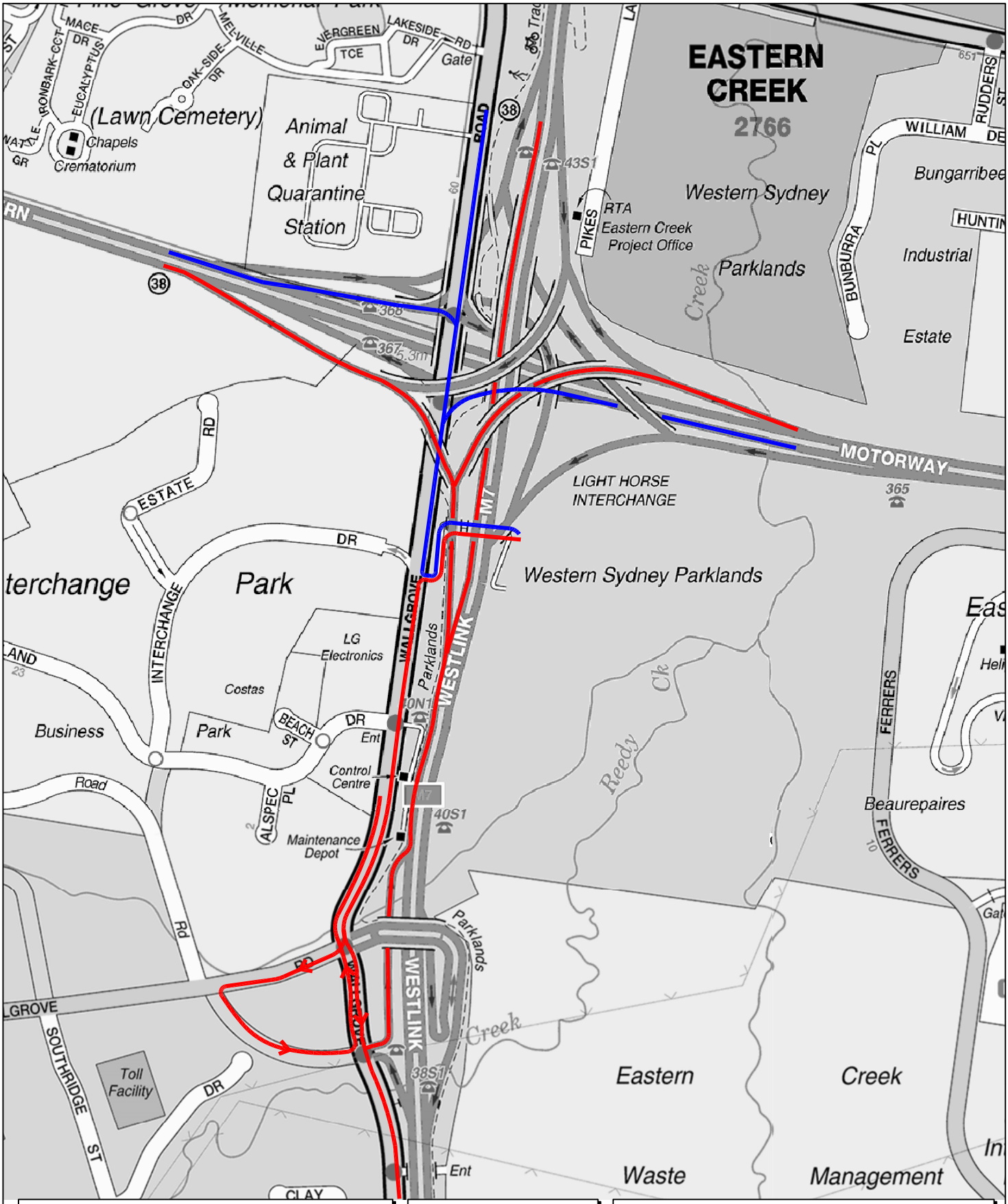
4.2 Vehicle Access

Due to the need to construct a bridge over Eastern Creek to provide the proposed access connection between the site and Ferres Road (and the prohibition of construction works prior to the completion of remediation) the only vehicle access available for the Remediation Process is the existing connection to Wallgrove Road. Details of this access intersection are provided in Section 2.1 with a right turn bay and left turn deceleration lane.

Gaps are introduced into the traffic flows along Wallgrove Road by the operation of the traffic signals to the north and south, however it would be proposed that the right turn movement out of the site be prohibited and this could be enforced by installation of temporary barriers subject to the requirements of TfNSW, Westlink M7 and TMC. The right turn movement into the site will be restricted to vehicles under 9m using normal regulatory signposting and accordingly, access for vehicles over 9m in length will be limited to left turn IN/OUT only.

4.3 Truck Routes

Due to the prohibition of right turn movements for trucks at the Wallgrove Road access and the arrangement of the interchange ramps etc, trucks will approach and depart the site as indicated on Figure 6. Trucks approaching from the south on the M7 or Wallgrove Road will be required to travel via The Horsley Drive and Ferres Road.



LEGEND

ARRIVAL

DEPARTURE

N

TRUCK ROUTES

FIG 6

4.4 Parking

Parking for workers and visitors will be provided in the Site Compound as indicated on the diagram in Section 2.2.

4.5 Vehicle Movements

The proposed vehicle visitations are as follows:

Movements	**Week 1**	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Week 6**
Daily Light Vehicles	4	10	10	10	10	10
Daily Heavy Vehicles	6		2	2	15	10
Total IN/OUT (LV & HV)	**10**	**10**	**12**	**12**	**25**	**20**

Heavy vehicle activity will very largely involve Truck&Dog units and semi-trailers with some smaller trucks for fuel delivery etc. A visitation equates to 2 vtpd and the light vehicles will essentially be workers arriving in the morning and departing in the afternoon while the heavy vehicle movements will be evenly spread throughout the day.

4.6 Clean Up

All trucks will be required to have covers over their trailers particularly when loaded. A “cattle grid” will be installed at the egress to remove spoil from wheels and tyres while the pavement of Wallgrove Road will be constantly monitored and any spillage will be swept up as soon as possible.

