M.R.O. 1—10,006—28-2-50.

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(3) Initials of the Referencer_____

MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No. / ~~B.P. No.~~	2855-56	Press / Mis.	—
Dated	26-10	1876	—195—.

Not to be folded or roughly handled

No. 396. Read the following letter from Lieutenant-Colonel J. H. M. SHAW-STEWART, R.E., Consulting Engineer for Railways, to Major-General G. W. WALKER, R.E., Secretary to Government, Public Works Department, dated Madras, 23rd October 1876, No. 504 :—

WITH reference to Proceedings of Government, No. 113, dated 18th July 1876, and No. 113, dated 19th instant, I have the honor to submit two statements, prepared in the prescribed form, of the girder bridges of 20 feet span and upwards on the South-west and North-west Lines of the Madras Railway with the weight of the girders, &c., shown thereon.

2. In forwarding the statements to the Agent, the Acting Chief Engineer explained that the "total rolling load provided for per foot run" is omitted, as it is not mentioned in the specification received with the girders from England.

3. The statements due by the Agent of the South Indian Railway have not yet been received, but in order to save time those of the Madras Railway are submitted to be put in type. A telegram has been sent Mr. Betts asking for the immediate transmission of the statements.

INDIAN RAILWAYS.

Weights of Girders and Bridge Complete.

Madras Railway, South-west Line.

