

Central – Hornsby

Network Control

Signallers at Rail Operations Centre (ROC) - North Shore panel.

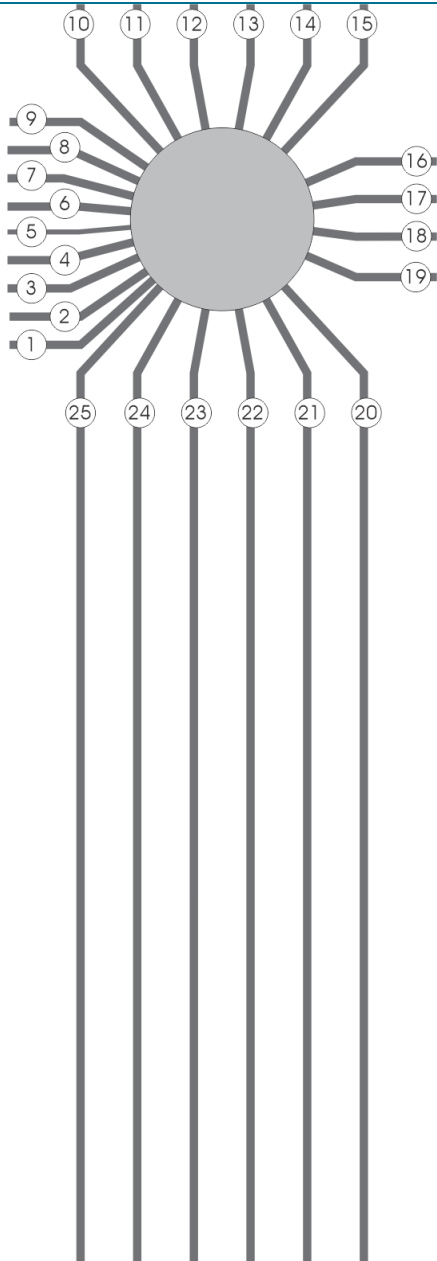
Systems of Safeworking

The Shore line between Central and Hornsby is Rail Vehicle Detection (RVD) double-line territory. It includes the sections:

- Central–North Sydney
 - North Sydney–Chatswood
 - Chatswood–Lindfield
 - Lindfield–Gordon
 - Gordon–Hornsby
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Central-Hornsby

Diagram



Location details

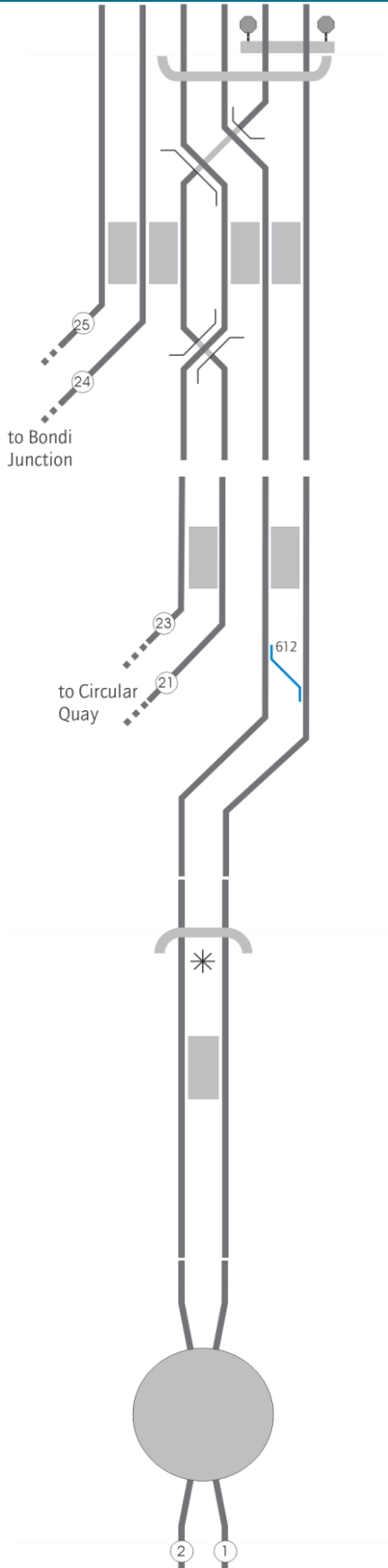
Central 0.000km (NLA 100)



