

TRANSPORT FOR NSW (TfNSW)

QA SPECIFICATION G10M

TRAFFIC MANAGEMENT (MAINTENANCE WORKS)

NOTICE

This document is a Transport for NSW QA Specification. It has been developed for use with roadworks and bridgeworks contracts let by Transport for NSW or by local councils in NSW. It is not suitable for any other purpose and must not be used for any other purpose or in any other context.

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REVISION REGISTER

Ed/Rev Number	Clause Number	Description of Revision	Authorised By	Date
Ed 3/Rev 0	1.1	Complete revision, most previous requirements either replaced or incorporated into the Traffic Control at Work Sites Manual. Work to comply with the RTA Traffic Control at Work Sites Manual.	GM, RNIC	03.12.98
Ed 3/Rev1	1.3 4.1	References to AS 1742.3 deleted and replaced with: - reference to RTA Traffic Control at Work Sites Manual; - definition of Regulatory Traffic Control Device.	GM, RNIC	26.02.99
Ed 3/Rev 2	1.6.2, 1.6.3 2.7, 3.4 3.3 3.1 Annex G10/3	Changes to safety clothing. New heading, clarified use of the Works. New clause for removal of pavement markings. Work adjacent to traffic added. Schedule of Identified Records added.	GM, RNIC	19.04.00
Ed 3/Rev 3	1.6.1	Use of vests at night clarified.	GM, RNIC	29.03.01
Ed 3/Rev 4	1.2 1.2, 3.1 1.3 1.7 3.3	Currency of reference documents remains. Placing temporary pavement markings on the final wearing course is conditional Six week Period of notice for Regulatory Traffic Control Devices deleted Requirement for temporary speed zoning during the work to be indicated. Treatment of redundant markings outside the limits of work added.	GM, RNIC	30.09.02
Ed 3/Rev 4 (cont'd)	3.4	Minor editorial change.		

Ed/Rev Number	Clause Number	Description of Revision	Authorised By	Date
	4.1 Annex G10/1	Last sentence. Six weeks changed to two weeks. Heading changed. Sections B and C added.		
Ed 4/Rev 0	Various 1.1 1.2 1.3 1.3, 1.7, 3.1, Annex G10/A, old 3.2, 3.3 & 4 1.4 1.6 2.7 3.1 Annex G10/B	Formatting changed "Contractor" replaced by "you" "Superintendent" replaced by "Principal" References to AS 1742.3 changed Document structure explained TMP must be consistent with PQP and may be submitted in stages. After hours contacts are required. Some details deleted as they are now in the TCWS Manual New subclause for TCP details RTA will supply the vest. Vests to comply with AS 4602 References to Completion changed to suit RTA C2 Hold Point replaced by Hold Point in Clause 1.3 Transferred from Clause 5, SIMC pay items added.	GM, RNIC	12.11.03
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Ed 4/Rev 3	1.6	Requirement for RTA Registration Category G	GM, IC	09.07.07
Ed 4/Rev 3M (version issued to Councils)	Annex B Various	Project specific version for use with RMCCs. Added optional Pay Items G10P2 to G10P16. Replace references to SIMC with RMCC.	GM, IM (John Statton)	12.08.08
Ed 5/Rev 0		Rewritten to accord with Specification G10 Ed 6 Rev 0.	GM, CB (B Bestwick)	25.11.15
Ed 6/Rev 0		Rewritten to accord with Specification G10 Ed 7 Rev 0.	MCQ	26.11.18

Ed/Rev Number	Clause Number	Description of Revision	Authorised By	Date
Ed 6/Rev 1		Updated to accord with Specification G10 Ed 7 Rev 1.	MCQ	04.12.18
Ed 6/Rev 2		Updated to accord with Specification G10 Ed 7 Rev 2.	MCQ	25.10.19
Ed 6/Rev 3	Global	References to “Roads and Maritime Services” or “RMS” changed to “Transport for NSW” or “TfNSW” respectively.	DCS	22.06.20

GUIDE NOTES (Not Part of Contract Document)

Use of TfNSW Traffic Control at Work Sites Manual

G10M requires contractors to consult and comply with the Traffic Control at Work Sites Manual.

The Manual contains both mandatory requirements that must be complied with, and guidance which contractors should consider when planning and carrying out traffic control. Some details and terms in the Manual reflect TfNSW usage, and as such contractors will need to adapt them to suit their own organisation.

The Manual contains information which can assist contractors to develop and implement their Traffic Management Plans and the Principal's staff in considering, approving and monitoring the Plans.

Annexure G10M/A2 – Project Specific Restrictions and Additional Requirements

Annexure G10M/A2 provides for the TENDER DOCUMENTER to insert any **restrictions** and **additional requirements** for traffic management which tenderers must allow for when preparing their tenders and which the Contractor has to include in the Traffic Management Plans and Traffic Control Plans.



