



Traffic Management Plan

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SOUTHERN PORTS PORT OF ESPERANCE

TRAFFIC MANAGEMENT PLAN

Document Users : ALL EMPLOYEES

Responsible Person : SAFETY & SECURITY MANAGER

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DETAILS OF CURRENT REVISION CHANGES

Old Section	New Section	Details of Change
All sections	All sections	Completed revision of document

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1. PURPOSE

The purpose of this Traffic Management Plan (TMP) is to provide information on the minimum traffic management requirements for controlling vehicle and pedestrian interactions within the Port of Esperance (PoE). This plan also defines the minimum standards for the development, approval and communication of Traffic Awareness Plans (TAPs) at Port.

2. SCOPE

This plan applies to all Port of Esperance employees and Port users and is applicable to all areas where Light Vehicles (LV), Heavy Vehicles (HV), Surface Mobile Equipment (SME) and pedestrian interactions are present, such as, but not limited to:

- Access roads
- Vehicle parking areas
- Workshop areas
- Store areas
- Office locations
- Designated zones
- Earthworks
- Berth areas
- Rail corridor including crossings
- Product storages areas

3. PROCEDURE

3.1 GENERAL REQUIREMENTS

In order to drive within Port boundaries, all personnel shall hold a current Australian Driver's Licence with the appropriate class endorsements.

Additional requirements are:

- Work placement students and learner drivers are not permitted to drive any vehicle at any time whilst on site unless approved and documented authority has been issued by the Registered Manager (or delegate).
- Probationary drivers or persons with a restricted licence are not permitted to drive on site unless approved and documented authority has been issued by the Registered Manager (or delegate). Persons approved to drive under this condition shall display their restriction i.e. "P" plate.
- Operators of mobile equipment shall possess applicable licences and endorsements for the equipment to be operated.

- Personnel who are required to drive offsite in work time while under the responsibility of their employer, off-site further than 200km from Port shall adhere to the Journey Management requirements.

3.2 VEHICLES

3.2.1 Light Vehicles (LV)

Light Vehicles are classified as vehicles that can be road registered and are used for transporting people with seating to a maximum of 12 persons (including the driver) and trucks with tray under 4.5 tonnes, LVs shall adhere to the following:

- All LVs shall be inspected biannually and approved for Port using – Mobile Vehicle Compliance Inspection
- Compliance stickers are to be displayed on the bottom right corner of the windscreen in vehicles where practicable.

3.2.2 Heavy Vehicles (HV)

Heavy Vehicles are classified as vehicles that can be generally road registered, used for transporting people (greater than 12 persons) and loads, which includes but not limited to semi-trailers, trucks with trailer greater than 4.5t, integrated tool carriers, forklifts, mobile cranes, backhoes, including non-road registered vehicles such as ride-on lawn mowers, bobcats and Mobile Elevating Work Platforms (MEWP).

HV shall adhere to the following:

- All HV shall be inspected bi-annually and approved for Port using - Mobile Vehicle Compliance Inspection
- Compliance stickers are to be displayed on the bottom right corner of the windscreen in vehicles where practicable.

3.2.3 Surface Mobile Equipment (SME)

Surface Mobile Equipment are classified as vehicles that are ancillary and earthmoving equipment that is used for loading, transporting and dumping bulk materials.

Surface Mobile Equipment shall adhere to the following:

- ALL SME shall be inspected biannually and approved for Port using form - Mobile Equipment-Surface Mobile Equipment Compliance Inspection.
- Compliance stickers are to be displayed on the bottom right corner of the window on the cab door where practicable.

3.2.4 Non-Compliant Vehicles

HV and SME that do not comply with the above requirements shall be subject to a documented risk assessment and will require approval from the Registered Manager (or delegate) prior to entry or before conducting operational work at Port.

3.2.5 Escort Vehicles

The Registered Manager (or delegate) shall ensure that there are qualified, trained and approved escort personnel and that vehicles are available for escorting oversized loads and delivery vehicles at Port.

A documented Safe System of Work (SSoW) such as a Job Hazard Analysis (JHA) and Take 5 will be in place for each escorting task conducted on site and as a minimum but not limited to, the following controls should be in place prior to escorts being undertaken:

- Flashing beacon, "On" (do not use the vehicle's hazard lights (both indicators) – as this negates the ability to use indicators; which are necessary to alert other traffic on intended turns) and be in front of the vehicle being escorted.
- 'Escort Vehicle' signs shall be displayed on the front of the escort vehicle when escorting oversized loads or vehicles.
- A Traffic Awareness Plan (TAP) must be in place and communicated prior to escort tasks occurring outside of normal operations, such as escorting operational Front End Loaders and MEWPs.

3.2.6 Delivery Vehicles Coming to Port

Documented communications should be issued to delivery operators, detailing the minimum requirements for delivery or pick-up of materials for the Port such as:

- A plan of the site detailing the correct route to use to get to the delivery or pick-up location;
- Contact details for the Port person;
- Details of the PPE requirements for entry;
- Details of what the driver/passenger is allowed to do once at Port and where they are permitted access.
- Regular delivery drivers entering Port are to hold a current induction and are required to display their Maritime Security Identification Card (MSIC).
- Non regular delivery drivers entering Port shall be assigned, and under the direct supervision of a current inducted PoE employee or Port user at all times.