Name.	Distance on Railway.	Waterway. Spans.	Waterway. Clear Span.	Waterway. Total Waterway.	Character of main Girders.	Ordinary roadway for wheeled or foot traffic. Supplied or not.	Ordinary roadway for wheeled or foot traffic. On top or between Girders.	Ordinary roadway for wheeled or foot traffic. Width Gauge.	Total rolling load provided for per foot run.	Weight of one span. With old Permanent-way. Main Girders.	With old Permanent-way. Cross Girders and Bracings.	With old Permanent-way. Total Span complete.	With new Permanent-way. Main Girders.	With new Permanent-way. Cross Girders and Bracings.	With new Permanent-way. Total Span complete.
	MILES.	NO.	FT. IN.	FT. IN.				FT. IN.	TONS.	TONS.	TONS.	TONS.	TONS.	TONS.	TONS.
1st Division.															
Cochrane's Canal (Central Station Branch.)	0/14	4	64 0	256 0	Plate Girders.	Railway supplied.	On top of girders.	5 6	...	14·17	11·29	25·46	14·17	15·79	29·96
... ...	106/5	5	64 0	300 0	Do. ...	Do. ...	Do. ...	5 6	...	13·08	8·18	21·26	13·08	12·68	25·76
...		14	32 0	420 0	Do. ...	Do. ...	Do. ...	5 6	...	5·41	4·72	10·13	5·41	7 08	12·49
Palar	1/14	1	50 0	50 0	Do. ...	Do. ...	Do. ...	5 6	...	12·31	8 10	20·41	12·31	11·64	23·95
Cochrane's Canal (Royapooram Branch).	1/14	2	25 0	40 0	Do. ...	Do. ...	Do. ...	5 6	...	4·03	4·77	8·80	4·03	7·02	11·05
... ...	105/11	2	30 0	60 0	Do. ...	Do. ...	Do. ...	5 6	...	5·15	4·57	9 72	5·15	6·82	11·97
(Central Station Branch.) ...	123/23	4	30 0	120 0	Do. ...	Do. ...	Do. ...	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
Mailputty	125/21	12	28 3	210 0	Do. ...	Do. ...	Do. ...	5 6	...	3·91	2·93	6·84	3·91	5·12	9·03
Vaniembady	1/0	1	21 8	21 0	Do. ...	Do. ...	Do. ...	5 6	...	2·66	2·24	4·90	2·66	3·35	6·01
Gudiar	99/12	1	20 0	20 0	Do. ...	Do. ...	Do. ...	5 6	...	2·46	2·07	4·53	2 46	3·10	5·56
.....	112/9	5	20 0	100 0	Do. ...	Do. ...	Do. ...	5 6	...	2·46	2·07	4·53	2·46	3 10	5·56
.....	112/2	1	19 9	15 0	Do. ...	Do. ...	Do. ...	5 6	...	2·46	2 07	4·53	2·46	3·10	5·56
.....															
.....															
2nd Division.															
.....	173/14	3	20 0	60 0	Do. ...	Do. ...	Do. ...	5 6	...	2·46	2·07	4·53	2·46	3·10	5 56
.....	174/8	2	20 0	40 0	Do. ...	Do. ...	Do. ...	5 6	...	2 46	2·07	4 53	2·46	3·10	5·56
.. ..	175/10	2	20 0	40 0						2·46	2 07	4·53	2 46	3 10	5·56
.....															
Bangalore Branch.															
... ...	175/5	1	54 2	104 2	Do. ...	Do. ...	Do. ...	5 6	...	11·12	9·60	20·72	11·12	13·42	24 54
		1	30 0							5·15	4·57	9 72	5·15	6·82	11·97
Kopulur ...		1	20 0							2 46	2·07	4·53	2·46	3·10	5·56
Hoonsunhully	175/16	2	50 0	101 0	Do. ...	Do. ...	Do. ...	5 6	...	12·31	8·10	20·41	12 31	11·64	23 95
Jungle Stream	164/16	1	27 9	19 0	Do. ...	Do. ...	Do. ...	5 6	...	4·03	3 02	7·05	4·03	5·27	9·30
3rd Division.															
Cauvery	241/11	20	63 8	1,397 4	Do. ...	Do. ...	Do. ...	5 6	...	13·08	8·18	21 26	13 08	12·68	25·76
		2	62 0							4·03	4·77	8·80	4·03	7·02	11·05
.....	247/6	2	30 0	60 0	Do. ...	Do. ...	Do. ...	5 6	...	4·03	4·77	8 80	4·03	7·02	11·05
.....	285/10	2	30 0	60 0	Do. ...	Do. ...	Do. ...	5 6	...	2·66	2·24	4·90	2·66	3·35	6·01
.....	230/11	1	22 0	22 0	Do. ...	Do. ...	Do. ...	5 6	...	2·46	2 07	4·53	2·46	3·10	5·56
.....	182/5	2	20 0	40 0	Do. ...	Do. ...	Do. ...	5 6	...	2 46	2·07	4 53	2·46	3·10	5·56
.....	183/4	1	20 0	44 0	Do. ...	Do. ...	Do. ...	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
		2	12 0							2·46	2·07	4·53	2·46	3·10	5·56
.....	188/6	1	20 0	17 9	Do. ...	Do. ...	Do. ...	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	190/17	3	20 0	53 8	Do. ...	Do. ...	Do. ...	5 6	...	2·46	2 07	4·53	2·46	3·10	5·56
.....	191/2	3	20 0	42 6	Do. ...	Do. ...	Do. ...	5 6	...	2·46	2 07	4·53	2·46	3·10	5·56
.....	242/14	5	20 0	78 2	Do. ...	Do. ...	Do. ...	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	182/8	3	19 0	47 6	Do. ...	Do. ...	Do. ...	5 6	...						
4th Division.															
Thootha	373/12	12	62 0	528 0	Do. ...	Do. ...	Do. ...	5 6	...	13·26	8·26	21·52	13·26	12·83	26·09
		1	65 0							13·08	8·18	21·26	13·08	12·68	25·76
Tinoor	387/12	3	66 2	190 0	Do. ...	Do. ...	Do. ...	5 6	...	...	...	...	...	..	...
		1	54 0							11·31	7·07	18·38	11·31	10·96	22·27
		1	21 2							5 23	3·26	8·49	5·23	5·06	10·29
		1	68 9												
.....	395/5	1	66 3	202 10	Do. ...	Do. ...	Do. ...	5 6	...	13·08	8·18	21·26	13·08	12·68	25·76
		1	67 10												
Kuddulhoondy	403/5	12	66 0	768 0	Do. ...	Do. ...	Do. ...	5 6	...	14·17	11·29	25·46	14·17	15·79	29·96
Do.	403/11	8	66 0	545 0	Do. ...	Do. ...	Do. ...	5 6	...	14·17	11·29	25·46	14·17	15·79	29·96
.....	308/3	1	29 8	19 10	Do. ...	Do. ..	Do. ...	5 6	...	4 03	3·02	7·05	4 03	5·27	9 30
.....	334/5	3	30 0	90 0	Do. ...	Do. ...	Do. ...	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	372/10	1	20 0	20 0	Do. ...	Do. ..	Do. ...	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	377/6	3	20 0	54 6	Do. ...	Do. ...	Do. ...	5 6	...	2·46	2 07	4·53	2·46	3·10	5·56
.....	377/13	1	20 0	18 0	Do. ...	Do. ...	Do. ...	5 6	...	2·46	2·07	4·53	2·46	3 10	5·56
.....	381/11	4	20 0	65 8	Do. ...	Do. ...	Do. ...	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	385/10	5	20 0	90 5	Do. ...	Do. ...	Do. ...	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
Nilgiri Branch.															
.....	307/17	2	64 0	128 0	Do. ...	Do ...	Do. ...	5 6	...	14·17	11·29	25·46	14·17	15·79	29·96
.....	308/7	2	66 3	270 0	Do. ...	Do. ...	Do. ...	5 6	...	14·17	11·29	25·46	14·17	15·79	29·96
		2	64 11												

