

MANAGING A PROTECTED WORK AREA

JOB AID

MULTIPLE WORK SITES

(Issue **3** - *April 2025*)

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SECTION 1

WORK SITE REGISTER & LOCK ON / OFF

WORK SITE REGISTER

TS90

Work Site Limits		RPO or Site Protector	Date
From	To		
205.35	205.80	John Smith	14 / 09 / 14

- I have been briefed on protection, work site limits, the Safe Place and rail hazards.
- I am aware I must report to the Work Site protector before leaving the Work Site.

	Name / Hi-Rail Call Sign	Contact Number	On Site & Briefed				
			Time	Initials			
P	John Smith	021 323 456	0830	JS			
1.	Tom Brown	027 594 3421	0830	TB			
2.	Digger 60352		0830	RD			
3.	Ross Dixon	021 777 999	0830	RD			
4.							
5.							
6.							
7.							
8.							
9.							
Signing On Work Site Register							

SP signs in on
"P" row.

All vehicles fouling
track to be signed in
by vehicle Driver.

Include "Call Sign"
(registration if no
call sign).

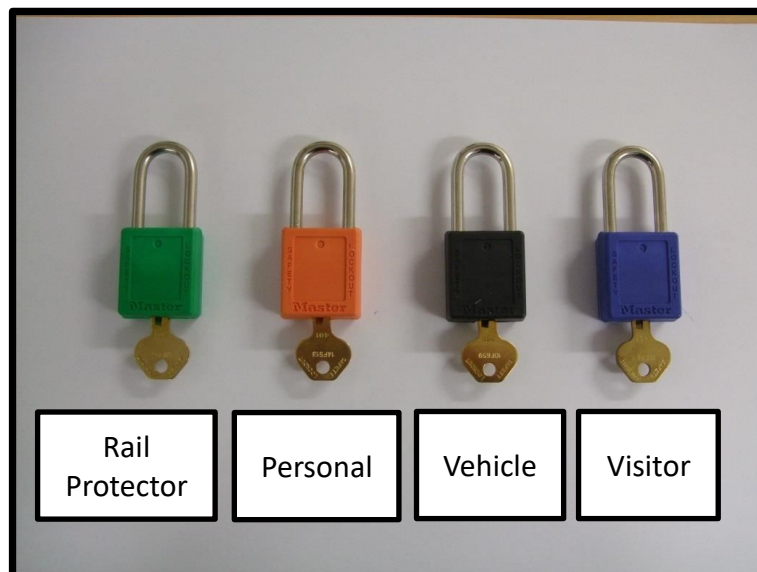
Lost Key / Defective Padlock:

Lock ID	Time "Out of Use"	New Lock ID	RPO Signature	User Signature

LOCK ON FRAME / HASP & PADLOCKS



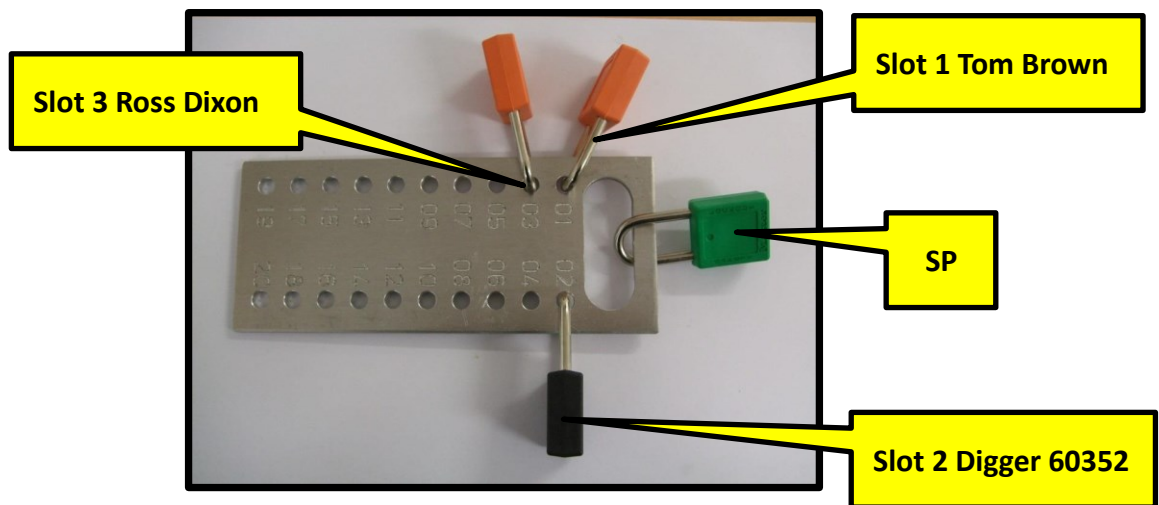
[Lock On Frame / Hasp]



[Padlock Colours]

Managing a Protected Work Area Job Aid – Multiple Work Sites

LOCKING ON TO START WORK



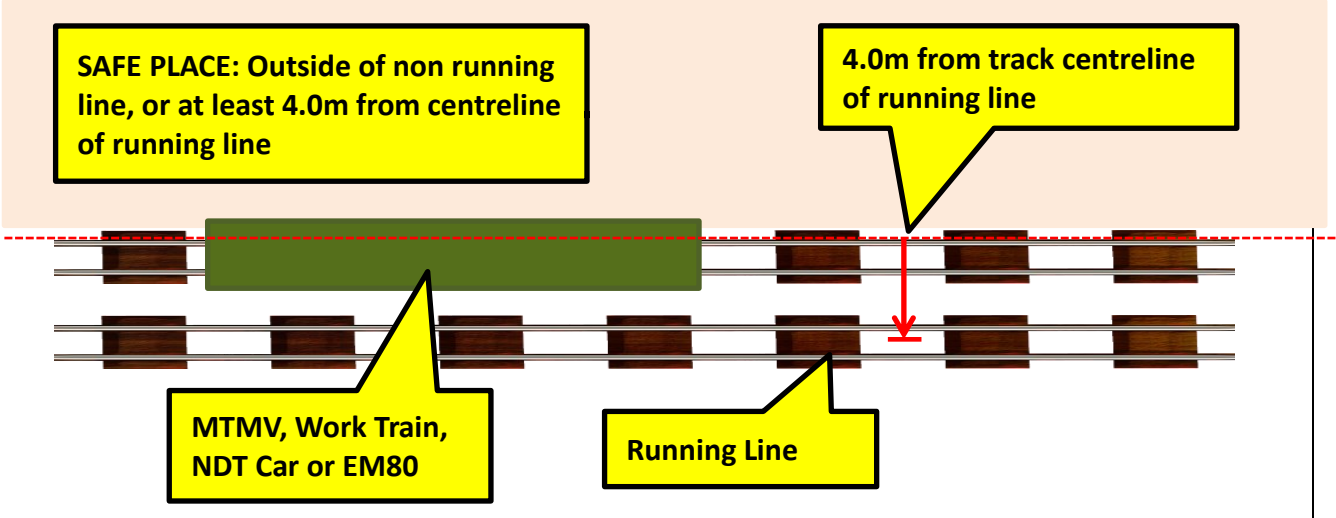
P	<i>John Smith</i>	<i>021 323 456</i>	<i>0830</i>	<i>JS</i>		
1.	<i>Tom Brown</i>	<i>027 594 3421</i>	<i>0830</i>	<i>TB</i>		
2.	<i>Digger 60352</i>		<i>0830</i>	<i>RD</i>		
3.	<i>Ross Dixon</i>	<i>021 777 999</i>	<i>0830</i>	<i>RD</i>		

1	The Lock On Frame must not be made available for <i>Lock On</i> until the SP has entered a work site “start” time in the TS96, either - At the start of work, or - When authorising work to resume after a rail movement.
2	The SP must attach the green padlock to the Lock On Frame handle before making it available to personnel / vehicles to <i>lock on</i> .
3	Personal / vehicle padlocks must be secured in the <i>same slot number</i> recorded on the TS90 Work Site Register.
4	All personnel / vehicles, including visitors, must be <i>Locked On</i> before leaving the <i>Safe Place</i> .