3.3 PEDESTRIANS AND OPERATIONAL INTERFACE

Pedestrians and operational interface minimum control requirements shall be:

- Appropriate additional warning signs or personnel to be used to control traffic flow;
- A dust and water management plan for roads, in place where required. Consideration shall be given to extreme wet weather and the issue of over-watering roads;
- Parking standards including the requirements for the immobilisation of Surface Mobile Equipment (SME) (e.g. chocking or trenching) and, consideration for breakdown maintenance activities (two forms of braking applied);

- Design inspection and maintenance requirements for all roadways including collision protection of hazardous and critical plant and equipment.
- A risk assessment to be carried out prior to any temporary changes to traffic movements from the PoE overarching Traffic Network Map in the form of a Traffic Awareness Plan (TAP).

3.4 TRAINING AND COMPETENCY

Vehicles and equipment must only be operated by persons who are trained and assessed as competent for that particular type and model of equipment or road types, authorised to do so and hold the relevant licences and VOC before operating. All training must be in accordance with the following:

- All training must be equipment and model specific;
- All training and assessment for mobile equipment must be conducted in accordance with WA state legislation by an authorised competent persons, who as a minimum, possess nationally recognised competencies in workplace training and assessment;
- Competency shall be re-assessed on a 2 yearly frequency or as determined by risk assessment where appropriate to the mobile equipment or vehicle being operated, for people who have not operated certain type of mobile equipment or vehicle for an extended period;
- The training matrix recording competency information must be readily available to all Supervisors and Managers.

3.5 GENERAL TRAFFIC RULES

West Australian legislation shall apply along with applicable Port specific rules. These rules shall include but are not limited to:

- All occupants to wear a seatbelt at all times whilst in a vehicle;
- Always drive to the road and environmental conditions;
- Demonstrate safe and responsible driving behaviour;
- Obey all traffic signal / warnings;
- Follow journey and traffic management procedures;
- Comply with all controls measures detailed in current authorised TAPs;
- Report all mobile equipment incidents immediately and do not move a vehicle involved in an event without explicit authority from the Registered Manager (or delegate).

3.5.1 Give Way Rules

Give Way Rules for mobile equipment operating within the Port shall include:

- LV and HV must give way to SME unless otherwise indicated by traffic control personnel;

- All mobile equipment shall give way to Emergency Vehicles when in emergency mode.

3.5.2 Parking

When leaving HV or SME equipment, operators shall observe the following requirements:

- The equipment shall be parked on a level surface and away from any traffic flows wherever possible;
- The equipment shall be placed in gear and the engine switched off;
- The park brake shall be applied before leaving the equipment and one or more of the following additional restraining methods shall be used:
 - Wheel chocks applied; or
 - Turning wheels into a kerb or bank; or
 - Placing wheels in a trench designed for parking equipment; or
 - Park on a cross grade and steer wheels facing up hill; and
 - Lowering ground breaking implements or tynes to the ground; and
 - Where practicable, empty equipment and loaded equipment shall be sufficiently separated to allow safe walk around inspections.

When leaving a LV unattended, the driver shall observe the following requirements:

- The vehicle shall be placed in first or reverse gear (or “P” for automatic transmission vehicles), and the engine switched off;
- The park brake shall be applied before leaving the vehicle;
- Any flashing beacon shall be switched off before leaving the vehicle unless the vehicle is in a hazardous situation; and
- The vehicle shall be parked on a level surface and away from any traffic flows wherever possible.

The following general requirements shall apply:

- Parking shall only be permitted in designated areas, vehicles are not permitted to park across safe entry routes, on kerbs or verges or on any non-designated areas;
- Parking areas shall not be used as laydown, bin collection points, or storage areas;
- All vehicles movements will be kept to essential vehicles only, in particular on the berths;
- Port users shall have a procedure for parking vehicles and equipment outside of defined parking areas for example this may be a TAP;
- Rubber tyred SME shall be parked in a V drain or use other means to prevent it rolling away (bucket or blade lowered to ground, chocks).

3.5.3 Speed Limits

The maximum speed limit posted onsite at the PoE is 30km/h for all vehicles but drivers must assess conditions on the day and decrease speed accordingly.

All site vehicles shall adhere to the following speed restrictions at all times:

Table 3.5.3 Vehicle Speed Limits

Condition / Situation / Description	Maximum Speed Limit
General roads around Port	30 km/h
Pedestrian crossings on general roads around Port	20 km/h
Car parks (including pedestrian crossings located within designated car parks)	10 km/h
Access roads into and around Port	As sign posted
All berths	10km/h

Personnel operating vehicles on Port, including access roads, shall drive to the conditions. This may mean driving slower than the speed limit signage where conditions indicate the need to do so.

Additional mechanisms for controlling speed may also be utilised, these may include but are not limited to:

- Reduced posted speed limits
- Audible speed alarms
- Speed detection / display board devices
- Speed humps

Any changes to speed limits on site are to be communicated to affected personnel through the approved TAP process except in circumstances such as, bad weather where the speed limit may be set through consultation with the Registered Manager or delegate.

3.5.4 Overtaking and safe following distances

The driver shall ensure that overtaking of another vehicle is only undertaken on the right when permitted and safe to do so.

Overtaking of road maintenance equipment or SME on routes is not permitted unless positive communication is acknowledged or instructed by a traffic controller and it is safe to do so.

Vehicles shall not overtake water trucks whilst they are spraying water.

Safe following distance varies with the condition and construction of a road surface, the types of vehicles being used and operating speed.

3.5.5 Mobile Phones, Portable Electronic Devices & Reading Materials

Mobile phones are prohibited from use within the operator cabin of SME, HV, and LVs. HVs and LVs fitted with an inbuilt 'hands free mode' may be used if there use will not pose a threat to the driver or others.

