

The purpose of this document is to provide proponents with a guide for the preparation of an operational Traffic Management Plan (TMP). Please note that operational TMPs are to be submitted three months prior to the commencement of site operations. The operational TMP (including all documents and attachments) is to be submitted in accordance with the Port Development Guidelines. Operational Management Plans prepared by a contractor or sub-contractor on the proponent's behalf, are to be reviewed and approved by the proponent before submission to Pilbara Ports.

SECTION 1: Table of Contents for an operational Traffic Management Plan

Context (Pilbara Ports' recommended Table of Contents for an operational Traffic Management Plan)

1.	DOCUMENT CONTROL AND AUTHORISATION
2.	TRAFFIC MANAGEMENT OBJECTIVES
3.	SITE OPERATIONS INFORMATION
3.1.	Purpose and scope
3.2.	Project location
3.3.	Site operations details
3.4.	Site details
3.5.	Site owner representative
3.6.	Roles and responsibilities
4.	PLANNING
4.1.	Traffic assessment
4.2.	Special traffic situations and other leaseholders
4.3.	Special purpose vehicles
4.4.	Site assessment
4.5.	Risk identification and assessment
5.	IMPLEMENTATION
5.1.	Traffic control diagrams
5.2.	Road furniture and road markings
6.	MONITORING AND MEASUREMENT
6.1.	Site inspections and record keeping
6.2.	Auditing
6.3.	Feedback
7.	MANAGEMENT REVIEW
7.1.	Operational TMP review and improvement
8.	DOCUMENT OWNER

SECTION 2: Details to be included in an operational Traffic Management Plan

Introduction

This document provides proponents with a guide for the preparation of an operational Traffic Management Plan (TMP), and provides general information on the format and content of an TMP that is acceptable to Pilbara Ports.

The person undertaking the preparation of the TMP should inspect the site at least once prior to finalising the document. The site inspection is required to identify specific site conditions such as internal site road conditions, existing signs, lighting, abutting accesses, external road networks, etc. Inspections should be carried out during times of the day/night similar to the proposed scheduling of site operations to identify matters specific to the site. If a site inspection is not practical, the person preparing the TMP should obtain the relevant information of the site through notes, sketches and/or photographs.

TMPs are prepared prior to site operations commencing and may be subject to audit before and during implementation, if Pilbara Ports considers it necessary, for instance, if complex traffic arrangements will be involved. In addition, Pilbara Ports may require that TMPs are prepared and audited by a person accredited under MRWA's Advanced Worksite Traffic Management program, if Pilbara Ports considers it necessary.

The operational TMP is a key workplace document that has legal standing. As such it is critical that the structure and content of the TMP is sufficient to explain the potential hazards, the assessed risks and the proposed treatments for the proposed work activities and work site.

1. DOCUMENT CONTROL AND AUTHORISATION

The front cover of the operational TMP should include document control details in accordance with the organisation's internal control procedures, to ensure that approved documentation can be clearly identified. As a minimum, information relating to the person who prepared the TMP and their accreditation details, along with sign-off details is to be included.

2. TRAFFIC MANAGEMENT OBJECTIVES

The objectives should be clearly stated in the operational TMP including requirements to:

- Ensure the safety and health of work personnel, the public and those who will be impacted by traffic during site operations.
- Ensure that road users are aware of the any proposed changed traffic conditions and that risks are identified and mitigated.
- Ensure that the port's operations will not be impacted by traffic generated due to site operations.

The operational TMP may also have other objectives that are specific to the location or to the work activities to be undertaken, for instance, temporary parking for security clearance, temporary laydown for heavy vehicles or loads, management of pedestrian traffic, turnaround areas, and interaction of light vehicles with heavy vehicles.

3. SITE OPERATIONS INFORMATION

3.1 Purpose and scope

The purpose and scope of the operational TMP should include an overview of the site operations, the nature of the traffic environment and the location of the site.

3.2 Project location

A locality plan outlining the location of the site operations and its connection to the surrounding road network should be included.

3.3 Site operations details

This section should:

- Provide details of the site operations including the exact location(s), nature and extent of the activities.
- Identify who the site operations are being conducted for (i.e. landowner, leaseholder or sub-leaseholder), and include details of who will be implementing the operational TMP (i.e. name, job title and contact details).
- Include how the prevention of injury to workers due to traffic hazards within the site will be addressed, along with details for protecting pedestrians from site traffic, and ensuring the safe movement of traffic on port roads.
- Provide details of the proposed commencement and completion dates, the working hours (i.e. day and/or night, start and finish times). In high traffic volume periods the proposed hours of work should be selected to maintain, as far as practicable, site operation volumes during peak hours without compromising safety.

