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Traffic Guidance scheme installation:

Date: --/--/--

Traffic Guidance scheme installer:

Full Name: _____

ITCP or TCT: _____

Expiry Date/Issue Date: --/--/--

Signature : _____

Date: --/--/--

Traffic Guidance scheme Modifications:

Full Name: _____

PWZTMP or TCT: _____

Expiry Date/Issue Date: --/--/--

Signature : _____

Date: --/--/--

Traffic Modification Notes:

_____

_____

_____

_____

Work Notes

Work Location:	
TGS Information:	
Planners Info:	
Miscellaneous Info:	

Site Specific Notes

1. Workman signs are to be covered when there is no work currently being conducted on site.
2. The speed of traffic SHALL be reduced to 40 km/h when workers on foot are closer than 1.5m to traffic as per TfNSW - TCAWS V6.1 - Sec. 4.3.5, Table 4-3.
3. A PTCD sign relevant to the device used, such as Boom Barrier symbolic (T1-272n) or Signals symbolic sign (T1-30), or a Traffic Controller symbolic sign (T1-34) must be used to give advance warning of the presence of traffic control. A PREPARE TO STOP (T1-18) sign must also be used when traffic is required to stop at the traffic control location.
   The above signs must only be used when the traffic control is in operation and must be removed or covered up when traffic control is discontinued or during breaks, such as lunch as per TfNSW - TCAWS V6.1 - Sec. 5.4.3, Table 5-11.
4. Access to local businesses and driveways must be maintained during works. Unless otherwise shown on the TGS(s) and site specific notes. It is the Principal Contractors responsibility to seek permission prior to blocking public and private access.
5. Access to bus stops to be maintained whenever possible. Any impact to bus services such as bus stops within the TTM or the closure of bus lanes require the approval of the relevant bus companies.
6. Standard (700mm) cones must be positioned at a maximum spacing of 4m on approach to a traffic controller position (centerline or edge line) as per TfNSW - TCAWS V6.1 - Sec. 6.2.5, Table 6-2.
7. Signs should be duplicated for all lane status signs regardless of the vpd as per TfNSW - TCAWS V6.1 - Sec. 6.5.6 and all speed zone signs as per TfNSW - TCAWS V6.1 - Sec. 4.5.3
8. Whenever there are longer stopping times or long speed reduction zones are implemented, end of queue management is required and additional signs will need to be implemented.
9. A minimum lane width of 3m have to be maintained for traffic speeds < 65km/h
10. In accordance with Section 9.2 Record keeping of TTM documentation, roadwork speed zones must be inspected and associated documentation examined on a regular basis. The ITCP qualified person must ensure that speed restriction signs are properly erected, conflicting signs are covered and advance signs are in place, when inspecting the traffic control on the site.
11. 3.5 Meter travel lanes for traffic must be maintained to pass traffic in, around, past and though the site.
12. Road work speed zones must be duplicated or at 0.5D as per TCAWS requirements V 6.1.

Recording & Monitoring

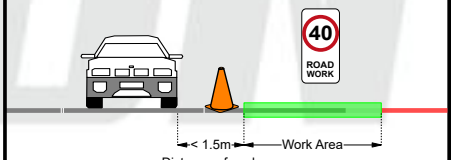
The worksite traffic control signs and devices must be inspected by the accredited traffic controller team leader who holds a PWZTMP who make regular inspections that are carried no less then twice a day. These results shall be recorded and any changes made are to be submitted to the principal contractor at completion of the shift. If there are any emergencies or incidents out onsite the contractor shall immediately notify the site supervisor and the emergency services.

Modification of TGS

An accredited traffic controller who holds a Prepare a work zone TMP ticket may make changes in accordance with Section 7.10.3 tolerance of the TCAWS V 6.1
Modifications must be recorded and signed on checklist onsite.
NOTES
This Traffic Guidance Scheme is developed by competent and experienced persons in accordance with the requirements outlined in the TfNSW TCAWS V 6.1 AS 1742.3 and Road Management Act 2004 a completed and signed Risk Assessment and SWIMS must be present onsite at all times.
IMPLEMENTATION
A person with a PWZTMP and ITCP must ensure the implemented work area is maintained by the implemented TGS out on site . any modifications must be implemented and recorded in the shift paperwork. Traffic Logistics does not accept liability of the implementation of this TGS when not directly involved in carryingout the works out on site.

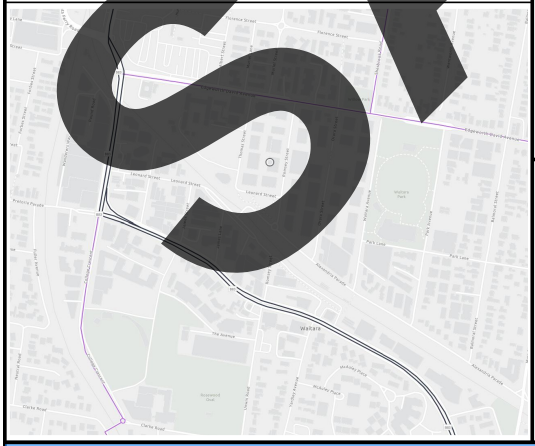
TCAWS V6.1, Sec. 4.3.5: Work Area Protection

Recommended controls for static, short-term work

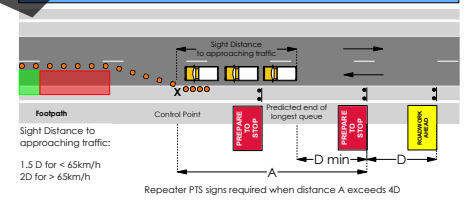


NSW Road Network Classification Map

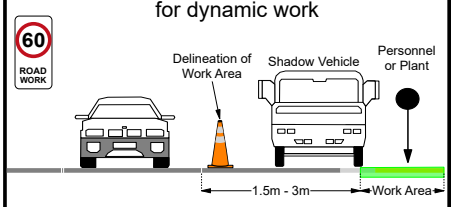
State Road
Regional Road



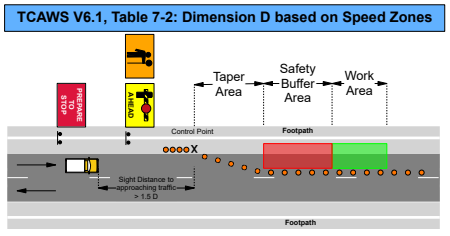
TCAWS V6.1, Sec. 4.6.3: End-of-Queue Management



