M.R.O. 14—10,000—21-4-22.

MADRAS RECORD OFFICE.

Government of Madras.

Revenue DEPARTMENT.

G.O. No. 2323-24 Press ~~Mis.~~

76-77

Dated 6-12- 1860.

Not to be folded or roughly handled

Proceedings of the Madras Government, Revenue Department, 6th December 1860.

No. 76. Read the following Endorsement from the Director of Revenue Settlement, 21st November 1860, No. 1,258:—

Read the following letter from Captain F. J. B. PRIESTLEY, Superintendent Revenue Survey, to H. NEWILL, Esq., Director of Revenue Settlement, dated Chepauk, November 1860, No. 1,030.

SIR,

1. In forwarding for the information of Government the accompanying report on the Survey of the Mylapoor Division of Madras, I have the honor to state that I purpose next turning attention to the Pursewaukum Survey.

2. Orders continuing the sanction of the small Establishment before the commencement of December are necessary in order that the salary bills of the persons employed may be passed by the Civil Auditor.

Forwarded for the information and orders of Government. Captain Priestley requests that the sanction for the Establishment dated 24th April 1860, No. 621, may be extended to the end of June 1861, and that orders may be passed to that effect by the 1st proximo, to prevent the salary bills being rejected by the Civil Auditor.

Report on the examination of the Survey of the Mylapoor Division, by the Superintendent Revenue Survey.

1. In the Order of Government, dated 28th October 1859, No. 1,465, the charge of the Town Survey of Madras was transferred to me, and for the examination and test of the work hitherto performed a small Establishment was at my request sanctioned for six months on the 24th April 1860, No. 621.

2. The Mylapoor division was selected for test in the first instance, as being the one in the Survey records of which the discovery of several errors had tended to raise doubts regarding its general accuracy.

3. It was not found possible to commence the examination of the maps and computations till June, and some further delay occurred in subjecting the field work to any test in consequence of the difficulty experienced in obtaining the services of a competent Surveyor; after some time had elapsed, I instructed Mr. D. Starr, my office Assistant, to perform the duty until a qualified person was met with.

4. This arrangement continued in force till the beginning of November, when with the permission of Government, Mr. Webb, a Sub-Assistant of the Revenue Survey on sick leave, took charge of the testing operations.

5. These have consisted in going over on the ground the whole of the main circuit and offsets of the division and the minor circuits, Nos. 1 and 11, every field contained in the last named circuit has been measured and plotted afresh, the numbers noted by the Collector as suspicious, and a few others here and there, have been also re-measured and plotted.

Nos. 10, 12, 13, 201, 375, 377, 948, 961, 2,988, 3,248, 3,269 *and* 3,391.

6. In the office, the main traverse and the 13 minor traverses included in it have been recomputed, as also the main traverse offsets; the whole of the fields in No. 11 traverse, the numbers marked as suspicious in traverses Nos. 2, 3, 4, 6, 9, 10, 11 and 13, and a few other numbers.

7. Full details of errors discovered accompany; but it may be well to state that the result of this searching examination establishes

(1.) The correctness and trustworthiness of the field work executed by Mr. Walker.

(2.) The incorrectness and untrustworthiness of the computations in a great number of cases.

(3.) The general accuracy of the plotting and maps.

8. In the test of the Survey of the other divisions of Madras, profiting by the experience gained in executing the work now reported on, the field work and maps will undergo a more general scrutiny, and the principal subject of examination will be the traverse and field computations.

9. It may be here observed, however, that great difficulty has been experienced in using the traverse area as a test of the correctness of the included field areas. The minor traverses have been merely used by Mr. Walker for the construction of maps, and offsets except on the main traverse lines, have not been taken.

10. Had any such test been applied, stupendous errors, such as brought to light, amounting in one instance to 69 Cawnies on a total of 207 would, I may say, have been impossible. Still these, as I before remarked, do not vitiate the work, the traverse areas being merely given *pro formâ*, and not used as a check.

No. 10 *traverse.*

11. I am inclined to believe that no very grave inaccuracies exist in the content of the fields that did not fall under examination, from the fair agreement of their aggregate area with the total extent of the division. A detailed examination of No. 1 minor traverse is in progress, and the result shall be communicated to Government; but being on the point of quitting the Presidency, and the allotted six months ending with November, I am unwilling to delay my application for a further extension of the sanction for the small Establishment at present employed, to the end of June 1861, during which time it is hoped that a test may be applied to two more divisions.

3129·1·1898
3102·3·1307
26·22·591
or 0·87 *per cent.*

12. A statement of the expenditure incurred up to the end of October with that estimated for November is appended.

Statement of expenditure for the Establishment for testing the Town Survey sanctioned in G. O. 24th April 1860.

