Leppington

Location

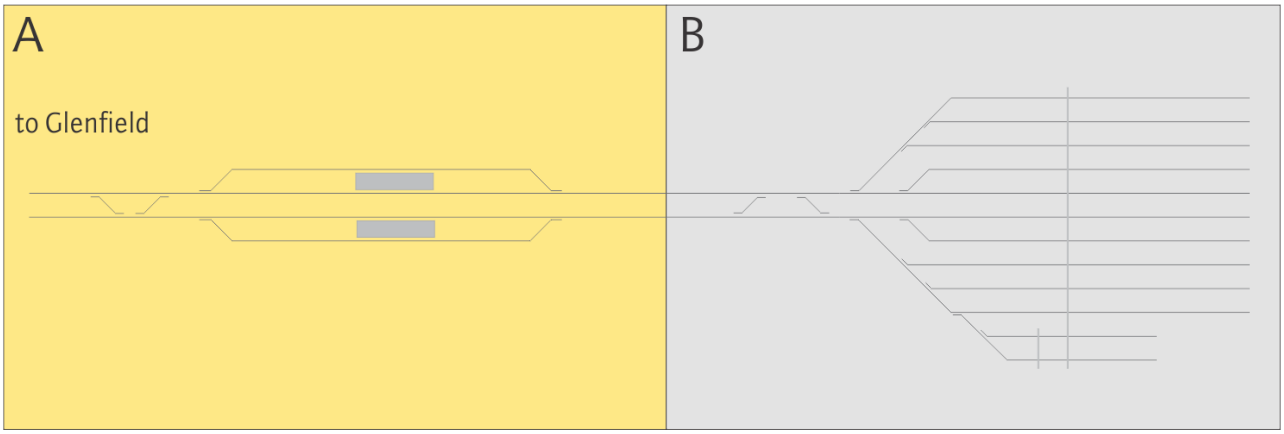
This unit includes:

Leppington at 51.169km

Warning

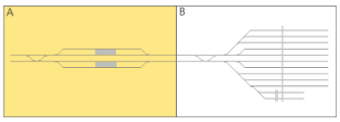
This location has narrow track clearances

