

ANPR 701

Using a Track Occupancy Authority

Applicability

NSW
SMS

Publication Requirement

External Only

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Introduction

A *Track Occupancy Authority* (TOA) is used to occupy a defined portion of *track* within specified limits for an agreed period.

TOA's *may* involve one or more *track vehicles* and machines working within the specified limits.

A TOA may:

- allow the track to be broken or obstructed, and
- allow *rail traffic* associated with the TOA to work within the specified limits, and
- be granted for track vehicles to *travel* singly or in *convoy*.



The preferred method when obtaining a TOA is to take and safeguard the *staff* for the *section*, or *half pilot staffs* where practicable.

Obtaining a Track Occupancy Authority

The *Protection Officer* obtains a TOA from the *Network Control Officer* responsible for the portion of track.

Protection Officer

1. Tell the Network Control Officer:
 - your name and contact details, and
 - the *location* of the work or track vehicle travel, and
 - the type of work to be done, and
 - the limits of the TOA:
 - if there are multiple tracks, give the names of the *yards* and the tracks, or
 - if within *yard limits* or at an *intermediate siding*, identify the clearance points, and
 - give signal, *points* or *crossover* numbers, and
 - the *protection* arrangements for the Authority, and
 - the intended start and finish times.

Network Control Officer

2. Confirm the details about the location and proposed limits of the TOA.
3. Make sure that:
 - there is no *rail traffic* within the proposed limits of the TOA, or
 - a *unidirectional* rail traffic movement within the limits has passed clear and complete beyond the proposed worksite or the starting point of the track vehicle journey, or
 - if the TOA is associated with disabled rail traffic, the rail traffic will not be moved before authority is obtained from the Protection Officer.
4. If entry to the TOA limits is controlled by another Network Control Officer, affected Network Control Officer's must confer with the *Network Controller* and arrange for blocking facilities to be applied to prevent unauthorised rail traffic entry into the limits of the TOA.
5. Apply *blocking facilities* to prevent unauthorised rail traffic entry into the limits of the TOA.

Network Control Officer

6. Where Network Control Officers are provided, ask the Network Controller for permission to *issue* a TOA.

Network Controller

7. Confirm that the TOA request will affect only one Network Control area.
8. If the proposed limits of a TOA affect more than one Network Control area, the affected Network Controllers must agree about the Network Control area most affected. That Network Controller *authorises* the *occupancy*.
9. If entry to the TOA limits is controlled by more than one Network Control Officer:
 - get an assurance from the affected Network Control Officers that blocking facilities have been applied to prevent unauthorised rail traffic entry into the limits of the TOA,
 - confirm which Network Control Officer has been nominated to issue the TOA, and
 - authorise the TOA.

Network Control Officer

10. Where Network Control Officers are provided, when authorised, issue the TOA. Where no Network Control Officer is provided, the Network Controller issues the TOA.

11. Tell the Protection Officer to:

- repeat back the information about the TOA, or
- accept the TOA using the *Electronic application*.

12. Tell the Network Controller that the TOA has been issued.

Network Controller and Network Control Officer

13. Record, in *permanent form*, all information about the authorisation and issue of the TOA.

Protection Officer

14. If the TOA is to be authorised to start after a unidirectional rail traffic movement:

- watch the rail traffic pass complete beyond the worksite limits or the starting point of the track vehicle movement, and
- give the Network Control Officer the identification number of the lead unit of the train or the last vehicle of a track vehicle movement.



Where a track vehicle journey is to commence within the yard limits of a location, the Network Control Officer must make sure that the preceding rail traffic has passed clear and complete beyond the starting point from which the track vehicle included in the Authority will travel.

The Protection Officer is not required to watch the rail traffic pass complete beyond the starting point of the track vehicle movement or provide the identification number of the lead unit of the train or the last vehicle of a track vehicle movement.

15. Where practicable, and if authorised by the Network Control Officer, take and safeguard the staff for the section, or half pilot staff, and record this in permanent form.
16. If you are not using the Electronic application, compile a TOA form:
 - ANRF 002 for track within TMACS *Train Order Territory*, or
 - ANRF 002B for track within *Rail Vehicle Detection (RVD)* and Token Territories.
17. Confirm the details of the TOA by:
 - repeating the details, you recorded back to the Network Control Officer, or
 - using the Electronic application.
18. Confirm with the Network Control Officer that blocking facilities have been applied to prevent entry of rail traffic into the portion of track within the TOA limits.
19. When authorised, put the required protection in place and commence work or travel.

Jointly with a Track Work Authority (TWA)

A TOA may be granted in an area where a TWA is current.

Network Control Officer

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

TOA Protection Officer

3. If the TOA is for a worksite, confirm the protection that will be placed for the TOA.
4. If the TOA is for a track vehicle journey, confirm:
 - the direction of travel, and
 - that the protection arrangements are agreed.

