Queensland Manual of Uniform Traffic Control Devices

Part 3: Traffic control for works on roads

March 2025



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Feedback

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About this document

This document, together with the *Queensland Guide to Temporary Traffic Management* (QGTTM), is to provide organisations and individuals carrying out works on roads with a set of uniform practices for the signing, delineation, and use of devices for works on roads which will promote the safety of workers and the safe and efficient movement of road users at the roadworks site.

How to use this document

This document is designed to be read and applied together with AS 1742.3-2019 *Manual of Uniform Traffic Control Devices Part 3* (AS 1742.3-2019). You must have access to the Australian Standard to understand what applies in Queensland.

This document:

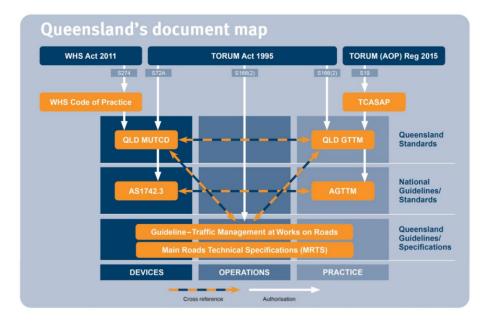
- sets out how AS 1742.3-2019 applies in Queensland
- has precedence over AS 1742.3-2019 when applied in Queensland
- has the same section and clause numbering and headings as AS 1742.3-2019.

The following table summarises the relationship between AS 1742.3-2019 and this document:

Applicability	Meaning
Accepted	The Australian Standard section or clause is accepted.
Accepted, with amendments	Part or all of the section or clause has been accepted with additions, deletions or differences.
New	There is no equivalent section or clause in the Australian Standard.
Not accepted	The Australian Standard section or clause is not accepted.

This document is designed to be read and applied together with the Queensland MUTCD Part 3 and the QGTTM. You must have access to these documents to understand what applies in Queensland.

A summary of the documents relevant to traffic management practice in Queensland and their interrelationships follows.



Definitions

The following general amended definitions apply when reading AS 1742.3-2019.

Reference to	Means
AGTTM	Austroads Guide to Temporary Traffic Management.
AGTTM: 2019	A reference to any part of the Austroads <i>Guide to Temporary Traffic</i> <i>Management</i> (AGTTM) 2019 means you must refer to the corresponding Part of the <i>Queensland Guide to Temporary Traffic</i> <i>Management</i> (QGTTM).
AS 1742	Australian Standard AS 1742 <i>Manual of Uniform Traffic Control Devices</i> , the complete suite of national guidance published by <u>Standards Australia</u> . Queensland guidance may vary from national guidance due to local conditions.
AS 1742.3-2019	AS 1742.3-2019, as amended by this document; for example, a reference to AS 1742.3-2019 means you must refer to the Australian Standard Part 3, and Part 3 of the Queensland <i>Manual of Uniform Traffic Control Devices</i> (Queensland MUTCD).
	Throughout AS 1742.3-2019, references are made to other parts of the Australian Standards (for example, when reading Part 3, you may be referred to Part 1 for further information.) In this case, you must refer to the equivalent Part within the Queensland MUTCD first. Check the applicability of the equivalent Part in the Queensland MUTCD before referring to the referenced Australian Standard Part.
QGRS	<u>Queensland Guide to Road Safety</u> which provides Queensland exceptions to Austroads <i>Guide to Road Safety</i> .
QGTM	<u>Queensland Guide to Traffic Management</u> which provides Queensland exceptions to Austroads <i>Guide to Traffic Management</i> .
QGTTM	<u>Queensland Guide to Temporary Traffic Management</u> which provides Queensland exceptions to Austroads <i>Guide to Temporary Traffic</i> Management.
Queensland (Q) series / Traffic Control (TC) signs	A collection of non-standard traffic control signs officially approved under the <i>Transport Operations (Road Use Management)</i> <i>Act 1995</i> (TORUM Act) and available on the department's <u>MUTCD Q-series and TC signs webpage</u> .
TORUM	Transport Operations (Road Use Management) Act 1995.
TRUM	<u>Traffic and Road Use Management (TRUM) manual</u> , published by Transport and Main Roads, which includes information supplementing Austroads <i>Guide to Traffic Management</i> (Volume 1).

Relationship table

Section	Clause	Description	Applicability
1	Scope and	general	
	1.1	Scope	Accepted
	1.2	Normative references	Accepted
	1.3	Terms and definitions	
	1.3.1	built-up area	Accepted
	1.3.2	competent person	Accepted with amendments
	1.3.3	frequently changing work area	Accepted
	1.3.4	long-term	Accepted
	1.3.5	may	Accepted with amendments
	1.3.6	multilane	Accepted
	1.3.7	open road area	Accepted
	1.3.8	road safety barrier system	Accepted
	1.3.9	road user	Accepted
	1.3.10	road worker	Accepted
	1.3.11	roadway	Accepted
	1.3.12	running lane	Accepted
	1.3.13	shall	Accepted with amendments
	1.3.14	should	Accepted with amendments
	1.3.15	short-term	Accepted
	1.3.16	speed of traffic traffic speed	Accepted
	1.3.17	traffic	Accepted
	1.3.18	traffic control device	Accepted
	1.3.19	traffic controller	Accepted with amendments
	1.3.20	two-way roadway	Accepted
	1.3.21	travelled path	Accepted
	1.3.22	work area	Accepted
	1.3.23	work site	Accepted
	1.3.24	Engineer	New
	1.3.25	Recommended	New
	1.4	Responsibility for safety at work sites	Accepted
	1.5	Innovation	New
	1.5.1	Level of service	New
	1.5.2	Innovative devices, treatments, or practices	New
	1.6	Legal authority	New
	1.7	Prescribed training	New

Section	Clause	Description	Applicability
	1.8	Operational and technical guidelines	New
	1.9	Variation to treatments and Registered Professional Engineer of Queensland certification	New
	1.10	Non-standard signs	New
2	Traffic ma	nagement plans	
	2.1	General	Accepted
	2.2	Preparation of traffic management plans	Accepted
3	Traffic gui	dance scheme	
	3.1	General	Accepted
	3.2	Preparation of traffic guidance schemes	Accepted
	3.3	Implementation of traffic guidance schemes	Accepted
	3.4	Creating a temporary speed zone	
	3.4.1	General	Accepted
	3.4.2	Requirements and recommendations	Accepted
	3.4.3	Duration	Accepted
	3.4.4	Advance warning of temporary speed zones (buffer zones)	Accepted with amendments
	3.4.5	Temporary speed zone	Accepted
	3.4.6	Temporary offset speed zones	Accepted
4	Function,	description and use of standard signs	and devices
	4.1	Functions of devices	Accepted
	4.2	Selection and use	
	4.2.1	General	Accepted
	4.2.2	Multi-message signs	Accepted with amendments
	4.2.3	Delineation	Accepted
	4.2.4	Night conditions	Accepted
	4.2.5	Adjustment to existing devices	Accepted
	4.2.6	Covering of signs and devices	Accepted
	4.2.7	Safety barriers	Accepted
	4.2.8	Vehicle size and load restrictions	Accepted
	4.3	Installation and removal	
	4.3.1	Condition of devices	Accepted
	4.3.2	Positioning of devices	Accepted
	4.3.3	Setting out of devices	Accepted
	4.3.4	Orientation of sign	Accepted
	4.3.5	Inspection	Accepted

Section	Clause	Description	Applicability
	4.3.6	Public awareness	Accepted
	4.3.7	Removal	Accepted
	4.4	Format and size of signs	
	4.4.1	Format of signs	Accepted
	4.4.2	Retroreflective material	Accepted
	4.4.3	Sign sizes in the T series (excludes multi-message signs)	Accepted
	4.4.4	Sign panel sizes in the TM series (for use in multi-message sign frames)	Accepted
	4.5	Sign mountings	
	4.5.1	General	Accepted
	4.5.2	Multi-message sign frame	Accepted
	4.6	Signs and devices for work site approaches and departures	
	4.6.1	General	Accepted
	4.6.2	ROADWORK AHEAD (T1-1, TM1-1, T1-31), ROADWORK X km AHEAD (T1-16)	Accepted with amendments
	4.6.3	BRIDGEWORK AHEAD (T1-2, TM1-2), BRIDGEWORK X km AHEAD (T1-29)	Accepted
	4.6.4	ROAD PLANT AHEAD (T1-3-1, TM1-3-1, T1-3-2, TM1-3-2), GRADER AHEAD (T1-4, TM1-4)	Accepted
	4.6.5	Workers (symbolic), T1-5, TM1-5)	Accepted
	4.6.6	ROADWORK NEXT X km (T1-24)	Accepted
	4.6.7	ROADWORK ON SIDE ROAD (T1-25, TM1-25), ROAD PLANT ON SIDE ROAD (T1-27, TM1-27)	Accepted with amendments
	4.6.8	Next X km (T1-28, TM1-28)	Accepted
	4.6.9	SIDE ROAD CLOSED (T1-32, TM1-32)	Accepted
	4.6.10	END ROADWORK (T2-16, T2-17, TM2-17)	Accepted with amendments
	4.6.11	ROADWORK AHEAD, ROADWORK ON SIDE ROAD, and END ROADWORK signs	New
	4.7	Signs and devices for regulatory control of traffic	
	4.7.1	General	Accepted
	4.7.2	Manual control	Accepted with amendments
	4.7.3	Sign control, single lane operation	Accepted with amendments
	4.7.4	Traffic signal control	Accepted

Section	Clause	Description	Applicability
	4.7.5	Boom Barrier	Accepted
	4.7.6	Temporary speed limits	Accepted with amendments
	4.8	Detour signs	
	4.8.1	DETOUR AHEAD (T1-6, TM1-6)	Accepted
	4.8.2	END DETOUR (T2-23, TM2-23)	Accepted
	4.8.3	DETOUR (T5-1, TM5-1)	Accepted with amendments
	4.8.4	Detour markers (T5-6, TM5-6A)	Accepted
	4.8.5	LOW BRIDGE AHEADm, HIGH VEHICLES DETOUR (G9-3), LOAD LIMIT ON BRIDGEt, HEAVY VEHICLES DETOUR (G9-4)	Accepted
	4.8.6	DETOUR FOR VEHICLES (G9-5)	Accepted
	4.8.7	Two-way Traffic (W4-11, T2-24, TM2-24)	Accepted
	4.8.8	All Traffic Turn (R2-14, RM2-14)	Accepted
	4.8.9	No Left Turn (R2-6(L), RM2-6(L), No Right Turn (R-6(R), RM6-6(R)), NO ENTRY (R2-4, RM2-4)	Accepted
	4.8.10	LOCAL TRAFFIC ONLY (G9-40-2, GM9-40-2)	Accepted
	4.9	Road condition signs	
	4.9.1	Slippery, (T3-3, TM3-3), SOFT EDGES (T3-6, TM3-6), ROUGH SURFACE (T3-7, TM3-7), Loose Stones (T3-9, TM3-9), GRAVEL ROAD (T3-13, TM3-13), LOOSE SURFACE (T3-14, TM3-14)	Accepted with amendments
	4.9.2	Advisory Speed signs (T3-16, TM6-16)	Accepted
	4.9.3	NEW WORK, NO LINES MARKED (T3-11, TM3-11), NO LINES DO NOT OVERTAKE UNLESS SAFE (T3-12, TM3-12) NO LINES DO NOT OVERTAKE (G9-89, GM9-89)	Accepted
	4.10	Signs and devices for road and lane closures	
	4.10.1	Signs	Accepted with amendments
	4.10.2	Barricades	Accepted

