



TRAFFIC MANAGEMENT PLAN



PROJECT

Mission Beach Clump Point, Boating
Infrastructure Project, Element 1: CN-
10244

Project Commencement

Date: December 2018

Project Duration: 52 Weeks

**PRINCIPAL
CONTRACTOR**

MGN Civil Pty Ltd

10/1378 Lytton Road, Hemmant QLD
4174



PREPARATION AND AUTHORISATION

DATE	NAME	POSITION	SIGNATURE
30 Dec 18	Andrew Schweitzer	Project Manager	

REVISION STATUS

REVISION	DATE	DETAILS	PREPARED BY	APPROVED BY
A	30/12/18	Original	Andrew Schweitzer	Guy Schweitzer (RPEQ)
B	5/01/19	Amendments made after TMR review	Andrew Schweitzer	Guy Schweitzer (RPEQ)
C	21/02/19	Amendments made after TMR review to CAS	Andrew Schweitzer	Guy Schweitzer (RPEQ)

DISTRIBUTION LIST

COPY NO.	NAME OF RECIPIENT	ORGANISATION
1	Chris Voisey	TMR
2		

TMP issued to the following members of the Project Team for review:

NAME	SIGNATURE	DATE
Neville Foley		



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ATTACHMENT Traffic Guidance Scheme



1.0 PURPOSE

The Mission Beach Clump Point Boating Infrastructure Project represents a significant civil construction project for the Mission Beach area requires significant trucking movements and plant mobilisation and demobilisation by road to the site. Trucking movements will need to transport raw and prefabricated materials to the site to complete the extent of works. In addition, MGN Civil in undertaking the works will need to utilise a significant portion of the site for construction sequencing which will greatly reduce access for the period of the works.

These elements of the work will impact on boat ramp users (commercial and recreational), local residents and businesses. In addition, the increased trucking movements on local roads increase the risk of impacts on local fauna, particularly the Endangered Southern Cassowary.

This document has been developed to outline the elements that need to be managed as part of the plan and provide management strategies. This plan has been approved by an MGN Civil certified RPEQ engineer.

2.0 OBJECTIVES

The key objectives of this plan are;

1. Avoid any impacts to the Endangered Southern Cassowary as a result of Project.
2. Develop a construction strategy to minimise impacts on residents and local businesses from construction traffic and communicate this strategy clearly and early.
3. Develop a functioning strategy for the management of Clump Point Road particularly the narrow access, to ensure the surrounding high conservation vegetation is not impacted (overhead canopy), access is maintained to the Ecovillage Resort and construction traffic movements occur in a safe and efficient manner.
4. Minimise the period of closure of the boat ramp to recreational users as much as practical.
5. The construction strategy is to facilitate commercial boat ramp access during the works for a small number of identified users.



3.0 MANAGEMENT MEASURES

3.1 Boat Ramp Access - Recreational

The ramp will be closed for all recreational users during the earthworks phase of the project (carpark expansion, boat ramp and breakwater upgrades). This is unavoidable as the works themselves will preclude access, but also because MGN Civil and its subcontractors will take up all of the available parking areas for site buildings, laydown areas and material stockpiles.

MGN Civils work program indicates that the construction works will begin in February/March 2019 and conclude in December 2019. TMR and MGN Civil will as soon as practicable notify the public on the closure and re-opening date.

CLUMP POINT BOAT RAMP	DATE (Estimated)
RAMP CLOSED	FEBRUARY/MARCH 2019
RAMP RE-OPENED	DECEMBER 2019

Alternative recreational ramp access locations to the north of Clump Point include (in order of distance north):

- i. Maria Creek (sheltered)
- ii. Kurrimine Beach (open beach ramp)
- iii. Cowley Beach (open beach ramp)
- iv. Mourilyan Harbour (sheltered all-tide ramp, with floating walkway)
- v. Fitzgerald Esplanade in Innisfail town (sheltered boat ramp in Johnstone River)
- vi. Coconut Point, north bank of Johnstone River (sheltered, with floating walkway)
- vii. Flying Fish Point (north bank of Johnstone River (partly sheltered)).