Diagrams

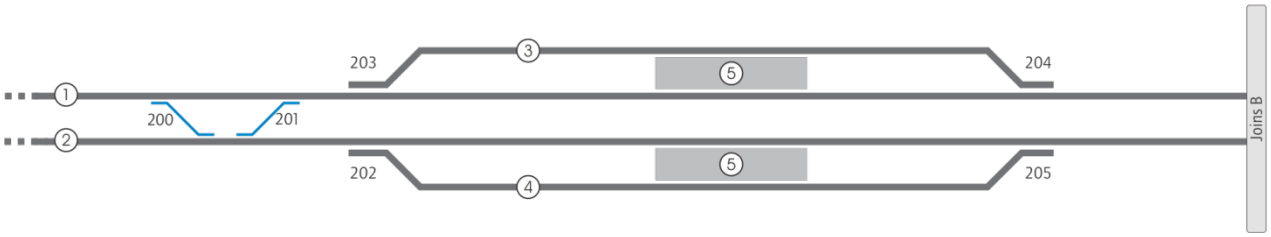


Leppington

A



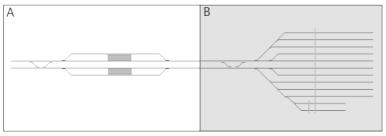
to Glenfield

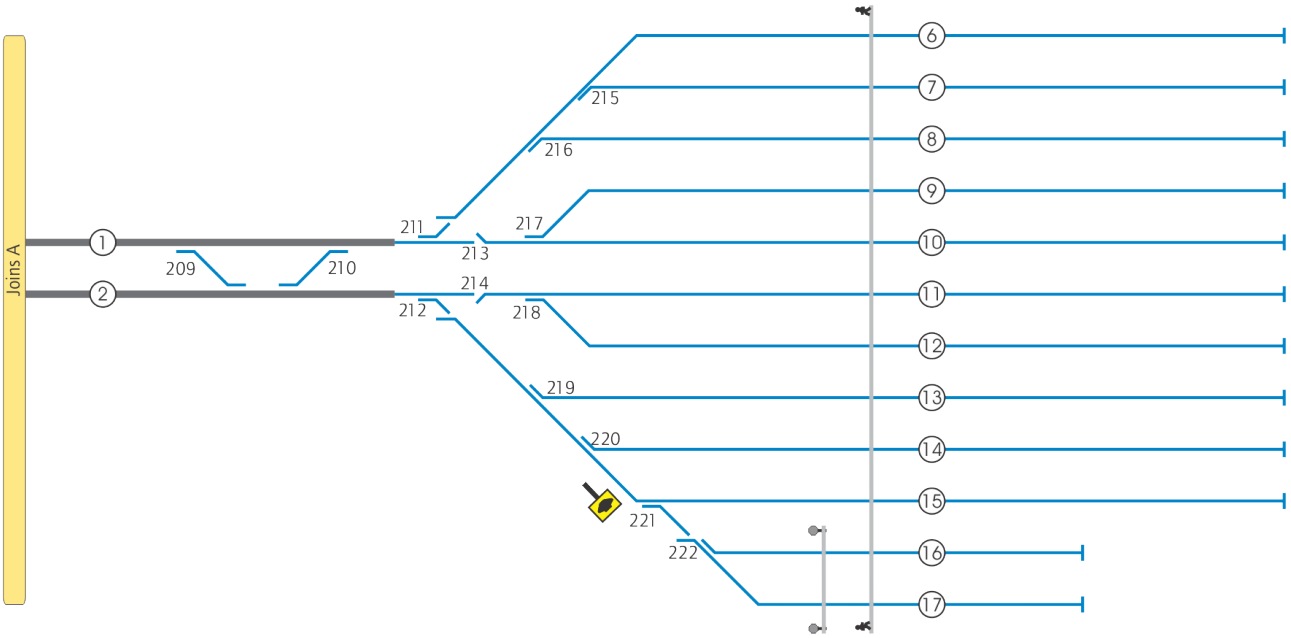


Key		
1. Down Leppington Main line 2. Up Leppington Main line	3. Down Leppington Loop line 872m	4. Up Leppington Loop line 872m 5. Leppington

Leppington

B





Key					
1.	Down Leppington Main line	9	No 7 siding 354m	14	No 2 siding 354m
2.	Up Leppington Main line	10	No 6 siding 354m	15	No 1 siding 354m
6.	No 10 siding 354m	11	No 5 siding 354m	16	No 2 Machine siding 155m
7	No 9 siding 354m	12	No 4 siding 354m	17	No 1 Machine siding 156m
8	No 8 siding 354m	13	No 3 siding 354m		

Leppington

Network Control

Signaller (Glenfield panel) at Rail Operations Centre (ROC).

Yard Limits

Down Leppington Main line	YL 49.060m Down signal LE 1
Up Leppington Main line	EYL 50.183km Up signal GL 50.0

Location details

Interlocked points without groundframes are operated from ROC

51.169km Leppington. Platforms 1 and 2, 3 and 4

Level crossings

53.133km Network Access on/off pad

53.187km Access Pedestrian Walkway across all Service Roads

Special instructions

Emergency Override Working

Leppington Station is configured to enable the continued passage of trains during the loss of communication between Rail Operations Centre (ROC) and Leppington Interlocking via the Leppington Override Facility.

Once the override is initiated all non through routes will cancel. Through routes will be set if not already set. These routes will auto re-clear after the passage of a train.

The mode of operation for Leppington's override is selected by using a three position switch located within an SL Locked stainless steel box mounted on the outside wall of the LE16 Signal Equipment Room (LE16 SER).

`AUTO` N/A – Booked out of use

`OFF` Crossover, Up Main to Down Main

`FORCED` When selected emergency override will be enabled.

'Override' indications are provided locally at LE16 and the current status is displayed at ROC via ATRICS.

Note

The Auto and Forced are booked out of use until further notice.

