1904.

VICTORIA.

VICTORIAN RAILWAYS.

REPORT

OF THE

VICTORIAN RAILWAYS COMMISSIONERS

ON

THE ROLLING-STOCK, WAY AND WORKS, AND STORES.

MELBOURNE, 31ST MARCH, 1904.

No. 28.—1132.

VICTORIAN RAILWAYS.

COMMISSIONERS' OFFICE, SPENCER-STREET,

MELBOURNE, 31ST MARCH, 1904.

REPORT OF THE COMMISSIONERS

ON

THE ROLLING STOCK, WAY AND WORKS, AND STORES.

Since their assumption of office, the Commissioners have devoted considerable time to an inspection and an acquirement of as complete a knowledge as practicable of the state of the Rolling Stock, the Way and Works, the Stores, and the Equipment and Facilities generally of the Victorian Railways, and now have the honor to furnish the following report and recommendations in reference to (1) the Rolling Stock, (2) the Way and Works, and (3) the Stores.

ROLLING STOCK.

An Inventory of the whole of the Rolling Stock in existence at 1st July, 1903, has been made, and the result thereof will be found detailed in Appendix No. 1, and summarised in Table No. 1, as compared with the Rolling Stock which had been purchased or constructed at the expense of Capital from the inception of the Railways until that date. In Table No. 1 the Deficiency in the Rolling Stock at 1st July, 1903, and the estimated cost of making such Deficiency good, are also shown.

The bases on which the Inventory, and the Capital Account and other statements of Rolling Stock have been compiled are as follow:—

LOCOMOTIVES.—Tractive power in pounds, computed on the mean average pressure in the cylinders being equal to 80 per cent. of the boiler pressure.

CARRIAGE, VAN AND SUNDRY STOCK.—Internal floor area in square feet.

TRUCK STOCK.—Carrying capacity in tons.

TABLE No. 1.

—	Rolling Stock as per Capital Account. Appendix No. 1.	Rolling Stock as per Inventory of 1st July, 1903. Appendix No. 1.	Deficiency.	Estimated Cost of making good the Deficiency.
Locomotives (tractive power)	7,458,775 lbs.	6,400,267 lbs.	1,058,508 lbs.	£188,080
Carriage Stock—(floor area)	332,696 sq. feet	304,761 sq. feet	27,935 sq. feet	102,170
Van and Sundry Stock („)	84,751 sq. feet	75,053 sq. feet	9,698 sq. feet	26,470
Truck Stock— (carrying capacity)	100,162 tons	93,295 tons	6,867 tons	87,230
				£403,950

As shown in the last Annual Report of the Commissioners, the sum of £139,238 had been advanced to the Department for the replacement of Rolling Stock prior to 1st July, 1903, and, up to that date, £44,217 of that amount had been debited to Working Expenses, leaving a balance of £95,021. The Rolling Stock provided with the £139,238 so advanced is included in the Inventory of 1st July, 1903.

In view of the fact that the cost of the Rolling Stock shown in the Capital Account was in the first instance charged to Capital, the Commissioners are of opinion that the outlay involved in making good the Deficiency therein is not properly chargeable to Capital, and should therefore be provided out of Revenue in addition to the £95,021 above referred to.

It would not be reasonable, however, that the Deficiency, which is the accumulation of many years, should immediately be made good out of Revenue, and it is therefore proposed that the amount required for the purpose, viz., £403,950, be advanced to the Commissioners, and repaid out of Revenue according as the finances of the Department may admit.

The Rolling Stock and Equipment which is required for the satisfactory and economical conduct of the traffic (Appendix No. 2), in addition to that which was in existence at 1st July, 1903 (Appendix No. 1), and inclusive of that required to make good the deficiency (Table No. 1), and the cost thereof are summarised in the following Table, No. 2:—

TABLE No. 2.

	Deficiency as per Table No. 1. The cost of making this good to be advanced to the Commissioners, and recouped by them out of Revenue as the finances admit.		Additional Rolling Stock and Equipment required after the Deficiency has been made good, to be charged to Capital.		Total additional Rolling Stock and Equipment required.	
	Rolling Stock & Equipment.	Estimated Cost.	Rolling Stock and Equipment.	Estimated Cost.	Rolling Stock & Equipment.	Estimated Cost.
		£		£		£
Locomotives (tractive power) ...	1,058,508 lbs	188,080	71,632 lbs	12,720	1,130,140 lbs	£200,800
Carriage Stock (floor area) ...	27,935 sq.ft.	102,170	77,519 sq.ft.	283,530	105,454 sq.ft.	385,700
Van and Sundry stock (floor area) ...	9,698 sq.ft.	26,470	7,036 sq.ft.	19,200	16,734 sq.ft.	45,670
Truck Stock (carrying capacity) ...	6,867 tons	87,230	4,233 tons.	53,770	11,100 tons	141,000
Truck Covers (number) ...	...	...	3,000	11,250	3,000	11,250
Lashings (number) ...	...	...	12,000	1,400	12,000	1,400
Pintsch Gas for Existing Carriages and Vans	...	...	100 sets.	5,000	100 sets.	5,000
Westinghouse Brakes for Existing Trucks...	...	...	1,970 sets.	43,000	1,970 sets.	43,000
Footwarmers for Carriages ...	...	...	1,400	2,500	1,400	2,500
Upholstering Seats and Backs of existing 2nd Class Bogie Carriages for country traffic	...	...	...	12,000	...	12,000
Machinery and Contingencies ...	...	...	...	30,000	...	30,000
	...	£403,950	...	£474,370	...	£878,320