	Salaries.	Contingent.	Total.	Sanctioned.
June	80 6 11	2 13 0	83 11 11	172 0 0
July	65 4 11	2 3 0	67 7 11	
August	63 13 2	0 0 0	65 10 2	
September	134 8 0	1 4 0	135 12 0	
October	85 8 0	21 0 0	106 8 0	
			458 13 0	860 0 0
For November	135 8 0	20 0 0	155 8 0	172 0 0
			614 5 0	1,032 0 0
				614 5 0
		Unexpended		417 11 0

(Signed) F. J. B. PRIESTLEY, Captain.
Superintendent Revenue Survey.

Details of testing operations.

1. In testing the grand circuit, the angles used were those given by Mr. Walker, (*i. e.* the instrument was each time set to the angle entered in the traverse) and no great difference in the length of the chain lines was met with. The offsets were likewise found correct, except that an error of 100 feet came to light in the Mylapoor tank opposite the house now occupied by Mr. Hall, Civil Service. This may be said, however, not to affect anything but the division boundary on the map, the bund of the tank forming too obvious a boundary on the ground to admit of cavil.

Field test.

2. The 11 minor traverse was examined in an equally minute manner, and the measurements found substantially correct.

3. The field measurements in No. 11 traverse were, as I before stated, gone over again thoroughly, but no error of importance was elicited.

4. In the scrutiny to which the records and computations were subjected in the Revenue Survey Office, errors in computations were discovered in every traverse; but with the exception of the main traverse, and Nos. 1, 4, 10 and 11 minor traverses. they do not affect their value, the greatest being only 13,154 feet in excess.

Test in Office.

	Kánis.	*Grounds.*	*Square feet.*
Test	3,076	1	2,197 ·5
Mr. Walker's, corrected	3,091	13	1,692·33
Difference	15	11	1,894·83

5. In the margin is shown the area of the Mylapoor main circuit by the test now performed by the account given by Mr. Walker, and from the data afforded by Mr. Walker correctly worked (that is by Mr. Walker's accounts divested of errors).

6. The difference between the area found by the first and last process (about 15 kánis) arises either from a slight inexactness in Mr. Walker's chaining or from his chain having been a little shorter than the standard. It amounts, however, to but 0·4 per cent.

Mr. Walker	3,090	18	1,652 ·7
Do. corrected	3,091	13	1,692·33
Difference	0	19	39·63
Mr. Walker	215	20	1,319·65
Do. corrected	236	22	1,821·66
Difference	21	2	502·01
Mr. Walker	251	17	1,055·79
Do. corrected	269	3	1,729·93
Difference	17	10	674·14
Mr. Walker	277	2	774·74
Do. corrected	207	18	1,710·23
Difference	69	7	1,464·51
Mr. Walker	278	7	2,009·55
Do. corrected	299	11	1,271·05
Difference	21	3	1,661 ·5

7. The substitution of N 38.·.18 for N 30.·.33 at station q′, causes the excess of the corrected area over that entered in Mr. Walker's accounts.

8. The area of traverse No. 1 is given a little over 21 kánis less than it ought to be from the decimal point, in one entry being put one place to the left.

9. A deficiency in the area entered for traverse No. 4 of more than 17 kánis, has its origin in an error of 300 in the column of multipliers which is continued in the subsequent entry, and also in an error in placing the decimal point similar to that above described.

10. In No. 10 traverse occurs the most considerable mistake involving a difference in excess of no less than 69 kánis. It is to be attributed to several incorrect entries in the distance on the perpendicular and in the column of co-ordinates which throw the products into the wrong column (N.E. instead of N.W.), an error of 21 kánis too little in No. 11 is caused by misplacing the decimal point.

Mr. Walker.....	9	15	585·78
Do. corrected...	10	15	67·89
Difference.....	0	23	1,882·11
Mr. Walker.....	3,100	9	2,238·48
Do. corrected..	3,102	4	1,760·22
By test.....	3,086	3	1,307·11

11. Two errors in computing the offsets of the division have been discovered, making a total deficit in their area of one káni.

12. The total area of the Mylapoor Division, according to the three processes, is shown in the margin.

13. In the computation of content, the greatest discrepancy discovered was in a number considered suspicious, No. 13, known as Brodie Castle. The test differed 10 kánis from the entry made by Mr. Walker. This had already been noticed by Mr. Cunliffe, but I am not aware that any correction has been made in consequence.

Mr. Walker.....	26	22	1,809
By test.....	36	19	1,378
Difference.....	9	20	1,969

14. The only other error of great magnitude was found in calculating the field areas of No. 11 traverse, No. 3,124 (also one of those suspected) and amounts to 4 kánis. A number of errors in computation of minor importance also came to light, the largest being an excess of 22 Grounds in No. 3,402.