Madras Railway, South-west Line.—(Continued).

Name.	Distance on Railway.	Waterway. Spans.	Waterway. Clear Span.	Waterway. Total Waterway.	Character of main Girders.	Ordinary roadway for wheeled or foot traffic. Supplied or not.	Ordinary roadway for wheeled or foot traffic. On top or between Girders.	Ordinary roadway for wheeled or foot traffic. Width Gauge.	Total rolling load provided for per foot run.	Weight of one span. With old Permanent-way. Main Girders.	With old Permanent-way. Cross Girders and Bracings.	With old Permanent-way. Total Span complete.	With new Permanent-way. Main Girders.	With new Permanent-way. Cross Girders and Bracings.	With new Permanent-way. Total Span complete.
	MILES.	NO.	FT. IN.	FT. IN.				FT. IN.	TONS.	TONS.	TONS.	TONS.	TONS.	TONS.	TONS.
Nilgiri Branch.—(Continued).	312/13	2	64 0	128 0	Plate girders.	Railway supplied.	On top of girders.	5 6	...	14·17	11·29	25·46	14·17	15·79	29·96
	313/12	2	66 3	270 0	Do. ...	Do. ...	Do. ...	5 6	...	14·17	11·29	25·46	14·17	15·79	29·96
		2	64 11							14·17	11·29	25·46	14·17	15·79	29·96
	314/10	2	64 0	128 0	Do. ...	Do. ...	Do. ...	5 6	...	14·17	11·29	25·46	14·17	15·79	29·96
	321/13	4	64 0	256 0	Do. ...	Do. ...	Do. ...	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
	309/3	3	30 0	90 0	Do. ...	Do. ...	Do. ...	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
	312/1	1	30 0	30 0	Do. ...	Do. ...	Do. ...	5 6	...	2·46	2·07	4·53	2·46	3.10	5·56
	302/19	1	20 0	20 0	Do. ...	Do. ...	Do. ...	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
	303/2	1	20 0	20 0	Do. ...	Do. ...	Do. ...	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
	303/9	1	20 0	20 0	Do. ...	Do. ...	Do. ...	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
	305/1	1	20 0	20 0	Do. ...	Do. ...	Do. ...	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
	310/5	1	20 0	20 0	Do. ...	Do. ...	Do. ...	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
	313/16	1	20 0	20 0	Do. ...	Do. ...	Do. ...	5 6	...	2·46	2 07	4·53	2·46	3·10	5·56
	314/1	1	20 0	20 0	Do. ...	Do. ...	Do. ...	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
	314/6	1	20 0	20 0	Do. ...	Do. ...	Do. ...	5 6	...	2·46	2·07	4·53	2.46	3·10	5·56
	315/4	1	20 0	20 0	Do. ...	Do. ...	Do. ...	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
	316/13	1	20 0	20 0	Do. ...	Do. ...	Do. ...	5 6	...	2·46	2·07	4·53	2.46	3·10	5·56
	318/15	1	20 0	20 0	Do. ...	Do. ...	Do. ...	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
	319/3	1	20 0	20 0	Do. ...	Do. ...	Do. ...	5 6	...	2·46	2 07	4·53	2·46	3·10	5·56
	320/6	1	20 0	20 0	Do. ...	Do. ...	Do. ...	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
	321/2	1	20 0	20 0	Do. ...	Do. ...	Do. ...	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56