Audio ear pieces, head phone attachments and portable music devices are prohibited from use within the operator's cabin unless they can be played via a link (blue tooth) through the vehicles radio and there use will not pose a threat to the driver and others.

Reading material is prohibited during use of any equipment unless the equipment/vehicle is stationary and parked in a safe location.

3.5.6 Management for Berths

Vehicle Parking

To avoid collision with the Ship Loader or the Container Crane the following shall be adhered to;

- All non-operational vehicles must be parked on the landside of the berth within the delineated area
- Personnel must be aware of the overhead clearances for the Ship Loader or Container Crane to avoid collision.
- Any Items, plant or materials exceeding these clearances are not to be permitted to be left in the path of the Ship Loader or Container Crane.
- Only essential vehicles shall be parked on the berths as this will reduce congestion in the area for operational activities and pedestrians.

Pedestrians

To avoid possible interactions with plant and vehicles, pedestrians proceeding along the berths must do the following;

- Pedestrians to strictly adhere to designated walkways where marked;
- All pedestrians must contact the Cargo Supervisors prior to entering and when leaving the berths.

Anti-collision devices are installed on the Container Crane and the Ship Loader. These are in place to avoid the risk of collision between;

- The Ship Loader or Container Crane and personnel;
- Other objects at ground level on berths that may foul the travel of the Ship Loader or Container Crane;
- Pedestrians must listen out for audible alarms installed on the Ship Loader or Container Crane to be alert of the movements associated with both machines.

3.6 JOURNEY MANAGEMENT PLANNING

Travel by road requires authorisation per the SPA Business Travel Procedure (A4932).

Notice of intention to travel by road is required in all situations; however the method of notification varies according to the level of risk involved, the distance to be travelled and road conditions.

Travel by road within 200kms requires the designated driver to:

- Complete a standard daily pre-start check on the vehicle.
- Inform your supervisor of your intention to leave Port in a company vehicle.

Travel by road further than 200kms or more than 2 hours from the Port of Esperance, requires the designated driver to:

- Complete a Journey Management Plan (JMP) form (D16/19337) which includes but is not limited to the following:
 - Name of driver and additional passengers
 - Vehicle registration
 - Destination and route
 - Expected time of arrival at destination(s)
 - Appointed journey coordinators name and contact number
 - Contact details of the person and location of your destination and proposed route
 - Completing a daily pre-start check on the vehicle
 - Review of the latest information regarding road conditions.
 - Notification of arrival on reaching the destination by informing the appointed journey coordinator.

3.6.1 Failure to Arrive or no contact from the Designated Driver

In the event of the designated driver not reporting in to the appointed journey coordinator within thirty (30) minutes of the estimated time of arrival (ETA) and no contact is able to be established, the appointed journey coordinator shall:

- Immediately confer with the proposed journey management form and confirm route, times, personnel and destination.
- Attempt to make contact with the designated driver and passengers. If unable to establish contact attempt to contact the destination contact person / location as per the JMP.
- Should there be no reply with the designated driver after sixty (60) minutes, escalate to the person's direct manager. The person's direct manager is to then notify the Registered Manager and public emergency response services.

3.6.2 Vehicle Breakdown and Delays

As a guide the following points should be noted in the event of a breakdown or delay of more than 30 minutes, or detour from specified route:

- Contact the appointed journey coordinator and inform them of the situation.
- If you cannot contact the appointed journey coordinator remain with your vehicle unless you are picked up by another vehicle. You are to then contact the appointed journey coordinator at the earliest opportunity and inform them of the situation.

3.7 RADIO COMMUNICATIONS

Supervisor vehicles and vehicles driving in operational areas such as berths and iron ore sheds shall have a VHF two-way radio.

3.7.1 Two Way Radio Protocols

Port Users shall adhere to the following as a minimum:

- Speak clearly
- Be precise and to the point with the message
- Acknowledge a message correctly when received
- When calling up, identify themselves and their vehicle or equipment identification number at the start of the message followed by who or the vehicle they are calling
- 'Clicking' to acknowledge receipt of message is prohibited
- Radio use within a designated hazardous area is prohibited unless it is an emergency
- General chatter, personal discussions, music, abuse or offensive language or behaviour is prohibited
- If a message transmitted, is not fully understood, the receiver shall request the message to be repeated until understood to remove confusion
- Two way radios shall be turned on at all times and at an audible level to enable radio traffic to be monitored. AM/FM radios shall be turned down when transmitting over the two-way

3.7.2 Two Way Radio Emergency Protocols

All PoE Port Users shall adhere to the following emergency radio protocols:

- Go to channel VHF1 (Port Emergency channel)
- Call "Emergency, Emergency, Emergency"
- State your name
- Give location of emergency
- Nature of emergency or service required (i.e. Fire, Ambulance)
- Number of casualties and injuries if known
- Wait for response and confirm information and stay on VHF1 (Port Emergency channel)

3.8 MAINTENANCE AND REFUELLING

A documented Safe System of Work (SSoW) shall be established for dealing with in field maintenance mechanical breakdown of equipment and within Designated Zones (Section 3.10) based on the following requirements.

3.8.1 Mechanical Breakdowns

Any vehicle that is broken down should be moved off the road, provided it can be done so safely, leave the parking lights and hazard lights on. If it can be avoided, do not park light vehicles in the vicinity of SME or heavy vehicles.

If the vehicle is causing an obstruction on the road or where equipment requires maintenance on the roadside, hazard lights shall be left operating. For heavy equipment the wheels must be chocked and reflective triangles and witches hats used.