Network Control Officer

5. Apply blocking facilities if necessary.

Network Control Officer

6. Where Network Control Officers are provided, when authorised, issue the TOA. Where no Network Control Officer is provided, the Network Controller issues the TOA.
7. Tell the Protection Officer to:
 - repeat back the information about the TOA, or
 - accept the TOA using the Electronic application.
8. Tell the Network Controller that the TOA has been issued.

Network Control Officers and TOA Protection Officers

9. Record, in permanent form, the TOA details.

Getting Additional TOA's when a TOA is Current

Additional TOA's may be granted for a portion of track where a TOA is current.

Network Control Officer

1. Tell the Protection Officer's requesting additional TOA's to:
 - consult with the Protection Officer's holding existing TOA's, and
 - to obtain the *supplementary security codes* from the Protection Officer's holding the existing TOA's.
2. Obtain the supplementary security codes from the Protection Officer requesting the additional TOA, confirming that the Protection Officers have consulted, and have agreed arrangements.
3. Record the details of the additional TOA.
4. Apply additional blocking facilities if necessary.

Network Control Officer

5. Where Network Control Officers are provided, when authorised, issue the TOA. Where no Network Control Officer is provided, the Network Controller issues the TOA.
6. Tell the Protection Officer to:
 - repeat back the information about the TOA, or
 - accept the TOA using the Electronic application.
7. Tell the Network Controller that the TOA has been issued.

Protection Officers

8. Consult on the proposed work and protection arrangements.
9. Agree on the work and protection requirements, and if required rail traffic management.
10. Record the agreed arrangements in permanent form.
11. The Protection Officer's holding the existing TOA's provides the Protection Officer requesting the additional TOA with the supplementary security codes.
12. The Protection Officer requesting the additional TOA, provides the Network Controller the supplementary security codes.

Network Control Officers and Protection Officer

13. Record, in permanent form, details about the TOA.

Joint occupancy with a Work Train Order (WTO)

A Work Train Order can be issued where a TOA is current in TMACS Train Order Territory.

Protection Officer

1. Make agreed arrangements and provide the Rail Traffic Crew with the supplementary security code.

Rail Traffic Crew

2. Obtain the supplementary security code from the Protection Officer, for the associated TOA and provide the supplementary security code to the Network Controller.

Network Controller

3. Issue the Work Train Order to the Rail Traffic Crew.

Protecting worksites

Railway Track Signal protection or STOP signs/red lights are not required:

- if the points are secured to prevent access, and
- there is no other work on track authority or worksite in the section.

Railway Track Signal protection or STOP signs/red lights, placed 500m from the entry limits of the worksite, is required if:

- there is more than one worksite within the TOA, or
- an additional TOA is granted within the section.

Protection Officer

1. As required, make sure that three *Railway Track Signals* are placed, as necessary, on all tracks entering the *worksite*. Place these Railway Track Signals at least 500m from the worksite or at the limits of the TOA.