- ① Down Airport line (Central–Sydenham)
- ② Up Airport line (Central–Sydenham)
- ③ Eveleigh Dive
- ④ Up Illawarra Relief line (Bondi Junction–Erskineville)
- ⑤ Down Illawarra Relief line (Bondi Junction–Erskineville)
- ⑥ Down Illawarra line (Central–Sutherland)
- ⑦ Up Illawarra line (Central–Sutherland)
- ⑧ Down Illawarra Local line (Central–Sutherland)
- ⑨ Up Illawarra Local line (Central–Sutherland)
- ⑩ Down Local line (Central–Lidcombe)
- ⑪ Up Local line (Central–Lidcombe)
- ⑫ Down Suburban line (Central–Lidcombe)
- ⑬ Up Suburban line (Central–Lidcombe)
- ⑭ Down Main line (Central–Lidcombe)
- ⑮ Up Main line (Central–Lidcombe)
- ⑯ Up Main line (Sydney Terminal)
- ⑰ Down Main line (Sydney Terminal)
- ⑱ Down Suburban [Yard] line (Sydney Terminal)
- ⑲ Up Suburban [Yard] line (Sydney Terminal)
- ⑳ Down Shore line
- ㉑ Down City Outer line (City Circle)
- ㉒ Up Shore line
- ㉓ Up City Inner line (City Circle)
- ㉔ Down Eastern Suburbs Railway (ESR) line (Erskineville–Bondi Junction)
- ㉕ Up ESR line (Erskineville–Bondi Junction)

Central-Hornsby

Diagram



Location details

Town Hall 1.092km

- 📍 0.563km Network access
- 🏠 0.563km Goulburn Street portal
- 📏 1.092km Town Hall. Platforms 4, 5 and 6, 1 and 2, 3
- Ⓜ️ 25 Up ESR line
- Ⓜ️ 24 Down ESR line

Wynyard 1.964km

- 📏 1.964km Wynyard. Platforms 5 and 6, 3 and 4
- 🚦⁶¹² Up Shore line to Down Shore line (see Special Instructions)
- Ⓜ️ 21 Down City Outer line
- Ⓜ️ 23 Up City Inner line

- 🏠 2.824km Argyle Street portal
- ✳️ 2.824km Sydney Harbour Bridge
- ⚠️ See Special instructions
- 📏 4.350km Milsons Point. Platform 1 and 2

North Sydney 5.090km (NLA 306)