Leppington

Note

Before authorising the use of the Emergency Override facility **the Signaller** must ensure that protecting signals affected by the Emergency Override facility are not being held at stop to protect work on track, rail traffic movements or other conditions affecting the network.

Competent Worker

Follow the directions of the Signaller to operate the Emergency Override facility.

Signal Key Switches

Signal Key Switches are fitted to the automatic signals listed in the table below.

Signal Key Switch may be used for worksite protection in accordance with the following Network Rule & Procedures:

- NWT 306 Track Work Authority
- NWT 320 Signal Key Switch Blocking
- NPR 702 Using a Track Work Authority
- NPR 753 Using Signal Key Switch Blocking
- NPR 754 Using a Signal Key Switch

Line	*Worksite limit*	*First affected signal/s*	*Protecting signal fitted with a Key Switch*
Down Leppington line	Signal GL43.5 to Signal LE1	GL42.5	GL43.5
Up Leppington line	Signal GL44.8 to Signal GD42	GL45.8	GL44.8

Ground Based Warning System Procedures (GBWS)

Alternate operating procedures for the sounding of train whistles have been introduced for the Leppington Stabling Yard.

These procedures are in exception to NTR 408 Using train whistles, OSP 16 Shunting in Yards and Maintenance Centre's, and Driver's Train Preparation Procedures.

In accordance with the Ground Based Warning System (GBWS) procedures, train whistles are not to be sounded during normal operations within Leppington Stabling Yard.

Whistle signs are installed at 52.102km on both the Up Main and Down Main Leppington line to indicate to drivers of trains departing Leppington Stabling Yard that they must test the train whistle at that location. If the train whistle fails to operate, the driver must carry out the instructions shown in NTR 408.

Warning

If, at any time, a driver in charge of a moving train considers there is a perceived threat to the safety of any person they must take appropriate action to avoid harm. This may include sounding the train whistle to give warning.

General operation of the GBWS

The ground Based Warning System consists of a series of flashing lights and audible warning sirens installed beside each road that are activated by Train crew to warn people that a train is going to move.

The GBWS is activated by operating push buttons in a control panel located on the access platforms on each road.

When the system is activated, a series of lights on each side of the applicable road will flash and an audible siren will sound.

Note

pedestrian lights are lights that are facing the boardwalk (see picture below

GBWS control panel

The GBWS control panel is fitted on the departure end access platforms on all roads in the Stabling Yard adjacent to the Drivers cab. A panel is also fitted at the amalgamation and division locations of both the yard and sidings sections of stabling roads 1 and 2.

Note

Departing trains on 1 & 2 sidings, the GBWS control panels are located on the right hand side of the drivers cab, at the division/amalgamation point.

Each control panel has two buttons, a **DEPART** button and **PABT** button. Operation of these buttons allow Train crew to provide warning that a train is about to depart or commence a power against brake test (PABT).

When the **DEPART** or **PABT** button is pressed it will illuminate to indicate the system has activated. The warning will commence 20 seconds after activation.

The duration of warning will depend upon where the train is situated and the type of movement that is about to commence. The duration of the flashing warnings is indicated in the table below;

Berth	*PABT*	*Depart*
Yard (Sydney end)	110 seconds	110 seconds
Siding (Country end)	110 seconds	150 seconds

Cancellation of warning

If the wrong warning type button is pressed or the intended movement will not commence, the selected warning can be changed or cancelled by:

- Pressing the same button again at any time to cancel the GBWS activation.
- Pressing the alternate button within 20 seconds to switch between the PABT or Departure warnings.

GBWS procedures

Prior to commencing a train movement within Leppington stabling yard, Train crew must carry out the applicable GBWS procedure as described in the following table.

Train type	*Location*	*Procedure*
8 car train	All roads	Procedure for 8 car trains
4 car train	1 and 2	Procedure for 8 car trains
4 car train	3 to 10	Procedure for 4 car trains (roads 3 to 10)
Amalgamation/ Division	1 and 2	Procedures for amalgamation and division on 1 and 2 roads.