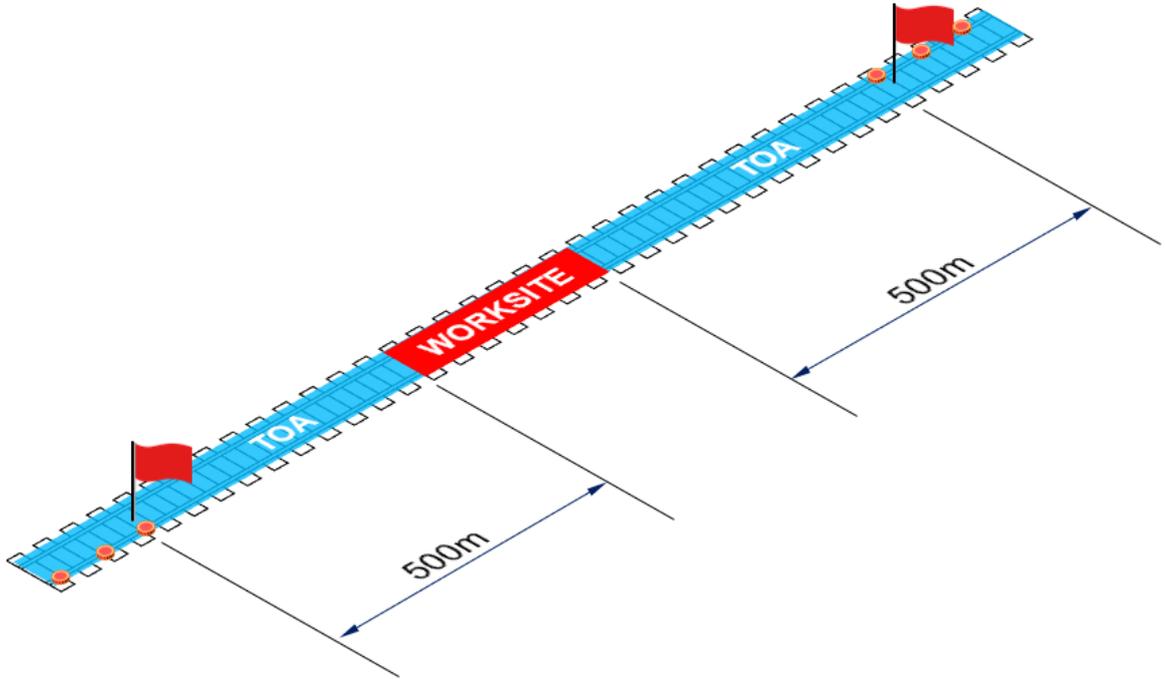


Railway track signals are not required where STOP signs/red lights are used for protection.
Where STOP signs/red lights are used, the red light must be switched on at all times.

2. Make sure:
 - that red flags/red lights are placed in the middle of the *four-foot*, beside the Railway Track Signal closest to the worksite, or
 - STOP signs/red lights are placed on all tracks entering the worksite, at least 500m from the worksite or at the limits of the TOA.

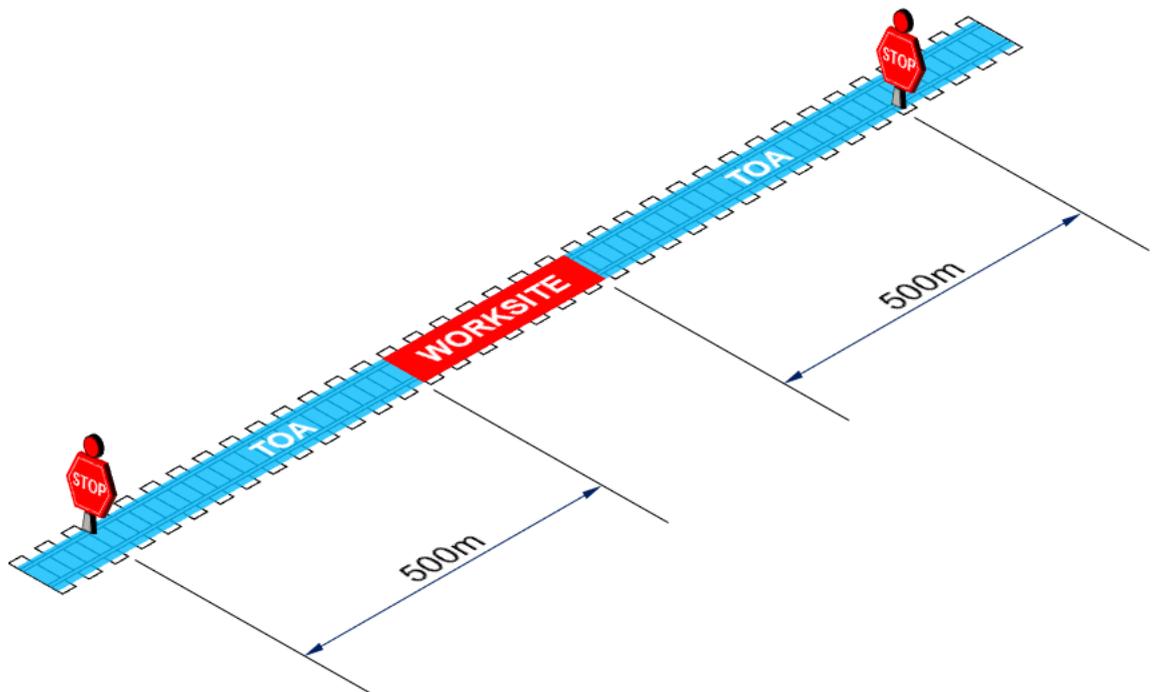
STOP signs/red lights must be clamped to the head of the left-hand rail in the expected running direction of rail traffic.

Figure ANPR 701-1



Example of railway track signal protection arrangements for an individual worksite

