Division / Business Unit: Engineering & Systems
Function: Operations
Document Type: Guideline

Network Information Book

Sydney 1

Botany Yard(inc) to Enfield South(exc)

OGW-30-25

Applicability

Interstate Network

Publication Requirement

Internal / External

Primary Source

Local Appendix Units Metropolitan 020, 025, 030 & 035
Route Access Standard - Defined Interstate Rail Network Section Pages D45

Document Status

Version #	Date Reviewed	Prepared by	Reviewed by	Endorsed	Approved
1.8	18 Dec 2023	Configuration Management Administrator	Corridor Assets & Operational Representatives	Configuration Manager	Head of Operations Standards

Amendment Record

Amendment Version #	Date Reviewed	Clause	Description of Amendment
1.0	09 Sep 16		Initial issue
1.1	27 Jul 17	Various	Cooks River text and diagram updated with changes from Port Botany Rail Link Stage 3A. Safety interface agreement details added. Corrections to Port Botany 2 and Marrickville Junction diagrams and diagram legend updated.

1.2	28 Feb 2019	1.1, 2.1.1	Board Extent details corrected. Botany Yard line of sight shunting requirements added to new section 2.1.1. Marrickville Junction and other diagrams updated.
1.3	14 Apr 2020	1.3, 1.7, 1.16, 2.2, 2.3 & 2.4	Shared Corridor procedures updated in section 1.3. General Holmes Drive level crossing references removed. Cooks River Loop & Cooks River details updated. Drawing legend updated.
1.4	31 Aug 2021	1.4, 1.16, 2.1	Adjacent Train Control Boards / Centres and Drawing Legend updated. Port Botany 1 & 2, Port Botany – Cooks River diagrams updated. Usage note added to all diagrams
1.5	9 May 2022	1.1, 1.3, 2.1, 2.2, 2.3, 2.4	Board Extent and Applicable Rules sections updated. Botany Yard location & diagrams updated. Port Botany to Cooks River & Cooks River Loop diagrams updated. Cooks River text updated. Marrickville Junction and Marrickville Junction to Enfield diagrams updated.
1.6	3 Aug 2023	1.5.1, 1.7, 2.1, 2.2, 2.4	Interlockings & Sidings and Level Crossings tables updated. Botany Yard vehicle access and operating guidelines added and Kelloggs sidings references removed. Cooks River Loop text updated. Telephone references removed from Botany Yard, Cooks River Loop and Marrickville Junction locations. Port Botany, Cooks River Loop and Cooks River diagrams updated. Port Botany to Cooks River diagram removed.
1.7	11 Oct 2023	2.1, 2.2	Port Botany 2 and Cooks River Loop diagrams updated.
1.8	18 Dec 2023	1.5.1, 1.7, 2.1, 2.2, 2.3, 2.4	Interlockings and Sidings and Level Crossings table updated. Botany Yard Limit details added. All diagrams updated.

Table of Contents

1 General Information

1.1 Board Extent

Botany Yard (inclusive) to Enfield South (exclusive) Down Goods signal ED101 (12.737km) & Up Goods signal G12.8 (12.793km),

Marrickville Junction to Meeks Road Interface CR711G (6.371km) & SM710 (5.648km)

This area is controlled by the Sydney 1 Network Controller, Network Control Centre South (NCCS).

Contact Numbers:

Phone:	(02) 6924 9806
Train Transit Manager:	(02) 6930 5311
Emergency:	(02) 6924 9866

1.2 Safeworking System

Rail Vehicle Detection

1.3 Applicable Rules

Safeworking – Network Rules and Procedures

ARTC Network Rules and Procedures will apply to the Metropolitan Freight Network and the Southern Sydney Freight Line.To ensure consistent application of Network Rules and Procedures in the Sydney Trains and ARTC shared rail corridor areas where the Southern Sydney Freight Line and Metropolitan Freight Network operates, ARTC and Sydney Trains have agreed to variations to their respective Network Rules and Procedures which will apply as detailed.

ANWT 304 Track Occupancy Authority and ANPR 701 Using a Track Occupancy Authority

In exception to the requirement in ARTC Rule ANWT 304 page 4, Authorisation, Attended locations and ANPR 701 page 3, Obtaining a Track Occupancy Authority, Network Controllers, Network Control Officers and Protection Officers must compile a Track Occupancy Authority form (ANRF 002B) when a Track Occupancy Authority is wholly within the yard limits of an ARTC attended location.

ANWT 308 Absolute Signal Blocking

In exception to the requirement in ARTC Rule ANWT 308 page 4, Protection Methods, Protection Officers when requesting Absolute Signal Blocking (ASB) on the ARTC Network must make sure that:

- two consecutive controlled signals can be set at STOP with blocking facilities applied, or
- an ESML handle can be removed to exclude rail traffic, or
- one controlled signal can be set at STOP with blocking facilities applied, and
  - a set of points can be secured to prevent access

  or
  - an easily-reached safe place is available and a Lookout is provided.

Network Controllers and Network Control Officers must make sure that when Protection Officers request an ASB on the ARTC / Sydney Trains shared rail corridor that the above requirements are observed.

NWT 310 Lookout Working

In addition to the requirements of Sydney Trains Rule NWT 310, Sydney Trains will ensure that persons working under NWT 310 Lookout Working, Protection Officers when requesting Lookout Working must make sure that:

- Work in the Danger Zone using the Lookout Working method must be done in daylight hours only, for a maximum of two (2) hours, and
- If the work is to continue beyond this time, it is to be treated as a new application.