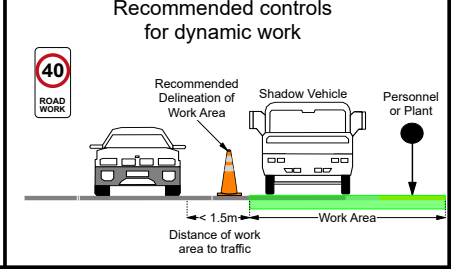
Recommended controls for dynamic work



TCAWS V6.1, Table 7-2: Dimension D based on Speed Zones



Recommended controls for dynamic work



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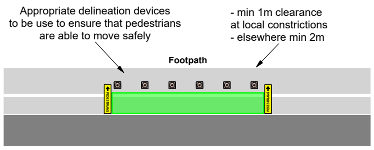
TCAWS V6.1, Table 4.4.2: Pedestrians

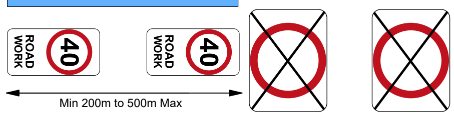


- Signposts to indicate the direction of footway must be adequate
- TC's may need to be positioned to guide and assist pedestrians

Speed Sign Covering/Repeaters

Speed Reduction Signage to be be repeated between 200M to 500 Meters Max

Any Existing Speed signs are to be covered up that are located inside the speed reduction zone



TCAWS V6.1, Sec 6.5.6 Duplication of Signs

Signs should be duplicated:

- On multilane roads with volumes of 10,000 vpd or greater;
- For lane status signs (T2-6-1, T2-6-2 etc.) regardless of vpd;
- On the outside of left hand curves where the sign is seen on approach to the work area;
- On medians of dual carriageways where parked vehicles or other objects obscure kerb side/footpath signs; and
- At other locations where conditions are such that duplicate signs improve safety and guidance as identified in the TMP or risk assessment.

Duplication of signs should not be used, where:

- It will introduce potential safety risks during installation;
- It will be necessary to cross the road on foot carrying signs;
- The shoulder is too narrow to position the signs or to park the work vehicle; or
- The duplicated signs have too large a lateral offset as to not be obvious to motorists e.g. on a six lane, two-way undivided road.

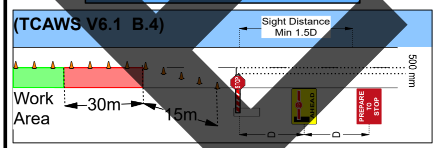
TCAWS V6.1, Sec. 5.3.5

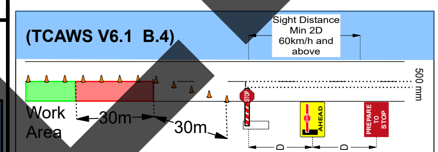
Stop/Slow	VMS Board/C-Class	Signs Requirement	PPE
- PTCDs or TCs with Stop/Slow bats must be clearly visible to road users - ITCP, works supervisors or team leaders must ensure that do not adversely affect road users and adjacent properties	- on high speed roads, high volume roads and busy roads in build-up areas, flashing arrow signs must be used at night - back-up units are made available on critical works	- Standard signs must be used for night works - All signs must have either Class 400 or Class 400T yellow sheeting	- approved Class N Hi-Vis clothing for night-time works that conform with AS 4602.1 must be worn - Any additional PPE must be worn as required - PPE must be clean and bright

TCAWS V6.1, Table 5-13: Min Sight Distance

Existing Permanent Speed [km/h]	Length of Work Area [L]	Minimum Clear Sight Distance to oncoming traffic
less than 105	less than 60m	300m
less than 105	greater than or equal to 60m	L + 250m
greater than 105	less than 60m	400m
greater than 105	greater than or equal to 60m	L + 350m

Boom Gates Operation: 50km/h & Above





TCAWS V6.1, Table 7-10: Permitted Tolerences for positioning of signs and devices

Tolerence	Positioning of signs, length of taper or marking	Spacing of delineating devices
Minimum	10% less than the distances or lengths given	Nil
Maximum	25% more than the distances or lengths given	10% more than the spacing shown

TCAWS V6.1, Table 6-3: Sign spacing requirements

Tolerance	Approaching speed	
	less than 65km/h	65km/h or greater
Minimum	D	2D
Maximum	D	D

Pedestrian and Cyclist Management

All pedestrian & cyclist control measures, for the duration of the construction works will be monitored as required for effectiveness & improvements. Appropriate warning signage and directional signage will be in place and monitored throughout the works as per the provided TGS's attached to this document. Where current documented control measures are ineffective, A PWZTMP qualified person(s) should be contacted to suggest changes.