WARNING

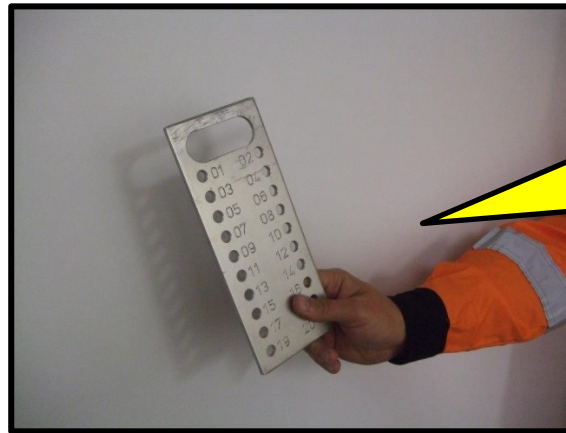
Personnel must retain their personal padlock key and are not permitted to give it other persons *under any circumstances*.

EXCLUSIONS FROM LOCKING ON

1	A worksite with only one person. <i>If any additional person(s) joins the Work Site the Lock On Frame must be used.</i>
2	When on foot, or making minor work corrections (e.g. replacing a fish-plate bolt) a maximum of 3 rail personnel working in close proximity on the same activity, when working with a Track Occupancy Authority.
3	Rail personnel operating Work Trains and Mobile Track Maintenance Vehicles. <i>If required to leave the vehicle in a Work Site that has multi tracks, one being used as a Running Line, they must lock on, or lock off in the Safe Place outside the MTMV, Work Train, NDT Car and EM80. NOTE: Must remain at least 4.0m from the track centreline of the running line in accordance with Rule 901a.</i> <i>This includes MTMV personnel who are marking out cables on the main line that the machine is working on.</i> 
4	Operators of other rail movements passing through a Protected Work Area e.g. <i>Track Inspector</i>.
5	A supervised vehicle driver picking up / delivering material at a designated location clear of the track and on the same side as the road access.

6	When working behind and approved fence / barrier. <i>If personnel or vehicles are required to cross a maintenance crossing within the work site:</i> • <i>They must not be permitted to cross until the SP has a start time from the RPO.</i> • <i>It must be controlled by a barrier or by the SP before advising the RPO that the work site is clear for rail movements.</i>
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LOCKING OFF FOR RAIL MOVEMENTS / AT COMPLETION OF WORK



SP must show clear Frame to personnel in *Safe Place* before authorising rail movement or releasing / cancelling authority.

1	The Lock On Frame must not be made available for <i>Lock Off</i> until the SP has returned to the <i>Safe Place</i> .
2	All personnel / vehicles, including visitors, must return to the <i>Safe Place</i> and <i>Lock Off</i> .
3	The SP must not remove the green padlock until all other padlocks have been removed.
4	The SP must show the clear Lock On Frame to personnel in the <i>Safe Place</i> before authorising rail movements or releasing / cancelling the protection authority. <i>At least one other person must see and acknowledge the clear Frame.</i>
5	The SP must maintain a view of the track and <i>Safe Place</i> until the movement(s) passes.

WARNING

When locked off persons / vehicles must *not* re-enter the corridor

WORK SITE REGISTER

TS90

Work Site Limits		RPO or Site Protector	Date
From	To		
205.35	205.80	John Smith	14 / 09 / 14

- I have been briefed on protection, work site limits, the Safe Place and rail hazards.
- I am aware I must report to the Work Site protector before leaving the Work Site.

	Name / Hi-Rail Call Sign	Contact Number	On Site & Briefed			Off Site	
			Time	Initials		Time	Initials
P	John Smith	021 323 456	0830	JS			
1.	Tom Brown	027 594 3421	0830	TB		1030	TB
2.	Digger 60352		0830	RD			
3.	Ross Dixon	021 777 999	0830	RD			
4.							
5.							
6.							
7.							
8.							
9.							

Sign off before leaving Work Site.

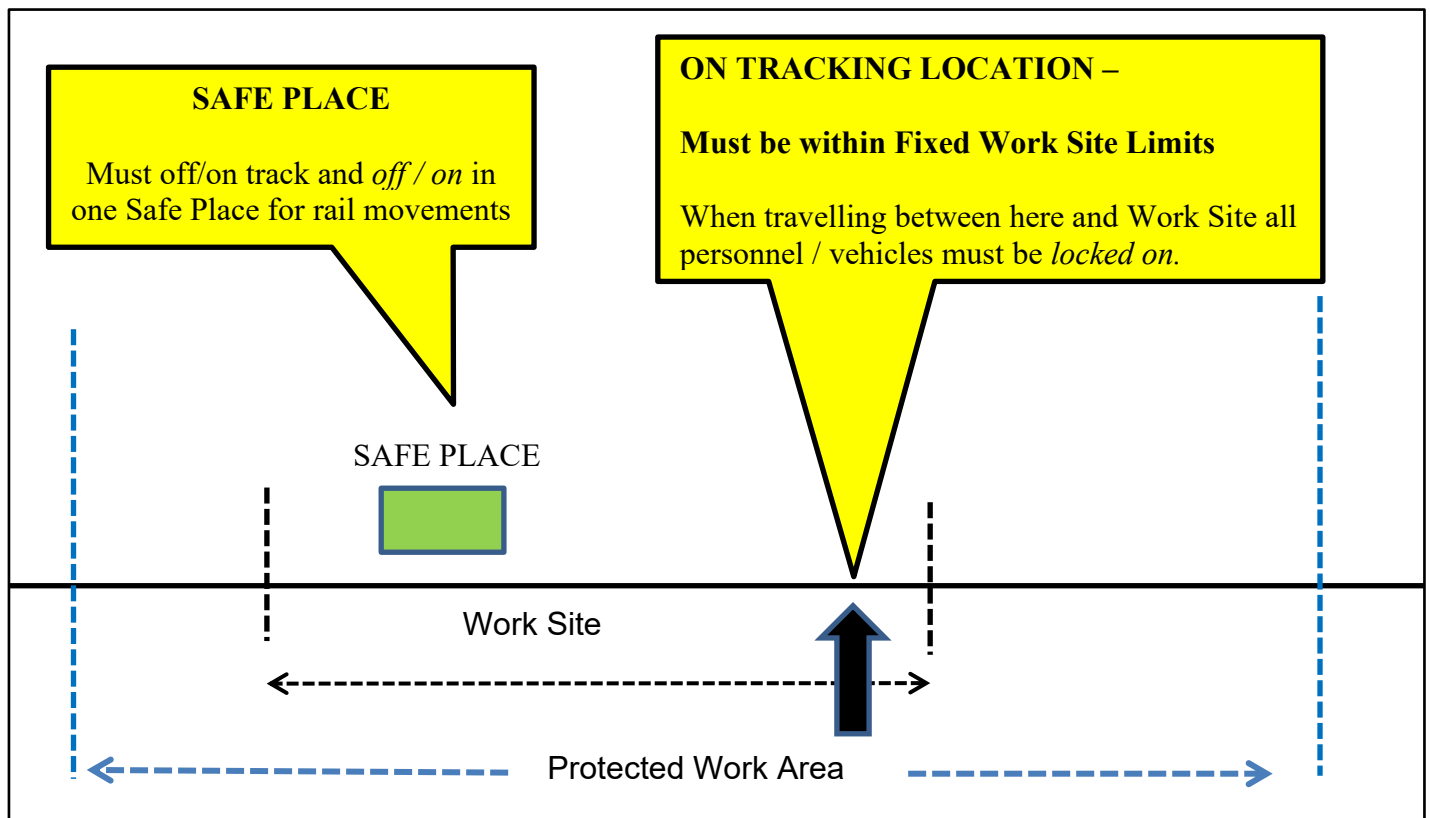
Ensure Personal / Vehicle padlocks
are removed.