Section	Clause	Description	Applicability
	4.11	Devices for delineating and indicating the travelled path	Accepted
	4.11.1	Traffic cones and temporary bollards	Accepted with amendments
	4.11.2	Roadworks temporary guideposts	Accepted
	4.11.3	Temporary Hazard markers (T5-4, T5-5, T5-7)	Accepted with amendments
	4.11.4	Pavement markings	Accepted
	4.11.5	Raised retroreflective pavement markers	Accepted
	4.11.6	Temporary kerbing	Accepted with amendments
	4.12	Containment fences and road safety barrier systems	
	4.12.1	Containment fences	Accepted
	4.12.2	Longitudinal channelizing devices	Accepted
	4.12.3	Road safety barrier systems	Accepted with amendments
	4.12.4	Temporary crash attenuators	Accepted
	4.13	Lamps	Accepted
	4.14	Vehicle-mounted signs and devices	
	4.14.1	Vehicle-mounted warning device	Accepted with amendments
	4.14.2	Illuminated flashing arrow sign	Accepted
	4.14.3	Supplementary vehicle-mounted signs	Accepted
	4.14.4	Variable message signs	Accepted
	4.14.5	Truck-mounted and trailer-mounted crash attenuator	Accepted
	4.15	Roadwork pilot vehicle	Accepted
	4.16	BLASTING WORK signs	Accepted
	4.17	Signs and devices for managing pedestrians	Accepted with amendments
	4.18	Signs and devices for managing cyclists	Accepted
	4.19	Signs and devices for vehicle height and mass restrictions	Accepted
	4.20	Other signs and devices	
	4.20.1	General	Accepted
	4.20.2	Antiglare screen	Accepted
	4.20.3	Work site screens (anti-gawking or anti-debris screen)	Accepted
	4.21	High-visibility clothing for work personnel	Accepted

Section	Clause	Description	Applicability	
	4.22	Variable message signs used at roadworks		
	4.22.1	General	Accepted	
	4.22.2	Application	Accepted	
	4.22.3	Message screens	Accepted with amendments	
	4.23	Use of supplementary devices at roadworks to reduce speed	New	
	4.24	Display of electronic signs	New	
	4.25	Changeable message signs	New	
Appendices				
А	(normative)			
	Additional	multi-message signs		
	A.1	Scope	Accepted	
	A.2	Development of further multi-message signs	Accepted	
	A.3	List of additional multi-message sign panels	Accepted with amendments	
В	(informativ	/e)	Accepted with amendments	
	Multi-message sign combinations			
С	(normative	2)	New	
	Supplementary list of temporary roadworks signs			
Bibliography	Bibliography		Accepted	

Contents

Abo	ut this doc	ument	i	
How	to use this	s document	i	
Defir	nitions		.ii	
Rela	tionship ta	ble	iii	
Cont	ents		ix	
1	Scope and	d general	.1	
1.3 Terms and definitions		definitions	1	
	1.3.2 1.3.5 1.3.13 1.3.14 1.3.19 1.3.24 1.3.25	Competent person May Shall Should Traffic Controller Registered Professional Engineer of Queensland (RPEQ) Recommended	.1 .1 .1 .1	
1.5				
1.6	1.5.2	Level of service Innovative devices, treatments, or practicesority	.2	
1.7	Prescribed	I training	3	
1.8	Operationa	al and technical guidelines	4	
1.9	Variation to	o treatments and Registered Professional Engineer of Queensland certification	4	
1.10	Non-stand	ard signs	5	
3	Traffic gui	idance scheme	.5	
3.4	•	temporary speed zone Advance warning of temporary speed zones (buffer zones)		
4	Function,	description and use of standard signs and devices	.6	
4.2		and use		
		Multi-message signs		
4.6	4.6.2 4.6.7 ROAD (T1 4.6.10	devices for work site approaches and departures ROADWORK AHEAD (T1-1, TM1-1, T1-31), ROADWORK X km AHEAD (T1-16) ROADWORK ON SIDE ROAD (T1-25, TM1-25), ROAD PLANT ON SIDE -27, TM1-27) END ROADWORK (T2-16, T2-17, TM2-17) ROADWORK AHEAD, ROADWORK ON SIDE ROAD, and END ROADWORK signs	.8 .8 .9	
4.7	•	devices for regulatory control of traffic	12 13	
4.8	-	ns1		
		DETOUR (T5-1, TM5-1)		
4.9	Road condition signs 16 4.9.1 Slippery (T3-3, TM3-3), SOFT EDGES (T3-6, TM3-6), ROUGH SURFACE (T3-7, TM3-7), Loose Stones (T3-9, TM3-9), GRAVEL ROAD (T3-13, TM3-13), LOOSE SURFACE (T3-14, TM3-14) 16			
4.10		devices for road and lane closures1		

	4.10.1	Signs	. 17
4.11	Devices fo	r delineating and indicating the travelled path	. 17
	4.11.1 4.11.3 4.11.6	Traffic cones and temporary bollards Temporary hazard markers (T5-4, T5-5, T5-7) Temporary kerbing	. 18
4.12	Containme	nt fences and road safety barrier systems	
		Road safety barrier systems	
4.14	Vehicle mo	ounted signs and devices	. 19
	4.14.1	Vehicle mounted warning device	. 19
4.17	Signs and	devices for managing pedestrians	. 20
4.22	Variable m	essage signs used at roadworks	. 21
	4.22.3	Message screens	. 21
4.23	Use of sup	plementary devices at roadworks to reduce speed	. 21
4.24	Display of	electronic signs	. 22
4.25	Changeab	le message signs	. 23
Арре	endix A – A	Additional multi-message signs (normative)	. 25
A.3	List of add	itional multi-message sign panels	. 25
Арре	endix B – N	Iulti-message sign combinations (informative)	. 54
Арре	endix C – S	Supplementary list of temporary roadworks signs (normative)	. 56
C.1	Suppleme	ntary list of temporary roadworks signs approved for use in Queensland	. 56

Tables

Table 4.14.1 – Vehicle mounted warning devices	19
Table A.1 — List of additional multi-message sign panels	25
Table A.2 — List of additional multi-message sign panels for use in Queensland	27
Table C.1 — List of temporary roadworks signs approved for use in Queensland	57

Figures

Figure 4.2.2(a) – Example multi-message signs with No Left / No Right Turn prohibition panels	6
Figure 4.2.2(b) – Examples of multi-message signs in accordance with the Transport Infrastructure Act 1994	7
Figure 4.2.2(c) – Examples of multi-message signs for police	7
Figure 4.2.2(d) – Examples of multi-message signs for road closures	7
Figure 4.2.2(e) – Example of TM5-1B with two blanks	8
Figure 4.6.11(a) – Roadworks on a side road with no impact on the through road	0
Figure 4.6.11(b) – Roadworks on a side road which has an impact on the through road	1
Figure 4.6.11(c) – Roadworks on a 'No Through Road' or 'Cul-de-sac'	1
Figure 4.6.11(d) – Roadworks on a through road with no impact on the side road	2
Figure 4.6.11(e) – Roadworks on a through road which has an impact on the side road	2

Figure 4.7.2 – LED-enhanced STOP / SLOW bat	. 13
Figure 4.24 – Examples of electronic signs	. 22
Figure 4.25 – Example changeable message sign	. 24
Figure B1 – Multi-message sign combination examples with traffic travelling to the right side of the signs	. 54
Figure B2 – Additional multi-message sign combination examples with traffic travelling to the right s of the signs	

1 Scope and general

1.3 Terms and definitions

1.3.2 Competent person

Addition

Add the following notes to the definition:

- 2. Competent persons must be authorised by Transport and Main Roads to perform that task in Queensland.
- 3. A competent person may only undertake TTM activities in accordance with *Queensland Guide to Temporary Traffic Management* (QGTTM) Part 8 Appendix A.
- 4. Prescribed training for TTM activities is provided in Clause 1.7.

1.3.5 May

Addition

Add the following note to the definition:

Where the word 'may' is used, it indicates that use of the device is conditional, or optional. Usually, no specific requirement for design or application is intended.

1.3.13 Shall

Addition

Add the following note to the definition:

Where certain requirements in the design or application of the device are described with the 'shall' stipulation, it is mandatory that, when an installation is made, these requirements be met.

1.3.14 Should

Addition

Add the following note to the definition:

Where the word 'should' is used, it is considered to be recommended use, but not mandatory. Any recommendation that is not applied must be based on sound traffic engineering judgement and documented.

1.3.19 Traffic Controller

Addition

A person who holds an appointment as an accredited person under Section 21 of the *Transport Operations (Road Use Management)* (TORUM) *Act 1995* to perform the functions of a Traffic Controller as prescribed by Subdivision 6 of the Transport Operations (Road Use Management – Accreditation and Other Provisions) Regulation 2015.

1.3.24 Registered Professional Engineer of Queensland (RPEQ)

<u>New</u>

A person who is registered as a Registered Professional Engineer of Queensland (RPEQ), under the *Professional Engineers Act 2002* (Queensland) with the Board of Professional Engineers of Queensland, to provide a professional engineering service.

Note:

A professional engineering service is an engineering service that requires or is based on the application of engineering principles and data to a design or to a construction, production, operation, or maintenance activity relating to engineering and does not include an engineering service that is provided only in accordance with a prescriptive standard.

1.3.25 Recommended

<u>New</u>

A recommendation is the same as a 'should' requirement. Where the word 'recommended' is used, it is considered to be recommended use, but not mandatory. Any recommendation that is not applied must be based on sound traffic engineering judgement and documented.

1.5 Innovation

<u>New</u>

Innovative treatments that provide improved safety, efficiency and/or value-for-money outcomes are encouraged. Such treatments may include:

- a) planning for greater network impacts through reducing the level of service for the road user typically enables works to be undertaken in a more time- and cost-efficient manner
- b) innovative deployment of devices, and/or
- c) alternative device layouts using new and/or improved devices.

New or improved devices, treatments or practices require approval by the Department of Transport and Main Roads (see Clause 1.9 for guidance about variation to optimal treatments).