Risk Assessment to develop a Site Specific TGS

#	Task	Hazard	Risk Rating	Control Measures	Residule Risk Rating	Staff responsible for control measures
1	Implementation of approved traffic control devices	Struck by vehicle Manual Handling Slips, Trips & Falls Cuts & Abrasions	4B	- Follow safe work methods outlined in SWMS - Set up off drop deck, use cover vehicle & or TMA at all times - Clear communication with spotter/driver with potential oncoming motorists - Must use fall restraint when on drop deck	3C	All Site Staff
2	Working on foot implementation of delineation devices as per TGS	Struck by vehicle Manual Handling Slips, Trips & Falls Cuts & Abrasions	4B	- Follow safe work methods outlined in SWMS - Set up off drop deck, use cover vehicle & or TMA at all times -Clear communication with spotter/driver with potential oncoming motorists	3C	All Site Staff
3	Stopping traffic at Control Point or cross over points	Struck by vehicle Slips, Trips & Falls	4C	- Only stop traffic with approved PCTD - Select safe stopping distance - Ensure correct amount of TC's are onsite to safely & effectively manage traffic flow as per TGS - TC'S MUST HAVE ESCAPE ROUTE	3D	All Site Staff
4	Handling irritated and upset motorists and other road users	Struck by vehicle Verbal, Physical, Mental Abuse	3C	- Do not engage with irate MOP/ Motorist - Report incident to TL immediately - Deescalate the situation by continuing with your duties, until TL or representative is available to handle the situation - TC'S MUST HAVE ESCAPE ROUTE	3D	All Site Staff
5	Pedestrians within work zones & exclusion zones	Struck by vehicle Verbal, Physical, Mental Abuse Slips, Trips & Falls	4B	- Set up clear exclusion zones for MOP & WOF, around works zones - Where practical us physical barrier or delineation to guide MOP / WOF safely around exclusion zone - Ensure the correct amount of TC's are onsite to effectively manage the work site	3C	All Site Staff
6	Performing Dynamic Works (Mobile Works) Including set up & Pack down	Vehicle collision Vehicle Interaction with WOF / MOP	4C	- Abide by safe distances outlined in TCAWS V 6.1 between vehicles - Use Cover/tail/shadow vehicle & Or TMA where possible - Avoid WOF if possible - Follow Safe Work Methods outlined in SWMS	4D	All Site Staff
7	Performing Works behind delineation devices	Vehicles crashing into worksite due to driver distraction	5C	- ensure that SZR is in place, advanced warning signs are readable - workers have an escape route - appropriate lighting on site - min distance of 1.5m from live traffic is maintained	3C	All Site Staff
8	Emergency Services wanting to get past work area	Emergency Services being delayed due to TTM set-up	4B	- Emergency Services have to be informed prior to the commencement of works - emergency services have to be given priority of other traffic at all times	2C	All Site Staff
9	Inclement Weather	Poor weather conditions resulting in poor visibilty	4C	- Advance warning signs have to be easily readable - appropriate lighting on site - workers have to wear weather appropriate PPE - if conditions are too bad works need to be stopped	2C	All Site Staff

LIKELIHOOD	CONSEQUENCES				
	1. Insignificant	2. Minor	3. Major	4. Severe	5. Catastrophic
A. Almost Certain	Medium (1A)	High (2A)	Extreme (3A)	Extreme (4A)	Extreme (5A)
B. Likely	Medium (1B)	High (2B)	High (3B)	Extreme (4B)	Extreme (5B)
C. Possible	Low (1C)	Medium (2C)	High (3C)	High (4C)	Extreme (5C)
D. Unlikely	Low (1D)	Low (2D)	Medium (3D)	High (4D)	Extreme (5D)
E. Rare	Low (1E)	Low (2E)	Low (3E)	Medium (4E)	High (5E)

4 Extreme	URGENT - Stop work immediately, the risk requires immediate attention
3 High	Continue with supervision and control measures in SWMS or site risk assessment
2 Medium	Use control measures to ensure risk is low as reasonably possible
1 Low	Use control measures to keep risk low

General Notes

1. The designer of the TGS must hold a current PWZTMP qualification issued by Safe Work NSW
2. The TGS must be prepared in accordance with TfNSW - TCAWS V6.1 (issued on 28 Feb 2022). Any departures in situations were the min. Requirements contained in the TCAWS are not achievable, or are not achieving the required level of risk management must be documented as per Sec. 2.8.
3. The TGS MUST be read in conjunction with the associated risk assessment.
4. It is the clients responsibility to have all necessary permits on site before commencing works.
5. The TGS SHALL ONLY be implemented by either an "Implements Traffic Control Plan" ITCP or "Prepare Work Zone Traffic Management Plan" PWZTMP qualified person.
6. Before the commencement of works, a toolbox talk needs to be held.
7. A "TTM Inspection checklist" must be filled out prior to the implementation of the TGS and a "Post site inspection confirmation" must be filled out after the completion of works as per TfNSW - TCAWS V6.1 - Appendix E3 & E4.
8. Traffic Controllers need to identify and make note of escape routes prior to the commencement of works.
9. Hand held UHF radios are to be utilized where required to communicate between traffic control & site vehicles.
10. The Principal contractor has to notify local Emergency Services prior to the commencement of works.
11. Traffic Controllers have to ensure that the ROL (if required) has been activated prior to each shift and deactivated once shift has ended via the TMC web app.
12. Advance signs SHALL be mounted at a minimum height of 200mm displayed as prominently as possible by selecting the longitudinal location of the sign for best sight distance for approaching traffic. Signs continuously required for works which will be in progress for periods longer than 2 weeks should be erected in a permanent manner, e.g. on posts sunk into the ground, and duplicated on the right side of the road.
13. Traffic volumes should be monitored throughout the implementation of the TGS(s). In the event queue lengths become unmanageable, works should cease if possible and traffic cleared before recommencing.

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TCAWS V6.1, Table 7-3: Recommended taper lengths

	Recommended Taper Length [m]		
Speed [km/h]	**Traffic Control Taper**	**Lateral Shift Taper**	**Merge Taper**
45 or less	15	15	15
46 to 55	15	15	30
56 to 65	30	30	60
66 to 75	N/A	70	115
76 to 85	N/A	80	130
86 to 95	N/A	90	145
96 to 105	N/A	100	160
Greater than 105	N/A	110	180

Note to Table 7-3: Speed is defined as the speed [km/h] of traffic at a position in the TGS where a device is located (e.g. start of a taper). This should be one of the following, in order of preference:

- The measured speed
- The predicted speed of traffic
- The preceding roadwork speed zone in accordance with Section 7.3 Dimension D; or
- The existing posted speed limit

Implementation Instructions

Before work commences, signs and devices at the approaches to and within the work area SHALL be implemented in accordance with the approved Traffic Guidance Schemes and the Traffic Control Companies Safe Work Method Statements, in the following sequence:

1) Traffic Controllers implementing signage are to ensure all signage is available for implementation prior to shift.
2) Signs & devices in side streets leading into the works are to be implemented first. Where required, detours are to be in place before commencing any closures.
3) All signage on arterial and main road alignments to be implemented with the flow of traffic.
4) Signs are to be implemented in all non affected lane(s) first and all conflicting signs are to be covered.
5) Signs in the affected lane to be implemented; Taper, Speed Reduction, Safety buffer (if applicable), and Delineation to be implemented with the traffic flow. Conflicting signs to be covered in process.
6) Ensure signs & devices are correct before works commence.
7) Once works have finished, Traffic Control are to pick up delineation and taper's in reverse. Then pick up advance warning signs with the flow of traffic.
8) A TGS must be installed, maintained and removed in a planned and safe manner. The implementation of a TGS must only be undertaken by an ITCP qualified person. (TfNSW - TCAWS V6.1 - Sec. 7.10.1)
9) Signs and traffic control devices must be installed in a sequence via GPS, survey, landmarks, side streets or chainage in accordance with TCAWS V6.1 - Sec. 6.4 and AGTTM Sec. 6.2
10) An implementation TGS should be provided if the risk of implementation is deemed high. The sequence of implementation should be determined as part of the drafting process in TGS or SWMS, rather than being determined on-site. (TfNSW - TCAWS V6.1 - Sec. 7.10.2)