**Signing Off
Work Site Register**

Lost Key / Defective Padlock:

Lock ID	Time "Out of Use"	New Lock ID	RPO Signature	User Signature

VEHICLES ON/OFF TRACKING, REMOTE FROM RAIL PROTECTOR'S LOCATION AT START & COMPLETION OF WORK



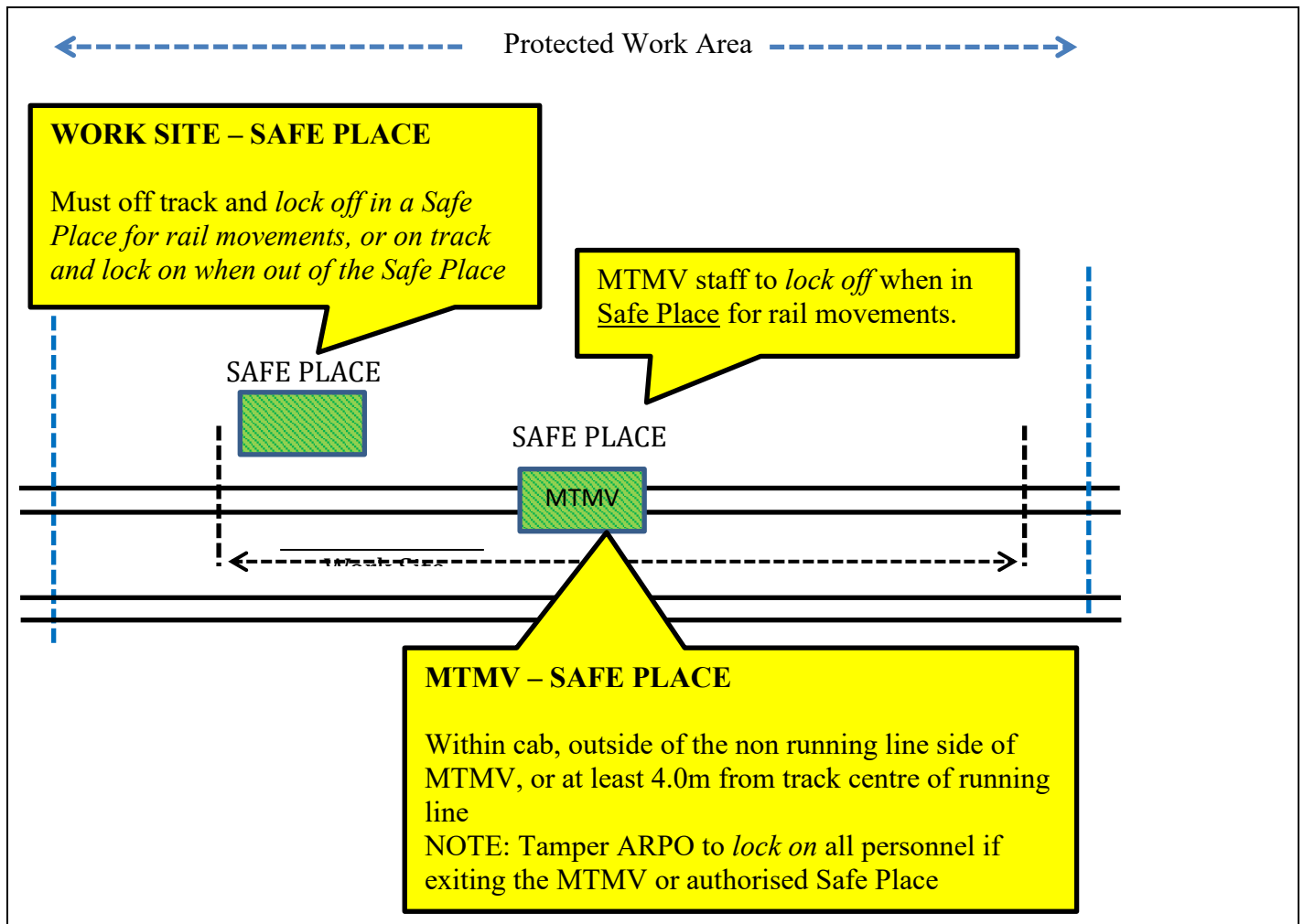
Locking on / off Options

1.	Personnel & vehicle <i>lock on / off</i> at SP location travelling to / from on-tracking location by road clear of track, or
2.	SP travels to / from on-tracking location to <i>lock on / off</i> personnel & vehicle.

WARNING

If vehicles required to off track and lock off at *remote on-tracking location* when clearing for rail movements, they will become a separate Mobile Work Site and must be protected by a Site Protector.

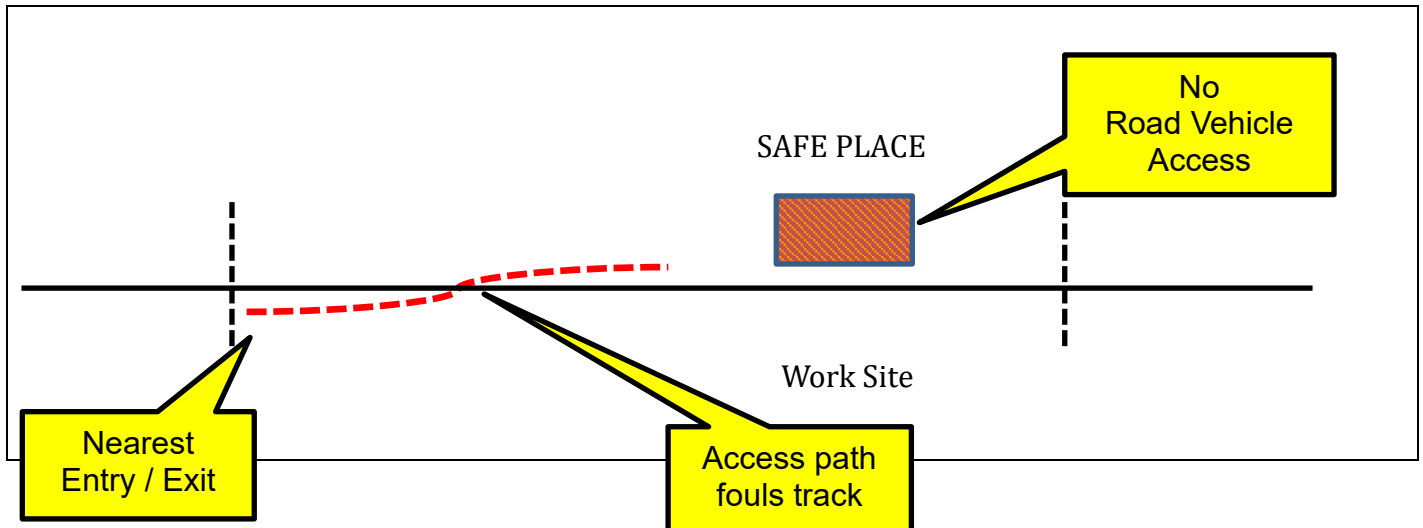
MTMV LOCK ON / OFF OPTIONS



**RAIL MOVEMENT PASSING THROUGH PROTECTED WORK AREA
ON RAIL PROTECTION OFFICER'S TRACK WARRANT**

All movements passing through a Protected Work Area, with multiple work sites will be managed as a separate Mobile Work Site, with their own Site Protector.

ENTRY / EXIT ON FOOT, REMOTE FROM RAIL PROTECTOR'S LOCATION



Note: This procedure *must not* be used if the SP can travel to the entry / exit location to complete the Work Site Register and Lock On Frame procedures.

**Requests to enter / clearances from, work sites must be completed individually.
Group requests / clearances must not be accepted.**

Managing a Protected Work Area Job Aid – Multiple Work Sites

ENTRY / EXIT ON FOOT, REMOTE FROM RAIL PROTECTOR'S LOCATION

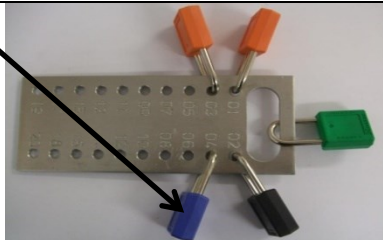
ENTRY:

P = Person

Action		By		✓
1	Person requiring entry calls SP .	P	SP	
2	SP: - Briefs person on work site hazards. - Enters person's name, contact details and the time on TS90	SP		

4.	<i>Ray Morris</i>	<i>027 465 123</i>	<i>1030</i>				
----	-------------------	--------------------	-------------	--	--	--	--

3	SP attaches visitor padlock to Lock On Frame.	SP	
---	--	----	--



4	Person proceeds directly to SP.	P	
5	Person initials TS90 , and Replaces the padlock with their personal padlock, <u>or</u> Takes possession of the visitor padlock key.	P	