TRAFFIC MANAGEMENT (MAINTENANCE WORKS)

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VERSION FOR: DATE:

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FOREWORD

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REVISIONS TO PREVIOUS VERSION

This document has been revised from Specification TfNSW G10M Edition 6 Revision 2.

All revisions to the previous version (other than minor editorial and project specific changes) are indicated by a vertical line in the margin as shown here, except when it is a new edition and the text has been extensively rewritten.

PROJECT SPECIFIC CHANGES

Any project specific changes are indicated in the following manner:

- (a) Text which is additional to the base document and which is included in the Specification is shown in bold italics e.g. ***Additional Text***.
- (b) Text which has been deleted from the base document and which is not included in the Specification is shown struck out e.g. ~~Deleted Text~~.

TfNSW QA SPECIFICATION G10M

TRAFFIC MANAGEMENT (MAINTENANCE WORKS)

1 GENERAL

1.1 SCOPE

This Specification sets out the requirements for managing for the safe movement of traffic, including through traffic, within the Site for Maintenance Contracts.

Its scope includes:

- (a) preparation of Traffic Management Plan and its component plans;
- (b) use of Traffic Controllers or Portable Traffic Control Devices to direct and control traffic;
- (c) provision of access to local properties and side roads;
- (d) installation and removal of temporary safety barriers, pavement markings, signs and traffic signals;
- (e) safety measures for working adjacent to traffic.

1.2 STRUCTURE OF THE SPECIFICATION

This Specification includes a series of annexures that detail additional requirements.

1.2.1 Project Specific Details

Details relating to traffic management that are specific to this Contract are shown in Annexure G10M/A.

Restrictions and/or additional traffic management requirements specific to the Contract are stated in Annexure G10M/A2.

1.2.2 Measurement and Payment

The method of measurement and payment is detailed in Annexure G10M/B.

1.2.3 Schedules of HOLD POINTS and Identified Records

The schedules in Annexure G10M/C list the **HOLD POINTS** that must be observed. Refer to Specification TfNSW Q for the definition of **HOLD POINTS**.

The records listed in Annexure G10M/C are **Identified Records** for the purposes of TfNSW Q Annexure Q/E.

1.2.4 Planning Documents

The PROJECT QUALITY PLAN must include each of the documents and requirements listed in Annexure G10M/D and must be implemented.

1.2.5 Referenced Documents

Unless otherwise specified, the applicable issue of a referenced document, other than a TfNSW Specification, is the issue current at the date one week before the closing date for tenders, or where no issue is current at that date, the most recent issue.

Standards, specifications and test methods are referred to in abbreviated form (e.g. AS 1234). For convenience, the full titles are given in Annexure G10M/M.

1.3 DEFINITIONS AND ACRONYMS**1.3.1 Definitions**

The terms “you” and “your” mean “the Contractor” and “the Contractor’s” respectively.

The following definitions apply to this Specification:

Road Occupancy Licence	A permit which allows the applicant to use or occupy a specified road space at approved times, provided that certain conditions are met.
Traffic Management Plan	A plan showing how traffic will be managed when construction works are being carried out. A TMP describes the work activities being proposed, their impact on the roadway and on road users, and how these impacts are being addressed. A TMP may incorporate Traffic Staging Plans, Traffic Control Plans, Vehicle Movement Plans and Pedestrian Movement Plans (see below).
Traffic Staging Plan	Road design drawings showing traffic lane configurations to be provided for traffic passing through the Site during the various construction stages, including details of road alignment and geometry, intersection layouts, provision for buses and cyclists, work areas and pedestrian areas, drainage, signs and pavement markings, etc.
Traffic Control Plan or Traffic Guidance Scheme	A diagram showing signs and devices arranged to warn traffic and to guide it around, past or if necessary through a work site or temporary hazard.
Vehicle Movement Plan	A diagram showing the preferred travel paths for vehicles associated with a work site entering, leaving or crossing the through traffic stream. A VMP may be combined with or superimposed on a TCP.
Pedestrian Movement Plan	A diagram showing the allocated travel paths for workers or pedestrians around or through a work site. A PMP may be combined with or superimposed on a TCP.

1.3.2 Acronyms

PMP	Pedestrian Movement Plan(s)
RASS	Radar activated speed sign(s)
RTO	Regional Traffic Operations
ROL	Road Occupancy Licence(s)
SZA	Speed Zone Authorisation
TCP	Traffic Control Plan(s)

TCWS	TfNSW Traffic Control at Work Sites Manual
TMC	Transport Management Centre
TMP	Traffic Management Plan(s)
VMP	Vehicle Movement Plan(s)
VMS	Variable message sign(s)

1.4 CONTRACTOR'S GENERAL RESPONSIBILITIES

1.4.1 General

Plan your work to cause the least possible disruption to the traffic flow.

Liaise with the Principal and other regulatory authorities when planning and implementing your traffic management proposals.

Notwithstanding any acceptance of your Traffic Management Plan by the Principal, it remains your responsibility to implement a safe and effective traffic management scheme.

