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# Rollout of revised TTM audit

## CoPTTM 4<sup>th</sup> edition





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# Development of the new SCR approach

## *When AT developed the new audit approach:*

- Workshops were held with representatives from:
  - Industry representatives from ATMA
  - Industry trainers
  - Auckland Transport

## *As part of NZTA adopting new audit approach:*

- Working party included representatives from:
  - A range of RCAs
  - Existing auditors
  - Industry trainers
  - NZTA

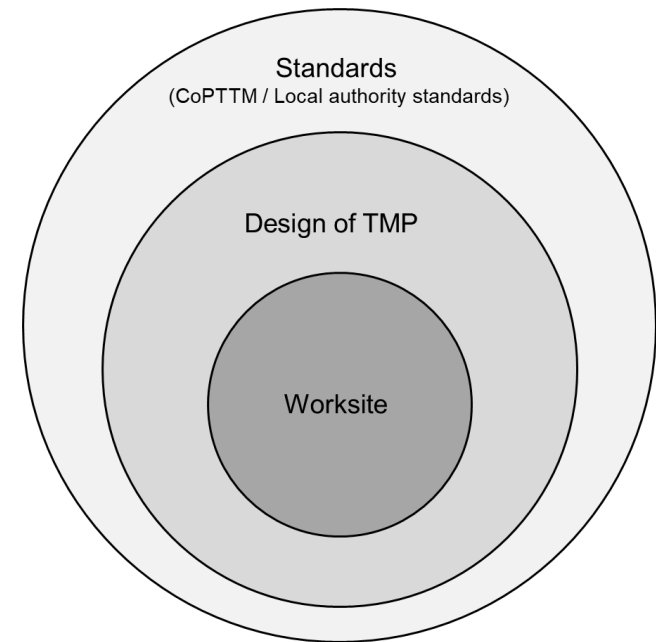
# Effective dates

- Technical Note online September 2017
- Revised SCR audit/review form available for use from 18 September 2017
- All audits/reviews using the full audit SCR completed **after 1 January 2019** must use the revised SCR form