The estimates of the cost of the additional Rolling Stock and Equipment have been based on the most favorable arrangements practicable being made for the supply of the labor and materials, and this should be kept in view by the Government in making provision for the funds required, so that the work may be carried on in accordance with a pre-determined programme, and be completed without interruption, and thus enable the cost to be kept within the estimates.

It will be the duty of the Commissioners to maintain, out of Revenue, the equivalent of the Rolling Stock shown in the Inventory as in existence at 1st July, 1903, in addition to the equivalent of the Deficiency specified in Table No. 1 as it is made good, and also the equivalent of any Rolling Stock and Equipment provided hereafter out of Capital, on the following bases:—

Locomotives	Tractive power.
Carriage, Van, and Sundry Stock	Floor area.
Truck Stock	Carrying capacity in tons.

WAY AND WORKS.

The Commissioners have now made a complete inspection of the Way and Works, and are able to state that the expenditure of the balance of the amount estimated as required for "Belated Repairs," viz., £131,087 in the year ending 30th June, 1904, and £50,000 in the year ending 30th June, 1905, or a total of £181,087, chargeable to the Working Expenses, will put the Way and Works in such condition that thereafter the vote for Working Expenses will not require to be augmented by reason of insufficient funds having been provided in the past for maintenance and renewals.

Attached hereto will be found a statement (Appendix No. 3) of the expenditure (£974,027) on account of Capital for additions and improvements to the Way and Works, which, exclusive of that in connection with Spencer-street Passenger Station, the Commissioners estimate was, at 31st December, 1903, required to provide suitable and adequate accommodation for the traffic, and admit of the efficient and economical working of the Railways.

The expenditure involved in the Strengthening of Bridges on various lines and in connection with Flinders-street Station and Yard, and in the provision of additional and improved Facilities at Williamstown and Geelong for the shipment of grain, etc., is so large as to deserve special mention herein.

STRENGTHENING BRIDGES ON VARIOUS LINES (Item No. 3, Appendix No. 3).

On various important lines a large number of the bridges, originally of light construction, are, under the heavier rolling stock now in use, strained beyond the factor of safety which is consistent with good practice. The Commissioners, therefore, consider it essential that these bridges should, where practicable, be strengthened, or otherwise be replaced with stronger bridges, and that the work should be commenced forthwith and be completed as early as practicable.

The provision of stronger bridges will be a distinct betterment, because it will admit of the use of heavier engines capable of hauling greater loads, and thus increase the net earning power of the Railways. A proportion of the outlay involved will, therefore, be charged to Capital in accordance with the principle defined in Appendix No. 5. On account of this work, a sum of £147,000, included in Appendix No. 3, will be chargeable to Capital, and a further sum of £184,000 to Working Expenses.

FLINDERS-STREET STATION AND YARD (Item No. 22, Appendix No. 3).

The full benefit cannot be derived from the expenditure which has been made on this work, until the whole scheme has been completed. The Station and Yard in their present condition are a source of discomfort and inconvenience to the public and of expense to the Department, and the Commissioners are, therefore, of the opinion that, if the finances admit, the work should be completed without further delay.

Detail drawings and quantities for the Station as now contemplated have only lately been finished, and eight alternative estimates of cost (based on these drawings and quantities) will be found in Appendix No. 4.

The Commissioners favor a station as per Alternative Scheme No. 8, because with such a long frontage a four-story building will have better proportions than a building of three stories, and the rents of offices, etc., on the fourth floor will, it is believed, more than pay the additional amount required for interest on the cost of the extra story and for its maintenance. The difference in the cost of one roof over the platforms, lines of way, and Swanston-street footbridge, and of separate roofs over the platforms and footbridge only—viz., £48,500, is too large to justify the provision of the former.

The cost of the whole work, including the re-arrangement of tracks, interlocking and signals, platforms and platform roofs, subways, etc., as per Alternative Scheme No. 8, is estimated at £440,000. Of this amount, £155,256 had been expended up to 31st December, 1903, and, of the balance, £55,600 will be charged to Working Expenses in accordance with the principles defined in Appendix No. 5, leaving £229,144 additional Capital funds to be provided to complete the whole scheme.

