

## SOUTHERN CROSS TO BENDIGO

### BROAD GAUGE

#### 1. CLASS OF LOCOMOTIVE AND PERMITTED SPEEDS (KM/H)

		CLASS OF LOCOMOTIVE			
		G, XR, BL	A, B, GM, N, S, X	H, P, T	Sprinter/ Vlocity
SOUTHERN CROSS (Platforms 1 to 7) and the V/LINE/METRO TRAINS INTERFACE (Signals FLX 506, FLX 530, FLX 540, FLX 580 and FLX 532).	All Trains	15	25	25	25
SOUTH KENSINGTON and SIMS STREET JUNCTION (Via Freight Lines)	Freight	40	40	40	
WEST FOOTSCRAY JUNCTION and SUNSHINE (Via Freight Lines)	Freight	15	15	15	
WATERGARDENS and SUNBURY Up & Down Lines (See Special Speed Restrictions)	Freight	80	80	80	..
	Pass	80	115	100	130
SUNBURY and KYNETON WEST Line (Old Down Line) (See Special Speed Restrictions)	Freight	80	80	80	..
	Pass	80	115	100	130
SUNBURY and KYNETON EAST Line (Old Up Line) (See Special Speed Restrictions)	Freight	80	80	80	..
	Pass	80	115	100	130
KYNETON and TARADALE	Freight	80	80	80	..
	Pass	80	115	100	130
TARADALE and ELPHINSTONE WEST Line (Old Down Line) (See Special Speed Restrictions)	Freight	80	80	80	..
	Pass	80	115	100	130
TARADALE and ELPHINSTONE EAST Line (Old Up Line) (See Special Speed Restrictions)	Freight	80	80	80	..
	Pass	80	115	100	115
ELPHINSTONE and CASTLEMAINE	Freight	80	80	80	..
	Pass	80	115	100	130
CASTLEMAINE and HARCOURT	Freight	80	80	80	..
	Pass	80	115	100	130
HARCOURT and RAVENSWOOD WEST Line (Old Down Line) See Special Speed Restrictions	Freight	80	80	80	..
	Pass	80	115	100	130
HARCOURT and RAVENSWOOD EAST Line (Old Up Line) See Special Speed Restrictions	Freight	80	80	80	..
	Pass	80	115	100	115
RAVENSWOOD and KANGAROO FLAT	Freight	80	80	80	..
	Pass	80	115	100	130
KANGAROO FLAT and BENDIGO (KP 160.620) West Line (Old Down Line)	Freight	80	80	80	..
	Pass	80	115	100	130
KANGAROO FLAT and BENDIGO (KP 160.620) East Line (Old Up Line)	Freight	65	65	65	..
	Pass	65	65	65	65
KP 160.620 to Myrtle Street Overbridge KP 161.574	All Trains	80	80	80	80
Between Myrtle Street Overbridge KP 161.574 and Williamson Street PCR KP 162.572	All Trains	40	40	40	40
Up end of BENDIGO Freight yard for Down Freight entering yard	Freight	15	15	15	15

#### 1A. VLOCITY RAIL CARS – AUTHORISED 160KM/H PERMITTED SPEEDS

REGIONAL FAST RAIL CORRIDOR – WATERGARDENS TO BENDIGO	VLOCITY
DOWN Line – WATERGARDENS to KP 33.100 down side of DIGGERS REST	As per table 1 above for Sprinter
DOWN Line – KP 33.100 down side of DIGGERS REST through SUNBURY Center road onto WEST Line to KP 40.180 down side of RUPERTSWOOD	160
UP Line – from SUNBURY to KP 32.600 UP side of DIGGERS REST	As per table 1 above for Sprinter
UP Line – KP 32.600 UP side of DIGGERS REST to KP 24.600 approach to signal SDM 702 WATERGARDENS	160
WEST Line KP 40.180 down side of RUPERTSWOOD to KP 42.670 approach to CLARKEFIELD	As per table 1 above for Sprinter
WEST Line KP 42.670 approach to CLARKEFIELD to KP 71.610 down side of MACEDON	160
WEST Line KP 71.610 down side of MACEDON to KP 75.380 up side of WOODEND	As per table 1 above for Sprinter
WEST Line KP 75.380 Up side of WOODEND through KYNETON and TARADALE WEST Line to KP 112.750 UP side of ELPHINSTONE	160
WEST Line KP 112.750 UP side of ELPHINSTONE to KP 138.697 HARCOURT	As per table 1 above for Sprinter
WEST Line KP 138.697 HARCOURT through RAVENSWOOD to KP 151.780 down side of BIG HILL TUNNEL	160
WEST Line KP 151.780 down side of BIG HILL TUNNEL to 153.200	As per table 1 above for Sprinter
WEST line KP 153.200 to KP 158.598 down side of KANGAROO FLAT Platform	160
KP 158.598 WEST line down side of KANGAROO FLAT Platform to BENDIGO	As per table 1 above for Sprinter

