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Operations Interface
Route Access Standard

D45 Port Botany - Macarthur

RAS DIRN Section Page

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All changes in this document are highlighted with this colour	

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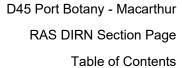




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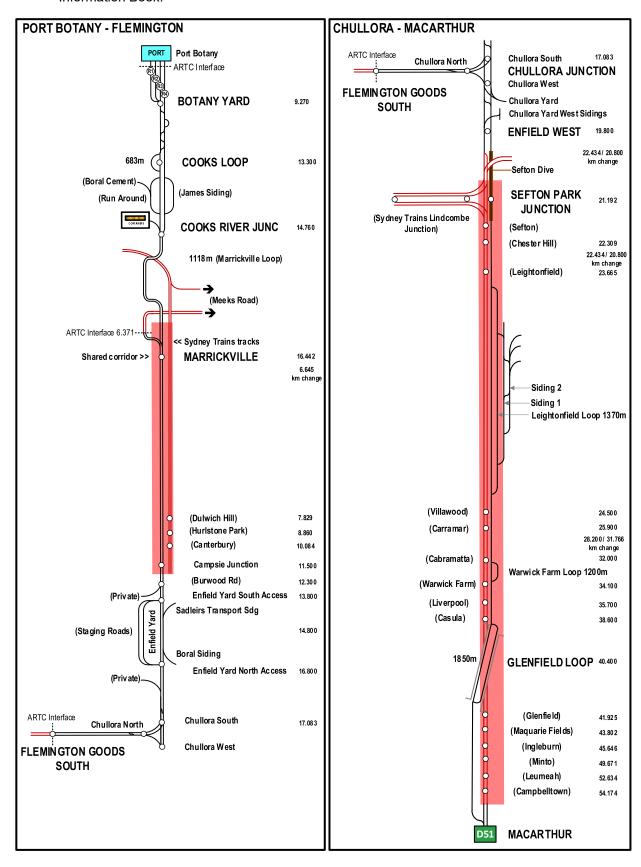
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Network Diagram



1 Network Diagram

Note: These line maps are indicative only. For detailed diagrams, refer to relevant Network Information Book.





2 Route Capacity

NOTES TO BE READ IN CONJUNCTION WITH ALL ROUTE CAPACITY TABLES BELOW

Route capacity applies where vehicle characteristics and conditions permit.

Express speeds are for passenger train types that are approved to run to "Express Speed Boards" by the ARTC Network Rules only (i.e. XPT, Xplorer, etc).

For all other passenger trains:

- a. Freight locomotive speed limits apply for diesel locomotive hauled passenger trains.
- b. Freight wagon speeds apply where freight wagons are marshalled as part of the train.
- c. DMU and rail motors are to adhere to carriage axle loads.

PORT BOTANY – COOKS RIVER			
TRAIN TYPE	MAXIMUM SPEED (KM/H)	MAXIMUM AXLE LOAD	(TONNES)
FREIGHT		LOCOS	WAGONS
	50	22.8 (up to 134t GVM)	23
	40	22.8 (up to 134t GVM)	25
PASSENGER		LOCOS	CARRIAGES
EXPRESS	50	N/A	N/A
LOCO HAULED	50	22.8 (up to 134t GVM)	19
(Includes non-express DMU and rail motors)			

COOKS RIVER - MARRICKVILLE			
TRAIN TYPE	MAXIMUM SPEED (KM/H)	MAXIMUM AXLE LOAD	(TONNES)
FREIGHT		LOCOS	WAGONS
	50	22.8 (up to 134t GVM)	23
	40	22.8 (up to 134t GVM)	25
PASSENGER		LOCOS	CARRIAGES
EXPRESS	50	N/A	N/A
LOCO HAULED	50	22.8 (up to 134t GVM)	19
(Includes non-express DMU and rail motors)			



Route Capacity

MARRICKVILLE – FLEMINGTON SOUTH			
TRAIN TYPE MAXIMUM SPEED (KM/H) MAXIMUM AXLE LOAD (TONNES)		(TONNES)	
FREIGHT		LOCOS	WAGONS
	70	22.8 (up to 134t GVM)	25.0
PASSENGER		LOCOS	CARRIAGES
EXPRESS	70	N/A	N/A

