

Part 8 of the Traffic Control Devices Manual (TCD Manual)

Code of Practice for Temporary Traffic Management (CoPTTM)

(CoPTTM) - (SP/M/010)

Fourth Edition – Technical Note: Change to Land Transport Rule - Setting of Speed Limits 2017 - Rule 54001/2017

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Circulation	Regional Operations Managers, holders of the Code of Practice for Temporary Traffic Management and NZTA website. Please forward to your consultants and contractors.
Objective	To update the February 2017 version of the Fourth Edition of the CoPTTM.
Effective date	Changes to CoPTTM take effect from 1 March 2018
Status	This document is a guideline for use by the roading industry, road controlling authorities, network utility operators and event holders.
Reminder for all holders	It is important to keep holders of our documents up to date. Holders can update by copying the relevant sections from the NZTA website: www.nzta.govt.nz/copttm
Additional copies	These may be downloaded from NZTA's website, free of charge or purchased direct from our distributor either via the website, or directly to NZ Print, PO Box 2491, Wellington, 6140.

Key to changes	Additional text	Highlighted in yellow						
Changes	Deleted text	Red strike through						
	Comments about the change	Italic text						

Summary of TTM related changes introduced in the Land Transport Rule – Setting of Speed Limits 2017 – Rule 54001/2017

Set out below are the CoPTTM impacts due to the introduction of the Land Transport Rule – Setting of Speed Limits 2017 – Rule 54001/2017

- Introduction of 110km/h permanent speed limits on selected roads
- Temporary speed limit (TSL) must be 80km/h or less and at least 10km/h less than a permanent speed
- A TSL may be continuously installed for up to twelve months
- Revised reasons for approval of TSL:

TSL is used when there is a risk of danger to a worker or the public, or a risk of damage to a road due to:

- physical work occurring on or adjacent to a road
- an unsafe road surface or structure
- a special event
- an emergency.

Set out on the following pages are the CoPTTM changes due to the introduction of the Land Transport Rule – Setting of Speed Limits 2017 – Rule 54001/2017.

Reference in 4 th Edition	Current CoPTTM	Change	Comment
Temporary speed limit (TSL)	A speed limit that is in force for a period of less than six months and is set under the Land Transport Rule: Setting of Speed Limits 2003 by the RCA.	A speed limit that is in force for a period of less than sixtwelve months and is set under the Land Transport Rule: Setting of Speed Limits 20032017 by the RCA.	TSL may now be continuously installed for up to twelve months
		760	Also added reference to latest version of the Setting of Speed Limits Rule
A5.5.1 TMC's responsibilities	approving TSLs within a TMP and ensuring the renewal of any TSLs extending beyond six months (Refer to section I-18: Guidance on TMP Monitoring Processes for Temporary Speed Limits)	approving TSLs within a TMP and ensuring the renewal of any TSLs extending beyond sixtwelve months (Refer to section I-18: Guidance on TMP Monitoring Processes for Temporary Speed Limits)	TSL may now be continuously installed for up to twelve months
A5.6.1 Engineer's responsibilities	approving TSLs within a TMP and ensuring the renewal of any TSLs extending beyond six months (Refer to section I-18: Guidance on TMP Monitoring Processes for Temporary Speed Limits)	 approving TSLs within a TMP and ensuring the renewal of any TSLs extending beyond sixtwelve months (Refer to section I-18: Guidance on TMP Monitoring Processes for Temporary Speed Limits) 	TSL may now be continuously installed for up to twelve months
A5.7.1 Contractor's responsibilities	ensuring that any TSLs are approved in the TMP and renewed if required within the six month timeframe (Refer to section I-18: Guidance on TMP Monitoring Processes for Temporary Speed Limits)	ensuring that any TSLs are approved in the TMP and renewed if required within the sixtwelve month timeframe (Refer to section I-18: Guidance on TMP Monitoring Processes for Temporary Speed Limits)	TSL may now be continuously installed for up to twelve months