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**2. SPECIAL SPEED RESTRICTIONS**

- The Speed of all trains when passing over Facing Points worked from an interlocking frame or otherwise securely fastened or over trailing points shall be as shown hereunder:

LOCATION	MAXIMUM SPEED (KM/H)	
	When running to or from lines diverging from the straight track	When running on the straight track
Over facing points held by hand	15	15
Between SOUTHERN CROSS and KYNETON (except at certain locations where the maximum speed is displayed in excess of 40 km/h for diverging movements)	40	Line Speed for train type
Except over Fixed Points and Dual Gauge points at Southern Cross	15	25

- G class locomotives are restricted to the below listed maximum speed when operating over the bridges, shown hereunder, between WATERGARDENS (SYDENHAM) and CASTLEMAINE.

DIGGERS REST ARCH at 35.79km	30kph
MALMSBURY VIADUCT at 101.61km	30kph
TARADALE VIADUCT at 107.88km	30kph
PYRENEES HIGHWAY at 124.71km	30kph

- All self propelled Rolling Stock (Locomotives etc) including Track Machines and Track Maintenance vehicles which are not fitted with TPWS must be restricted to a Maximum Speed of 80 (eighty) KMPH between Watergardens and Bendigo.
- Melbourne Yard – Reversing Loop line speed is 5km/h.

**3. RULING GRADE LOADS (TONNES)**

SECTION	CLASSES OF LOCOMOTIVES													
	G, XR, BL	N	GM, S, X	Mod A Class	A solo or multi with A	A multi with other class	B	H solo or multi with H, P, T or Y	H multi with other class	T or P solo or multi with H, P, T or Y	T or P multi with other class	Y solo or multi with T, Y, H or P	Y multi with other class	
<b>DOWN</b>														
Melbourne to SUNSHINE (via Pass Lines)	2790	1830	1830	1830	1625	1625	1625	1220	1220	1220	1220	730	730	
Dynon to TOTTENHAM YARD (Via Freight Lines)	2790	..	..	1830	..	..	..	..	..	..	..	760	760	
SUNSHINE (Via Freight Lines)	..	1830	1830	1830	1625	1625	1625	1220	1220	1220	1220	865	865	
SUNBURY	..	1340	1090	1400	1110	1000	920	780	780	700	630	420	380	
KYNETON	..	1050	860	1150	860	770	760	620	650	560	500	340	310	
CASTLEMAINE	..	2450	2020	2450	2130	1920	1690	1430	1430	1260	1260	840	750	
BENDIGO	1400	1110	890	1150	950	860	760	620	560	560	500	365	330	
<b>UP</b>														
Bendigo to CASTLEMAINE	..	1240	1020	1250	1020	910	830	720	650	650	580	400	360	
KYNETON	..	1090	890	1150	890	800	760	640	640	580	520	360	320	
SUNBURY	..	1540	1370	1600	1450	1310	1240	1020	1020	980	880	660	590	
SUNSHINE (Via Freight Lines)	1550	3800	3800	3800	3800	3800	3280	2710	2710	2270	2040	1690	1520	
TOTTENHAM YARD	..	..	..	..	..	..	..	..	..	..	..	..	..	
DYNON (Via Freight Lines)	3170	2135	2135	2135	2135	2315	2135	1625	1625	1625	1625	1220	1220	
Sunshine to MELBOURNE (Via Pass Lines)	3170	2135	2135	2135	2135	2135	2135	1625	1625	1625	1625	1220	1220	

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**4. SAFEWORING SYSTEMS**

Automatic Block Signalling is in force on the UP and DOWN lines between No.1 Box SOUTHERN CROSS and WATERGARDENS (Via Passenger Lines and WEST TOWER – SOUTH KENSINGTON – SIMS STREET JUNCTION (via Freight Lines).

Traffic between WEST FOOTSCRAY JUNCTION and SUNSHINE (via Freight Lines) is operated under the special instructions contained in the Book of Rules and Operating Procedures 1994.

Automatic Block Signalling is in force on the UP and DOWN Lines between WATERGARDENS and SUNBURY in accordance with the provisions of Section 36 of the Rules and Operating Procedures.

Automatic and Track Control is in force on the EAST, WEST and SINGLE Lines between SUNBURY and KANGAROO FLAT in accordance with the provisions of Section 36 of the Rules and Operating Procedures.

