

# **Section H: Appendices**



# SECTION H APPENDICES

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# APPENDIX A: Traffic Management Plans

## 1 Traffic Management Plan Details

Traffic Management Plans should be prepared on the “Traffic Management Plan” Form in this appendix, or similar, and should include the following details:

- *Traffic Management Plan Reference* – For use by the network or Area Traffic Management Coordinator.
- *Organisation* - Include the name of the Contractor and Client
- *Contract Name/Number* - Include the name and/or the reference number of the contract or consent for works.
- *Location* - Include the road name(s), including any affected intersections, the road **Level**, the existing posted speed limit and route positions where applicable.
- *Description of Activity* - Describe the main elements of the activity and how it will affect the normal road operating conditions.
- *Work Programme* - Include the proposed start and finish dates for the activity. Significant components of a complex or long-term activity should be identified as separate items. Include any temporary road closures, detours and no-activity periods.
- *Proposed/Restricted Work Hours* - Include the hours that the activity will take place. Activity hours may be restricted by the RCA or contract documents.
- *Traffic Details* - Include AADT, peak hour and heavy vehicle counts where available. The RCA or Engineer must provide this information if available.
- *Proposed Traffic Management Method* – Detail the traffic management measures for all anticipated specific work operations showing the level of traffic management to be undertaken when:
  - (a) The site is active (for all phases of the work – note a separate Traffic Management Plan may be required for each phase)
  - (b) The site is unattended
  - (c) The activity is at night (for all phases of the work)

Include plant and equipment visibility, signs, delineation devices, proposed layout, traffic controllers etc.

- *Proposed Speed Restrictions* - Detail any speed restrictions required. Include an application form for the authorisation to use a temporary speed limit. Refer Appendix B: Temporary Speed Restrictions, for an application form.
- *Positive Traffic Management Measures* – Detail the extent of positive traffic management to be undertaken when:
  - (a) Temporary speed restrictions below 70 km/h in areas with existing posted speed limits of 100 km/h, or below 50 km/h in areas with existing posted speed limits of 70 km/h or 80 km/h
  - (b) Traffic is stopped to allow work to proceed
  - (c) Traffic is reduced to one lane
- *Contingency Plans* - Plan for excessive delays, foreseeable emergencies, deterioration in weather or road conditions, or if the work takes longer than expected. Emergency services vehicles must always be able to proceed through the site without delay. Plans must include pre-planned provision for a “major incident” (fatality, real or potential) including significant property damage and must include steps to secure site, reduce or remove the effects of TTM.

For a “minor incident” – excessive delays, non-injury accident or a structural failure of the road, the plan must include steps to secure the site, remove TTM and establish normal traffic flows and to re-establish site when safe to do so.

- *Public Notification* - Include details of notices proposed to be advertised via local radio or newspapers or distributed to local residents. Refer contract documentation and RCA requirements.
- *Personal Safety* – Outline personal high visibility safety clothing for day and night operations, procedures to ensure all other personnel on site, including visitors, are correctly equipped.
- *On-Site Monitoring* - Identify the frequency of monitoring the continued effectiveness of the traffic management measures. Detail the monitoring of occupied and unoccupied sites both overnight and during weekends or holiday breaks.
- *Other Information* - Further details may be required as a result of specific site conditions or contract documents.

- *Layout Diagrams* - Show all temporary traffic management devices proposed to be used. Layout diagrams must be clear, legible and accurate and show all set-out distances. There is likely to be more than one layout for each site to show the changes as a result of:
  - (a) traffic or site changes throughout the day
  - (b) day and night operations
  - (c) different phases of the work
  - (d) the site being attended or unattended
- *Traffic Controllers* - Nominate the Site Traffic Management Supervisor and other Traffic Controllers for the work site along with their 24-hour contact phone numbers. Include a copy of the STMS's and TC's training certificate(s) or warrant(s).
- *Prepared By* – Name of the STMS who prepared the TMP, including a copy of the STMS's training certificate or warrant.
- *Approval* – Name of the Engineer qualified to STMS level who will approve the TMP.

## 2 Generic Plans

Generic TMP's should, in addition to the above requirements:

- allow for an annual review by the RCA;
- be readily changeable at any time over the term to allow for site and personnel changes; and
- allow for the conditions under which the RCA may be prepared to delegate authority to fix temporary speed limits

## 3 Mobile Operation Plans

TMP's for mobile operations should also include the following additional information:

- the type and function of each vehicle in the mobile team
- the vehicles that will be equipped with attenuators and arrow boards and their location within the closure
- the number, location and, duration of exposure and tasks of personnel who are permitted to leave their vehicles
- the method of inter-vehicle communication if appropriate

## 4 Additional Information

In addition, TMP's should also include the following as appropriate:

- Liaison with emergency services and public transport operators (if they could be affected by the work site)
- Changes to parking controls
- Traffic environment details of speed limit, parking, traffic signals, pedestrian crossings, road alignment and hierarchy.
- Specialised equipment such as pilot vehicles, use of temporary lights
- Materials storage
- Pedestrian barriers and equipment to be used
- Queuing
- Plant operational requirements; eg. truck waiting and filling areas

## TRAFFIC MANAGEMENT PLAN

|   |                            |                                 |                       |                |
|---|----------------------------|---------------------------------|-----------------------|----------------|
| <b>Traffic Management Plan Reference</b>  |                            |                                 |                       |                |
|   | <b>For Office Use Only</b> |                                 |                       |                |
| <b>Organisation</b>                       | <b>Contractor</b>          |                                 | <b>Client</b>         |                |
| <b>Contract Name/Number</b>               |                            |                                 |                       |                |
| <b>Location</b>                           | <b>Road Name(s)</b>        | <b>Road Level (LV, 1, 2, 3)</b> | <b>Speed Limit</b>    | <b>From RP</b> |
|   |                            |                                 |                       | <b>From RP</b> |
| <b>Description of Activity</b>            |                            |                                 |                       |                |
| <b>Work Programme</b>                     |                            |                                 |                       |                |
| <b>Proposed/Restricted Work Hours</b>     |                            |                                 |                       |                |
| <b>Traffic Details (Main Route)</b>       | <b>AADT</b>                |                                 | <b>Peak Hour Flow</b> |                |
| <b>Proposed Traffic Management Method</b> | <b>Active</b>              |                                 |                       |                |
|   | <b>Unattended</b>          |                                 |                       |                |
|   | <b>Night</b>               |                                 |                       |                |

|  |                    |                         |
|--|--------------------|-------------------------|
| <b>Proposed Speed Restrictions</b>   |                    |                         |
| <b>Positive Traffic Management Measures</b>  |                    |                         |
| <b>Contingency Plans</b>   |                    |                         |
| <b>Public Notification</b>   |                    |                         |
| <b>Personal Safety</b>   |                    |                         |
| <b>On-Site Monitoring</b>  |                    |                         |
| <b>Other Information</b>   |                    |                         |
| <b>Layout Diagrams</b>   |                    |                         |
| <b>EED Apply</b>   | <b>Y/N</b>         | <b>Attached Y/N</b>     |
| <b>Traffic Controllers</b><br><i>(Include a Copy of Training Certificate or Warrant)</i> | <b>Name (STMS)</b> | <b>Phone (24 hours)</b> |
|  | <b>Name (TC)</b>   | <b>Phone</b>            |
| <b>Prepared By</b>   | <b>Contractor</b>  | <b>Date</b>             |
| <b>Approved/<br/>Requires Amendment</b>  | <b>Engineer</b>    | <b>Date</b>             |

**SCHEDULE OF SPECIFIC JOB REQUIREMENTS FOR TRAFFIC  
MANAGEMENT AND SAFETY**  
*(To be included in Contract documents)*

**CONTRACT NO** .....

**CONTRACT NAME** .....

**A OPERATIONAL REQUIREMENTS**

**1. Level of Temporary Traffic Management**

The temporary traffic management shall be to:

- Level LV
- Level 1
- Level 2
- Level 3

(Strike out those that do not apply)

**2. Hours of Work**

The contractor shall program work such that contract activities affecting traffic flow are not carried out on-site between the hours specified below Monday to Friday inclusive.

No work other than emergency or maintenance work shall be undertaken on weekends without prior approval of the Engineer

Hours/Days when work in Prohibited or Restricted

.....  
.....

**3. Project Specific Conditions**

.....  
.....

**4. Excessive Traffic Delays**

The steps outlined in the Traffic Management Plan to deal with excessive traffic delays shall be implemented once the traffic delay exceeds ..... minutes.

The Contractor is responsible for monitoring of traffic delay.

**5. Road Controlling Authority Approval at Single Lane Operations**

Approval of the RCA is required/is not required in advance if traffic is restricted to single lane operation.

**6. Advice to Other Parties**

Public Notification is not required/is required. If required, the details are:

.....  
.....

Parties with Access Affected

.....  
.....

**7. Delineation Devices**

The height of delineation devices will be at least:

.....mm when used on roads  
.....mm for protecting wet pavement marking

**8. Condition of Road Surface**

Deduction made for temporary road not being sealed and maintained for greater than .....days at \$...../calendar day

**9. Basis of Payment**

Payment shall be in accordance with:

- (a) Lump Sum \$ ..... (*should be discouraged*)
- (b) Daily Rate \$ ..... per 24 hours
- (c) Provisional Sum \$ ..... per 24 hours

**10. Positive Traffic Management - Specific Requirements**

.....  
.....

**11. Pilot Vehicle Exemption**

.....  
.....

