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Prompt list

Temporary Traffic Management Suitability Audit / Review

Introduction

This document is a sample prompt list (previously termed checklist) for Temporary Traffic Management for Works on Roads. It is based on the Austroads Road Safety Audit prompt list and it incorporates specific requirements in Western Australia. This prompt list should be read in conjunction with Australian Standards AS 1742.3, Austroads Guide to Temporary Traffic Management and the Main Roads’ Traffic Management for Works on Roads Code of Practice.

This prompt list should be treated as a guide only. It does not provide an exhaustive list of questions to identify all possible instances of non-compliance that may be detected at a worksite in respect to a given Traffic Management Plan.

Some contracts will require auditing in accordance with specification 202, some of which is not covered by this prompt list (this prompt list may be modified as required).

Advice when Undertaking the Suitability Audit / Review

A meeting should be convened with the relevant personnel (e.g. Project Manager, TMP Designer, etc.) to obtain all relevant documentation including project details and staging. Following the “on-site” inspection and audit/review of the TMP, the Auditor / Reviewer should meet with the relevant personnel (e.g. Project Manager, TMP Designer, etc.) at an “Exit Meeting” to convey the Findings and Recommendations from the Audit / Review.

As soon as practical, a Corrective Action Report identifying the Audit Findings and Recommendations is to be conveyed to the Project team. Areas where “Improvements” could be made should also be identified in the Corrective Action Report.

During the site inspection, Audit/Review Team personnel should wear appropriate high visibility vests, safety foot apparel and helmets (where required), and comply with any other safety requirements that are applicable to the worksite being audited/reviewed.