Alternative recreational ramp access locations to the south of Clump Point include (in order of distance south):



- i. South Mission Beach (open beach ramp)
- ii. Jacky Jacky Street, South Mission Beach (sheltered creek ramp)
- iii. Carmoo (sheltered creek ramp)
- iv. Hull Heads, south bank of Hull River (sheltered)
- v. Tully Heads (sheltered creek ramp)
- vi. Meunga Creek, north Cardwell (sheltered creek ramp)
- vii. Sheridan Street, Cardwell (open beach ramp)
- viii. Port Hinchinbrook (sheltered, with floating walkway)
- ix. Fishers Creek (sheltered creek ramp)
- x. Dungeness, Lucinda (sheltered near all-tide ramp, with floating walkway)

3.2 Boat Ramp Access – Commercial

MGN civil is facilitating limited access for a small number of local commercial operators (as originally communicated by TMR), these operators' identities and the access arrangements have been removed in the public version of this Plan for privacy reasons.

3 Project Site Setup



Temporary Stock Pile Area

Lay Down Area
Incoming project supplies

Site Facilities Area
3 x Demountable buildings
1 x Site Storage Container
1 x Ablution block with water tank
1 x Diesel Generator
Environmental Spill Containers

Southern Carpark



3.4 Clump Point Access Road – Eco Village and Narrow Entry

MGN Civil will provide Eco Village Resort staff and visitors access to the Resort 100% of the time during the project term. All vehicle movements during operating hours into the project site will be coordinated by a traffic controller who will be stationed at the entrance to Clump Point Road. The controller from time to time will coordinate vehicle movements of staff and visitors to ensure safe passage in and around MGN trucks and machinery.

At the conclusion of each day's work the site will be secured with temporary fencing east of the Eco Village Resort entrance.

MGN Civil has inspected the location and access and has assessed the clearance to be sufficient to allow all proposed floated machines and trucks to safely move through this area without damage to the canopy. Daily inspection will take place to ensure canopy has not dropped, lowering the clearance level. Should an impact be likely, the canopy may be temporary tied back to increase clearance, using an elevated Work Platforms and rope. All decisions relating to suitable strategies will be coordinated with our site supervisors, environmental advisors and client representatives.

3.5 Trucking Route Between Quarry and Site

MGN Civil has inspected all available routes into and out of the project site from the Bonassi Quarry. MGN Civil proposes to use a single one-way loop route to distribute the Side Tippers. Side Tippers will arrive to the project site by heading north on Bruce Hwy turning onto Tully Mission Beach Road through to the project area. The return journey to the Bonassi Quarry will be via El Arish Mission Beach Road and south on the Bruce Highway. Refer to This single loop formation will reduce each route's vehicle movements per day by 50% and reduce wear on road assets.

Rock and project material delivery to the project site will begin at 7am and conclude the last load of each day would occur prior to 5pm.



Figure 1 Regional View of Trucking Route



Figure 2 Local view of trucking route

3.6 Cassowary Avoidance Strategy (CAS)

3.6.1 Introduction

As part of MGN Civils Integrated Management System, this Cassowary Avoidance Strategy (CAS) forms an important part in ensuring our environmental footprint is minimised during the project term. Diminishing the risk of negative impact on the Southern Cassowary is very important to MGN Civil, the community and the environment.

According to various sources, in the Mission Beach area, road accidents are the greatest single cause of cassowary death. Roads cut through southern cassowary



territories, making it necessary for the birds to travel across them when looking for food. Birds can also be attracted to roads by people feeding them or throwing litter from vehicles.

Cassowary strike is considered a significant risk by MGN Civil for this project with thousands of heavy vehicle movements to complete the Clump Point Project.

3.6.2 Purpose

This strategy aims to inform all MGN staff of the following items.