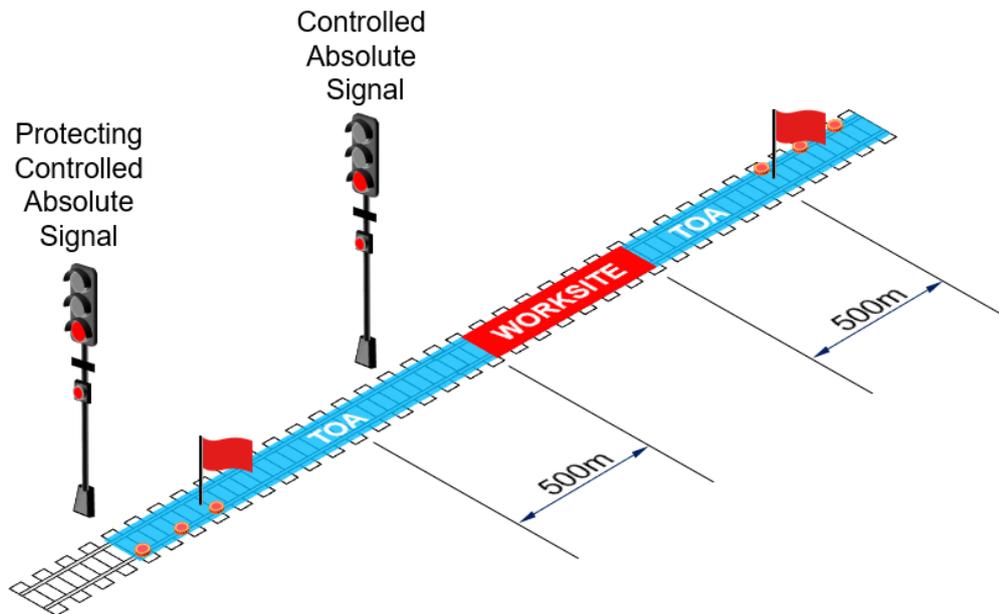
Figure ANPR 701-1A



Example of protection arrangements for an individual worksite using STOP signs/red lights

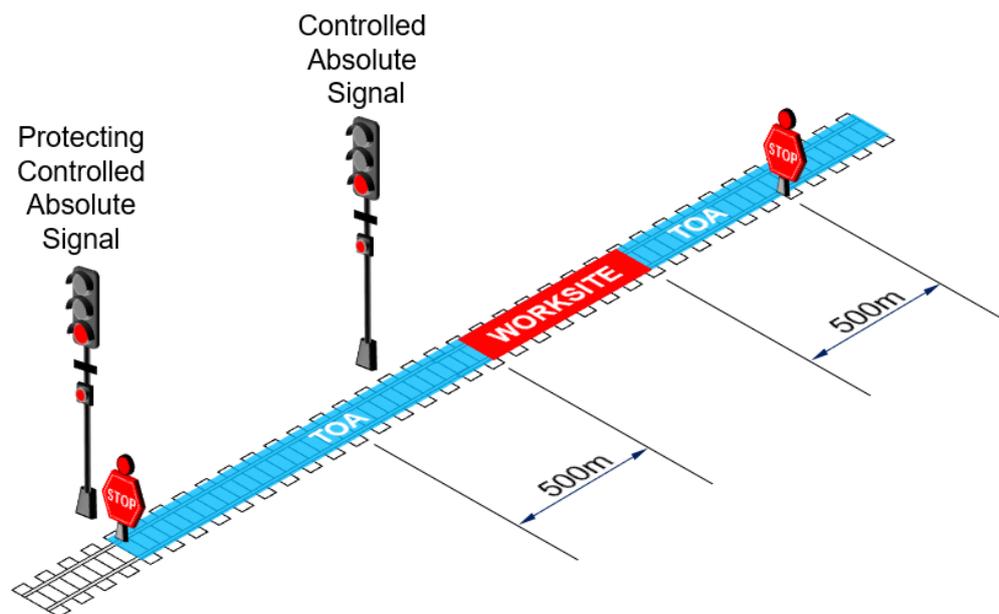
3. If a *controlled signal* is within 500m of the worksite, a controlled signal more than 500m from the worksite must be used for worksite protection.

Figure ANPR 701-2



Example: Closest signal less than 500m from worksite, signal more than 500m from worksite used for protection

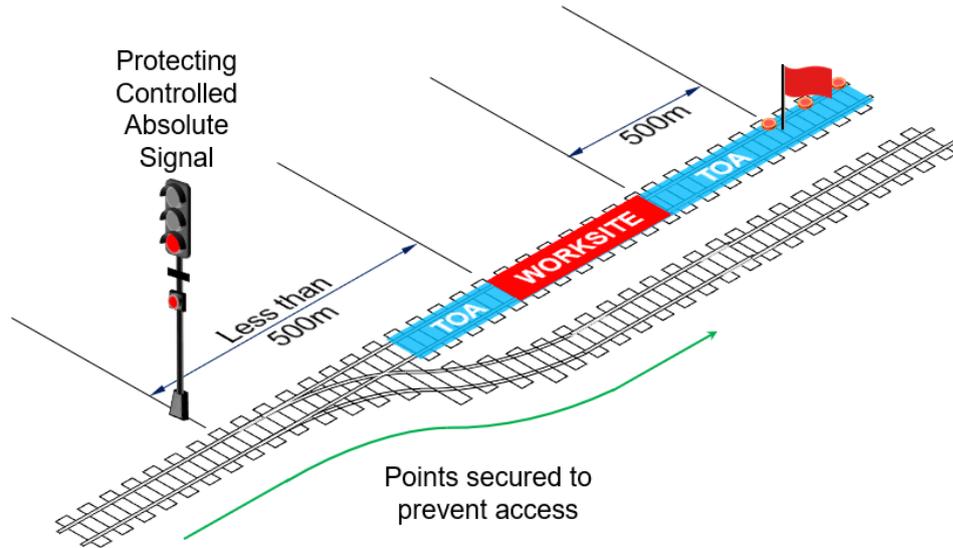
Figure ANPR 701-2A



Example: Closest signal less than 500m from worksite, signal more than 500m from worksite used for protection and using STOP signs/red lights