Prompt list

| **Issue**  | **Yes/No/NA** | **Comment** |
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| 1. **Approvals**
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| **1.1 Traffic Management Plan (TMP)** |  |  |
| Has the TMP been prepared by a person holding a Main Roads WA accreditation in Advanced Worksite Traffic Management (AWTM)? Has the TMP been signed off by the person along with his/her name, AWTM certificate number and date of endorsement of the plan?Has a person other than the author reviewed the Plan? |  |  |
| Does the TMP contain a statement confirming that the person preparing the plan (or a person under their direction) conducted a site visit prior to preparing the plan? |  |  |
| Is the TMP for the roadworks approved by an Authorised Body? If not, has MRWA approval been obtained (as per the Delegation of Authority)? |  |  |
| Does the TMP involve “complex traffic arrangements” as defined in the Code of Practice? If so, has the Traffic Management Plan been endorsed by a Roadworks Traffic Manager (RTM)? |  |  |
| Does the TMP involve any variations to the code of practice or standards? If so, has the variation been approved by the road authority through a variation of standards application with appropriate risk management undertaken by a RTM?  |  |  |
| Check for conditions of approval relating to working hours, number of traffic lanes, lane widths, signs & site instructions |  |  |
| Check to ensure that Traffic Guidance Schemes (TGS) are included in the Traffic Management Plan. - Are these appropriate for the worksite? Are TGSs required for the implementation of the traffic management?  |  |  |
| Have the TGSs been assigned a unique reference number and dated by an AWTM accredited person? |  |  |
| Have the police, emergency services and other affected stakeholders (road authority, schools etc.) been consulted and informed of the works? |  |  |
| **1.2 Railway Crossing** |  |  |
| Is the worksite in the vicinity of a Railway Crossing? If so, have the necessary approvals been obtained from the Railway Authority? |  |  |
| Does the TMP comply with the conditions of approval imposed?  |  |  |
| **1.3 Traffic Signals** |  |  |
| Is the worksite in the vicinity of Traffic Signals? If so, have the necessary approvals been obtained from MRWA? |  |  |
| Has the Road Network Operations Centre been advised of the scope and extent of the roadworks (noting required timeframes)? |  |  |
| Has the safety of all road users at the signals been adequately catered for e.g. pedestrian crossing. |  |  |
| **1.4 Active Worksites** |  |  |
| Is there more than one active worksite? If so are they part of the same project? (ensure they are not conflicting) |  |  |
| Are there approved Traffic Guidance Schemes (TGS) for each of the active worksites? |  |  |
| 1. **Project Information**
 |  |  |
| **2.1 Purpose and Scope** |  |  |
| Has the author of the TMP been made aware of the staging and details of work? Has this been covered adequately in the TMP? |  |  |
| Is the time, date and duration of works covered in the TMP? |  |  |
| **2.2 Site Constraints/Impacts**  |  |  |
| Does the TMP contain accurate information regarding existing traffic and speed environment? |  |  |
| Does the TMP detail the permissible working times due to traffic volumes and road function? |  |  |
| Have contingencies been made in the TMP in the event of the works reducing visibility due to dust? |  |  |
| **2.3 Roles and Responsibilities** |  |  |
| Does the TMP detail the responsibilities of personnel (duty of care)? Including who has primary responsibility of the site and the implementation of the TMP. |  |  |
| Does the TMP detail who the project representatives are (project manager, supervisor etc.)? And who is working on the project (road authority, contractor, LGA etc.) |  |  |
| Does the TMP detail who the traffic management personnel are, including who will be the contact person (including after hours) and who will be implementing the TMP (BWTM)?  |  |  |
| Will there be at least one person accredited in Advanced Worksite Traffic Management or Worksite Traffic Management available on site to manage variations, contingencies and emergencies, and to take overall responsibility for traffic management? |  |  |
| Will site inductions be conducted to those entering the worksite? Does the TMP detail WHS requirements? |  |  |
| Will start-up meetings be conducted each day and will staff be aware of their responsibilities during each stage of the works? |  |  |
| Will the risks of mobile plant and workers be managed? |  |  |
| Does the TMP state who is responsible for the traffic management once construction is complete? Will the road be line marked and well delineated? |  |  |
| **2.4 Site Inspections & Record Keeping** |  |  |
| Does the TMP detail the responsibilities of implementing the TMP and evaluating its effectiveness? Does the TMP show the frequency of inspection?Does the TMP show who is to conduct inspections and what will happen to the inspection/review report? |  |  |
| Does the TMP detail the daily routine tasks of inspecting and maintaining the traffic control devices on-site and keeping records? |  |  |
| **2.5 TM Implementation** |  |  |
| Does the TMP cover how the TGS will be safely implemented? |  |  |
| 1. **Incident response**
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| Have contingencies for emergencies been detailed in the TMP in line with the Code of Practice?  |  |  |
| Does the TMP contain a Traffic Incident Reporting Form? |  |  |