4.7 Working Hours

The permitted working hours as per Consent Conditions B17 and B18 (unless otherwise agreed in writing by the Planning Secretary) are as follows:

Monday to Friday	7.00am to 6.00pm
Saturday	8.00am to 1.00pm
Sunday and Public Holidays	No work

5.0 Traffic

5.1 Traffic Implications

The existing traffic movements along Wallgrove Road are as follows:

	AM	PM
Southbound	1534	1194
Northbound	872	1330

The projected maximum vehicle access movements during the peak periods comprise:

	AM		PM	
	IN	OUT	IN	OUT
Workers	10	-	-	10
Trucks	2	2	2	2

The traffic movements associated with the remediation process will be so minor that they would be entirely imperceptible in any traffic modelling assessment because the movements through any intersection will be significantly less than 1% of the total intersection movements. Truck movements at the site access on Wallgrove Road will only be left turn IN/OUT and the peak worker arrival departure movements are only likely to be some 5 vtph in each direction.

5.2 Traffic Control Plan

The only Traffic Control Plan required is for the Wallgrove Road access and this is provided in Appendix C.

Whether there will be a need to physically prevent the right turn out of the access road into Wallgrove Road (e.g. temporary barriers) will depend on the access needs for the M7 operator and the requirements of TfNSW.

6.0 Driver Code of Conduct

Safe Driver Policy For Light Horse Business Hub Construction Activities

6.1 Objective of the Drivers Code of Conduct

- to minimise the impact of earthworks and construction on the local and regional road network;
- Minimise conflict with other road users
- Minimise road traffic noise; and
- Ensure truck drivers only use the approved routes

6.2 Code of Conduct

The code of conduct requires that while driving any vehicle for work-related purposes, drivers are to be issued with a copy of the Drivers Code of Conduct, and must comply with all of the following:

- Demonstrate safe driving and road safety activities
- Abide by traffic, road and environmental legislations
- Follow site signage and instructions
- Drivers must only enter and exit the site via the approved entry and exit points and travel routes

The below activities in any vehicles will be considered as a breach of conduct and will result in removal from site:

- Reckless or dangerous driving causing injury or death
- Driving whilst disqualified or not correctly licensed
- Drinking or being under the influence of drugs while driving
- Failing to stop after an incident
- Loss of demerit points leading to suspension of licence
- Any actions that warrant the suspension of a licence
- Exceeding the speed limit in place on any permanent or temporary roads
- Not adhering to the prescribed restrictions on site access and truck routes

6.3 Driver Responsibility

All drivers on site must:

- Be responsible and accountable for their actions when operating a company vehicle or driving for the purposes of work
- Display the highest level of professional conduct when driving a vehicle at all times
- Ensure they have a current driver licence for the class of vehicle they are driving, and this licence is to be carried at all times
- Immediately notify their supervisor or manager if their driver's licence has been suspended, cancelled, or has had limitations applied
- Comply with all traffic regulations when driving
- Undertake daily pre-start checks of oil, tyre pressures, radiator and battery levels of company vehicles they regularly used
- Drive within the legal speed limits, including driving to the conditions
- Not drive outside of the approved heavy vehicle routes. All drivers must obey weight, length and height restrictions imposed by the National Heavy Vehicle Regulator, and other Local and State agencies
- Be cognisant of the noise and emissions requirements imposed within the EIS, and in a broader sense, the NSW / Australian Road Rules
- Do not queue on public roads unless a prior approval has been granted
- Never drive under the influence of alcohol or drugs, including prescription and over the counter medication if they cause drowsiness – to do so will merit disciplinary measures
- All drivers to report to their supervisor if they have been prescribed medication prior to the start of work
- Wear a safety seat belt at all times when in the vehicle
- Avoid distraction when driving
- Report any traffic incidents involving the vehicle
- Report any infringements to their manager at the earliest opportunity.
- Report any vehicle defects to their manager
- Follow the speed limits as imposed within the site
- Keep loads covered at all times.

6.4 Site Team Responsibilities

The Contractor is responsible to take all steps necessary to ensure company vehicles are as safe as possible and will not require staff to drive under conditions that are unsafe.

This will be achieved by undertaking the following:

- Ensuring all vehicles are well maintained and that the equipment enhances driver, operator and passenger safety by way of:
  - Pre-commencement checks for all new plant arriving on-site and prior to undertaking any work.
  - Daily prestart inspections for all plant, vehicles and equipment currently on-site.
  - All construction plant must be fitted with a flashing light, fire extinguisher and reverse alarms
  - Ensure all operators onsite have a current verification of competency (VOC) for their current driver's licence of the appropriate class.
  - Ensure maintenance requirements are met and recorded.
- Identify driver training needs and arranging appropriate training or re-training. This may include providing the below:
  - Operator VOC assessment as part of all inductions.
  - Regular Toolbox discussions on safety features, managing fatigue, approved heavy routes, driver responsibility and drink-driving
- Encouraging Safe Driving behaviour by:
  - Ensuring the subcontractor is informed if their staff become unlicensed
  - Not covering or reimbursing staff speeding or other infringement notices
  - Ensuring Legal use of mobile phones in vehicles while driving only and that illegal use does not occur.
- Encouraging better fuel efficiency by:
  - Use of other transport modes or remote conferencing, whenever practical.
  - Providing training on, and circulating information about, travel planning and efficient driving habits.

6.5 Crash or Incident Procedudre

- Stop the vehicle as close to it as possible to the scene, making sure you are not hindering traffic. Ensure your own safety first, then help any injured people and seek assistance immediately if required.
- Ensure the following information is noted:
  - Details of the other vehicles and registration numbers
  - Names and addresses of the other vehicle drivers
  - Names and addresses of witnesses
  - Insurers details
- Give the following information to the involved parties:
  - Name, address and company details
- If the damaged vehicle is not occupied, provide a note with your contact details for the owner to contact the company.
- Ensure that the police are contacted should the following circumstances occur:
  - If there is a disagreement over the cause of the crash.
  - If there are injuries.
  - If you damage property other than your own.
- As soon as reasonably practical, report all details gathered to your manager.