TTM SITE CONDITION RATING FORM						Clear Form			
<b>SITE DETAILS</b>				<b>OPERATIONAL DETAILS</b>					
NETA District Road name CAR / WAP number Date / Time				Activity description TTM number TTM Contractor Contractor - working type Clerk / Principal					
Road ID		TTM level							
<b>SIGNS</b>				<b>MISCELLANEOUS</b>					
		Weighting	Tally Area	Total		Weighting	Tally Area	Total	
01	Missing	Sign	5	0	01	Missing or faded	Reflex	25	0
02	Partial	Sign	2	0	02	Missing or faded	Reflex	25	0
03	Not immediately seen	Sign	5	0	03	Labels are completely obscured	Reflex	5	0
04	Wrong sign	Sign	5	0	04	Not clearly legible or obscured	Reflex	5	0
05	None of a category	Sign	4	0	05	Not all in focus (not in focus)	Reflex	5	0
06	Physically damaged	Sign	6	0	06	Placard with a broken or cracked surface	Reflex	10	0
07	Incorrect sign type for a sign	Sign	4	0	07	Not all signs visible or obscured	Reflex	5	0
08	Not the correct sign type	Sign	2	0	08	Labels or labels not legible	Reflex	5	0
<b>MOBILE &amp; SEMI STATIC</b>									
09	Not all labels visible	Vehicle	10	0	09	Labels or labels not legible	Reflex	5	0
10	Labels not clearly visible	Vehicle	10	0	10	Labels or labels not legible	Reflex	5	0
11	Labels not clearly visible	Vehicle	10	0	11	Labels or labels not legible	Reflex	5	0
12	Labels not clearly visible	Vehicle	10	0	12	Labels or labels not legible	Reflex	5	0
13	Labels not clearly visible	Vehicle	10	0	13	Labels or labels not legible	Reflex	5	0
14	Labels not clearly visible	Vehicle	10	0	14	Labels or labels not legible	Reflex	5	0
15	Labels not clearly visible	Vehicle	10	0	15	Labels or labels not legible	Reflex	5	0
16	Labels not clearly visible	Vehicle	10	0	16	Labels or labels not legible	Reflex	5	0
17	Labels not clearly visible	Vehicle	10	0	17	Labels or labels not legible	Reflex	5	0
18	Labels not clearly visible	Vehicle	10	0	18	Labels or labels not legible	Reflex	5	0
19	Labels not clearly visible	Vehicle	10	0	19	Labels or labels not legible	Reflex	5	0
20	Labels not clearly visible	Vehicle	10	0	20	Labels or labels not legible	Reflex	5	0
<b>PEDESTRIANS / CYCLISTS</b>									
21	Unprotected area	Footway	10	0	21	Unprotected area	Footway	10	0
22	Unprotected area	Footway	10	0	22	Unprotected area	Footway	10	0
23	Unprotected area	Footway	10	0	23	Unprotected area	Footway	10	0
24	Unprotected area	Footway	10	0	24	Unprotected area	Footway	10	0
25	Unprotected area	Footway	10	0	25	Unprotected area	Footway	10	0
<b>DELINEATION</b>									
26	Missing or faded	Line	5	0	26	Missing or faded	Line	5	0
27	Missing or faded	Line	5	0	27	Missing or faded	Line	5	0
28	Missing or faded	Line	5	0	28	Missing or faded	Line	5	0
29	Missing or faded	Line	5	0	29	Missing or faded	Line	5	0
30	Missing or faded	Line	5	0	30	Missing or faded	Line	5	0
31	Missing or faded	Line	5	0	31	Missing or faded	Line	5	0
32	Missing or faded	Line	5	0	32	Missing or faded	Line	5	0
33	Missing or faded	Line	5	0	33	Missing or faded	Line	5	0
34	Missing or faded	Line	5	0	34	Missing or faded	Line	5	0
35	Missing or faded	Line	5	0	35	Missing or faded	Line	5	0
36	Missing or faded	Line	5	0	36	Missing or faded	Line	5	0
37	Missing or faded	Line	5	0	37	Missing or faded	Line	5	0
38	Missing or faded	Line	5	0	38	Missing or faded	Line	5	0
39	Missing or faded	Line	5	0	39	Missing or faded	Line	5	0
40	Missing or faded	Line	5	0	40	Missing or faded	Line	5	0
<b>KEY POINTS</b>				<b>FINAL RESULT</b>					
COMPLIANT CALLOUT? <input type="checkbox"/> SITE ACTIVITY STATUS <input type="checkbox"/> NOT REVENUE PLANNED - non-emergency <input type="checkbox"/> GOOD SITE INDICATOR (DOES NOT AFFECT SCORE) <input type="checkbox"/> NOT REVENUE PLANNED - non-emergency <input type="checkbox"/> LOW RISK? <input type="checkbox"/>				0					
ACTIONS PLANNED BY STMS: <input type="checkbox"/> SITE ACTIVITY CEASED BY: <input type="checkbox"/> SITE PHASE?									
<b>ACTIONS TO BE TAKEN</b>									
<b>AUDITED / REVIEWED BY</b>				<b>STMS DETAILS</b>					
Signature Auditor/Reviewer name Qualifications Position/Reviewer mobile number				RECEIVED BY / SIGNED STMS name Qualifications STMS mobile number					
NETA ID No.				NETA ID No.					
In submitting this form, the auditor/reviewer agrees that they have completed the significant tasks and proposed remedials to the relevant parties specified above and have handed these parties a physical copy of the audit unless not apply for unclassified sites.									