| Does the TMP have provisions addressing inclement weather? (eg storms, floods, heat, smoke, etc) |  |  |
| 1. **Communication and Consultation**
 |  |  |
| Have all relevant stakeholders been consulted and informed of the works? |  |  |
| Has a communication plan been developed to appropriately inform the public? |  |  |
| Is there a mechanism for registering complaints? |  |  |
| 1. **Planning**
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| **5.1 Risk Identification** |  |  |
| Has a risk assessment been done?Does it contain any site-specific risks?Does the risk assessment appear generic?Does the TMP address the risk treatments?Are there any residual risk ratings of “HIGH”?If so, has an RTM endorsed the plan?  |  |  |
| **5.2 Traffic Assessment** |  |  |
| Will traffic flow be maintained as much as possible in line with the Code of Practice and contract requirements?Have the effects of network congestion been examined and justified in accordance with the AGTTM, Code of Practice and/or other requirements? |  |  |
| Are details included for:• Volume of traffic?• Composition of traffic?• Existing & proposed speeds?• Intersection capacity?• Parking facilities?• Heavy & Oversized loads?• Public transport?• Special events?• Lane widths?• Number of lanes? |  |  |
| **5.3 Site Assessment** |  |  |
| Does the plan cover access to adjoining developments? |  |  |
| Does it have provisions addressing environmental conditions such as:• Weather including:• Rain?• Floods?• Sun Glare?• Fog/Dust/Smoke?• Heat?• Terrain?• Vegetation adjacent to the road and within the road corridor?• Existing traffic/advertising signs?• Other:• Structures?• Noise?• Fumes? |  |  |
| 1. **General items**
 |  |  |
| **6.1 Alignment**  |  |  |
| Will the worksite be located safely with respect to horizontal and vertical alignment? If not, will works signing, offset and protection cater for this?  |  |  |
| In the TMP are the transitions from the existing road to the worksite safe and clearly laid out?  |  |  |
| **6.2 Turning radii and tapers**  |  |  |
| Are turning radii designed in accordance with guidelines? Have the swept paths of all vehicles been catered for? |  |  |
| Are tapers designed in accordance with guidelines? |  |  |
| Have the swept paths of all vehicles been catered for? |  |  |
| Are the tapers delineated? |  |  |
| Will the width of lanes be satisfactory for the traffic passing the works area? |  |  |
| Is the alignment of kerb, traffic islands and medians satisfactory?  |  |  |
| **6.3 Traffic lane safety and visibility**  |  |  |
| Is the work area clearly defined in TGSs?  |  |  |
| Do the TGSs illustrate that paths for both directions of traffic are clearly defined? Will the work area be appropriately separated from passing traffic?  |  |  |
| Is there the need to separate the opposing traffic flows? (eg barriers, delineation devices etc) |  |  |
| Do the temporary works involve shoulder or traffic lane closures? If so:Are the taper lengths in accordance with standards and guidelines? Will this work on site given the road geometry?Are traffic cones, bollards, correctly displayed and spaced in TGSs?Do the “lane status” signs depict the representative number of traffic lanes available?Are temporary hazard markers (T5-4 and T5-5) illustrated to comply with requirements?Are the illuminated flashing arrow signs illustrated in accordance with requirements? |  |  |
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| Will centre lines/lane lines/edge lines be clear and unambiguous? |  |  |
| Are sight and stopping distances adequate at works and at intersections and driveways?  |  |  |
| Have provisions been made to accommodate the passage of over-dimensioned vehicles? If not, has the appropriate detour been provided? |  |  |
| **6.4 Contra Flow** |  |  |
| If there is a contra flow situation will road users be warned with adequate delineation and signage in accordance with standards and guidelines?Will pedestrians be adequately catered for in accordance with standards and guidelines? |  |  |
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| **6.5 Side Tracks** |  |  |
| Do the works require a constructed side track? If so, will it meet the vehicle needs for length, horizontal alignment, geometry and width? |  |  |
| Will the forward alignment of the sidetrack be well delineated?Do TGSs illustrate correct temporary hazard markers and roadworks delineators in line with standards and guidelines? |  |  |
| Will the sidetrack be sealed? If not, are provisions made for the maintenance of the surface condition? |  |  |
| **6.6 Unsealed Roads** |  |  |
| Will the travel path be well delineated with the correct coloured delineators in accordance with standards and guidelines? |  |  |
| Are the gradients of the pavement such (4%-6%) that surface water is dispersed? |  |  |
| Is there a maintenance regime for the pavement surface?  |  |  |
| Does the TMP include speed limit signs being erected? If so, are there provisions to ensure the pavement surface is maintained such that the posted speed limit will be safe? |  |  |
| **6.7 Night-time safety**  |  |  |
| Will appropriate street lighting or other delineation be provided at the roadworks to ensure that the site is safe at night?  |  |  |
| If temporary lighting is used, have issues such as glare or transition in illumination been addressed? Are the locations for the temporary lighting been appropriate and away from hazards such as overhead power lines? |  |  |
| Will all fixed objects adjacent to and close to the travel path be treated to ensure visibility at night? |  |  |