TCAWS V6.1, Table 6-2: Spacing of cones and bollards

Purpose and usage	Speed zone of device location [km/h]	Maximum spacing [m]
On approach to a traffic controller position (centerline or edge line)	All cases	4
Merge Tapers	55 to 75 greater than 75	9 12
Lateral shift tapers	55 to 75 greater than 75	12 18
Protecting freshly painted lines	55 to 75 greater than 75	24 60*
All other purposes	less than or equal to 55 56 to 75 greater than 76	4 12 18

Pedestrian Management Options Analysis

Options Available	THROUGH	PAST	AROUND
Options Selected	**Selected**	**Selected**	**Selected**

Traffic Management Options Analysis

OPTION	DESCRIPTION	METHOD TYPE	TGS SELECTED
AROUND	Vehicles detoured via existing road network or sidetrack	Full road closure / One-way road closure / Detour	Selected
PAST	Vehicles past delineated work zones	Lateral Shift	
		Shoulder closure	
		Contraflow (2 way traffic maintained)	
		Single or Multi Lane Closure	Selected
		Single Lane Shuttle Flow	Selected
THROUGH	Vehicles through work zone	Temporary Road Closure / Hold & Release / Local Traffic Access / Pilot Vehicle	

Cyclist Management Options Analysis

Options Available	THROUGH	PAST	AROUND
Options Selected	**Selected**	**Selected**	**Selected**

Dimension "D" (Romsey Street)	**50**	**meters**
Dimension "D" (Edgeworth Ave)	**50**	**meters**

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Hierarchy of Controls Framework

Eliminate	Removing the risk of live traffic	Use of **around** TTM methods (detours) or eliminating activities through design
Substitute	Replacing people with devices to perform the work required	Replacing workers on foot with devices, such as tractor mowing or use of PTCDs
Isolate	Separating workers from traffic with a form of barrier or protection	Using **past** TTM methods including approved safety barriers
Engineer	Providing a physical change to protect workers	Use of TMA's, lighting or temporary portable rumble strips
Training & Admin	That rely on the road user following directions	Use of **through** TTM methods including cones, bollards and delineation
PPE	Increasing workers visibility with PPE	High visibility clothing with retro-reflective banding

Risk Evaluation Matrix

Risk Rating: Very High VH, High H, Medium M, Low L

LIKELIHOOD			CONSEQUENCE					
			Insignificant C6	Minor C5	Moderate C4	Major C3	Severe C2	Catastrophic C1
	Almost Certain	L1	M	H	H	VH	VH	VH
	Very Likely	L2	M	M	H	H	VH	VH
	Likely	L3	L	M	M	H	H	VH
	Unlikely	L4	L	L	M	M	H	H
	Very Unlikely	L5	L	L	L	M	M	H
	Almost Unprecedented	L6	L	L	L	L	M	M

LIKELIHOOD MEASURES	
Almost Certain	Expected to occur multiple times (10 or more times) during any given year (more than 25% chance of occurrence) This risk is known to occur frequently.
Very Likely	Expected to occur occasionally (1 to 10 times) during any given year (10 to 25% chance of occurrence) This risk is known to occur often.
Likely	Expected to occur once during any given year (1 to 10% chance of occurrence) This risk is known to have occurred on occasions.
Unlikely	Expected to occur once every 1 to10 years (0.1 to 1.0% chance of occurrence) This risk could occur but not often.
Very Unlikely	Expected to occur once every 10 to100 years (0.01 to 0.1% chance of occurrence) It is unusual that this risk occurs but it has happened.
Almost Unprecedented	Not expected to occur in the next 100 years (less than once every 100 years)(less than 0.01% chance of occurrence) Any risk can occur but it is very improbable that this risk will occur within the large number of events.

CONSEQUENCE MEASURES	
Insignificant	Illness, first aid or injury not requiring medical treatment. No lost time
Minor	Minor injury or illness requiring medical treatment. No lost time post medical treatment
Moderate	Minor injuries or illnesses resulting in lost time
Major	1 to 10 serious injuries or illnesses* resulting in lost time or potential permanent impairment
Severe	Single fatality and/or 11 to 20 serious injuries or illnesses* resulting in lost time or potential permanent impairment
Catastrophic	Multiple fatalities and/or more than 20 serious injuries or illnesses* resulting in lost time or potential permanent impairment