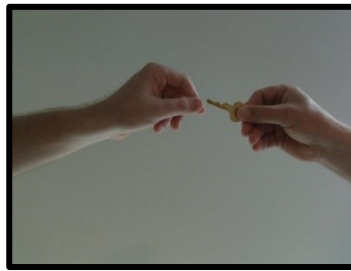
4.	<i>Ray Morris</i>	<i>027 465 123</i>	<i>1030</i>	<i>RM</i>			
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ENTRY / EXIT ON FOOT, REMOTE FROM RAIL PROTECTOR'S LOCATION

EXIT:

Managing a Protected Work Area Job Aid – Multiple Work Sites

Action		By		✓
1	Person advises SP of intention to leave.	P	SP	
2	Person removes personal padlock <u>or</u> hands back visitor padlock key and initials TS90 .	SP		



4.	<i>Ray Morris</i>	<i>027 465 123</i>	<i>1030</i>	<i>RM</i>			<i>RM</i>
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4	SP attaches visitor padlock (or leaves visitor padlock (attached)). Person proceeds directly to a Safe Place outside of the Work Site.	SP P		
5	Person communicates clearance. SP enters time on TS90 and removes visitor padlock .	P	SP	



4.	<i>Ray Morris</i>	<i>027 465 123</i>	<i>1030</i>	<i>RM</i>		<i>1145</i>	<i>RM</i>
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WORK SITE REGISTER

TS90

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From	To		

Managing a Protected Work Area Job Aid – Multiple Work Sites

205.35	205.80	John Smith	14 / 09 / 14
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- I am aware I must report to the Work Site protector before leaving the Work Site.

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3.	Ross Dixon	021 777 999	0830	RD			
4.	Tom Brown	027 594 3421	0830	TB			
5.							

Padlock “Out of Use”

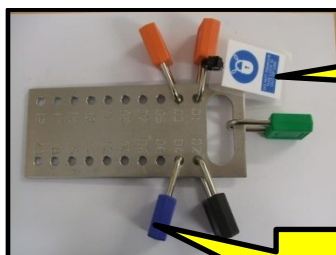
Lost Key / Defective Padlock

**Issued with Visitor
Padlock**

Lost Key / Defective Padlock:

Lock ID	Time “Out of Use”	New Lock ID	RPO Signature	User Signature
Tom Brown	1135	Visitor # 1	JS Smith	TJ Brown

**Site Protector Signature
for multiple work sites**



**Attach an “out of use”
tag to the padlock.**

**Visitor Padlock
Attached**

Managing a Protected Work Area
Job Aid – Multiple Work Sites
PERSON (S) LEAVING WORK SITE WITHOUT LOCKING OFF

1	SP to advise RPO.
WARNING: Rail movements must not be authorised to enter the Protected Work Area until the above have been completed	
	Manager.
4	The Network Control Manager will advise procedures to be followed.
5	If authorised by the Network Control Manager the RPO may authorise the SP to take the person (s) padlock “out of use”.

WORK SITE REGISTER

TS90

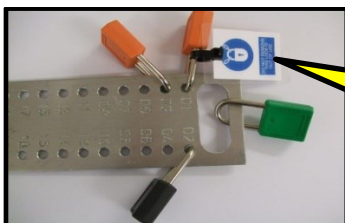
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1.	Tom Brown	027 594 3421	0830	TB			
2.	Digger 60352		0830	TB			
3.	Ross Dixon	021 777 999	0830	RD			
4.							
5.							
Padlock "Out of Use" Not removed when leaving Work Site Authorised by Network Control Manager							

Lost Key / Defective Padlock:

Lock ID	Time "Out of Use"	New Lock ID	RPO Signature	User Signature
Tom Brown	1535		JS Smith	R. Thomas NCM



Attach an "out of use" tag to the padlock.

SP inserts RPO name if not able to reach work site

NCM name

SECTION 2

MULTIPLE WORK SITES

Work Area Tracking Board

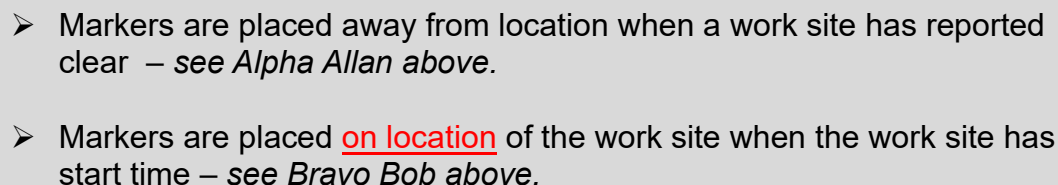
664

A

WAIOURU - TANGIWAI

SIGNALLING & INTERLOCKING ARRANGEMENTS

THESE TO BE COMPLETED BY THE RECIPIENT OF THE S & I DIAGRAM



Managing a Protected Work Area
Job Aid – Multiple Work Sites

Work Area Tracking Board

TAMAKI

SIGNALLING & INTERLOCKING ARRANGEMENTS

THESE ARRANGEMENTS WILL BE BROUGHT INTO USE AT A TIME AND DATE TO BE ADVISED BY SEMI-PERMANENT BULLETIN.
THIS CANCELS S&I No.3090

THESE TO BE COMPLETED BY THE RECIPIENT OF THE S & I DIAGRAM

M No. 3125
F 1
ICE 16.06.14
BULLETIN No. 369

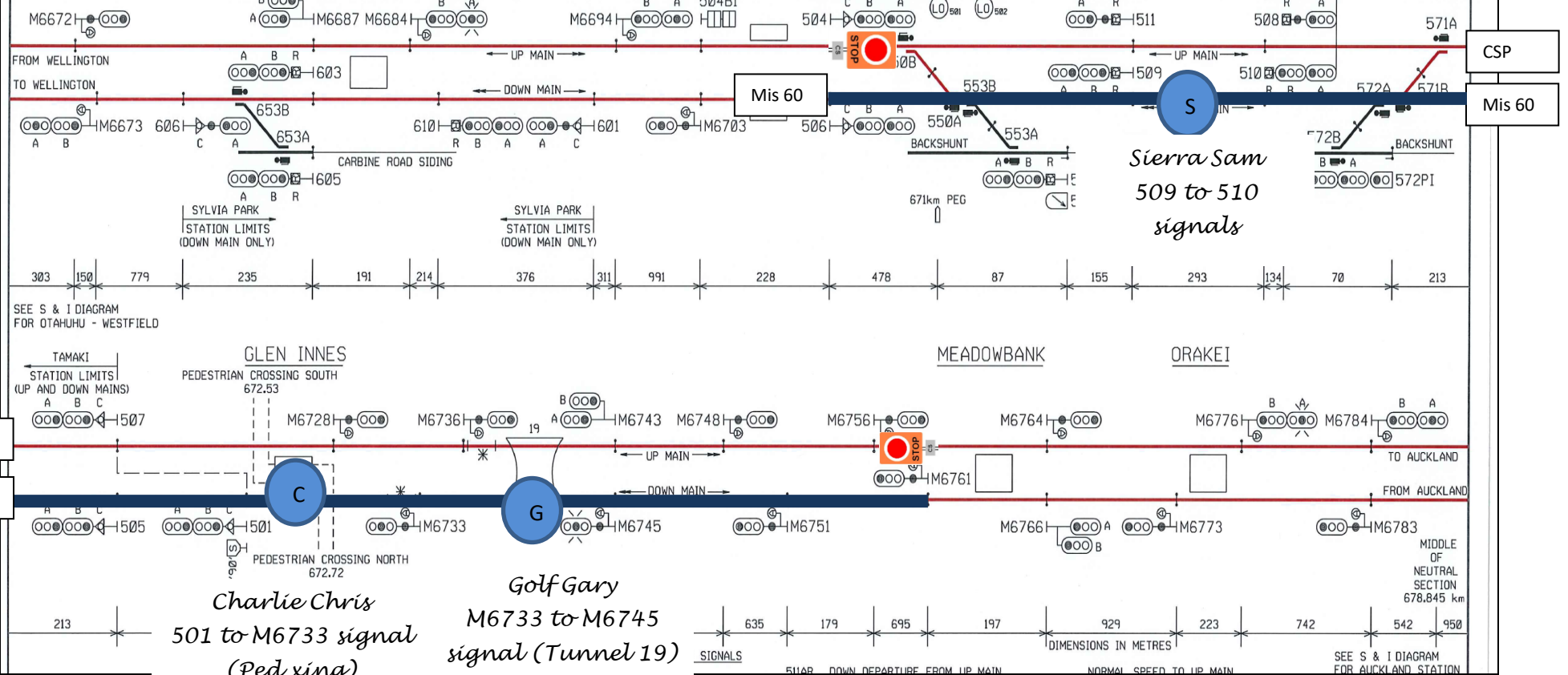
WELLINGTON
10/06/14

SYLVIA PARK (SYP)