FLEMINGTON JUNCTION INTERFACE – ENFIELD DELEC INTERFACE (HEAVY LOCO WHEEL LATHE TRANSFER ONLY)*			
TRAIN TYPE	MAXIMUM SPEED (KM/H)	MAXIMUM AXI	LE LOAD (TONNES)
FREIGHT		LOCOS	WAGONS
	50	28	N/A
ADDITIONAL NOTES APPLICABLE TO FLEMINGTON JUNCTION INTERFACE – ENFIELD DELEC INTERFACE (HEAVY LOCO WHEEL LATHE TRANSFER ONLY):			

^{*}Any loco over 139t will have axle loads decreased by having reducing fuel load (do not fill fuel tank prior to transfer). Transfer to be done under block working conditions.

CHULLORA NORTH JUNCTION - CHULLORA WEST JUNCTION (NORTH FORK TRIANGLE)			
TRAIN TYPE MAXIMUM SPEED (KM/H) MAXIMUM AXLE LOAD (TONNES)		(TONNES)	
FREIGHT		Locos	WAGONS
	35	22.8 (up to 134t GVM)	25.0
PASSENGER		LOCOS	CARRIAGES
EXPRESS	35	N/A	N/A
LOCO HAULED	35	22.8 (up to 134t GVM)	19
(Includes non-express	s DMU and rail motors)		

CHULLORA SOUTH JUNCTION- SEFTON PARK SOUTH JUNCTION (KM CHANGE)			
TRAIN TYPE	MAXIMUM SPEED (KM/H) MAXIMUM AXLE LOAD (TONNES)		(TONNES)
FREIGHT		LOCOS	WAGONS
	70	22.8 (up to 134t GVM)	25.0
PASSENGER		LOCOS	CARRIAGES
EXPRESS	70	N/A	N/A
LOCO HAULED	70	22.8 (up to 134t GVM)	19
(Includes non-express DMU and rail motors)			



SEFTON PARK SOUTH JUNCTION (KM CHANGE) - MACARTHUR			
TRAIN TYPE	MAXIMUM SPEED (KM/H)	MAXIMUM AXLE LOAD (TONNES)	
FREIGHT		LOCOS	WAGONS
	115	22.8 (up to 134t GVM)	21
	100	22.8 (up to 134t GVM)	23
	80	22.8 (up to 134t GVM)	25
PASSENGER		LOCOS	CARRIAGES
EXPRESS	115	N/A	N/A
LOCO HAULED	115	19	19
(Includes non-express DMU and rail motors)			



3 Special Access Conditions

3.1 Maximum Length of Trains

AREA	MAXIMUM TRAIN LENGTH (M)
PORT BOTANY TO MACARTHUR	1800 MAX/AS PER ALLOCATED TRAIN PATH.

4 Permanent Speed Restrictions

OCATION	KILOMETRAGE	DOWN TRACK	UP TRACK
		NORMAL	NORMAL
173B POINTS	6.658	X30	
173A POINTS	6.709		X30
172 POINTS	6.749		X30
171B POINTS	6.758	X30	
170B POINTS	6.792	X30	
171A POINTS	6.800		X30
170A POINTS	6.866		X30
169 POINTS	7.163		X30
168 POINTS	7.174		X30
166B POINTS	7.195	X15	
165B POINTS	7.233	X30	
166A POINTS	7.257		X15
165A POINTS	7.294		X30
164B POINTS	7.343	X10	
164A POINTS	7.410		X15
163 POINTS	7.471	X10	X30
162A-B POINTS	7.858	X15	
162A POINTS	7.907		X15
160B POINTS	8.138	X30	
160A POINTS	8.204		X30
159B POINTS	8.275	X30	
157B POINTS	8.324	X30	
158B POINTS	8.332	X30	
159A POINTS	8.353		X30