3.4 Site details

This section should include:

- A description of the operations site and surroundings.
- A description of the proposed or existing section of port roads, site building frontage, parking or laydown area, bypass lane, posted speed limit, land width, traffic volume and heavy vehicle component.
- The expected operational traffic volumes and the speed limit within the site.
- Details of proposed speed zones and delineation types, if applicable.
- Details of parking facilities.

If site operations are to be conducted in different areas due to the nature of the works, then the operational TMP should take this into account and be detailed

accordingly. If site operations are carried out at more than one site, multiple operational TMPs for each separate area may be required.

If there are several operational TMPs for different operational sites, the TMPs should detail the interface and provide the links to the respect traffic control diagram for each site. The traffic control diagrams should detail all activities necessary for the effective implementation of each operational TMP for each site.

3.5 Site owner representative

The operational TMP should identify Pilbara Ports as the lease area owner, the leaseholder as tenant as responsible for implementing the TMP, to be represented by its site manager.

3.6 Roles and responsibilities

Details of the persons responsible for the administration of the operational TMP are best presented in a table format. This will facilitate contact with the persons responsible.

4. PLANNING

4.1 Traffic assessment

The following traffic volume and data should be considered during the preparation of the operational TMP:

- Expected operational traffic volume.
- Peak times and flows.
- Vehicle types (consider heavy and permit vehicle routes, oversize vehicle routes, and other special needs).
- Operating speeds.
- Where queues are likely to occur a result of site operations, the operational TMP should quantify the likely queue lengths and indicate what contingency strategy will be undertaken if queue lengths exceed acceptable limits. The operational TMP should clearly state at what stage and how the strategies will be implemented.
- Existing roadway geometry and capacity.
- Methods to guide vehicles through the site.
- Methods of traffic control (i.e. signage, line-marking, bollards, barricades, etc.).
- Where it is likely that over-sized vehicles or loads may need to be accommodated as part of the traffic management regime, traffic management planners should ensure that lane width, turning movements and vertical alignments are suitable for these vehicles to traverse.
- Provide details of any unregistered vehicles proposed to be used for transport on the site and their requirements. The operational TMP should also identify the interface between any unregistered vehicles and other vehicles and pedestrians.
- The potential impact that site operations will have on pedestrian and cyclists both on-site and on adjoining roads. The operational TMP should

indicate the likely sources and routes taken by pedestrians and cyclists, and identify facilities that may generate high volumes of pedestrian or cycle traffic. Where paths are interrupted, alternative safe access needs to be provided (taking into consideration pedestrian and cyclist behaviour).

Details of existing traffic flow control and lane dimension/configuration are to be shown on drawings.

4.2 Special traffic situations and other leaseholders

The traffic management planner should identify and document in the TMP special traffic situations outside of the proponent or contractor's control that may impact on the effectiveness of the operational TMP, and those occasions when the operational TMP may adversely impact on neighbouring leaseholders.

4.3 Special purpose vehicles

The operational TMP should make reference to special purpose vehicles intended to be used for site operations, along with their requirements and how they are expected to interface with other vehicles in the area.

A special purpose vehicle is defined by the *Road Traffic (Vehicles) Regulations 2014* as “a motor vehicle, other than a tow truck or an agricultural vehicle, built for a purpose other than carrying a load, except for water in the case of concrete pumps and fire trucks”.

4.4 Site assessment

4.4.1 Access to adjoining roads and leaseholds

The planning process should take into consideration all neighbouring leasehold access and roads, and ensure that access is maintained at all times to leaseholds and other port and public roads.

4.4.2 Environmental conditions

Any potential problems due that may impact sight distances at entry and exits points to leaseholds should be identified and addressed. The need for any temporary re-positioning of road furniture should also be identified.

Care should be taken to ensure that traffic control device locations will not be affected by shadowing or glare on roads in the east-west direction.

Measures to remove and store signs during cyclone preparations should be included in this section. Where there is a Cyclone Response Plan proposed for the site, the operational TMP should refer to that document.