Network Controllers and Network Control Officers must make sure that when Protection Officers request Lookout Working on the ARTC / Sydney Trains shared rail corridor that the above requirement is observed.

The above exceptions are summarized in the following table:

ADDITIONAL REQUIREMENTS

SYDNEY TRAINS	ARTC
NWT 304 NIL	**ANWT 304** A Track Occupancy Authority form (ANRF 002B) must be compiled when a Track Occupancy Authority is wholly within the yard limits of an ARTC attended location.
NWT 308 (Absolute Block) NIL	**ANWT 308** • two consecutive controlled signals can be set at STOP with blocking facilities applied, or • an ESML handle can be removed to exclude rail traffic, or • one controlled signal can be set at STOP with blocking facilities applied, and ☐ a set of points can be secured to prevent access or ☐ an easily-reached safe place is available and a Lookout is provided.
NWT 310 • Work in the Danger Zone using the Lookout Working method must be done in daylight hours only, for a maximum of two (2) hours, and • if the work is to continue beyond this time, it is to be treated as a new application.	**ANWT 310** NIL

1.4 Adjacent Train Control Boards / Centres

ARTC Sydney 2	(02) 6924 9804	Emergency	(02) 6924 9864
Sydney Trains	(02) 9379 4733		
Meeks Rd	(02) 8568 3458		

1.5 Section Operating Equipment

1.5.1 Interlockings and Sidings

Km	Interlocking, Station, Platform or Siding	Length of Passenger Platform in Metres
6.744	Patrick Sydney Autostrad Terminal	
6.749	Hutchisons	
7.174	DP World	
7.221	DP World Logistics	
7.907	Botany No 6 Siding	
8.122	Veolia	
9.261	Botany Roads 1 to 4	
9.852	Gelco Siding	
12.822	Cooks River Loop	
14.095	James Siding	
14.699	Cooks River Yard	
6.592	Marrickville Junction	

1.6 Train Braking Requirements

Brake Holding Tests for the Rearmost Vehicles (retention tests)

The following apply:

1. The operator **shall** put into place systems for conducting brake holding tests.
2. The number of vehicles (or for articulated or permanently coupled vehicles the number of triple valve control units) required to conform to the requirements of this sub-section shall be:
   a. Three (3) for freight trains operated in New South Wales;
   b. Two (2) for freight trains not entering New South Wales; and
   c. One (1) for all passenger trains where a guard is provided or three (3) for passenger trains without guards.
3. The vehicle operator shall ensure that air and hand brakes operate correctly.
4. The air brakes on the vehicles **shall** remain effectively applied for a period of time, based on train length, considered sufficient for a member of the train (locomotive) crew to reach the vehicles and secure handbrakes in the event of a breakaway en route.
5. This time **shall** be ten (10) minutes plus three (3) minutes for each 100 metres or part thereof of train length. For example, a train 1240 metres long will require a holding (retention) time of 13 x 3 + 10 = 49 minutes.
6. If any of the required number of vehicles (as specified in item (2) above) fail the above test (as specified in item (5) above), generally known as a holding or retention test, the faulty vehicle(s) **shall** be repaired or the train remarshalled to ensure compliance with the requirements of items (3) and (4) above.
7. Brake holding tests successfully completed will remain valid for the departure within a period of 24 hours from completion of the test. After that period, the vehicles **shall** be re-tested.

Freight Trains

On freight trains, the maximum number of inoperative or isolated brakes permitted on a train **shall** be either of the following:

1. One conventional two-bogie vehicle for every ten (10) vehicles in the train where the vehicle is isolated as a unit.
2. One bogie for every ten (10) bogies in the train where individual bogies can be isolated or the isolation of triple valve control units affects more than two (2) bogies. This applies, only on the proviso that the total un-braked mass of the train **shall not** exceed 10% of the total train mass (excluding the mass of the hauling locomotives).

Item (1) above applies where the only vehicles isolated are conventional two-bogie vehicles. In all other cases, the requirements of item (2) **shall** be followed.

For the purposes of this clause, a four-wheel (two-axle) vehicle **shall** be counted as one bogie, and locomotives under power **shall not** be counted as train vehicles.

1.7 Level Crossings

ALCAM ID is the number allocated from the Australian Level Crossing Assessment Model used by rail and road managers across Australia. It's a national database for assessing risk which is overseen by a National Committee and supported by the Rail Industry Safety Standards Board (RISSB).

ALCAM ID	Road Name	Line Segment	KM	Traffic Type	Access	Control Type
	Port Botany Service Crossing	MFN	6.906	Road	Private	Gates and Stop Signs
4348	Hi-Rail Take-off Up Main & Run Around Cooks River	MFN	12.935	Road	Private	Gates and Stop Signs

1.8 Emergency Local Releases

Nil

1.9 Maximum Permanent Speeds and Permanent Speed Restrictions

Refer the Route Access Standard – Defined Interstate Rail Network Section Pages D45 for all speed information.

1.10 Maximum Train Length

Maximum train length is 1300 metres

1.11 Structure Clearances

Refer Route Access Standards for Rolling Stock Outlines.

1.12 Communications

The National Train Communications System (NTCS) is the Primary communications system for the ARTC controlled rail network and is mandatory for all operators to operate their locomotives using a NTCS ICE (In-Cabin Equipment) Unit as the primary communications device.