| Will the works area be safe for pedestrians and cyclists at night?  |  |  |
| **6.8 Maintenance**  |  |  |
| Can the road be maintained safely during construction (consider workers and the public)?  |  |  |
| Is the road surface likely to be free of gravel, mud or other debris? |  |  |
| **6.9 Access to property**  |  |  |
| Will property access for vehicles be safely accommodated? If not, will alternate access be provided? |  |  |
| **6.10 Clear Zones** |  |  |
| Are non-frangible objects located within the clear zone? Can these be removed, re-located or protected? |  |  |
| Are non-recoverable batter slopes or excavations located within the clear zone? |  |  |
| Does the delineation offset and safety space provided comply with standards and guidelines? |  |  |
| **6.11 Work Site** |  |  |
| Are the clearances from the worksite consistent with the requirements of AGTTM? If not, will the appropriate delineation be provided or are Road Safety Barriers (RSB) proposed? |  |  |
| **6.12 Safety barriers** |  |  |
| Does the TMP include road safety barriers to separate works areas from public areas? If so, have they been endorsed by a RTM? |  |  |
| Are road safety barriers required to protect traffic from other hazards?  |  |  |
| Are the chosen barriers, an approved type for the purpose of the works being conducted? |  |  |
| Will there be adequate clearance from the edge of traffic lane and road safety barrier system? |  |  |
| Will road safety barriers be used as to not:* make them a hazard to traffic?
* obstruct visibility?
 |  |  |
| Does the TGS illustrate the work area appropriately separated from the deflection zone of the safety barrier? |  |  |
| Is the road safety barrier system adequately illustrated in the TGSs (eg length of need, barrier type, offset to traffic, offset to work area, end treatment)? |  |  |
| Have provisions been made in the TMP for the safe installation of the safety barrier? |  |  |
| **6.13 Truck Mounted Attenuators (TMAs) and Shadow vehicles** |  |  |
| Are TMAs being used to protect workers? Does the TMP detail work method statements for their use?Where TMAs are not used will shadow vehicles be used to protect workers on foot? |  |  |
| Will shadow vehicles be located in a safe position with adequate sight distance for approaching vehicles and workers located a safe distance from the vehicles? |  |  |
| Will arrow boards be correctly displayed to warn road users? |  |  |
| 1. **Traffic management**
 |  |  |
| **7.1 Traffic controls**  |  |  |
| Does each TGS include a sign legend, sequence and spacing? |  |  |
| Does each TGS include lateral placement, are the signs a minimum of 200 mm off the ground?  |  |  |
| Does each TGS state the stage of works and proximity of traffic to workers? |  |  |
| Are there any site constraints for the placement of signs and devices, eg such that they do not adversely impact access to properties and other road users (pedestrians, cyclists and the disabled)? |  |  |
| Will sight distance to traffic controllers be adequate? Are there provisions in the TMP to ensure queue lengths are monitored in line with the Code of Practice? (Check queue lengths do not extend past the prepare to stop signs) |  |  |
| Have parking, clearways and rest areas been considered?  |  |  |
| **7.2 Speed management**  |  |  |
| Are temporary speed limit signs required for these works? If so, are they correctly illustrated in TGSs? Are there any issues on site that need to be addressed? |  |  |
| Are speed limit signs required to be maintained all day and at night?  |  |  |
| Will motorists be well informed of the need to slow down through the roadworks site?  |  |  |
| Will the speed limits proposed be consistent with the modified road environment? If not, should this be changed or should the “safety space” to the worksite be increased? |  |  |
| Are speed limits realistic for the road environment? Will motorists comply with temporary speed limits? If not, can something be done on site to encourage speed compliance? |  |  |
| Are buffer zones established? Are the zone lengths consistent with standards and guidelines? Are there any site constraints? |  |  |
| Are repeater speed limit signs included where required?  |  |  |
| If required, have speed feedback signs been included in the TMP and will they be appropriately displayed and positioned? |  |  |
| **7.3 Work site access**  |  |  |
| Are the proposed site entrances and exits safely located with adequate sight distance?  |  |  |
| Will traffic merges/exits/entries/turns be properly delineated and controlled?  |  |  |
| Are adequate merge lengths illustrated in TGSs? Are there any site constraints?  |  |  |
| Will appropriate traffic controls be in place where works traffic and public traffic interact?  |  |  |
| Do work method statements detail the procedure of worksite vehicles when interacting with public traffic? |  |  |
| Are there parking bays or rest areas close to the worksite? If so, will they be adequately closed off?  |  |  |
| **7.4 Traffic Flow** |  |  |
| Will traffic flow be maintained as required? Have the effects of network congestion been examined and justified in accordance with the Main Roads Code of Practice?  |  |  |
| 1. **Signs and pavement marking**
 |  |  |
| **8.1 Signs**  |  |  |
| Are all necessary regulatory, warning and direction signs illustrated in TGSs? Do they conform with standards and Guidelines? |  |  |
| Are appropriate procedures in place to check and clean signage? |  |  |
| Will signs be placed to not restrict sight distance, particularly for turning vehicles? |  |  |