# APPENDIX B: Temporary Speed Restrictions

## *Land Transport Safety Authority - Correct Use of Temporary Speed Limits - Guidelines*

### 1 Purpose

Temporary speed limits have a role in the control of traffic at temporary hazards and other specific cases. They are however, generally inappropriate for warning road users of long-term road performance deficiencies that cannot be immediately rectified. This note considers this issue and provides recommendations.

### 2 Temporary Speed Limits

Regulation 23 of *Traffic Regulations 1976* provides for the erection of temporary speed limit signs on roads where there is a temporary risk of danger to the public or road workers or of damage to the road. The limit need not be 30 km/h but may be any speed that is a multiple of 10 km/h and less than the existing speed limit on the road.

Temporary speed limits should generally be reserved for short-term road hazards or active roadwork sites. They may also be appropriate on a section of long-term, but currently inactive, road works or at other locations where:

- the surface has been damaged due to previous road work, slip, subsidence, etc, **and**
  - there are road features such as reduced width, extremely poor alignment or detours, no useable shoulders, etc that are completely out of character with the approaches and with the normal condition of the road;
- OR**
- there are good technical reasons (eg. the road might collapse otherwise), **and**
  - other traffic management devices have been installed to control vehicle speeds.

In these situations the nature of the roadway deficiency or, in the latter case, the traffic management devices would be evident to road users. They would recognise there is a need to adjust behaviour.

The temporary speed limit gives positive direction and guidance and, if set at an appropriate level, should receive a good level of acceptance and therefore compliance.

### 3 Warning Signs

On sections of road that do not fall into the criteria described in Section 2 above it is generally inappropriate to install a temporary speed limit. In these cases permanent warning signs should be erected to advise of the any road deficiency. For example, if a section of road fails to meet standard skid resistance properties then a PW-41 'Slippery Surface' sign may be appropriate at the commencement and at regular intervals along the section. Appropriate supplementary signs could include 'When Wet' and 'Next " \_ " km'.

Temporary warning signs with orange backgrounds are not appropriate in these circumstances. These signs are reserved for use at temporary hazards and roadwork sites, and at other locations described in 2 above.

### 4 Recommendations

Temporary speed limits should:

- **NOT BE USED** for warning road users of long-term road performance deficiencies that cannot be immediately rectified.
- **BE USED** generally only in accordance with the circumstances described in Section 2 of this note.

Signs erected to warn road users of long-term road performance deficiencies that cannot be immediately rectified **MUST** be permanent warning signs. The procedure for determining whether a sign is provided, and its format, should follow normal practice for the erection of permanent warning signs, as described in MOTSAM.

**APPLICATION FOR TEMPORARY SPEED RESTRICTION**

Pursuant to Section 23(1) of the Traffic Regulations, a temporary maximum speed limit of ..... kilometres per hours is hereby fixed for motor vehicles travelling over the length of:

**Sought by (Contractor)** .....

**For (Client)** .....

**Contract No. (if appropriate)** .....

**Road Name / State Highway** .....

**Situated at** .....

**From Route Position: RP** ..... /  
.....

**To Route Position: RP** ..... /  
.....

**From the Date of** .....

**To the Date of** .....

**Between the Hours of:** ..... am ..... pm

**Approval Granted By: Name:** .....

**Position :** .....

**Signature:** .....

**Date:** .....

**Special Conditions to Apply:** .....

.....  
.....  
.....  
.....  
.....

## ***EXPLANATORY NOTE – Background to Development of Procedures***

Safety Auditing of projects was introduced by Transit New Zealand in 1993 and is continuing to be used to ensure safety aspects of projects are addressed in the best possible way. Procedures were developed for Stage 1 *Feasibility* to Stage 4 *Pre opening of roading improvement projects*. Safety audits of existing roads started in February 1995, with draft procedures being published by Transit in February 1996.

Following the formation of Transfund New Zealand the above procedures have been revised and published in December 1998 as final procedures for *Safety Audits of Existing Roads*.

In January 1997 a pilot safety audit of temporary traffic management at work sites was undertaken in the Wellington/Wairarapa area. This initial study was followed up, in March 1998, by two more safety audits of temporary traffic management in the North Canterbury and the Auckland North areas.

From experience gained during the above trials, Transfund New Zealand published "Interim Procedures for Safety Audit of Traffic Control at Roadwork Sites" - Audit and Review Division Report No RA 98/689S, in February 1999.

Transfund New Zealand held workshops throughout the country during March 2001 to gain industry feedback on the procedures. A working group met in September 2001 to refine these procedures for inclusion into this Code of Practice as an appendix. These procedures were introduced to the roading industry during a series of training workshops held during February and March 2002. Feedback from attendees of these workshops has been considered in the production of these procedures.