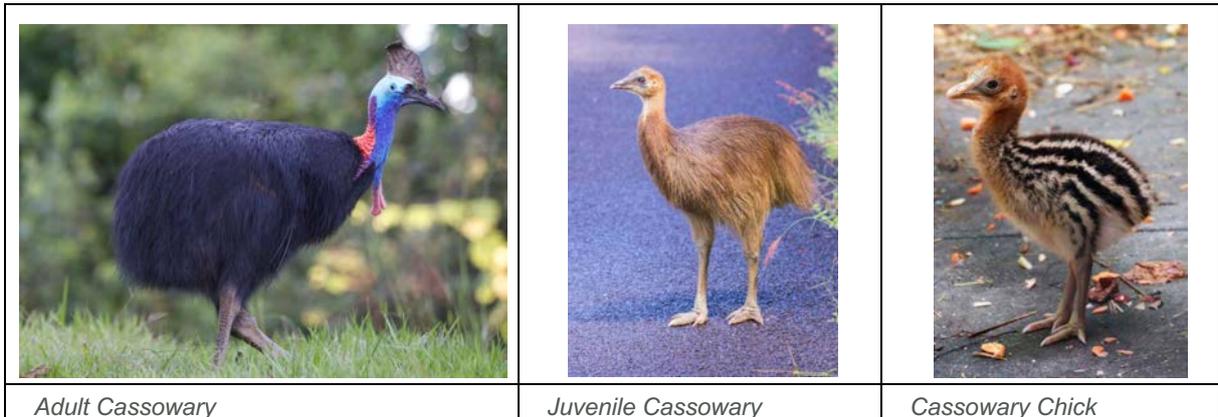
- Provide information on the Cassowary, its habits and identification;
- provide a visual representation of known Cassowary habitat and crossing zones on the haul route; and
- inform all staff of their responsibilities and what to do in the event of a Cassowary sighting, interaction or incident.

3.6.3 The Southern Cassowary

The Southern Cassowary, *Casuarius casuarius johnsonii*, is the only Cassowary found in Australia. Like the emu and ostrich, the southern cassowary is a large flightless bird with unusual feathers and other features that distinguish it from all other birds. A striking bird with glossy black plumage, the adult southern cassowary has a tall, brown casque (helmet) on top of its head, a vivid blue and purple neck, long drooping red wattles and amber eyes.

Adult cassowaries can grow to 2 m tall. In general, the sexes are fairly similar in appearance, though females are slightly larger and can weigh up to 76 kg. Males can weigh up to 55 kg.

Newly-hatched chicks are striped dark brown and creamy white. After three to six months the stripes fade and the plumage changes to brown. As the young mature, the plumage darkens, the wattles and casque develop and the skin colour on the neck and wattles brighten. Cassowaries reach maturity at about three years of age.



More often heard than seen, the cassowary is most active at dawn and dusk, and rests in a sunny, sheltered spot in the middle of the day. Individuals have large home ranges, of up to seven square kilometres.

Southern cassowary behaviour is unpredictable. Cassowaries can inflict serious injuries to people and pets by kicking with their large clawed feet.

3.6.4 Habitat Zones and Crossings on the Haul Route

Along the length of the haul route there are numerous habitat zones where Cassowary can cross the road. There are also many crossing zones that are known 'hotspots' for Cassowary to cross the road. Refer to Figure 3 for a visual representation of the Cassowary habitat zones near the road and know crossing points.

Figure 3 Cassowary Habitat and Crossings on the Haul Route



*Information for this map was obtained from the Australian Government DWEHP (Cassowary Habitat and Corridors).

Through these habitats and crossing zones, drivers are instructed to slow down and obey all Cassowary road infrastructure such as cautionary signs and speed signs and humps.

Drivers are also instructed to reduce speed where visibility is limited such as corners, approaching crests, near water courses and where vegetation grows close to the roads.



3.6.5 Management Measures

This Section provides a description of the management actions and responses that will be undertaken by MGN Staff during the project haulage to mitigate potential Cassowary impacts.

MGN is aware that TMR is currently developing a Cassowary sighting alert component to the QLD*Traffic* App, when this feature is in place the MGN project team will utilise this technology to further improve the effectiveness of the CAS.