1.5.1 Level of service

<u>New</u>

For proposals that involve planning for greater network impacts through reducing the level of service for the road user, contact the relevant road owner(s) with all details and supporting information regarding the proposal. The approval of the relevant road owner(s) is required prior to implementation.

1.5.2 Innovative devices, treatments, or practices

New

For trials of new or innovative static or non-electrical traffic control devices, treatments or practices, a submission in accordance with the requirements of the Queensland *Manual of Uniform Traffic Control Devices* (MUTCD) Part 1 Clause 1.13 shall be submitted to

TrafficEngineering.Support@tmr.qld.gov.au.

In addition, for new or innovative ITS or electrical products or systems, treatments or practices the *Applicant's Guide Products evaluation process for ITS, Electrical and Traffic Engineering specified and innovative products* outlines the Department of Transport and Main Roads product evaluation process for ITS, Electrical and Traffic Engineering specified and innovative field products. It is Transport and Main Roads' primary reference for manufacturers and/or suppliers (Applicants) seeking approval or acceptance of specified or innovative products for road transport infrastructure. Refer to the web page Intelligent transport systems and electrical (Department of Transport and Main Roads) for further details.

1.6 Legal authority

<u>New</u>

TORUM provides that 'Official Traffic Signs' shall be installed only by the authority of the Chief Executive of Transport and Main Roads or a local government. The Act also provides that any such sign shall be installed in accordance with the methods, standards and procedures prescribed in this *Manual*, or other duly approved documents.

This Part of the *Manual* provides the methods and standards for official traffic signs used for works on roads. The procedures for the installation of the signs are given in the QGTTM, which is issued as an approved notice under Section 166(2) of TORUM.

1.7 Prescribed training

New

A person is only authorised to perform the role in Queensland if the person holds an authority card that is applicable to that role (that is, where such an authority is a mandatory regulatory requirement). To obtain an authority card in Queensland, a person must undertake the relevant prescribed training course and meet any additional requirements relevant to the appropriate authority card. Prescribed training courses shall be those developed by the Department of Transport and Main Roads and delivered by approved registered training organisations.

Prescribed training courses are outlined following:

- a) <u>Working in proximity to traffic awareness Part 1</u>: Required for persons who work on or adjacent to a road in accordance with the QGTTM Part 8 Table A7
- b) <u>Working in proximity to traffic awareness Part 2</u>: Required for persons who have completed Working in proximity to traffic awareness Part 1, and are required to select and implement work method practices as per the short-term, low-impact works provisions (with exceptions) in accordance with the QGTTM Part 8 Table A7
- c) <u>Traffic management implementation</u> (TMI): Required for persons implementing Traffic Management Plans (TMPs) and Traffic Guidance Schemes (TGSs) in accordance with the QGTTM Part 8 Table A5
- d) <u>Traffic management design</u> (TMD): Required for persons that design, develop, review and inspect TMPs and TGSs in accordance with the QGTTM Part 8 Table A3
- e) <u>Traffic Controller</u>: Required for person who holds an appointment to perform the functions of a Traffic Controller (see Clause 1.3.19) in accordance with the QGTTM Part 8 Table A4, and
- f) <u>Event Traffic Marshal</u>: Required for persons undertaking event traffic management in accordance with the QGTTM Part 8 Table A7.

In addition to the prescribed training courses identified above, temporary traffic management (TTM) workers listed below shall also act in accordance with the relevant QGTTM requirements:

- g) *lookout person*: For persons who have completed *Working in proximity to traffic awareness Part 1* and *Part 2* and are required to act in accordance with the QGTTM Part 8 Table A7
- h) *roadworks pilot vehicle driver*: For persons who act in accordance with the QGTTM Part 8 Table A7
- i) *truck-mounted attenuator (TMA) vehicle driver*: For persons who have completed TMI and are required to act in accordance with the QGTTM Part 8 Table A7, and
- j) authorised person: For persons who act in accordance with the QGTTM Part 8 Table A7.

1.8 Operational and technical guidelines

<u>New</u>

The Department of Transport and Main Roads has published additional operational and technical guidelines, including the *Guideline – Traffic Management at Works on Roads*, that provide detailed information of traffic control devices that may be used for activities regarding works on roads. These documents are issued as approved notices under Section 166(2) of TORUM.

1.9 Variation to treatments and Registered Professional Engineer of Queensland certification

New

This Part of the *Manual* contains mandatory requirements (*shall*), recommendations (*should*) and options (*may*). The application of these mandatory requirements and recommendations is intended to provide the optimal level of safety and traffic efficiency. Variations to these treatments may be undertaken as follows:

- a) Where recommendations (*should*) are not adopted in preparing a TMP or TGS, a risk assessment, in accordance with the QGTTM shall be undertaken by a TMD.
- b) Where mandatory requirements (*shall*) are not adopted in preparing a TMP or TGS, a risk assessment, in accordance with the QGTTM, shall be undertaken by a TMD.

Both the risk assessment and the TMP or TGS shall be certified by a Registered Professional Engineer of Queensland (RPEQ) with at least a TMD competency.

Where mandatory requirements (shall) are not adopted, the TMD preparing the TMP or TGS shall email notifications of variations to mandatory requirements (including all relevant information and RPEQ details) to <u>TrafficEngineering.Support@tmr.qld.gov.au</u> for information purposes and for the benefit of identifying potential future practice changes – not for approval or endorsement. These variations may include learnings that may be attributed to the variation of a *shall* requirement, such as operational, cost or safety impacts.

c) Where innovative treatments (see Clause 1.5) that are outside the scope of the Queensland MUTCD are proposed to be adopted in a TMP or TGS, a risk assessment, in accordance with the QGTTM, shall be undertaken by a Competent Person with at least TMD competency. Both the risk assessment and the TMP or TGS shall be certified by an RPEQ who may be required to hold TMD competency.

All proposed innovative treatments require approval by Transport and Main Roads prior to their use or adoption. Requests for approval of innovative treatments (including all relevant information) shall be emailed to <u>TrafficEngineering.Support@tmr.qld.gov.au</u>. As part of an approval to use or trial an innovative treatment, Transport and Main Roads may require that the applicant provides a detailed evaluation report on the performance and effectiveness of the treatment. Transport and Main Roads may use the results of the evaluation to identify potential future practice changes to this Part of the *Manual*.

d) The use of options (*may*), when adopted in preparing a TMP or TGS, are not a variation to the optimal treatment and do not require certification by an RPEQ.

Very few roadworks sites should fall within scope of the RPEQ requirement in addition to subclauses (b) and (c). Examples include TMPs or TGSs which involve complex geometric changes that require the application of engineering design principles or complex diversions that might require detailed analysis (such as micro-simulation traffic modelling) to establish the network impacts.

Risk assessments for TTM activities shall be prepared in accordance with the requirements in QGTTM Part 10 Section 2 *Risk Management for TTM*.

1.10 Non-standard signs

<u>New</u>

Those responsible for the design and erection of signs are not encouraged to develop signs for their own particular use; however, there may be instances where no suitable standard sign exists.

In these cases, refer to the guidance requirements in the Queensland MUTCD Part 1, Clause 1.8 for requesting special non-standard signs.

3 Traffic guidance scheme

3.4 Creating a temporary speed zone

3.4.4 Advance warning of temporary speed zones (buffer zones)

Difference

Replace:

A speed limit reduction of 60 km/h or more should be effected in two steps. The steps may comprise either two successive speed zone steps in accordance with Item (b), or a speed zone step and a step using the Speed Limit AHEAD sign in accordance with Item (a).

with:

Speed limits shall be reduced in accordance with the requirements detailed in the <u>Queensland</u> <u>Guide to Temporary Traffic Management</u> (QGTTM) Part 3 Section 5.5.1 subsection **Designing a speed limit**.

4 Function, description and use of standard signs and devices

4.2 Selection and use

4.2.2 Multi-message signs

Addition

- g) There shall be no more than one blank retroreflective yellow panel used in a multi-message sign.
- h) Where multi-message signs are used and a sign is required at the same location for both directions of travel, the following options may be applied:
 - i. use two separate multi-message sign assemblies, placed back-to-back to face opposing directions of traffic, or
 - ii. if orientation and sight lines to opposing directions of traffic can be achieved, the one multi-message assembly may be used with the panels installed back-to-back on the one frame.
- i) When used, the Speed Limit AHEAD and the END speed limit panels in MMS arrangements shall be placed in the top position of the frame on the side closest to the traffic.

Addition

The requirements in b) for a single regulatory sign panel do not apply to additional regulatory supplementary panels relating to and conditioning or otherwise the regulatory sign panel and which combine to form a single regulatory message.

Addition

The requirements in c) for regulatory sign panels do not apply to No Left (RM2-6A-L) or No Right (RM2-6A-R) Turn prohibition panels, with these panels installed on the side of the multi-message assembly where the turn prohibition applies (see examples in Figure 4.2.2(a) following).

Figure 4.2.2(a) – Example multi-message signs with No Left / No Right Turn prohibition panels



TRAFFIC LANE

TRAFFIC LANE



Addition

The requirements in d) for text-only multi-message panels do not apply to the following arrangements:

- i. multi-message signs installed in accordance with section 46 of the *Transport Infrastructure Act 1994* for restricted road use notices, where, in most cases, three panels containing words are required (see examples in Figure 4.2.2(b) following)
- where police are performing traffic control duties and the 600 x 600 worded panels
 POLICE CONTROL AHEAD and PREPARE TO STOP are both required, see Figure 4.2.2(c) for examples, and
- iii. where the 600 x 600 worded panels ROAD CLOSED AHEAD and LOCAL TRAFFIC ONLY are required, see Figure 4.2.2(d) for examples.

Figure 4.2.2(b) – Examples of multi-message signs in accordance with the Transport Infrastructure Act 1994.

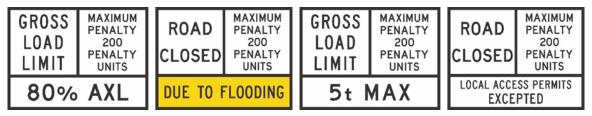


Figure 4.2.2(c) – Examples of multi-message signs for police



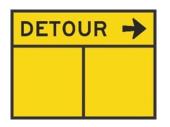
Figure 4.2.2(d) – Examples of multi-message signs for road closures



Addition

The requirements in a) and g) do not apply when using the 1200 x 300 multi-message panel (TM5-1B) DETOUR with a small arrow, or (TM5-1Q01) DETOUR with U-Turn symbol and there are no relevant messages that may be added to this assembly. In this case, a single TM5-1B or TM5-1-Q01 panel may be used as the top panel in a multi-message frame with two blanks (see example in Figure 4.2.2(e) following).