6.6 Environmental Procedure

A range of measures – including those detailed in the Construction Environmental Management – shall be implemented to ensure the following:

- No dirt or debris from the construction vehicles is tracked on to the public road network;
- Reduce the impacts to sensitive receivers, including, where practicable, starting noisy equipment away from sensitive receivers and implementing respite periods;
- Watering of dusty activities will be undertaken, or activities temporarily halted and then resumed once weather conditions have improved;
- Containment measures for potential spillages will be provided at appropriate locations
- Keep an accurate record which includes the range of measures undertaken to reduce environmental impacts.

7.0 Monitoring, Review and Contingencies

7.1 Monitoring Program

This CTMP shall be subject to ongoing review and will be updated accordingly. Regular reviews will be undertaken by the on-site coordinator. As a minimum, review of the CTMP shall occur monthly. All and any reviews undertaken should be documented, however key considerations regarding the review of the CTMP shall be:

- Tracking deliveries against the volumes outlined within report. Deliveries will be tracked against approved volumes, and will keep a vehicle log - including rego & time of entry - for the purpose of assessing the effectiveness of these monitoring programs.
- To identify any shortfalls and develop an updated action plan to address issues that may arise during construction (Parking and access issues)
- To ensure TCP's are updated (if necessary) by "Prepare a Work Zone Traffic Management Plan" card holders to ensure they remain consistent with the set-up on-site.
- Regular checks undertaken to ensure all loads are entering and leaving site covered as outlined within this CTMP.
- A Dilapidation report shall be undertaken every periodically to assess the condition of the road, and note whether there has been any reduction in quality of the road as result of construction vehicles.

The development of a program to monitor the effectiveness of this CTMP shall be established by the Contractor. This process is expected to form part of the monitoring plan required to be included as part of the Construction Environmental Management Plan (CEMP), of which this CTMP forms a part.

7.2 Contingency Plan

A contingency plan shall be established by the Contractor and is to be included in the CEMP. Notwithstanding, the table overleaf outlines an indicative plan to be undertaken by the builder in the event that the monitoring program identifies the management plan is not effective in managing the construction impacts.

Contingency Plan

Rick		Condition Green	Condition Amber	Condition Red
Construction Movements	Trigger	Construction traffic volume is in accordance with permissible and programmed volume and time constraints	Construction traffic volumes exceeds programmed volume but is within permissible volume constraints	Construction traffic volumes exceeds programmed volume and time constraints
	Response	No response required Continue monitoring program	Review and investigate construction activities, and where appropriate, implement additional remediation measures such as: - Temporary halting of activities and resuming when conditions have improved - Review CTMP and update where necessary - Provide additional training	Review and investigate construction activities. Where appropriate, implement additional remediation measures such as: - Temporary halting of activities and resuming when conditions have improved - Stop all transportation into and out of the site - Review CTMP and update where necessary Provide additional training.
	Trigger	Construction traffic adheres to the nominated truck routes	Occasionally fails to Construction traffic utilise the nominated truck routes	Consistently fails to Construction traffic utilise the nominated truck routes
	Response	No response required Continue monitoring program	Review and investigate construction activities, and where appropriate, implement additional remediation measures such as: Review vehicles arriving to site and remind them of the strict exclusion time periods Provide additional training (including toolbox talks and further notification of	Review and investigate construction activities. Where appropriate, implement additional remediation measures such as: - Stop all transportation into and out of the site. - Review CTMP and update where necessary. - Provide additional

			Drivers Code of Conduct)	training (including toolbox talks and further notification of Driver Code of Conduct)
Queuing	Trigger	No queuing identified	Queuing identified within site	Queuing identified on the public road
	Response	No response required Continue monitoring program	Review the delivery schedule prepared by the builder. If drivers are not following the correct schedule, then they should be provided with additional training and an extra copy of the Driver Code of Conduct.	Review and Investigate construction activities. Where appropriate, implement additional remediation measures such as: - Temporary halting of activities and resuming when conditions have improved - Stop all transportation into and out of the site. - Review CTMP and update where necessary
Noise	Trigger	Noise levels do not exceed imposed noise constraints	Noise levels in minor excess of imposed noise constraints	Noise levels greatly in excess of imposed noise constraints
	Response	No response required Continue monitoring program	Undertake all feasible and reasonable mitigation and management measures to minimise noise impacts	Undertake all feasible and reasonable mitigation and management measures to ensure noise levels are below Highly Noise Affected criteria. If noise levels cannot be kept below applicable limits, then a different construction method or equipment must be utilised.

Traffic Control Plans	Trigger	No observable issues	Minor inconsistencies with TCP to onsite operations	Near miss or incident occurring regardless of/as a results of the TCP being implemented
	Response	No response required Continue monitoring TCPs	Traffic Controllers to amend TCP on site and to keep a log of all changes	Stop work until an investigation has been undertaken into the incident. There are to be changes made to the TCP to ensure that the safety of all workers, students and civilians are catered for.
Dust & Spoil	Trigger	No observable dust	Minor quantities of dust in the air and tracking on to the road	Large quantities of dust in the air and tracking on to the road
	Response	No response required Continue monitoring program	Review and investigate construction activities and respective control measures, where appropriate, implement additional remedial measures, such as: - Deployment of additional water sprays - Relocation or modification of dust-generating sources - Check condition of vibrating grids to ensure they are functioning correctly - Temporary halting of activities and resuming when conditions have improved	Review and investigate construction activities and respective control measures. If it is concluded that construction activities were directly responsible for the exceedance, submit an incident report to government agencies. Implement relevant responses and undertake immediate review to avoid such occurrence in future.

The contingency plan outlines the most effective methods to ensure that each item identified within the Monitoring Program is adhered to, resulting in the impacts to the wider community being minimised. It also represents the efforts undertaken to continually improve CTMP and ensure that the process being utilised are indeed best practice.

7.3 Communications Strategy

A Community Consultation Strategy (CCS) for the Project has been developed to detail how the Proponent and their contractors will engage and interact with relevant stakeholders and the community. The CCS will form part of the CEMP and will be applicable to all works undertaken on site. All communications (including notification, consultation and complaints and enquiry handling) related to construction traffic management shall be undertaken in accordance with the CCS.

