

ANPR 702

Using a Track Work Authority

Applicability

NSW

SMS

Publication Requirement

External Only

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Introduction

A *Track Work Authority* (TWA) allows *track work* on *running lines* between *rail traffic* movements. *Protection Officers* manage the approach of rail traffic to worksites. Rail traffic *may* pass through worksites only under controlled conditions.



Workers *must* be in *safe places* before rail traffic is allowed to approach or pass through the limits of worksites.

Obtaining a Track Work Authority

The *Protection Officer* obtains a TWA from the *Network Controller Officer* responsible for the portion of *track*.

Protection Officer

1. Speak to the Network Control Officer to arrange issue of a TWA.
2. Tell the Network Control Officer:
 - your name and *location*, and
 - the limits of the TWA being sought, and
 - the type of work to be done, and
 - the intended start and finish times, and
 - the worksite *protection* to be used.
3. Ask the Network Control Officer for the *Train Running Information* for rail traffic planned to pass through the work location.



Train Running Information only provides a guide to planned movements and cannot be relied upon.

Network Control Officer

4. Give the Protection Officer the Train Running Information.
5. Confirm that protection is in place.
6. Record, in *permanent form*, the times and details of the issue of the Authority.
7. Keep the record of the issue of the Authority.

Jointly with a Track Occupancy Authority (TOA)

A TWA may be granted in an area where a *Track Occupancy Authority* (TOA) is current.

Network Control Officer

1. Tell the Protection Officer seeking the TWA to consult with the Protection Officer holding the TOA.
2. Confirm that the Protection Officers have consulted with each other, and that the TOA Protection Officer agrees with the arrangements.

TWA Protection Officer

3. If the line is:
 - *bidirectional*, confirm that the worksite will be protected in both directions, or
 - *unidirectional*, confirm that the worksite will be protected for the normal direction of travel. Place further protection as required if the TOA is for a track vehicle journey that will travel in the *wrong running-direction*.

Network Control Officers and Protection Officers

4. Record, in permanent form, the TWA details.

Protecting worksites

Protection Officer

Protecting worksites by:

- managing rail traffic approaches to worksites, and
- managing rail traffic *transits* through worksites, and
- if necessary, managing rail traffic on other lines, and
- making sure that all protection is correctly placed, and
- where practicable, reducing the number of points of entry to a worksite area by clipping and locking points, or otherwise disabling or isolating the points controlling device.

Managing signals affected by work on track

Work on track may affect signals so they display STOP. In this procedure, these signals are called *affected signals*.

Protection Officer

1. Arrange for affected signals to be set and held at STOP.
2. Place a *Handsignaller* at each affected signal, in the direction of approaching rail traffic.
3. If the affected signal is a *controlled signal*, direct the Handsignaller to:
 - ask the *Signaller* to clear the signal, or
 - get the Signaller's authority to allow the rail traffic to pass the signal at STOP.

Handsignaller

4. If the affected signal is an *automatic signal*, follow the Protection Officer's instructions about allowing rail traffic to proceed, and at what speed.

Managing rail traffic approaches to worksites

Protection Officer

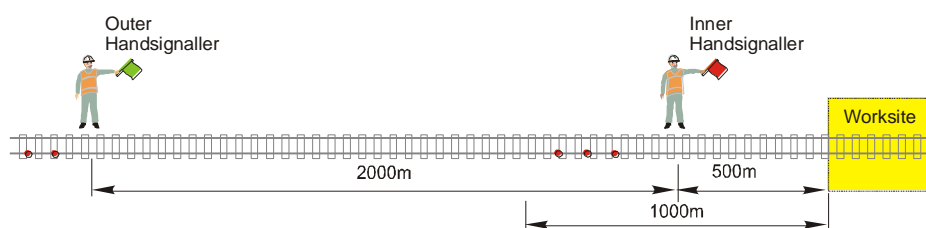
1. Decide the appropriate speed for rail traffic to transit the worksite.
2. Tell the inner Handsignaller whether to signal *Drivers* and *track vehicle operators* to:
 - travel through the worksite at *normal speed*, or
 - travel through the worksite at *caution*, or
 - stop and be told about special travel conditions.