Table 1 Management Measure for Southern Cassowary

Objective	No negative impact to Southern Cassowary	
Performance Criteria	<ul style="list-style-type: none"> No MGN Civil vehicle strikes during the project term All sightings reported to Site Supervisors and 24-hour Cassowary Hotline All vehicle movements from MGN Civil obey Cassowary cautionary signs 	
Management	Responsibility	
Train all current and new staff in their responsibilities in accordance with this Cassowary Avoidance Strategy (CAS)	<i>MGN Project Manager</i>	
Include this CAS in the MGN Civil Clump Point Induction for all current and new staff.	<i>MGN Project Manager</i>	
Check Facebook site 'Mission Beach Cassowaries' Daily. Notify drivers of location if on haul route.	<i>MGN Project Manager or Construction Manager.</i>	
Report all sightings by drivers/staff to the Cassowary Hotline.	<i>MGN Project Manager or Construction Manager.</i>	
Provide all drivers with a laminated copy of the Cassowary Response by MGN Civil Staff table 3. These are to stay in each vehicle.	<i>Project Manager</i>	
Check GPS speeds of drivers daily and take appropriate action should speeds be observed high.	<i>MGN Construction Manager</i>	
Review CAS every month and amend if necessary, based on experience and advice from experts.	<i>MGN Project Manager</i>	
Drivers	Responsibility	
Obey all traffic and Cassowary signs.	<i>All drivers and staff.</i>	
Reduce speed in known habitat zones and crossing zones. Reduce speed where visibility is low, near water courses and where bush is close to road edge.	<i>All drivers and staff.</i>	
MGN truck drivers will all have the QLD <i>Traffic</i> app in travel mode during transit so they receive audio alerts of new cassowary sightings and feed back to this system via the "report cassowary" button where Cassowaries are observed.	<i>All drivers</i>	
Report all sightings to Site Supervisor.	<i>All drivers and staff.</i>	
Inform all MGN Drivers of any sightings on the Haul route	<i>All drivers</i>	

Table 2 Cassowary Responses

Cassowary Response for MGN Civil Staff <i>MGN Staff are to follow these guidelines in the event that an encounter with a Cassowary occurs.</i>	
Situation	Response
Cassowary visits the project location.	<ul style="list-style-type: none"> • <i>The person who has sighted the Cassowary is to raise the attention of all personnel on site via UHF radio that a Cassowary is moving through the project area. (This includes Traffic Controller to inform any incoming trucks of the situation)</i> • <i>Stop production if safe to do so, allow the Cassowary to move through the site unimpeded.</i> • <i>Do not approach the Cassowary.</i> • <i>Do not pick up cassowary chicks or approach family groups. If confronted, remain calm and back away slowly. Protect your front with a bag or backpack if possible, and shelter behind a tree. Do not run away as cassowaries can run faster than most people</i> • <i>Never feed a Cassowary, ensure our bins and any food scraps are secure and not accessible.</i> • <i>Once the cassowary has moved through the Project location, inform all personnel.</i> • <i>Report sighting to Site Manager.</i> • <i>Site Manager to contact hot line 1300 130 372.</i> • <i>Discuss at the following days pre-start meeting</i>
Driver spots a Cassowary on the Haul route. Cassowary safely moves off into the bush.	<ul style="list-style-type: none"> • <i>Driver is to notify all other MGN Civil Drivers on the haul route of the location. I.e. Cassowary sighted, 3km East of Bruce Hwy on Tully Mission Beach Road. Left hand side. (UHF 18).</i> • <i>Driver to flash their lights to oncoming traffic to warn of the Cassowary presence.</i> • <i>All MGN drivers to reduce speed in the sighting area for that day.</i> • <i>Driver is to report the sighting and approximate location to the site supervisor.</i> • <i>Site Supervisor or delegate to contact the hotline 1300 130 372.</i> • <i>Discuss the sighting at the following days pre-start meeting.</i> • <i>Discuss if the MGN Civil CAS requires updating based on sighting and response.</i>