Reference in 4 th Edition	Current CoPTTM	Change	Comment
B1.4.2 Direction and protection Speed limit TEMPORARY Requirements for use	The TG1 temporary plate must be used in conjunction with RS1 regulatory speed signs to restrict traffic speeds at worksites to give protection to workers, the road surface and road structures in an emergency. The temporary speed limit must be at least 20km/h less than the normal speed limit for that section of road. On all roads, except Level LV roads, the TG1 signs must be gated (ie a sign on both sides of the road). Repeater TSLs are only required on the left hand side only at 400m intervals. Level 1- 750mm minimum diameter for static operations. TEMPORARY supplementary plate – minimum 900mm x 300mm (TCD rule allows a minimum of 800mm x 250mm. This size is not recommended as it will not fit stands). Level 2 and 3 – 1200mm minimum diameter for static operations.	The TG1 temporary plate must be used in conjunction with Regulatory speed signs to apply a temporary speed limit (TS) restrict traffic speeds. at worksites to give protection to work the road surface and road structures in an emergency. A TSL is used when there is a risk of danger to a worker or the public, or a risk of damage to a road due to: • physical work occurring on or adjacent to a road • an unsafe road surface or structure • a special event • an emergency. The temporary speed limit TSL must be 80 km/h or less and 20km/h10km/h less than the normal speed limit for that sec road. On all roads, except Level LV roads, the TG1 signs must be go a sign on both sides of the road). Repeater TSLs are only regate left hand side only at 400m intervals. Level 1- 750mm minimum diameter for static operations. TEMPORARY supplementary plate – minimum 900mm x 30 (TCD rule allows a minimum of 800mm x 250mm. This size recommended as it will not fit stands). Level 2 and 3 – 1200mm minimum diameter for static operations.	the reasons for approval of TSL stated in the Land Transport Rule – Setting of Speed Limits 2017 – Rule 54001/2017 Amendment also covers: TSL to be 80 km/h or less and at least 10km/h less than a permanent speed tion of ated (ie quired on 100mm is not
B1.4.3 End of works		Speed limit 110km/h RS4	Introduction of 110km/h permanent speed limits on selected roads
C2.6 Level 2	Layout distances		