Using Handsignallers only

Protection Officer

1. Choose places where the Handsignallers and Drivers and track vehicle operators can clearly see each other.
2. Place an inner Handsignaller and three *detonators* between 500m and 1000m from the worksite in the direction of approaching rail traffic.
3. Place an outer Handsignaller and two detonators a further 2000m from the inner Handsignaller's position in the direction of approaching rail traffic.
4. Tell the outer Handsignaller to display a CAUTION *handsignal* to approaching rail traffic

Figure ANPR 702-1



Protecting a worksite using Handsignallers only

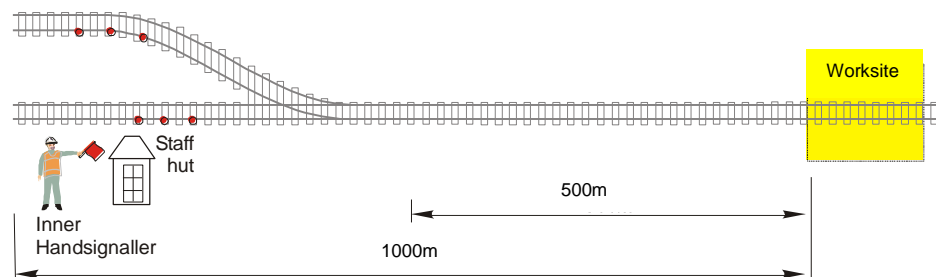
Using a Handsignaller at a staff hut

Staff hut located between 1000m and 500m from the worksite

Protection Officer

Place an inner Handsignaller and three detonators at the *staff hut*.

Figure ANPR 702-2



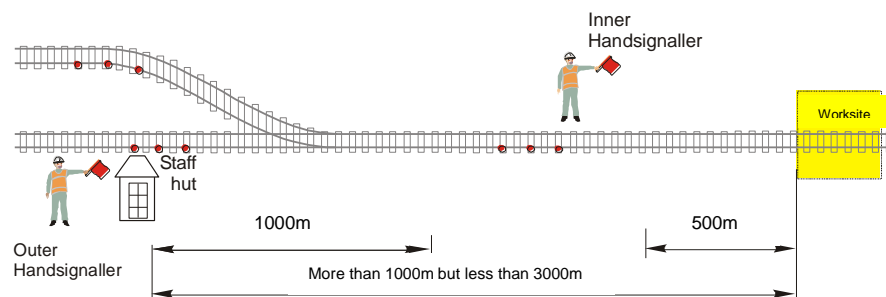
Protecting a worksite with a Handsignaller at a staff hut between 1000m and 500m from the worksite

Staff hut located more than 1000m and less than 3000m from the worksite

Protection Officer

1. Place an inner Handsignaller and three detonators between 500m and 1000m from the worksite.
2. Place a Handsignaller and three detonators at the staff hut.
3. If the distance between the inner Handsignaller and the Handsignaller at the staff hut is less than 2000m, tell the Handsignaller at the staff hut to warn Drivers and track vehicle operators about the reduced distance.

Figure ANPR 702-3



Protecting a worksite with a Handsignaller at a staff hut more than 1000m and less than 3000m from the worksite

Using Handsignallers at protecting signals

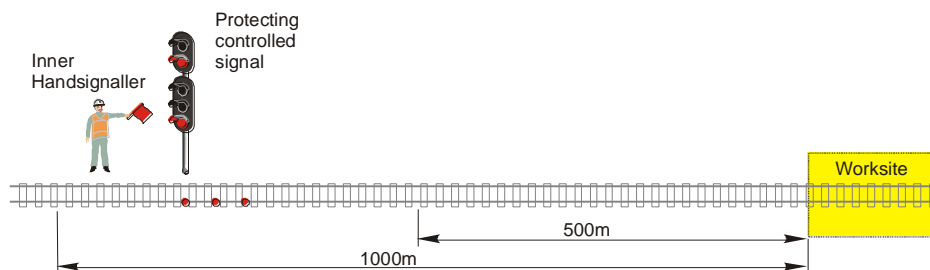
To use a signal for protection, arrange to have it set and held at STOP.