Procedure for 8 car trains

PABT

Driver

1. After the train continuity is complete give the Guard the all right bell signal **(-)** signal to indicate that you will be conducting the PABT.
2. Secure train by applying the parking brake.
3. Exit the crew compartment and press the **PABT** button on the GBWS panel.
4. The **PABT** button will illuminate to indicate the system has activated.
5. Re-enter the crew compartment

Guard

6. When told by the driver that a PABT is about to start check:
   (a) that warning lights on both sides of the train are flashing
   (b) audible siren is sounding.
7. Give the Driver the all right bell signal **(-)** signal

Driver

8. When you get the all right bell signal **(-)** from the Guard:
   (a) release the parking brake
   (b) check that the area in front of the train is clear
   (c) if visible from your cab, check that the warning lights are flashing.
9. Conduct the PABT as per procedure.
10. Re-apply the parking brake.

Note

If the visual warning ends before the PABT test is fully completed, re-press the **PABT** button to re-activate the system.

Leppington

Departure

Driver

1. Approximately 1 minute prior to departure tell the Signaller via a Digital Train Radio System (DTRS) voice call or a text message that you are OK to depart.
2. Check the departure signal is displaying a proceed indication.
3. Check the parking brake is applied.
4. Give the Guard the all right bell signal (**-**).
5. Exit the crew compartment and press the **DEPART** button on the GBWS panel.
6. Re-enter the crew compartment.

Guard

7. When given the all right bell signal (**-**) by the Driver indicating the train is ready to depart:
    (a) check that warning lights on both sides of the train are flashing
    (b) audible siren is sounding.
8. Give the Driver the all right bell signal **(-)**.

Driver

9. When you get the all right bell signal **(-)** from the Guard:
    (a) release the parking brake
    (b) check that the area in front of the train is clear
    (c) if visible from your cab check the warning lights are flashing.
10. Conduct an inching movement prior to moving and then depart the stabling yard.
11. Test the train whistle at the **whistle** sign.

Procedure for 4 car trains (roads 3 to 10)

Driver

1. After the train continuity is complete, request authority from the Signaller to shunt to the access platform.
2. When authority to shunt is received tell the Guard that the authority to shunt has been obtained and to proceed to departure end access platform to activate the GBWS.

Guard

3. When told by the Driver they have authority to shunt:
    (a) give 2 long bells to indicate leaving the cab
    (b) proceed to departure end access platform.
4. Press the DEPART button on the GBWS panel and check that:
    (a) warning lights on both sides of the train are flashing
    (b) audible siren is sounding.
5. Hand signal the Driver to shunt forward to the access platform.

Driver

6. When GBWS is activated and the Guard is giving the shunt forward hand signal:
    (a) check that the area in front of the train is clear
    (b) conduct inching movement before shunting forward
    (c) stop train adjacent to access platform.
7. Wait for the Guard to return to their operating cab.
8. After receiving the Guard's bell signal to indicate that the Guard is in their cab, conduct the PABT and DEPART procedures using the GBWS for 8 cars.

Degraded Operation Procedures

The ground based warning system is to be considered degraded if:

- audible and/or visual warning fails to operate at all when either the **PABT** or **DEPART** buttons are pressed.
- two or more visual warning lights located on the same side of a single berth fail to operate when the GBWS is activated
- one or more pedestrian light/s per berth is defective.

When the ground based warning system is unavailable (degraded mode), the degraded mode operating procedures utilising a qualified worker must be implemented as soon as practicable for trains departing Leppington stabling yard.

Note

When the ground based warning system is unavailable, trains required to depart the yard prior to the arrival of the Qualified worker may do so with the driver sounding the 'town' whistle. This will continue for trains required to depart until a Qualified worker attends the location.

Degraded mode operating procedures utilising a Qualified worker

Once the Qualified worker arrives on-site, the following procedures will apply when GBWS is in degraded mode.

Driver

1. Approximately 1 minute prior to scheduled departure time request the Guard and the qualified worker to commence checking procedure.
2. Await confirmation from the Guard and the Qualified worker that the departure procedure is complete.