Mr. Walker.....	10	8	237·$\frac{20}{32}$
By test.....	14	14	206·$3\frac{1}{2}$
Difference.....	4	6	1,825·$\frac{12}{32}$

15. A comparison of the sum of the field contents of No. 11 traverse by test and by Mr. Walker's accounts, is given in the margin for reference, as also the traverse area by test and by Mr. Walker's corrected accounts.

Field area.	*Kánis.*	*Grounds.*	*Square feet.*	*Traverse.*	*Difference.*
By test.....	279	21	1,718$\frac{1}{2}$	280 5 669	0 7 1,350$\frac{1}{2}$
By Mr. Walker.	276	19	1,187$\frac{14}{16}$	282 9 1,946·08	5 14 758·39
Difference.....	3	2	530·81	2 4 1,277·08	

16. The accompanying tracing shows the errors in plotting to have been very slight and infrequent.

No. 77. ORDER THEREON, 6th December 1860, No. 2,323.

1. With the foregoing endorsement the Director of Revenue Settlement forwards a letter from the Superintendent of Revenue Survey, submitting as directed the result of the examination of the Survey of the Mylapoor Division, and applying for the continuance of the extra Establishment sanctioned under date 24th April 1860, No. 621, to the end of June 1861. This Establishment was sanctioned for a period of six months for the purpose of testing and examining the Survey of the town of Madras already performed, with the view of rectifying such inaccuracies as may be found to exist.

2. The result of the examination establishes the incorrectness and untrustworthiness of the computations originally made, in a great number of cases, though the field work, the plotting and maps have all been correctly executed. Serious errors amounting in one instance to 69 kánis on a total of 207 have been brought to light. And Captain Priestley hopes that by the end of the time for which the extra Establishment is proposed, a similar test may be applied to two more Divisions of the town.

	RS.
Establishment.....	152
2 Lascars.....	12
Contingencies.....	20
	184

3. Under the circumstances brought to notice the Government permit the continuance of the extra Establishment to the end of June 1861 at a cost not exceeding Rupees 184 per month and will report the same to the Government of India for their confirmation.

4. The Government wish to know what course is proposed for the rectification of the errors discovered and when a report on this subject may be expected.

(Signed) J. D. SIM,
Acting Secretary to Government.

Ordered that the following letter be despatched.

No. 78. From J. D. SIM, Esq., Acting Secretary to the Government of Fort Saint George, to the Secretary to the Government of India, dated 6th December 1860, No. 2,324:—

SIR,

To the Government of India, 24th April 1860, *No.* 622.
From the do. do. 31st May 1860, *No.* 1,216.

1. With reference to the correspondence noted in the margin, I am directed to state that the contemplated examination of the original Survey of the town of Madras, so far as it respects the Saint Thomé Division, has been completed and that the result has been the detection of several errors in the computations of areas, while the accuracy of the field work, plotting and maps has been established.

2. The Government deem it essential that the Survey in two other Divisions of the town should be similarly tested, a work which is expected to occupy a further period of six months. Of the sum sanctioned by the Supreme Government on 31st May 1860, a balance of Rupees 417 will remain on hand at the end of the current month, and of the amount allowed for the *original* Survey a sum of Rupees 2,250, which accumulated from fines, &c., has been carried to the credit of Government.

	RS.
Establishment.....	152
2 Lascars.....	12
Contingencies.....	20
	184

3. In order to prevent the interruption of the examination, this Government have sanctioned the continuance of the Establishment till the end of June 1861, at the same cost as before; and I am directed to solicit the confirmation of the Government of India to the proceeding.

Comparative statement showing
the area of the Holdings in Rent
Circuit. No 11. Malapir Division by
Mr. McCabe's record and those
diagramed under the supervision of the
Sup. H. Revenue Survey.

Comparative statement of Holdings in Nine

Circuit No 11 Milapur Division

No of Holding	Area by Test	Area by Amr Platform Accn. 6	Error in M	Remarks
1953				
2000				
2003	1. 21. 1	1. 11. 1831⅜	~~0 . 2 . 1081 11/16~~	
2010				
2001	0. 11. 354	0 13 1435 11/16		0 . 9 . 572 8/8
2002	0. 1 1195	0 1 1600	0 . 2 . 1081 11/16	
2011	2. 13. 2146	3. 1 852 5/16		0 . 0 . 95
2012	0. 1. 1029	0 1 1156	0 . 11 1109 5/16	
2013	0. 0. 1980	0 1 1027½	0 . 0 . 15½	
2014	0. 22. 2120	0. 22. 1936⅞		0 . 0 . 183⅛
2015	0. 8. 491.	0. 7. 3149⅞		0 . 0 . 741⅛
2016	0. 7. 496	0. 7 208½		0 . 0 . 287½
2017	0. 7 1600	0 7 1493		0 . 0 . 107
2018	3. 19. 821	3. 19. 918¼	0. 0 97¼	
2019	0. 0. 1764	0 0. 1669½		0 0 94½
2020	0. 18 321	0 18 1400	0. 0 1079	
2021	0 8. 880	0 8. 625 15/16	0. 0 48 15/16	
2022	0. 7 774	0. 7 395 11/16		0 0 378 5/16
2023	0. 8. 92	0 7 1087½		0 0 1404½
2024	0. 0 1368	0. 0 1241½		0 0 126½
2025	0. 5. 960	0. 5. 1116 15/16		0 0 81 3/16
2026	0. 3. 1440	0. 3. 1817 3/4	0. 0 377 3/4	
2027	0. 4. 1680	0. 4 1276 23/32		0 0 403 3/32
2028	1. 17 1632	1. 8. 365 5/16		0 12 1266 5/16