# TTM SCR

- Based on full audit
- Guidelines provide specific details of how to measure each element of the SCR
- The initial focus for the auditor/reviewer is the worksite
- Auditor/reviewer also assesses:
  - design of the TMP
  - application of CoPTTM and Local authority standards





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# Audit resources

Section I-21: Audit resources:

- RCA strategies to improve CoPTTM compliance
- **TTM SCR form** – Paper version
- **TTM SCR form** – Smart PDF version
- **TTM SCR form** – Excel version
- **TTM SCR form** – Online tool
- User Guide for Excel SCR form
- TTM SCR guidelines
- TTM Advisory Note Template

# Options for using the SCR form

Options	What it does
<b>Paper</b>	<ul style="list-style-type: none"><li>• Incorporates all of the new audit fields</li><li>• Manually calculate site score and SCR</li></ul>
<b>Smart PDF</b>	<ul style="list-style-type: none"><li>• Incorporates all of the new audit fields</li><li>• Automatically calculates site score/Manually calculate SCR</li></ul>
<b>Excel</b>	<ul style="list-style-type: none"><li>• Incorporates all of the new audit fields</li><li>• Calculates SCR automatically</li><li>• Onscreen help for each field</li><li>• Able to save data</li><li>• Can add audit information to a database</li></ul>
<b>Online tool</b> <i>Free until end of 2017</i>	<ul style="list-style-type: none"><li>• Incorporates all of the new audit fields</li><li>• Calculates SCR automatically</li><li>• Onscreen help for each field</li><li>• Able to save data</li><li>• Can add audit information to a database</li><li>• Allows photos to be stored with audit</li><li>• Speech to text function</li></ul>



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# What's changed on the SCR form

- Reorganisation of the form
- Some items removed or added
- Clarifications or tightening up of others

# Removed

## Excavation not protected

Signs	Points	Tally	Total
Missing (including side road and TSL)	5 for each sign		
Spacing (too close/far)	2 for each sign		
Not visible	3 for each sign		
Wrong sign	5 for each sign		
Condition marginal	1 for each sign		
Condition unacceptable	4 for each sign		
Permanent signs not covered	2 for each sign		
Unapproved signs used/too small	4 for each sign		
Sign on wrong side	2 for each sign		
Sign too low	1 for each sign		
Faulty TSL	5 for each occasion, 51 if contravenes section C4 of CoPTTM		
Speed limit not correctly aligned	2 for each occasion		
Sign not upright	1 for each sign		
Non-compliant support	2 for each support		
Lateral location wrong	1 for each sign		
		<b>Subtotal</b>	

Delineation devices	Points	Tally	Total
Missing (including chicane) when required	30 where delineation is missing		
Tapers too short	5 for each shifting taper, 20 for each merging taper		
Spacing between multiple tapers	5 for each missing or inappropriate space		
Spacing in tapers	3 for each taper where spacing too great to be effective		
Spacing in lanes	2 where spacing in lanes / around work area is too great		
Condition marginal	1 for each device where classified in marginal condition		
Condition unacceptable	5 for each device where classified in unacceptable condition		
Using non-approved device	4 for each non-approved device		
Road marking incorrect	30 where not adjusted at long term sites		
Inadequate site access	10 where there is inadequate site access where required		
		<b>Subtotal</b>	

Miscellaneous	Points	Tally	Total
Working in live lanes	20 for each occasion		
Flashing beacons not used/not compliant	1 for each vehicle		
High visibility garment not worn/not acceptable	5 for each individual		
Parking/stopping features not relocated	5 for each occasion where required		
Unsafe and/or illegal parking of plant/equipment	20 for each occasion		
Poor surface condition	30 for each occasion		
Safety (lat and/or long) zone insufficient	20 for each safety zone compromised		
Excavation not protected	10 if excavation protection not acceptable		
VMS message incorrect	10 for displaying incorrect information		
Barrier defects	10 for each barrier defect		
TMP not approved/not on attended site	Non-conformance unless produced within 30 min		
No qualified person on attended site	Non-conformance		
Inadequate property access	20 if no arrangement made when entrance blocked		
		<b>Subtotal</b>	

Pedestrians/cyclists	Points	Tally	Total
Inadequate provision for pedestrians	10 where inadequate provision made		
Inadequate provision for cyclists	10 where inadequate provision made		
		<b>Subtotal</b>	