Where necessary, the following procedures (consistent with the CCS) will be utilised to notify residents and the community (including local schools), of any potential disruptions to routes:

Potential Impact or Issue	**Method of Contact/Consultation**	**Timeframe**
Known Traffic Route Disruption	Email, Text Message or Letterbox drop – notifying of expected commencement, duration, affected hours and contact phone number. Variable Message Signs	No less than 24 hours prior to the activity
Emergency Event	Email, Text Message or Letterbox drop – notifying of expected commencement, duration, affected hours and contact phone number.	As soon as possible.

All communication activities will be undertaken by and the responsibility of the appointed Communications and Community Liaison Representative at the direction of the Proponent.

8.0 Consultation

This CTMP has been submitted for the consideration of TfNSW, Blacktown City Council and the M7 operator and their responses are provided overleaf.

From:	Alexander Coates
To:	Ross Nettle
Subject:	CTMP Site Remediation - Consent (SSD-9667) Light Horse Interchange Business Hub (ttpa ref 21077)
Date:	Tuesday, 2 November 2021 2:42:24 PM

Transport for NSW (TfNSW), Greater Sydney Division has reviewed the CTMP and endorse the proposed temporary construction arrangements.

Endorsement of the CTMP is not an approval to the type of traffic management or delineation devices used, nor is it an approval to any traffic guidance schemes depicted within the CTMP. It is assumed that the proponent has used type approved devices and has developed its traffic guidance schemes in accordance with the relevant Australian Standards and Guidelines.

The proponent is to ensure local residents, businesses, schools and other stakeholders in the affected area as well as emergency service organisations are notified of the changes associated with the CTMP, prior to its implementation.

Please ensure this CTMP is shared and adhered to by all contractors. If the CTMP changes, please forward a copy to Developments.CJP@transport.nsw.gov.au for further review and endorsement.

Alex Coates
Operations Planning Manager, Customer Journey Planning
Operations
Greater Sydney
Transport for NSW

From:	Andy Karklins
To:	Ross Nettle
Cc:	Nadeem Shaikh
Subject:	RE: CTMP Site Remediation - Consent (SSD-9667) Light Horse Interchange Business Hub (ttpa ref 21077)
Date:	Tuesday, 19 October 2021 11:57:18 AM
Attachments:	image002.png image005.png

Good morning Ross

I have reviewed the attached CTMP – Site Remediation -Consent (SSD-9667) Light Horse Interchange Business Hub – 165 Wallgrove Road and 475 Ferrers Road, Eastern Creek. It appears to be in order based on the information provided. It is the project managers responsibility to implement the traffic control measures as identified in the CTMP.

Regards

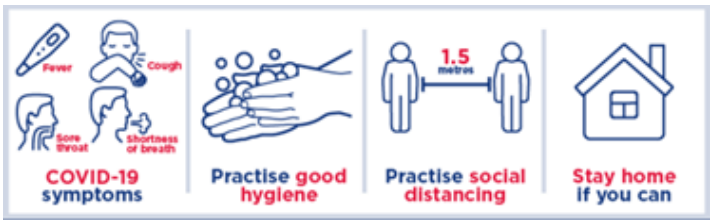
Blacktown City Council

Andy Karklins
Traffic Management Officer

9839 6305

Andy.Karklins@blacktown.nsw.gov.au
PO Box 63 Blacktown NSW 2148
blacktown.nsw.gov.au

Follow us on social media



From: Ross Nettle <ross@ttpa.com.au>
Sent: Friday, 15 October 2021 10:51 AM
To: Nadeem Shaikh <Nadeem.Shaikh@blacktown.nsw.gov.au>; Blacktown Council <Blacktown.Council@blacktown.nsw.gov.au>
Cc: Dane Segail <Dane.S@atl.net.au>; Tom Game (Tom.Game@charterhall.com.au) <Tom.Game@charterhall.com.au>; Bonnie Simeonov (bonnie.simeonov@charterhall.com.au) <bonnie.simeonov@charterhall.com.au>
Subject: CTMP Site Remediation - Consent (SSD-9667) Light Horse Interchange Business Hub (ttpa ref 21077)
Importance: High

Nadeem

Consent (SSD-9667) for the Light Horse Interchange Business Hub requires:

- a Construction Traffic Management Plan for Remediation to be approved and enacted prior to any other works commencing

Appendix A

Concept Plan for Development

DEVELOPMENT DATA

OVERALL SITE AREA	344,013m²
LOT 8 (RESIDUAL) - ESTATE BIO-BASIN/OSD	21,511m²
ACCESS ROAD RESERVE (PART OF LOT 11)	22,076m²
TOTAL DEVELOPABLE AREA (LOT 1 TO 7)	300,426m²
TOTAL BUILDING AREA	165,500m²
FLOOR SPACE RATIO	55.1%

DEVELOPABLE LOT	W/H AREA	OFFICE AREA	TOTAL
LOT 1 SITE AREA (48,059m²)	19,000	1,000	20,000
LOT 2 SITE AREA (34,141m²)	16,900	800	17,700
LOT 3 SITE AREA (41,112m²)	23,200	1,200	24,400
LOT 4 SITE AREA (38,686m²)	21,400	1,000	22,400
LOT 5 SITE AREA (44,193m²)	24,700	1,300	26,000
LOT 6 SITE AREA (38,406m²)	20,000	1,000	21,000
LOT 7 SITE AREA (55,829m²)	32,400	1,600	34,000
TOTAL	157,600	7,900	165,500

CARPARK PROVISIONS

TOTAL CARPARK REQUIRED RMS - Warehouse: 1 space/300sqm Office: 1 space/40sqm	723 spaces
TOTAL CARPARK PROVIDED	782 spaces

LEGENDS

- ESTATE SITE BOUNDARY
- LIMIT OF WORKS

Client

NSW GOVERNMENT Western Sydney Parklands Trust

Light Horse Interchange Business Hub
Eastern Creek NSW [SSD 9667]

Concept Masterplan

1:3000@ A3 or 1:1500@A1

DATE May, 2020 **DRAWING NUMBER** 10935_MP100[P9]

nettletontribe

May 13, 2020 - 9:40pm N:\10935-Lighthorse Interchange\2 AutoCAD\10935_MP100 - CONCEPT MASTERPLAN.dwg