Contact your Supervisor or delegate and advise them of the breakdown vehicle and its location. If the vehicle is parked on a slope, turn the front wheel into the kerb or drain and chock the wheels, put the vehicle into first gear and ensure the handbrake is fully applied.

The following requirements for SSoW when dealing with in field maintenance and mechanical breakdown of equipment shall apply:

- Measures required to prevent uncontrolled movement
- Demarcation requirements
- Responsibilities of supervision and equipment operators
- Towing of vehicles and equipment by an approved towing method only

3.8.2 Refuelling and Servicing

The following points are to be observed to ensure the safe fuelling of light vehicles:

- The vehicle's engine must be turned off;
- No smoking or naked flames within ten (10) metres of vehicles or pump while fuelling is in progress;
- Mobile phones must not be used while fuelling. They must be turned off or left within the vehicle cab; and
- Replace nozzle correctly to prevent unwanted fuel spills.

The following are minimum requirements for HV or SME equipment re-fuelling:

- The engine is to be shut down and ignition off;
- No equipment is to be left unattended while re-fuelling;
- The keys are to be removed from the ignition.
- The use of mobile phones is prohibited during the refuelling process.

An SSoW for dealing with infield refuelling and servicing of SME and HV shall apply:

- Measures required preventing uncontrolled movement
- Operator exit of vehicle prior to refuelling
- Separation requirements from other traffic
- Hydrocarbon spill response

3.9 RAIL TRAFFIC AREAS

Due to the confines of the Port, the numerous rail crossings, the length of the train and wagons, the ambient noise levels and the long run of wagons which are automatically indexed from the Rotary Car Dumper (RCD). The rail corridor within the PoE presents a potential high risk interaction for all traffic types.

All vehicles and pedestrians shall give way to train movements along the rail corridor; the only exception is when an emergency situation exists.

Working within the rail corridor is classified as high risk and is only permitted when a Rail Corridor Permit has been issued and the controls indicated within the Permit have been applied.

3.9.1 Barricading and Signage along the Rail Corridor

When processing rolling stock through the Rotary Car Dumper (RCD) the rail corridor shall be physically separated by fixed barriers and guardrails to prevent pedestrian interaction with the rail wagons.

Where there is an operational requirement to work within the rail corridor whilst the rail is live such as train movement occurring through the RCD which is not rail track or rail corridor maintenance then a safe system of work will be detailed within that works.

Fixed signage shall be displayed in accordance with AS/NZ 1742 Part 3, at the rail crossing points to indicate that a live rail track exists and train movement.

3.9.2 Pedestrians Crossing Rail

The following general rules shall be adhered to:

- Pedestrians shall not encroach within three (3) metres of the nearest rail of any line unless they are crossing the railroad at a designated crossing.
- Pedestrians shall stand a minimum of five (5) metres clear of the track and face towards the oncoming train whilst any train is passing
- Pedestrians shall expect rail vehicle movements on any track from either direction at any time and shall protect themselves in accordance with PoE Rail Permit.
- Personnel working on or near the track shall not wear red coloured clothing that may be confused with a signal or other trackside equipment
- Personnel shall not climb over, under or between locomotives or rolling stock
- Personnel shall not attempt to jump onto rolling stock, moving track vehicles or equipment
- Stepping between points or placing any part of their body on or within the frogs or other components unless carrying out an authorised inspection.
- Personnel shall not cross double track unless it is clear in both directions watching for potential shadowing.
- Personnel shall not cross within ten (10) metres behind or in front of rolling stock.

Look both ways and ensure the track is clear before proceeding to cross. If no designated walkways are available, cross at a location where it is safe to do so and:

- Maintain continual vigilance
- Step over rails not on them
- Ensure crossing location is appropriate
- Do not cross in the vicinity of points or other moving parts

3.9.3 Vehicle Rail Crossings

Vehicles are only to cross at designated crossing points along the rail corridor. All vehicles are required to stop where indicated by a "Stop" sign and marked line; this is for sighting purposes and to prevent intrusion into the rail corridor where contact could be made with a train or wagons.

Vehicles shall not cross the rail corridor without first having stopped if required by signage and checked for train movement. Where a train is moving vehicles can only continue to cross the rail corridor if the train is clear of the 10m marking, away from the crossing.

Where the train or wagons are closer than 10m away vehicles are to either wait until the rail crossing is clear or utilise another rail crossing further along the rail corridor.

3.9.4 Low Loader Crossing

Low loaders are only permitted to cross railroad level crossings at locations authorised and prior to attempting any railroad crossing obtain authorisation from PoE Representative and ensure:

- No train is parked within 50 metres of the crossing
- No train is moving within 600 metres of the crossing or movement of the train is not obvious
- Should the belly of a vehicle foul, notify the PoE Representative immediately.

3.10 DESIGNATED ZONES

Designated zones include but are not limited to Berths, SME workshops and park up areas, active loading operations within product sheds and container pads.

These are demarcated to restrict access to non-authorized persons. Only trained, qualified, VOC and approved personnel are permitted to operate vehicles in Designated Zones while SME are operating.