1.4.2 Community Engagement

Throughout the duration of the contract, liaise continually and consult with property owners/occupiers and business operators impacted by the construction work, on all traffic and access issues, and resolve any issues raised.

1.4.3 Maintain Access and Continuity of Services

At all times, maintain safe access for vehicles, cyclists, pedestrians and livestock to local properties and side roads affected by the road construction.

Make any necessary arrangements to enable continuity of provision of services, such as garbage or recycling waste collection and mail delivery.

Do not commence any work affecting access to local properties and use of side roads without providing alternative access which is acceptable to the Principal and affected owners/residents and business operators.

1.4.4 Coordinate with Adjoining Contracts

Liaise and coordinate your traffic control measures with those of adjoining contracts undertaken concurrently by others.

1.4.5 Comply with Directions of the Authorities

Comply with the directions of the Principal and other authorities such as Transport Management Centre (TMC) or TfNSW Regional Traffic Operations (RTO), Police, Fire Brigade and State Emergency Services.

Such directions may include requiring you to temporarily cease work and re-open any closed lane or shoulder in the event of a traffic incident within or adjacent to the Site.

Cooperate with TfNSW and other authorities to facilitate traffic flows on the roadway through the Site.

1.4.6 Assist with Clearing Roadway After Accident

Following a traffic accident on a roadway within or adjacent to the Site, the Police or the Principal may request you to assist with the removal of any debris from the accident left on the roadway, removal or repositioning where necessary of traffic control and safety devices and rectification of any damage caused to them, to make the roadway safe and trafficable again.

1.5 WORK OUTSIDE “LIMITS OF WORK”

Make allowance for any necessity to install traffic control measures outside the “Limits of Work” shown on the Drawings, for traffic control zones such as advance warning area, transition area, buffer area, and termination area.

1.6 TfNSW TRAFFIC CONTROL AT WORK SITES MANUAL

1.6.1 Consult and Comply with TCWS

When planning and carrying out traffic management, comply with the TfNSW Traffic Control at Work Sites Manual (TCWS).

1.6.2 Use of TCWS

Where the TCWS states a role and its corresponding responsibilities, nominate a person, who may be either your employee, your subcontractor or your agent, for that role and ensure that the specified duties and responsibilities of such persons are carried out.

1.7 TRAFFIC CONTROL PERSONNEL

1.7.1 Authority to Direct Traffic

You are authorised, under section 6 of the *Roads Regulation 2008 (NSW)*, to appoint Traffic Controllers solely for the purposes of the Contract to provide for the safe movement of traffic around, past or through the work site. Any such appointment will cease upon the completion of traffic control work under the Contract, or the termination of the Contract, whichever is the earlier.

1.7.2 Registration of Traffic Control Organisations

The organisation undertaking the traffic control must be registered under the TfNSW Registration Scheme Category G “Traffic Control”.

1.7.3 Qualifications of Traffic Controllers

Traffic Controllers controlling and directing traffic must hold a current “Traffic Controller” qualification (refer Section 2.4.1 of TCWS).

Traffic Controllers must carry their “Traffic Controller” qualification at all times when controlling traffic.

1.7.4 Proposed Traffic Controllers

Prior to the commencement of any work at the Site involving controlling and directing traffic, submit to the Principal the names of your proposed Traffic Controllers, and evidence of the currency of their qualifications.

1.7.5 Clothing and Illuminated Wand

When directing traffic, your Traffic Controllers must wear high visibility fluorescent clothing or safety vests complying with AS/NZS 4602, clearly bearing the words “Authorised Traffic Controller”.

During poor light conditions or at night, equip your Traffic Controllers with illuminated wands to supplement the STOP/SLOW bat.

1.8 TRAFFIC MANAGER

1.8.1 General

Where specified in Annexure G10M/A1, nominate in your Traffic Management Plan (TMP) a member of your site management team dedicated full time as your Traffic Manager.

1.8.2 Qualification and Experience

The Traffic Manager must hold a current “Prepare Work Zone Traffic Management Plan” qualification (refer Section 2.4.1 of TCWS), and have a minimum of 5 years of recent experience in traffic management on road construction sites of equivalent complexity to the current Contract.

1.8.3 Roles and Responsibilities

Detail in the TMP the roles and responsibilities of the Traffic Manager, which include (but not limited to):

- (a) ensuring that the approved traffic management measures are implemented and maintained in accordance with the approved plans;
- (b) carrying out regular inspections of the traffic control measures to ensure that they are effective;
- (c) amending and updating the plans, as required, to ensure that they remain current as the work progresses;
- (d) identifying situations where traffic congestion, or unsafe conditions for vehicles, cyclists, pedestrians and workers, are occurring and providing recommendations for improvement;
- (e) maintaining current copies of the Traffic Management Plan and its various component plans, lane occupancy licences and speed zone authorisations, and their controlled distribution;
- (f) keeping records of the Traffic Controllers’ qualifications and ensuring that they are current;
- (g) liaising and facilitating regular meetings with the Principal, other authorities and relevant parties on traffic management matters for the Site, maintaining records of these meetings and making them available to the relevant persons;
- (h) in conjunction with your Community Relations Manager, undertaking consultations with local businesses and residents;
- (i) providing induction on traffic management measures to site personnel;
- (j) recording and reporting on all traffic incidents;
- (k) preparing monthly reports on traffic management matters (refer Clause 4.7.2).