Appendix B

Traffic Data

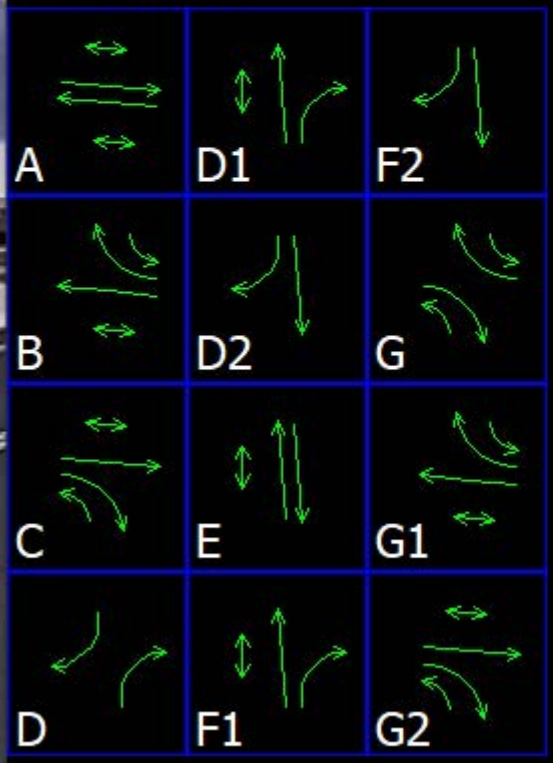
Site Graphics

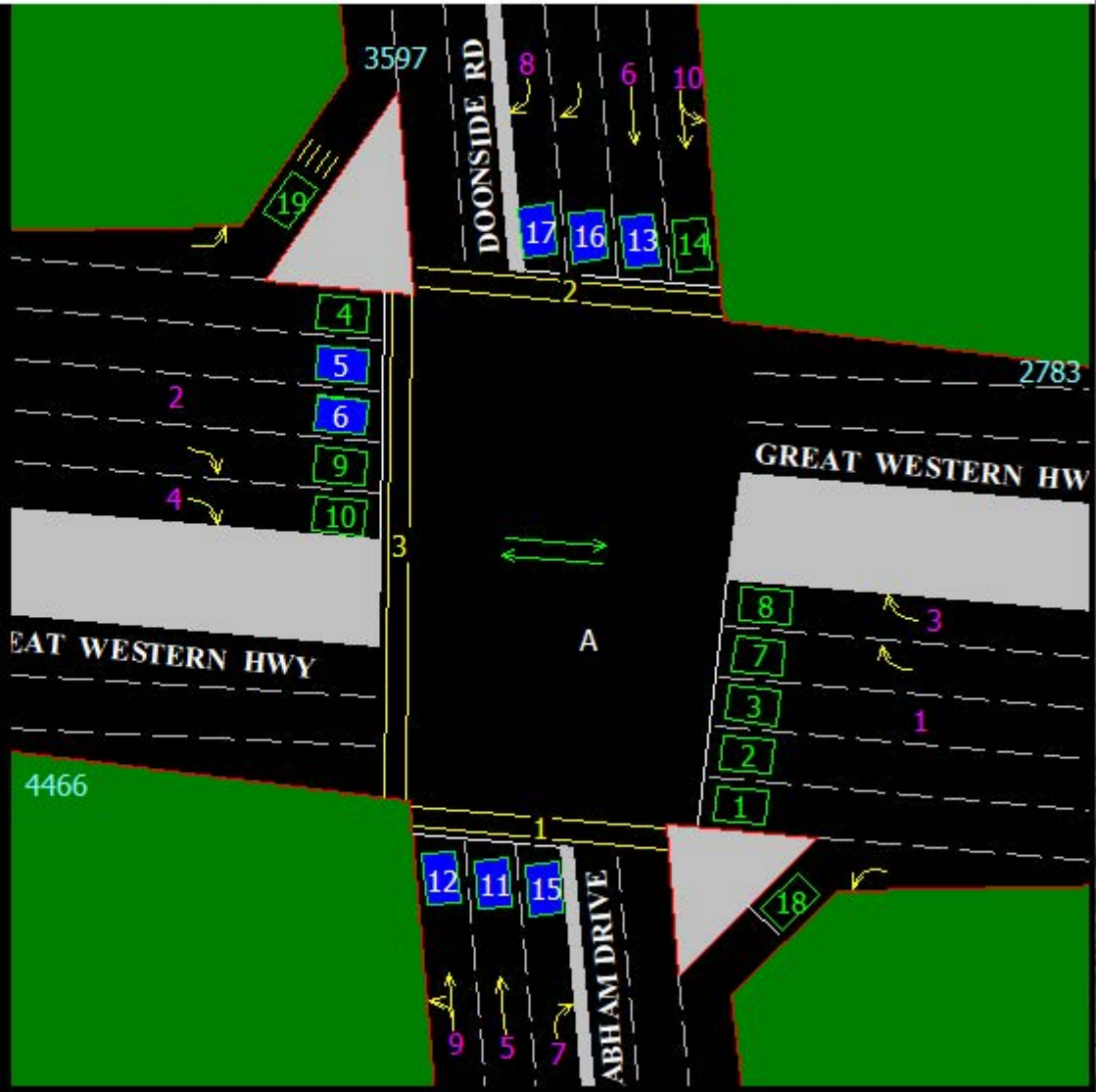
TCS 1120

DOONSIDE 187P10

DOON SS=3

12 PHASES





Date	Interval sta	Interval en	Detector 1	Detector 2	Detector 3	Detector 4	Detector 5	Detector 6	Detector 7	Detector 8	Detector 9	Detector 1	Detector 1	Detector 1	Detector 1	Detector 1	Detector 1
Monday, 25 May 2020	12:00:00 A	1:00:00 AM	2	17	14	1	30	14	15	11	8	2	17	19	19	41	9
Monday, 25 May 2020	1:00:00 AM	2:00:00 AM	8	12	3	0	26	10	10	4	4	3	10	11	14	20	5
Monday, 25 May 2020	2:00:00 AM	3:00:00 AM	6	15	8	1	36	15	8	6	7	3	7	13	30	29	12
Monday, 25 May 2020	3:00:00 AM	4:00:00 AM	11	20	10	3	60	32	13	7	8	7	18	21	45	72	9
Monday, 25 May 2020	4:00:00 AM	5:00:00 AM	24	44	28	10	107	59	22	14	54	33	61	42	140	164	31
Monday, 25 May 2020	5:00:00 AM	6:00:00 AM	61	91	49	42	234	191	59	35	107	73	111	107	280	360	59
Monday, 25 May 2020	6:00:00 AM	7:00:00 AM	63	110	111	112	332	318	79	55	137	121	194	175	368	435	73
Monday, 25 May 2020	7:00:00 AM	8:00:00 AM	70	149	171	171	422	416	91	87	167	128	183	184	415	445	80
Monday, 25 May 2020	8:00:00 AM	9:00:00 AM	68	149	173	110	336	300	89	88	150	115	147	182	342	438	81
Monday, 25 May 2020	9:00:00 AM	10:00:00 A	69	144	145	52	219	181	73	63	65	44	139	149	203	291	79
Monday, 25 May 2020	10:00:00 A	11:00:00 A	51	184	135	48	197	161	85	70	59	38	103	147	187	258	54
Monday, 25 May 2020	11:00:00 A	12:00:00 P	49	169	162	50	198	159	86	81	56	40	126	141	172	228	68
Monday, 25 May 2020	12:00:00 P	1:00:00 PM	75	187	190	59	242	196	100	76	62	39	144	166	178	273	64
Monday, 25 May 2020	1:00:00 PM	2:00:00 PM	80	190	181	60	226	192	109	130	74	54	177	182	237	341	78