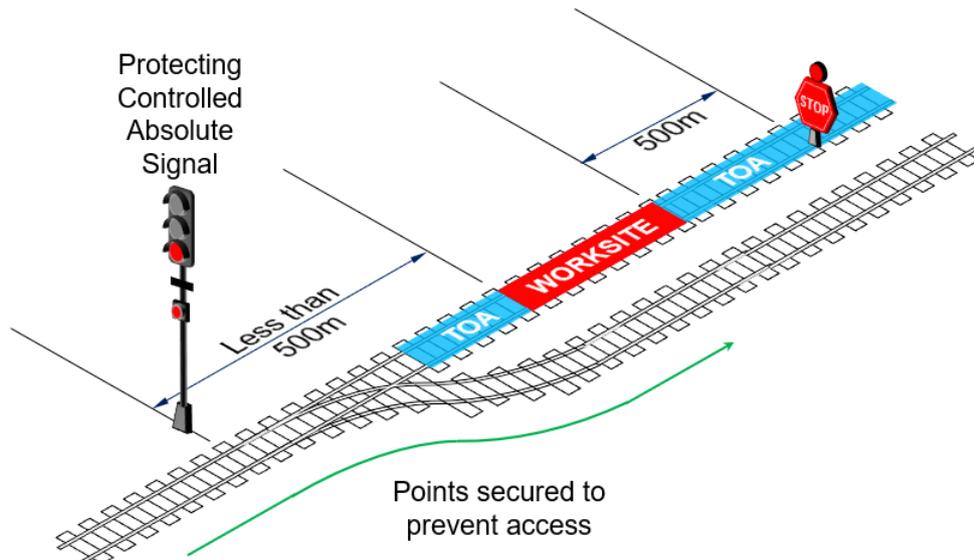
4. If a controlled signal, less than 500m from the worksite, is used to prevent access to the portion of track within the TOA limits, and a set of points is available for a different route, clip and lock the points.

Figure ANPR 701-3



Example: Protecting signal less than 500m from worksite, points clipped and locked for a different route

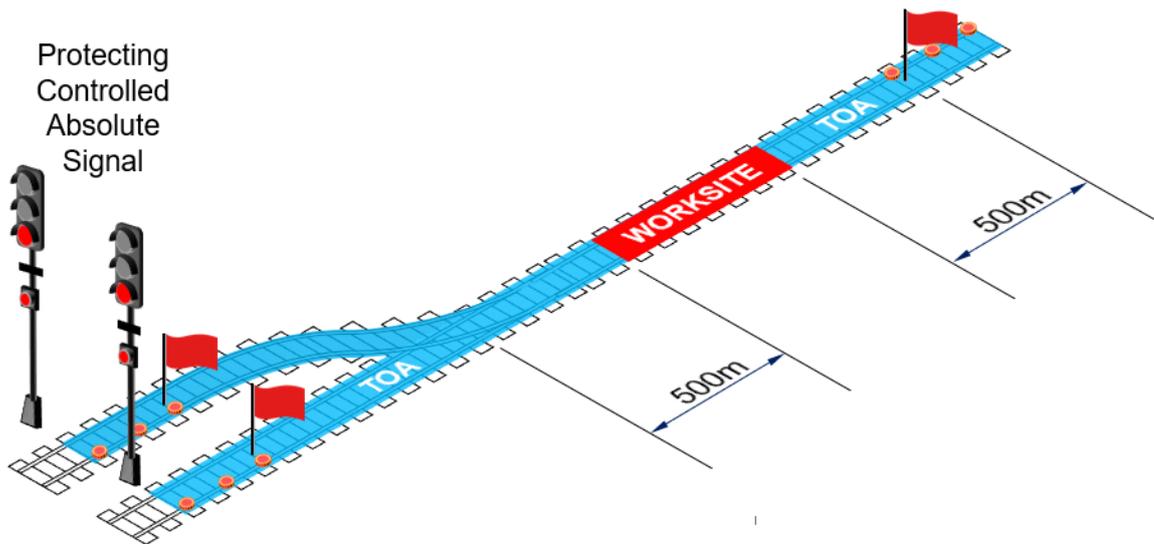
Figure ANPR 701-3A



Example: Protecting signal less than 500m from worksite, points clipped and locked for a different route and using STOP signs/red lights