The signalling at SUNBURY, GISBORNE, KYNETON, TARADALE, ELPHINSTONE, CASTLEMAINE, HARCOURT, RAVENSWOOD and KANGAROO FLAT is controlled remotely using visual display units located at BENDIGO and train control.

Station Yard Working is in force between KANGAROO FLAT and BENDIGO. All local signalling is controlled from a Visual Display Unit located at BENDIGO and CENTROL.

**5. SPECIAL NOTES**

No Special Notes.

**6. DISTANCES FROM MELBOURNE AND CLEAR LENGTH OF CROSSING ROADS**

LOCATION	MARKED DISTANCE FROM MELBOURNE (KM)	CLEAR LENGTH OF CROSSING ROADS (LENGTH IN METRES)			
		NO. 1	NO. 2	NO. 3	SIDINGS
TOTTENHAM YARD	8.616	..	..	..	
TOTTENHAM JUNCTION	10.450	..	..	..	
WATERGARDENS	23.966	..	..	..	
DIGGERS REST	32.694	..	..	..	
SUNBURY	38.279	244	141	177	Siding A – 185 Siding B – 158
CLARKEFIELD	50.420	..	..	..	
RIDDELLS CREEK	56.900	..	..	..	
GISBORNE	64.212	150	150	..	Refuge Siding – 445
MACEDON	69.786	..	..	..	
WOODEND	78.085	..	..	..	
KYNETON	91.552	260	260	..	Siding A No 1 – 125 No 2 – 113 No 3 – 135 No 4 – 166 Siding B – 160
MALMSBURY	102.163	..	..	..	
TARADALE	106.194	..	..	..	
ELPHINSTONE	113.617	..	..	..	
CASTLEMAINE	125.484	2200	2200	..	Thompson's Siding – 100 metres
HARCOURT	137.614	..	..	..	
RAVENSWOOD	147.549	..	..	..	
KANGAROO FLAT	157.358	..	..	..	
GOLDEN SQUARE	159.843	..	..	..	
BENDIGO	162.242	..	..	..	

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**7. TRACK CLASS**

Track is maintained to the following class standards.

SECTION			CLASS
WATERGARDENS – KYNETON	West Track	23.300 km – 33.100 km	CLASS 2
	West Track	33.100 km – 40.180 km	CLASS 1
	West Track	40.180 km – 40.754 km	CLASS 2
	West Track	40.754 km – 41.997 km	CLASS 2M
	West Track	41.997 km – 42.670 km	CLASS 2
	West Track	42.670 km – 71.610 km	CLASS 1
	West Track	71.610 km – 71.663 km	CLASS 2
	West Track	71.663 km – 72.704 km	CLASS 2M
	West Track	72.704 km – 75.380 km	CLASS 2
	West Track	75.380 km – 92.044 km	CLASS 1
	East Track	23.300 km – 24.600 km	CLASS 2
	East Track	24.600 km – 32.845 km	CLASS 1
	East Track	32.845 km – 92.044 km	CLASS 2
	KYNETON – BENDIGO		92.044 km – 112.750 km
		112.750 km – 112.816 km	CLASS 2
		112.816 km – 113.453 km	CLASS 2M
		113.453 km – 115.163 km	CLASS 2
		115.163 km – 116.540 km	CLASS 2M
		116.540 km – 121.711 km	CLASS 2
		121.711 km – 122.359 km	CLASS 2M
		122.359 km – 124.100 km	CLASS 2
		124.100 km – 125.660 km	CLASS 1
		125.660 km – 126.327 km	CLASS 2
		126.327 km – 126.788 km	CLASS 2M
		126.788 km – 127.495 km	CLASS 2
		127.495 km – 128.838 km	CLASS 2M
		128.838 km – 131.941 km	CLASS 2
		131.941 km – 132.766 km	CLASS 2M
		132.766 km – 132.999 km	CLASS 2
		132.999 km – 134.117 km	CLASS 2M
		134.117 km – 134.764 km	CLASS 2
		134.764 km – 135.520 km	CLASS 2M
		135.520 km – 138.387 km	CLASS 2
		138.387 km – 138.697 km	CLASS 2M
		138.697 km – 151.780 km	CLASS 1
		151.780 km – 153.195 km	CLASS 2
	153.195 km – 157.570 km	CLASS 1	
	157.570 km – 160.650 km	CLASS 2	
	160.650 km – 160.941 km	CLASS 2M	
	160.941 km – 162.240 km	CLASS 2	
TARADALE LOOP		106.500 km – 113.515 km	CLASS 2
CASTLEMAINE LOOP		124.130 km – 126.343 km	CLASS 2
RAVENSWOOD LOOP		138.313 km – 147.251 km	CLASS 2
KANGAROO FLAT – GOLDEN SQUARE LOOP		157.048 km – 160.768 km	CLASS 2