3.10.1 Access Control Management System

There shall be an established access control system into Designated Zones where known hazards exist. Outline the following:

- Definition of what areas and conditions are considered hazardous and are deemed as an Designated Zone

- Prescribed barriers, signs and delineation used to mark and control access to these areas
- Process to obtain approval to enter these areas

3.10.2 Separation of HV and SME

The following requirements shall apply:

- Whenever practicable there shall be separation of LV and HV from SME
- Port users shall ensure LV and HV are separated from SME by an approved method within their work areas

3.10.3 Separation of Vehicles and Pedestrians

The following requirements shall apply:

- Whenever practicable there shall be separation of pedestrians from SME and HV
- No vehicle or equipment should be parked within five (5) metres of a designated pedestrian crossing

3.11 OVERHEAD POWERLINES / LOW CLEARANCE AREAS

Operating under or near power lines and low clearance areas, require the following but not limited to:

- Compliance with Mines Safety and Inspection Regulation 1995, Regulation 5.28 - Overhead Power lines
- Compliance with Electrical Safety Procedure within 10 metres of a HV power line or structure
- Warning signs posted on roads under power lines which identify the hazard and the clearance distance
- Warning signs posted at the entrance of the power line corridor and at a distance that shall allow the vehicle time to stop given the posted speed limit

Roads travelling under structures such as overhead conveyors, entry into product sheds or other structures where the safe vertical distance above the road is less than 4.6 meters shall have the following installed:

- Height warning sign installed on the structure in question
- Where possible the installation of warning devices across the road to be provided ahead of the structure that shall allow a vehicle time to stop given the posted speed limit for any vehicle that may pass under it.

3.12 WIDE AND ABNORMAL LOADS

Wide and abnormal loads to be transported on the Port traffic network shall be:

- Documented on a TAP with 48 hours' notice prior to load / delivery being transported
- Approved by the Registered Manager (or delegate)

The maximum dimensions for a vehicle driving on public roads in Western Australia are as specified in table 3.12 below.

Table 3.12 Wide Load Dimension Limits

Dimension	Limit
Maximum width (without RAV Permit)	2.5 metres
Maximum height (without RAV Permit)	4.3 metres
Maximum length of vehicle that is not a part of a combination (without a RAV permit)	12.5 metres
Maximum length of vehicle that is a part of a combination (without a RAV permit)	19.0 metres

Vehicles transporting loads of greater dimensions require a Restricted Access Vehicle (RAV) Permit issued by Main Roads WA when travelling on roads outside of the Port road network. The permit should concern a single trip between specific locations or allow travel on nominated routes over a set period of time.

3.13 CHANGE MANAGEMENT

This TMP shall be reviewed and approved by the Registered Manager or delegate prior to implementation and reviewed annually.

Temporary changes to the TMP, Port traffic network shall be conducted utilising a Traffic Awareness Plan (TAP).

Significant or permanent changes to the TMP shall be subject to the SPA PoE Change Management process and shall be supported by the following:

- Risk assessment;
- Details of change; and
- Communication to applicable personnel

The change management process shall distinguish between low, medium and high risk, and incorporate the permanent changes.

3.13.1 Traffic Awareness Plans (TAPs)

The Traffic Awareness Plan template (D17/9061) shall be used for all road maintenance and temporary traffic control changes, that may include or impact on road diversions, car parks, workshops, berths or other road users which disrupts normal traffic management flow on the sites established Port traffic network.

The TAP template shall be submitted to the Registered Manager (or delegate) for approval, and no physical changes will occur until a Traffic Awareness Notice has been issued.

The works shall be inspected by the PoE supervisor who is assigned to manage the works (or delegate) to ensure compliance with the approved TAP (table 3.13.1).

TAPs shall include:

- An overview of the intended Port traffic network change.
- Brief description of the scope of works and the actual changes required to comply with the proposed TAP.
- The identification of hazards associated with the change to the Port traffic network controls necessary for risk mitigation.
- The areas affected by the Port traffic network change and the expected time frame.
- A sketch / photograph of the site layout showing the area of works, signage, warning devices, surface specification, and distances with the traffic control devices in accordance with TAP.
- Include the inspections that shall be conducted while the TAP is in place.

Table 3.13.1 TAP Development, Approval and Communication Flowchart

FROM	TO	DOCUMENTATION	DESCRIPTION
TAP APPLICANT	PoE SUPERVISOR	TAP Template	<i>Complete Template and Checklist; forward to PoE Supervisor; any necessary changes or amendments discussed and completed between parties prior to proceeding</i>
PoE SUPERVISOR	REGISTERED MANAGER (OR DELEGATE)	TAP Template & Traffic Awareness Notice	<i>PoE Supervisor to review and ensure that all necessary controls are in place. If okay the Supervisor completes an accompanying Awareness Traffic Notice and submits all forms to Registered Manager (or delegate)</i>
REGISTERED MANAGER (OR DELEGATE)	PoE OHS	TAP & Traffic Awareness Notice	<i>Registered Manager (or delegate) reviews and if approved forwards to PoE OHS. If rejected returns to PoE Supervisor with suggested actions / comments</i>
PoE OHS	COMMUNICATION (ALL SITE)	Traffic Awareness Notice	<i>PoE OHS registers the TAP and Issues the site wide Traffic Awareness Notice</i>
COMMUNICATION (ALL SITE)	PoE SUPERVISOR	TAP	<i>PoE Supervisor receives copy to notify TAP applicant and prepare to inspect TAP controls</i>
HOLD AND INSPECTION POINT			
<p><i>The TAP that is submitted for physical changes to the Port Traffic Network. The PoE Supervisor in conjunction with the Applicant will inspect the area and the changes to ensure that all controls as approved on the submitted TAP are in place.</i></p> <p><i>Any necessary amendments or additions to the TAP where the controls are not adequate will be made immediately and re communicated to all.</i></p> <p><i>Where the TAP has been submitted for incoming wide or abnormal loads or deliveries to Port, the PoE Supervisor will oversee the TAP controls on the day as was notified on the Traffic Awareness Notice that the controls are followed.</i></p>			
	PoE SUPERVISOR	TAP Inspection	<i>PoE Supervisor to complete an inspection to confirm that the TAP controls are in place</i>
	PoE OHS	TAP Inspection	<i>PoE Supervisor to submit inspection report to PoE OHS</i>

3.13.2 Communication

Changes to this TMP and all TAPs shall be communicated across the Port by way of a Traffic Awareness Notice issued by PoE OHS. A minimum of 48 hours shall be required from the issue of the Traffic Awareness Notice to the implementation of the proposed change effecting Port. Any road closures affecting Port shall require 3 days' notice.