Until the finances admit of more being done, the Commissioners propose that the expenditure be restricted to an amount sufficient to complete the tracks, subways, platforms and platform roofs, and the basement and ground and first stories of the station building. This will provide the facilities required for the efficient conduct of the traffic and the accommodation needed for the public, and also a number of shops in the basement and ground floors facing Flinders-street, which it is estimated will bring in a considerable revenue. The provision of these facilities and accommodation will admit of the discontinuance of the use of the Princes Bridge Station except for special Excursion and Race Traffic, with an estimated saving in Working Expenses of over £6000 per annum.

The cost of carrying out this proposal is estimated at £190,744 in addition to the sum of £155,256, expended up to the 31st December, 1903, making a total expenditure of £346,000. If the work be put in hand at once the additional funds needed, viz., £190,744 will require to be provided as follows:—

	Prior to 31st December, 1904.	Years 1905 and 1906.	Total.
	£	£	£
Chargeable to Working Expenses	28,000	27,600	55,600
Chargeable to Capital	49,744	85,400	135,144
	£77,744	£113,000	£190,744

The Commissioners propose that the balance of the expenditure required to complete the whole scheme as per Alternative No. 8, viz., £94,000, be postponed until the finances admit of the necessary outlay.

ADDITIONAL AND IMPROVED FACILITIES AT WILLIAMSTOWN AND GEELONG FOR THE SHIPMENT OF GRAIN, Etc. (ITEM No. 31. APPENDIX No. 3).

The pier accommodation at Williamstown and Geelong should be increased, and electrically operated conveyors, hoists, traversers, etc., should be provided to permit of grain and other cargo being handled expeditiously and economically. For these purposes the sum of £60,000 is included in Appendix No. 3.

SPENCER-STREET PASSENGER STATION.

The present Station is inconvenient for the public, insufficient for the traffic, and discreditable both to the Department and the State, but in view of the large outlay involved in the construction of a suitable new station, and the re-arrangement and improvement of the tracks which would be required in connection therewith, the Commissioners feel that the work should not be undertaken until there is a considerable improvement in the finances, and the work when undertaken can be carried on to completion without interruption, and they have not, therefore, made any provision in Appendix No. 3 for the improvement of the accommodation for the passenger traffic at this station.

APPORTIONMENT OF EXPENDITURE AS BETWEEN WORKING EXPENSES AND CAPITAL.

In Appendix No. 5 the principles have been set forth on which the expenditure on Replacements and Renewals of Way and Works, as per Appendix No. 3, has been apportioned as between Working Expenses and Capital, and the Commissioners propose that these principles shall be followed in the future.

STORES.

In order to ascertain the condition and value of the Stores of the Department, the Commissioners arranged, shortly after their assumption of office, to have the stock of Stores valued by an independent Board, consisting of Messrs. Wm. Davidson, Inspector General of Public Works, Victoria (Chairman); John Parry, Comptroller of Stores, New South Wales Railways; and S. Fisher, Storekeeper, Tasmanian Railways.

This Board has reported that in its judgment the value of the stock as at 30th June, 1903, should be written down to the extent of £23,410, allocated as under:—

Way and Works Branch	...	£2,889
Rolling Stock Branch	...	20,521
Total	...	£23,410

but in view of the fact that a portion of the stock which the Board declared has depreciated in value will be utilised within a reasonable period, the Commissioners consider that no useful purpose will be served by writing down the value of such portion of the stock, because, in any case, they will be obliged to provide for the depreciation, and they have therefore allowed such portion of the stock to remain on the books at its present value. The amount which therefore requires to be written off is £12,577, chargeable to Working Expenses as under:—

Way and Works Branch	...	£2,889
Rolling Stock Branch	...	9,678
Total	...	£12,567

In addition to this deficiency of £12,567, the valuation of the Stores which was instituted in accordance with the provisions of Section 20 of the Railways Act 1896, No. 1439, showed anet shortage in values of £48,287, and, as nothing has yet been done to meet such depreciation, the total sum to be liquidated is therefore £60,854.

With regard to the deficiency of £2,889 chargeable to the Way and Works Branch, the Commissioners consider it may properly be met by an increase of the book value of certain scrap material which is at present assessed at about half of its selling value, while in respect of the balance of £57,965, chargeable to the Rolling Stock Branch, the Commissioners propose to write it off out of Revenue according as the finances of the Department may admit.

In order to provide for any deficiency that may arise between stock-takings in the future, the Commissioners propose as from 1st July, 1904, to establish a "Stores Depreciation Fund," and each month such fund will be credited and the Working Expenses debited with the equivalent of one per cent. of the value of the Stores issued from time to time.

Financial Summary.