Figure 4.2.2(e) – Example of TM5-1B with two blanks



4.6 Signs and devices for work site approaches and departures

4.6.2 ROADWORK AHEAD (T1-1, TM1-1, T1-31), ROADWORK X km AHEAD (T1-16)

Difference

Replace:

The ROADWORK X km AHEAD sign should be used X km in advance of a road work site, where additional advance warning is necessary.

with:

Where additional advance warning is necessary, the ROADWORK X km AHEAD sign should be used X km in advance of the Primary PREPARE TO STOP sign (if traffic control is used), or the first cone in a taper (if a taper is used), or the start of the safety buffer area, and be at least two sign spacings in advance on the ROADWORK AHEAD sign.

4.6.7 ROADWORK ON SIDE ROAD (T1-25, TM1-25), ROAD PLANT ON SIDE ROAD (T1-27, TM1-27)

Difference

Replace:

The ROADWORK ON SIDE ROAD sign shall not be used on a side road to warn of relevant activities on the through road. The ROAD WORK AHEAD (TM1-1A) with a direction arrow (TM5-8A) should be used instead.

with:

The ROADWORK ON SIDE ROAD sign shall not be used on a side road to warn of relevant activities on the through road. The ROAD WORK AHEAD (TM1-1A or TM1-1C) with a direction arrow (TM5-8B) should be used instead.

The standard MMS Lane Status panel TM10-1A may be used with or without the ON SIDE ROAD message to indicate a direction where the long arrow TM5-8B is not suitable.

<u>Addition</u>

The ROADWORK ON SIDE road sign shall not be used where there is an impact for traffic on the through road. Impacts on the through road may include but not be limited to any need for reduced speed zones, additional delineation, changes to alignment or surface condition, use of traffic control or traffic queueing which extends onto the through road. Where there are impacts on the through road, the ROADWORK AHEAD sign (see Clause 4.6.2) should be used.

4.6.10 END ROADWORK (T2-16, T2-17, TM2-17)

Difference

Replace:

The END ROADWORK sign shall be used whenever there is a ROADWORK AHEAD or ROADWORK NEXT X km sign is used on the approach to the work site.

with:

The END ROADWORK sign shall be used whenever there is a ROADWORK AHEAD or ROADWORK NEXT X km sign is used on the approach to the work site, except where the requirements of Clause 4.6.11 would be applicable.

<u>Addition</u>

The END ROADWORK sign shall be used whenever a BRIDGEWORK AHEAD or BRIDGEWORK NEXT X km sign is used on the approach to the roadworks site.

The END ROADWORK sign may be used whenever a ROAD PLANT AHEAD or GRADER AHEAD, (with or without a NEXT X km sign) is used on the approach to the roadworks site.

4.6.11 ROADWORK AHEAD, ROADWORK ON SIDE ROAD, and END ROADWORK signs

<u>New</u>

This clause will outline with examples, the various requirements for advance warning signs (ROADWORK AHEAD, ROADWORK ON SIDE ROAD) and termination signs (END ROADWORK) for works on a 'No Through Road' or 'Cul-de-sac' or located partly or wholly on through or side roads.

This clause does not vary or alter the requirements or options in Clause 4.6.2 for when a ROADWORKS AHEAD or ROADWORKS X km AHEAD sign shall be or may be used. It also does not vary or alter the requirements in Clause 4.6.7 for the use of the ROADWORKS ON SIDE ROAD signs.

In accordance with the technical requirements, roads may require ROADWORK AHEAD signs or other signs warning of the works on another road, however this does not automatically mean that the END ROADWORK signs are required for traffic in the opposing direction. This clause will identify those locations or situations where the END ROADWORK sign may not be required.

Where roadworks is located on a side road with no impact on the through road the ROADWORK ON SIDE ROAD advance warning sign is used on the through road, see example Figure 4.6.11(a). The END ROADWORK sign is not required on the through road, except where the END ROADWORK sign is not able to be installed prior to the end of the side road. Where the END ROADWOK signs are not installed on the through road, the END ROADWORKS sign shall be installed on the side road prior to exiting the side road onto the through road.

Impacts on the through road from works on a side road may include but not be limited to any need for reduced speed zones, additional delineation, changes to alignment or surface condition, use of traffic control or traffic queueing which extends onto the through road.

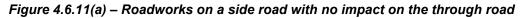
Where roadworks is located on a side road which impact the through road, the ROADWORK AHEAD and END ROADWORK signs shall be used on both the through road and the side road, see example Figure 4.6.11(b).

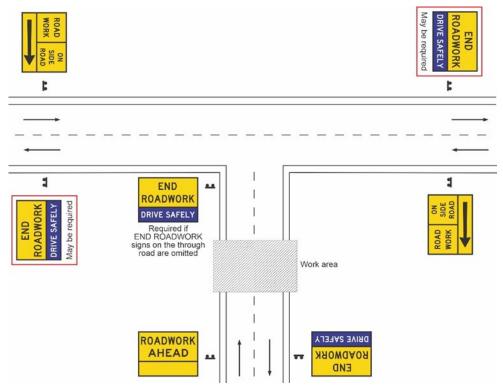
Where roadworks are located on a 'No Through Road' or 'Cul-de-sac' the END ROADWORK sign may be omitted on the departure from the work area when travelling towards the terminating end of the road or cul-de-sac where there are no intersections between the end of the works and the terminating end of the road, and the end of the road or cul-de-sac is either visible from or within 500 m of the end of the work area, see example in Figure 4.6.11(c).

Where roadworks is located on a through road with no impact on a side road (located within the advance warning area), see example Figure 4.6.11(d), the ROADWORK AHEAD and END ROADWORK signs shall be installed on the through road. The ROADWORK AHEAD sign with a direction arrow shall be installed on the side road. On the side road, when departing the through road where road works are occurring via the side road (either before or after the road work area) and the road works have no impact on the side road or operation of the intersection with the side road, there is no requirement for an END ROADWORK sign on the side road, however it may be installed if desired.

Where roadworks is located on a through road which impact a side road, see example Figure 4.6.11(e), the ROADWORK AHEAD and END ROADWORK signs shall be installed on both the through road and the side road.

Figures 4.6.11(a), (b), (c), (d) and (e) are examples showing ROADWORK AHEAD and END ROADWORK signs only and do not include all traffic control devices required.





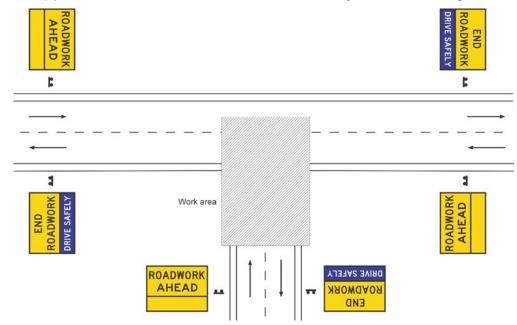
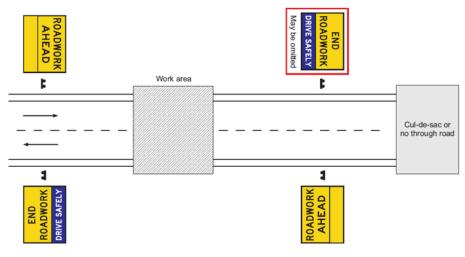


Figure 4.6.11(b) – Roadworks on a side road which has an impact on the through road

Figure 4.6.11(c) – Roadworks on a 'No Through Road' or 'Cul-de-sac'



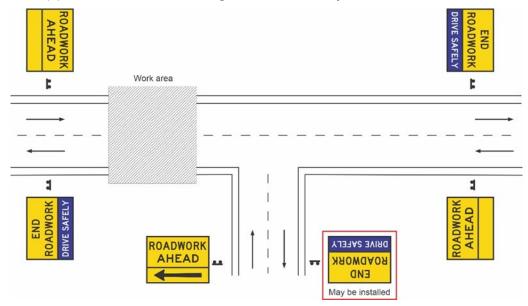
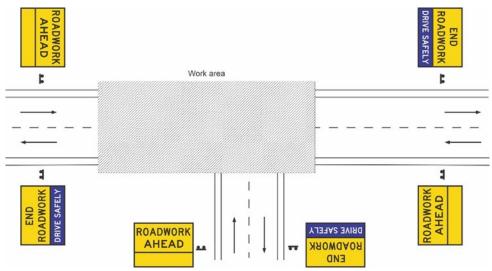


Figure 4.6.11(d) – Roadworks on a through road with no impact on the side road

Figure 4.6.11(e) – Roadworks on a through road which has an impact on the side road



4.7 Signs and devices for regulatory control of traffic

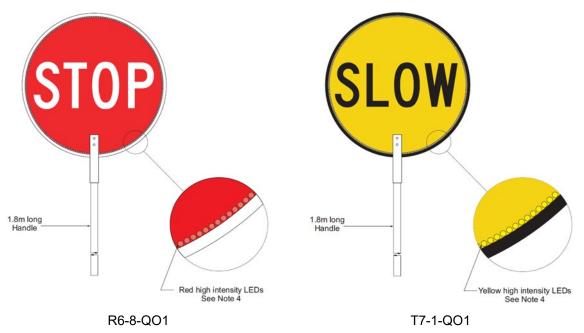
4.7.2 Manual control

Addition

e) LED STOP / SLOW bat

Light emitting diode (LED)-enhanced STOP / SLOW bats may be used where enhanced visibility is desirable, such as during night works or when weather conditions such as rain or fog may limit the effectiveness of the standard bats. LED-enhanced STOP / SLOW bats shall comprise R6-8-QO1 and T7-1-QO1 on opposite faces of the STOP / SLOW bat, see Figure 4.7.2 following.





When used on state-controlled roads, LED-enhanced STOP / SLOW bats shall be as specified on Transport and Main Roads' <u>Approved products and registered suppliers</u> list.

4.7.3 Sign control, single lane operation

Difference

Replace the GIVE WAY and ONE LANE rows in Table 4.2(B):

Sign	Sign number	Size, mm
GIVE WAY	R1-2A	750 ht
	R1-2B	900 ht
	RM-2A	600 x 600
ONE LANE	R9-9A	600 x 400
	R9-9B	750 x 500
	RM9-9A	600 x 600

with:

Sign	Sign number	Size, mm
GIVE WAY	R1-2A	750 ht
	R1-2B	900 ht
	RM1-2-Q01A	600 x 600
	RM1-2-Q01C	1200 x 600
ONE LANE	R9-9A	600 x 400
	R9-9B	750 x 500
	RM9-9-Q01A	600 x 600
	RM9-9-Q01B	1200 x 600

(a) GIVE WAY (R1-2), GIVE WAY AHEAD (W3-2, WM3-2), ONE LANE (R9-9)

Difference

Replace dot points (i) and (iii):

- the traffic volume is 150 vpd or less and the traffic speed (see Clause 1.3.16) is 70 km/h or less;
- (iii) the work area is less than 100 m in length; and

with

- the traffic volume is 150 vph or less and the traffic speed (see Clause 1.3.16) is 70 km/h or less;
- (iii) the single lane or shuttle flow segment is less than 120 m in length; and

Addition

Add the following GIVE WAY and ONE LANE sign options.