### **Changes to the Transfund NZ Interim Procedures**

These procedures differ from the Transfund NZ Interim procedures in that they use an expanded "Site Condition Factor" (Site Condition Rating) which does not account for the "Site Complexity Factor" or the "Traffic Effects Factor" which were included in the interim procedures.

As the practices described in this Code of Practice are deemed to be safe, the auditing procedures should not discriminate between the choice of temporary traffic management implemented. It is the joint responsibility of the STMS preparing the TMP and the RCA approving the TMP to select the most suitable method of temporary traffic management for each activity.

# **APPENDIX C: Procedures for the Safety Audit of Temporary Traffic Management of Work Sites**

## **1 Uses of the Procedures**

These procedures shall be used to audit all activities requiring Temporary Traffic Management including the following:

- Active and unattended static sites
- Semi-static activities
- Mobile and inspections activities
- Daytime and Night time activities

## **2 Who Could Use the Procedures**

- RCA's To establish the level of compliance for Temporary Traffic Management installed and maintained for each activity in terms of this Code of Practice and to measure the level of safety within their network.
- Consultant / Engineers To establish Contractor safety compliance.
- Contractors To self audit their own activities.
- OSH Occupational Safety and Health Service inspectors may use these procedures as part of their inspection process for any activity. The Site Condition Rating form can be used to support formal "Improvement Notices"

Each organisation that audits temporary traffic management must retain a system of recording the results of the audits. It is recommended that audit records are maintained for a minimum of five years.

## **3 Training Requirements**

People using these procedures must hold a current STMS certification (refer Section A4) to the level of the temporary traffic management for which they are auditing.

## 4 Safety Audit Methodology

The general methodology recommended for using these procedures is:

- Fill out the top section of Site Condition Rating form.
- Drive through the site in both directions making notes on defects that will be recorded on the Site Condition Rating form.
- Add the defects to the Site Condition Rating form.
- Drive all intersecting side roads making notes on defects that will be recorded on the Site Condition Rating form.
- Add the defects to the Site Condition Rating form.
- Address all other prompts on the Site Condition Rating form that have not been considered.
- Tally the points and place the site in the appropriate Site Condition Rating Category.
- Sight the TMP if the Site Condition Rating Category is “Needs Improvement” or “Dangerous” (refer 5.3 below).
- Apply the “Feel Good” factor (refer 5.4 below) if required in the opinion of the auditor.
- Take the appropriate action (refer 5.5 below).

Photographs or videos should be taken of the work activity if the Site Condition Rating category is “Needs Improvement” or “Dangerous” and to record items of interest.

## 5 Site Condition Rating (SCR)

### 5.1 Site Condition

The “Site Condition Rating” (SCR) evaluates temporary traffic management compliance with the minimum requirements of this Code of Practice. Each element of non-compliance is given a number that reflects its component importance in terms of temporary traffic management at the work site. The defects observed are tallied by occurrence and summed to give the Site Condition Rating.

### 5.2 Categories

The SCR categories are:

|         |                   |
|---------|-------------------|
| 0 - 10  | High Standard     |
| 11 - 25 | Acceptable        |
| 26 - 50 | Needs Improvement |
| 51+     | Dangerous         |

### **5.3 Traffic Management Plans**

If the Site Condition Rating falls within the “Needs Improvement” or “Dangerous” categories then the TMP must be sighted to ensure that the site layout complies with the approved TMP. Where the approved TMP varies from this Code of Practice and an Engineering Exception Decision (EED) has been approved, the “Site Condition Rating” should be reworked to reflect the site’s compliance with the approved TMP and the EED.

### **5.4 Feel Good Factor**

A small percentage of audits are likely to fall into categories that do not “feel” correct to the auditor. The “Feel Good” factor is a subjective sensibility check on the Site Condition Rating category which allows the audit result to be shifted into a different category where the site:

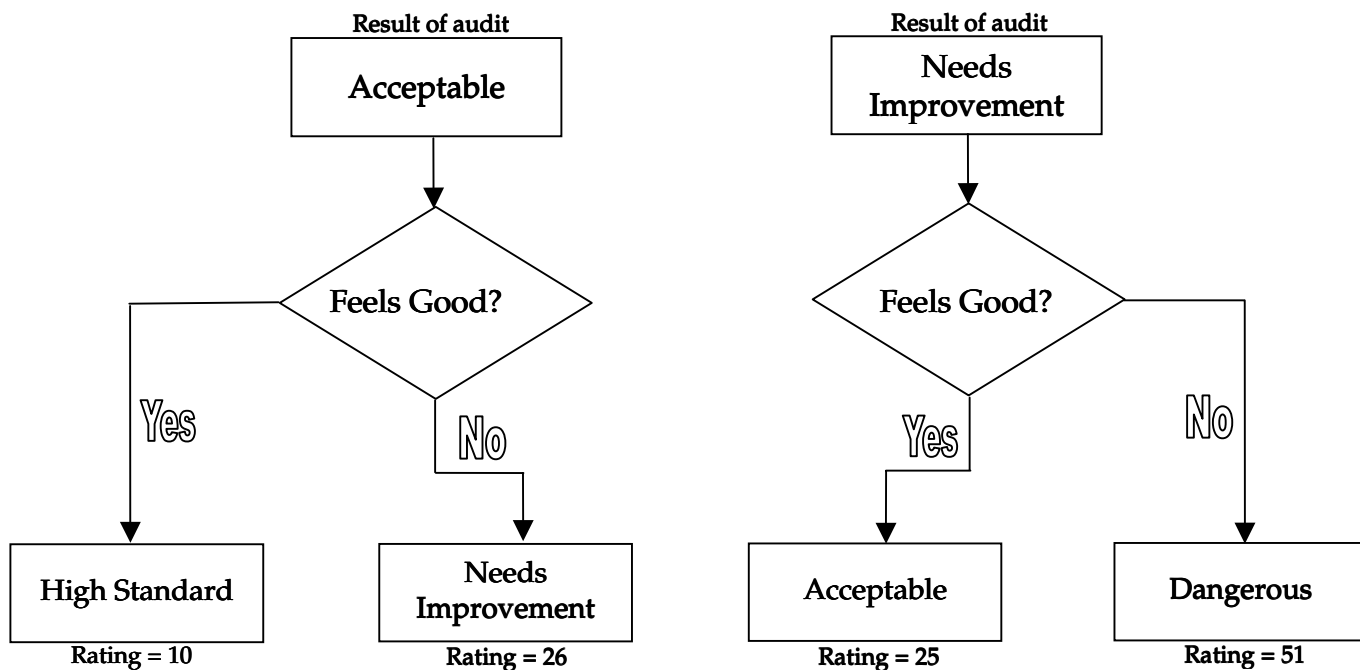
- Looks safe,
  - Feels safe, and
  - Operates safely
- or
- Looks unsafe for the rating obtained,
  - Feels unsafe for the rating obtained, and
  - Operates in an unsafe safe manner

The feel good factor is only applied when the Site Condition Rating falls into the “Acceptable” or “Needs Improvement” categories.

If the feel good factor is applied and the site rating category is changed, the Site Condition Rating number shifts to the lower bound when shifted up a category and to the upper bound when shifted down a category.

The flow chart that follows illustrates how the “Feel Good” factor is applied.

# Site Condition Rating - determined from Audit



**Note:-** It is anticipated that the “**Feel Good**” factor will only need to be applied to a minority of the activities and sites that are audited. The “**Feel Good**” factor must not be used to change the results without justification, and must not be used by safety auditors with limited experience.

## 6 Actions Following Audits

The auditor need not take any action on-site when the Site Condition Rating is either “High Standard” or “Acceptable”. It is recommended however, that the STMS be advised of these good audit results.

Where the Site Condition Rating category is “Needs Improvement” the STMS must be informed of the audit result immediately. The auditor shall discuss the temporary traffic management features that are non-complying with the STMS and make recommendations on how the work site can be made safer. The STMS must undertake remedial action as soon as possible and has a maximum of 4 hours to bring the site rating to an “Acceptable” standard or better.

Where the Site Condition Rating category is “Dangerous” the STMS must be informed of the audit result immediately. All work shall cease on site immediately and the temporary traffic management be brought up to an “Acceptable” level or better. If the temporary traffic management cannot be improved to the required standard, the work site shall be cleared and left in a safe condition.

A Notice of Non-Conformance must be issued to the STMS whenever a “Dangerous” Site Condition Rating is calculated.

It may be necessary to supplement the SCR form with an attached memo or fax coversheet on which the auditor may add additional comments regarding the audit and / or the condition of the activity that was inspected.

## 7 Site Condition Rating - Item Descriptions

Multiple deficiencies relating to one item of temporary traffic management may only be recorded as a single defect assigned against the rating that is the highest. For example, a sign in marginal condition located on the wrong side of the road is to be assigned as “Sign on Wrong Side” as this item has a rating higher than “Condition Marginal” item.