Monday, 25 May 2020	2:00:00 PM	3:00:00 PM	106	243	287	74	275	261	133	155	72	47	278	294	261	364	92
Monday, 25 May 2020	3:00:00 PM	4:00:00 PM	129	310	312	65	259	217	194	184	64	57	325	324	335	417	74
Monday, 25 May 2020	4:00:00 PM	5:00:00 PM	160	324	372	63	222	192	200	197	42	50	343	362	291	367	87
Monday, 25 May 2020	5:00:00 PM	6:00:00 PM	118	322	334	37	213	172	199	184	29	19	269	254	230	283	54
Monday, 25 May 2020	6:00:00 PM	7:00:00 PM	47	170	173	22	153	98	138	120	26	10	114	122	133	177	63
Monday, 25 May 2020	7:00:00 PM	8:00:00 PM	21	111	80	22	123	56	78	67	13	9	61	66	78	125	34
Monday, 25 May 2020	8:00:00 PM	9:00:00 PM	12	83	57	5	99	60	53	42	14	3	62	51	60	98	19
Monday, 25 May 2020	9:00:00 PM	10:00:00 P	12	69	59	6	89	58	60	52	19	16	40	54	60	107	33
Monday, 25 May 2020	10:00:00 P	11:00:00 P	14	70	52	10	80	61	65	51	24	9	52	62	69	80	12
Monday, 25 May 2020	11:00:00 P	12:00:00 A	12	44	43	5	62	28	40	38	16	2	48	61	37	35	11

Detector 1	Detector 1	Detector 1	Detector 1	Detector 2	Detector 2	Detector 2	Detector 2	Detector 2	Total
9	4	5	23	0	0	0	0	0	260
10	4	10	14	0	0	0	0	0	178
14	2	11	13	0	0	0	0	0	236
33	18	4	52	0	0	0	0	0	443
58	37	43	111	0	0	0	4	0	1086
99	75	64	158	0	0	0	5	0	2260
118	106	74	266	0	0	0	0	0	3247
121	115	75	425	0	0	0	0	0	3915
123	117	89	385	0	0	0	0	0	3482
119	113	44	266	0	0	0	0	0	2458
121	120	39	219	0	0	0	1	0	2277
118	116	67	242	0	0	0	1	0	2329
108	135	56	258	0	0	0	0	0	2608
119	168	73	265	0	0	0	0	0	2936
164	185	94	306	0	0	0	0	0	3691
188	208	67	329	0	0	0	0	0	4058
168	194	94	292	0	0	0	71	0	4091
150	170	60	275	0	0	0	0	0	3372
83	76	31	154	0	0	0	0	0	1910
57	49	22	99	0	0	0	0	0	1171
36	32	16	81	0	0	0	0	0	883
47	53	25	93	0	0	0	0	0	952
41	20	17	63	0	0	0	0	0	852
20	22	7	56	0	0	0	0	0	587