Reference in 4 th Edition	Current CoPTTM	Change	Comment Added column for 90km/h layout
worksite ayout	Permanent/TSL (km/h) ≤50 60 70 80 90/100 Traffic signs	Permanent/TSL (km/h) ≤50 60 70 80 90 100 /110	
distances	A Sign visibility distance (m) 60/50* 70/60* 80 100 120	Traffic signs	distances
	B Warning distance (m) 100/75* 120/90* 140 160 200	A Sign visibility distance (m) 60/50* 70/60* 80 100 120 120	uistarices
	C Sign spacing (m) 50/35+ 60/45+ 70 80 100	B Warning distance (m) 100/75* 120/90* 140 160 200 200	Added 110km/h to the
	Safety zones	C Sign spacing (m) 50X35* 60/45* 70 80 100 100	100km/h layout
	D Longitudinal (m)* 15 20 30 45 60	Safety zones	_
	E Lateral (m)	D Longitudinal (m)* 15 20 30 45 60 60	distances column
	1. Behind cones 1 1 1 1 1	E Lateral (m)	Note: The 90km/h a
	2. Behind barrier installations As specified by the Installation Designer	1. Behind cones 1 1 1 1 1	
	Tapers	2. Behind barrier installations As specified by the Installation Designer	110km/h layout
	H Initial taper length per lane (m)** 90/50* 100/60* 120 150 180	Tapers H Initial taper length per lane (m)** 90/50* 100/60* 120 150 180 180	distances are the sa
	I Subsequent taper length per lane (m) 50 60 70 80 100	7, 55 155 155 155 155 155 155 155 155 155	as the 100km/h layo
	K Minimum distance between tapers (m) 50 60 70 80 100	Subsequent taper length per lane (m) 50 60 70 80 100 100	distances
	Delineation device	K Minimum distance between tapers (m) 50 60 70 80 100 100	นเจเสมเยีย
	All tapers (m) 2.5 2.5 2.5 2.5	Delineation device	Full table included
	Cones parallel to the lane (eg between tapers and alongside the working space) 5 5 10 10 10 (m)	All tapers (m) 2.5 2.5 2.5 2.5 2.5 2.5 2.5 10 10 10	Appendix A: Level
	At merge and diverge points for ramps and slip lanes, intersecting road entry and exit points, and worksite access points alignment 2.5m for 20m either side of a change in alignment	At merge and diverge points for ramps and slip tanes, intersecting road entry and slip tanes, intersecting road entry and slip tanes, intersecting road entry and slight and worksite access points alignment alignment	worksite layout distances
	Taper length is based on a single lane shift of 3.5m. The longer distance is the desirable distance, the shorter distance is the minimum distance required. The longer distances must be used wherever possible. The shorter distances may only be used where there are road environment constraints.	Taper length is based on a single lane shift of 3.5m. + The longer distance is the desirable distance, the shorter distance is the minimum distance required. The longer distances must be used wherever possible. The shorter distances may only be used where there are road environment constraints.	
	Lane widths	Lane widths	
	Speed (km/h) 30 40 50 60 70 80 90 100	Speed (km/h) 30 40 50 60 70 80 90 100/11C	
	F Lane width (m) 2.75 2.75 3.0 3.0 3.25 3.25 3.5 3.5	F Lane width (m) 2.75 2.75 3.0 3.0 3.25 3.25 3.5 3.5	
	Except for delineation device spacings, which are maximum values, the distances specified in the above tables are minimum values.	Except for delineation device spacings, which are maximum values, the distances specified in the above tables are minimum values.	
	Approach sign distances and spacings, the initial taper(s) and any longitudinal safety zone associated with that taper must be based on the permanent speed limit. The layout distances of the remainder of the worksite, including any subsequent tapers, may be based on the TSL, provided the TSL is applied prior to the first taper.	Approach sign distances and spacings, the initial taper(s) and any longitudinal safety zone associated with that taper must be based on the permanent speed limit. The layout distances of the remainder of the worksite, including any subsequent tapers, may be based on the TSL, provided the TSL is applied prior to the first taper.	