Mobile operations	Points	Tally	Total
Tail pilot vehicle omitted	30 for missing or incorrect location		
Lead pilot vehicle omitted	20 for missing or incorrect location		
Shadow vehicle omitted	20 for missing or incorrect location		
Signs omitted	5 for missing or incorrect signs		
TMA missing or non-compliant	20 for each occasion		
Arrow board missing	20 for each occasion		
Arrow board message	20 for no message or incorrect message		
		<b>Subtotal</b>	

<b>Total of each section = SITE CONDITION RATING</b>			
<b>SITE INDUCTION</b>	5 Bonus points - deducted from total if induction is carried out		
<b>OVERALL SITE CONDITION RATING</b>			



# Re-allocated

## Position

- ~~Spacing~~
- ~~Sign on wrong side~~
- ~~Speed limit not correctly aligned~~
- ~~Lateral location wrong~~

## Non-compliant support

- ~~Sign too low~~

## Not Visible

- ~~Not upright~~

## Faulty TSL

Signs	Points	Tally	Total
Missing (including side road and TSL)	5 for each sign		
Spacing (too close/far)	2 for each sign		
Not visible	3 for each sign		
Wrong sign	5 for each sign		
Condition marginal	1 for each sign		
Condition unacceptable	4 for each sign		
Permanent signs not covered	2 for each sign		
Unapproved signs used/too small	4 for each sign		
Sign on wrong side	2 for each sign		
Sign too low	1 for each sign		
Faulty TSL	5 for each occasion, 51 if contravenes section C4 of CoPTTM		
Speed limit not correctly aligned	2 for each occasion		
Sign not upright	1 for each sign		
Non-compliant support	2 for each support		
Lateral location wrong	1 for each sign		
		Subtotal	

Delineation devices	Points	Tally	Total
Missing (including chicane) when required	30 where delineation is missing		
Tapers too short	5 for each shifting taper, 20 for each merging taper		
Spacing between multiple tapers	5 for each missing or inappropriate space		
Spacing in tapers	3 for each taper where spacing too great to be effective		
Spacing in lanes	2 where spacing in lanes / around work area is too great		
Condition marginal	1 for each device where classified in marginal condition		
Condition unacceptable	5 for each device where classified in unacceptable condition		
Using non-approved device	4 for each non-approved device		
Road marking incorrect	30 where not adjusted at long term sites		
Inadequate site access	10 where there is inadequate site access where required		
		Subtotal	

Miscellaneous	Points	Tally	Total
Working in live lanes	20 for each occasion		
Flashing beacons not used/not compliant	1 for each vehicle		
High visibility garment not worn/not acceptable	5 for each individual		
Parking/stopping features not relocated	5 for each occasion where required		
Unsafe and/or illegal parking of plant/equipment	20 for each occasion		
Poor surface condition	30 for each occasion		
Safety (lat and/or long) zone insufficient	20 for each safety zone compromised		
Excavation not protected	10 if excavation protection not acceptable		
VMS message incorrect	10 for displaying incorrect information		
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TMP not approved/not on attended site	Non-conformance unless produced within 30 min		
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		Subtotal	

Pedestrians/cyclists	Points	Tally	Total
Inadequate provision for pedestrians	10 where inadequate provision made		
Inadequate provision for cyclists	10 where inadequate provision made		
		Subtotal	

Mobile operations	Points	Tally	Total
Tail pilot vehicle omitted	30 for missing or incorrect location		
Lead pilot vehicle omitted	20 for missing or incorrect location		
Shadow vehicle omitted	20 for missing or incorrect location		
Signs omitted	5 for missing or incorrect signs		
TMA missing or non-compliant	20 for each occasion		
Arrow board missing	20 for each occasion		
Arrow board message	20 for no message or incorrect message		
		Subtotal	

<b>Total of each section = SITE CONDITION RATING</b>			
<b>SITE INDUCTION</b>	5 Bonus points - deducted from total if induction is carried out		
<b>OVERALL SITE CONDITION RATING</b>			