Guard

3. Commence checking procedure when requested by the Driver.
4. Make visual inspection on left-hand side of the train, give one long whistle blast to warn anyone in the danger zone, before departure.
5. Repeat inspection on the right-hand side of the train.
6. Tell the Driver when the departure procedure has been completed.
7. Monitor right hand side of the train until the train starts moving.

Qualified worker

8. Go to a position adjacent to the leading crew compartment.
9. When informed that the train preparation is complete or driver has changed ends, check the entire left-hand side of the train.
10. Give one long, loud whistle blast to warn anyone who may be in the Danger zone that the train is about to depart.
11. Repeat the process for the right-hand side of the train
12. Tell the Driver when both sides of the train have been checked and all is clear from any obstruction.
13. Contact the Signaller and request a proceed indication for the train to depart.

Driver

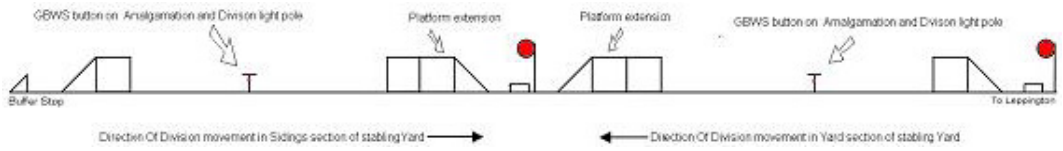
14. Visually inspect the front of the train from the Driver's cab window.
15. Confirm that the departure signal has a proceed indication, then perform inching movement prior to departure.
16. Do not sound the whistle upon departure and proceed to the whistle sign and test the whistle as per procedures for normal GBWS operation.

Leppington

Procedure for amalgamation and division Procedures on 1 and 2 roads

To accommodate the amalgamation and division of trains within Leppington Stabling Yard, roads 1 and 2 have been upgraded. This involves lengthened access platforms and the addition of a GBWS panel installed at the amalgamation and division locations on these roads in both the sidings and yard sections.

Additional signage is placed alongside roads 1 and 2 to indicate to drivers where they are to stop the train after train division.



Simplified diagram of a modified stabling road at Leppington

Note

Amalgamation and division of trains will only take place on 1 & 2 roads. No amalgamation or division will be conducted on 3 to 10 roads.

Before a train is amalgamated or divided, the Train crew must contact the Signaller and request that:

- protecting signal is placed at STOP with blocking facilities applied, or
- points have been secured to prevent access and blocking facilities have been applied.

Once the movement is complete the Train crew must tell the Signaller that the movement is complete and blocking facilities are no longer required.

Driver

1. Position the train correctly, stopping the train at the posted signage in line with their shoulder.
2. Ask the Guard to operate the GBWS before moving the train.

Guard

3. Press the **PABT** button on the GBWS panel at the amalgamation and division location when requested by the Driver.

Train crew

4. Conduct amalgamation or division of the trains with the Guard as per *TWP116 Division and amalgamation of Trains*

Leppington

Note

When dividing, the moving portion of the train must proceed in the direction of travel towards the centre walkway of the yard from either the sidings or yard sections of the stabling yard (centre walkway).

Procedure for Shunting in Leppington Stabling Yard

When shunting into Leppington Stabling Yard, ensure that the Driver's shoulder is in line with the instruction plate (See picture below). This is due to tolerance limits aligning Crew cabs with the Elevated Safe Access Platforms (ESAP).

Note

Due to the lack of 4 car markers and the length of the ESAP's on roads 3 – 10, 4 car sets shunted into these roads must shunt to the 8 car marker.

Note

The usual one metre tolerance either side of the car marker does not apply at Leppington Stabling Yard as this can lead to misalignment with the Elevated Safe Access Platforms.

Leppington

Tracks converted to Axle Counters

The following track circuits at Leppington have been converted to axle counter tracks:

Machine Sidings

LE82AT

LE84AT

There is no signaller operated reset controls for these axle counter tracks. The indication of these track sections has not changed

Related documents

NLA 512 Glenfield-Leppington

Effective date

25 June 2026