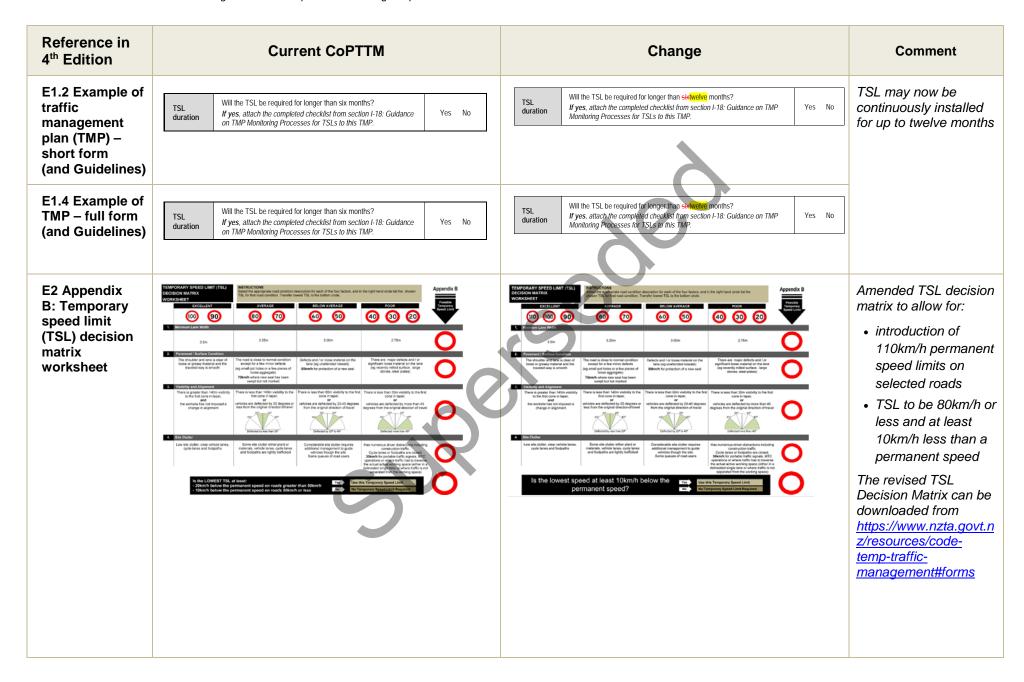
Reference in 4 th Edition	Current CoP	ттм	Change	Comment
worksite layout distances	Permanent/TSL (km/h) Traffic signs A Sign visibility distance (m) C Sign spacing (m) - Desirable * Sign spacing (m) - Minimum Safety zones D Longitudinal (m)* E Lateral (m) 1. Behind cones etc 2. Behind barrier installations Tapers H Initial taper length per lane (m)** 1. Subsequent taper length per lane (m) K Minimum distance between tapers (m) *** Delineation devices All tapers (m) Cones parallel to the lane (eg between tapers and alongside the working space) (m) At merge and diverge points for ramps and slip lanes, intersecting road entry and ext points, and worksite access points * For temporary and permanent speeds less than SCkm/h use the found. Errort Reference source not found, table. * The desirable sign spacing distance must be used wherever post distance may only be used where there are road envisonment or Where only one sign is erected in advance of the start of a cone to the start of the taper must be 2xC. * A longitudinal safety zone is not required when a barrier complete worksite. Refer subsections H.1.7 and H.118. * Taper length is based on a single lane shift of 3.5 m. ** Must be altered if required to meet the supplementary TLS dist. Lane widths Speed (km/h) \$\frac{1}{5}\$ Lane width (m) 2.75 2.75 3.0 3.0 Except for delineation device spacings, which are maxim the above table are minimum values. Approach sign dist and any longitudinal safety zone associated with that tall speed limit. The layout distances of the remainder of the tapers, may be based on the TSL, provided the TSL is approach sign distances.	sible. The minimum sign spacing instraints. taper the distance from the sign stelly protects the approach end of since.	Permanent/TSL (km/h) Traffic signs A Sign visibility distance (m) 60/50* 70/60* 80 100 120 120 C Sign spacing (m) - Desirable 100/75* 120/90* 140 160 200 200 Sign spacing (m) - Minimum 50/35* 60/45* 70 80 100 100 Safety zones D Longitudinal (m)* 15 20 30 45 60 60 E Lateral (m) 1. Behind cones etc 1 1 1 1 1 1 1 1 1 Subsequent taper length per lane (m)* 90/50* 100/60* 120 150 180 180 I Subsequent taper length per lane (m)* 50 60 70 80 100 100 K Minimum distance between tapers and substance between tapers and slopes de the between fapers and alongside the working space) (m) Delineation devices (all speeds) All tapers (m) 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5	90km/h layout distances Added 110km/h to the 100km/h layout distances column Note: The 90km/h and 110km/h layout distances are the same as the 100km/h layout distances Also added layout distances for the following speeds ≤50km/h, 60km/h, 70km/h Note: Layout distances for speeds less than 80km/h are the same as the layout distances in the Level 2 layout table Full table included in Appendix B: Level 3 worksite layout distances
C2.8 Lane widths	The temporary lane width is a flimit applied at a worksite. The temporary lane widths for TTM are: Permanent/ TSL(km/h) 30 40 50 60	·	The temporary lane width is a function of the speed limit applied at a worksite. The temporary lane widths for all levels of road for TTM are: Permanent/ TSL(km/h) 30 40 50 60 70 80 90 100 110	Amendment required as the 110km/h lane widths shown in C2.8 only apply to selected level 2 and 3 roads Added 110km/h lane widths to the table