		Perma	anent Speed Restrictions
158A POINTS	8.397		X30
157A POINTS	8.401		X30
156B POINTS	8.421	X30	
156A POINTS	8.499		X30
153B POINTS	9.403		X30 Dn Direction
153A POINTS	9.474	X30 Up Direction	
150B POINTS	9.870	X30	
150A POINTS	9.974		X30
	10.190	30 Up Direction	30
	10.190	50	50 Dn Direction
BOTANY	10.410		
792A POINTS	11.952		X50 Dn Direction
792B POINTS	12.052	X50 Up Direction	
791B POINTS	12.072	X50	
791A POINTS	12.174		X50
788A POINTS	12.791		X50 Dn Direction
LOOP	12.889		X50
788B POINTS			
LOOP	13.060	30	50
LOOP	13.561	X30	30
787A POINTS			
787B POINTS	13.615		X30
	13.896	50	
	13.911		50 Dn Direction
	14.120		30 Up Direction
(Boral Cement Sidings)	14.140		End of Signalled Authority
	14.150	30 Up Direction	
	14.698		X10 Up Direction
	14.726		X35 Dn Direction
COOKS RIVER	14.760		
	14.845	X35 Up Direction	
_		X35 Dn Direction	
	14.923		X35 Up Direction
	15.188	50 Up Direction	50 Up Direction
		45 Dn Direction	45 Dn Direction
	16.016		X35 Dn Direction



Permanent Speed Restrictions

16.128	X35 Up Direction	
16.308	45 Up Direction	45 Up Direction
	35 Dn Direction	35 Dn Direction
16.395		X35 Dn Direction

LOCATION	KILOMETRAGE	DOWN TRACK	UP TRACK	
		NORMAL	NORMAL	
MARRICKVILLE JUNC	6.645 (KM CHANGE FROM 16.422)			
	6.690		X35 Up Direction	
	7.034	50 Dn Direction		
	7.270		35 Up Direction	
CAMPSIE	11.697			
(UP Goods)	13.577		50 Up Direction	
			X25 Dn Direction (to Dr Goods)	
(DN Goods)	13.642	X40 Dn Direction (301A to through road 2)		
		X25 Up Direction (to Up Goods)		
(UP Goods)	13.720		X40 Up Direction (301E from through road 2 to Dn Goods)	
			X45 (302A Dn Direction	
ENFIELD SOUTH YARD (see Enfield South Yard to Enfield North Yard)	13.730			
	13.758	50 Dn Direction		
	13.920		50 Dn Direction	
	16.671		X25 Dn Direction	
	16.760	X25 Up Direction		
ENFIELD NORTH YARD	16.830		50 Up Direction	



Permanent Speed Restrictions *(see Enfield South 16.830 50 Up Direction Yard to Enfield North X45 Up Direction Yard) (340B to staging roads) X40 Dn Direction (through 341B) 16.923 X40 Up Direction (341B to Up Main) **CHULLORA SOUTH** 16.940 50 Up Direction **JUNC** 70 Dn Direction towards Flemington 16.988 X15 Dn Direction (345A to Dn Main & South Fork) *to chullora west junc 17.093 X15 Up Direction (345B to Up Main) X35 Dn Direction (Dn South Fork) (Up South Fork) X35 Up Direction 17.142 (Dn South Fork) 17.153 35 Dn Direction (Dn South Fork) 17.430 X35 Dn Direction (353A Points to Boshops Siding Sydney Freight terminal) **CHULLORA WEST** 17.465 X35 Up Direction JUNCTION (Boshops Sidings 17.540 X15 Sydney Freight terminal) (Up Goods) 17.540 X35 Dn Direction (354A Points) (Dn Goods) 17.640 X35 Up Direction (354B Points) (Up Goods) 17.780 35 Up Direction

70 Dn Direction

(Dn Goods)

17.780



Permanent Speed Restrictions

LOCATION	KILOMETRAGE	DOWN TRACK	UP TRACK
		NORMAL	NORMAL
	19.630	60 Dn Direction	
ENFIELD WEST	19.800		
	19.833	X25 Dn Direction	
		X25 Up Direction	
	19.960		X25 Up Direction
	20.284		60 Up Direction
	20.300		X60 Dn Direction
	20.443	X60 Up Direction	
	20.537	70 Dn Direction	70 Dn Direction
	20.565		60 Up Direction
SEFTON PARK	20.657		
EAST JUNCTION	21.050		
SEFTON PARK SOUTH JUNCTION	22.309		
	22.351	70	70
KM CHANGE AT	22.434 / 20.800		
SEFTON	21.192		
CHESTER HILL	22.309		
	22.560	X25	80
SSFL LEIGHTONFIELD LOOP	22.629	25	
SSFL LEIGHTONFIELD LOOP	24.225		25
SSFL LEIGHTONFIELD LOOP	24.300	80	X25
VILLAWOOD	24.500		
CARRAMAR	25.900		
KM CHANGE AT	28.200 / 31.766		