(Signed) H. R. P. CARTER,
for Acting Chief Engineer.

(Signed) R. B. ELWIN,
Agent and Manager.

CHIEF ENGINEER'S OFFICE,
20th October 1876.

WEIGHTS OF GIRDERS AND BRIDGE COMPLETE.

Madras Railway, North-west Line.

Name.	Distance on Railway.	Waterway. Spans.	Waterway. Clear Span.	Waterway. Total Waterway.	Character of main Girders.	Ordinary roadway for wheeled or foot traffic. Supplied or not.	Ordinary roadway for wheeled or foot traffic. On top or between Girders.	Ordinary roadway for wheeled or foot traffic. Width Gauge.	Total rolling load provided for per foot run.	Weight of one span. With old Permanent-way. Main Girders.	With old Permanent-way. Cross Girders and Bracings.	With old Permanent-way. Total Span complete.	With new Permanent-way. Main Girders.	With new Permanent-way. Cross Girders and Bracings.	With new Permanent-way. Total Span complete.
	MILES.	NO.	FT. IN.	FT. IN.				FT. IN.	TONS.	TONS.	TONS.	TONS.	TONS.	TONS.	TONS.
1st Division.		14	64 0							13·08	8·18	21·26	13·08	12·68	25·76
		1	30 0							5·15	4·57	9·72	5·15	6·82	11 97
		2	66 0							13·08	8·18	21·26	13·08	12·68	25·76
		6	66 0							14·17	11·29	25·46	14·17	15·79	29·96
			33 0							7·10	4·44	11·54	7·10	6·88	13·98
Cheyair	135/9	3	41 0	2,436 0	Plate girders.	Railway supplied.	On top of girders.	5 6	...	8·41	5·25	13·66	8·41	8·14	16·55
			52 0							10·65	6·66	17·31	10·65	10·32	20·97
		10	64 0							13·08	8·18	21·26	13·08	12·68	25·76
		2	51 0							11·05	8·91	19·96	11·05	12·46	23·51
			66 0							14·17	11·29	25·46	14·17	15·79	29·96
		2	65 0							14·17	11·29	25·46	14·17	15·79	29·96
	142/9	2	66 0	126 0	Do.	Do.	Do.	5 6	...	14·17	11·29	25·46	14·17	15·79	29·96
.....	70/2	1	50 0	50 0	Do.	Do.	Do.	5 6	...	12·31	8 10	20·41	12·31	11·64	23·95
.....	79/13	1	50 0	50 0	Do.	Do.	Do.	5 6	...	12·31	8·10	20·41	12·31	11·64	23·95
.....	95/13	1	50 0	50 0	Do.	Do.	Do.	5 6	...	12·31	8·10	20·41	12·31	11·64	23·95
.....	107/10	5	50 0	235 0	Do.	Do.	Do.	5 6	...	12·31	8·10	20·41	12·31	11·64	23 95
Codoor	93/4	2	30 0	60 0	Do.	Do.	Do.	5 6	...	4·03	3·02	7·05	4·03	5·27	9·30
.....	153/11	4	30 0	120 0	Do.	Do.	Do.	5 6	...	4·03	3·02	7·05	4·03	5·27	9·30
.....	104/2	1	28 0	19 6	Do.	Do.	Do.	5 6	...	4·03	3·02	7·05	4·03	5·27	9·30
.....	140/12	4	24 0	80 0	Do.	Do.	Do.	5 6	...	3·34	2·50	5 84	3·34	4·36	7·70
.....	94/4	2	22 6	40 0	Do.	Do.	Do.	5 6	...	2·79	2·35	5·14	2·79	3·35	6 14
.....	95/13	2	22 0	44 0	Do.	Do.	Do.	5 6	...	2·66	2 24	4·90	2·66	3·35	6·01
.....	77/1	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	79/14	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2 07	4·53	2·46	3·10	5·56
.....	87/13	4	20 0	80 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56

Madras Railway, North-west Line—(Continued).