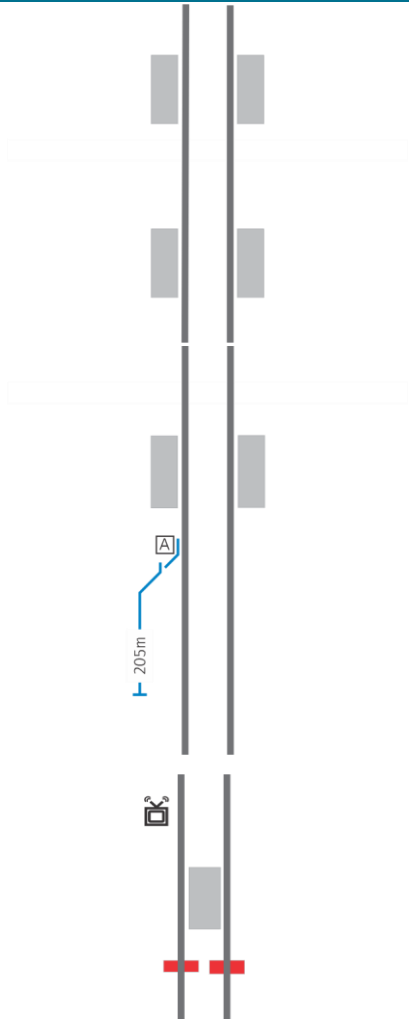


- Ⓜ️ 1 Down Shore line
- Ⓜ️ 2 Up Shore line
- ⚠️ See Special instructions

Central-Hornsby

Diagram

Location details



6.018km Waverton. Platforms 1, 2

7.094km Wollstonecraft. Platforms 1, 2

St. Leonards 8.373km



8.373km St Leonards. Platforms 1, 2

A 8.573km Up siding to Up Shore line: key from releasing switch A, released by track-circuit

! Signals set at STOP by taking the release: Up automatics SH5.80, SH5.60 and SH5.40

! See Special instructions

9.880km Pantograph Condition Monitoring System (PCMS), Up Shore line

! See Special Instructions

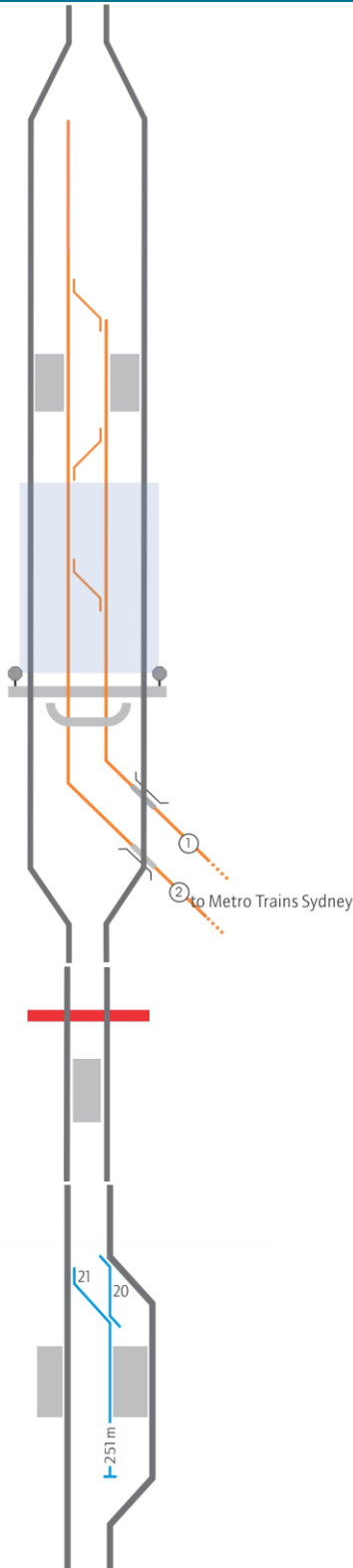
10.206km Artarmon. Platform 1 and 2

10.708km Network Access Pad Up Shore (27m long)

10.708km Network Access Pad Down Shore (23m long)

Central-Hornsby

Diagram



Location details

Chatswood 11.570km



- ! Controlled from Rail Operations Centre (ROC)
- 11.570km Chatswood. Platforms 1 and 2, 3 and 4
- 11.931km Rail Enclosed Structure (RES)
- 12.170km Network access
- ⌋ 12.600km Chatswood portal
- ① Down Metro Trains Sydney
- ② Up Metro Trains Sydney

- 12.887km Network Access Pad Up & Down Shore (21m long)
- 13.223km Roseville. Platform 1 and 2