1.8.4 Authority to Stop Work or Comply with Directions

The Traffic Manager must have the authority to stop work on any activity where it is considered to be necessary to prevent traffic accidents, or to comply with the directions of the Principal and other authorities in accordance with Clause 1.4.5.

2 PLANNING AND DESIGN

2.1 ROAD OCCUPANCY LICENCE

2.1.1 Road Occupancy Licence Application

When your planned activity requires an existing road to be used in such a way that affects traffic flow, obtain a Road Occupancy Licence (ROL). This licence applies only to occupation of the road space, and does not grant permission for or approval to the actual/physical work being undertaken.

Information on how to apply for a ROL is contained in the Transport Management Centre (TMC) Road Occupancy Manual, available from:

http://www.rms.nsw.gov.au/documents/about/forms/road_occupancy_manual.pdf.

Submit your application for an ROL to the relevant responsible body stated in the Road Occupancy Manual at least 10 working days prior to the planned commencement of the activity requiring the road occupancy. The activity must not commence until the ROL has been obtained.

Where TMC is the responsible body for issuing the ROL, allow an additional 20 working days for TMC to first assess your Traffic Management Plan (refer Clause 2.2).

2.1.2 (Not Used)

2.1.3 Temporary Speed Zone Authorisation

In conjunction with your ROL application, you may apply for a temporary Speed Zone Authorisation (SZA) to alter the speed limit of section(s) of the road.

Temporary speed zoning and speed limit selection must comply with the TCWS.

2.1.4 Licence Conditions

The lane occupancy hours granted in your ROL may be less than, and will override, the working hours stated in the Contract, for work that requires the lane occupancy. Manage your work activities to comply at all times with the lane occupancy hours granted in the ROL.

Notwithstanding any ROL granted by the relevant authority for any lane or shoulder closure, you may be directed to temporarily re-open any closed lane or shoulder in accordance with Clause 1.4.3.

Keep a copy of the ROL, SZA and relevant Traffic Control Plan on site at all times when the licence is in operation.

2.2 TRAFFIC MANAGEMENT PLAN

2.2.1 Plan Submission

At least 5 working days prior to the submission of your application for an ROL (refer Clause 2.1), submit for the Principal's acceptance your Traffic Management Plan (TMP) for the Works.

HOLD POINT

Process Held:	Submission of application for ROL.
Submission Details:	At least 5 working days prior to the proposed date of submission of application for the ROL, submit your Traffic Management Plan, comprising the elements stated in Clause 2.2.3.
Release of Hold Point:	The Principal will consider the submitted documents, including resources proposed, prior to authorising the release of the Hold Point.

If the Principal requests additional information or clarification, the 5 working days assessment period will again apply from the date of submission of the requested details.

2.2.2 Plan Preparation

The TMP and associated documentation must be prepared by person(s) suitably experienced in the design and implementation of traffic management plans of equivalent complexity to those required in the Contract and holding qualifications acceptable to the Principal, including as a minimum, a “Prepare a Work Zone Traffic Management Plan” qualification.

Consult with all relevant stakeholders, including Councils and local bus companies, when preparing the TMP.

The TMP must be approved by your Traffic Manager (if the person preparing the TMP is not your Traffic Manager) and your Site Safety Representative, prior to submission to the Principal in accordance with Clause 2.2.1. Include any comments made during the review with the submission.

2.2.3 Required Elements

The TMP must include, as a minimum and where appropriate, the following elements:

- (a) Details of any traffic staging arrangements associated with each proposed construction stage, including Traffic Staging Plans (refer Clause 2.3), and the time periods during which each stage will be in operation.
- (b) Traffic Control Plans (refer Clause 2.4), including provision for cyclists and pedestrians, and any specific traffic control arrangements associated with the conditions of approval of the ROL.
- (c) (Not Used).
- (d) Pedestrian Movement Plans (refer Clause 2.5.2) showing the allocated travel paths for workers within the Site, and for pedestrians around or through the Site, including safe and unhindered access to bus stops.
- (e) Plans showing access to local properties and side roads affected by the construction (refer Clause 1.4.3), relocated bus stops and any temporary carparking arrangements.
- (f) (Not Used)
- (g) Traffic Incident Management Plan, for dealing with unplanned traffic incidents (refer Clause 2.7).

Ensure that the TMP is consistent with this specification, including Annexure G10M/A, TCWS and AS1742.3.

2.2.4 Risk Assessment

Undertake a risk assessment and address any risks identified in the TMP in accordance with the Road Occupancy Manual.