Reference in 4 th Edition	Current CoPTTM	Change	Comment
	Lane F width (m) 2.75 2.75 3.0 3.0 3.25 3.25 3.5 3.5	Lane width (m) 2.75 2.75 3.0 3.0 3.25 3.25 3.5 3.5 3.5	
C4.1.1 Purpose	The installation of a TSL helps to control traffic at temporary hazards and for special events. The TSL gives positive direction and guidance and, if set at an appropriate level, should receive a good level of compliance.	The installation of a TSL helps to control traffic at temporary hazards and for special events. The TSL gives positive direction and guidance and, if set at an appropriate level, should receive a good level of compliance.	Minor edit: Removed reference to compliance as it is not part of the purpose of TSL
C4.1.2 Land Transport Rule: Setting of Speed Limits 20032017	The TSL requirements in CoPTTM are in accordance with the Land Transport Rule: Setting of Speed Limits 2003 and subsequent amendments.	Added link to latest version of the Setting of Speed Limits Rule	
C4.1.4 General	 have a drop in speed from the existing permanently gazetted speed limit as follows: greater than 50km/h, at least 20km/h less than the permanent speed limit 50km/h or less, at least 10km/h less than the permanent speed limit 	 have a drop in speed from the existing permanently gazetted speed limit as follows: greater than 50km/h, at least 20km/h less than the permanent speed limit 50km/h or less, at least 10km/h less than the permanent speed limit be 80km/h or less and at least 10km/h below the permanent speed limit 	A TSL may now be set 10km/h less than any permanent speed
C4.2.2 TSL decision matrix worksheet	Transfer the lowest possible TSL to the bottom circle. The lowest TSL should be applied if it is: - at least 20km/h less than the permanent speed limit on roads greater than 50km/h - at least 10km/h less than the permanent speed limit on roads 50km/h or less.	Transfer the lowest possible TSL to the bottom circle. The lowest TSL should be applied if it is 80km/h or less and at least 10km/h below the permanent speed limit - at least 20km/h less than the permanent speed limit on roads greater than 50km/h - at least 10km/h less than the permanent speed	TSL to be 80 km/h or less and at least 10km/h less than a permanent speed

Reference in 4 th Edition	Current CoPTTM	Change	Comment
		limit on roads 50km/h or less.	
C4.4.2 Duration	TSLs must be removed as soon as the circumstances under which the speed restriction was imposed no longer exist.	TSLs must be removed as soon as the circumstances under which the speed restriction was imposed no longer exist.	A TSL can now be installed for a continuous use of up to 12 months
	TSLs can only be installed for up to six months.	TSLs can only be installed for up to six months.	
	Should a TSL be required for more than six months, the RCA must review the TSL, and if it is still required, a new TMP must be approved. Suggested processes to install a bring-up can be found in section I-18: Guidance on TMP Monitoring Processes for Temporary Speed Limits.	TSLs cannot be installed for a continuous use of longer than twelve months. Should a TSL be required for more than six twelve months, the RCA must review the original decision for use of the TSL, and if it is still required, a new TMP must be approved. Suggested processes to	
	Explanation	install a bring-up can be found in section I-18:	
	Under the Land Transport Rule Setting of Speed Limits 2003 (Rule 54001) the definition of a temporary speed limit means speed limit that is in force for a period of less than six months and is set under this rule.	Guidance on TMP Monitoring Processes for Temporary Speed Limits. Explanation Under the Land Transport Rule Setting of Speed Limits	
	Under section 5.1 of this rule it states a temporary speed limit applies from the time a temporary speed limit is installed.	2003 (Rule 54001) the definition of a temporary speed limit means speed limit that is in force for a period of less than six months and is set under this rule.	
	An authority to use a temporary speed limit by way of a TMP can be for a longer period. It is only the installation period that is limited to less than 6 months.	Under section 5.1 of this rule it states a temporary speed limit applies from the time a temporary speed limit is installed.	
		An authority to use a temporary speed limit by way of a TMP can be for a longer period. It is only the installation period that is limited to less than 6 months.	
C4.4.3 Long- term performance deficiencies	A TSL would not normally be used where a road has a long-term deficiency not caused by road works (eg poor alignment or slippery surface).	A TSL would not normally may be used where a road has a long-term deficiency not caused by road works (eg poor alignment or slippery surface). It is more appropriate in In these circumstances it	Aligns CoPTTM requirements to the Land Transport Rule – Setting of Speed Limits
	It is more appropriate in these circumstances to use	the second appropriate in in these circumstances it	