### 7.1 Signs

|                                      |   |
|--------------------------------------|---|
| <i>Sign Missing:</i>                 | Any signs that should have been erected that are missing.   |
| <i>Sign Spacing:</i>                 | Any signs where the spacing is too close or where the spacing too far from other signs or the work area.  |
| <i>Not Visible:</i>                  | Any temporary traffic management sign that should be erected at the work site, which is not visible, eg. knocked down, or visibility blocked by a parked vehicle. |
| <i>Condition Marginal:</i>           | Refer Section C20 Maintenance Standards.  |
| <i>Condition Unacceptable:</i>       | Refer Section C20 Maintenance Standards.  |
| <i>Order Incorrect:</i>              | Signs installed in the incorrect order.   |
| <i>Permanent Signs Not Covered:</i>  | Permanent signs not relevant to road users because of the works, which have not been covered.   |
| <i>Unapproved Signs / Too Small:</i> | Signs used that are not approved for use at work sites, includes using Level 1 signs at Level 2 and 3 temporary traffic management work sites.                    |
| <i>Sign On Wrong Side:</i>           | Sign erected on the right hand side and not on the left hand side.  |
| <i>Sign Too Low:</i>                 | Sign mounted lower than the accepted minimum as described in COP for TTM.   |
| <i>Speed Limits Wrong:</i>           | The speed limit (including derestriction) is not appropriate or correct.  |

|                                |  |
|--------------------------------|--|
| <i>Speed Limit Alignment:</i>  | The speed limit or location of the speed limit change is not the same for opposing lanes on the same carriageway.  |
| <i>Sign Not Upright:</i>       | Signs on a vertical lean outside the maximum permitted in COP for TTM.   |
| <i>Non-Compliant Supports:</i> | Using banned supports or supports that fail to meet the requirements of Section B1.6.  |
| <i>Wrong Sign:</i>             | The wrong sign has been used e.g. TW-7 sign showing the wrong lane being closed.   |
| <i>Lateral Location:</i>       | Signs located too far or too close to the vehicle travel path. This includes signs located on footpaths, cycle lanes and cycle travel paths where other alternative / safer locations exist. |

## 7.2 Delineation Devices

|                                   |  |
|-----------------------------------|--|
| <i>Missing:</i>                   | No delineation devices on site when they are required.   |
| <i>Tapers Too Short:</i>          | Taper has been formed but is too short.  |
| <i>Spacing In Tapers:</i>         | Taper has been formed but spacing of delineation devices is too great.   |
| <i>Spacing in Lanes:</i>          | Cones placed in rows, which are generally parallel to the centreline, but spacing of delineation devices is too great.                   |
| <i>Condition Marginal:</i>        | Refer Section C20 Maintenance Standards – for each device.   |
| <i>Condition Unacceptable:</i>    | Refer Section C20 Maintenance Standards – for each device.   |
| <i>Using Non-Approved Device:</i> | Delineation or channelling devices that fail to meet the criteria specified in this Code of Practice.                                    |
| <i>Used Incorrectly:</i>          | Using devices incorrectly e.g. barricades in tapers, or cones to fence excavations etc.  |
| <i>Road Marking Incorrect:</i>    | Road marking not correctly adjusted at long term Level 2 and 3 temporary traffic management static sites where alterations are required. |
| <i>Chicane:</i>                   | Chicane omitted when required for Level 3 temporary traffic management.  |

### 7.3 Miscellaneous

|  |   |
|--|---|
| <i>Working in Live Lanes:</i>          | People associated with the activity are in the live lane outside the established temporary traffic management area.   |
| <i>Flashing Beacons:</i>               | Amber Rotating Flashing beacons are not in operation or have been omitted from vehicles where required.   |
| <i>High Vis. Garment Marginal:</i>     | Refer Section C20 Maintenance Standards.  |
| <i>High Vis. Garment Unacceptable:</i> | Refer Section C20 Maintenance Standards, includes jackets that are worn but are not done up.  |
| <i>No Provision for Pedestrians:</i>   | Footpath blocked by work and neither temporary path nor direction to alternative pedestrian facilities provided.  |
| <i>No Provision for Cyclists:</i>      | Work in cycle lane or high cycle use area and temporary cycle lanes have not been provided.   |
| <i>Parking/Stopping not relocated:</i> | Work encroaches on parking or stopping feature, which has not been relocated to a position clear of the worksite. Such features could include a Taxi Stand, Bus Stop, Loading Zone and a Drop Off area etc.   |
| <i>Surface Hazard:</i>                 | Surface is unacceptably rough and likely to be dangerous for any type of road user for the speed limit, temporary or permanent posted, at the site.   |
| <i>Safety Zones Compromised:</i>       | Where each safety zones is too small or is missing.   |
| <i>Excavation Not Protected:</i>       | Refer Section C12.5 An unattended excavation is not protected with a safety fence or other approved method. Safety fences must meet the minimum design requirements specified in Section B6 Safety Fences.  |
| <i>VMS Message Incorrect:</i>          | VMS displaying incorrect messages in relation to work activities.   |
| <i>Barriers:</i>                       | Includes, missing or incorrect end treatment on barrier, non compliant barriers, end flares too sharp, barrier too close to live lane and barrier not used when required. <b>Note:- Multiple defects for this item must be counted individually .</b> |