A standard ICE unit is installed with the following components

- Telstra NextG™ transceiver
- Iridium satellite transceiver
- UHF Radio
- GPS

The ICE unit primary communications is via the Telstra NextG™ and backup communications is provided via the Iridium Satellite network. The ICE unit will automatically call the Junee network control centre when the routine and emergency buttons are pressed.

The UHF radio is used for the Local train Radio – Train to Train and train to track Side communications.

UHF Local Train Radio (LTR) frequency details

Frequency: 418.425 MHz (UHF),

Bandwidth: 12.5 KHz,

EIRP: 41W (remote/low density areas), 8.3W (medium & high density areas)

Tx CTCSS: 162.2 Hz

Rx CTCSS: 162.2 Hz

Selcall: disabled

Alternate Communication for this section is by mobile or satellite phones.

WB radio communication with Sydney Trains Sydenham is available in the Cooks River to Marrickville Junction section.

1.13 Wayside Monitoring Systems

There are no Wayside devices in this section.

1.14 Ruling Gradients

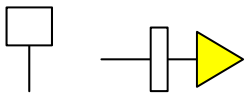
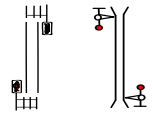
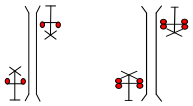
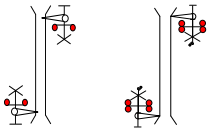
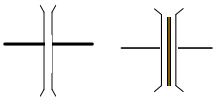
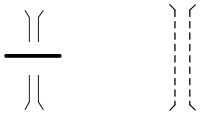
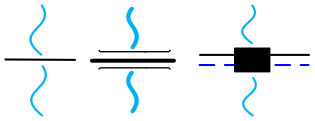
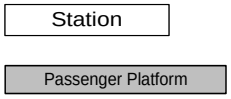
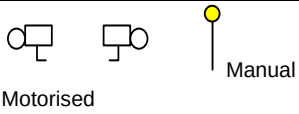
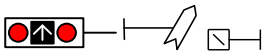
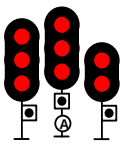
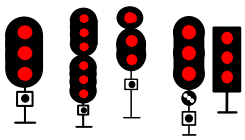
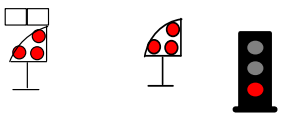
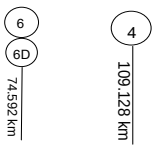
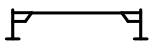
Botany Yard to Enfield	1 in 100
Enfield to Botany Yard	1 in 100

1.15 Curve and Gradient Data

For all Curve and Gradient data, refer to the ARTC Internet.

https://extranet.artc.com.au/eng_network-config_cd.html

1.16 Drawing Legend

	Standard gauge track		Dual gauge track
	Advisory Sign or Location Sign		Speed sign
	Pedestrian Crossing		Passive Protection Level Crossing
	Active Protection Level Crossing – Flashing Lights		Active Protection Level Crossing – Lights and Boom
	Bridge or Overpass		Underpass
	River/Creek or Significant river bridge or Viaduct		Station or Platform
	Tunnel		Crossover
	Turnout		Catchpoint
	Derail		Points Operating Mechanism
	Point Indicator		Mechanical Frame
	Automatic Signals		Controlled Signals
	Dwarf Signals		Signal number reference
	Distant Signal		Repeater Signal
	Overheight Detectors	>> <<	Wayside Equipment

2 Locations and Sections Information

2.1 Yard Limits

Port Botany and Cooks River are located within the Yard Limits of Port Botany with the Yard Limit and End Yard Limit on the Up Goods at signal CR720 (7.208 km) and the Yard Limit and End Yard Limit on the Down Goods at signal G7.1 (7.034 km).

2.2 Port Botany Yard (BTY)

General Arrangements

The Port Botany facility is accessed via the Botany Goods line. Network Control Centre South (NCCS) controls operation of equipment including motor points, colour light signals and rail vehicle detection provided by track circuits.

Roads 1 to 4 have bi-directional operation.

For details regarding private sidings refer to safety interface agreements IA1904, IA1907, IA1908, IA1909 and IA1910.

Boundary Gates and Vehicle Access

There are three (3) access gates to Botany Yard.

- Swinbourne Street – Located at the western end of the Yard and opens onto the vehicle access road.
- McPherson Street – Located halfway along the Yard and opens onto the vehicle access road.
- Penrhyn Road – Also known as Gate 118, is a port precinct access gate licenced to ARTC by NSW Ports. This gate is located on Penrhyn Road opposite Gate 110a.
    - This is the main gate that leads to the vehicle access road over a three (3) track level crossing and has been identified as a major safety and security risk.
    - It is a requirement of ARTCs lease that Gate 118 is kept closed and locked when not in use.

All boundary gates are fitted with a chain and NSW boundary gate lock. Authorised personnel gaining access to Botany Yard must ensure that the above three (3) boundary gates are closed and locked after entering or exiting Botany Yard.

Operating Guidelines

- All trains must be individually crewed when in Botany yard (2-person crew).
- No trains are permitted to stow in Botany Yard.
- Trains without port windows or missed port windows will be held at Enfield and only progressed to Botany when revised port windows are confirmed.
- Trains running 1.5 hours early to the first planned port window will be held at Enfield.
- Trains are required to depart Botany Yard no later than 1.5 hours after last port window.
- Trains with excessive time (3+ hours) between windows may at the discretion of the Network Controller be required to depart Botany Yard and stage at Enfield.