Reference in 4 th Edition		Curi	rent Co	PTTM			Change							Comment	
	a permanent v (eg WR3).	varning	may be app warning sig					•			2017				
C10.1.1 General	Positive traffic when installing • less than 70 speed limits • less than 50 posted spee 70 or 80km	g TSLs of Nam/h of 100 Okm/h d limit of	of: in areas km/h , o in areas	Positive traffic management measures must be used when installing TSLs of: • less than 80km/h in areas with permanent speed limits of 110km/h, or • less than 70km/h in areas with permanent posted speed limits of 100km/h, or • less than 50km/h in areas with a permanent posted speed limit of 70 or 80km/h.							speed posted	Amendment required due to introduction of 110km/h permanent speed limits Minor edit: Removed the word posted			
C15.2.3 Location	*Permanent/ temporary speed limit Minimum distance between a site access and any intersection, on- or off-ramp, taper or obstruction.	50 km/h	60 km/h	70 km/h	80 km/h	100 km/h	*Permanent, temporary speed limit Minimum distance between a site access and any intersection, on- or off-ramp, taper or obstruction.	50 km/h 50m	60 km/h	70 km/h	80 km/h 80m	90 km/h	100 km/h		Amendment required due to introduction of 110km/h permanent speed limit Also added minimum distances for 90km/h

Reference in 4 th Edition		Change					Comment								
C18.4 End	Minimum barrie	er er	nd of	ffset	ts		Minimum barrier	end	d off	sets					
C18.4.1 General	Permanent posted speed (km/h) Distance between	50	60	70	80	100	Permanent posted speed (km/h) Distance between	50	60	70 8	30	90 1	00	110	Amendment required due to introduction of 110km/h permanent speed limit
	unprotected barrier end and edgeline (m)	3	4	6	8	9		3	4	6	8	9	9	<mark>10</mark>	Also added minimum distances for 90km/h Minor edit: Removed
															the word posted
C18.4.2 Flares	Recommended f	lare	rate	s			Recommended flar	re r	ates						
	Permanent posted speed (km/h)	50	60	70	80	100	Permanent posted 50 speed (km/h) km	50 n/h	60 km/h	70 km/h	80 km/h	90	100 km/h	110	Amendment required due to introduction of 110km/h permanent
	Barrier inside shy line	1:18	1:18	1:21	1:24	1:30	Barrier inside shy line	<mark>20</mark>	<mark>1:20</mark>	<mark>1:20</mark>	<mark>1:25</mark>	<mark>1:25</mark>	1:30	<mark>1:30</mark>	speed limit Also added minimum flare rates for 90km/h
	Rigid barrier outside shy line	1:12	1:12	1:14	1:16	1:20	Rigid barrier outside shy line	<mark>15</mark>	<mark>1:15</mark>	<mark>1:15</mark>	1:20	<mark>1:20</mark>	1:20	1:20	Simplified flare rates for 50, 60 and 70km/h
	Non-rigid barrier outside shy line	1:10	1:10	1:11	1:12	1:15	Non-rigid barrier outside shy line	10	1:10	<mark>1:10</mark>	<mark>1:15</mark>	<mark>1:15</mark>	1:15	<mark>1:15</mark>	Minor edit: Removed the word posted