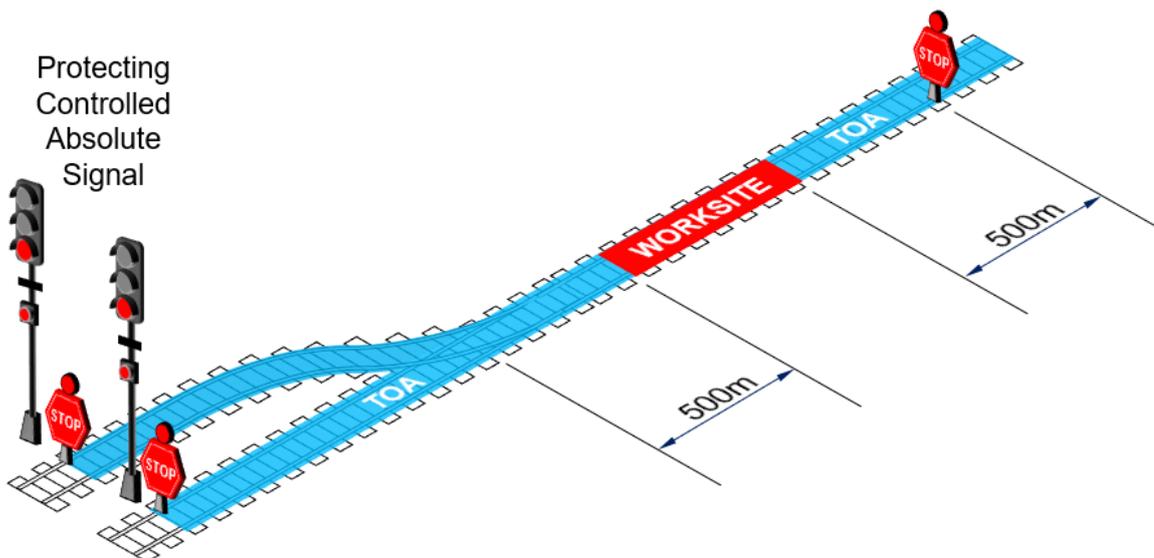
- If points cannot be clipped and locked, use a controlled signal at least 500m from the worksite.

Figure ANPR 701-4



Example: Protecting a worksite with signals more than 500m from worksite

Figure ANPR 701-4A



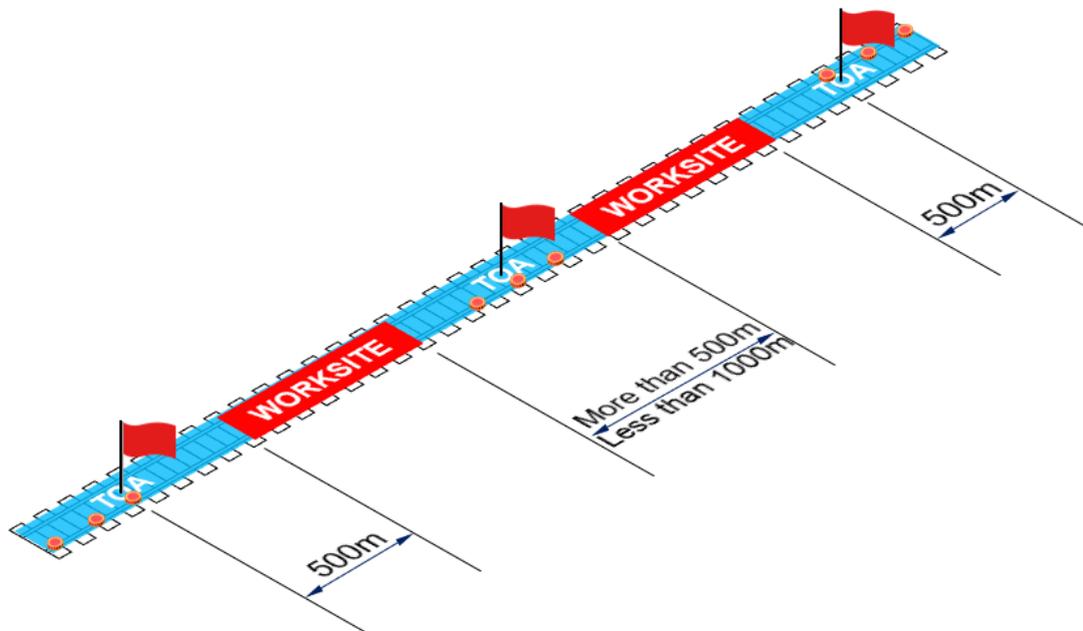
Example: Protecting a worksite with signals more than 500m from worksite

6. Where multiple worksites are located within the TOA limits have been authorised, three Railway Track Signals and a red flag/red light or STOP signs/red lights must be placed at least 500m from the entry limits of each worksite.