	To be charged to Capital.	To be advanced to the Commissioners and recouped by them out of Revenue as the finances admit.	To be recouped out of Revenue as the finances admit.	To be charged to Working Expenses.
	£	£	£	£
Rolling Stock and Equipment as per Table No. 2 and Appendix No. 2	474,370	403,950	...	...
Way and Works as per Appendix No. 3—				
Towards Strengthening Bridges (Item No. 3) £147,000				
Flinders-street Station and Yard (Item No. 22) £229,144				
Facilities for Shipment of Grain, &c. (Item No. 31) £60,000				
Other Items £537,883				
	974,027	...	...	...
Deficit in Value of Stores at 30th June, 1903 (see Page No. 5) ...	...	...	60,854	...
Advances already made to the Commissioners and remaining to be recouped at 30th June, 1903, as per last Annual Report—				
On account of Rolling Stock ... £95,021				
On account of Way and Works ... £54,848				
	...	...	149,869	...
Belated Repairs—Balance at 30th June, 1903	...	...	...	181,087
	£1,448,397	£403,950	£210,723	£181,087
Total Additional Funds required, inclusive of £403,950 to be recouped	£1,852,347			
To be recouped out of Revenue as the finances of the Department admit (£403,950 of this is included in the Total Additional Funds required)		£614,673		
To be charged to Working Expenses				£181,087
Total of amounts to be recouped out of Revenue, and to be charged to Working Expenses			£795,760	

The expenditure required as above on Rolling Stock and Equipment, and on Way and Works should be sanctioned by Parliament to such extent annually, and the necessary funds be so provided that the construction in the State of the Rolling Stock and Equipment, and the more urgent of the works included in Appendix No. 3, may be prosecuted continuously, and completed as early as practicable.

In addition to the amounts to be recouped out of Revenue and to be charged to Working Expenses, as shown in the Financial Summary, totalling £795,760, it will be necessary, in accordance with the principles defined in Appendix No. 5, to charge a very large sum to Working Expenses concurrently with the expenditure on Way and Works chargeable to Capital as per Appendix No. 3. Of the total cost of two items alone—viz., £615,744 for Strengthening Bridges and Flinders-street Station and Yard—the proportion thus chargeable to Working Expenses is £239,600.

(Signed) THOS. TAIT, Chairman.

(Signed) W. FITZPATRICK, Commissioner.

(Signed) C. HUDSON, Commissioner.

The Honorable
The Minister of Railways.

APPENDIX No. I.

LOCOMOTIVES.

NOTE.—The Tractive power is based on the mean average pressure in the cylinders being equal to 80 per cent. of the boiler pressure.

Capital Account. Rolling Stock Built or Purchased and charged to Capital from the inception of the Railways until 1st July, 1903.				Inventory of Rolling Stock in existence at 1st July, 1903.		
Class.	When Built.	No. in Class.	Original Tractive Power in pounds.	No. in Class.	Nominal Tractive Power in pounds.	Effective Tractive Power in pounds.
A (old) ...	1884	10	150,696	10	150,696	150,696
A (new) ...	1889 to '91	15	219,932	15	219,932	219,932
AA	1900 to '03	12	232,930	14	272,930	272,930
B	24 '62 to '64, 8 1872 to '81	32	331,140	32	331,140	129,360
C	18 '71 to '78, 8–1880 to '83	26	225,720	26	225,720	94,480
D	1887 to '88	20	280,500	20	280,500	280,500
DD	1902	½	10,000	1	20,000	20,000
E	1889 to '94	69	967,725	69	967,725	967,725
EE	1892 to '93	7	98,175	7	98,175	98,175
F	1–1874 10–'77, 10–'80	21	184,564	21	184,564	184,564
G	1877	2	16,875	2	16,875	2950
H	1877 to '78	8	66,720	8	66,720	39,520
J	1860	5	42,900	5	42,900	22,000
K	1874	5	43,875	§4	35,100	4840
L	1861	10	97,600	10	97,600	29,000
M	1–'78, 9–'84	10	101,734	10	101,734	101,734
ME	1885 to '86	12	138,720	12	138,720	138,720
N	1859 to '66	5	35,648	5	35,648	5320
O	24 1866 to '68 20–1871 to '79	44	535,390	44	535,390	288,400
P	1860	5	48,800	5	48,800	48,800
Q	1873 to '74	10	133,600	10	133,600	133,600
R (old) ...	21–1879 to '82, 38–1883 to '88	59	817,045	59	817,045	817,045
R (Belgian) ...	1883	5	77,578	5	77,578	77,578
R (new) ...	1889 to '91	25	389,600	25	389,600	389,600
S	1882 to '83	10	117,000	10	117,000	96,880
T	1–'74, 18–'84 to '85	19	225,582	19	225,582	225,582
U	1874 to '75	9	93,497	9	93,497	57,020
V	1900 to '02	16	422,880	16	422,880	422,880
W	1880 to '83	12	149,877	12	149,877	149,877
X	1886 to '87	15	252,725	15	252,725	252,725
Y	1889	31	541,632	31	541,632	541,632
Z	1893	3	19,434	3	19,434	8,238
Narrow Gauge ...	1898 to 1901	6	60,840	6	60,840	60,840
Unclassed ...	1859 to '83	13	102,488	13	102,488	67,124
Class not known, missing prior to 1893... ...		26	225,353 (est.)	...	...	...
Total Locomotive Stock ...		577½	7,458,775	553	7,274,647	6,400,267

§ 1 "K" class sold.