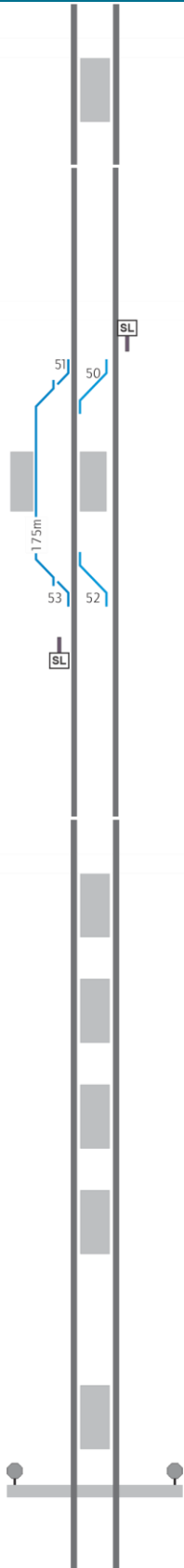
Lindfield 14.590km

- ! Controlled from Rail Operations Centre (ROC)
- ⌋ 14.053km Down signal LD1
- ⌋ 14.210km Up signal SH8.82
- 20 Down Shore line to Local Platform road
- 21 Local Platform road to Up Shore line
- 14.590km Lindfield. Platforms 1, 2 and 3
- ⌋ 14.779km Down signal SH9.15
- ⌋ 14.913km Up signal LD8

Central-Hornsby

Diagram

Location details



15.810km Killara. Platform 1 and 2

Gordon 17.112km



! Controlled from Rail Operations Centre (ROC)

YL 15.992km Down signal GN1

SL 16.611km Up SHUNT LIMIT sign on Down Shore line

EYL 16.639km Up signal SH10.46

50 Down Shore line to Up Shore line

51 Local Platform road to Up Shore line

17.112km Gordon. Platforms 1, 2 and 3

52 Down Shore line to Up Shore line

53 Local Platform road to Up Shore line

SL 17.625km Down SHUNT LIMIT sign on Up Shore line

EYL 17.699km Down signal SH10.99

YL 18.128km Up signal GN24

18.821km Pymble. Platform 1 and 2

20.738km Turramurra. Platform 1 and 2

21.809km Warrawee. Platform 1 and 2

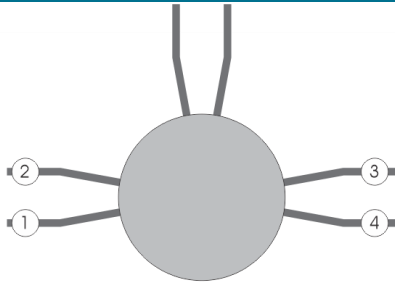
22.694km Wahroonga. Platform 1 and 2

24.129km Waitara. Platform 1 and 2

24.725km Network access

Central-Hornsby

Diagram



Location details

Hornsby 33.704km (NLA 302)



- ① Down Main North line (Hornsby–Gosford)
- ② Up Main North line (Hornsby–Gosford)
- ③ Up Main North line (Strathfield–Hornsby)
- ④ Down Main North line (Strathfield–Hornsby)

Special instructions

City underground

Fires

Fires in the city underground must be reported to the Electrical System Operator.

FIRE telephones are located in tunnels and at Town Hall and Wynyard stations.

Road/rail access

Road/rail access is available to the Down Shore line at the Goulburn Street portal, from the gate on the Pitt Street side.

Signal emergency control buttons

Some automatic signals in the city underground and on the North Shore line have emergency control buttons to set the signals at STOP.

Emergency control buttons can be used to set signals at STOP to protect work on track.

Non-stopping rail traffic

If rail traffic is to transit the Up and Down Shore lines between Goulburn Street Portal and Argyle Street Portal without stopping, the Driver or track vehicle operator must:

- slow vehicles to a maximum of 10km/h before arriving at a platform, and
- pass the platform at no more than 15km/h, and
- sound the whistle at the departure end of the platform before increasing speed.

Unsignalled movements

If unsignalled movements need to be made in the city underground, headlights must be switched on between stations.

Multi-unit trains must not be propelled. If necessary, two trains must be amalgamated.

If a locomotive-hauled train is to propel, the route for the entire movement must be set and unoccupied.