UP
PANMURE

TAMAKI
STATION LIMITS
(UP AND DOWN MAINS)

TAMAKI (TAM)



SECTION 3

MANAGING MULTIPLE WORK SITES

Compulsory Stop *Protection* / Lockout Zones

WARNING

When locked off persons / vehicles must *not* re-enter the corridor

Multiple Work Sites - Pre-Start

[Compulsory Stop *Protection* / Lockout Zones]

Action		By		✓
RPO/ SP Protected Work Area Pre-Start				
1	Work Site Access points identified.	RPO	SP	
2	Work Area and Work Site details / call signs recorded in TS94 & TS96 .	RPO	SP	
3	Work Site Tracking Board prepared and discussed.	RPO	SP	
4	Protected Work Area hazards identified and discussed.	RPO	SP	
5	Electrical overhead hazards / procedure discussed (where applicable)			
SP Work Site Pre-Start:				
1	Work Site Access identified.	SP	WS	
2	Safe Place identified.	SP	WS	
3	TS90 Work Site Register / Lock On Frame prepared.	SP		
4	TS96 prepared.	SP		
5	Worksite Briefing protection / rail specific hazards completed.	SP		
6	Electrical overhead hazards / procedure discussed (where applicable)			
7	All personnel / vehicles signed on to TS90 Work Site Register.	SP		

Warning:

RPO's must ensure that call signs are not duplicated within the PWA or with adjacent PWA's

Instances of persons leaving a Work Site without signing off must be reported and logged as an incident.

RPO = Rail Protection Officer

SP = Site Protectors

WS = Work Supervisor

Multiple Work Sites - Start

[Compulsory Stop *Protection* / Lockout Zones]

Action		By		✓
1	Protection established / time entered on TS94.	RPO		
2	Electrical overhead isolation documentation completed (where applicable)	RPO	SP	
3	RPO authorises Worksites to start – each SP advised “Start” time.	RPO		
4	“Start” time entered in TS94 & TS96 and crosschecked.	RPO	SP	
5	Update Work Site Tracking Board.	RPO		
6	Site Limit Boards erected (Fixed Work Sites).	SP		
7	Each SP authorises work to start by attaching a green padlock to Lock On Frame handle	SP		
8	All personnel / vehicles Lock On before leaving Safe Place.	SP		
9	SP checks TS90 and Lock On Frame to ensure all padlocks have been attached.	SP		

Example - Communication Protocol:

SP RPO Tom from Bravo Bob, over.

RPO RPO Tom receiving, over.

SP Bravo Bob is ready to start, over

RPO Affirmative. Bravo Bob may exit the Safe Place. Start time 0745 hours, over.

SP Roger Bravo Bob may exit Safe Place and start work. Start time 0745 hours, over.

RPO That is correct, RPO Tom out.

Multiple Work Sites - Clearing Work Sites for Rail Movement

[Compulsory Stop *Protection* / Lockout Zones]

Action		By	✓
1	RPO instructs SP's to clear work sites.	RPO	
2	SPs instruct all vehicles secured in safe mode clear of track and personnel instructed to return to Safe Place and Lock Off .	SP	
3	SP makes Lock On Frame available at Safe Place for all personnel and vehicles to be Locked Off .	SP	
4	All personnel and vehicles Lock Off .	SP	
5	SP removes green padlock / displays clear Lock On Frame .	SP	

Example – Communication Protocol:

RPO *Bravo Bob from RPO Tom, over.*

SP *Bravo Bob receiving, over.*

RPO *Requesting Bravo Bob to clear your worksite immediately and advise me when your worksite is clear, over*

SP *Roger. Bravo Bob will advise when my site is clear, stand by,*

RPO *Understand, stand by*

Advising RPO Work Site Clear for Rail Movement [Compulsory Stop *Protection* / Lockout Zones]

Action		By		✓
1	SP advises RPO Work Site clear and all personnel & vehicles in Safe Place and Locked Off.	SP		
2	RPO advises SP “time” work site clearance obtained.	RPO	SP	
3	“Time” entered in TS94 & TS96 and cross checked.	RPO	SP	
4	RPO updates Work Site Tracking board	RPO		

Example – Communication Protocol:

SP RPO Tom from Bravo Bob, over.

RPO RPO Tom receiving, over.

SP Bravo Bob is clear and all personnel are confirmed in the Safe Place, over
25 km/h Speed restriction between ... km and ... km, over

Or

No speed restrictions, over

RPO Roger, Bravo Bob is clear and all personnel are confirmed in the Safe Place at 0840 hours [repeat speed restriction information], over.

SP Understand, Bravo Bob clearance at 0840 hours, and speed restriction correct, over.

RPO Clearance time is correct, RPO Tom out.

Authorising Rail Movement

[Compulsory Stop *Protection* / Lockout Zones]

Action		By		✓
1	When all Work Sites “clear” RPO authorises rail movement to pass Compulsory Stop boards / Releases Lockout Zone (s).	RPO		
2	SP’s maintain view of Safe Place and Track.	SP		

Multiple Work Sites - Resume after Rail Movement
[Compulsory Stop *Protection* / Lockout Zones]

Action		By		✓
1	Advise RPO rail movement cleared beyond Work Site. [Compulsory Stop Protection]	SP		
2	RPO authorises Worksites to start – each SP advised “ Start ” time.	RPO	SP	
3	“ Start ” time entered in TS94 & TS96 and crosschecked.	RPO	SP	
4	Update Work Site Tracking Board	RPO		
5	SP authorises work to start by attaching a green padlock to Lock On Frame handle.	SP		
6	All personnel / vehicles Lock On before leaving Safe Place.	SP		
7	SP checks TS90 and Lock On Frame to ensure all padlocks have been attached.	SP		

Example - Communication Protocol:

SP RPO Tom from Bravo Bob, over

RPO RPO Tom receiving, over

SP I confirm [Train 123 is complete and has cleared Bravo Bob]. Can we exit the Safe Place and resume work, over. #

RPO Negative, remain in the Safe Place, other movements approaching, over

SP Roger, understand work site Bravo Bob is to remain in the Safe Place, out

Or

RPO Affirmative, Bravo Bob may exit the Safe Place. Resume Time 0905 hours , over

SP Roger. Bravo Bob is exiting the Safe Place. Resume time 0905 hours over

RPO That is correct, RPO Tom out.

When cleared for more than one train advise the RPO of the number of trains that have passed and direction of travel e.g. “one train on the Up line and one train on the Down line, both complete, have cleared Bravo Bob”.

Multiple Work Sites – Completion of Work

[Compulsory Stop **Protection** / Lockout Zones]

Action		By	✓
1	All remaining personnel and hi-rail vehicles instructed to return to SAFE PLACE and Lock Off .	SP	
2	Site Limit Boards removed (Fixed Work Sites)	SP	
3	SP makes Lock On Frame available at Safe Place for all personnel and vehicles to be Locked Off .	SP	
4	All personnel and vehicles Lock Off .	SP	
5	SP removes green padlock / displays clear Lock On Frame .	SP	
6	SP advises RPO Work Site clear and all personnel & vehicles in Safe Place and Locked Off and work completed for the day.	RPO	SP
7	RPO advises SP “time” work site clearance obtained.	RPO	SP
8	“Time” entered in TS94 & TS96 and cross checked .	RPO	SP
9	Update Work Site Tracking board	RPO	
10	When all Work Sites are reported “clear” RPO removes protection advises Train Control and enters completion time on TS94 .	RPO	

Example – Communication Protocol:

SP RPO Tom from Bravo Bob, over.

RPO RPO Tom receiving, over.

SP Bravo Bob has completed work and all personnel are confirmed in the Safe Place, over

RPO Roger, Bravo Bob has completed work and all personnel are confirmed in the Safe Place at 1430 hours, over.

SP Understand Bravo Bob completed and clear 1430 hours, over..

RPO That is correct, RPO Tom out.