ONE

RM1-2-Q01A



RM1-2-Q01C

ONE LANE

RM9-9-Q01B

4.7.6 Temporary speed limits

RM9-9-Q01A

Difference

Replace the Speed Restriction row in Table 4.2(E):

Sign	Sign number	Size, mm
Speed Restriction	R4-1A	450 x 600
	R4-1B	600 x 800
	R4-1C	900 x 1200
	R4-1D	1200 x 1600
	RM4-1A	600 x 600

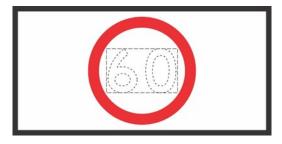
Sign	Sign number	Size, mm
Speed Restriction	R4-1A	450 x 600
	R4-1B	600 x 800
	R4-1C	900 x 1200
	R4-1D	1200 x 1600
	RM4-1A	600 x 600
	RM4-1-Q01	1200 x 600

with:

(a) Speed Restriction (R4-1, RM4-1)

Addition

Add the following Speed Restriction sign option.



RM4-1-Q01

(c) END Speed Limit (R4-12, RM4-12)

Addition

In Queensland where an END Speed Limit is used, the speed limit which applies following this sign is the default speed limit applicable for that road environment of either an open rural road of 100 km/h or a built-up area of 50 km/h.

4.8 Detour signs

4.8.3 DETOUR (T5-1, TM5-1)

Addition

Add the following rows to Table 4.3(C):

Sign	Sign number	Size, mm
DETOUR (U-Turn)	TM5-1-Q01	DETOUR (U-Turn)
Detour (U-Turn) Symbolic	TM5-1-Q02	600 x 600
U-TURN FACILITY AHEAD	TM5-1-Q03	600 x 600

Addition

For detour routes that include a U-turn requirement, the DETOUR U-turn (TM5-1-Q01), Detour U-turn (symbolic) (TM5-1-Q02), or the U-TURN FACILITY AHEAD (TM5-1-Q03) signs may be used.

The Detour U-turn (symbolic) (TM5-1-Q02) panel shall be used with a DETOUR panel (TM5-7A or TM5-7B).







TM5-1-Q02



TM5-1-Q03

4.9 Road condition signs

4.9.1 Slippery (T3-3, TM3-3), SOFT EDGES (T3-6, TM3-6), ROUGH SURFACE (T3-7, TM3-7), Loose Stones (T3-9, TM3-9), GRAVEL ROAD (T3-13, TM3-13), LOOSE SURFACE (T3-14, TM3-14)

Difference

Replace:

If the hazardous conditions extend over a considerable length the signs may need to be repeated at regular intervals. Advisory Speed signs (T3-16) (see Clause 4.9.2) may be required in conjunction with these signs.

with:

If the hazardous conditions extend over a considerable length, the signs may need to be repeated at regular intervals which should not exceed 500 m. Advisory Speed signs (T3-16, TM6-16) (see Clause 4.9.2) or Speed Restriction signs (R4-1, RM4-1) (see Clause 4.7.6), may be required in conjunction with these signs.

Addition

Refer to Clause 3.4.2(b) for speed zones for traffic safety purposes, particularly where loose material or stones are present on the road surface or for new sprayed seal works where higher speeds may damage the new seal.

Where work is carried out under <u>MRTS11 Sprayed Bituminous Treatments (Excluding Emulsion)</u> or other Technical Specifications which require regulatory speed limits to be posted after resealing works, the requirements of those Technical Specifications regarding the installation of speed limit signs shall apply.

4.10 Signs and devices for road and lane closures

4.10.1 Signs

Difference

Replace the ROAD CLOSED row in Table 4.5:

Sign	Sign number	Size, mm
ROAD CLOSED	T2-4	1800 x 300
	TM2-4B	1200 x 300
	TM2-4C	1200 x 600

with:

Sign	Sign number	Size, mm
ROAD CLOSED	T2-4	1800 x 300
	TM2-4A	600 x 600
	TM2-4B	1200 x 300
	TM2-4C	1200 x 600

Addition

Add the following ROAD CLOSED sign option to item a)





Addition

Where there is a need to advise drivers in advance of an upcoming road closure, the ROAD CLOSED X km AHEAD (T2-4-Q02) or ROAD CLOSED AHEAD (TM1-43A, TM1-43C) signs may be used. The ROAD CLOSED X km AHEAD sign should not be used as a substitute for detour provisions (see Clause 4.8), but rather as an additional advance measure to warn drivers of the upcoming road closure. The ROAD CLOSED X km AHEAD sign should be located X km ahead of the actual road closure point (where the ROAD CLOSED signs are located).

4.11 Devices for delineating and indicating the travelled path

4.11.1 Traffic cones and temporary bollards

Addition

Logos and marking may be used on cones and bollards for identity purposes. When used, it shall be limited to the non-retroreflective surface areas of the device.

4.11.3 Temporary hazard markers (T5-4, T5-5, T5-7)

Difference

Replace:

Temporary Hazard markers should be used to show any lateral change of direction of the travelled path through a work site and to delineate hazards and non-trafficable work areas adjacent to the travelled way. They should be erected with their edge about 1 m from the edge of the travelled path and the chevrons should always point to the side to which traffic is required to pass. They should be mounted at about 1 m above the pavement.

with:

Temporary Hazard markers should be used to show any lateral change of direction of the travelled path through a roadworks site and to delineate hazards and non-trafficable work areas adjacent to the travelled way. They should be erected with their edge about one metre from the edge of the travelled path and the chevrons should always point to the side to which traffic is required to pass.

Temporary Hazard markers (T5-4 and T5-5) should be mounted at about one metre above the pavement. The T5-7 Temporary Hazard marker is designed to be mounted in 'weighted' temporary plastic or rubber support placed on the ground. The TM5-5A panels are used in a multi-message frame arrangement and mounted at the standard height for a multi-message frame.

Addition

The narrow vertical KEEP LEFT sign (R2-3-Q01) may be substituted for the T5-7 Temporary Hazard marker where a regulatory KEEP LEFT sign is more appropriate.

4.11.6 Temporary kerbing

Addition

Temporary kerbs may be used at roadworks sites as a means of narrowing traffic lanes. The installation of a kerb changes the environment sufficiently to reduce vehicle speed. Kerbs should be run-over type so that, in the event of an errant vehicle mounting the kerb, the driver is able to control the vehicle.

Delineators may be installed with temporary kerbs to guide traffic through the roadwork zone. Where delineators are used, these shall be black and yellow in colour. The bars shall be aligned to point down to the left if vehicles are to pass to the left and shall be aligned to point to the right if vehicles are to pass to the kerb.

4.12 Containment fences and road safety barrier systems

4.12.3 Road safety barrier systems

<u>Addition</u>

Only road safety barriers included on the current list of accepted products in the Transport and Main Roads <u>Accepted Road Safety Systems and Devices</u> document shall be used at roadworks sites in Queensland.

4.14 Vehicle mounted signs and devices

4.14.1 Vehicle mounted warning device

Difference

Replace entire Clause 4.14.1 with the following:

A vehicle mounted warning device shall consist of one of the following arrangements in Table 4.14.1.

Arrangement	Vehicle Mounted Warning Device (VMWD)	Use conditions / requirements
1	A single flashing yellow lamp or LED light assembly	 For emergency or other infrequent use on a vehicle not normally used for either roadworks or inspection purposes. For use on a plant item working within a static
		work area.
2	A pair of flashing yellow lamps or LED light	 For use on vehicles on all roads without the protection of a static roadworks site.
	assemblies (placed as far apart as practical)	 Positioned on the vehicle so that at least one, and preferably both lamps are visible to all road users from any direction.
		 Additional flashing yellow lamp(s) or LED assemblies may be required to be added on the vehicle to ensure visibility is provided to all road users in any direction.
3	An illuminated flashing arrow sign (see MUTCD Part 3	 For any situation where option 1 or 2 is not appropriate.
	Clause 4.14.2)	 May be used for any type of work (including mobile works).
		• May be used in combination with options 1 or 2.
		 If required, supplementary signs (static or variable message signs) are mounted in conjunction or elsewhere in a prominent position on the vehicle.
		• The illuminated flashing arrow sign must be capable of being removed from view (e.g. covering, folding down, or turning off) when not needed.

The vehicle-mounted warning device shall be mounted as high as practicable on the vehicle for best visibility to other traffic, e.g. on top of the cab of a truck. It may need to be placed near the rear of the vehicle if a cab-mounted sign could be obscured by a load. Supplementary signs used in conjunction with the illuminated flashing arrow sign (see Clause 4.14.3), may be mounted either in conjunction with that sign or elsewhere in a prominent position on the vehicle.

Where signs are mounted on the device or elsewhere on a vehicle, they shall be capable of being removed from view (e.g. by covering, folding, or turning off) when not needed.

If not specified elsewhere, the minimum sight distance from approaching road users to the vehicle mounted warning device shall be:

- 150 m if the speed is 60 km/h or less
- 250 m if the speed is more than 60 km/h.

While the requirements in this document apply once published

Transport and Main Roads recognises that making immediate changes to flashing lamps on inspection vehicles may require a greater lead in time to ensure compliance.

In recognition of this, inspection vehicles (other than those used for emergency or other infrequent use) shall comply with the requirements in item (b) by the 31st July 2027.

4.17 Signs and devices for managing pedestrians

Difference

Replace the FOOTPATH CLOSED row in Table 4.10:

Sign	Sign number	Size, mm
FOOTPATH CLOSED	T8-4	900 x 600
	TM8-4A	600 x 600

with:

Sign	Sign number	Size, mm
FOOTPATH CLOSED	T8-4	900 x 600
	TM8-4A	600 x 600
	TM8-4C	1200 x 600

Addition

Add the following FOOTPATH CLOSED sign option to item c)



TM8-4C

4.22 Variable message signs used at roadworks

4.22.3 Message screens

Difference

Replace:

(d) Where there are alternating screens the "on" time of each screen shall be 0.6 ± 0.1 s per word or number and the total time required to read the message on both screens shall be taken into account when determining message length and letter height.

NOTE A procedure for determining letter sizes for signs is given in AS 1742.2. The letter series that most nearly matches the on-screen fonts should be used in the calculations. It is recommended that the calculated letter height be doubled for this purpose.

with:

(d) Where there are alternating screens the "on" time of each screen shall be (0.6 ± 0.1) s per word or number and the total time required to read the message on both screens shall be taken into account when determining message length and letter height.