2.2.5 Review Effectiveness

Where the Contract is longer than a month's duration, review the effectiveness of the TMP at least once a month, and when new risks which have not been previously identified are encountered.

Revise the TMP or its component plans and implement more appropriate measures if the original measures prove not to be fully effective. Submit a copy of any revised component plan of the TMP to the Principal.

2.2.6 No Entitlement

You are not entitled to any extensions of time, or additional payments, arising from any re-design, time taken to obtain acceptance of your TMP, or additional construction costs associated with your proposed arrangements for traffic staging.

2.3 (NOT USED)

2.4 TRAFFIC CONTROL PLANS

2.4.1 Plan Submission

If not previously submitted as part of the TMP or where a TMP is not required, at least 3 working days prior to its proposed use, submit for the Principal's acceptance your Traffic Control Plan (TCP) for the particular section of the Site.

If traffic staging is applicable, submit individual TCP for each traffic stage.

If lane occupancy is required, comply with the requirements of Clause 2.1 for obtaining the ROL.

2.4.2 Example Traffic Control Plan Selection

You may select for use an example TCP contained in the TCWS, modified to suit a specific work location. Follow the procedures set out in the TCWS for the selection, approval and implementation of an example TCP and keep records of the steps performed.

The selection and modification of an example TCP to suit a specific work location must only be carried out by a person holding a "Prepare Work Zone Traffic Management Plan" qualification.

2.4.3 Project Specific Traffic Control Plan Preparation

Where so specified in Annexure G10M/A1 or where an example TCP is not suitable for the work being planned, prepare a TCP which is specially custom designed for the project. This work must only be carried out by a person holding a "Prepare a Work Zone Traffic Management Plan" qualification.

The chainages shown in the TCP must match those shown on the Drawings.

2.4.4 Required Details

TCP must show, where applicable, the following details in relation to the work area(s) and any intersecting streets, including any dimensions necessary for setting out:

- (a) Types and locations of permanent regulatory (R series) and warning (W series) signs.
- (b) Types and locations of temporary signs (T series) including advance warning signs, variable message signs (VMS) and radar activated speed signs (RASS).
- (c) Locations of permanent and temporary traffic signals.
- (d) Locations of any required Traffic Controllers.
- (e) Locations and lengths of advance warning areas, transition areas, safety buffer areas and termination areas.
- (f) Locations of safety barrier systems including end terminals.
- (g) Pedestrian footpaths and cycleways.
- (h) Locations of entry and exit gates to work areas, individually numbered and signposted.
- (i) Details of access to local properties, car parking areas, and side roads.
- (j) Pavement marking details, including types of delineation required, turning arrows, stop/holding lines and other road markings, types and positions of raised pavement markers and other delineation devices.
- (k) Locations of temporary street lighting
- (l) Locations of emergency or breakdown lanes, if applicable.

Include a statement with each TCP describing the circumstances for which the TCP is applicable.

2.5 PEDESTRIAN MOVEMENT PLANS

2.5.1 (Not Used)

2.5.2 Pedestrian Movement Plans

Where applicable, submit together with your TCP, Pedestrian Movement Plans (PMP) showing the allocated travel paths for workers or pedestrians around or through the Site, including all signs and devices used to guide the workers or pedestrians.

Provide safe and unhindered access for pedestrians to bus stops.

2.6 (NOT USED)

2.7 TRAFFIC INCIDENT MANAGEMENT PLAN

Where so specified in Annexure G10M/A1, submit a Traffic Incident Management Plan containing as a minimum the following details:

- (a) Names and contact details of nominated personnel (including the Traffic Manager if applicable) who will be responsible for dealing with traffic incidents occurring at the work site.
- (b) Contact details of the Principal, TMC Transport Operation Rooms, Police, emergency services, etc.

- (c) Procedure to be followed in the event of a traffic incident within the Site.
- (d) List of plant that will be available at all times for moving portable concrete safety barriers.
- (e) Inventory of safety barriers, signs etc. and their storage location(s) that will be available to replace damaged barriers in event of a traffic accident.
- (f) Procedure for carrying out investigations of traffic incidents involving members of the public or workers. This should include:
 - (i) checking that the traffic control measures in place are in accordance with the TMP and its component plans, and ROL conditions;
 - (ii) carrying out a “drive through” and video recording of the roadway, including the location where the incident has taken place;as soon as possible after the incident.
- (g) Information required for initial notification to the Principal, and where necessary, other relevant authorities.
- (h) Format for reporting and communication of the results of traffic incident investigations, and lessons learned.

Develop the procedure under item (c) above in consultation with TfNSW, TMC or RTO, Councils, and Police, Ambulance, Fire and other emergency services.

2.8 (NOT USED)

3 TRAFFIC CONTROL DEVICES

3.1 SAFETY BARRIERS

3.1.1 General

Where identified in your TCP for the work, provide safety barriers to protect the work areas and pedestrian areas from the traffic.