Managing a Protected Work Area

Job Aid - Multiple Work Sites

Forms in Single Line Area (see Track Board page 18)

Multi work site Protected Work Area Logbook

TS94

Work Area / Radio Call Sign:

Tango Charlie

Line

NIMT

from km /
Signals

8RA / RB

to km /
Signals

4LA / 4LB

Stations between

Waiouru

and

Tangiwhai

Working on the
(tick box)

Single Line



Up Main

Down Main

Sidings / loops

Protection established

(For track warrant / blocking / lock out
zone show 1st time taken)

Day

Date

Protected Work Area
Radio Channel

0845

hrs

Fri

22 / 08 / 14

6

Rail Protection Officer

Tom Matui

021 243 3996

Location From

Location To

Site Protector

Radio Call Sign

Contact number

Work Site 1

294.15

294.65

Bob Smith

Bravo Bob

021 325 5975

Work Site 2

29223 Sig.

29754 Sig.

Allan Jones

Alpha Allan

027 994 4353

Managing a Protected Work Area Job Aid – Multiple Work Sites

Protected Work Area – Work Site Clearance crosscheck

Rail Movement ID		215						
Request to Enter Protected Work Area (hrs)		1015						
1.	Bravo	Start	0850	1038				
	Bob	Clearance	1017					
F		TSR	25					
2.	Alpha	Start	0845	1035				
	Allan	Clearance	1018					
M		TSR	∞					
3.		Start						
		Clearance						
M / F		TSR						
Speed Restrictions (TSR)			1					
Authority to Enter Protected Work Area (hrs) #			1020					
# Or release of "Lockout Zone".				Protected Work Area		hrs		date

When one box is full work site has been authorised to OCCUPY TRACK

When all boxes are full work site is CLEAR.

Draw a line through rows not being used.

Number of TSRs to be advised to Operator .

This authority cannot be given until all work sites have reported clear

Managing a Protected Work Area Job Aid – Multiple Work Sites

Protected Work Area – Work Site Clearance crosscheck

Rail Movement ID		215					
Request to Enter Protected Work Area (hrs)		1015					
1.	Bravo	Start	0850	1038			
	Bob	Clearance	1017				
F		TSR	✓				
2.	Alpha	Start	0845	1035			
	Allan	Clearance	1018				
M		TSR					
3.	Waipipi Rd	Start	0840	1036			
	Xing	Clearance	1020				
M / F		TSR					
Speed Restrictions (TSR)			✓				
Authority to Enter Protected Work Area (hrs) #							
# Or release of "Lockout Zone".				Protected			
							date

When one box is full:

- Stop disc & Detonators in place.
- Lockout Zone under work site control & padlock secured.
- Level crossing alarms set to "manual".

When all boxes are full:

- Stop disc & Detonators removed.
- Lockout Zone released to Train Control.
- Level crossing alarms restored to "automatic".

**Using TS94 for
Secondary Protection
Level Crossing Alarms etc.**

Managing a Protected Work Area

Job Aid – Multiple Work Sites

Work Site – Log Sheet

TS96

Work Site / Radio Call Sign:

Bravo Bob

Line

N I M T

From km / signals

294.15

To km / signals

294.65

Working on the
(tick box)

Single
Line

☒

Up
Main

☐

Down
Main

☐

Sidings /
loops

☐

Fri

Day

22/08/14

Date

Rail Protection Officer	Radio Ch.	Radio Call Sign	Contact No.
<i>Tom Matui</i>	<i>6</i>	<i>RPO Tom</i>	<i>021 243 3996</i>

Managing a Protected Work Area Job Aid – Multiple Work Sites

Work Site Clearance and Resume Work Cross Check:

Start Time (hrs)	0850	1038					
RPO advised personnel & equipment Locked Off in Safe Place & Work Site clear (hrs)	1017						
Speed Restriction advised to RPO	25						

Single Box means you are authorised to OCCUPY track.

When all three boxes are full cannot leave SAFE PLACE

Location of other Work Sites:

Work Site		Limits	
1.	<i>Alpha Allan</i> 027 994 4253	<i>M</i>	<i>29223 Sig</i> <i>29754 Sig</i>
2.			
3.			
4.			
5.			

All times provided by RPO & cross checked

Record detail of adjacent or overlapping Work Sites

Managing a Protected Work Area Job Aid – Multiple Work Sites

Work Site Clearance and Resume Work Cross Check:

Start Time (hrs)	0845	1038					
RPO advised personnel & equipment Locked Off in Safe Place & Work Site clear (hrs)	1017	1038					
Speed Restriction advised to RPO	25	∞					

Location of other Work Sites:			
	Work Site	Fixed / Mobile	Limits
6.	Alpha Allan 027 994 4253	M	29223 Sig 29754 Sig
7.			
8.			
9.			
10.			

Draw line through cross check page when finished for the day.

Managing a Protected Work Area

Job Aid - Multiple Work Sites

Forms in Multi – Line Areas (see Track Board page 19)

TS94

Multi work site Protected Work Area Logbook

Work Area / Radio Call Sign:

Tango Charlie

Line

NIMT

from km /
Signals

504 / 506

to km /
Signals

M6761 / 676.10km

Stations between

Tamaki

and

Meadowbank

Working on the
(tick box)

Single Line

Up Main

✓

Down Main

✓

Sidings / loops

✓

Protection established

(For track warrant / blocking / lock out
zone show 1st time taken)

Day

Date

Protected Work Area
Radio Channel

0845

hrs

Fri

22 / 08 / 14

6

Rail Protection Officer

Tom Matui

021 243 3996

Location From

Location To

Site Protector

Radio Call Sign

Contact number

Work Site 1

509 Signal

510 Signal

Sam Smith

Sierra Sam

021 325 5975

Work Site 2

501 Signal.

M6733 Signal

Chris Gordon

Charlie Chris

027 994 4353

Work Site 3

M6733 Signal.

M6745 Signal.

Gary Lowe

Golf Gary

027 994 4353

Managing a Protected Work Area Job Aid – Multiple Work Sites

Protected Work Area – Work Site Clearance crosscheck

Rail Movement ID		215						
Request to Enter Protected Work Area (hrs)		1015						
1.	Sierra	Start	0850	1038				
	Sam	Clearance	1017					
F		TSR	25					
2.	Charlie	Start	0845	1035				
	Chris	Clearance	1018					
F		TSR	∞					
3.	Golf	Start	0847	1036				
	Gary	Clearance	1017					
F		TSR	10					
Speed Restrictions (TSR)			2					
Authority to Enter Protected Work Area (hrs) #			1020					
# Or release of "Lockout Zone".				Protected Work Area		hrs		date

When one box is full work site has been authorised to OCCUPY TRACK

When all boxes are full work site is CLEAR.

Number of TSRs to be advised to Operator.

This authority cannot be given until all work sites have reported clear

Managing a Protected Work Area Job Aid – Multiple Work Sites

Protected Work Area – Work Site Clearance crosscheck

Rail Movement ID		215					
Request to Enter Protected Work Area (hrs)		1015					
1.	Sierra	Start	0850	1038			
	Sam	Clearance	1017				
F		TSR	25				
2.	Charlie	Start	0845	1035			
	Chris	Clearance	1018				
F		TSR					
3.	Golf	Start	0840	1036			
	Gary	Clearance	1020				
F		TSR	10				
Speed Restrictions (TSR)			2				
Authority to Enter Protected Work Area (hrs) #			1020				
# Or release of "Lockout Zone".				Protected Work Area		hrs	date

When one box is full:

- Stop disc & Detonators in place.
- Lockout Zone under work site control & padlock secured.
- Level crossing alarms set to "manual".

When all boxes are full:

- Stop disc & Detonators removed.
- Lockout Zone released to Train Control.
- Level crossing alarms restored to "automatic".

Managing a Protected Work Area Job Aid – Multiple Work Sites

Work Site – Log Sheet

TS96

Work Site / Radio Call Sign:

Sierra Sam

Line

N I M T

From km / signals

509 Signal

To km / signals

510 Signal

Working on the
(tick box)

Single
Line

☐

Up
Main

☐

Down
Main

☒

Sidings /
loops

☒

Fri

Day

22/08/14

Date

Rail Protection Officer

Radio Ch.

Radio Call Sign

Contact No.