DESCRIPTION OF BRIDGE.					Character of main Girders	ORDINARY ROADWAY FOR WHEELED OR FOOT TRAFFIC.			Total rolling load provided for per foot run	WEIGHT OF ONE SPAN.					
		WATERWAY.								WITH OLD PERMANENT-WAY.			WITH NEW PERMANENT-WAY.		
Name	Distance on Railway.	Spans.	Clear Span.	Total Waterway.		Supplied or not.	On top or between Girders.	Width Gauge.		Main Girders	Cross Girders and Bracings.	Total Span complete	Main Girders	Cross Girders and Bracings.	Total Span complete
			FT. IN.	FT. IN.				FT. IN.	TONS.	TONS.	TONS.	TONS.	TONS.	TONS.	TONS.
1st Division—(Cont'd)	Miles.	No.			Plate girders.	Railway supplied.	On top of girders.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	95/9	5	20 0	100 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	101/3	1	20 0	17 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	111/1	2	21 0	100 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	141/1	2	21 0	40 0	Do.	Do.	Do.	5 6	...	2·66	2·21	4·90	2·66	3·35	6·01
.....	143/5	2	21 0	55 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	146/3	2	21 0	40 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	151/13	2	21 0	40 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	153/11	1	21 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
2nd Division—					Do.	Do.	Do.	5 6	...	12·70	8·01	20·71	12·70	12·38	25·08
					Do.	Do.	Do.	5 6	...	13·08	8·18	21·26	13·08	12·68	25·76
					Do.	Do.	Do.	5 6	...	13·08	8·18	21·26	13·08	12·68	25·76
					Do.	Do.	Do.	5 6	...	6·24	4·09	10·33	6·24	6·24	12·48
					Do.	Do.	Do.	5 6	...	13·08	8·18	21·26	13·08	12·68	25·76
					Do.	Do.	Do.	5 6	...	11·17	11·29	25·46	14·17	15·79	29·96
					Do.	Do.	Do.	5 6	...	7·08	5·65	12·73	7·08	7·90	14·98
					Do.	Do.	Do.	5 6	...	11·17	11·29	25·46	14·17	15·79	29·96
					Do.	Do.	Do.	5 6	...	11·17	11·29	25·46	14·17	15·79	29·96
					Do.	Do.	Do.	5 6	...	11·17	11·29	25·46	14·17	15·79	29·96
					Do.	Do.	Do.	5 6	...	11·17	11·29	25·46	14·17	15·79	29·96
					Do.	Do.	Do.	5 6	...	11·17	11·29	25·46	14·17	15·79	29·96

Proceedings of the Madras Government, Public Works Department, 26th October 1876. No. 2,856.