NOTE A procedure for determining letter sizes for signs is given in AS 1742.2. The letter series that most nearly matches the on-screen fonts should be used in the calculations. It is recommended that the calculated letter height be doubled for this purpose.

4.23 Use of supplementary devices at roadworks to reduce speed

<u>New</u>

Supplementary traffic control devices may be used roadworks to reduce speed. These devices include:

- a) speed indicator devices
- b) rumble strips / rumble mats
- c) UHF radio broadcasts, and
- d) temporary portable speed humps,

For information, refer to the Guideline - Traffic Management at Works on Roads.

4.24 Display of electronic signs

<u>New</u>

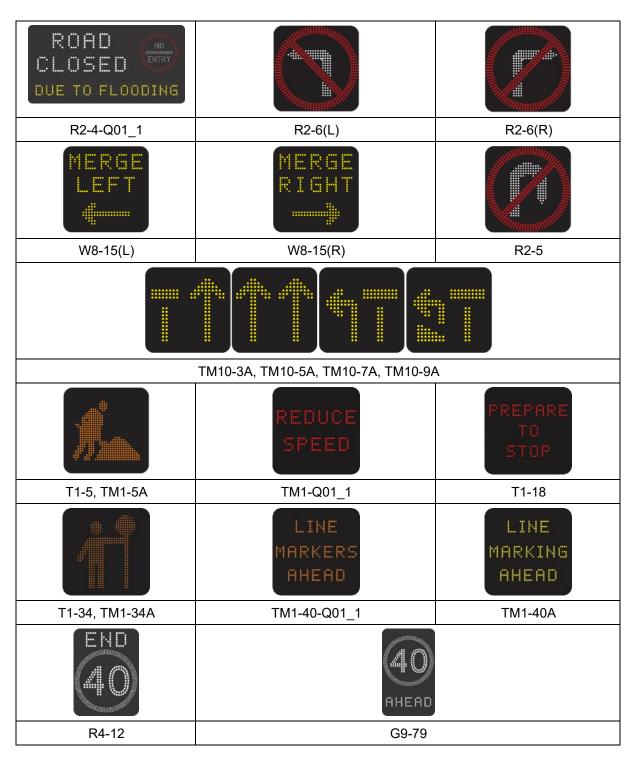
Electronic signs may be substituted for static signs. Electronic variable speed limit signs shall comply with the requirements of <u>AS 5156 Electronic speed limit signs</u>. Variable message signs shall comply with the requirements of <u>MRTS229 Electronic Traffic Control Signs and MRTS262 Temporary Variable</u> <u>Message Signs</u> as appropriate. The display of electronic signs shall comply with the following principles:

- a) symbols / signs shall be shown in the reversed colour scheme to the appropriate static sign
- b) legends shall also be shown in the reversed colour scheme to the appropriate static sign, with red text only used to display the PREPARE TO STOP or REDUCE SPEED message; orange text is used to display the LINE MARKERS AHEAD message while yellow text is used to display the LINE MARKING AHEAD message
- c) the annulus on a speed limit sign shall be red with the speed limit displayed in a white legend
- d) yellow shall be the only colour legend used on electronic signs to display general roadwork messages, and
- e) where noted on the TC sign drawings, compliance with the relevant Main Roads Technical Specification (MRTS) documents is required.

Examples of electronic signs are shown in Figure 4.24.

Figure 4.24 – Examples of electronic signs

60	ROAD CLOSED AHEAD DUE TO FLOODING	ROAD CLOSED AHEAD DUE TO FLOODING
R4-1	T1-Q26_1	T1-Q26_2
ROAD CLOSED 1 km AHEAD DUE TO FLOODING	 ◆ CLAGIRABA RD → CLOSED DUE TO FLOODING 	NO
T1-Q26_3	T2-4-Q03	R2-4
QUEUED TRAFFIC AHEAD PREPARE TO STOP	QUEUED TRAFFIC AMEAD PREPARE TO STOP	ROAD CLOSED
Tm1-46-Q01_1	TM1-46-q01_2	R2-4-Q01_1



4.25 Changeable message signs

<u>New</u>

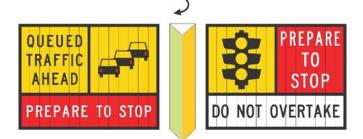
To remotely change the display of static signs, and as an alternative to using full electronic displays for static signs, a changeable message sign may be used.

Changeable message signs use a remote-operated, mechanical change system of displaying up to a maximum of three pre-set messages on the one sign face.

The individual sign faces are split into a series of vertical prisms (three-sided) which can mechanically rotate to display up to three different signs or sign arrangements (in the case of a multi-message sign), as shown in Figure 4.25.

Changeable message signs shall comply with the Main Roads Technical Specification MRTS249 *Transportable Changeable Message Signs*.

Figure 4.25 – Example changeable message sign



Appendices

Appendix A – Additional multi-message signs (normative)

A.3 List of additional multi-message sign panels

<u>Difference</u>

The following replaces the corresponding signs included in Table A.1 in AS 1742. These revised multi-message sign panels are for use in Queensland only.

Table A.1 — List o	of addit	ional mult	ti-mes	sage	e sigi	n panels
			•			

Sign	Sign number	Size (mm)	Figure	Notes
SURVEYORS AHEAD	TM1-37C	1200 x 600	SURVEYORS AHEAD	The SURVEYORS AHEAD sign may be used for surveying works, in lieu of the Workers (symbolic) (T1-5, TM1-5A or TM1-5C sign).
DO NOT OVERTAKE	GM9-90B	1200 × 300	DO NOT OVERTAKE	This sign may be used in conjunction with another panel placed above it describing why overtaking is prohibited.
				The DO NOT OVERTAKE panel shall only be used where overtaking is or was possible (or may be attempted), however due to a change in conditions overtaking is no longer possible or considered safe and is to be prohibited.
SURVEYORS	TM2-35B	1200 x 300	SURVEYORS	The SURVEYORS sign may be used for surveying works, in lieu of the Workers (symbolic) (T1-5, TM1-5A or TM1-5C sign).

Sign	Sign number	Size (mm)	Figure	Notes
Horizontal Arrow	TM5-8B	1200 × 300		This sign shall not be used with a regulatory sign. This sign may be used with an ON SIDE ROAD panel to indicate the direction of the side road where road work is being carried out as shown below. This sign may be used with other relevant panels (excluding regulatory panels) to indicate a direction where the warning applies. When used on a through road it should be used with an ON SIDE ROAD message, however when used on a side road to warn of activities on a through road the ON SIDE ROAD message shall not be used.
ON SIDE ROAD	TM5-9A TM5-9B	600 x 600 1200 x 300	ON SIDE ROAD	This sign shall not be used with a regulatory sign. This sign shall not be used with the Detour marker (TM5-6A), with the preferred arrow to indicate the direction of the side road where road work is being carried out, being the 1200 x 300 Horizontal Arrow (TM5-8B) as shown following. This sign may be used on a through road to warn of works on a side road, however this sign shall not be used when used on a side road to warn of activities on a through road. The ROAD WORK AHEAD (TM1-1A or TM1-1C) with a direction arrow (TM5-8B) should be used instead. In Queensland, the 600 x 600 arrow (TM2-Q03) may be used if the TM5-8B arrow is not suitable.

Sign	Sign number	Size (mm)	Figure	Notes
EVENT ON SIDE ROAD L / R	TM9-5B (L)	1200 x 300	- ON SIDE ROAD	This sign shall not be used with a regulatory sign.
	TM9-5B (R)	1200 x 300	ON SIDE ROAD ->	

Addition

The additional multi-message sign panels detailed in Table A.2 are accepted for use in Queensland.

Sign	Sign number	Size (mm)	Figure	Notes
Regulatory				
GIVE WAY	RM1-2-Q01A RM1-2-Q01C	600 x 600 1200 x 600	GIVE	
			GIVE WAY	

Sign	Sign number	Size (mm)	Figure	Notes
TUNNEL CLOSED	TM2-4-Q02A TM2-4-Q02B TM2-4-Q02C	600 x 600 1200 x 300 1200 x 600	TUNNEL CLOSED TUNNEL CLOSED	
			CLOSED	
Speed limit	RM4-1-Q01	1200 x 600	6.0	Examples

Sign	Sign number	Size (mm)	Figure	Notes
Load Information Panels	RM6-Q01_1 RM6-Q01_1 RM6-Q01_1	1200 x 300	5t MAX	See Clause 4.2.8.
	RM6-Q01_2		25t MAX	
			46t MAX	
			80% AXL	
FOUR WHEEL DRIVE VEHICLES EXCEPTED	RM7-Q01	1200 x 300	FOUR WHEEL DRIVE VEHICLES EXCEPTED	Refer to Q-series sign notes.
AT (STREET / ROAD NAME)	GM-91-Q01	1200 x 300	AT	May only be used on advance warning signs to advise of regulatory controls on intersecting streets / roads.
GROSS LOAD LIMIT	RM6-Q03_1	600 x 600	GROSS LOAD LIMIT	See Clause 4.2.8 and Q-series sign notes.

Sign	Sign number	Size (mm)	Figure	Notes
MAXIMUM PENALTY 200 PENALTY UNITS	RM6-Q02	600 x 600	MAXIMUM PENALTY 200 PENALTY UNITS	Refer to Q-series sign notes.
LOCAL TRAFFIC EXCEPTED	RM9-Q01_A RM9-Q01_B	600 x 600 1200 x 300	LOCAL TRAFFIC EXCEPTED LOCAL TRAFFIC EXCEPTED	See Clause 4.8.10 and Q-series sign notes.
LOCAL ACCESS PERMITS EXCEPTED	GM9-40-2-Q02	1200 x 300	LOCAL ACCESS PERMITS EXCEPTED	Refer to Q-series sign notes.
END Speed Limit	RM4-12-Q01	600 x 600	END	See Clause 4.7.6(c) and Q-series sign notes.
WORK VEHICLES EXCEPTED	TM2-Q10	1200 x 300	WORK VEHICLES EXCEPTED	

Sign	Sign number	Size (mm)	Figure	Notes			
ONE LANE	RM9-9-Q01A RM9-9-Q01B	600 x 600 1200 x 300	ONE LANE				
			ONE LANE				
Advance							
LINE MARKERS AHEAD	TM1-40-Q01_1	600 x 600	LINE MARKERS AHEAD	The LINE MARKERS AHEAD sign may be used where line markers are on foot, in lieu of Workers (symbolic) (T1-5 or TM1-5A or TMI-5C). See T1-Q08 in Appendix C.			
SURVEYORS AHEAD	TM1-37-Q01	600 x 600	SURVEYORS AHEAD	The SURVEYORS AHEAD sign may be used for surveying works, in lieu of the Workers (symbolic) (T1-5, TM1-5A or TM1-5C sign).			