Tom Matui

6

RPO Tom

021 243 3996

Managing a Protected Work Area Job Aid – Multiple Work Sites

Work Site Clearance and Resume Work Cross Check:

Start Time (hrs)	0850	1038				
RPO advised personnel & equipment Locked Off in Safe Place & Work Site clear (hrs)	1017					
Speed Restriction advised to RPO	25					

Single Box means you are authorised to OCCUPY track.

When **all three** boxes are full cannot leave **SAFE PLACE**

Location of other Work Sites:

Work Site		Limits	
Mobile			
1. <i>Charlie Chris</i>	027 994 4253	<i>F</i>	<i>501 Signal</i>
2. <i>Golf Gary</i>	027 994 4353	<i>F</i>	<i>M6733 Signal</i>
3.			
4.			
5.			

All times provided by RPO & cross checked

Record detail of adjacent or overlapping Work Sites

Managing a Protected Work Area Job Aid – Multiple Work Sites

Work Site Clearance and Resume Work Cross Check:

Start Time (hrs)	0845	1038					
RPO advised personnel & equipment Locked Off in Safe Place & Work Site clear (hrs)	1017	1038					
Speed Restriction advised to RPO	25	∞					

Location of other Work Sites:			
Work Site		Fixed / Mobile	Limits
1. <i>Charlie Chris</i>	<i>027 994 4253</i>	<i>F</i>	<i>501 Signal</i> <i>M6733 Signal</i>
2. <i>Golf Gary</i>	<i>027 994 4353</i>	<i>F</i>	<i>M6733 Signal</i> <i>M6745 Signal</i>
3.			
4.			
5.			

Draw line through cross check page when finished for the day.

SECTION 4

MANAGING MULTIPLE WORK SITES

Mis71 & Mis88

WARNING

When locked off persons / vehicles must *not* enter the corridor

Multiple Work Sites - Pre-Start
[Blocking / Track Warrant]

Action		By		✓
RPO/ SP Protected Work Area Pre-Start				
1	Work Site Access points identified.	RPO	SP	
2	Work Area and Work Site details / call signs recorded in TS94 & TS96 .	RPO	SP	
3	Work Site Tracking Board prepared and discussed.	RPO	SP	
4	Protected Work Area hazards identified and discussed.	RPO	SP	
5	Electric overhead hazards / procedures discussed (<i>where applicable</i>)	RPO	SP	
SP Work Site Pre-Start:				
1	Work Site Access identified.	SP	WS	
2	Safe Place identified.	SP	WS	
3	TS90 Work Site Register / Lock On Frame prepared.	SP		
4	TS96 prepared.	SP		
5	Worksite Briefing protection / rail specific hazards completed.	SP		
6	Electric overhead hazards / procedures discussed (<i>where applicable</i>)	SP		
7	All personnel / vehicles signed on to TS90 Work Site Register.	SP		

Warning:

**RPO's must ensure that call signs are not duplicated within the PWA
or with adjacent PWA's**

Instances of persons leaving a Work Site without signing off must be reported and logged as an incident.

RPO = Rail Protection Officer

SP = Site Protectors

WS = Work Supervisor

Multiple Work Sites – Start

[Blocking / Track Warrant]

Action		By	✓
1	Mis71 / Mis88 obtained from Train Control.	RPO	
2	Electric overhead isolation documentation completed (where applicable)	RPO	SP
3	RPO authorises Worksites to start – each SP advised “Start” time.	RPO	
4	“Start” time entered in TS94 & TS96 and crosschecked.	RPO	SP
5	Update Work Site Tracking Board.	RPO	
6	Site Limit Boards erected (Fixed Work Sites)	SP	
7	SP authorises work to start by attaching a green padlock to Lock On Frame handle..	SP	
8	All personnel / vehicles Lock On before leaving Safe Place	SP	
9	SP checks TS90 and Lock On Frame to ensure all padlocks have been attached.	SP	

Example - Communication Protocol:

SP RPO Tom from Bravo Bob, over.

RPO RPO Tom receiving, over.

SP Bravo Bob is ready to start, over

RPO Affirmative. Bravo Bob may exit the Safe Place and start work. Start time 0745 hours, over.

SP Roger, Bravo Bob may exit Safe Place and start work. Start time 0745 hours, over.

RPO That is correct, RPO Tom out.

Multiple Work Sites – Clearing Work Sites for Rail Movement

[Blocking / Track Warrant]

Action		By	✓
1	RPO instructs SP's to clear work sites.	RPO	
2	SPs instruct all vehicles secured in safe mode clear of track and personnel instructed to return to Safe Place and Lock Off .	SP	
3	SP makes Lock On Frame available at Safe Place for all personnel and vehicles to be Locked Off .	SP	
4	All personnel and vehicles Lock Off .	SP	
5	SP removes green padlock / displays clear Lock On Frame.	SP	

Example – Communication Protocol:

RPO *Bravo Bob from RPO Tom, over.*

SP *Bravo Bob receiving, over.*

RPO *Requesting Bravo Bob to clear your worksite immediately and advise me when your worksite is clear, over*

SP *Roger. Bravo Bob will advise when my site is clear, standby*

RPO *Understand, stand by*

Advising RPO Work Site Clear for Rail Movement

[Blocking / Track Warrant]

Action		By		✓
1	SP advises RPO Work Site clear and all personnel & vehicles in Safe Place and Locked Off.	SP		
2	RPO advises SP “ time ” work site clearance obtained.	RPO	SP	
3	“ Time ” entered in TS94 & TS96 and cross checked.	RPO	SP	
4	RPO updates Work Site Tracking board	RPO		
5	When all Work Sites “clear” RPO enters clear time on Mis71 / Mis88.	RPO		
6	RPO releases Mis71 / Mis88.	RPO		
7	SP’s maintain view of Safe Place and Track.	SP		

Example – Communication Protocol:

SP RPO Tom from Bravo Bob, over.

RPO RPO Tom receiving, over.

SP Bravo Bob is clear and all personnel are confirmed in the Safe Place,
25 km/h Speed restriction between ... km and ... km, over

Or

No speed restrictions, over

RPO Roger, Bravo Bob is clear and all personnel are confirmed in the Safe Place at
08:40hrs, over.

RPO Roger, Bravo Bob is clear and all personnel are confirmed in the Safe Place at 0840
hours [repeat speed restriction information], over.

SP Understand, Bravo Bob clearance 0840 hours, and speed restriction correct, over

RPO Clearance time is correct, RPO Tom out.

Multiple Work Sites - Resume after Rail Movement

[Blocking / Track Warrant]

Action		By		✓
1	Mis71 / Mis88 obtained from Train Control.	RPO		
2	RPO authorises Worksites to start – each SP advised “Start” time.	RPO	SP	
3	“Start” time entered in TS94 & TS96 and crosschecked.	RPO	SP	
4	Update Work Site Tracking Board	RPO		
5	SP authorises work to start by attaching a green padlock to Lock On Frame handle.	SP		
6	All personnel / vehicles Lock On before leaving Safe Place.	SP		
7	SP checks TS90 and Lock On Frame to ensure all padlocks have been attached.	SP		

Example - Communication Protocol:

RPO Bravo Bob from RPO Tom, over

SP Bravo Bob receiving, over

RPO Protection has been re-established. Bravo Bob may exit Safe Place and resume work. Resume time 0905 hours, over”.

SP Affirmative protection has been re-established Bravo Bob may exit Safe Place and resume work. Resume time 0905 hours , over

RPO That is correct, RPO Tom out.

Multiple Work Sites - Completion of Work
[Blocking / Track Warrant]

	Action	By	✓
1	All remaining personnel and hi-rail vehicles instructed to return to SAFE PLACE and Lock Off .	SP	
2	Site Limit Boards removed (Fixed Work Sites)	SP	
3	SP makes Lock On Frame available at Safe Place for all personnel and vehicles to be Locked Off .	SP	
4	All personnel and vehicles Lock Off .	SP	
5	SP removes green padlock / displays clear Lock On Frame .	SP	
6	SP advises RPO Work Site clear and all personnel & vehicles in Safe Place and Locked Off and work completed for the day.	RPO	SP
7	RPO advises SP “time” work site clearance obtained.	RPO	SP
8	“Time” entered in TS94 & TS96 and cross checked .	RPO	SP
9	Update Work Site Tracking board	RPO	
10	When all Work Sites “clear” RPO enters clear time on Mis71 / Mis88 .	RPO	
11	RPO releases Mis71 / Mis88 .	RPO	

Example – Communication Protocol:

SP RPO Tom from Bravo Bob, over.