NOTE.—The effective tractive power of the 108 locomotives shown in Appendices Nos. 1A and 1B is based on their value as scrap materials.

APPENDIX No. 1A.

Obsolete locomotives now stored at Newport unsuitable for further service and not worth repair. Some of these locomotives have been out of running from seven to ten years.

Class.	Number.	Age.
		Years.
"C"	18	30
"G"	2	26
"H"	4	26
"J"	3	43
"K"	4	29
"L"	8	42
"N"	5	40
"S"	2	20
Unclassed	8	20 to 40
Total	54	

APPENDIX No. 1B.

Locomotives still in running on which further extensive outlay is not justified, and which should be retired from service when heavy repairs are required which will be within the next three years.

Class.	Number.	Age.
		Years.
"B"	24	40
"O"	24	35
"U"	4	29
"Z"	2	10
Total	54	

APPENDIX No. I.—Continued.

CARRIAGE, VAN, AND SUNDRY STOCK.

Class.	When Built.	No. in Class.	Internal Floor Area, in square feet.	No. in Class.	Internal Floor Area, in square feet.
	Capital Account. Rolling Stock Built or Purchased and charged to Capital from the inception of the Railways until 1st July, 1903.			Inventory of Rolling Stock in existence at 1st July, 1903.	
	CARRIAGE STOCK.				
A	1858–93 ...	298	55,183	46	10,488
AB	1860–86 ...	168	32,520	43	9,485
B	1858–93 ...	282	50,894	440	62,434†
ABD	1859–83 ...	9	1,668	13	2,350
AD	1881–6 ...	41	7,290	2	366
BD	1878–87 ...	26	4,522	67	12,185
Alexandra	1901 ...	1	409	1	409
Edward	1901 ...	1	409	1	409
Inspection	1890 ...	1	555	1	555
State	1890 ...	1	555	1	555
Edinburgh	1880 ...	1	172)	1	345¶
Ministerial No. 1 ...	1880 ...	1	173)		
Victoria	1887 ...	1	385	1	385
York	1890 ...	...	..	1	343
Boudoir	1886–9 ..	6	1,595*	6	1,595*
Pioneer 1	1893 ...	1	533	1	533
Pioneer 2	1893 ...	1	533	1	533
AV	1897–9 ...	35	14,328	31	12,692
AV (J.S.)	1897–9 ...	..	...	4	818
BV	1898–9 ...	25	10,234	23	9,416
BV (J.S.)	1898–9 ...	...	...	2	409*
ABC...	1899–1903 ...	36	14,724	56	22,918
AC	1888–9 ...	...	...	12	4,117
AA	1874–1902 ...	263	90,669	199	68,278
AA (J.S.)	1887 ...	...	...	3	613*
ABAB	1879–1902 ...	20	7,653	76	28,004
ABAB (J.S.)	1887 ...	12	1,795*	...	...
ABDABD	1891–2 ...	2	594	4	1,280
ADAD	1887–1901 ...	68	23,331	74	25,389
BB	1874–1892 ...	19	6,927	58	20,380
BB (J.S.)	...	...	...	3	614*
BDBD	1890–1901 ...	8	3,064	12	4,597
BB	...	...	...	1	285
BEBE	1886–90 ...	2	686	2	686
BB and BDBD N. Gauge ..	1898–1901 ..	10	1,295	10	1,295
Total Carriage Stock		1,339	332,696	1,196	304,761
	VAN AND SUNDRY STOCK.				
D	1858–89 ...	317	55,612	228	40,715
E	1858–85 ...	27	4,168	16	2,579
DD	1888–92 ...	44	13,353	44	13,353
DV	1898 ...	2	775	2	775
DFDF	1901 ...	...	...	1	348
DD (J.S.)	1887 ...	2	298*	2	298*
DD (J.S.)	1887 ...	3	396*	3	200**
DD (J.S.)	1887–90 ...	4	488*	4	488*
EE (J.S.)	1887 ...	3	352*	3	352*
F	1858–93 ...	53	6,324	47	5,639
C	1858–1903 ...	6	795	8	1,117
WS	1859–1901 ...	...	...	69	5,737‡
Dynagraph	1858 ...	...	...	1	161
WMA	1877 ...	...	...	2	354
Casualty Vans	1858–1880 ...	...	...	3	558
TBO...	1882 ...	...	...	1	189
FFF...	1889–92 ...	6	2,190	6	2,190
Total Van and Sundry Stock ...		467	84,751	440	75,053

** Only one-quarter internal floor area allowed for 3 Joint South Australian stock, on account of being obsolete.

* Only one-half internal floor area allowed on account of being Joint South Australian Stock.

† Only one-half internal area of 220 vehicles allowed on account of antiquated design, which precludes their use for ordinary traffic.

‡ Only one-half internal floor area of 69 old carriages and vans used as Workmen's Sleepers allowed.

¶ Combined into one car in 1899.

APPENDIX No. 1.—Continued.

TRUCK STOCK.