Reference in 4 th Edition	Current CoPTTM	Change	Comment
Section I:18 Guidance on TMP Monitoring Processes for Temporary Speed Limits (TSL)	Approved by TMC (Note1) TMP Register (Note2)	TMP approved (Note1) TMP Register (Note2)	Removed reference to TMC approving TMP as other roles may also approve TMPs
	TMPs where TSL required for more than 6 months Contract Manager (TSL required form ore than 6 months)	TMPs where TSL required for more than 12 nonths Contract Manager (TSL required for more than 12 rionths)	TSL may now be continuously installed for up to twelve months
	If the TMP is site specific and contains a TSL, provision must be made for the contractor to resubmit prior to a continuous exposure of the TSL for a period of 6 months. Unless this bring up provision is made the TMP should not be approved by	 If the TMP is site specific and contains a TSL, provision must be made for the contractor to resubmit prior to a continuous exposure of the TSL for a period of 6 12 months. Unless this bring up provision is made the TMP should not be approved by 	TSL may now be continuously installed for up to twelve months Removed reference to TMC approving TMP

Reference in 4 th Edition	Current CoPTTM	Change	Comment
	the Traffic Management Coordinator (TMC).	the Traffic Management Coordinator (TMC).	
	TSLs required for more than 6 months A permanent speed limit change should be implemented if the review identifies that a speed limit change is now the best solution.	TSLs required for more than 6 12 months A permanent speed limit change should be implemented if the review identifies that a speed limit change is now the best solution.	TSL may now be continuously installed for up to twelve months
	TSL Compliance Checklist The following checklist is to be completed for any TSL which will be required for more than 6 months. The completed checklist is to be attached to the TMP.	TSL Compliance Checklist The following checklist is to be completed for any TSL which will be required for more than 6 12 months. The completed checklist is to be attached to the TMP.	TSL may now be continuously installed for up to twelve months
	Temporary Speed Limit Compliance Checklist To be completed and attached to the TMP if TSL required for more than 6 months. Note: You are responsible for ensuring that any installed TSLs abide by the laws established under the Setting of Speed Limits Rule.	Temporary Speed Limit Compliance Checklist To be completed and attached to the TMP if TSL required for more than 6 12 months. Note: You are responsible for ensuring that any installed TSLs abide by the laws established under the Setting of Speed Limits Rule.	TSL may now be continuously installed for up to twelve months
	Is the TSL required for more than 6 months?	Is the TSL required for more than 6 12 months? If yes, provision must be made for the contractor to resubmit TMP prior to a continuous exposure of the TSL for a period of 12 months.	TSL may now be continuously installed for up to twelve months
	If the permanent speed limit is: a. greater than 50 km/h, is the TSL at least 20km/h less than the permanent speed? b. 50 km/h or less, is the TSL at least 10km/h less than the permanent speed?	If the permanent speed limit is: a. greater than 50 km/h, is the TSL at least 20km/h less than the permanent speed? b. 50 km/h or less, is the TSL at least 10km/h less than the permanent speed? Is the TSL 80 km/h or less and at least 10 km/h less than the permanent speed limit?	TSL to be 80 km/h or less and at least 10km/h less than a permanent speed