Lingala Vonka	263,3	4	64	0	256	0	Do.	Do.	Do.	5	6	...	14·17	11·29	25·46	14·17	15·79	29·96
Gopaulpooram	179/1	5	50	0	250	0	Do.	Do.	Do.	5	6	...	12·31	8·10	20·41	12·31	11·64	23·95
Codecanapulla Vonka ...	205/7	3	42	0	105	0	Do.	Do.	Do.	5	6	...	7·34	5·84	13·18	7·34	9·04	16·38
.....	210/18	2	34	0	55	9	Do.	Do.	Do.	5	6	...	8·58	5·05	13·63	8·58	7·55	16·13
Peerzodpett Vonka ...	170/14	7	30	0	210	0	Do.	Do.	Do.	5	6	...	5·15	4·57	9·72	5·15	6·82	11·97
Moodanoor Vonka ...	196/1	3	35	0	90	0	Do.	Do.	Do.	5	6	...	5·82	5·22	11·04	5·82	7·76	13·58
... ..	198/6	1	30	0	30	0	Do.	Do.	Do.	5	6	...	5·15	4·57	9·72	5·15	6·82	11·97
Goondlacondah Vonka ...	200/1	2	38	0	60	0	Do.	Do.	Do.	5	6	...	7·34	7·16	14·50	7·34	10·38	17·72
.....	207/4	2	30	0	60	0	Do.	Do.	Do.	5	6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	207/6	3	30	0	90	0	Do.	Do.	Do.	5	6	...	5·15	4·57	9·72	5·15	6·82	11·97
Baganapully Vonka ...	215/11	1	30	0	30	0	Do.	Do.	Do.	5	6	...	5·15	4·57	9·72	5·15	6·82	11·97
Jogapoor Vonka ...	216/3	4	30	0	120	0	Do.	Do.	Do.	5	6	...	5·15	4·57	9·72	5·15	6·82	11·97
Yenagoo Vonka ...	226/8	1	30	0	30	0	Do.	Do.	Do.	5	6	...	5·15	4·57	9·72	5·15	6·82	11·97
Vamilpaud Vonka ...	238/7	6	30	0	180	0	Do.	Do.	Do.	5	6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	245/12	3	30	0	90	0	Do.	Do.	Do.	5	6	...	5·15	4·57	9·72	5·15	6·82	11·97
Cuttacul Vonka ...	249/2	2	30	0	60	0	Do.	Do.	Do.	5	6	...	5·15	4·57	9·72	5·15	6·82	11·97
Cohela Vonka ...	250/8	2	30	0	60	0	Do.	Do.	Do.	5	6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	254/11	2	30	0	60	0	Do.	Do.	Do.	5	6	...	5·15	4·57	9·72	5·15	6·82	11·97
Chuttanapully Vonka ...	257/13	5	30	0	150	0	Do.	Do.	Do.	5	6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	264/1	1	30	0	30	0	Do.	Do.	Do.	5	6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	270/1	2	30	0	60	0	Do.	Do.	Do.	5	6	...	3·46	4·05	7·51	3·46	5·97	9·43
.....	196/8	1	25	6	20	0	Do.	Do.	Do.	5	6	...	2·66	2·24	4·90	2·66	3·35	6·01
.....	163/10	1	21	0	21	0	Do.	Do.	Do.	5	6	...	2·66	2·24	4·90	2·66	3·35	6·01
Yenagoodpaud ...	179/16	28	21	0	476	0	Do.	Do.	Do.	5	6	...	2·66	2·24	4·90	2·66	3·35	6·01
.....	182/3	2	20	6	34	0	Do.	Do.	Do.	5	6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	201/13	1	20	0	15	0	Do.	Do.	Do.	5	6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	168/4	1	20	0	20	0	Do.	Do.	Do.	5	6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	172/8	1	20	0	20	0	Do.	Do.	Do.	5	6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	173/1	1	20	0	20	0	Do.	Do.	Do.	5	6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	173/9	1	20	0	20	0	Do.	Do.	Do.	5	6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	178/12	1	20	0	20	0	Do.	Do.	Do.	5	6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	209/12	1	20	0	20	0	Do.	Do.	Do.	5	6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	214/11	3	20	0	60	0	Do.	Do.	Do.	5	6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	214/16	1	20	0	20	0	Do.	Do.	Do.	5	6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	215/2	2	20	0	40	0	Do.	Do.	Do.	5	6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	216/13	1	20	0	20	0	Do.	Do.	Do.	5	6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	216/14	1	20	0	20	0	Do.	Do.	Do.	5	6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	222/6	1	20	0	20	0	Do.	Do.	Do.	5	6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	223/3	3	20	0	60	0	Do.	Do.	Do.	5	6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	223/14	1	20	0	20	0	Do.	Do.	Do.	5	6	...	2·46	2·07	4·53	2·46	3·10	5·56

Madras Railway, North-west Line—(Continued).