Signals between 1000m and 500m from the worksite

Protection Officer

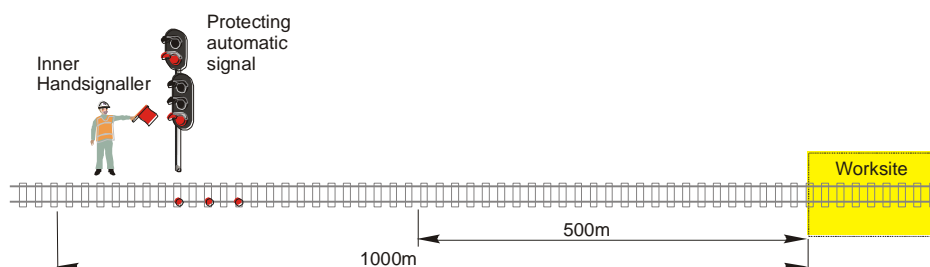
1. Arrange for the last signal, which is less than 1000m but more than 500m from the worksite in the direction of approaching rail traffic, to be set and held at STOP:
 - at a controlled signal, ask the Signaller, or
 - at an automatic signal, arrange with the *authorised Maintenance Representative*.
2. Place an inner Handsignaller and three detonators at this last signal.

Figure ANPR 702-4



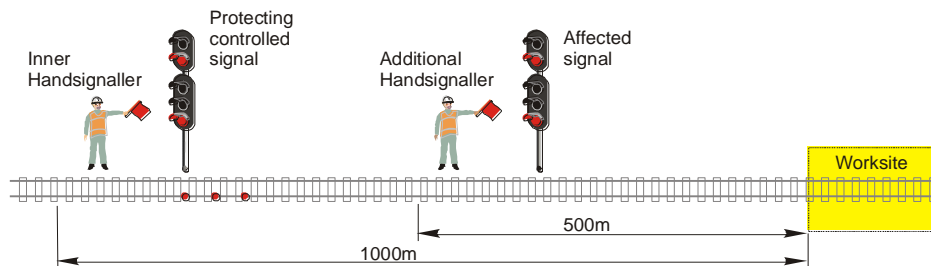
Protecting a worksite between 1000m and 500m from a controlled signal that can be held at STOP

Figure ANPR 702-4a

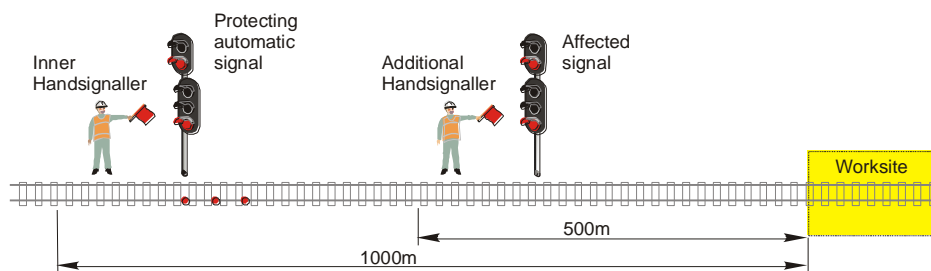


Protecting a worksite between 1000m and 500m from an automatic signal that can be held at STOP

3. If there are affected signals less than 500m from the worksite, place a Handsignaller at each affected signal.

Figure ANPR 702-5

Additional Handsignaller placed if work affects a fixed signal between the worksite and the protecting controlled signal

Figure ANPR 702-5a

Additional Handsignaller placed if work affects a fixed signal between the worksite and the protecting automatic signal

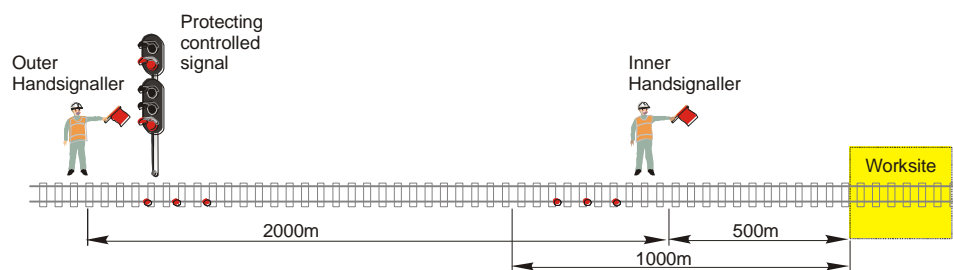
Signals more than 1000m and less than 3000m from the worksite