Do not use safety barriers or safety barrier systems for delineation as a substitute for linemarking.

3.1.2 Accepted Safety Barrier Products

Safety barriers used must be listed on the “Safety Barrier Products (Safety Barrier) accepted for use on Classified Roads in NSW”, available from:

<http://www.rms.nsw.gov.au/business-industry/partners-suppliers/approved-products-materials/safety-barriers/temporary.html>.

Erect the safety barriers in accordance with Specification TfNSW R132 and the Acceptance conditions for that safety barrier product.

3.1.3 Water Filled Plastic Barriers

Water filled plastic barriers may be used at those locations that preclude the use of rigid barriers, such as at corners or intersections and any other locations approved by the Principal, provided that their use complies with the TCWS and the Acceptance conditions for the safety barrier product.

Provide the manufacturer's recommended buffer zones on the approach side of water filled barriers.

3.1.4 Exclusion Zone

Establish an exclusion zone behind barriers as required and do not permit construction work or pedestrian movement within the deflection or impact zone of safety barriers.

3.2 PAVEMENT MARKINGS AND SIGNS

3.2.1 Relevant Standards

Install all pavement markings, retroreflective raised pavement markers and signposting proposed for use in the temporary works in accordance with the requirements of the TCWS, Specifications TfNSW R141 or TfNSW R145, TfNSW R142 and TfNSW R143 respectively, to the same standard as for permanent work.

Unless specified otherwise, use waterborne paint for pavement markings for temporary works.

3.2.2 Removal of Redundant Pavement Markings

Remove redundant pavement markings from wearing surfaces of pavements, other than final wearing surfaces, in accordance with the TCWS, TfNSW R141 or TfNSW R145.

You may, as a temporary measure, paint over or apply overlay to "blackout" any redundant linemarkings after a traffic switch, but the redundant markings must be removed within 48 hours in accordance with TfNSW R141 or TfNSW R145.

3.2.3 Temporary Speed Zoning Signs

Supply and erect temporary speed zoning signs at the locations indicated in your TCP. Keep the signs covered when the speed zone is not in use. Remove the signs when the temporary speed zoning is no longer in force.

Keep records of the times when the temporary speed zoning signs are in force.

3.3 PORTABLE VARIABLE MESSAGE SIGNS

3.3.1 General

If specified in Annexure G10M/A1 or if required by your TCP, place portable variable message signs (VMS) at prominent locations initially at each end of all roads, including local side roads, approaching the Site, to keep road users informed of changes to road conditions and of possible delays as a result of construction work.

Place additional VMS at other locations as necessary to reinforce the messages to the road users.

Move the VMS to other locations as necessary as the work progresses.

The locations of the VMS must be approved by the Principal.

3.3.2 Type of VMS

VMS must comply fully with Specification TfNSW TSI-SP-008 and AS 4852.2 (i.e. portable, solar powered, with both insitu and remote control) and of Type C size.

3.3.3 Messages

Consult with and obtain the approval of the Principal for the messages displayed on the VMS.

Keep the messages that are displayed on the VMS current over the duration of the Contract.

3.3.4 Secure and Maintain VMS

Make secure the VMS.

Maintain the VMS including cleaning its perspex face and solar panels, and checking the battery distilled water levels at least once a month.

Replace faulty or damaged VMS within 24 hours.

3.4 RADAR ACTIVATED SPEED SIGNS

3.4.1 General

If specified in Annexure G10M/A1, or if required by your TCP, provide trailer mounted radar activated speed signs (RASS) for use during the construction period.

3.4.2 Locations

Locate the RASS in positions suitable for influencing the speed of motorists entering the reduced speed zone, taking into consideration the effect of any existing signage.

The locations of the RASS and the message displayed must be as agreed with the Principal.

3.4.3 Calibration

Obtain calibration details from the RASS supplier(s) to confirm that each RASS is accurately calibrated within the manufacturer's specified tolerances. Periodically check each RASS for accuracy and carry out recalibration to within the manufacturer's specified tolerances promptly as needed.

3.4.4 Monitor Effectiveness

Monitor the effectiveness of the speed limit reductions, and provide a detailed log of the speeds each week to the Principal.

Include in the report the effectiveness or otherwise of the RASS, and provide details of any proposed changes to the RASS locations to improve their effectiveness.

3.5 TEMPORARY TRAFFIC SIGNALS

If specified in Annexure G10M/A1 or if required by your TCP, install portable traffic signals complying with the TCWS or temporary fixed traffic signals complying with Specification TfNSW TS101 and associated Drawings.

4 IMPLEMENTATION

4.1 INDUCTION

Provide induction to all your personnel on the TMP and ROL conditions, prior to its initial implementation.

Provide similar induction to your personnel when the TMP is updated.