Class	When Built.	Capital Account. Rolling Stock Built or Purchased and charged to Capital from the inception of the Railways until 1st July, 1903. No. in Class.	Capital Account. Carrying Capacity, in tons.	Inventory of Rolling Stock in existence at 1st July, 1903. No. in Class.	Inventory of Rolling Stock in existence at 1st July, 1903. Carrying Capacity, in tons.
H	1862–1901	950	4,955	306	2,216*
I	1860–1903	7,516	66,344	6,859	64,922
K	1859–98	480	3,374	275	2,145*
L	1871–1903	395	3,441	375	2,875*
M	1864–97	417	3,102	402	3,230*
N	1869–1901	514	3,870	321	2,483
NN	1901	1	26	1	26
O	1870–90	213	1,921	187	1,785
OO	1899–1902	6	240	6	240
P	1862–84	24	120	24	120
Q	1871–78	38	496	20	360
QB	1902	1	34	1	34
QR	1889–92	201	5,226	201	4,710
R	1880	70	750	11	175
S	1880	20	240	13	104*
T	1894–7	130	1,300	130	1,300
TH	1881–86	19	95	19	146
TT	1889–91	31	620	31	513
U	1888–99	237	2,370	460	4,498
G	1859–1900	61	305	26	193
Water Tanks	1886–1902	52	312	60	360
Narrow Gauge.					
NQR	1898–1900	70	700	70	700
NMM	1899–1901	4	40	4	40
NTT	1899	1	10	1	10
NUU	1899–1901	7	70	7	70
Narrow Gauge Trucks at Newport	...	4	40	4	40
Trucks, classes cannot be traced	...	23	161	...	...
Total Truck Stock	...	11,485	100,162	9,814	93,295

* 330 tons taken off in respect of 71 trucks awaiting replacement, of which only the wheels, axles and other gear are on hand.

APPENDIX No. 2.

Summary of Additional Locomotive, Carriage, Van and Sundry, and Truck Stock required at 1st July, 1903, and the Estimated Cost Thereof, inclusive of the Deficiency as per Table No. 1.

(The estimated cost is based on the actual cost of Rolling Stock built at Newport Shops.)

LOCOMOTIVE STOCK.

Class.	Number Required	Tractive Power each, in pounds.	Total Tractive Power, in pounds.	Estimated Cost each. £	Total Estimated Cost. £
DD (General)	50	20,000	1,000,000	3,400	170,000
AA (Heavy Passenger)	6	20,000	120,000	4,800	28,800
Narrow Gauge	1	10,140	10,140	2,000	2,000
Total additional Locomotive Stock required	57		1,130,140		200,800

CARRIAGE STOCK.

Class.	No. required.	Internal Floor Area each, in square feet.	Total Internal Floor Area, in square feet.	Estimated Cost each. £	Total Estimated Cost. £
50 ft. 8-wheeled Vestibuled Corridor Cars for Country Service—					
First Class (AV)	40	409	16,360	1,800	72,000
Second Class (BV)	25	409	10,225	1,500	37,500
Composite (ABV)	50	409	20,450	1,700	85,000
50 ft. 8-wheeled Cars for Suburban Service—					
Second Class (BB)	52	383	19,916	1,100	57,200
Composite (ABAB)	16	409	6,544	1,200	19,200
First Class Smoking & Van (ADAD)	8	383	3,064	1,250	10,000
Second Class „ „ (BDBD)	25	383	9,575	1,100	27,500
70 ft. 12-wheeled Vestibuled Corridor Cars for Sydney Express trains—					
First Class	6	644	3,864	2,600	15,600
Second Class	6	644	3,864	2,400	14,400
Composite...	3	644	1,932	2,500	7,500
Dining (one spare)	2	644	1,288	2,800	5,600
70 ft. 12-wheeled Cars for Adelaide Express trains, Joint Stock (Victorian proportion of floor area and cost on mileage basis, viz., 60 %, First and Second Class; Dining and Sleeping Cars full floor area and cost)—					
First Class	6	644	2,318	1,560	9,360
Second Class...	6	644	2,318	1,440	8,640
Dining	1	644	644	2,800	2,800
Sleeping	4	644	2,576	3,000	12,000
Narrow Gauge	4	129	516	350	1,400
Total additional Carriage Stock required	254		105,454		385,700

APPENDIX No. 2.—Continued.

VAN AND SUNDRY STOCK.

Class.	Number Required.	Internal Floor Area each, in sq. ft.	Total Internal Floor Area, in sq. ft.	Estimated Cost each. £	Total Estimated Cost. £
60 feet 12-wheeled Vestibuled Vans for Sydney Express trains—					
DV (Ordinary Luggage) ...	3	498	1,494	1,400	4,200
Mail Luggage	1	498	498	1,400	1,400
60 feet 12-wheeled Vestibuled Vans for Adelaide Express trains, Joint Stock (Victorian proportion of floor area and cost on mileage basis—viz., 60 %)—					
Ordinary Luggage	4	498	1,195	840	3,360
Mail Luggage	3	498	896	840	2,520
50 feet 8-wheeled Vestibuled Vans for Country Service:—					
Ordinary Luggage (DV) ..	15	387	5,805	1,400	21,000
6-wheeled Ordinary Luggage Vans (D)	25	186	4,650	350	8,750
6-wheeled Horse Boxes ..	12	183	2,196	370	4,440
Total additional Van and Sundry Stock required	63		16,734	...	45,670

TRUCK STOCK.