Protection Officer

If there are no signals between 1000m and 500m from the worksite in the direction of approaching rail traffic:

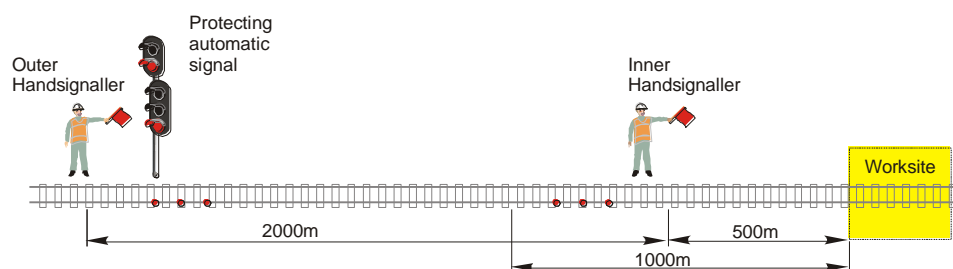
1. Place the inner Handsignaller and three detonators between 1000m and 500m from the worksite.
2. Place an outer Handsignaller and three detonators at the last signal within 2000m from the inner Handsignaller in the direction of approaching rail traffic.
3. If the distance between the inner Handsignaller and the outer Handsignaller at the signal is less than 2000m, tell the outer Handsignaller to warn Drivers and track vehicle operators about the reduced distance.

Figure ANPR 702-6



Protecting a worksite with a controlled signal more than 1000m and less than 3000m from the worksite

Figure ANPR 702-6a

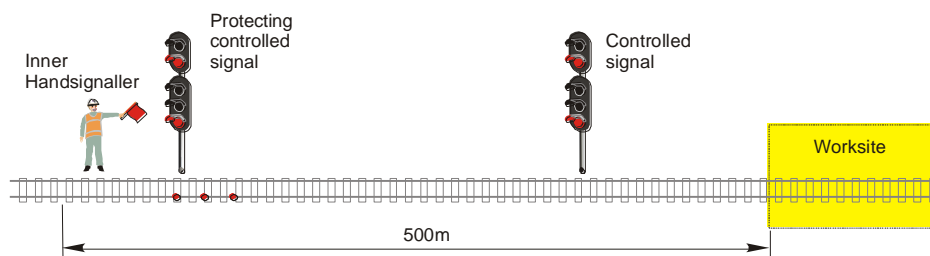


Protecting a worksite with an automatic signal more than 1000m and less than 3000m from the worksite

At least two controlled signals within 500m of the worksite**Protection Officer**

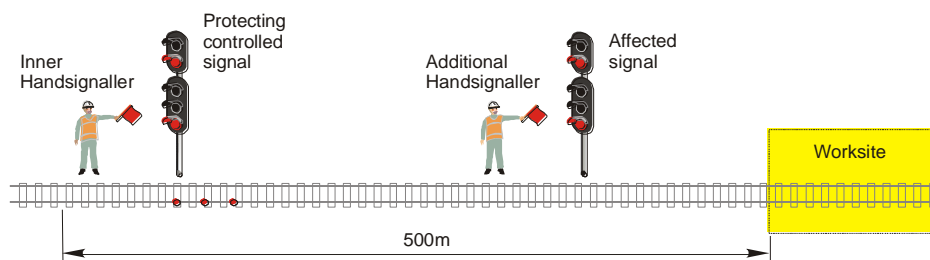
If there are at least two controlled signals within 500m of the worksite:

1. Place the inner Handsignaller and three detonators at the first signal in the direction of approaching rail traffic.
2. Ask the Signaller to set and hold both signals at STOP.
3. If the other signals can be cleared, further Handsignaller are not necessary.