## 7.4 Mobile and Semi Static Operations

|  |  |
|--|--|
| <i>Tail Pilot Vehicle:</i>               | Missing when required or location (lateral or longitudinal) is incorrect.  |
| <i>Lead Pilot Vehicle:</i>               | Missing when required or location (lateral or longitudinal) is incorrect.  |
| <i>Shadow Vehicle:</i>                   | Missing when required or location (lateral or longitudinal) is incorrect.  |
| <i>Vehicle Mounted and Static Signs:</i> | Signs missing or incorrect when required on mobile operation plant. This item must also be allowed for when Tail Pilot, and /or Lead Pilot and / or Shadow Vehicles have been omitted. This item also includes any “static signs” that must be erected as part of the mobile or semi Static operation. |
| <i>TMA Missing:</i>                      | TMA not on mobile operation vehicle(s) when required.  |
| <i>TMA Non-Compliant:</i>                | TMA is being used correctly but does not meet the certification for compliance as per the Test level stated in NCHRP 350 and B10 of this Code of Practice.   |
| <i>Arrowboard Missing:</i>               | Arrowboard not fitted or uses on mobile operation vehicles when it is required.  |
| <i>Arrowboard Message Incorrect:</i>     | Arrowboard is being used but displays the wrong message.   |

**SITE CONDITION RATING FORM**

|                   |   |                |                    |      |
|-------------------|---|----------------|--------------------|------|
| <b>Auditor</b>    | Location  | _____          |                    |      |
| Name              | Activity  | _____          | Level of TTM _____ |      |
| Qualification     | RCA   | _____          | Client _____       |      |
| Rego No.          | Date & Time   | _____          | _____              |      |
| <b>Contractor</b> | <b>High Standard / Acceptable / Needs Improvement / Dangerous</b> |                |                    |      |
| Name              | 0 - 10  | 11 - 25        | 26 - 50            | 51 + |
| STMS              | Audit Result (SCR) _____  |                |                    |      |
| Qualification     | Actions Taken _____   |                |                    |      |
| Rego No.          | TMP Sighted   | Yes / No _____ |                    |      |

| Signs  | Points  | Tally Box    | Total |
|--|---|--------------|-------|
| Missing (including side road)                                  | 5 for each sign   |              |       |
| Spacing (too close / far)                                      | 2 for each sign   |              |       |
| Not visible  | 3 for each sign   |              |       |
| Condition marginal   | 1 for each sign   |              |       |
| Condition unacceptable   | 4 for each sign   |              |       |
| Order incorrect  | 2 for each set of signs out of order                            |              |       |
| 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   |              |       |
| Speed restriction/derestriction not appropriate / inconsistent | 5 for each occasion   |              |       |
| Speed limit not correctly aligned                              | 2 for each occasion   |              |       |
| Sign not upright   | 1 for each sign   |              |       |
| Non-compliant support  | 2 for each support  |              |       |
| Wrong sign   | 5 for each sign   |              |       |
| Lateral location   | 1 for each sign   |              |       |
|  |   | Subtotal     |       |
| Delineation Devices  | Points  | Tally Box    | Total |
| Missing  | 30 where delineation is missing and required                    |              |       |
| Tapers too short   | 5 for each taper  |              |       |
| 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   | 3 for each device where classified in unacceptable condition    |              |       |
| Using non-approved device                                      | 4 for each non-approved device                                  |              |       |
| Used incorrectly   | 2 for each device   |              |       |
| Road marking incorrect   | 5 where not adjusted at long term sites on Level 2 or 3 roads   |              |       |
| Chicane  | 10 for each missing or installed incorrectly                    |              |       |
|  |   | Subtotal     |       |
| Miscellaneous  | Points  | Tally Box    | Total |
| Working in Live Lanes  | 20 for each occasion  |              |       |
| Flashing Beacons not Used/Ineffective                          | 1 for each vehicle  |              |       |
| High Visibility Garment not Worn                               | 5 for each individual   |              |       |
| No provision for pedestrians                                   | 10 where no provision made and required                         |              |       |
| No provision for cyclists                                      | 5 where no provision made and required                          |              |       |
| Parking/stopping features not relocated                        | 5 where relocation of feature is required but has not been made |              |       |
| Safety (long) zone compromised                                 | 2 for unacceptable or no safety zone                            |              |       |
| Safety (lateral) zone compromised                              | 2 for unacceptable or no safety zone                            |              |       |
| High visibility garment marginal                               | 3 for each garment classified in marginal condition             |              |       |
| High visibility garment unacceptable                           | 5 for each garment classified in unacceptable condition         |              |       |
| Excavation not protected                                       | 10 for excavation not protected by acceptable method            |              |       |
| VMS message incorrect  | 10 for displaying incorrect information                         |              |       |
| Barrier defects  | 10 for each incorrect or missing barrier component.             |              |       |
|  |   | Subtotal     |       |
| Mobile & Semi Statics Operations                               | Points  | Tally Box    | Total |
| Tail pilot vehicle omitted                                     | 20 for missing or incorrect location                            |              |       |
| Lead pilot vehicle omitted                                     | 20 for missing or incorrect location                            |              |       |
| Shadow vehicle omitted   | 20 for missing or incorrect location                            |              |       |
| Vehicle mounted signs  | 5 for missing or incorrect signs                                |              |       |
| TMA missing  | 20 for TMA missing when required                                |              |       |
| TMA non-compliant  | 5 for TMA in use but not of acceptable standard                 |              |       |
| Arrowboard missing   | 20 for arrowboard missing when required                         |              |       |
| Arrowboard message   | 20 for no message or incorrect message                          |              |       |
|  |   | Subtotal     |       |
|  |   | <b>TOTAL</b> |       |