Sign	Sign number	Size (mm)	Figure	Notes
TUNNEL CLOSED AHEAD	TM1-43-Q01A TM1-43-Q01C	600 x 600 1200 x 600	TUNNEL CLOSED AHEAD	
			TUNNEL CLOSED AHEAD	
REDUCE SPEED	TM1-Q01_1 TM1-Q01_2	600 x 600 1200 x 300	REDUCE SPEED REDUCE SPEED	 The REDUCE SPEED sign shall only be used to supplement: a Speed Restriction sign at the start of a reduced speed limit (temporary or permanent), or the first Speed Restriction sign on approach to the works (which may be a repeater Speed Restriction sign for the permanent speed zone), or a Speed Limit AHEAD sign.

Sign	Sign number	Size (mm)	Figure	Notes
Tractor / Slasher MOWING	TM2-30-Q01A TM2-30-Q01C	600 x 600 1200 x 600	MOWING MOWING MOWING	Refer to QGTTM Part 5 Clause 5, T1-Q10 in Appendix C, Q-series sign notes, and examples below.
RUMBLE STRIPS AHEAD	TM1-Q02	600 x 600	RUMBLE STRIPS AHEAD	Refer to QGTTM Part 3 Clause 5.5.3 and Q-series sign notes.
Speed Limit AHEAD	GM9-79-Q01	600 x 600	• AHEAD	See Clause 4.7.6(d) and Q-series sign notes.
PROBABLE DELAY 15 MIN	TM1-Q03	600 x 600	PROBABLE DELAY 15 MIN	To be used to inform motorists of probable delay. Where delays greater than 15 minutes may be experienced, refer to the requirements of QGTTM Part 3 Section 3.4.

Sign	Sign number	Size (mm)	Figure	Notes
RAMP SPEED	RM4-Q01	600 x 600	RAMP SPEED	Refer to Q-series sign notes.
Merging Traffic (L / R)	TM2-Q01(L) TM2-Q01(R)	600 x 600 600 x 600		Refer to Q-series sign notes.
CROSSING ROAD AHEAD	TM1-Q04	600 x 600	CROSSING ROAD AHEAD	Refer to Q-series sign notes.
Deep Edge Drop (symbolic)	TM3-25-Q01	600 x 600		The DEEP EDGE DROP sign shall be used to give warning of a deep drop or excavation adjacent to the travelled path. Should be used withTM3-25A.

Sign	Sign number	Size (mm)	Figure	Notes
Shoulder Drop Off (symbolic)	TM3-Q01_2	600 x 600		Refer to Q-series sign notes.
ELECTRIC WIRES DOWN	TM4-Q01	600 x 600	ELECTRIC WIRES DOWN	Refer to Q-series sign notes.
Temporary Hazard Marker	TM5-5A	600 x 600		See example following and sign design notes
DETOUR U-Turn	TM5-1-Q01	1200 x 300	DETOUR P	
Detour U-Turn (symbolic)	TM5-1-Q02	600 x 600	R	Shall only be used with a DETOUR panel (TM5-7A or TM5-7B). Examples DETOUR C DETOUR

Sign	Sign number	Size (mm)	Figure	Notes
U-TURN FACILITY AHEAD	TM5-1-Q03	600 x 600	U-TURN FACILITY AHEAD	
Lateral Shift marker	TM8-Q01	1200 x 300		See Clause 4.11.3 and Q-series sign notes.
LAND SLIP	TM3-Q02	1200 x 300	LAND SLIP	The LAND SLIP sign may be used to give advance warning of a land slip.
SIGNALS UNDER REPAIR	TM2-50-Q01	1200 x 300	SIGNALS UNDER REPAIR	Refer to Q-series sign notes.
Direction Arrow	Use TM10-1A	600 x 600		The standard MMS Lane Status panel TM10-1A may be used indicate a direction where required. For example, with ETM15. May be used with the ON SIDE ROAD message where the long arrow TM5-8B is not suitable. TM10-1A shall not be used to indicate a direction for a DETOUR (use the Detour marker TM5 6A).
DRIVE SLOWLY	TM2-Q09	1200 x 300	DRIVE SLOWLY	

Sign	Sign number	Size (mm)	Figure	Notes
PLANT AHEAD	TM1-27-Q01	1200 x 300	PLANT AHEAD	
TREE WORK	TM2-Q13	1200 x 300	TREE WORK	
ROAD WORK	TM1-5-Q01A TM1-5-Q01B	600 x 600 1200 x 300	ROAD WORK	
			ROADWORK	
TURN ON HAZARD LIGHTS WHEN QUEUED	TC2362_1	1200 x 600	TURN ON HAZARD LIGHTS WHEN QUEUED	Refer to TC sign notes and example below. TURN ON HAZARD LIGHTS WHEN OUEUED DO NOT OVERTAKE

Sign	Sign number	Size (mm)	Figure	Notes
TURN OFF HAZARD LIGHTS	TC2362_2	1200 x 600	TURN OFF HAZARD LIGHTS	Refer to TC sign notes and example below.
SITE ACCESS ONLY	TM2-Q11	600 x 600	SITE ACCESS ONLY	

Sign	Sign number	Size (mm)	Figure	Notes
EXIT / EXIT No / DIRECTION ARROW	TM2-Q12	600 x 600		Refer to Q-series sign notes
Position				
Lane Status	TM10-Q01_7	600 x 600		See Clause 4.10.1(b) and Q-series sign notes.

Sign	Sign number	Size (mm)	Figure	Notes
Lane Status	TM10-Q01_8	600 x 600		See Clause 4.10.1(b) and Q-series sign notes.
Lane Status	TM10-Q01_4	600 x 600	1	See Clause 4.10.1(b) and Q-series sign notes.
Lane Status	TM10-Q01_5	600 x 600	1	See Clause 4.10.1(b) and Q-series sign notes.
WHEN QUEUING USE BOTH LANES	TM2-Q04	600 x 600	WHEN QUEUING USE BOTH LANES	Refer to Q-series sign notes.

Sign	Sign number	Size (mm)	Figure	Notes
MERGE IN TURN	TM2-Q05A TM2-Q05B	600 x 600 1200 x 300	MERGE IN TURN MERGE IN TURN	Refer to Q-series sign notes.
Pedestrians and cyclists				
Pedestrians Left / Right (symbolic)	TM8-Q02(R) TM8-Q02(L)	600 x 600 600 x 600	* →	See Clause 4.17(b).

Sign	Sign number	Size (mm)	Figure	Notes
Share The Road (for roads with 60 km/h or less speed zones) (symbolic)	TM8-Q03_1 TM8-Q03_2	600 x 600 1200 x 600		For speed zones 60 km/h or less. Refer to Q-series sign notes.
Share The Road (for roads greater than 60 km/h speed zones) (symbolic)	TM8-Q04_1 TM8-Q04_2	600 x 600 1200 x 600		For speed zones greater than 60 km/h. Refer to Q-series sign notes.
			1.5 m	

Sign	Sign number	Size (mm)	Figure	Notes
SHARE THE ROAD	TM8-Q05_1 TM8-Q05_2	600 x 600 1200 x 300	SHARE THE ROAD SHARE THE ROAD	Refer to Q-series sign notes.
Road condition			<u> </u>	I
Potholes Ahead (symbolic)	TM3-Q03	600 x 600		See Clause 4.9.1.
Slippery – OIL	TM3-3-Q01	600 x 600	OIL	See Clause 4.9.1 and Q-series sign notes.
WET TAR	TM3-20-Q01	600 x 600	WET TAR	See Clause 4.9.1.

Sign	Sign number	Size (mm)	Figure	Notes		
WATER OVER ROAD	TM3-21-Q01	1200 x 300	WATER OVER ROAD	Refer to Q-series sign notes.		
DAMAGED ROAD	TM3-Q04	1200 x 300	DAMAGED ROAD	See Clause 4.9.1.		
RUMBLE STRIPS	TM2-Q02	600 x 600	RUMBLE STRIPS	Refer to QGTTM Part 3 Clause 5.5.3 and Q-series sign notes.		
DO NOT OVERTAKE UNLESS SAFE	TM3-12-Q01	1200 x 600	DO NOT OVERTAKE UNLESS SAFE	Refer to Q-series sign notes and example below. LINE MARKING DO NOT OVERTAKE UNLESS SAFE		
Termination	Termination					
END FIRE FIGHTING	TM4-Q02_2	600 x 600	END FIRE FIGHTING	Refer to Q-series sign notes.		

Sign	Sign number	Size (mm)	Figure	Notes
END LOAD LIMIT	RM6-Q03_2	600 x 600	END LOAD LIMIT	Shall be used to indicate the end of a vehicle load limit. See Clause 4.2.8 and Q-series sign notes.
DRIVE SAFELY	TM2-Q06	1200 x 300	DRIVE SAFELY	The DRIVE SAFELY sign shall only be used with the END ROADWORK, END DETOUR or END EVENT panels in place of a yellow blank panel.
Incident, Fire and Emergency				
FIRE FIGHTERS AHEAD	TM4-Q02_1	1200 x 600	FIRE FIGHTERS AHEAD	May be used in advance of a firefighting activity.
Enforcement				
ROADWORK SPEED LIMITS ARE ENFORCED	TC2361C	1200 x 600	ROADWORK SPEED LIMITS ARE ENFORCED	Refer to TC sign notes, QGTTM Part 3 Section 5.5.4 and examples below.

Sign	Sign number	Size (mm)	Figure	Notes
Camera (symbolic)	TC2361B	1200 x 300	((い ())	Refer to TC sign notes and QGTTM Part 3 Section 5.5.4. This sign shall only be used with TC2361C as shown below. ROADWORK SPEED LIMITS ARE ENFORCED
Orange Target Board to Multi-message sign frame	TC2365	1400 x 1100		A 100 mm-wide fluorescent orange border may be added to a multi-message frame (examples shown below).
Miscellaneous				
OVERSIZED Farm Machinery	TM2-45-Q01	600 x 600	OVERSIZE	Refer to Q-series sign notes.
POLICE CONTROL AHEAD	TM1-Q05	600 x 600	POLICE CONTROL AHEAD	Refer to Q-series sign notes.

Sign	Sign number	Size (mm)	Figure	Notes
DRIVER BEHAVIOUR MONITORING	TM2-Q07_1	600 x 600	DRIVER BEHAVIOUR MONITORING	Refer to Q-series sign notes.
Monitoring Camera (symbolic)	TM2-Q07_2	600 x 600		
Wandering Animals (Cow– Sheep) (symbolic)	TM1-50-Q01_1	600 x 600		Refer to Q-series sign notes.
Wandering Animals (Horse) (symbolic)	TM1-50-Q01_2	600 x 600		

Sign	Sign number	Size (mm)	Figure	Notes
KEEP INTERSECTION CLEAR	TM2-Q08	1200 x 600	KEEP INTERSECTION CLEAR	
Event	L	I		1
EVENT AHEAD	ETM01_2	1200 x 600	EVENT AHEAD	Refer to <u>Event traffic management design</u> guidelines Clause 3.2.2.
EVENT IN PROGRESS	ETM02_2	1200 x 600	EVENT IN PROGRESS	Refer to <i>Event traffic management design guidelines</i> Clause 3.2.3.
END EVENT	ETM03_2	1200 x 600	END EVENT	Refer to <i>Event traffic management design guidelines</i> Clause 3.2.4.