Figure ANPR 702-7

Protecting a worksite using two controlled signals

4. If the affected controlled signals cannot be cleared, place a Handsignaller at each signal.

Figure ANPR 702-8

Additional Handsignaller placed when the fixed signal between the worksite and the protecting signal cannot be cleared

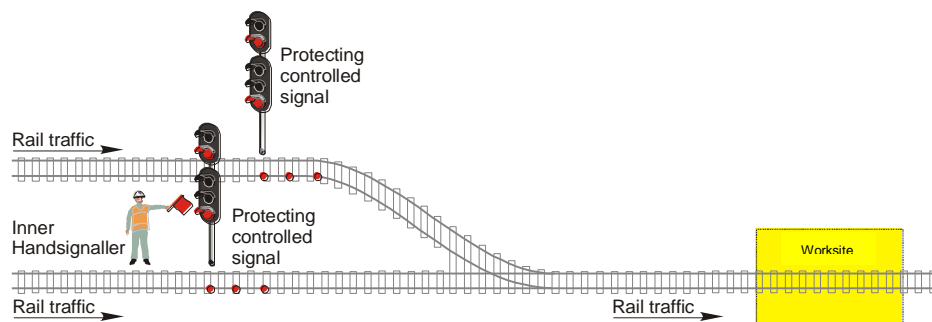
Using a Handsignaller at a single line crossing location

Protection Officer

If two *adjacent* signals on *converging* tracks are used to protect a worksite:

1. Place three detonators at each signal in the direction of approaching rail traffic.
2. Place the Handsignaller in a safe place, where approaching rail traffic on either line can be seen.

Figure ANPR 702-9



Handsignaller placed to direct rail traffic at a single line crossing location

Managing rail traffic transits through worksites

Protection Officer

1. Before *authorising* the inner Handsignaller to signal rail traffic to approach and pass through a worksite, make sure that:
 - workers have gone to the designated safe places, and
 - the line is clear of workers and equipment between the worksite and the inner Handsignaller's location, and
 - the line is clear and safe for the passage of rail traffic through the worksite, and
 - if a fixed automatic signal is being held at STOP to protect a worksite, the line is clear to the first signal beyond the worksite.
2. If it is safe for rail traffic to pass the inner Handsignaller at a fixed controlled signal, and pass through the worksite, tell the Handsignaller:

Movement allowed	Handsignaller action
rail traffic is to proceed at normal speed	after rail traffic has stopped, remove the detonators from the line.
	ask the Signaller to clear the controlled signal held at STOP.
	signal PROCEED to the Driver.
rail traffic is to proceed at caution past a controlled signal held at STOP that cannot be cleared	after rail traffic has stopped, remove the detonators from the line.
	ask the Signaller to give authority to proceed past the STOP signal.
	signal PROCEED AT CAUTION to the Driver.
rail traffic is to proceed at caution	after rail traffic has stopped, remove the detonators from the line.
	ask the Signaller:
	<ul style="list-style-type: none"> to clear the controlled signal held at STOP, or to give authority to proceed past the STOP signal.
	signal PROCEED AT CAUTION to the Driver.
rail traffic is to proceed under special conditions	signal the Driver to STOP.
	after rail traffic has stopped, tell the Driver:
	<ul style="list-style-type: none"> the maximum speed allowed, and about further Handsignallers ahead, and in writing, about multiple worksites ahead.
	remove the detonators from the line.
	ask the Signaller:
	<ul style="list-style-type: none"> to clear the controlled signal held at STOP, or to give authority to proceed past the STOP signal.
	signal PROCEED AT CAUTION to the Driver.

3. If it is safe for rail traffic to pass the inner Handsignaller at a fixed automatic signal, and pass through the worksite, tell the Handsignaller:

Movement allowed	Handsignaller action
rail traffic is to proceed at caution	after rail traffic has stopped, remove the detonators from the line.
	give authority to proceed past the STOP signal. Signal PROCEED AT CAUTION to the Driver.
rail traffic is to proceed under special conditions	signal the Driver to STOP.
	after rail traffic has stopped, tell the Driver:
	<ul style="list-style-type: none"> the maximum speed allowed, and about further Handsignallers ahead, and in writing, about multiple worksites ahead.
	remove the detonators from the line.
	give authority to proceed past the STOP signal. Signal PROCEED AT CAUTION to the Driver.