4.2 (NOT USED)

4.3 (NOT USED)

4.4 (NOT USED)

4.5 (NOT USED)

4.6 (NOT USED)

4.7 MONITORING AND REPORTING OF TRAFFIC CONTROL MEASURES

4.7.1 Monitoring

As a minimum, check at the commencement and conclusion of each day's work that all required traffic control measures and signs are in place as shown on the TCP for each stage.

The person conducting this check must hold either the "Implement Traffic Management Plan" or "Prepare a Work Zone Traffic Management Plan" qualification.

Keep records of the results of the inspection checks and make them available to the Principal upon request.

4.7.2 Reporting

Provide to the Principal a monthly report on the performance of your traffic management. The report must include, as a minimum, the following:

- (a) summary of daily inspections of traffic control measures;
- (b) compliance with the TMP and its component plans, and ROL conditions;
- (c) compliance with specified travel times, and delays to traffic or queue lengths exceeding allowable limits;
- (d) where applicable, analysis of trends as applied to traffic management and safety measures.

4.8 TRAFFIC INCIDENT REPORTING

Following a traffic incident, carry out an investigation in accordance with your Traffic Incident Management Plan, and submit a report to the Principal detailing the results of the investigation.

If necessary, liaise with emergency services to obtain further information.

The report must, as a minimum, include the following details:

- (a) names of the persons and registration number(s) of the vehicle(s) involved;
- (b) location where the incident took place;
- (c) date and time of the incident, and prevailing environmental conditions;
- (d) sketch map and photos of the incident location;
- (e) sight distance details;
- (f) potential contributing factors, and likely or confirmed root cause for the incident;
- (g) corrective actions.

5 WORKING ADJACENT TO TRAFFIC

5.1 GENERAL

Where a temporary roadway or a detour is not provided or available, then subject to the approval of the Principal, construction under or adjacent to traffic may be permitted provided that at least one 3.7 m lane remains open to traffic on a two lane roadway and at least one 3.7 m lane remains open in each direction on divided multi-lane roads.

Alternatively, subject to the approval of the Principal, the lanes may be linemarked to a reduced width.

Prior to cessation of work each day, restore the carriageway(s) to a safe and trafficable state for through traffic, unless shown otherwise in the approved TCP.

5.2 APPROVED CLOTHING FOR WORKERS WORKING ADJACENT TO TRAFFIC

All personnel working in close proximity to traffic must wear high visibility fluorescent safety clothing complying with AS/NZS 4602 which are suitable for day time, night time and/or wet weather conditions, as applicable.

5.3 PLANT AND EQUIPMENT WORKING ADJACENT TO TRAFFIC

5.3.1 Traffic Control Operations Vehicles

Equip all vehicles used in traffic control operations with the appropriate vehicle mounted warning devices in accordance with the TCWS.

5.3.2 Construction Plant

Where traffic is permitted to use the whole, or part, of the existing road and where there is no safety barrier to separate the traffic from the work areas, provide a lateral clearance in accordance with Section 3.6 of TCWS.

During daytime, such plant and equipment working adjacent to traffic and having a projection beyond the normal width of the item, for example, a grader blade, must have a fluorescent red flag attached to the outer end of the projection.

During night time, illuminate any plant and equipment which are not separated from traffic by a safety barrier and within 6 m of the normal path of vehicles with at least two yellow steady lamps suspended vertically from the point of the obstruction nearest to a traffic lane, and one yellow steady lamp at each end of the obstruction on the side furthest away from the traffic lane.

6 (NOT USED)

7 OPENING TO TRAFFIC UPON COMPLETION

Complete all relevant permanent signposting, pavement markings, safety barriers and traffic signals required under the Contract, prior to opening of the whole of the Works or any part of the Works to traffic.

Remove all temporary traffic control devices no longer required for the safety of traffic, when the whole of the Works or part of the Works are opened to traffic.

ANNEXURE G10M/A – PROJECT DETAILS

NOTES TO TENDER DOCUMENTER: (Delete this boxed text after customising Annexure G10M/A)

Complete the tables under Annexures A1 and A2 below by filling in the required details. Where “Yes / No” options are shown, delete whichever is not applicable.

A1 PROJECT SPECIFIC REQUIREMENTS

Clause	Description	Requirement
1.8.1	Nomination of Traffic Manager required	Yes / No
2.4.3	Traffic Control Plans to be specially custom designed for project	Yes / No
2.7	Traffic Incident Management Plans required	Yes / No
3	Traffic control devices:	
3.3.1	Portable variable message signs required	Yes / No
3.4.1	Radar activated speed signs required	Yes / No
3.5	Temporary traffic signals required	Yes / No

A2 PROJECT SPECIFIC RESTRICTIONS AND ADDITIONAL REQUIREMENTS

NOTES TO TENDER DOCUMENTER: (Delete this boxed text after customising Annexure G10M/A)

List here any restrictions and/or additional requirements on traffic management specific to the project that the Contractor must provide for (see GUIDE NOTES). This may include the following:

- *changed traffic management measures during holiday seasons or special events;*
- *provision of a certain number of car parking spaces;*
- *where the front of business premises are obscured by the traffic control measures, provision of signs indicating to customers that the businesses are still open and directions on how to access the premises.*

If no restrictions or additional requirements are applicable, insert “Not Applicable” in this section.