LOCATION	KILOMETRAGE	DOWN <u>DIRECTION</u>	UP <u>DIRECTION</u>
		NORMAL	NORMAL
CABRAMATTA	32.000		
SSFL MAIN LINE	32.145	X80	
SSFL LOOP	32.258		X80
SSFL LOOP	33.678	X80	
SSFL MAIN LINE	33.816		X80

Due to the unique configuration of Warwick Farm Crossing Loop, this table is presented with the columns indicating direction of travel (DOWN/UP), not the 'DOWN TRACK' or 'UP TRACK' as per the rest of the tables in this section page.

ADDITIONAL NOTE APPLICABLE TO CARRAMAR – WARWICK FARM:

WARWICK FARM - MACARTHUR			
LOCATION	KILOMETRAGE	DOWN TRACK	UP TRACK
		NORMAL	NORMAL
	39.400	X60	
	39.415		80
	39.470	60	
SSFL GLENFIELD	40.038	65	80
LOOP	40.180	80	65
	41.400		60
	41.480	80	X60
	41.610	115	80
	49.490	105	115
UP SOUTH MAIN	53.850	100	105
MACARTHUR	57.206		
	57.835	X90	100
	58.090	100	X90
UP SOUTH MAIN	58.100	X90	
DOWN SOUTH MAIN	58.225	95	X90



* FLEMINGTON SOUTH JUNCTION - CHULLORA SOUTH JUNCTION				
LOCATION	KILOMETRAGE	DOWN TRACK	UP TRACK	
		NORMAL	NORMAL	
FLEMINGTON SOUTH JUNC	18.909			
CHULLORA NORTH JUNCTION (*See Chullora North Junction to Chullora West Junction Section)	17.600	X35 Up Direction towards Enfield West		
	17.459	X25 Dn Direction		
	17.142	70 Dn Direction		
CHULLORA SOUTH	17.093	X35 Dn Direction		
JUNCTION		X15 Up Direction		

* CHULLORA NORTH JUNCTION – CHULLORA WEST JUNCTION				
LOCATION	KILOMETRAGE	DOWN TRACK	UP TRACK	
		NORMAL	NORMAL	
CHULLORA NORTH JUNCTION	17.600	X35 (towards Enfield West)		
NORTH FORK (Single Track)	17.480	35 (towards Enfield West)		
		X35 (towards Flemington)		
NORTH FORK (Single Track)	17.320	X35 (towards Enfield West)		
	17.270 (KM Change)	35 (towards Flemington)		
CHULLORA WEST JUNCTION	17.465		X35 (Up Direction)	



* ENFIELD SOUTH YARD – ENFIELD NORTH YARD				
LOCATION	KILOMETRAGE	DOWN TRACK	UP TRACK	
		NORMAL	NORMAL	
*ENFIELD SOUTH YARD (up goods)	13.730		X45 (302A DN Direction)	
(through road No 2)	13.800	45	X45 (302B)	
(through road No 2)	14.040	X15 (intermodal)		
(through road No 2)	14.151	X15		
		X45 (306A to staging road 1)		
(staging road No 1)	14.295	45	X45 (through to road 2)	
(staging road 1)	14.620	X45 (380 to staging road 2)		
(staging road 2)	14.695	45	X45 (380 to staging road)	
(staging road 2)	15.451	X45 (383A to staging road 1)		
(staging road 1)	15.535	X45 (383B to staging road 2)		
(staging road 1)	15.551		X45 (384A to staging road 2)	
(staging road 2)	15.633		X45 (384B to staging road 1)	
(staging road 2)	16.410	X45 (387 to staging road 1)	45	
(staging road 1)	16.450		X45 (387 to staging road 2)	
(staging road)	16.660		45	
(staging road)	16.665	X45 (340A)		
ENFIELD NORTH YARD (main line)	16.800	70		
*ENFIELD NORTH YARD (main line)	16.830		X45 (340B to staging roads)	