* serious injury or illness is defined by the WHS Act section 36

Risk Assessment

Item No	Task	Hazard	Initial Risk	Control Measures	Resid. Risk
1	TGS is designed/ implemented by unqualified person	Wrong TTM set-up designed for works/ signs and devices not correctly installed	H L3/C2	- TGSs & TMP are only designed by PWZ Qualified person and TTM set-ups are in accordance with TCAWS Manual V6.1, AGTTM 2021 & AS1742.3 - TGSs are implemented by PWZ or IMP qualified person	M L5/C3
2	Traffic Control	Motorist distracted and collides with end of queue or traffic controller	VM L2/C2	- TGSs are designed & implemented by qualified personnel and are in accordance with TCAWS Manual V6.1, AGTTM 2021& AS1742.3 - appropriate sight distance is maintained - review TTM set-up if conditions have changed - conduct regular inspection in accordance with TCAWS Manual V6.1, AGTTM 2021& AS1742.3 - rectify any deficiencies as matter for urgency	M L4/C3
3	Manual Traffic Control used instead of PTCD in high risk environment	Traffic Controller hit by vehicle	VM L2/C2	- consider use of shadow vehicles if practical, or other type of static hard cover available - ensure best possible escape route considered when allocating control point on TGS -> to be reassessed onsite continuously - ensure best line of sight where practical, should the best line of sight not be possible, repeater signs in advance warning to be used - traffic controller to always remain clear from travelled path - ensure appropriate speed signage has been installed and meets minimum and maximum length requirements	M L4/C3
4	Work Area adjacent to travel lane	Motorist collides with workers, traffic controller, vehicles or plant	VM L2/C2	Always: - install workman T1-5 sign if workers on road - space cones in accordance with TCAWS Manual V6.1 - check set up before commencing work - reduce speed based on lateral clearance between the work area and travel lane Consider: - using a shadow vehicle(s) with flashing lights to protect workers - using spotters with workers - using safety barriers for long term works	M L4/C3
5	Lane Closure	Motorist fails to merge and collides with workers, traffic controller, vehicles or plant	VM L2/C2	Always: - install merge taper length in accordance with TCAWS Manual V6.1 - install Lane Status Signs and either duplicate them on the other side of the road or 0.5D past the initial Lane Status Sign - install a 30m Safety Buffer Zone between end of taper and start of work area - check setup before commencing work - ensure appropriate sight distance for the beginning of the taper Consider: - using a shadow vehicle(s) with flashing lights to protect workers	M L4/C3
6	Side Roads	Motorist enters work site from side road and collides with workers	H L2/C4	Always: - always install advanced warning signs for motorists entering from side roads in advance of work area - Speed Limit signs must be erected where traffic enters from a side road within a roadworks speed zone	M L4/C4
7	Roadwork Speed Zones	Motorist disobeying the posted RW Speed Zone and travel too fast for the site conditions and cause a MVA	VM L2/C2	- Ensure speed zones are designed in accordance with with TCAWS Manual V6.1, AGTTM 2021 & AS1742.3 - Ensure speed zoning is consistent with the work activity, location of work area and road environment. - Consider the use of VSLSs or RASS to monitor traffic speeds and advise motorists. - Review the TGS and adjust where possible to achieve speed zone compliance as per TCAWS Manual V6.1 - Sec 4.5.7	M L4/C3
8	Lane Closure Poor sight distance/ Speed compliance/ Approach speed > 85km/h/ Multi lane roads with traffic volume > 10,000vpd	Not enough reaction time due to speeding/ poor sight distance/ large traffic volumes, motorist fails to merge and collides with workers, traffic controller, vehicles or plant	VM L2/C2	Always: - Install "RW 1km Ahead" if approach speed is > 85km/h or sight distance is less than 150m - Use 700mm cones where traffic speed is greater than 75km/h - Use 900mm cones on high speed to high volume roads (e.g., expressway) or on any work site where increased visibility is required - Duplicate Lane Status sign on either the other side of the road or 0.5m from start of 1st Lane Status sign -> On multi-lane roads where there is no room for duplicate signs on medians, consideration should be given to placing supplementary signs on the left hand side.	M L4/C3
9	Night Works	Due to poor visibility of road/ work site, worker/ Traffic Controllers motorist collides with end of queue, worker, vehicle or plant	VM L2/C2	Consider providing portable lighting to ensure traffic controllers are visible and ensure the positions of any temporary lighting are clearly shown on the TGS - Always use applicable PPE for the conditions	M L4/C3

Risk Assessment

Item No	Task	Hazard	Initial Risk	Control Measures	Resid. Risk
10	Changed traffic conditions (eg no line marking, changed line marking, forbidden turning movements, detours)	Motorist confused due to lack/ change of line marking, attempts forbidden turning movement causing MVA	H L2/C3	Always: - install RWA (T1-1) sign when traffic conditions change - install delineation or temp. line marking which has to be clearly visible in TGS - use traffic control to manage changed traffic conditions where required - check set-up before commencing work and during - install RW Speed Zone if conditions call for it which suit the road conditions Consider: - use VMSs	M L4/C4
11	Weather Conditions - rains - wind - fog - snow	Weather conditions reduces visibility and wet road surface causes road to be slippery increasing the risk of a collision with workers, plant or other motorists, wind blows signs over	H L2/C3	Always: - monitor weather and traffic - check setup to ensure signs are visible on a regular basis. If visibility has been obstructed, consider shifting signs, duplicate, or repeat. Consider: - additional advance warning signage - liaise with client to reconsider stop works and postpone then until weather conditions have eased	M L3/C4
12	Delays due to queued traffic beyond advanced warning signs	Weather conditions reduces visibility and wet road surface causes road to be slippery increasing the risk of a collision with workers, plant or other motorists, wind blows signs over	H L2/C3	Always: - work in accordance with the approved Permit/ ROL - use two-way communication with trucks and give them priority whenever possible - monitor queue lengths - install additional signs or use additional traffic controllers or stop work and clear traffic if end of queue extends beyond the advance warning signs as per TCAWS V6.1, Sec. 4.6.3: End-of-Queue Management - give emergency vehicles & wide loads priority (i.e. stop work & traffic) Consider: - working outside peak periods - liaising with TMC for assistance with traffic signal phasing - using VMS's - notifying emergency services - use of flashing beacon to be added to advance warning signage - use of queue monitors - ensure TGS has been designed to cater for the predicted queue lengths where required.	M L4/C3
13	After Care	Inadequate signage resulting in motorist loosing control and crashing or motorist becomes frustrated due to inappropriate signage	H L2/C3	Always: - install RWA (T1-1) if diverting traffic along a sidetrack, detour, or unexpected conditions, such as loose stones or the absence of line marking - cover any signs that are not applicable - erect condition signs as per TCAWS V6.1, Sec. 7.7.5: Aftercare - aftercare speed limit to suit road conditions	M L3/C4
14	Pedestrians & Cyclists	Pedestrian and/or cyclist enters the work area or travel lane and get hit by motorist or plant	VH L1/C3	Always: - ensure TGS design caters for all road users including pedestrians and cyclists. - always clearly delineate the work area. - do not obstruct pedestrian and cyclists travel paths with traffic control signs and devices - consider the use of additional warning and guidance signage for pedestrians, cyclists and motorists. - comply with shoulder and lane width criteria in the design of the TGS. - Ensure the use of existing or temporary ramps for crossing points. - undertake consultation to determine existing travel paths, desire lines, volumes, and types of users Consider: - use of traffic control at crossing points especially where contra-flow arrangements are in place - use of additional traffic controllers to monitor and assist pedestrian and cyclist movements where required	M L4/C3
15	Construction Vehicle Movements/ Plant Movements	Construction vehicle/ Plant collides with motorist, workers, traffic controller or other construction vehicle/ plant	H L3/C3	Always: - ensure communication between drivers & traffic controllers via radio - construction vehicles/ plants have to give way to pedestrians, cyclists and live traffic - construction vehicles are only allowed to enter & leave site via "left in, left out" movements, where not possible Traffic controllers have to manage construction vehicles/ plants entering & leaving the site Consider: - using Traffic Control and/or Spotters to manage work vehicles - internal vehicle movement plan	M L3/C4