4.4.3 Hazardous facilities and conditions

Any dangerous goods sites (such as fuel stations, public pools, generating plants, etc.), gas and electricity transmission features and any other potentially dangerous facilities/situations that have the potential to impact or be affected by the construction traffic, should be recorded in the

operational TMP. Risks associated with such hazardous facilities should form part of the respective operational TMP risk assessment.

4.4.4 Impact on adjoining road network

Change of normal operations on site may have significant impacts on traffic flow on the port's roads by causing excessive delays or queue lengths, particularly for other leaseholders. This may require specific traffic engineering analytical skills to assess the potential impacts. The operational TMP should document details of any such consideration and analysis, along with any proposed measures to mitigate potential impacts on the adjoining road network.

4.5 Risk identification and assessment

The operational TMP should include an assessment of all potential risks associated with the traffic passing near and through the site, and should determine the operational measures that minimise the risk.

The identification and assessment process should be undertaken in accordance with AS/NZS 4360, and the likelihood and consequences should be rated after risk treatments (that is residual risk) have been determined. The site manager should, as far as practicable, control or reduce identified risks in accordance with the hierarchy of control as defined by AS/NZS4801.

The operational TPM should provide details of the mechanism that will be used to identify and assess future hazards as they arise throughout the life of the site.

5. IMPLEMENTATION

5.1 Traffic control diagrams

The operational TMP should include traffic control diagrams which show the proposed locations of the traffic control devices (such as signs, traffic cones, bollards, line-marking, barricades, etc.), traffic direction, road furniture, temporary lighting if necessary, that will be used during the construction works.

The traffic control diagrams should include the following:

- Document control details.
- A location diagram showing adjoining roads, north point, scale and time of day applicable.
- Adjoining leaseholds and access requirements, road layout, lane width dimension details.
- Provisions for traffic flow, site features (topography, geometry, obstructions) and delineations.
- A list of the type, size and quantity of road furniture to be used in a tabular format.

Pilbara Ports requires that all traffic control diagrams be approved by an accredited Advance Worksite Traffic Management ticket holder.

5.2 Road furniture and road markings

5.2.1 Signs, Line Marking and Delineation

All signs, line markings (including retroreflective pavement markers and arrow markings) and delineation (including traffic cones, bollards, barricades and guardrails) used should conform to the designs and dimensions as shown in the Australian Standards. All signs should use Class 1 retro-reflective material.

The operational TMP should detail inspection and maintenance procedures to ensure signs, line markings and delineation are in sound condition, they are clean and not faded, retro-reflectivity is adequate and where applicable power supply is fully operational.

All signs should be positioned and erected such that:

- They are properly displayed and securely mounted.
- They are within the driver's line of sight.
- They cannot be obscured from view.
- They do not obscure other devices from the driver's line of sight.
- They do not become a possible hazard to workers or vehicles.
- They do not divert traffic into an undesirable path.

Where there is a potential for conflict of information between existing signage and permanent signage erected for the purpose of traffic control, the existing signs should be covered. The material covering the sign should not be adhered directly onto the sign or the painted surface of the post. The legend on the sign should be rendered invisible under all conditions, i.e. day, night and wet weather.

The operational TMP should provide details of how existing pavement markings including reflective raised pavement markers will be maintained.

6. MONITORING AND MEASUREMENT

6.1 Site inspections and record keeping

Road furniture needs to be maintained at all times. To achieve this, the operational TMP should outline suitable monitoring procedures. The monitoring program should generally incorporate inspection on a regular basis and nominate competent and reliable personnel.

6.2 Auditing

The site manager should conduct audits of the operational TMP either prior to and during construction works.

Pilbara Ports may require audits of the operational TMP by road safety auditors. Where there are non-compliances identified, the audit procedure should have a mechanism for the issuing of a formal corrective action. Corrective actions should

be closed-out and registered as such in accordance with the organisations normal practice.

6.3 Feedback

The operational TMP should detail mechanisms that ensure comments and complaints received from external and/or internal personnel are registered and addressed. The procedure should ensure there is regular monitoring of the register by management and appropriate action taken.

7. MANAGEMENT REVIEW

7.1 Operational TMP review and improvement

The traffic management planner should incorporate procedures that involve a formal management review of the operational TMP as part of a continuous improvement approach, to ensure its continuing suitability, adequacy and effectiveness. Pilbara Ports recommends an annual review.

8. DOCUMENT OWNER

The Developments Manger is responsible for this Guide.