Sydney Harbour Bridge



Warning

The following switches have exceeded the maximum allowable gap and are clipped and locked for reverse movements;

- North Shore Down 3.943km RH Expansion Switch
- North Shore UP 3.44km LH Expansion switch
- North Shore UP 3.44km RH Expansion switch
- North Shore UP 3.824km R/H Expansion switch

Rail Corridor security enclosure

Staff must attend a Sydney Harbour Bridge Induction to work on the bridge.

Between Argyle Street portal and Milsons Point station, a security enclosure is installed along the entire length of the bridge between the cycleway and the Rail Corridor.

The enclosure has an elevated walkway along the approach spans, and refuges on the main span.

An electronically controlled infrared detection system also monitors access to the bridge from the Argyle Street portal.

Ladders and electronically controlled gates allow access to the cycleway every 100 metres, while yellow steps provide access from the track to the walkway every 15 metres.

Access to the Rail Corridor is via these gates on the cycleway or Argyle Street portal. An RMS Sydney Harbour Bridge Electronic Access Card is needed, and permission must be obtained from the Sydney Harbour Bridge Security room.

Only staff inducted and issued with an access card may enter the secure areas of the bridge.

A **BREAK GLASS PANEL**, located next to each gate in the Rail Corridor, enables emergency exit to the cycleway. Activation of the **BREAK GLASS PANEL** releases lockers containing stairs, and triggers an alarm in the Sydney Harbour Bridge Security room. Sydney Harbour Bridge Security will remotely release other gates and lockers.

Central-Hornsby

Emergency evacuation stairs are stored in lockers on either side of the gates, and train to track ladders are installed along the bridge to enable evacuation of passengers from the Rail Corridor to the cycleway in the case of a train emergency.

St Leonards Up siding

Work on track

When work on track is to be carried out in the Up siding, the procedures below must be followed.

Authorisation

Only the Network Controller may authorise work on track in the Up siding.

Protection Officer

Make sure that rail traffic within the siding will not move without authorisation.

Tell the Network Controller:

- your name and contact details, and
- give the name of the siding, and
- the type of work to be done, and
- the intention to clip the relevant points, and
- the intended start and finish times
- when applicable, that rail traffic within the siding will not move without authority.

Network Controller

Make sure that rail traffic not associated with the work, is not scheduled to enter the siding during the work on track times.

Signaller

Ask the Network Controller for permission to allow work on track to commence.

Network Controller

When the above conditions have been met, authorise the work on track to commence.

Signaller

When authorised, advise the Protection Officer to commence work.

Network Controller and Signaller

Record, in permanent form, all information about the authorisation of work on track in the siding.

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Protection Officer

When permission is received to allow work on track to commence:

- clip and lock the points to prevent unauthorised rail traffic access to the siding.



Warning

Work within the sidings must not commence until the points have been clipped and locked.

Returning the siding to service

Protection Officer

Make sure that:

- all equipment is clear of the line
- all workers have cleared the worksite
- the line is certified fit for service
- the point clip and SL lock has been removed, then
- tell the Network Controller that the work is completed, and about any restrictions on track use.

Protecting work on the Up Shore line

As the Signaller is not able to provide protection from rail traffic which has the potential to access a worksite between the siding and North Sydney, when the siding is occupied the Protection Officer must secure the points in the normal position for all work on track methods that do not include the siding before work commences.

Operating St Leonards frame A

To take the release and operate the hand throw points

Qualified worker



Note

Operate points machines in order from the trailing end to the facing end.

1. Ask signaller for permission to take the release.
2. When the releasing switch light is lit, press and hold the release button. Pressing the button sets the protecting signals at STOP.
3. While holding the button, turn the keys from LOCKED to UNLOCKED and take the keys from the cabinet. If the button is not held depressed, the keys will not be released. Removing a key holds the protecting signals at STOP.



Note

If the button is released before a key is removed, the protecting signal may re-clear.