# Re-allocated

## Missing or ineffective taper

- ~~Missing~~
- ~~Tapers too short~~

## Spacing along lanes

- ~~Spacing between multiple tapers~~

## Signs omitted

## AWVMS/Arrowboard noncompliant

- ~~Missing~~
- ~~Message~~

Signs	Points	Tally	Total
Missing (including side road and TSL)	5 for each sign		
Spacing (too close/far)	2 for each sign		
Not visible	3 for each sign		
Wrong sign	5 for each sign		
Condition marginal	1 for each sign		
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Permanent signs not covered	2 for each sign		
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		Subtotal	

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Miscellaneous	Points	Tally	Total
Working in live lanes	20 for each occasion		
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High visibility garment not worn/not acceptable	5 for each individual		
Parking/stopping features not relocated	5 for each occasion where required		
Unsafe and/or illegal parking of plant/equipment	20 for each occasion		
Poor surface condition	30 for each occasion		
Safety (lat and/or long) zone insufficient	20 for each safety zone compromised		
Excavation not protected	10 if excavation protection not acceptable		
VMS message incorrect	10 for displaying incorrect information		
Barrier defects	10 for each barrier defect		
TMP not approved/not on attended site	Non-conformance unless produced within 30 min		
No qualified person on attended site	Non-conformance		
Inadequate property access	20 if no arrangement made when entrance blocked		
		Subtotal	

Pedestrians/cyclists	Points	Tally	Total
Inadequate provision for pedestrians	10 where inadequate provision made		
Inadequate provision for cyclists	10 where inadequate provision made		
		Subtotal	

Mobile operations	Points	Tally	Total
Tail pilot vehicle omitted	30 for missing or incorrect location		
Lead pilot vehicle omitted	20 for missing or incorrect location		
Shadow vehicle omitted	20 for missing or incorrect location		
Signs omitted	5 for missing or incorrect signs		
TMA missing or non-compliant	20 for each occasion		
Arrow board missing	20 for each occasion		
Arrow board message	20 for no message or incorrect message		
		Subtotal	
<b>Total of each section = SITE CONDITION RATING</b>			
<b>SITE INDUCTION</b>	5 Bonus points - deducted from total if induction is carried out		
<b>OVERALL SITE CONDITION RATING</b>			

## Site induction

# Site details

SITE DETAILS			
RCA			
Suburb			
Road name		Road ID	
CAR / WAP number		TTM level	
Date / Time			

*Excel Spreadsheet*  
Get Road ID from **Mobile Roads**  
When entered here, it automatically fills in the Road name and Suburb

# Operational details (excel Spreadsheet)

OPERATIONAL DETAILS		
Activity description		
TTM method		
	TTM Contractor	Contractor - working space
Contractor (TTM/Working space)		
Client / Principal		

*Excel Spreadsheet*  
Select from dropdown menu

# Signs

SIGNS			Weighting	Tally Box	Total
A1	Missing	Sign	5		
A2	Position	Sign	2		
A3	Not visible/fallen over	Sign	5		
A4	Wrong sign	Sign	5		
A5	Condition unacceptable	Sign	4		
A6	Permanent sign	Sign	5		
A7	Unapproved sign used / too small	Sign	4		
A8	Non-compliant support / sign too low	Support	2		

# Mobile and Semi Static

## MOBILE & SEMI STATIC

B1	Tail pilot vehicle / AWVMS omitted or incorrect location	Vehicle	30		
B2	Lead pilot vehicle omitted or incorrect location	Vehicle	20		
B3	Shadow vehicle omitted or incorrect location	Vehicle	26		
B4	TMA missing or non compliant	TMA	26		
B5	AWVMS/arrowboard non compliant	Vehicle	26		