If worksites are more than 500m but less than 1000m apart:

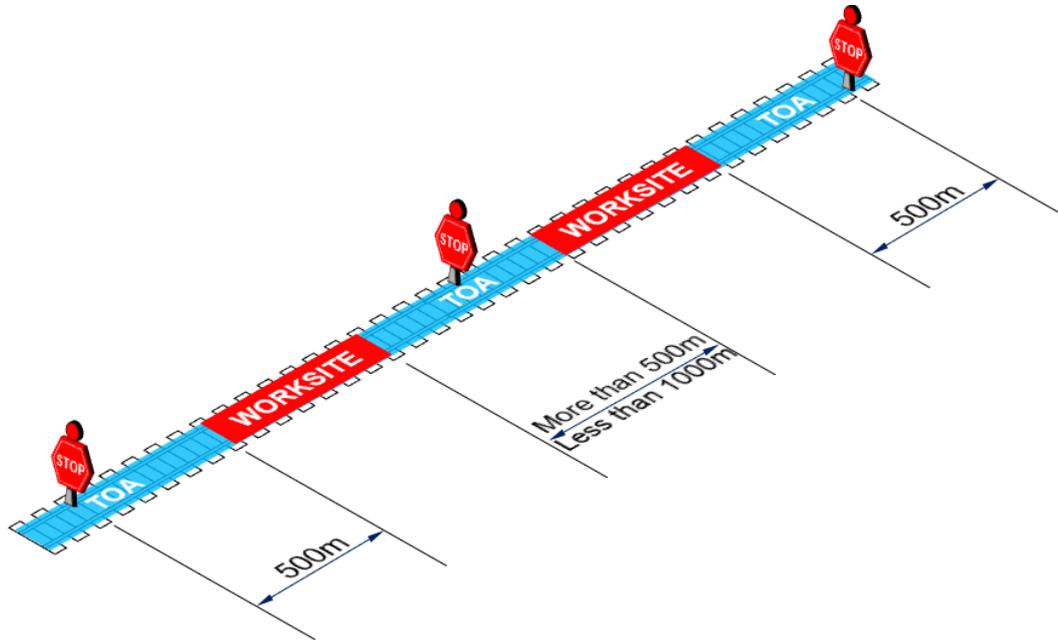
- place three Railway Track Signals midway between the worksites, and
- place a red flag/red light next to the middle railway track signals, or
- place a STOP signs/red light midway between the worksites.

Figure ANPR 701-5



Example: Protection arrangements for multiple worksites more than 500m but less than 1000m apart

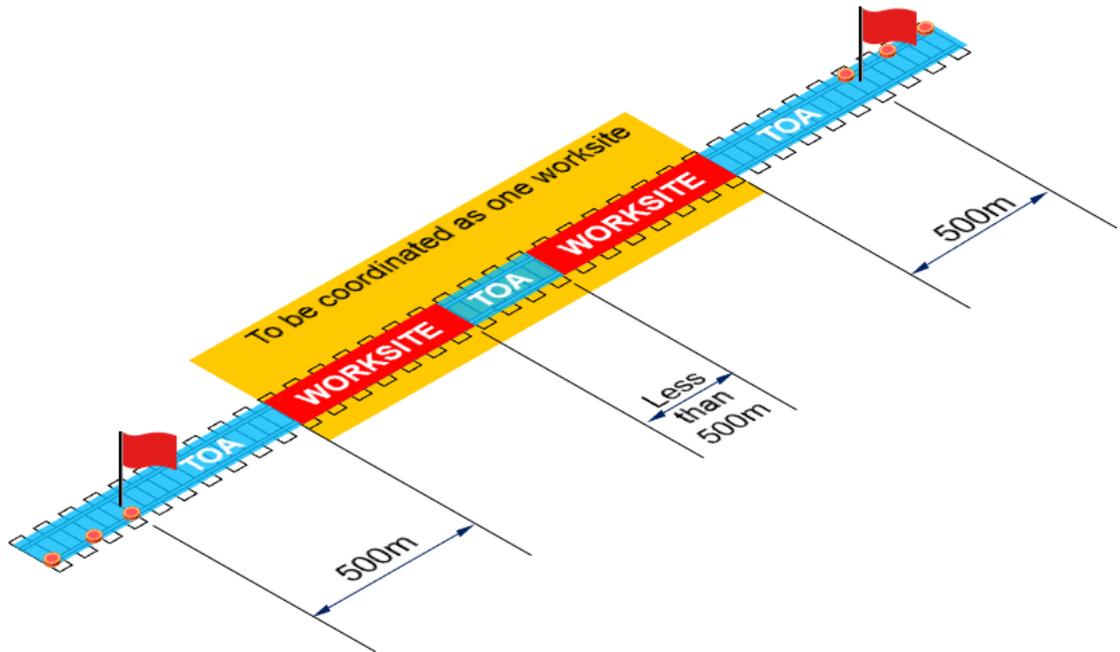
Figure ANPR 701-5A



Example: Protection arrangements for multiple worksites more than 500m but less than 1000m apart