Class.	Number Required.	Carrying Capacity each, in tons.	Total Carrying Capacity, in tons.	Estimated Cost each. £	Total Estimated Cost. £
15-ton Medium	500	15	7,500	165	82,500
12-ton ,, ...	100	12	1,200	165	16,500
Louvre	100	10	1,000	190	19,000
Refrigerator	10	10	100	300	3,000
Bogie Ballast	50	26	1,300	400	20,000
Total additional Truck Stock required	760		11,100		141,000

MISCELLANEOUS.

	Number required.	Estimated Cost each. £	Total Estimated Cost. £
Truck Covers	3,000	£3 15s.	11,250
Lashings	12,000	...	1,400
Pintsch Gas for existing Cars and Vans	100 sets	...	5,000
Westinghouse Brakes for existing Trucks	1,970 sets	...	43,000
Footwarmers for Carriages	1400	...	2,500
Upholstering Seats and Backs of existing 2nd Class Bogie Carriages for Country Traffic	...	...	12,000
Machinery and Contingencies	...	...	30,000
Grand Total	...	...	878,320

NOTE.—The cost of new Cars includes Pintsch Gas and Westinghouse Brakes.

APPENDIX No. 3.

Statement of Expenditure on account of Capital for Additions and Improvements to Way and Works required at 31st December, 1903.

No. of Item.	Purpose.	Amount Required. £
1	Additions and improvements to stations, yards, and sidings, including tracks, buildings, platforms, roads, trucking yards, weighbridges, drainage, sanitation, interlocking, signalling, and other safety appliances, &c.	141,000
2	Additions and improvements to accommodation and facilities for locomotives and cars, including sheds, ashpits, turntables, water supply, coaling plants, &c. ...	98,000
3	Towards strengthening bridges on various lines	147,000
4	Relaying various important lines with heavier rails	39,000
5	Additional Sleepers for strengthening various Lines	31,000
6	Substitution of Cattle Pits for Gates at Public Road Crossings	5,000
7	Motor and other improved cars for repairing gangs	5,000
8	Additional and improved dwelling accommodation for employes	6,000
9	Melbourne—Additional electric light and power	6,000
10	Melbourne—Equipping machinery in workshop at Spencer-street for electrical driving, and for additional machinery	643
11	Melbourne—Tracks and facilities at and in connection with Victoria Dock ...	8,000
12	Melbourne—Additional and improved accommodation for Goods and other Traffic, including offices, sheds, platforms, tracks, roads, weighbridges, cranes and other facilities	58,000
13	Fencing	3,000
14	Melbourne and Suburbs—Towards Mortuary Stations	2,000
15	North Melbourne—Additional track for passenger engine movements	780
16	Newmarket—Additional cattle yards and tracks and better lighting at cattle yards ...	3,434
17	Agricultural Show Grounds—Flemington Racecourse Line—Additional and improved accommodation and facilities for passenger traffic	2,100
18	Electric Lighting of Piers at Williamstown and Geelong	1,072
19	North Geelong—Direct Connection between Melbourne and Ballarat lines and Sidings for Grain and other Traffic	3,661
20	Between Glen Thompson and Wickliffe Road—New Siding, Approaches, &c. ...	600
21	Towards reductions of grades	28,000
22	Melbourne—Completing new passenger station and yard at Flinders-street, as per Alternative Scheme No. 8	229,144
23	Melbourne—Enlargement of Ice Plant	3,750
24	Melbourne—Employes Institute	12,000
25	Newport—Dining-room for employes	1,500
26	Newport—Drainage of Workshops and Freezing Works	3,300
27	Clifton Hill—Loop line to connect Collingwood and Preston lines	8,000
28	Williamstown Pier (Station and Yard)—Additions and improvements to accommodation and facilities	4,661
29	Improving Colac and Beech Forest Narrow Gauge Line	8,000
30	Brighton Beach Baths, &c.	8,000
31	Improved and Additional Facilities at Williamstown and Geelong for the Shipment of Grain, &c....	60,000
32	Contingencies, 5% on total of above items	46,382
	TOTAL	£974,027

APPENDIX No. 4.

Flinders Street Station and Yard.