<p>Driver spots a Cassowary on the road. The Cassowary stays on the road.</p>	<ul style="list-style-type: none"> • <i>Driver is to slow and come to a stop when safe to do so.</i> • <i>Driver to flash their lights to oncoming traffic to warn of the Cassowary presence.</i> • <i>Driver is to wait in the vehicle for the Cassowary to completely leave the road and enter the bush.</i> • <i>Driver is to notify all other MGN Civil drivers on the haul route of the location. I.e. Cassowary sighted, 3km East of Bruce Hwy on Tully Mission Beach Road. Left hand side. (UHF 18).</i> • <i>All MGN drivers to reduce speed in the sighting area for that day.</i> • <i>Driver is to report the sighting and approximate location to the site supervisor.</i> • <i>Site Supervisor or delegate to contact the hotline 1300 130 372.</i> • <i>Discuss the sighting at the following days pre-start meeting.</i> • <i>Discuss if the MGN Civil CAS requires updating based on sighting and response.</i>
<p>Driver sees or causes injury to Cassowary or orphaned chick or a Cassowary.</p>	<ul style="list-style-type: none"> • <i>Driver is to slow and come to a stop when safe to do so.</i> • <i>Driver to flash their lights to oncoming traffic to warn of the Cassowary presence.</i> • <i>Driver to contact the hotline 1300 130 372 immediately and provide as much information as possible. I.e. Adult bird, location, brief description of situation.</i> • <i>Only respond to the situation based on the advice provided by the ranger on the hotline.</i> • <i>Do not approach an injured Cassowary.</i> • <i>Driver is to notify all other MGN Civil drivers on the haul route of the location. I.e. Cassowary sighted, 3km East of Bruce Hwy on Tully Mission Beach Road. Left hand side. (UHF 18).</i> • <i>Driver only to leave the site when safe to do so.</i> • <i>All MGN drivers to reduce speed in the sighting area for that day.</i> • <i>Driver is to report the sighting and approximate location to the site supervisor.</i> • <i>Discuss the sighting at the following days pre-start meeting.</i> • <i>Discuss if the MGN Civil CAS or Traffic Management Plan requires updating based on the event.</i>
<p>Driver sees or causes a death of Cassowary on the side of the road</p>	<ul style="list-style-type: none"> • <i>Driver is to slow and come to a stop when safe to do so.</i> • <i>Driver to flash their lights to oncoming traffic to warn of the Cassowary presence.</i>



	<ul style="list-style-type: none">• <i>Driver to contact the hotline 1300 130 372 immediately and provide as much information as possible. I.e. Adult bird, location, brief description of situation.</i>• <i>Driver is to notify all other MGN Civil drivers on the haul route of the location. I.e. Cassowary sighted, 3km East of Bruce Hwy on Tully Mission Beach Road. Left hand side. (UHF 18).</i>• <i>Only respond to the situation based on the advice provided by the Ranger on the hotline.</i>• <i>Only leave the site when safe to do so or as directed by the Ranger.</i>• <i>All MGN drivers to reduce speed in the area for that day.</i>• <i>Driver is to report the sighting and approximate location to the site supervisor.</i>• <i>Discuss the sighting at the following days pre-start meeting.</i>• <i>Discuss if the MGN Civils CAS or Traffic Management Plan requires updating based on the event.</i>
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3.7 Maritime Traffic and Safety at the Site

MGN Civil will within two weeks of important dates at Clump Point notify the Harbour Master.