Train Communications

Operation of Botany Admin Radio in the ARTC Botany Yard area is transferred and managed by the Network Controller at NCCS. Provision of hand-portable Admin radio units for use within Botany Yard is the responsibility of Rail Operators.

Operation of Power-operated Points in an Emergency

All points are electrically controlled from the NCCS.

If these points fail to operate correctly, a transit alarm will sound and Network Controller must try to restore the points to their previous position to allow trains to continue running.

Emergency Switch Machine Locks (ESMLs) and Emergency Operating Locks (EOLs) are provided for the Emergency manual operation of points and catch points. The ESML and EOL cabinets are located near each point's machine and labelled with numbering to match the points.

Safeworking Signs

Sign	Line	Position
Begin Single Light Indication	Goods Line	11.018km
End Single Light Indication	Goods Line	10.205km
Catch Point	Gelco Siding	9.782km
Catch Point	Gelco Siding	9.572km
End Signalled Authority Do Not Proceed Unless Authorised	No 1 Siding Veolia	8.063km
End Signalled Authority Do Not Proceed Unless Authorised	Siding No 6	7.833km
End Signalled Authority Do Not Proceed Unless Authorised	North Siding DP World Logistics	7.177km
End Signalled Authority Do Not Proceed Unless Authorised	No 1 Siding DP World	6.876km
End Signalled Authority Do Not Proceed Unless Authorised	No 2 Siding DP World	6.876km
End Signalled Authority Do Not Proceed Unless Authorised	No 4 Siding Hutchisons	6.640km
End Signalled Authority Do Not Proceed Unless Authorised	No 1 Siding Patrick	6.665km
End Signalled Authority Do Not Proceed Unless Authorised	No 2 Siding Patrick	6.665km

Orica Alarm Process

In the event of an Orica alarm activation, train crew personnel must communicate with the Network Controller to confirm the required action. The Network Controller will co-ordinate with the Orica control centre and advice train crew personnel of the required response.

2.2.1 Line of Sight Shunting

Requirements for conducting Line of Sight Shunting

Whilst carrying out Line of Sight Shunting strict radio protocols must always be adhered to as per ANPR 721 Spoken and Written Communication and discreet forms of communication must be used.

If motor vehicles are to be used for the purposes of Line of Sight Shunting they must be fitted with the following operational hazard warning lights:

- Hazard warning lights front and rear of vehicle
- A roof mounted rotating amber coloured warning beacon that must be visible for 360 degrees.

The roof mounted warning beacon may be either portable or permanently fixed. Hazard warning lights and roof mounted warning beacons must always be operating during Line of Sight Shunting movements.

Shunting instructions must not be given from within moving motor vehicles.

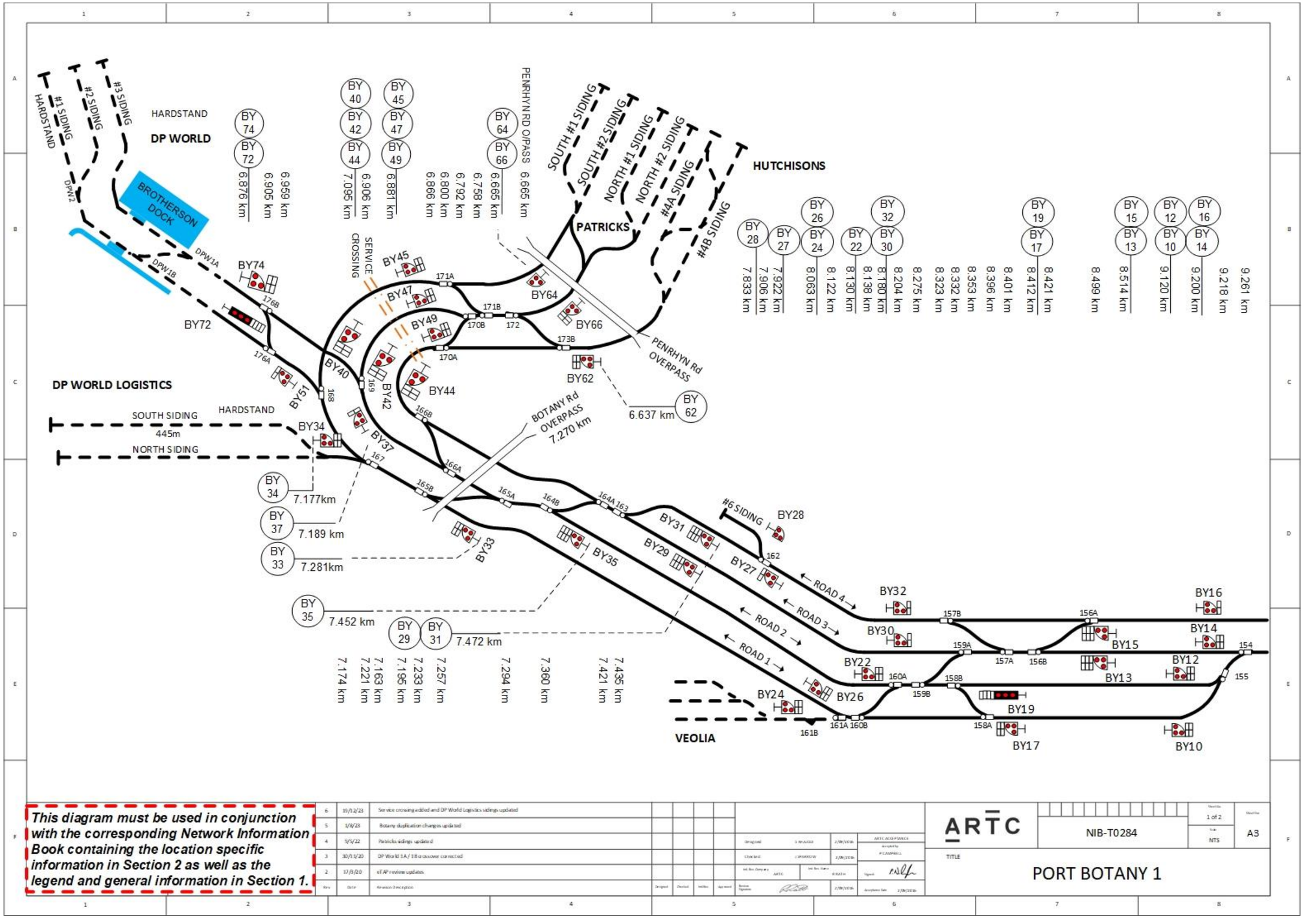
All personnel involved in the Line of Sight Shunting movements must be briefed prior to the movement commencing and must have a common understanding and agree to all planned movements to be carried out.