Sign	Sign number	Size (mm)	Figure	Notes
Cyclists Racing (symbolic)	ETM04_1 ETM04_2	600 x 600 1200 x 600	6 5 6 5 6	Refer to <i>Event traffic management design guidelines</i> Clause 3.2.5.
			0780 0780 0780	
Cyclists Riding (symbolic)	ETM05_1 ETM05_2	600 x 600 1200 x 600	6 6 6 6	Refer to <i>Event traffic management design guidelines</i> Clause 3.2.6.
			die die die	

Sign	Sign number	Size (mm)	Figure	Notes
Share The Road (for roads 60 km/h or less speed zones) (symbolic)	ETM06_1 ETM06_2	600 x 600 1200 x 600		Refer to <i>Event traffic management design guidelines</i> Clause 3.2.7.
Runners (symbolic)	ETM07_1 ETM07_2	600 x 600 1200 x 600	オオ	Refer to <i>Event traffic management design guidelines</i> Clause 3.2.8.
			オオオ	

Sign	Sign number	Size (mm)	Figure	Notes
Walkers (symbolic)	ETM08_1 ETM08_2	600 x 600 1200 x 600	ズズ	Refer to <i>Event traffic management design</i> <i>guidelines</i> Clause 3.2.9.
Share The Road (for roads greater than 60 km/h speed zones) (symbolic)	ETM09_1 ETM09_2	600 x 600 1200 x 600		Refer to <i>Event traffic management design guidelines</i> Clause 3.2.7.

Sign	Sign number	Size (mm)	Figure	Notes
NEXT km	ETM10_1 ETM10_2	600 x 600 1200 x 600	NEXT km NEXT km	Refer to <i>Event traffic management design guidelines</i> Clause 3.2.10.
CYCLING EVENT	ETM11_1	1200 x 600	CYCLING EVENT	Refer to <i>Event traffic management design guidelines</i> Clause 3.2.11.
CYCLING EVENT	ETM11_2	1200 x 300	DAY DATE	Refer to <i>Event traffic management design guidelines</i> Clause 3.2.11.
CYCLISTS AHEAD	ETM12_1	1200 x 300	CYCLISTS AHEAD	Refer to <i>Event traffic management design guidelines</i> Clause 3.2.12.
CYCLISTS FOLLOWING	ETM12_2	1200 x 300	CYCLISTS FOLLOWING	Refer to <i>Event traffic management design guidelines</i> Clause 3.2.12.

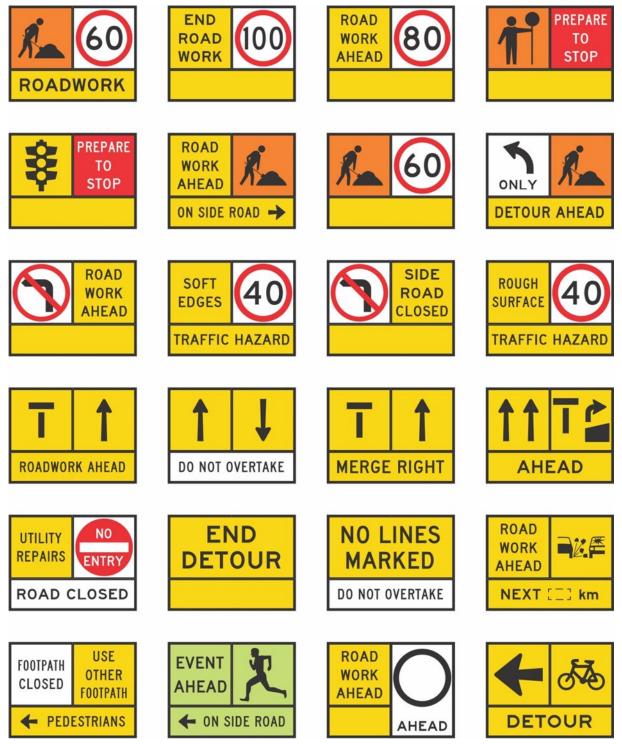
Sign	Sign number	Size (mm)	Figure	Notes
SHARE THE ROAD	ETM13_1 ETM13_2	600 x 600 1200 x 300	SHARE THE ROAD SHARE THE ROAD	Refer to <i>Event traffic management design guidelines</i> Clause 3.2.7.
EVENT Parking	ETM15	600 x 600	P	The EVENT Parking panel may be used with the Direction Arrow (TM10-1A) or the long arrow (TM5-8B) to indicate a direction to the Event Parking. The direction arrow shall not point toward the Parking symbol. Example

Appendix B – Multi-message sign combinations (informative)

Difference

The following replaces Figure B1 - Multi-message sign combination examples.

Figure B1 – Multi-message sign combination examples with traffic travelling to the right side of the signs



Addition

The following Figure B2 provides additional multi-message sign combination examples.

Figure B2 – Additional multi-message sign combination examples with traffic travelling to the right side of the signs



Appendix C – Supplementary list of temporary roadworks signs (normative)

C.1 Supplementary list of temporary roadworks signs approved for use in Queensland

<u>New</u>

This Appendix describes the use of signs for special situations at temporary roadworks. Further details of the design of the signs may be obtained from the Traffic Engineering Team (<u>TrafficEngineering.Support@tmr.qld.gov.au</u>) at the Department of Transport and Main Roads, Brisbane.

Table C.1 lists the temporary roadworks signs approved for use in Queensland.

Sign	Sign number	Size (mm)	Figure	Notes
ROADWORK AHEAD	T1-Q06	600 x 900	ROAD WORK AHEAD	This is used only on narrow medians and shoulders where the standard T1-1 or T1-31 ROAD WORK AHEAD signs would be an obstruction to traffic.
ROADWORK ON SIDE ROAD (ARROW)	T1-Q07	900 x 600	ROADWORK ON SIDE ROAD	This sign may be used in advance of a four-way intersection where work is being carried out on a side road, there is insufficient distance to provide appropriate signing of the work on the side road and it is desired to indicate which side road is subject to roadworks. The sign is used in lieu of the ROADWORK ON SIDE ROAD (T1-25) sign in this case.
LINE MARKERS ON ROAD	T1-Q08A T1-Q08B T1-Q08C	900 x 600 1500 x 600 1800 x 600	LINE MARKERS ON ROAD	This sign may be used in lieu of the Workers (symbolic) (T1-5) sign to warn approaching traffic that line markers are working on the road ahead. This sign is used in addition to, not to replace, other temporary signs.

Table C.1 — List of temporary roadworks signs approved for use in Queensland

Sign	Sign number	Size (mm)	Figure	Notes
MOBILE LINE MARKING AHEAD	T1-Q09	900 x 600	MOBILE LINEMARKING AHEAD	This sign may be used to warn approaching traffic that line marking machines are working on the road ahead. It may be mounted on a job support vehicle travelling behind or ahead of the line marking machine, in which case a panel of chevrons is incorporated into the sign, or an illuminated flashing arrow sign used with the sign, to indicate the side of the vehicle to which traffic should pass.
Mowing (symbolic)	T1-Q10	900 x 600	MOWING	This sign may be used in lieu of the ROAD PLANT AHEAD (T1-3) sign at frequently-changing work areas where grass mowing is being carried out.
LANE STATUS	T2-Q07	2230 x 900	T 1 1	This sign is used where one or more lanes are closed on a four-lane roadway. It gives only advance warning of the lane closure and is used in conjunction with appropriate roadwork signing for the roadworks site.
WET PAINT (L / R)	T6-Q08A T6-Q08B	1200 x 600 1800 x 750	WET PAINT	This sign is used as required to protect freshly-painted pavement markings while paint is drying. It may be used on intermediate vehicles in a mobile line marking convoy. LINEMARKING (T6-Q06) sign is required on leading and trailing vehicles. When the vehicle is equipped with an illuminated flashing arrow sign, the chevron panel is not required.

Sign	Sign number	Size (mm)	Figure	Notes
Traffic Signal NOT IN USE	T3-Q02	300 x 900		This sign is erected over lanterns at a new traffic signal installation prior to commencement of normal operation.
SIGNALS UNDER REPAIR	T3-Q03	1200 x 700	SIGNALS UNDER REPAIR	This sign is erected where it is desired to advise approaching traffic that the signals are not operating and are under repair.
ROADWORKS NEXT km TO EXPECT DELAYS	T1-Q19	1800 x 1800	ROADWORKS NEXT km TO EXPECT DELAYS	This sign is erected prior to the commencement of roadworks to inform road users of impending works and expected delays.

Sign	Sign number	Size (mm)	Figure	Notes
KEEP LEFT	R2-3-Q01	250 x 1200	КШШР ПШКТ	This sign may be used with the four traffic cones on the centre line in advance of a traffic control station in lieu of T5-7 (Temporary Hazard marker) or at other locations where the KEEP LEFT message is required. It is designed to be mounted in 'weighted' temporary plastic or rubber support as per the T5-7 Temporary Hazard marker.
TURN ON HAZARD LIGHTS WHEN QUEUED	TC1992_1A TC1992_1B	900 x 600 1200 x 900	TURN ON HAZARD LIGHTS WHEN QUEUED	Refer to TC sign notes.
TURN OFF HAZARD LIGHTS	TC1992_2A TC1992_2B	900 x 600 1200 x 900	TURN OFF HAZARD LIGHTS	Refer to TC sign notes.

Sign	Sign number	Size (mm)	Figure	Notes
SPEED CAMERAS USED AT ROADWORKS FOR ROAD SAFETY	TC2320_1	2200 x 1600		Refer to TC sign notes and QGTTM Part 3 Section 5.5.4.
Orange Target Board to the standard Speed Restriction sign (R4-1) with a ROAD WORK supplementary plate (R4-3).	TC2366A TC2366B TC2366C	600 x 1050 800 x 1400 1200 x 2100	ROAD WORK	A fluorescent orange border may be added to the standard sign and supplementary plate combination (example below).

Sign	Sign number	Size (mm)	Figure	Notes
Orange Target Board to the standard Speed Limit AHEAD sign (G9-79) with a ROAD WORK supplementary plate (R4-3).	TC2367A TC2367B TC2367C	600 x 1200 800 x 1600 1200 x 2400	AHEAD ROAD WORK	A fluorescent orange border may be added to the standard sign and supplementary plate combination (example below).

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