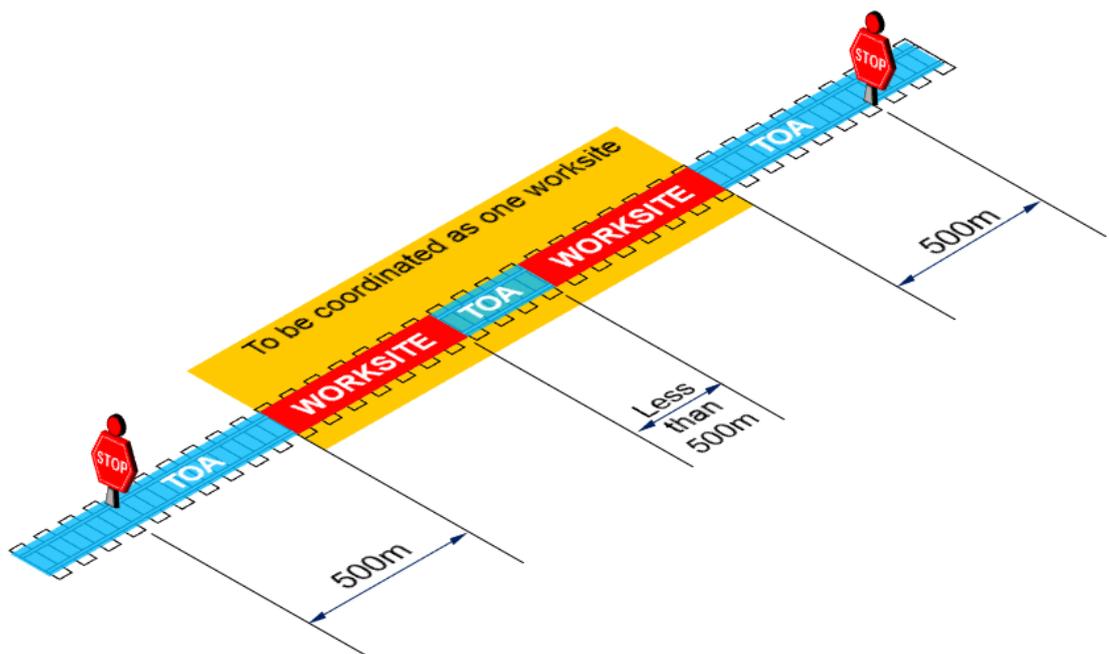
7. Where multiple worksites are less than 500m apart, treat as one worksite.

Figure ANPR 701-6



Example: Protection arrangements for combined multiple worksites

Figure ANPR 701-6A



Example: Protection arrangements for combined multiple worksites using STOP signs/red lights

Obtaining an extension of time

Protection Officer

1. If necessary, ask the Network Control Officer for an extension of time.
2. Record the new expiry time and the authorising Network Controller's name on the TOA form, or where the Electronic application is used make a permanent record about the extension of time.

Network Control Officer

3. Tell affected Network Control Officers about the new Authority expiry time.

Returning the track to service

Protection Officer

1. Make sure that track vehicles, work trains and equipment have cleared the track.
2. Make sure that all workgroups have cleared the worksites.
3. Make sure that protection, including flags, Railway Track Signals, STOP signs/red lights and point clips, have been removed.
4. If necessary, when advised that the track is *certified* fit for service, tell the Network Control Officer.
5. Where the Electronic application is not used, tell the Network Control Officer that the work is completed.
6. Tell affected Network Control Officers about any restrictions on track use.
7. If necessary, replace the staff or half pilot staff, as required by the Network Control Officer.
8. If a TOA form was issued for work in Rail Vehicle Detection or Train Order territory, tell the Network Controller the TOA number and security code.
9. If a TOA form was issued for work in Token territory, tell the Network Control Officer the TOA number.
10. *Fulfil* the TOA.

Keeping Track Occupancy Authority details

Network Control Officers and the Protection Officer *must* keep TOA forms or records, including information about protection arrangements.

Related ARTC Network Procedures

ANPR 704	Using Infrastructure Booking Advices
ANPR 707	Clipping points
ANPR 709	Using Railway Track Signals
ANPR 710	Piloting trains and track vehicles
ANPR 712	Protecting work from rail traffic on adjacent tracks

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