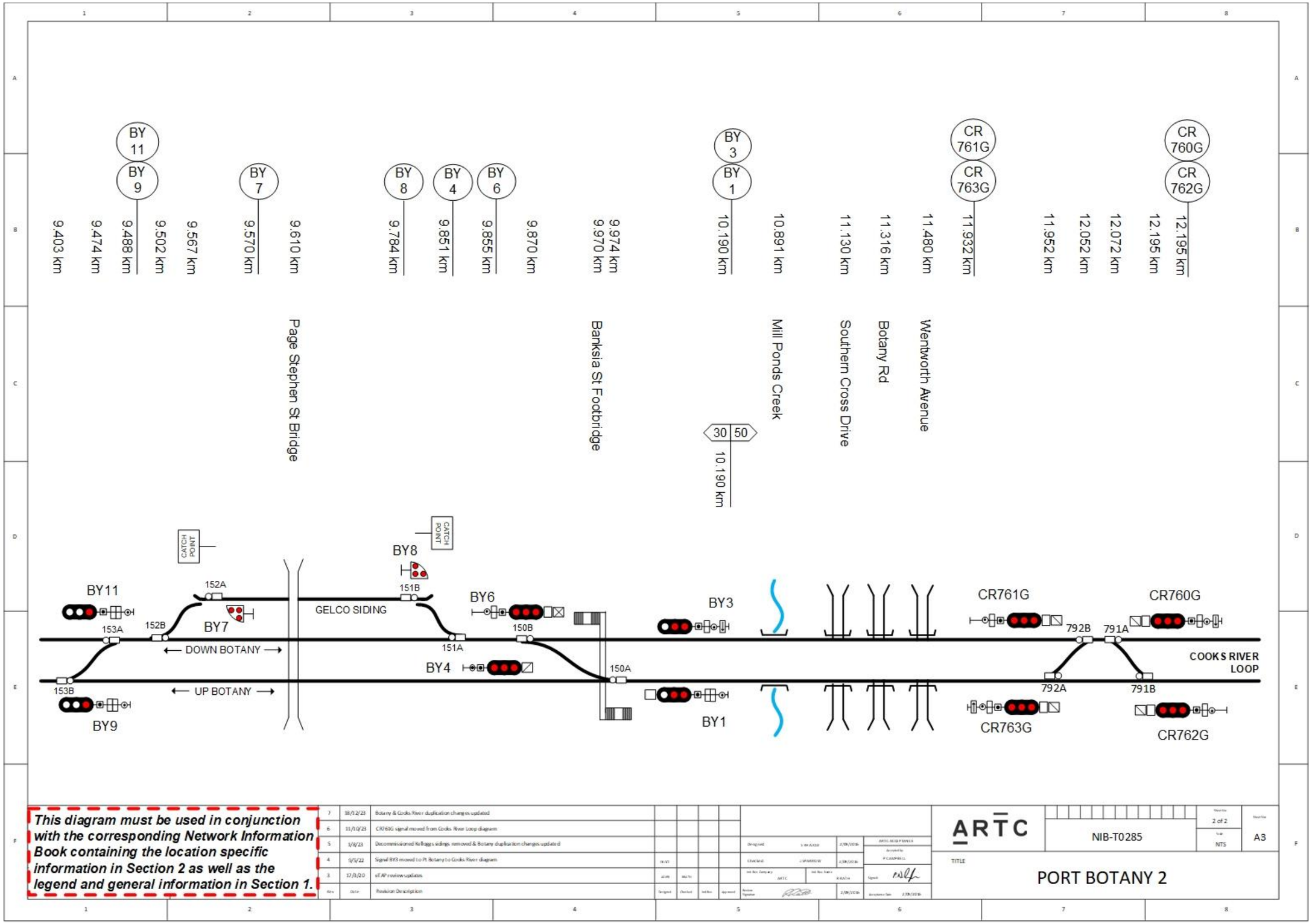
Line of Sight Location

A location from which a Competent Worker, conducting a shunt movement, can maintain a clear view of a shunt movement and the route over which it is to travel as it is being propelled towards the Competent Worker.