4. If it is safe for rail traffic to pass the inner Handsignaller not at a fixed signal, and pass through the worksite, tell the Handsignaller:

Movement allowed	Handsignaller action
rail traffic is to proceed at normal speed	remove the detonators from the line, if there is time to do it safely.
	signal PROCEED to the Driver.
rail traffic is to proceed at caution	remove one detonator from the line
	signal PROCEED AT CAUTION to the Driver.
rail traffic is to proceed under special conditions	signal the Driver to STOP.
	after rail traffic has stopped, tell the Driver:
	<ul style="list-style-type: none"> the maximum speed allowed, and about further Handsignallers ahead, and in writing, about multiple worksites ahead.
	remove the detonators from the line
	signal PROCEED AT CAUTION to the Driver

5. If it is safe for rail traffic to pass the inner Handsignaller at a staff hut, and pass through the worksite, tell the Handsignaller:

Movement allowed	Handsignaller action
rail traffic is to proceed at normal speed	remove the detonators from the line.
	signal PROCEED to the Driver.
rail traffic is to proceed at caution	remove one detonator from the line
	signal PROCEED AT CAUTION to the Driver.
rail traffic is to proceed under special conditions	signal the Driver to STOP.
	after rail traffic has stopped, tell the Driver:
	<ul style="list-style-type: none">• the maximum speed allowed, and• about further Handsignallers ahead, and• in writing, about multiple worksites ahead.
	remove the detonators from the line.
	signal PROCEED AT CAUTION to the Driver.

6. Make sure the Handsignaller replaces detonators when rail traffic has passed.

Using clearance Handsignallers if controlled signals are used

Protection Officer

If controlled signals are used to protect the worksite and cannot be cleared:

1. Place a *clearance Handsignaller* at the first signal that can display a STOP indication, beyond the worksite.

Clearance Handsignaller

2. Make sure that the line is clear for rail traffic to approach.
3. Tell the Signaller and the Protection Officer that the line is clear.

Using clearance Handsignallers if automatic signals are used

Protection Officer

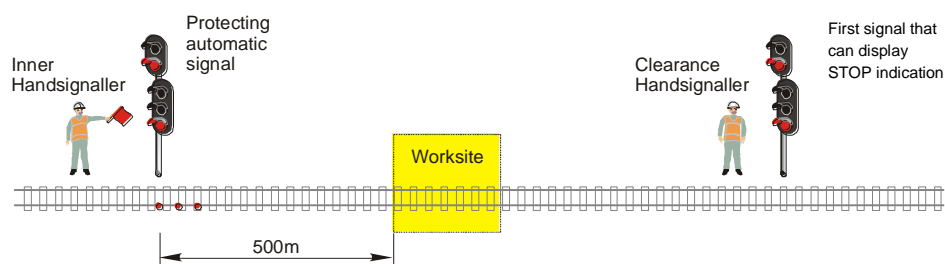
If automatic signals are used to protect the worksite:

1. Place a clearance Handsignaller at the first signal that can display a STOP indication, beyond the worksite.

Clearance Handsignaller

2. Make sure that the line is clear for rail traffic to approach.
3. Tell the Protection Officer that the line is clear.

Figure ANPR 702-10



Placement of workers including a clearance Handsignaller at the first signal that can display a STOP indication, to tell the Protection Officer when the line is clear for rail traffic to approach

Returning the Track to Service

Protection Officer

1. Make sure that all equipment is clear of the line.
2. Make sure that all works have cleared the worksites.
3. Make sure that:
 - protection has been removed, and
 - if necessary, signals have been restored to normal use.
4. Tell the Network Control Officer that the work is completed, and about any restrictions on track use.

Keeping Track Work Authority information

Network Control Officers and the Protection Officer must keep information about a TWA, including protection arrangements.

Related ARTC Network Procedures

ANPR 704	Using Infrastructure Booking Authorities
ANPR 707	Clipping points
ANPR 708	Using X, Y and Z keys
ANPR 709	Using detonators
ANPR 712	Protecting work from rail traffic on adjacent lines

Effective Date

11 October 2015