## **APPENDIX D: Measure and Payment for Traffic Management** *(Guidelines only)*

### **1. Installation and Removal**

Payment will be made on a lump sum basis for the:

- Preparation and approval of the Traffic Management Plan and all advertising and notifications necessary.
- Establishment on site of all vehicles, equipment, materials and personnel sufficient to undertake the installation of all traffic management as per the approved Traffic Management Plan.
- Establishment on site of all vehicles, equipment, materials and personnel sufficient to undertake the uplifting and reestablishment of any traffic management measures required as part of the changing road works operation throughout the project.
- Establishment on site of all vehicles, equipment, materials and personnel sufficient to uplift all traffic management measures on final completion as per the approved Traffic Management Plan and leave the site in an equivalent or better condition than originally.

Fifty percent of the payment will be made on successful installation of the first phase of the traffic management plan. The remaining payment will be made on completion of all traffic management activities and tidy up of the site.

### **2. Maintenance of the Traffic Management Measures**

Payment will be made on a daily basis for the duration of the traffic management services. This payment shall cover all costs associated with:

- The daily maintenance of **conforming traffic management** at the site including the supply of all vehicles, equipment, materials and personnel sufficient to maintain the traffic management measures as specified in the accepted traffic management plan.
- Inspections and maintenance of QA records.
- Any other costs associated with traffic management on site that have not otherwise been allowed for.

**There will be no payment for any day or days when traffic management occurs on site that does not conform to the signed and accepted TMP.** Non-conforming traffic management is deemed to occur when signs, delineation devices and/or any other traffic management equipment are not positioned or used as required by the accepted TMP for any period exceeding the inspection cycle as specified in Table C20.1: Minimum Inspection Frequency of Traffic Management Devices.



## APPENDIX E: Newspaper Advertisement Standard

Advert Format to be as follows:

**Width:** Double Column

**On Top:** Road Controlling Authority Logo

**Title:** Brief description of the works

**Wording** “(RCA) *wishes to advise that, weather permitting*, (if appropriate) *the* (local description of affected road including start and finish points if necessary) *will be closed between the hours of* ..... (time format to be **9.00 am**) *and* ..... (time format to be **7.00 pm**) *on* .....(date format to be **11 April 2000**) *for* .....(brief description of work).

Where work could be delayed the following provision may also be added:

*However if* ..... ( give reasons for possible delay) *prevents work at these times, work will be carried out on the next available day/night* (give alternative dates and times as detailed above)*road users are requested to follow the sign posted detours whilst the closure is in operation.*

(RCA) *regrets any inconvenience caused.*

*(Name of RCA Representative)”*



## APPENDIX F: Notice Of Non-Conformance

**Date of Inspection:** \_\_\_\_\_ **Time:** \_\_\_\_\_

**Inspected By:** \_\_\_\_\_ **Of:** \_\_\_\_\_

**Contractor:** \_\_\_\_\_ **Contract Number:** \_\_\_\_\_

**Site Traffic Management Supervisor:** \_\_\_\_\_

This notice is to inform you that the temporary traffic management at the following work site is not in accordance with accepted traffic management practices:

**Road(s):** \_\_\_\_\_

**Location:** \_\_\_\_\_ **RS** \_\_\_\_\_ **RP** \_\_\_\_\_

This notice of non-conformance is issued in respect of the following temporary traffic management defects:

- STMS nominated in TMP not on site
- TC nominated in TMP and briefed by STMS (Level LV and Level 1) not on site
- Copy of signed and approved TMP not on site
- Safety audit of temporary traffic management site condition rating “dangerous”
- Temporary traffic management not in accordance with COP for TTM

*(strike out if doesn't apply)*

The details of non-conforming temporary traffic management are:

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The actions required to be implemented are:

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Notice Handed/Mailed/Faxed (circle) to: \_\_\_\_\_

on: \_\_\_\_\_ (date) at: \_\_\_\_\_ (time)

|                     |                       |
|---------------------|-----------------------|
| <b>Signed:</b>      | <b>Received:</b>      |
| Engineer: _____ / / | Contractor: _____ / / |