Notes

Site Specific Notes

1. Traffic Controllers have to ensure that signs that are not needed for aftercare TGSs are covered as per TINSW - TCAWS V6.1 - Sec. 7.10.1
2. The speed of traffic SHALL be reduced to 40 km/h when workers on foot are closer than 1.5m to traffic as per TINSW - TCAWS V6.1 - Sec. 4.3.5, Table 4-3.
3. A PTCD sign relevant to the device used, such as Boom Barrier symbolic (T1-272n) or Signals symbolic sign (T1-30), or a Traffic Controller symbolic sign (T1-34) must be used to give advance warning of the presence of traffic control. A PREPARE TO STOP (T1-18) sign must also be used when traffic is required to stop at the traffic control location. The above signs must only be used when the traffic control is in operation and must be removed or covered up when traffic control is discontinued or during breaks, such as lunch as per TINSW - TCAWS V6.1 - Sec. 5.4.3, Table 5-11.
4. Access to local businesses and driveways will be maintained during works. Unless otherwise shown on the TGS(s) and site specific notes. It is the Principal Contractors responsibility to seek permission prior to blocking public and private access.
5. Access to bus stops to be maintained whenever possible. Any impact to bus services such as bus stops within the TTM or the closure of bus lanes require the approval of the relevant bus companies.
6. Standard (700mm) cones must be positioned at a maximum spacing of 4m on approach to a traffic controller position (centerline or edge line) as per TINSW - TCAWS V6.1 - Sec. 6.2.5, Table 6-2.
7. Signs should be duplicated for all lane status signs regardless of the vpd as per TINSW - TCAWS V6.1 - Sec. 6.5.6 and all speed zone signs as per TINSW - TCAWS V6.1 - Sec. 4.5.5
8. As per TINSW - TCAWS V6.1 - Sec. 4.6.3 where the maximum queue length can be predicted in advance, the primary PREPARE TO STOP sign must be located such that the distance from this sign to the end of the queue is not less than D, see Figure 4-4. The B size PREPARE TO STOP sign should be used in this application. The distance may need to be adjusted if the queue length proves to be underestimated. If the primary PREPARE TO STOP sign needs to be placed more than 4D, approximately 15 seconds of travel time from the control point, repeater PREPARE TO STOP signs at intervals of not more than 4D should be provided between that point and the control point to provide for conditions after the queue has dispersed. In any relocation of the primary PREPARE TO STOP sign, the distance D to the roadwork ahead sign must be maintained.
9. A minimum lane width of 3m have to be maintained for traffic speeds < 65km/h
10. In accordance with Section 8.2 Record keeping of TTM documentation, roadwork speed zones must be inspected and associated documentation examined on a regular basis. The ITCP qualified person must ensure that speed restriction signs are properly erected, conflicting signs are covered and advance signs are in place, when inspecting the traffic control on the site.

Implementation Instructions

Before work commences, signs and devices at the approaches to and within the work area SHALL be implemented in accordance with the approved Traffic Guidance Schemes and the Traffic Control Companies Safe Work Method Statements, in the following sequence:

1) Traffic Controllers implementing signage are to ensure all signage is available for implementation prior to shift.
2) Signs & devices in side streets leading into the works are to be implemented first. Where required, detours are to be in place before commencing any closures.
3) All signage on arterial and main road alignments to be implemented with the flow of traffic.
4) Signs are to be implemented in all non affected lane(s) first and all conflicting signs are to be covered.
5) Signs in the affected lane to be implemented; Taper, Speed Reduction, Safety buffer (if applicable), and Delineation to be implemented with the traffic flow. Conflicting signs to be covered in process.
6) Ensure signs & devices are correct before works commence.
7) Once works have finished, Traffic Control are to pick up delineation and taper's in reverse. Then pick up advance warning signs with the flow of traffic.
8) A TGS must be installed, maintained and removed in a planned and safe manner. The implementation of a TGS must only be undertaken by an IMP qualified person. (TINSW - TCAWS V6.1 - Sec. 7.10.1)
9) Signs and traffic control devices must be installed in a sequence via GPS, survey, landmarks, side streets or chainage in accordance with TCAWS V6.1 - Sec. 6.4 and AGTTM Sec. 6.2
10) An implementation TGS should be provided if the risk of implementation is deemed high. The sequence of implementation should be determined as part of the drafting process in TGS or SWMS, rather than being determined on-site. (TINSW - TCAWS V6.1 - Sec. 7.10.2)

General Notes

1. The designer of the TGS must hold a current PWZ qualification issued by Safe Work NSW
2. The TGS must be prepared in accordance with TINSW - TCAWS V6.1 (issued on 28 Feb 2022). Any departures in situations were the min. requirements contained in the TCAWS are not achievable, or are not achieving the required level of risk management must be documented as per Sec. 2.8.
3. The TGS MUST be read in conjunction with the associated risk assessment.
4. It is the clients responsibility to have all necessary permits on site before commencing works.
5. The TGS SHALL ONLY be implemented by either an "Implements Traffic Control Plan" ITCP or "Prepare Work Zone Traffic Management Plan" PWZTMP qualified person.
6. Before the commencement of works, a toolbox talk needs to be held.
7. A "TTM Inspection checklist" must be filled out prior to the implementation of the TGS and a "Post site inspection confirmation" must be filled out after the completion of works as per TINSW - TCAWS V6.1 - Appendix E3 & E4.
8. Traffic Controllers need to identify and make note of escape routes prior to the commencement of works.
9. Hand held UHF radios are to be utilized where required to communicate between traffic control & site vehicles.
10. The Principal contractor has to notify local Emergency Services prior to the commencement of works.
11. Traffic Controllers have to ensure that the ROL (if required) has been activated prior to each shift and deactivated once shift has ended via the TMC web app.
12. Advance signs SHALL be mounted at a minimum height of 200mm displayed as prominently as possible by selecting the longitudinal location of the sign for best sight distance for approaching traffic. Signs continuously required for works which will be in progress for periods longer than 2 weeks should be erected in a permanent manner, e.g. on posts sunk into the ground, and duplicated on the right side of the road.
13. Traffic volumes should be monitored throughout the implementation of the TGS(s). In the event queue lengths become unmanageable, works should cease if possible and traffic cleared before recommencing.