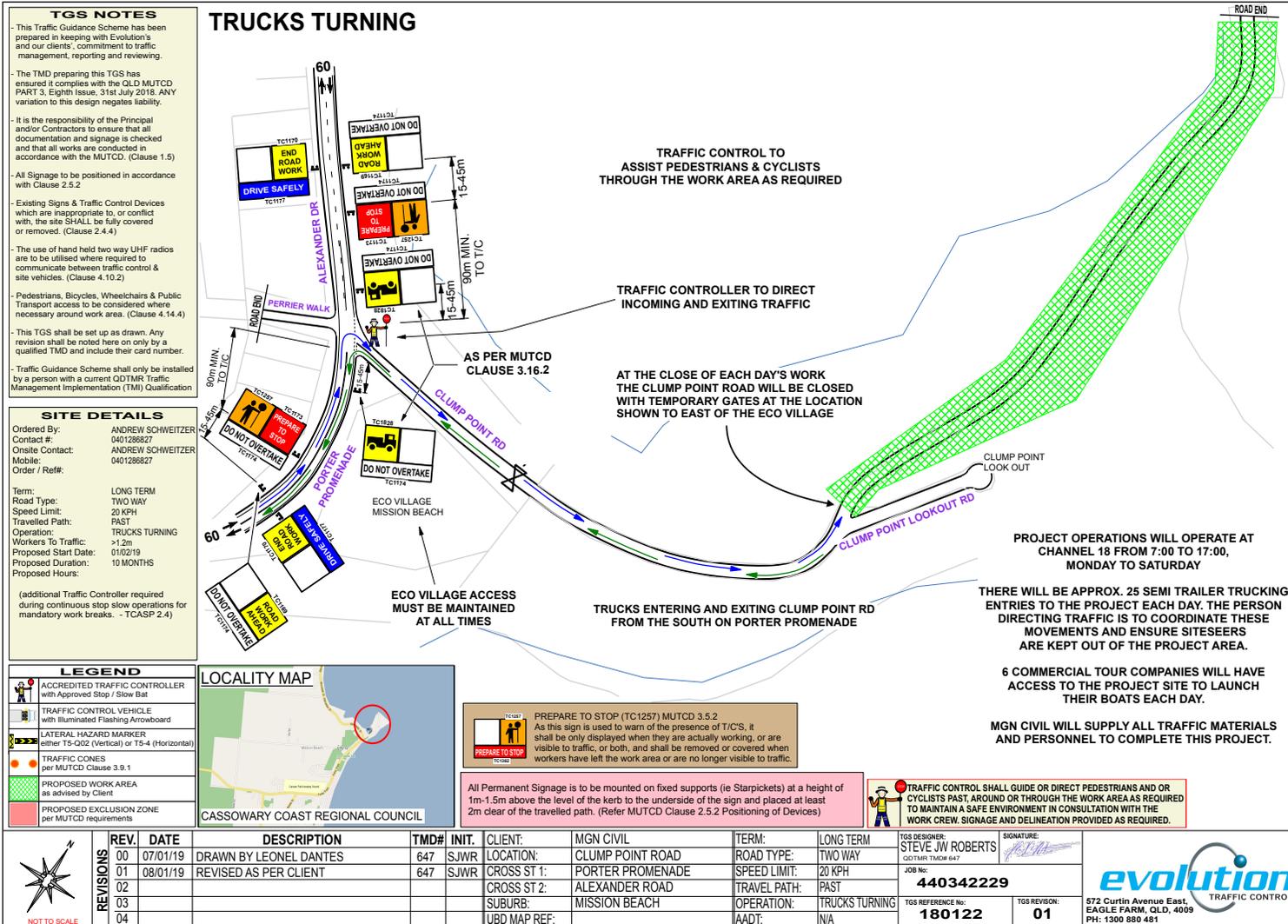
Important dates:

- Project Start - Date
- Ramp Closure - Date
- Ramp Re-Open - Date
- Detached Break Water - Start Date
- Detached Break Water - Completion Date
- Project Completion – Date

MGN Civil will develop in consultation with the Harbour Master a 'Notice to Mariners' advertising the start of the project and the actual closure date of the ramp.



MGN Civil during the construction of the detached breakwater will mark the perimeter of the working face with marker buoys to delineate the work site and warn mariners of the operational zone.