Name.	Distance on Railway.	Waterway. Spans.	Clear Span.	Total Waterway.	Character of main Girders.	Ordinary roadway for wheeled or foot traffic. Supplied or not.	On top or between Girders.	Width Gauge.	Total rolling load provided for per foot run.	Weight of one span. With old Permanent-way. Main Girders.	Cross Girders and Bracings.	Total Span complete.	With new Permanent-way. Main Girders.	Cross Girders and Bracings.	Total Span complete.
	MILES.	NO.	FT. IN.	FT. IN.				FT. IN.	TONS.	TONS.	TONS.	TONS.	TONS.	TONS.	TONS.
2nd Division—(*Contd.*)	224/2	4	20 0	80 0	Plate girders.	Railway supplied.	On top of girders.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
Sullarpully Vonka ...	228/4	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	228/7	2	20 0	40 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	228/12	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	229/1	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	230/1	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	231/8	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	231/10	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	234/9	2	20 0	40 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
Gary Road	247/2	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	252/1	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	253/7	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	253/11	4	20 0	80 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	255/3	2	20 0	40 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	255/11	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	256/1	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	259/13	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	260/3														
.....		58	61 0	3,712 0	Do.	Do.	Do.	5 6	...	14·17	11·29	25·46	14·17	15·79	29·96
3rd Division		1	30 0	30 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
Singalcha ...	276/7	1	30 0	30 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	277/4	1	30 0	30 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	278/1	1	30 0	30 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	279/10	1	30 0	30 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	279/13	1	30 0	30 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	280/7														
.....	281/4	1	30 0	30 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	281/7	1	30 0	30 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	282/11	1	30 0	30 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
Hindry	285/11	3	30 0	90 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	285/14	1	30 0	30 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	287/6	1	30 0	30 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	289/1	2	30 0	60 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	290/7	2	30 0	60 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	290/13	1	30 0	30 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	293/7	1	30 0	30 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	293/14	2	30 0	60 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	295/8	1	30 0	30 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	297/7	1	30 0	30 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	300/14	2	30 0	60 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	304/13	1	30 0	30 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	305/1	2	30 0	60 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	307/2	1	30 0	30 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	312/1	1	30 0	30 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	314/6	3	30 0	90 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	315/13	1	30 0	30 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	318/12	2	30 0	60 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	321/15	1	30 0	30 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	326/5	3	30 0	90 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	327/3	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	274/6	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	275/3	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	276/5	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	280/3	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	281/8	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	281/11	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	282/10	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	284/4	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	284/5	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	286/8	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	286/13	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	294/4	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	297/10	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	298/7	2	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	298/14	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	303/4	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56

Madras Railway, North-West Line—(Continued).

DESCRIPTION OF BRIDGE.						ORDINARY ROADWAY FOR WHEELED OR FOOT TRAFFIC.			Total rolling load provided for per foot run.	WEIGHT OF ONE SPAN.					
		WATERWAY.								WITH OLD PERMANENT-WAY.			WITH NEW PERMANENT-WAY		
Name	Distance on Railway.	Spans.	Clear Span.	Total Waterway.	Character of main Girders.	Supplied or not.	On top or between Girders.	Width gauge.		Main Girders.	Cross Girders and Bracings.	Total Span complete.	Main Girders	Cross Girders and Bracings.	Total Span complete.
3RD DIVISION—(*Continued*).	MILES.	NO.	FT. IN.	FT. IN.				FT. IN.	TONS.	TONS.	TONS.	TONS.	TONS.	TONS.	TONS.
.....	306/3	1	20 0	20 0	Plate girders.	Railway supplies.	On top of girders.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	306/8	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	308/10	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	310/5	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	310/8	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	313/2	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	314/13	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	317/7	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	319/3	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	319/11	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	322/11	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	322/12	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	323/6	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	323/15	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	319/4	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53			
BELLARY BRANCH.															
Huggry...	296/14	34	66 0	2,176 0	Do.	Do.	Do.	5 6	...	14·17	11·29	25·46	14·17	15·79	29·96
.....	286/12	2	64 0	128 0	Do.	Do.	Do.	6 6	...	14·17	11·29	25·46	14·17	15·79	29·96
.....	275/11	2	30 0	60 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	277/8	5	30 0	150 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	284/12	7	30 0	210 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	286/10	3	30 0	90 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	290/5	2	30 0	60 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	296/2	2	30 0	60 0	Do.	Do.	Do.	5 6	...	5·15	4·57	9·72	5·15	6·82	11·97
.....	275/3	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	276/5	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	276/10	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	280/9	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	281/5	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56
.....	285/3	1	20 0	20 0	Do.	Do.	Do.	5 6	...	2·46	2·07	4·53	2·46	3·10	5·56