Appendix A: Level 2 worksite layout distances

Permanent/TSL (km/h)				≤5	0	60	70	80	90	100 /110
Traffic signs										
Α	Sign visibility distance	(m)		60/5	0+ 7	' 0/60 +	80	100	120	120
В	Warning distance (m)			100/	75+ 12	20/90+	140	160	200	200
С	Sign spacing (m)			50/3	5+ 6	60/45+	70	80	100	100
Safety zones										
D	Longitudinal (m)*			15	;	20	30	45	60	60
E Lateral (m)										
	1. Behind cones			1		1	1	1	1	1
	2. Behind barrier instal	lations		As sp	ecified by	y the Ins	tallation	Design	er	
Тар	oers				,		·		,	
Н	Initial taper length per	Initial taper length per lane (m)**				00/60+	120	150	180	180
ı	Subsequent taper length per lane (m))	60	70	80	100	100
K	Minimum distance between tapers (m))	60	70	80	100	100
Del	ineation device								,	
(s	All tapers (m)			2.5	5	2.5	2.5	2.5	2.5	2.5
(centre	Cones parallel to the lane - eg between tapers and alongside working space (m)			ers 5	K	5	10	10	10	10
Spacing (centres)	At merge and diverge slip lanes, intersecting points, and worksite ac		for 10m of a chang				n either si	de of a		
*	worksite.									
+	Taper length is based on a single lane shift of 3.5m. The longer distance is the desirable distance, the shorter distance is the minimum distance required. The longer distances must be used wherever possible. The shorter distances may only be used where there are road environment constraints.									
Lane widths										
Spe	eed (km/h)	30	40	50	60	70		80	90	100/110
F	Lane width (m)	2.75	2.75	3.0	3.0	3.25	5 3	.25	3.5	3.5

Except for delineation device spacings, which are maximum values, the distances specified in the above tables are minimum values.

Approach sign distances and spacings, the initial taper(s) and any longitudinal safety zone associated with that taper must be based on the permanent speed limit. The layout distances of the remainder of the worksite, including any subsequent tapers, may be based on the TSL, provided the TSL is applied prior to the first taper.

Appendix B: Level 3 worksite layout distances

Permanent/TSL (km/h)			60	70	80	90	100/110				
Traffic signs											
Α	Sign visibility distance (m)	60/50+	70/60+	80	100	120	120				
С	Sign spacing (m) - Desirable	100/75+	120/90+	140	160	200	200				
*	Sign spacing (m) - Minimum	50/35+	60/45+	70	80	100	100				
Safety zones											
D	Longitudinal (m)*	15	20	30	45	60	60				
Е	Lateral (m)										
	1. Behind cones etc	1	1	1	1	1	1				
	2. Behind barrier installations	cified by the Installation Designer									
Taper	s										
Н	Initial taper length per lane (m)**	90/50+	100/60+	120	150	180	180				
I	Subsequent taper length per lane (m)	50	60	70	80	100	100				
K	Minimum distance between tapers (m) ***	50	60	70	80	100	100				
Deline	eation devices (all speeds)										
	All tapers (m)	2.5	2.5	2.5	2.5	2.5	2.5				
Spacing (centres)	Cones parallel to the lane (eg between tapers and alongside the working space) (m)	10	10	10	10	10	10				
	At merge and diverge points for ramps and slip lanes, intersecting road entry and exit points, and worksite access points	2.5m fc	or 20m ei	ther side	of a char	nge in alig	gnment				

- * The desirable sign spacing distance must be used wherever possible. The minimum sign spacing distance may only be used where there are road environment constraints. Where only one sign is erected in advance of a taper the distance from the sign to the taper is 2xC.
- * A longitudinal safety zone is not required when a barrier completely protects the approach end of the worksite. Refer subsections H1.17 and H1.18.
- ** Taper length is based on a single lane shift of 3.5m.
- *** Must be altered if required to meet the supplementary TLS distance.

Lane widths										
Speed (km/h)		30	40	50	60	70	80	90	100/110	
F	Lane width (m)	2.75	2.75	3.0	3.0	3.25	3.25	3.5	3.5	

Except for delineation device spacings, which are maximum values, the distances specified in the above table are minimum values. Approach sign distances and spacings, the initial taper(s) and any longitudinal safety zone associated with that taper must be based on the permanent speed limit. The layout distances of the remainder of the worksite, including any subsequent tapers, may be based on the TSL, provided the TSL is applied prior to the first taper.