TGS NOTES

- This Traffic Guidance Scheme has been prepared in keeping with Evolution's and our clients' commitment to traffic management, reporting and reviewing.
- The TMD preparing this TGS has ensured it complies with the QLD MUTCD PART 3, Eighth Issue, 31st July 2018. ANY variation to this design negates liability.
- It is the responsibility of the Principal and/or Contractors to ensure that all documentation and signage is checked and that all works are conducted in accordance with the MUTCD. (Clause 1.5)
- All Signage to be positioned in accordance with Clause 2.5.2
- Existing Signs & Traffic Control Devices which are inappropriate to, or conflict with, the site SHALL be fully covered or removed. (Clause 2.4.4)
- The use of hand held two way UHF radios are to be utilised where required to communicate between traffic control & site vehicles. (Clause 4.10.2)
- Pedestrians, Bicycles, Wheelchairs & Public Transport access to be considered where necessary around work area. (Clause 4.14.4)
- This TGS shall be set up as drawn. Any revision shall be noted here on only by a qualified TMD and include their card number.
- Traffic Guidance Scheme shall only be installed by a person with a current QDTMR Traffic Management Implementation (TMI) Qualification

SITE DETAILS

Ordered By: ANDREW SCHWEITZER
 Contact #: 0401286827
 Onsite Contact: ANDREW SCHWEITZER
 Mobile: 0401286827
 Order / Ref#:

Term: LONG TERM
 Road Type: TWO WAY
 Speed Limit: 20 KPH
 Travelled Path: PAST
 Operation: TRUCKS TURNING
 Workers To Traffic: >1.2m
 Proposed Start Date: 01/02/19
 Proposed Duration: 10 MONTHS
 Proposed Hours:

(additional Traffic Controller required during continuous stop slow operations for mandatory work breaks. - TCASP 2.4)

LEGEND

- ACCREDITED TRAFFIC CONTROLLER with Approved Stop / Slow Bat
- TRAFFIC CONTROL VEHICLE with illuminated Flashing Arrowboard
- LATERAL HAZARD MARKER (either TS-QZ (Vertical) or TS-4 (Horizontal))
- TRAFFIC CONES per MUTCD Clause 3.9.1
- PROPOSED WORK AREA as advised by Client
- PROPOSED EXCLUSION ZONE per MUTCD requirements



PREPARE TO STOP (TC1257) MUTCD 3.5.2
 As this sign is used to warn of the presence of T/C/S, it shall be only displayed when they are actually working, or are visible to traffic, or both, and shall be removed or covered when workers have left the work area or are no longer visible to traffic.

All Permanent Signage is to be mounted on fixed supports (ie Stalpickets) at a height of 1m-1.5m above the level of the kerb to the underside of the sign and placed at least 2m clear of the travelled path. (Refer MUTCD Clause 2.5.2 Positioning of Devices)

TRAFFIC CONTROL SHALL GUIDE OR DIRECT PEDESTRIANS AND OR CYCLISTS PAST, AROUND OR THROUGH THE WORK AREAS AS REQUIRED TO MAINTAIN A SAFE ENVIRONMENT IN CONSULTATION WITH THE WORK CREW. SIGNAGE AND DELINEATION PROVIDED AS REQUIRED.

NOT TO SCALE

REV.	DATE	DESCRIPTION	TMD#	INIT.
00	07/01/19	DRAWN BY LEONEL DANTES	647	SJWR
01	08/01/19	REVISED AS PER CLIENT	647	SJWR
02				
03				
04				

CLIENT:	MGN CIVIL	TERM:	LONG TERM
LOCATION:	CLUMP POINT ROAD	ROAD TYPE:	TWO WAY
CROSS ST 1:	PORTER PROMENADE	SPEED LIMIT:	20 KPH
CROSS ST 2:	ALEXANDER ROAD	TRAVEL PATH:	PAST
SUBURB:	MISSION BEACH	OPERATION:	TRUCKS TURNING
UBD MAP REF:		AADT:	N/A

TGS DESIGNER:
 STEVE JW ROBERTS
 (QDTMR TMC# 047)
 SIGNATURE: [Signature]
 JOB No: 440342229

TGS REFERENCE NO: 180122
 TGS REVISION: 01

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 EAGLE FARM, QLD, 4009
 PH: 1300 880 481