Line of Sight Shunting Protocol

1. The Competent Worker controlling the shunting movement must gain authorisation from the ARTC Network Controller in NCCS before commencing any Line of Sight Shunting movements.
2. The Competent Worker must ensure all points are set for the intended route.
3. Prior to commencing the movement, the Competent Worker must proceed from the rear of the train to the line of sight location.
4. The Competent Worker must then instruct the driver to propel towards the line of sight location.
5. The Competent Worker must always maintain sight of the lead vehicle of the movement.
6. The movement must be stopped at the line of sight location.
7. Once the movement is stationary at the line of sight location, the Competent Worker must then proceed to the next line of sight location.
8. Repeat steps 3 to 7 for each successive line of sight location until the propelling movement is completed.
9. Any issues associated with the use of line of sight shunting must immediately be reported to the ARTC Network Controller in NCCS.


HARDSTAND
#1 SIDING
#2 SIDING
#3 SIDING
DP WORLD
BROTHERSON DOCK
DPW2
DPW1A
DPW1B
BY74
BY72
BY40
BY42
BY44
BY45
BY47
BY49
BY64
BY66
BY62
BY51
BY37
BY34
BY33
BY35
BY29
BY31
BY28
BY27
BY32
BY30
BY22
BY26
BY24
BY19
BY17
BY16
BY14
BY12
BY10
BY15
BY13
SERVICE CROSSING
PENRHYN RD O/PASS 6.665 km
SOUTH #1 SIDING
SOUTH #2 SIDING
NORTH #1 SIDING
NORTH #2 SIDING
#4A SIDING
#4B SIDING
PATRICKS
HUTCHISONS
PENRHYN Rd OVERPASS
BOTANY Rd OVERPASS 7.270 km
#6 SIDING
ROAD 4
ROAD 3
ROAD 2
ROAD 1
DP WORLD LOGISTICS
SOUTH SIDING 445m
NORTH SIDING
VEOLIA
6.637 km
7.177km
7.189 km
7.281km
7.452 km
7.472 km
7.174 km
7.221 km
7.163 km
7.195 km
7.233 km
7.257 km
7.294 km
7.360 km
7.421 km
7.435 km
6.876 km
6.905 km
6.959 km
7.095 km
6.906 km
6.881 km
6.866 km
6.800 km
6.792 km
6.758 km
6.665 km
7.833 km
7.906 km
7.922 km
8.063 km
8.122 km
8.130 km
8.138 km
8.180 km
8.204 km
8.275 km
8.323 km
8.332 km
8.353 km
8.396 km
8.401 km
8.412 km
8.421 km
8.499 km
8.514 km
9.120 km
9.200 km
9.218 km
9.261 km
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.
ARTC
NIB-T0284
1 of 2
A3
NTS
TITLE
PORT BOTANY 1



This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

Rev	Date	Revision Description
7	18/12/23	Botany & Cooks River duplication changes updated
6	11/10/23	CR763G signal moved from Cooks River Loop diagram
5	1/8/23	Decommissioned Kellogg's sidings removed & Botany duplication changes updated
4	9/5/22	Signal BY3 moved to Pt Botany to Cooks River diagram
3	17/3/20	eTAP review updates

ARTC | NIB-T0285 | Sheet No 2 of 2 | Scale NTS | Sheet Size A3

TITLE

PORT BOTANY 2

2.3 Cooks River Loop

General Arrangements

Operations along (RVD) Metropolitan Freight Network (MFN) Line are remotely controlled by the ARTC Network Control Centre South (NCCS).

The Cooks River Loop is connected to the Up Botany line.

The through movement of trains from the Up Botany line is signalled by the NCCS.

Cooks River Loop

Cooks River Loop is capable of holding 655 metre trains.

Up and Down trains may travel through the Cooks River Loop on the authority of the fixed signals.

Catch points are located at both end of Cooks River Loop.

787 & 788 points are self-normalising points.

Operation of Power-operated Points in an Emergency

All main line points are electrically controlled from the NCCS.

If these points fail to operate correctly, a transit alarm will sound and Network Controller must try to restore the points to their previous position to allow trains to continue running.

Emergency Switch Machine Locks (ESML's) are provided for the Emergency manual operation of points and catch points.

The Signals maintenance representative must be promptly advised of failure circumstances.

12.395 km
O`Riordan St
12.530 km
755 RPTR
757 RPTR
12.565 km
Robey St
12.705 km
CR 755G
CR 757G
12.795 km
12.889 km
12.918 km
CR 750G
CR 752G
CR 754G
12.935 km
Take Off
13.038 km
750 RPTR
13.320 km
Qantas Bridge
13.400 km
745 RPTR
13.561 km
CR 745G
CR 747G
CR 749G
13.566 km
IND CR 749G
13.615 km
13.737 km
CR 742G
CR 744G

GANTRY

755 RPTR
757 RPTR
CR755G
CR757G
PORT BOTANY YARD
788A
788B
CR750G
CR752G
CR754G
750 RPTR
745 RPTR
DOWN BOTANY
UP BOTANY
LOOP 655m
CR745G
CR747G
CR749G
IND
CR749G
787B
787A
Co-Acting
CR742G
CR744G
COOKS RIVER

This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

Rev	Date	Revision Description
6	18/12/23	Botany and Cooks River duplication changes updated
5	11/10/23	751 and 752 crossovers added
4	17/7/23	Signals, 788 points km and loop length updated
3	9/11/21	Pedestrian bridge removed
2	12/2/20	Loop length updated

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2.4 Cooks River (CVR)

General Arrangements

Operations along (RVD) Metropolitan Freight Network (MFN) Line are remotely controlled by the ARTC Network Control Centre South (NCCS).