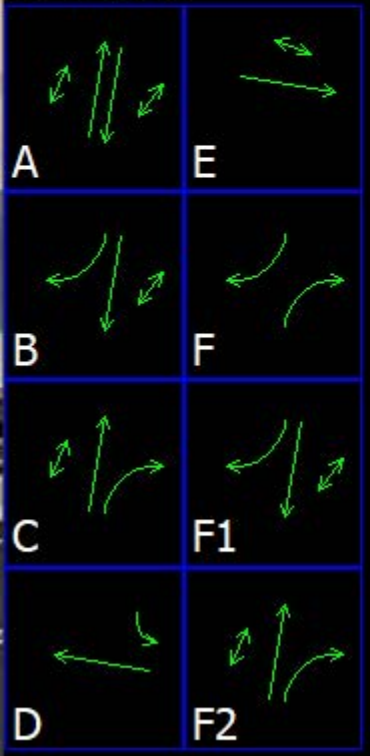
Site Graphics

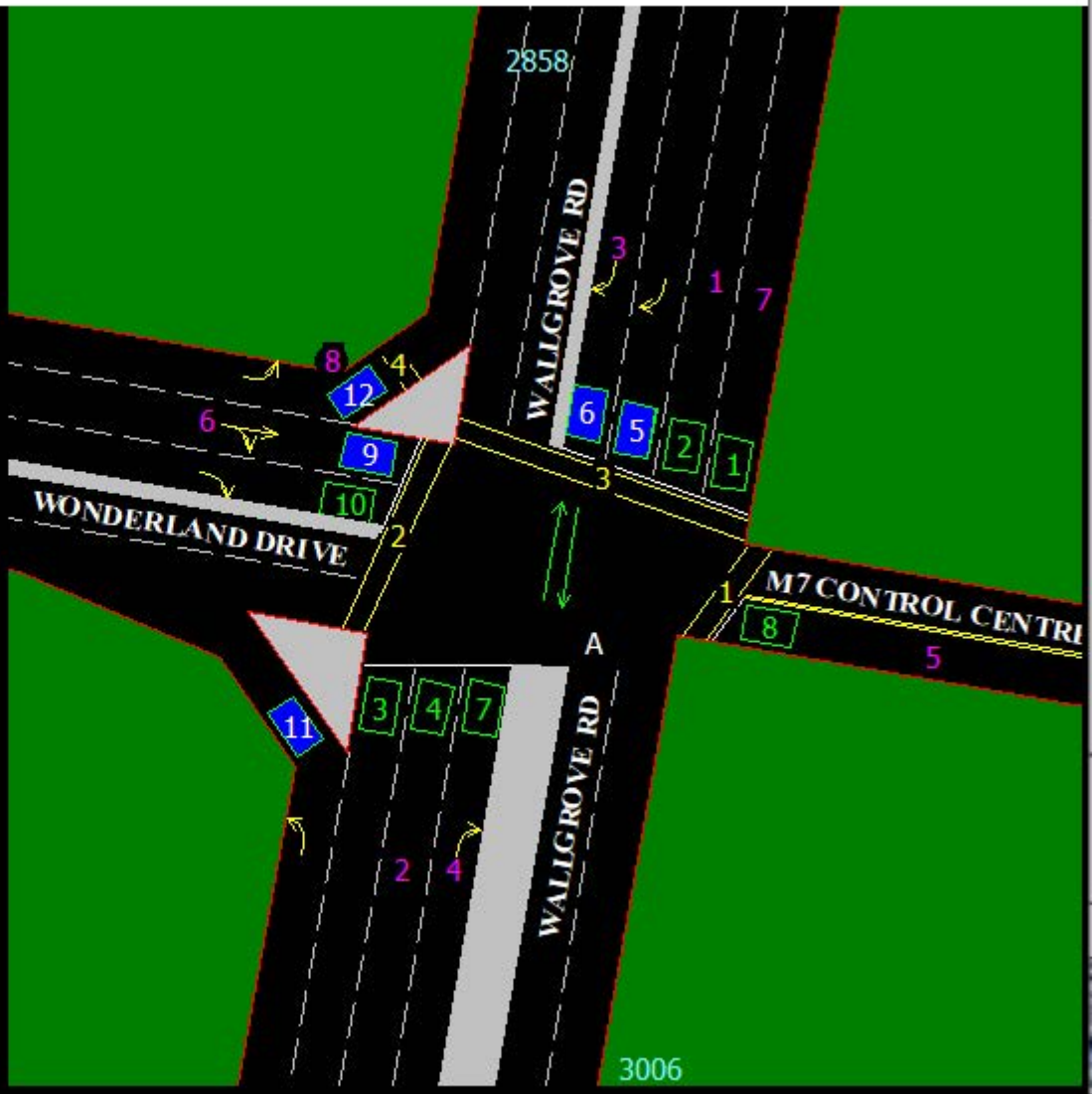
TCS 2643

EASTERN CREEK 187G16

DOON SS=12

8 PHASES

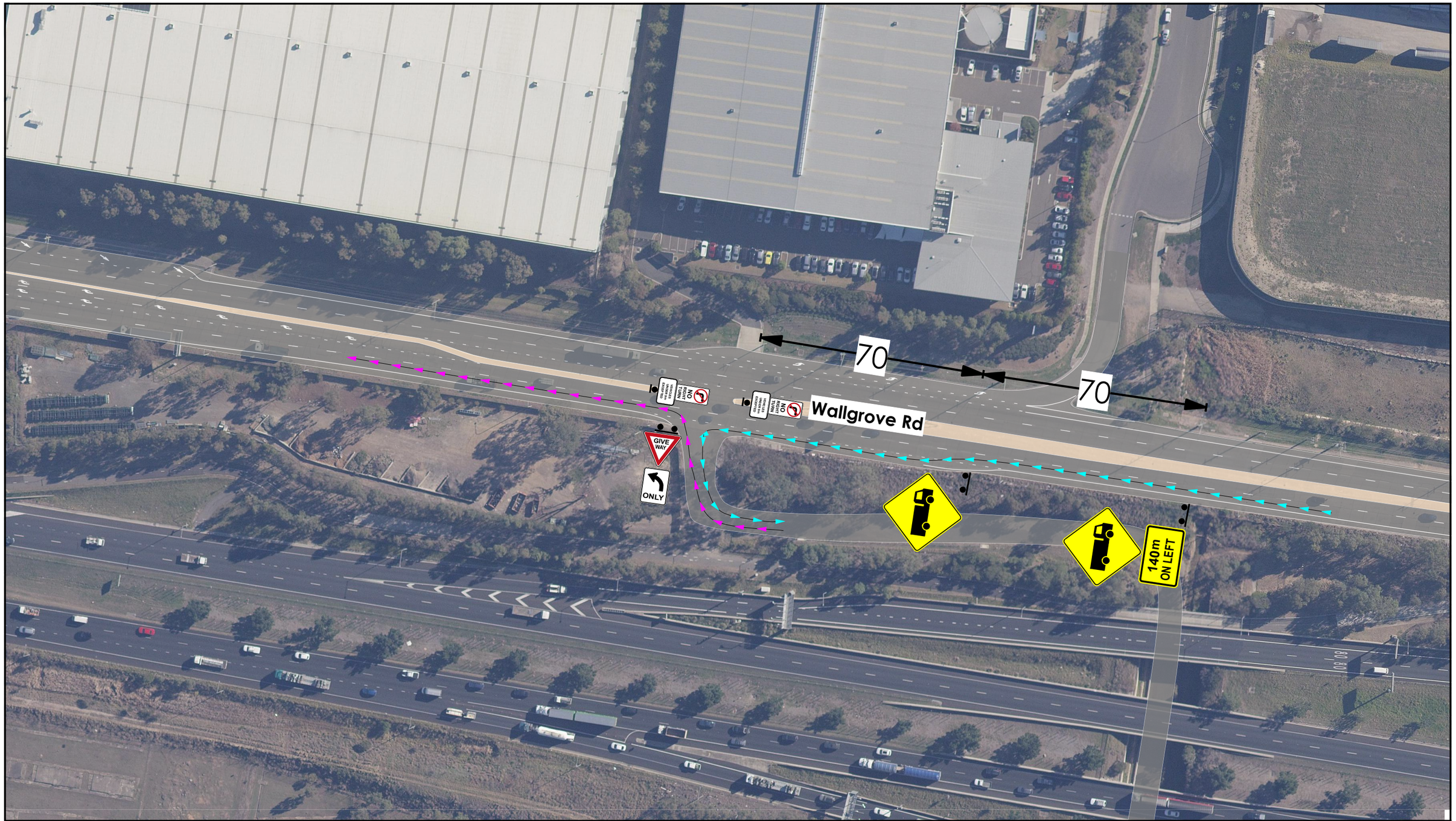




Date	Interval sta	Interval en	Detector 1	Detector 2	Detector 3	Detector 4	Detector 5	Detector 6	Detector 7	Detector 8	Detector 9	Detector 1	Detector 1	Detector 1	
Monday, 11 May 2020	12:00:00 A	1:00:00 AM	29	88	81	65	8	19	0	0	4	3	6	27	330
Monday, 11 May 2020	1:00:00 AM	2:00:00 AM	23	64	53	47	5	4	0	0	3	1	7	10	217
Monday, 11 May 2020	2:00:00 AM	3:00:00 AM	39	88	70	53	4	14	0	0	4	2	17	4	295
Monday, 11 May 2020	3:00:00 AM	4:00:00 AM	91	187	105	85	14	39	0	1	13	3	24	22	584
Monday, 11 May 2020	4:00:00 AM	5:00:00 AM	224	386	195	150	92	177	0	2	11	8	118	49	1412
Monday, 11 May 2020	5:00:00 AM	6:00:00 AM	416	672	266	184	174	336	4	4	32	13	269	101	2471
Monday, 11 May 2020	6:00:00 AM	7:00:00 AM	470	652	392	329	172	289	11	12	68	45	295	162	2897
Monday, 11 May 2020	7:00:00 AM	8:00:00 AM	478	672	386	271	140	244	5	11	67	47	271	215	2807
Monday, 11 May 2020	8:00:00 AM	9:00:00 AM	401	789	345	271	141	259	1	6	0	45	266	163	2687
Monday, 11 May 2020	9:00:00 AM	10:00:00 A	323	888	315	244	120	154	3	8	0	55	179	183	2472
Monday, 11 May 2020	10:00:00 A	11:00:00 A	368	800	336	278	115	70	4	7	0	61	187	187	2413
Monday, 11 May 2020	11:00:00 A	12:00:00 PI	343	722	325	242	101	90	1	9	1	62	169	234	2299
Monday, 11 May 2020	12:00:00 PI	1:00:00 PM	371	960	401	334	95	105	1	6	93	76	179	286	2907
Monday, 11 May 2020	1:00:00 PM	2:00:00 PM	377	907	461	385	120	162	3	6	108	120	171	407	3227
Monday, 11 May 2020	2:00:00 PM	3:00:00 PM	432	650	451	481	124	204	4	9	138	168	223	524	3408
Monday, 11 May 2020	3:00:00 PM	4:00:00 PM	474	626	480	367	84	107	3	7	122	145	137	472	3024