| Have all redundant permanent signs (eg speed limit) been illustrated in TGSs and will they be covered up? |  |  |
| Does the TMP list all unnecessary signs to be removed when works are not in progress? (for example, at night)  |  |  |
| Will signs be securely mounted and where required post mounted? |  |  |
| **8.2 Variable Message Signs (VMS)** |  |  |
| Are VMS signs compliant with requirements? |  |  |
| Will VMS signs be located in the transition zone or where they will not distract drivers from other signs or hazards? |  |  |
| **8.3 Day/night sign requirements**  |  |  |
| Are the correct signs used for each situation including at night where required, and is each sign necessary?  |  |  |
| Are aftercare TGSs included in the TMP? Where signs and devices will be removed after hours, will appropriate delineation be provided (particularly at night)? |   |  |
| **8.4 Delineation and reflective markers** |  |  |
| Will traffic lanes be clearly delineated?  |  |  |
| **8.5 Pavement marking**  |  |  |
| Is all necessary pavement marking illustrated in TGSs?  |  |  |
| Are movement paths through intersections delineated where required? |  |  |
| Are works areas clearly defined and clear of through traffic when traffic controllers are not used?  |  |  |
| Have any issues of site difficulties for motorcyclists (day or night) been addressed?  |  |  |
| **8.6 Detours**  |  |  |
| Will temporary detours allow heavy vehicles and buses to safely manoeuvre in their designated lane?  |  |  |
| 1. **Traffic Control**
 |  |  |
| **9.1 General** |  |  |
| If using single lane shuttle flow, is the length in accordance with the Code of Practice? |  |  |
| Will signs warning of the traffic control be adequate? |  |  |
| Will queue lengths be reasonable and be monitored in line with the Code of Practice? Will ‘Prepare to Stop’ signs be adequate for queue lengths? |  |  |
| Have the need for additional warning signs been considered? |  |  |
| Will the ends of vehicle queues be visible to motorists so that they may stop safely? Are queue lengths being monitored in accordance with requirements? |  |  |
| Will pilot vehicles be used where required?  |  |  |
| **9.2 Portable Traffic Control Devices (PTCD)** |  |  |
| Will PTCDs be used where required?  |  |  |
| Will the PTCDs be clearly visible to approaching motorists? |  |  |
| Will traffic controllers be available in case of faults? |  |  |
| If using temporary traffic signals, are they vehicle-actuated or on fixed time control? If so, have procedures been included? |  |  |
| Will the number and location of PTCDs be adequate? |  |  |
| **9.3 Traffic Controllers** |  |  |
| Will traffic controllers be provided where required? (comment - where, when and how) |  |  |
| Will traffic controllers have an adequate escape path? |  |  |
| **9.4 Visibility**  |  |  |
| Have any visibility problems caused by the rising or setting sun been addressed?  |  |  |
| **9.6 Traffic movements**  |  |  |
| Are all movements, catered for by the Traffic Control?  |  |  |
| 1. **Pedestrians and cyclists**
 |  |  |
| **10.1 General**  |  |  |
| Have the effects of the works areas on pedestrians and cyclists been considered?  |  |  |
| Have appropriate travel paths and crossing points for pedestrians and cyclists been illustrated in TGSs? Are there any site constraints that are not addressed?  |  |  |
| Will pedestrians and cyclists be adequately warned of obstructions and temporary works hazards on their travel way?  |  |  |
| Does the TMP mention using containment fences to provide visible separation between the travelled way, the worksite and pedestrians? |  |  |
| Will facilities for pedestrians and cyclists in terms of width and pavement surface be provided past the worksite? |  |  |
| **10.2 Elderly and disabled access**  |  |  |
| Will facilities for wheelchair users in terms of width, ramp gradients and pavement surface provided past the worksite? |  |  |
| **10.3 School Crossing** |  |  |
| Is the worksite in the vicinity of a School Crossing? If so, has the Police School Crossing Section been informed? |  |  |
| Will the crossing be appropriately relocated and provision made for alternate access to and from the crossing? |  |  |
| **10.4 Public Transport** |  |  |
| If required, will bus stops be appropriately relocated with adequate clearance from the traffic lane for safety and visibility? |  |  |
| Will the Bus Operators be informed of the changes? |  |  |
| Will pedestrians safely gain access to the bus stops? |  |  |
| **10.5 Cyclists** |  |  |
| Is the route available for bicycles continuous and free of squeeze points or gaps?  |  |  |
| **10.6 PSP Detours**  |  |  |
| Are there PSP detours proposed? If so, is the detour route reasonable for path users? Is the surface adequate and the detour route free of hazards?  |  |  |
| 1. **Road pavement**
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| * 1. **Pavement defects**
 |  |  |
| Is the pavement free of defects (for example, excessive roughness or rutting, potholes, loose material, etc.) that could result in safety problems such as loss of steering control for: * car drivers?
* cyclists?
* motorcyclists?
* Heavy vehicle drivers?
 |  |  |
| **11.2 Skid resistance**  |  |  |
| Is the pavement sealed? If so, does the pavement appear to have adequate skid resistance, especially on steep descents?  |  |  |
| **11.3 Ponding**  |  |  |
| Is the pavement free of areas where ponding or sheet flow of water may cause safety problems?  |  |  |
| 1. **Any other matter**
 |  |  |
| Have all other matters which may have a bearing on safety been addressed?  |  |  |