Cooks River Run Around

Cooks River run around is capable of holding 480 metre trains.

Up and Down trains may travel through the Cooks River Run Around line on the authority of the fixed signals.

Catch points are located at both end of Cooks River Run Around.

785 & 786 points are self-normalising points.

Cooks River Private Sidings

Cooks River comprises of three private sidings. There are 4 interfaces shown on the diagram: MCS Cooks River Yard, Boral Cement Siding and James Transport Siding North and South.

Movements into and exiting the Private Sidings are managed by NCCS.

Catch points are located at the connection points to the ARTC Network. C & D frames are manually operated and release is given by NCCS. F frame is manually operated and has a facing point lock with electrical detector and a releasing switch / key (802).

781 points are self-normalising points.

For further details regarding private sidings refer to safety interface agreements IA1912, IA1913 and IA1914.

Operation of Power-operated Points in an Emergency

All main line points are electrically controlled from the NCCS.

If these points fail to operate correctly, a transit alarm will sound and Network Controller must try to restore the points to their previous position to allow trains to continue running.

Emergency Switch Machine Locks (ESML's)/Emergency Operating Locks (EOLs) are provided for the Emergency manual operation of points and catch points.

The Signals maintenance representative must be promptly advised of failure circumstances.

14.975 km
CR 722G
CR 724G
14.918 km
14.908 km
14.852 km
14.822 km
14.767 km
CR 726G
14.750 km
14.744 km
Princes Highway Bridge
CR 721G
CR 723G
14.738 km
14.736 km
14.726 km
CR 727G
CR 733G
14.644 km
14.697 km
14.588 km
14.583 km
14.633 km
14.400 km
SB41-42 Bridge
CR 734G
CR 736G
CR 738G
14.089 km
14.084 km
14.165 km
CR 739G
CR 741G
14.016 km
13.979 km
Alexandra Canal
14.060 km
14.031 km
SB21 Bridge
END SINGLE LIGHT INDICATION
BEGIN SINGLE LIGHT INDICATION
JAMES TRANSPORT SIDING
D
2D
C
2C
CP
CR739G
CR741G
CR734G
CR736G
CR738G
786A
786B
RUN AROUND
2F
F
CR721G
DOWN BOTANY
UP BOTANY
784
CR723G
CR726G
CR733G
785A
CR727G
785B
781
783A
783B
782A
782B
CR722G
CR724G
COOKS RIVER LOOP
MARRICKVILLE JUNCTION
TO BORAL CEMENT SIDINGS
SYDNEY PORTS CORP TO COOKS RIVER YARDS
END SIGNALLED AUTHORITY DO NOT PROCEED UNLESS AUTHORISED

This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

Rev	Date	Revision Description
3	20/12/23	Signal CR726G corrected & Gateway bridge x added
2	25/1/19	Update kms from verification spreadsheet
1	28/7/17	Botel Cement siding and Run Around road changes updated

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COOKS RIVER

2.5 Marrickville Junction (MKV)

General Arrangements

Operations along (RVD) Metropolitan Freight Network (MFN) Line are remotely controlled by the ARTC Network Control Centre South (NCCS).

Marrickville Junction

The Botany Line joins the Goods Line at Marrickville Junction. The Goods Line interfaces with the Sydney Trains Network at Marrickville Junction. Refer safety interface agreement IA1903 for further details.

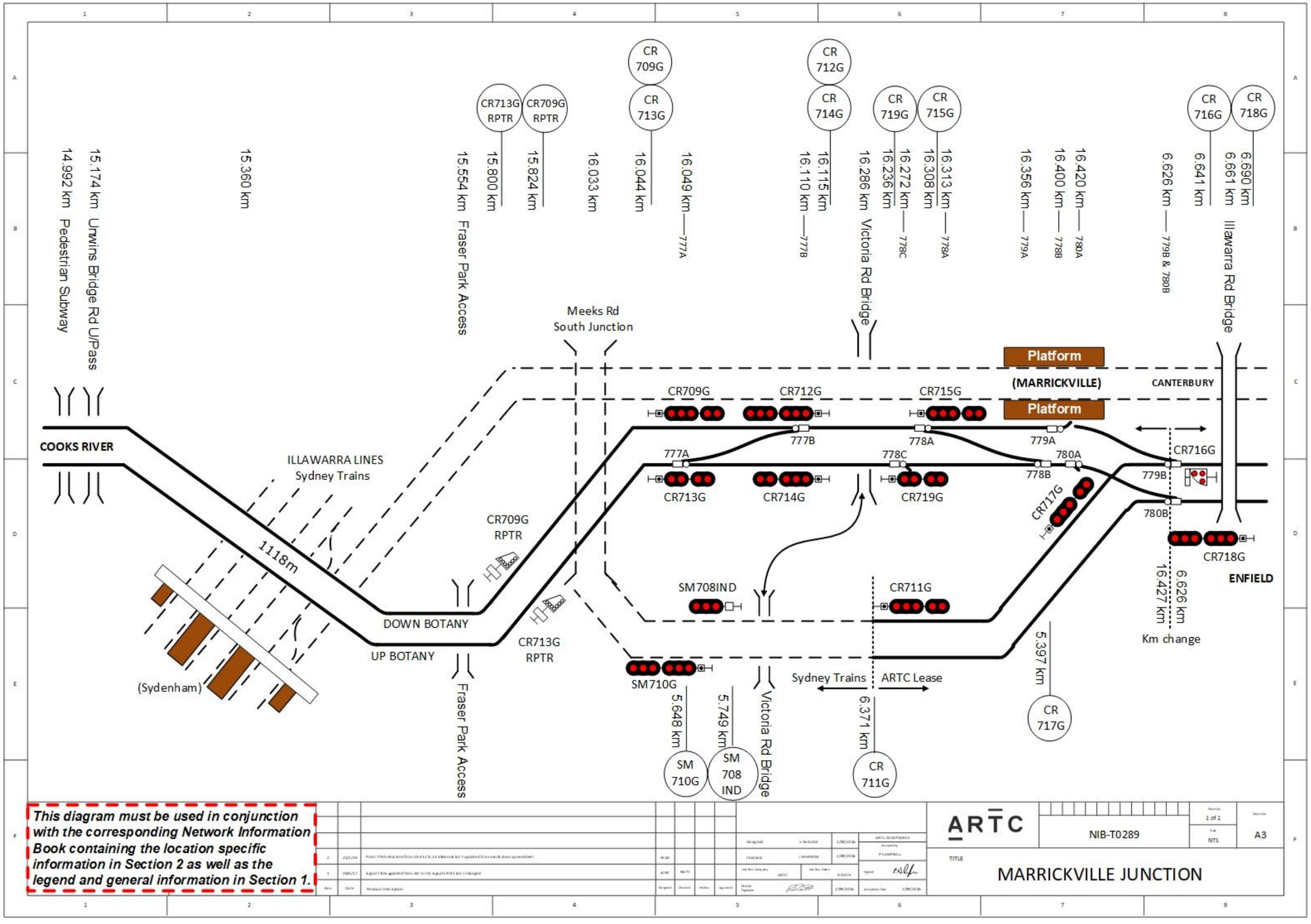
Operation of Power-operated Points in an Emergency