# Pedestrians / Cyclists

## PEDESTRIANS / CYCLISTS

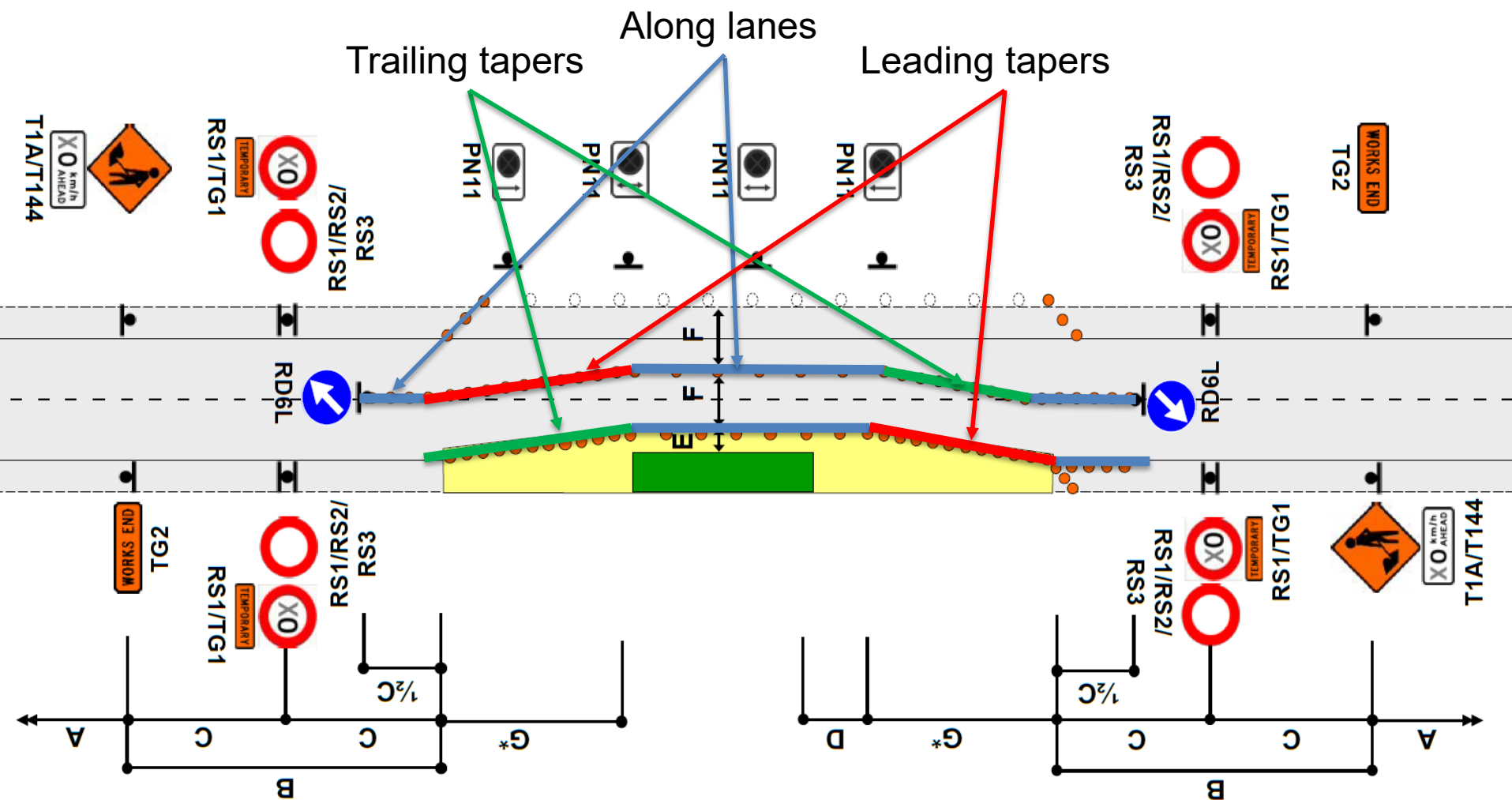
C1	Inadequate provision for pedestrians	Feature	10		-
C2	Inadequate provision for cyclists	Feature	10		-