Pedestrian and Cyclist Management

All pedestrian & cyclist control measures, for the duration of the construction works will be monitored as required for effectiveness & improvements. Appropriate warning signage and directional signage will be in place and monitored throughout the works as per the provided TGS's attached to this document. Where current documented control measures are ineffective, A PWZTMP qualified person(s) should be contacted to suggest changes.

Adjustment & Modification of TGS

IMP Qualification Holders:

ITCP qualified person must ensure that the TGS is implemented as approved. Minor adjustments can be completed in accordance with TINSW - TCAWS V6.1 - Sec. 7.10.3, Modifications will be recorded on the TGS checklist and a signed copy will be available on-site.

PWZ Qualification Holders:

- Modifications to a Site Specific TGS must be approved by a PWZTMP holder or another relevant qualification holder. Modifications must be supported by a TMP or risk assessment to ensure that all site-specific conditions and risks have been considered and mitigation measurements identified and implemented in the TGSs
- If risk is identified during the implementation of the TGS and requires modification outside of the tolerance, works must be stopped until an updated TGS is drafted and approved by a PWZ qualified person prior to works recommencing. (TINSW - TCAWS V6.1 - Sec. 7.10.4)
- Any anomalies or inconsistencies found in the TGSs being used must be recorded and reported back to the PWZ qualified TGS designer.

FALGUN	Project Information	Client Information	TGS REVISIONS			Review Date:	TGS Verification/Review Information		Falgun do not accept responsibility of this traffic control plan if it is not implemented by Falgun Pty Ltd
Email: harpreet@falgun.com.au Phone: 0469435505 Web: Head office: Sydney LinkedIn: falgun-pty-ltd	Scope of Work: Asphalt Work	Company Logo:	Ver.	Date	Description	TGS No:	Designed by:		
			01.		Sent to client		PWZ Card No:		
	Location: 17-21 Romsey St, Waitara NSW 2077	Representative Name:	02.	--/--/----		TMP No: -	Signature:		
		Contact Number:	03.	--/--/----		North Code:	Reviewed by:		
							PWZ Card No:		
							Signature:		

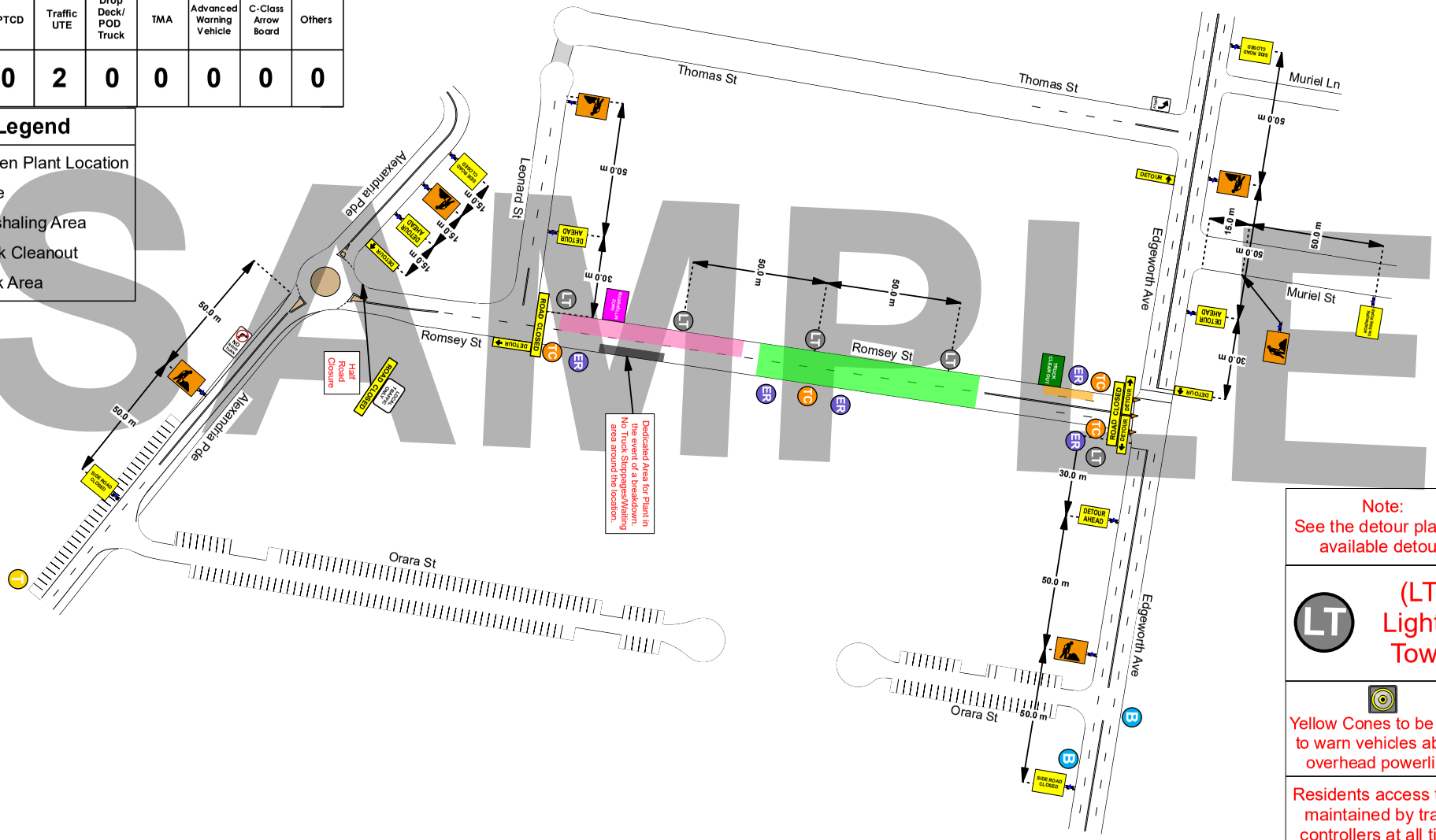
This TGS is to be setup and packed up by qualified traffic controllers with minimum current Implement Traffic Control Plans. Any modifications to this TGS is to be made by qualified PWZ card holder. All modifications to be signed off on this TGS by PWZ card holder.