All main line points are electrically controlled from the NCCS.

If these points fail to operate correctly, a transit alarm will sound and Network Controller must try to restore the points to their previous position to allow trains to continue running.

Emergency Switch Machine Locks (ESML's) are provided for the Emergency manual operation of points and catch points.

The Signals maintenance representative must be promptly advised of failure circumstances.


15.174 km Unwins Bridge Rd U/Pass
14.992 km Pedestrian Subway
15.360 km
15.554 km Fraser Park Access
CR713G RPTR
15.800 km
CR709G RPTR
15.824 km
16.033 km
CR 709G
CR 713G
16.044 km
16.049 km
CR 712G
CR 714G
16.115 km
16.110 km
16.286 km Victoria Rd Bridge
CR 719G
16.236 km
CR 715G
16.272 km
16.308 km
16.313 km
16.356 km
16.420 km
16.400 km
CR 716G
6.641 km
CR 718G
6.690 km
6.661 km Illawarra Rd Bridge
6.626 km
Meeks Rd South Junction
Platform
(MARRICKVILLE)
CANTERBURY
CR709G
CR712G
CR715G
777A
777B
778A
778C
779A
780A
778B
780B
CR716G
779B
CR713G
CR714G
CR719G
CR717G
CR718G
ENFIELD
COOKS RIVER
ILLAWARRA LINES
Sydney Trains
1118m
CR709G RPTR
DOWN BOTANY
UP BOTANY
CR713G RPTR
(Sydenham)
SM708IND
CR711G
SM710G
Sydney Trains
ARTC Lease
5.397 km
CR 717G
16.427 km
6.626 km
Km change
5.648 km
SM 710G
5.749 km
SM 708 IND
Victoria Rd Bridge
6.371 km
CR 711G
Fraser Park Access
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.
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MARRICKVILLE JUNCTION

G 7.1 — 7.034 km
CR 720G — 7.208 km
7.149 km — Livingstone Rd Bridge
G 7.9 — 7.778 km
7.476 km — Challis - Albmarle St
7.819 km — Wardell Rd
G 8.4 — 8.392 km
8.169 km — Ness Ave
8.698 km — Duntroon St
8.487 km — Garnet St
G 8.9 — 8.900 km
G 9.2 — 9.233 km
G9.2 RPTR — 9.358 km
9.084 km — Foord Ave
9.515 km — Melford St
10.088 km — Canterbury Rd
9.802 km — Pedestrian Bridge
G 10.3 — 10.246 km
G 10.4 — 10.338 km
10.423 km — Charles St
10.441 km — Cooks River
G 11.5 — 11.491 km
G 11.6 — 11.641 km
10.715 km — Wairoa St
11.411 km — Pedestrian Bridge
11.598 km — Beamish St
ED 101D — 12.737 km
G 12.8 — 12.793 km
12.239 km — Loch St

YARD LIMIT
G7.1
MARRICKVILLE JUNCTION
SHUNTING LIMIT
CR720G
YARD LIMIT
G7.9
G8.4
HURLSTONE PARK
Platform
G8.9
UP GOODS
G9.2
G9.2 RPTR
DOWN GOODS
CANTERBURY
Platform
G10.3
G10.4
CAMPSIE
G11.5
Platform
G11.6
Platform
YARD LIMIT
ED101D
ENFIELD
G12.8
YARD LIMIT

This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

Rev	Date	Revision Description
3	20/12/23	Botany yard limits added to signals G7.1 and CR720G
2	17/3/20	eT AP review updates
1	25/3/19	Update limits as per verification spreadsheet

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TITLE
MARRICKVILLE JUNCTION TO ENFIELD