RPO RPO Tom receiving, over.

SP Bravo Bob is clear, all personnel are confirmed in the Safe Place and work is completed for the day, over

RPO Roger, Bravo Bob has completed work and all personnel are confirmed in the Safe Place at 1430 hours, over

SP Understand Bravo Bob completed and clear 1430 hours, over.

RPO That is correct, RPO Tom out.

Managing a Protected Work Area Job Aid - Multiple Work Sites

Multi work site Protected Work Area Logbook

TS94

Work Area / Radio Call Sign:

Tango Charlie

Line

NIMT

from km /
Signals

8RA / RB

to km /
Signals

4LA / 4LB

Stations between

Waiouru

and

Tangiwhai

Working on the
(tick box)

Single Line



Up Main

Down Main

Sidings / loops

Protection established

(For track warrant / blocking / lock out
zone show 1st time taken)

Day

Date

Protected Work Area
Radio Channel

0845

hrs

Fri

22 / 08 / 14

6

Rail Protection Officer

Tom Matui

021 243 3996

Location From

Location To

Site Protector

Radio Call Sign

Contact number

Work Site 1

294.15

294.65

Bob Smith

Bravo Bob

021 325 5975

Work Site 2

29223 Sig.

29754 Sig.

Allan Jones

Alpha Allan

027 994 4353

Managing a Protected Work Area Job Aid – Multiple Work Sites

Protected Work Area – Work Site Clearance crosscheck

Rail Movement ID		215							
Request to Enter Protected Work Area (hrs)		1015							
1.	Bravo	Start	0850	1038					
	Bob	Clearance	1017						
F		TSR	25						
2.	Alpha	Start	0845	1035					
	Allan	Clearance	1018						
F		TSR	∞						
3.		Start							
		Clearance							
M / F		TSR							
Speed Restrictions (TSR)			1						
Authority to Enter Protected Work Area (hrs) #									
# Or release of "Lockout Zone".				Protected Work Area			date		

Two shaded rows not mandatory for Blocking or Track Warrant.

When one box is full work site has been authorised to OCCUPY TRACK

When all boxes are full work site is CLEAR.

Draw a line through rows not being used..

Number of TSRs to be advised to Operator via Train Control.

Not used for Blocking or Track Warrant. Enter time on "All locked off in Safe Place etc." box on Mis71 / Mis88

SECTION 5

SHIFT HAND OVER

Managing a Protected Work Area Job Aid – Multiple Work Sites

Rail Protection Officer Handover

Action		By		✓
1	Protection arrangements.	Outgoing	Incoming	
2	Location of work activities and speed restrictions.	Outgoing	Incoming	
3	Location of Safe Place (if directly managing work site.	Outgoing	Incoming	
4	Communication method (s).	Outgoing	Incoming	
5	Hazards and potential risks	Outgoing	Incoming	
6	Emergency procedures.	Outgoing	Incoming	
7	Handover TS94.	Outgoing	Incoming	
8	Work Area tracking board	Outgoing	Incoming	
9	Hand over TS90 Work Site Register / Lock On Frame (if directly managing work site)	Outgoing	Incoming	
10	Incoming RPO details advised to Train Control	Outgoing		
11	Incoming RPO details advised to Asst. RPO / Site Protectors (as applicable)	Outgoing		
12	Incoming RPO details advised to Traction Control (as applicable)	Outgoing		
13	TS94 RPO details updated		Incoming	
14	Handover page completed.	Outgoing	Incoming	

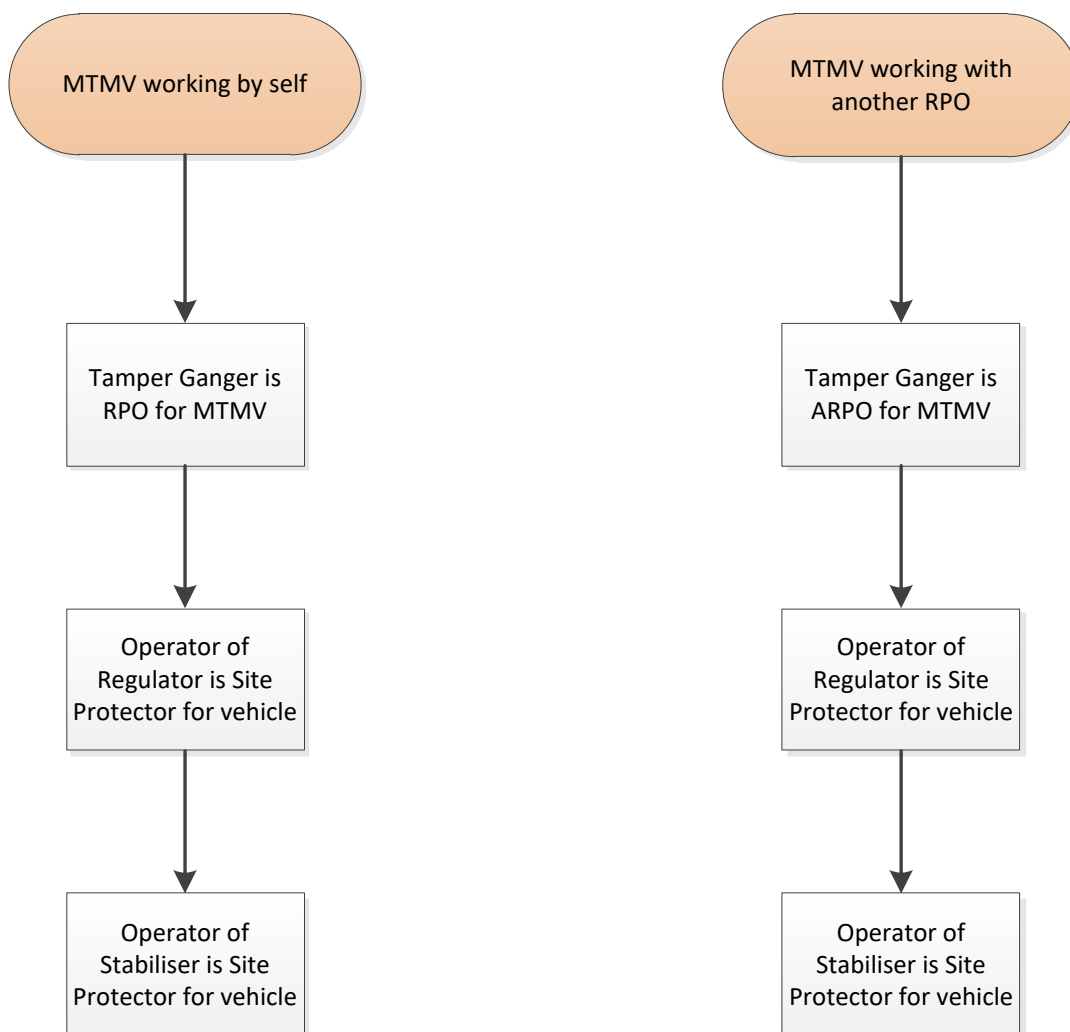
Managing a Protected Work Area Job Aid – Multiple Work Sites

Site Protector Handover

Action		By		✓
1	Protection arrangements.	Outgoing	Incoming	
2	Location of work site limits and speed restrictions.	Outgoing	Incoming	
3	Location of Safe Place.	Outgoing	Incoming	
4	Communication method (s).	Outgoing	Incoming	
5	Hazards and potential risks	Outgoing	Incoming	
6	Emergency procedures.	Outgoing	Incoming	
7	TS96 (authorised on track or work site cleared).	Outgoing	Incoming	
8	Hand over TS90 Work Site Register / Lock On Frame	Outgoing	Incoming	
9	Introduced to work site personnel	Outgoing	Incoming	
10	SP details advised to Rail Protection Officer / Asst. Rail Protection Officer.	Outgoing		
11	Handover page completed.	Outgoing	Incoming	
12	TS96 SP details updated		Incoming	
13	Update details on Site Limit Boards.		Incoming	

Managing a Protected Work Area Job Aid – Multiple Work Sites

MTMV – RPO / ARPO /SP Roles



When personnel are not in a Safe Place, vehicle must operate a frame

Safe Place for MTMV:

- Within cab
- On the outside of the non running line, or
- At least 4.0m from track centre of running line