4. Insert and turn the key in the lock on the points machine. The lock captures the key.
5. Pull out the locking pin to allow the lever to be moved.
6. Lift the catch holding the lever.
7. Operate the lever to move the points to the required position.
8. Track side point indicators will now display STOP
9. Make sure that the closed switch rail is hard against the stock rail.
10. Keep the lever in place with the catch. If it is not held by the catch when the closed switch rail is hard against the stock rail, tell the Signaller.
11. Repeat steps 4 to 9 for the facing end.
12. Do not authorise rail traffic to traverse points until a white arrow is shown in the relevant point indicator.

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Note

If a white arrow is not shown in the points indicator, the facing points must be clipped and locked.

Returning to normal operation

Qualified Worker

1. Make sure that the points and the lever are returned to the normal position. Make sure that the closed switch rail is hard against the stock rail.
2. Make sure the catch holding the lever is in the engaged position.
3. Push in the locking pin.
4. Remove the key.
2. Repeat steps 1 to 4 for the facing end of the points.
3. Check that the trackside point indicator displays a white arrow for the main line route
4. Return the keys to the cabinet and make sure they are turned to the **LOCKED** position
5. Tell the Signaller that the points have been restored to normal.

Chatswood

Fires at Chatswood must be reported to the Electrical System Operator.

Two types of trackside telephones are installed between the country end of the platforms and the country end of the Rail Enclosed Structure (RES):

- red FIRE telephones give direct contact to the Network Controller
- blue emergency telephones give direct contact to the Signaller.

If Signallers receive a report of a fire on the blue emergency telephone, they must tell the Network Controller.

The Network Controller must tell the Electrical System Operator about fires at Chatswood.

Establishing Worksites using Lookouts and Warning Lights as a Safety measure

Worksites using Lookouts and Warning lights as a safety measure may be established on the Up and Down Shore from (Goulburn St Portal to Argyle St Portal inclusive).

These worksites must not be established if rail traffic that does not reliably operate track circuits is operating.

Central-Hornsby

Any established worksite using Lookouts and Warning lights as a safety measure must be cleared prior to allowing rail traffic that does not reliably operate track circuits to enter the affected area.

If the Protection Officer for an established Lookout Working worksite cannot be contacted to gain an assurance that the worksite can be cleared, the Driver or Track Vehicle Operator of Rail Traffic that does not reliably operate track circuits must be issued with a written Condition Affecting the Network (CAN) Warning that includes;

- the location of the worksite,
- the requirement for the Driver or Track Vehicle Operator to travel with headlights switched on between platforms, and,
- Rail Traffic must not exceed 10km/h through the worksite location.

Warning lights must not be used where a minimum warning time of more than 20 seconds is required.

Wynyard 612AB Points

Spring Wing Crossings

For operations using the turnout road (reverse direction):

- Trains can operate as per speed boards without restrictions
- High Rail Vehicles must NOT exceed a maximum speed of 5kph. A qualified worker is required to assist and advise the operator / driver during such movements.
- Minimum weight of vehicles using the turnout road is 1.5T GVM
- During operations the spring wing must NOT be chocked, forced or manually opened/operated

Further detail on maintenance and operations requirements for Wynyard 612AB spring wing crossings are outlined in Engineering Advice EA T 18/02.

Related documents

<i>NLA 100</i>	<i>Central</i>
<i>NLA 102</i>	<i>Sydney Terminal</i>
<i>NLA 104</i>	<i>City Circle</i>
<i>NLA 106</i>	<i>Erskineville–Bondi Junction</i>
<i>NLA 110</i>	<i>Central–Lidcombe</i>
<i>NLA 112</i>	<i>Eveleigh</i>
<i>NLA 300</i>	<i>Strathfield–Hornsby</i>
<i>NLA 302</i>	<i>Hornsby</i>
<i>NLA 306</i>	<i>North Sydney</i>
<i>NLA 308</i>	<i>Chatswood–Epping</i>
<i>NLA 310</i>	<i>Hornsby–Gosford</i>

Effective date

15 April 2024