3.14 ROUTINE MAINTENANCE AND INSPECTON

All sealed and unsealed roads covered by this TMP shall be kept free of loose material as far as is practicable. If loose material is deposited on sealed road surfaces then warning signs shall be provided until the road surface has been cleared.

In order to maintain the road network in a safe condition, regular maintenance and inspections of roads and pedestrian access ways should be undertaken weekly. The inspection should record the condition of routes and note any works that are required.

The following minimum inspection should include but not be limited to:

- Park up areas are correctly designed;
- Separation of LV and HV from SME is established and implemented;
- Pedestrian access ways and signage clear and legible;
- TMP and TAP requirements are established, implemented and communicated to all Port users;
- Port speed limits are correctly displayed;
- Lighting conditions;
- Roadway and pavement markings;
- Roadway design meets the standard of this TMP;
- The surface remains free draining;
- The creation of airborne dust is minimised;
- Hazards such as, but not limited to loose material, pot holes and washouts have been removed

3.14.1 Excavations

Where excavations on or beside Port roads over 500mm in depth, shall have water filled barriers or windrows constructed along the edges of the excavation. The barriers / windrows should be a suitable height to prevent the largest vehicles driving through them.

3.14.2 Maintenance Crews On Network Roads

It is the responsibility of the Registered Manager (or delegate) to establish a safe system of work where maintenance crews are working close to traffic. The Registered Manager (or delegate) shall identify and establish additional precautions to ensure maximum visibility and that early warning levels are maintained in accordance with this plan.

Road maintenance activities shall be carried out but not limited to, in accordance with the following conditions;

- All mobile equipment used for road work must have a flashing amber beacon;
- Spotters and other personnel working near heavy plant or equipment are required to wear high visibility vests or clothing;
- Where personnel are working on foot, the speed limit is to be reduced to 15km/h;
- Where traffic flow is restricted to single lane then traffic lights or appropriately trained traffic controllers will be utilised to control the traffic flow;
- Area must have signs on the approach to the road works, indicating “road work in progress,” and the appropriate speed limit signs;
- Area must have signs at the end indicating “end of road work,” and end of roadwork speed limit;
- All roadwork signs must comply with AS/NZS 1742 and AS/NZS 1743. The signs are to be placed so they are clearly visible, maintained and regularly cleaned to ensure continued compliance with relevant standards; and
- All roadwork signs must be removed on completion of road works. Where signs are required to be left over night, flashing hazard lights should also be installed to indicate the traffic hazards.

3.14.3 Safe Use of Spotters

Operators of all equipment must remain alert for the movements of other vehicles, and pedestrians.

Operators of LVs must exercise caution when reversing and are to use a spotter when necessary.

A spotter shall be used when HV and SME vehicles reverse in heavy trafficked areas or confined areas.

A ‘spotter’ is a person on the ground, solely responsible for guiding the direction of any part of an item of mobile equipment or vehicle.

Spotters shall:

- Remain visible to the operator and in a position of safety;
- Maintain a clear view of the hazard areas (operators blind spots);
- Stay clear of the vehicle’s path;
- Avoid walking backward;
- Use agreed radio or hand signals to communicate with the operator;
- Immediately signal the operator to stop if any person or object enters the hazard areas; and

- Signal the operator to stop if the spotter must change positions when the vehicle is moving; the spotter should then move to the new position and signal the operator to continue.

In the case of an excavator (or similar boom-type machine) the spotter shall remain a minimum of two metres from the length of maximum reach while the machine is in operation. Person(s) may only enter the 'swing zone' of plant once the spotter has established positive communication with the operator and the machine has ceased operation and grounded their bucket and or implement.

3.15 ROAD DESIGN

3.15.1 New Roads or Pavements

Subject to availability of capital funding, new or redesigned roads or pavements shall meet the following requirements:

- Made from material that will not become slippery when wet;
- Minimises the generation of dust; and
- Be free draining.

They will be provided with:

- Edges that are clearly marked and visible at all times
- Curves of sufficient radius to allow drivers and operators sufficient vision equal to the stopping distance of the vehicle and
- Consider the interaction of all potential vehicles and pedestrians.

3.15.2 Pedestrian Access

Pedestrian walkways and roadway crossing points should be installed in accordance with the requirements of Austroads Guide to Traffic Engineering Practice – Part 13 Pedestrians.

Marked pedestrian zebra crossings should be installed in accordance with AS/NZS 1742.10 – 1990 Manual for Uniform Traffic Control: Part 10 Pedestrian Control and Protection.

Pavement markings should be white and consist of a series of longitudinal bars 600mm wide and generally not less than 3.5 metres long. The bars should be placed parallel to the centre of the road with gaps of approximately 600mm between bars.

The pavement markings should be positioned at right angles to the road and may be angled by not more than 30 degrees where local circumstances require.