Resource Requirement

Traffic Controller	PTCD	Traffic UTE	Drop Deck/ POD Truck	TMA	Advanced Warning Vehicle	C-Class Arrow Board	Others
4	0	2	0	0	0	0	0

Legend

- Broken Plant Location
- Cone
- Marshaling Area
- Truck Cleanout
- Work Area



SAMPLE

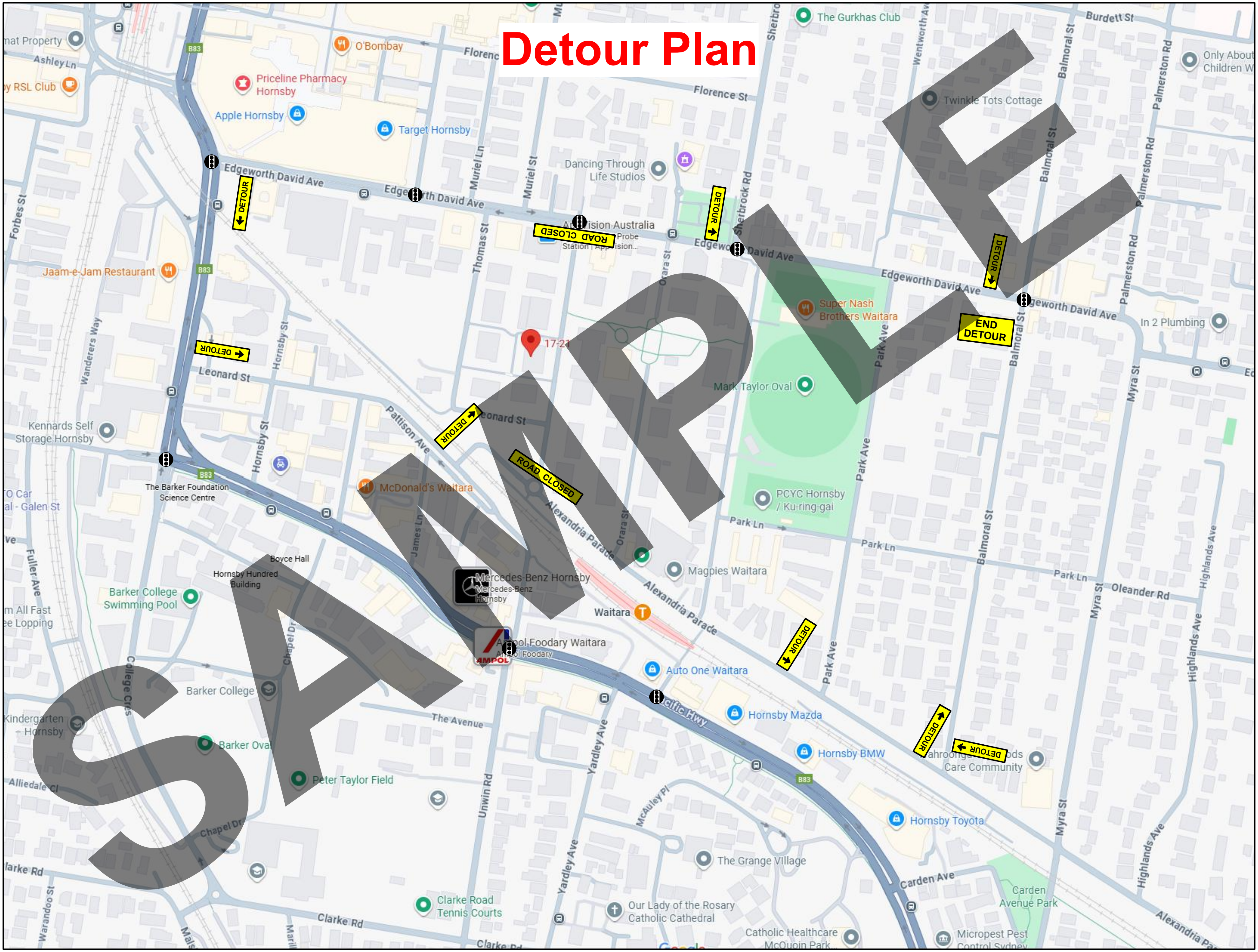
Note:
See the detour plan for available detour.

(LT) Lighting Tower

Yellow Cones to be used to warn vehicles about overhead powerline.

Residents access to be maintained by traffic controllers at all time.

Detour Plan


SAMPLE
DETOUR
ROAD CLOSED
END DETOUR
Edgeworth David Ave
Florence St
Burdett St
Leonard St
Pattison Ave
Alexandria Parade
Pacific Hwy
Park Ln
Park Ave
Balmoral St
Palmerston Rd
Myra St
Oleander Rd
Highlands Ave
Sherbrook Rd
Orara St
Thomas St
Muriel St
Muriel Ln
Hornsby St
Forbes St
Wanderers Way
Fuller Ave
College Cres
Chapel Dr
The Avenue
Unwin Rd
Yardley Ave
McAuley Pl
Carden Ave
Clarke Rd
Alliedale Cl
Ashley Ln
Wentworth Ave
Warandoo St
B83
The Gurkhas Club
O'Bombay
Priceline Pharmacy Hornsby
Apple Hornsby
Target Hornsby
Dancing Through Life Studios
Twinkle Tots Cottage
Only About Children
Jaam-e-Jam Restaurant
Super Nash Brothers Waitara
Mark Taylor Oval
In 2 Plumbing
Kennards Self Storage Hornsby
The Barker Foundation Science Centre
McDonald's Waitara
PCYC Hornsby / Ku-ring-gai
Magpies Waitara
Boyce Hall
Hornsby Hundred Building
Barker College Swimming Pool
Mercedes-Benz Hornsby
Waitara
Ampol Foodary Waitara
Auto One Waitara
Hornsby Mazda
Hornsby BMW
Hornsby Toyota
Barker College
Barker Oval
Peter Taylor Field
The Grange Village
Clarke Road Tennis Courts
Our Lady of the Rosary Catholic Cathedral
Catholic Healthcare McQuoin Park
Micropest Pest Control Sydney
Carden Avenue Park
Care Community
17-21