Monday, 11 May 2020	4:00:00 PM	5:00:00 PM	395	697	518	421	54	48	2	6	114	122	86	391	2854
Monday, 11 May 2020	5:00:00 PM	6:00:00 PM	323	650	486	361	38	38	5	13	88	95	51	348	2496
Monday, 11 May 2020	6:00:00 PM	7:00:00 PM	243	549	351	255	34	28	4	6	60	52	40	172	1794
Monday, 11 May 2020	7:00:00 PM	8:00:00 PM	143	190	243	187	19	32	10	4	27	20	29	67	971
Monday, 11 May 2020	8:00:00 PM	9:00:00 PM	119	143	180	115	14	17	0	16	11	18	28	59	720
Monday, 11 May 2020	9:00:00 PM	10:00:00 PI	104	220	196	139	23	36	0	2	20	21	31	92	884
Monday, 11 May 2020	10:00:00 PI	11:00:00 PI	107	178	178	150	12	35	0	0	28	25	17	159	889
Monday, 11 May 2020	11:00:00 PI	12:00:00 A	58	77	145	120	9	19	0	0	23	29	17	147	644

Appendix C

Traffic Control Plan



Compliance Notes:

1. Plans Scale 1:500
2. A or B size signs are to be used
3. 700mm cones are required with retroreflective bands
4. Cone spacing is in accordance with AGTTM-19
5. Appropriate PPE is to be worn for the conditions
6. Traffic Controllers to use radios when verbal communication is required
7. Any site specific conditions to be noted
8. All signs subject to +25%, -10% tolerances
9. Sign checks are required every hour
10. Any active Traffic Controllers to have escape route and 1.5 D sight site distance at their location
11. Drawn IAW AS 1742.3 2009, TCAWS V5 2018 & AGTTM-19

Designed by: Ronak Gandhi

License No: TCT 0063633

Signature:

Date: 23/09/2021

Legend

- Vehicle Egress
- Vehicle Ingress
- Work Area

ALLROAD GROUP

Client: AWJ

Site Specific Notes:

Long Term Works
Heavy Vehicles

Modifications are to be marked on the plan. Only current Work Zone Traffic Management card holders can amend TGSs

Project: **Walgrove Road**

Work Location: 165 Wallgrove Rd, Eastern Creek, NSW 2766

Drawing No: ARG 21-1142 TGS

Page: 01 of 01

www.invarion.com