A3 (NOT USED)**A4 (NOT USED)****A5 (NOT USED)**

ANNEXURE G10M/B – MEASUREMENT AND PAYMENT

Refer to Clause 1.2.2.

Payment will be made for all costs associated with completing the work detailed in this Specification in accordance with the following Pay Items.

Where no specific pay items are provided for a particular item of work, the costs associated with that item of work are deemed to be included in the rates and prices generally for the Work Under the Contract.

Unless specified otherwise, a lump sum price for any of these items will not be accepted.

Measurement and Payment for items defined in other specifications exclude works that are carried out solely to comply with TfNSW G10M.

Pay Item G10P1 - Traffic Management

This is a Lump Sum item.

The Lump Sum covers all costs associated with the following:

- (a) preparation of **Traffic Management Plan** and its component plans;
- (b) (Not Used);
- (c) (Not Used);
- (d) provision of **Traffic Controllers**;
- (e) provision of **access to local properties and side roads**;
- (f) provision of traffic control devices including **safety barriers**, temporary **pavement markings and signs**, **variable message signs**, **radar activated speed signs** and temporary **traffic signals**, and temporary **lighting** where required;
- (g) all activities associated with **opening to traffic**;
- (h) any other work required for the safe movement of traffic and protection of persons and property in accordance with this Specification and the TCWS, except where specific pay items are provided below.

Payment will be made on a pro-rata basis of the work done under this pay item, having due regard to the duration of the Works under the Contract.

Additional Pay Items

NOTES TO TENDER DOCUMENTER: *(Delete this boxed text after customising TfNSW G10M)*

The DOCUMENTER may insert additional Pay Items to be ordered at the discretion of the Principal. Inclusion of these additional Pay Items can only be made after consultation with Director Contracts Administration or Contracts Quality Manager, Commercial Services Branch.

Examples of such work include:

- *additional signage not part of traffic control;*
- *variable message signs;*
- *radar activated speed signs;*

- | |
|---|
| <ul style="list-style-type: none">• <i>reinstatement or maintenance of pavement markings and raised pavement markers.</i> |
|---|

ANNEXURE G10M/C – SCHEDULES OF HOLD POINTS AND IDENTIFIED RECORDS

Refer to Clause 1.2.3.

C1 SCHEDULE OF HOLD POINTS

Clause	Description
2.2.1	Submission of Traffic Management Plan (TMP) and associated documents

C2 SCHEDULE OF IDENTIFIED RECORDS

The records listed below are Identified Records for the purposes of TfNSW Q Annexure Q/E.

Clause	Description of the Identified Record
3.2.3	Records of times when temporary speed zoning signs are in place
4.7	Inspection reports of traffic control measures in place

ANNEXURE G10M/D – PLANNING DOCUMENTS

Refer to Clause 1.2.4. The following documents are a summary of documents that must be included in the PROJECT QUALITY PLAN. Review the requirements of this Specification and other contract documents to determine any additional documentation requirements.

Clause	Description of Document
2.2	Traffic Management Plan (TMP)
2.4, 2.5	Traffic Control Plans (TCP) and Pedestrian Movement Plans (if not part of TMP)
2.7	Traffic Incident Management Plan

ANNEXURES G10M/E TO G10M/L – (NOT USED)

ANNEXURE G10M/M – REFERENCED DOCUMENTS

Refer to Clause 1.2.5.

TfNSW Specifications

TfNSW Q	Quality Management System
TfNSW R132	Safety Barrier Systems
TfNSW R141	Pavement Marking
TfNSW R142	Retroreflective Raised Pavement Markers
TfNSW R143	Signposting
TfNSW R145	Pavement Marking (Performance Based)
TfNSW TS101	Traffic Control Signals – New Installation and Reconstruction
TSI-SP-008	Variable Message Signs

TfNSW Publications

TfNSW Supplements to Austroads Guide to Road Design (several Parts)
TfNSW Supplement to Austroads Guide to Pavement Technology Part 2:
Pavement Structural Design
Traffic Control at Work Sites Manual
Traffic Signal Design Manual

Transport for NSW Publications

Guidelines for Road Safety Audit Practices
Road Occupancy Manual

Australian Standards

AS/NZS 4602	High visibility safety garments
AS 4852.2	Variable Message Signs – Part 2: Portable Signs

Austroads Publications

AGRD	Guide to Road Design (several Parts)
AGPT02	Guide to Pavement Technology Part 2: Pavement Structural Design
AGRS06	Guide to Road Safety Part 6: Road Safety Audit
AGTM10	Guide to Traffic Management Part 10: Traffic Control and Communication Devices

NSW Legislation

Road Transport Act 2013
Roads Regulation 2008