CHIEF ENGINEER'S OFFICE,
20th *October* 1876.

Proceedings of the Madras Government, Public Works Department, 26th October 1876. No. 2,856.

Proceedings of the Madras Government, Public Works Department,
26th October 1876. *No.* 2,856.

No. 397. ORDER THEREON, 26th October 1876, No. 2,855.

RAILWAY, No. 30.

ORDERED to be forwarded to the Government of India pending submission of the statements due from the South Indian Railway.

(True Extract.)

(Signed) G. W. WALKER, Major-General, R.E.,
Secretary to Government.

No. 398. (DOCKET No. 2,856, dated 26th October 1876.)

COPY of the above forwarded to the Government of India, with reference to their Circular, No. 10 R, dated 29th June 1876.

(True Extract.)

Major-General, R.E.,
Secretary to Government.

Exd. E. C. Shunker.
Spare Copies

136 / 2

RAILWAY DEPARTMENT.

CONSULTING ENGINEER'S OFFICE,
Madras, 23 October 1876.

No. 504

From
LIEUT.-COLONEL J. H. M. SHAW-STEWART, R.E.,
Consulting Engineer for Railways,

To
MAJOR-GENERAL G. W. WALKER, R.E.,
Secretary to Government,
Public Works Department,
Fort Saint George.

SIR,

With reference to Proceedings of Government No 2,113 dated 19th July 1876, and No 2,113 dated 19th instant, I have the honour to submit two statements, prepared in the prescribed form, of the girder bridges of 20 feet span and upwards on the South West and North East lines of the Madras Railway with the weight of the girders, &c., shown therein.

2 In

2. In forwarding the state-
-ments to the Agent the Acting
Chief Engineer explained that
the "total rolling load provided
for per foot run" is omitted as
it is not mentioned in the
specification received with the
girders from England.

3. The Statements due by the
Agent of the South Indian Rail-
-way have not yet been received,
but in order to save time those of
the Madras Railway are submit-
-ted to be put in type - A telegram
has been sent Mr. Betts asking
for the immediate transmission

of the Statements.

I have the honour to be
Sir,
Your most Obedient Servant
P. Lilly Smith Engr. R.E.
for Com. Engr. for Rys.

P.W.D.
24 OCT 76
No. 7670

No 2855 dy 26 Oct/76

Ordered to be forwarded to the Govt of India pending submission of the Statements due from the S. I. Railway

Docket No 2855 dy 26 Oct/76

Copy of the above forwarded to the Govt of India with reference to their Circular No 10 R dated 29 June/76

Govt.

Recd - 15.11.76

RAILWAY DEPART.

From
The Consulting Engineer
for Railways

To
The Secretary to Government,
P. W. Department,
Fort Saint Geor

Dated 23 [illegible] 187

Received [illegible]

No. 396-398

[illegible]

1870

Govt. of [1876] Madras.

PUBLIC WORKS.

To The Chief Engr. & Secy to Govt

Dated

Issued 27/10

Recd.

Encl. 5

G. O. 24th October 1876, No. 850

Nos. 396/98.

Letter from Mr. Smith
Exts of Orders in Reference
to fees & Charges for Roads
Statement & Drawing &c.
& Abstract of Fees for
Blue Stone Stone Work of
Culverts
Statements
Weights of
Ridges &c.
& Estimate
Mr Bart. Roads

Received

Registered, No. 5

Public Works

No 396-398