# Delineation

DELINEATION					
D1	Missing or ineffective taper	Leading taper	26		
D2	Tapers too short	Leading taper	15		
D3	Taper too short or missing	Trailing taper	5		
D4	Spacing in taper	Taper	5		
D5	Spacing along lanes	Per 100m delineation	3		
D6	Missing or ineffective delineation along lanes	Delineation section	10		
D7	Condition unacceptable	Device	2		
D8	Using non-approved device	Device	4		
D9	Road marking incorrect at long term level 2 or 3 roads	Site	30		
D10	Inadequate/missing site access	Access	10		

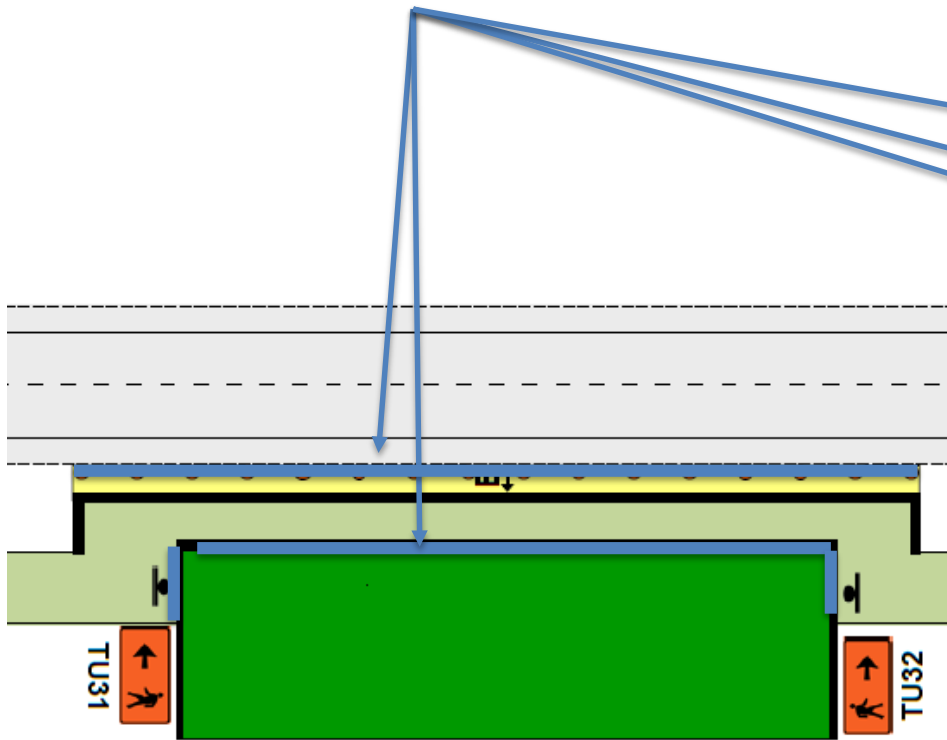


# Clarification of terms

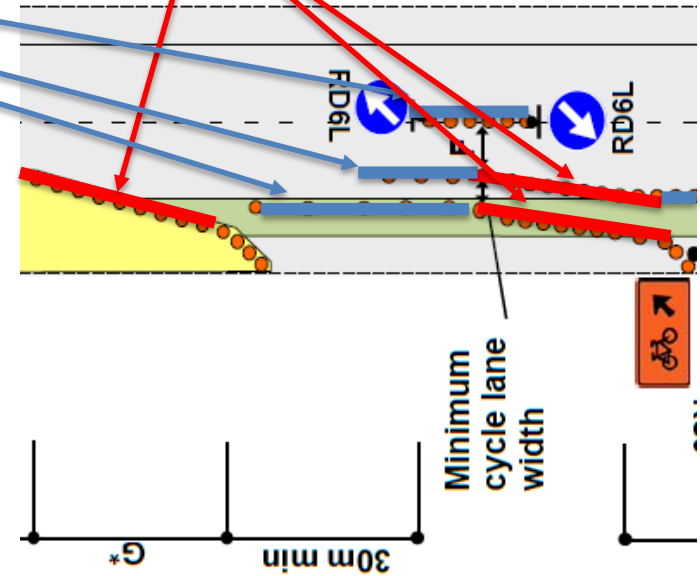


# Clarification of terms

Along lanes



Leading tapers



# Miscellaneous

MISCELLANEOUS			Weighting	Tally Box	Total
E1	Working in live lanes	Individual	20		
E2	Missing or ineffective controller	Individual	20		
E3	Safety zone compromised	Individual	10		
E4	High visibility garment not acceptable	Individual	5		
E5	Marginal surface condition (carriageway only)	Occasion	15		
E6	Unacceptable surface condition (peds, cyclists or carriageway)	Occasion	30		
E7	Barrier defects (missing or incorrect components)	Component	10		
E8	Unsafe or redundant TTM	Equipment	5		
E9	VMS message incorrect or inappropriate	AWVMS or Arrowboard	15		
E10	Flashing beacons / indicator lights not used or ineffective	Vehicle	3		
E11	Parking / stopping features not relocated	Feature	5		
E12	Unsafe and illegal parking of plant/equip.	Feature	20		
E13	Marginal items (signs, delineators, Hi vis garments)	Feature	1		

# Other worksite aspects

OTHER WORKSITE ASPECTS		
G1	QUALIFIED PERSON ON SITE [REFER TO A5 OF COPTTM]	
G2	TSL APPROPRIATE [REFER TO C4 OF COPTTM]	
G3	ROAD USER FLOW ACCEPTABLE	
G4	ON-SITE RECORD [FORM MUST INCLUDE STMS AUTHORITY, 2 HOURLY CHECKS AND TSL DETAILS]	
G5	TMP APPROVED?	
G6	APPROVED TMP SIGHTED?	
G7	APPROVED TMP APPLICABLE?	
G8	TTM IN ACCORDANCE WITH APPROVED TMP?	