(1.) Station (three stories) complete with lines of way and platforms as now proposed, which is practically the design of August, 1900, with some extensions and re-arrangements £489,000

(2.) Station complete as in No. 1 but with separate roofs over the platforms and the Swanston-street footbridge, instead of one roof over all the platforms, lines of way, and footbridge... ... ... £440,500

(3.) Station complete as in No. 1 but with a building of four stories instead of three stories facing Flinders-street £513,500

(4.) Station complete as in No. 3 but with separate roofs over the platforms and Swanston-street footbridge, instead of one roof over all the platforms, lines of way, and footbridge £465,000

(5.) Station complete as in No. 1 but with cement instead of freestone facings on the front of the building above the ground story £471,000

(6.) Station complete as in No. 2 but with cement instead of freestone facings on the front of the building above the ground story £422,500

(7.) Station complete as in No. 3 but with cement instead of freestone facings on the front of the building above the ground story £488,500

(8.) Station complete as in No. 4 but with cement instead of freestone facings on the front of the building above the ground story £440,000

APPENDIX No. 5.

Apportionment of Expenditure on Replacements and Renewals of Way and Works as between Working Expenses and Capital Account.

REPLACEMENT OF TIMBER IN BRIDGES BY MASONRY AND IRON OR STEEL OR BY FILLING.

The cost of replacement of the existing bridge in timber to its original strength shall be charged to Working Expenses, and the balance of the cost shall be charged to Capital Account. Working Expenses shall be credited with the value of the material released.

REPLACEMENT OF TIMBER, IRON OR STEEL BRIDGES BY STRONGER BRIDGES OF SIMILAR MATERIAL.

The cost of replacement of the existing bridge in similar material to its original strength shall be charged to Working Expenses, and the balance of the cost shall be charged to Capital Account Working Expenses shall be credited with the value of the material released.

REPLACEMENT OF CULVERTS OR DRAINS BY LARGER OR LONGER CULVERTS OR DRAINS, OR BY CULVERTS OR DRAINS CONSTRUCTED OF MORE PERMANENT MATERIAL.

The cost of replacement of the existing culvert or drain in similar material and to its original size or length shall be charged to Working Expenses, and the balance of the cost shall be charged to Capital Account. Working Expenses shall be credited with the value of the material released.

REPLACEMENT OF TIMBER, IRON OR STEEL TURNTABLES BY LONGER OR STRONGER TURNTABLES OF SIMILAR MATERIAL.

The cost of replacement of the existing turntable in similar material and to its original length and strength shall be charged to Working Expenses, and the balance of the cost shall be charged to Capital Account. Working Expenses shall be credited with the value of the material released.

RENEWAL OF RAILS, POINTS, CROSSINGS, AND FASTENINGS WITH HEAVIER MATERIAL.

The cost of the weight of rails, points, crossings, and fastenings in excess of the original weight of those replaced, and the cost of any additional sleepers and ballast used, including the labor of putting the additional sleepers and ballast into the line shall be charged to Capital Account. The balance of the cost of the work, including any renewals of sleepers and ballast, shall be charged to Working Expenses, which fund shall be credited with the value of the material released.

REPLACEMENT (COMPLETE OR PARTIAL) OF BUILDINGS, PLATFORMS, COALING PLANTS, PIERS, WHARVES, FENCING, STOCK YARDS, WATER TANKS, CRANES AND PIPES, ETC.

The cost of the complete or partial replacement (as the case may be) of the existing structure shall be charged to Working Expenses, and the cost of any additions or improvements to the existing structure shall be charged to Capital Account. The value of material released by reason of the structure as replaced, being of less extent or efficiency than existed before the replacement, shall be credited to Capital Account, and the value of material otherwise released shall be credited to Working Expenses.

REMOVAL AND RE-ERECTION (COMPLETE OR PARTIAL) OF BUILDINGS, PLATFORMS, COALING PLANTS, PIERS, WHARVES, FENCING, STOCK YARDS, WATER TANKS, CRANES AND PIPES, ETC.

The cost of the complete or partial removal and re-erection (as the case may be) of the existing structure, including the cost of renovation, shall be charged to Working Expenses, and the cost of any additions or improvements to the existing structure, shall be charged to Capital Account. The value of material released by reason of the structure as re-erected, being of less extent or efficiency than existed before the removal, shall be credited to Capital Account, and the value of material otherwise released shall be credited to Working Expenses.

RE-ARRANGEMENT OF LINES OF WAY OR OF ROADWAYS.

The cost of the re-arrangement of lines of way or of roadway, with the same kind and strength of material as existed before the re-arrangement, shall be charged to Working Expenses. The value of any material released by reason of less length of lines of way, or of less area of roadway being provided than existed before the re-arrangement, shall be credited to Capital Account, and the value of any material otherwise released shall be credited to Working Expenses. In the event of a greater length of lines of way, or a greater area of roadway being provided, or of more permanent or heavier material being used than existed before the re-arrangement, the additional cost thereof shall be charged to Capital Account.

REGRADING, CATTLE PITTING AND OTHER NETT REVENUE PRODUCING WORKS.

The cost of regrading, substituting bridges, subways or cattle pits for gate crossings and other works by which a reduction in the Working Expenses, and thereby an increase in the net Revenue or Earning Power of the Railways will be effected, shall be apportioned between Working Expenses and Capital Account, in each case as it arises, according to the circumstances. [292/04]