Where necessary and practicable the pedestrian route is to be protected from the encroachment of vehicles. This may be in the form of but does not limit to;

- Designated walkways for pedestrians and where possible the installation of safety railings to eliminate interaction with vehicle movements; and

- Designated separate parking areas for both light vehicles and heavy equipment.

3.15.3 Classification of Roads and Trafficable Areas

Table 3.15.3 Classification of Roads and Trafficable Areas

Classification	Requirement
Class 'A'	Bitumen road.
Class 'B'	Well made all weather gravel road that is continuously maintained and not subject to flooding
Class 'C'	Made gravel roads that are not all weather or continuously maintained, or areas where no roads are in place. i.e., Gravel roads behind iron ore sheds
Class 'D'	No made roads in place

3.15.4 Intersection Design Parameters

The minimum design parameters for intersection designs shall include:

- To meet at an angle of 90 degrees
- Limitation of speed to ensure that the visible sight distance exceeds the required stopping distance
- A minimum straight section of 20 metres on approach to intersections where practicable
- Use of signs from AS 1742.1 to warn of approaching intersections
- Placement of intersection warning signs on permanent roads
- Use of 'Keep Left' signs at intersections where practicable
- Stop or Give Way signs shall be used at intersections applicable to the risk associated to the location.

Where any of the above points cannot be practicably achieved, a risk assessment must be conducted and control measures taken to control the risks identified.

3.15.5 Blind Corners

- Widened access roads will be constructed where possible to allow traffic to pass safely in both directions
- Signage indicating 'Keep Left' shall be placed, prior to a blind corner to direct traffic to the correct carriage way
- Where the access road cannot be widened in order to separate the flow direction, other risk control methods will be utilised such as the installation of a domed mirror.

3.15.6 Traffic Signage

The following requirements shall apply to signage at Port:

- All signs shall be installed in accordance with AS 1742.2 : Manual of uniform traffic control devices - Traffic control devices for general use
- All damaged and faded signs shall be replaced with new retro-reflective signage. The reflective material used shall meet the requirements of AS/NZS

1906.1: Retro reflective materials and devices for road traffic control purposes - Retro reflective sheeting

- All signage that is obsolete or no longer required is to be removed
- Road signage should be installed at a minimum height of 1.5 metres for light vehicle roads where there are no pedestrians and no parked vehicles are expected
- Stop, Give Way, No Entry and advanced Pedestrians and Zebra Crossing warning signs should be on the left side of the roadway, with a second sign on the right if required to provide additional emphasis
- Signage is to undergo routine maintenance inspections to ensure that damaged signs, missing signs or signs in poor condition are identified and replaced promptly
- Signs sourced from AS 1742.1 shall be of a minimum size B
- Custom signs shall only be used when a standard sign cannot convey the desired message. Temporary signs made from plastic laminated paper shall be replaced regularly and be erected no longer than 4 weeks
- Descriptive signs used shall be limited to five words per line and up to a maximum of five lines of text
- Any text shall be of a size legible for the set speed of the area
- Creation of any new sign shall require approval from the Registered Manager or delegate

3.15.7 Lighting

Car parks should have a minimum level of lighting as specified for open air car parks in lighting for roads and public spaces in AS/NZS 1158.3.1 - Pedestrian area (Category P) lighting – Performance and design requirements.

Pedestrian lighting should also be provided on key routes throughout the Port. Lighting shall be based on a risk assessment taking into consideration the following factors:

- Lights fit for purpose;
- Position and height of lights relative to traffic;
- Delineation and protection from vehicle impacts;
- Access and servicing requirements.

Mandatory lighting is required at:

- Permanent park-up areas;
- Building facilities and immediate areas;
- Berths;
- Pedestrian crossing and permanent walkways.

3.15.8 Delineation

The following road delineation requirements should apply:

- Fitted with red and white reflectors. Red reflectors placed on the left hand side of the road, white reflectors on the right hand side
- Located at an interval of at a maximum distance 50 metres on flat straight roads and 30 metres on curves.
- Placed in a manner to not introduce risks in order to clean them
- Delineation shall be identified for all restricted areas

3.15.9 Speed Management

Speed limits shall be capable of being practically and equitably enforced by use of speed zones of adequate length, by limiting speed limit changes and by clarity and frequency of sign posting.

Speed limit signs are to be erected on the left side of the carriageway and no other sign should be erected on any post carrying a speed limit sign.

Maximum speed limits set shall take into account:

- The required stopping distance at the set speed limit shall not exceed the visual sight distance;
- The minimum reaction time for stopping distance calculations shall be 2.5 seconds;
- Gradient of road;
- Road surface coefficient of friction;
- Likelihood or presence of pedestrians, people working on or near roads and road hazards.

3.15.10 Parking Areas

The following general requirements shall apply:

- Designated parking areas should be provided to accommodate the expected number of vehicles with the parking bays located so that approaching traffic is visible, to all drivers;
- Where there is risk of vehicles hitting objects when reversing or parking, wheel stops shall be installed to prevent contact;
- SME and HV shall not park in the same area as LVs within designated parking areas.
- Parking bays shall be of an adequate size to ensure the safe access and parking of the largest vehicle using them;
- Where vehicles are reversed parked back to back, there will be design parameters or risk control measures in place to prevent collision and / or the crushing of pedestrians in-between the rear of the vehicles;

- Parking bay design shall prevent collision with other parked vehicles and equipment;
- Rubber tyred SME shall be parked in a V drain or use other means to prevent it rolling away (bucket or blade lowered to ground, chocks).