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## LOW RISK?

For all road users, does this site feel safe?

*Note: If you don't feel safe as a road user then the answer is NO*

**THIS ONLY CHANGES THE RESULT IF THE SCORE IS 51+**

**The SCR changes from Unacceptable to Dangerous**

The Auditor/Reviewer should issue a **Stop Works Order** without delay

The **Stop Works Order** may be lifted as soon as issues corrected and the site has been re-checked and the SCR is acceptable or better



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# Final result - Existing ratings **unchanged**

- 0-10 High standard
- 11-25 Acceptable
- 26-50 Needs Improvement



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# Final result - **New / changed ratings:**

## UNACCEPTABLE (OTHER)

SCR under 51 and:

- item(s) in OTHER WORKSITE ASPECTS are marked N (unacceptable)

## UNACCEPTABLE

SCR 51+ and:

- Item(s) in OTHER WORKSITE ASPECTS are marked Y
- LOW RISK? is marked Y



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# Final result - New / changed ratings:

**UNACCEPTABLE  
(MULTIPLE ISSUES)**

SCR 51+ and:

- item(s) in OTHER WORKSITE ASPECTS are marked N (unacceptable)
- LOW RISK? is marked Y

**DANGEROUS**

SCR 51+ and LOW RISK? is marked N



# Exercise

Score = **75**

Other worksite aspects = **3 unacceptable**

Low Risk? = **Yes**

SCR = ?????

**Unacceptable - Multiple**



## Exercise

Score = **35**

Other worksite aspects = **1 unacceptable**

Low Risk? = **Yes**

SCR = ?????

**Unacceptable - Other**

# Exercise

Score = **55**

Other worksite aspects = **All yes**

Low Risk? = **Yes**

SCR = ?????

**Unacceptable**

# Exercise

Score = **55**

Other worksite aspects = **All yes**

Low Risk? = **No**

SCR = ?????

**Dangerous**



# Options for using the SCR form

- Paper
- Smart PDF
- Excel (requires customisation)
- Online tool (requires some setup)