3.15.11 Windrows

There shall be procedures on the construction of windrows as a preventative barrier.

As a minimum these guidelines shall include:

- Compliance with the Mines Safety Inspection Act 1994 and Mines Safety Inspection Regulations 1995; and
- Occupational Safety and Health Act 1984 and Occupational Safety and Health Regulations 1996; and
- Construction material considered appropriate for a windrows intended purpose.

3.16 AUDITING

An audit of the traffic management network shall be conducted at Port to assess compliance against the requirements of the TMP yearly which shall be documented and recorded.

3.17 REVIEW

This TMP shall be reviewed yearly, or whenever there is significant change

4. DEFINITIONS AND ABBREVIATIONS

The following definitions and abbreviations are used throughout this procedure.

Table 3.1 Definitions and Abbreviations

Term	Definition
ATO	Authorised to Operate
MEWP	A mobile machine (device) that is intended to move persons, tools and material to working positions and consist of at least a work platform with controls, extending structure and a chassis but does not include mast climbing work platforms
Intersection	An intersection shall be considered the junction where two or more delineated roads cross or merge
LV (Light Vehicle: 2 or 4 wheel drive sedans, station wagons, utilities, vans, mini-buses and crew cab trucks under 4.5 tonnes)	Includes, but are not limited to - a motor vehicle that can be registered for use on a public roads (without restrictions or special permits), has four or more wheels, seats a maximum of 12 adults (including the driver), truck with tray (under 4.5 tonnes), is a vehicle that, where registered, could be legally driven on a public roadway by a driver issued with a standard C Class Motor Driver's Licence, does not exceed 4.5 tonnes gross vehicle mass (GVM)
Mobile Equipment	Includes, but is not limited to, self-propelled surface tracked and rubber tyred equipment such as trucks, graders, tractors, excavators, drills, forklifts and similar plant. It excludes rail equipment and relocatable plant such as stacking conveyors.
Mobile Equipment Workshop	Any area where mobile equipment is parked and/or being maintained within a workshop boundary.
RAV Permit	Restricted Access Vehicle Permit
Rail Equipment	Includes rolling stock which means a vehicle that operates on or uses a railway and includes but not limited to a locomotive, rail car, rail motor, and light rail vehicle.
Designated Zones	An area which is demarcated to restrict access to non-authorized persons who have not been trained/assessed for competency to drive in a Designated Zone.
Heavy Vehicles (HV)	Trucks and buses that are designed for use on public roads such as, rigid and articulated trucks greater than 4.5 tonnes (including associated trailers) and buses (over 12 seats). Also included in this category are forklifts, backhoes, skid steer loaders, prime movers, mobile cranes and integrated tool carriers fitted with an attachment not designed for earthmoving.
Shall	Is to be understood as mandatory
Should	Is to be understood as recommended and not mandatory
Surface Mobile Equipment (SME)	Self-propelled mobile equipment for surface operations such as container forklifts and equipment that is primarily intended for bulk earthmoving and not primarily designed for use on public roads.
TAP	Traffic Awareness Plan – A Change Management process; TAPs are submitted to the PoE for approval. TAPs outline proposed changes to traffic management network roads and the risk controls within a respective area. Traffic Awareness Plans once approved are communicated on Traffic Awareness Notice
TMP	Traffic Management Plan – defines the minimum standards for traffic management includes the overriding Port network road map(s), incorporating traffic flow and signage. Any temporary change or interruptions to the overriding TMP Map(s), must be via the approval of a TAP submission and Traffic Awareness Notice
Traffic	Vehicles moving by road, air or sea
VOC	Verification of Competency

5. ROLES AND RESPONSIBILITIES

The roles and responsibilities that apply to this procedure are shown below;

Table 7 Roles and Responsibilities

Role	Responsibility
PoE Management	<ul style="list-style-type: none"> • Implement and maintain the Traffic Management Plan (TMP) for the Port. • Update and review the TMP at least annually • Communicate the TMP • Ensure all routes are clearly sign posted and demarcated • Set and maintain road standards and road signage • Maintain a documented record of audits and inspections of the TMP and TAPs • Coordinate the management of Port Users, mobile equipment • Approval of all TAPs
Employees, Operators and Port Users	<ul style="list-style-type: none"> • Ensure vehicles have the necessary safety devices and are in a safe and roadworthy condition • Conduct and record pre-start inspections of all , vehicles and mobile equipment being operated • Ensure delivery vehicles are in a road worthy condition and registered • Report incidents and non-conformances with this plan and associated TAPs • Comply with relevant road laws and PoE procedures whilst operating a vehicle.

6. REFERENCES

6.1 External

- Mines Safety and Inspection Act 1994
- Mines Safety and Inspection Regulations 1995
- Occupational Health and Safety Act 1984
- Occupational Health and Safety Regulations 1996
- AS/NZS 1158.3.1 - Pedestrian area (Category P) lighting – Performance and design requirements.
- AS/NZS 1742 – Manual of uniform traffic control devices
- AS/NZS 1743 – Road Sign Specifications
- AS/NZS 1906 – retroreflective materials and devices for road traffic control purposes

6.2 Internal

- SPA Business Travel Procedure (A4932)
- PoE Journey Management Plan (D16/19337)
- PoE Permit to Work Procedure s.8.6 (D16/18828)
- PoE Rail Corridor Permit (D16/999)
- PoE Traffic Awareness Plan (D17/9061)
- PoE Traffic Awareness Notice (D16/19106)
- PoE Electrical Safety Procedure
- PoE Traffic Network Map