No of Holding	Area by Ass.			Area by Ass.ors Account.			Errors			Remarks
2029	2.	12.	1016.	2.	10	1009 13/16				0 2 16 3/16
2030	0.	10	1620.	0.	12.	843 5/8	0.	1.	1623 5/8	
2031	2.	1.	1780	1.	6.	1254 1/8				0. 19. 525 7/8
2032	0.	3.	510	0.	3.	521 1/8	0.	0.	11 5/8	
2033	2.	2.	2175	2.	2.	548 5/16				0. 0. 1626 11/16
2034	1	2	250	1.	4	526 1/2	0.	2	276 1/2	
2035	11.	16.	1491	11	13.	1044 5/16				0 3 446 10/16
2036	10.	4	298	10.	1	232 3/8				0 3. 65 5/8
2037	3.	5.	1880	3.	14	368 1/2	0.	8	688 3/4	
2038	1	14	1774	1.	15.	1174 3/4	0.	0	1800	
2039	1.	9.	2235	1.	8.	2144				
2040	0	20.	1220	0.	20.	1585 1/2	0.	0	365	
2041	4. 11. 1630.									
2046	0. 1. 172 1/4	5. 7	2328	5.	6.	2155 3/4				The area of 2046 is included in 2041 in Mr Walkers account the contents is therefore taken over from Emporia
2042	4.	12.	1665	4.	11.	2152 1/32				0 0 1902 31/32
2043	9.	2.	1280	8.	20.	1708 5/8				0 6 197 3/8
2044	0.	0	380	0.	0	351 1/4				0 0 28 3/4
2047	0.	22	1368	0	22	1150				0 0 218
2048	1.	7	2230	1.	8.	576	0.	0.	227 1/16	
2750	3.	12.	630	3.	11	219 3				0 0. 837
2751	1	23.	2311	2.	0.	2282 1/2	0.	0.	28 1/2	
2752	8	12.	2288	8.	11.	1119 3/8				0 1. 1168 5/8
2753	8	16	1872	8.	19.	127 3/4	0.	2	665 3/4	
2754	8.	20.	800	8.	22.	1288 1/8	0.	2.	488 1/8	
2755	13.	11	1281	13.	17.	1438	0.	6.	157	
2756	3.	18.	1321	3	19	1108 7/8	0.	0.	218 5/8	
2757	2.	17.	1788	2	17	1087 5/8				0 0 1679 9/16

No.	No. of Holding	Area by Field			Area by Pr. Walker's Account.			Errors in Pr. +		Remarks
20	2758	3.	11.	1140	3.	11.	2100	0.	0. 440	
20	2759	1.	2.	848	1.	4.	2154	0.	0. 1674	
20	2760	1.	6.	1528	1.	1.	228 3/4			
20	2761	1.	5	1842	1.	6.	176 9/10	0.	0. 751 3/10	
21	2762	1.	0.	1482	1.	0	1099 9/10	0.	0. 627 3/10	
21	2763	0.	23.	1144	0.	23.	845 8/8.	0.	0. 761 3	
21	2764	1.	11.	1188.	1.	12.	192 7/8	0.	1. 710 7/8	
21	2765	1.	9.	2300.	1.	11.	1007 1/16	0.	1. 1107 1/16	
21	2766	1	5.	1760.	* 1. 7. 1103 3/4 / -0. 0. 945 3		1. 7. 158 3/4	0.	3. 77	
2	2767	0.	21.	311.	0	21.	623 3/8	0.	0. 312	
2	2768	1.	17.	3236.	1.	18.	67 1/8.	0.	0. 231	
21	2769	1.	17	1896.	* 2. 8. 1801 3/4 / -0. 7. 695 3		2. 1. 1105 3/16	0.	7. 1109 3/16	
21	2787	5.	9.	695	5.	9.	1166 3/16	0.	0. 291 3/16	
21	2782	0.	18	1404	0.	19.	375 1/8	0.	0. 137	
2	2783	3.	0.	2096	3.	3	686 7/8	0.	2. 984	
2	2784	6.	17.	940	* 6. 15. 2144 / -0. 0. 2384 3		6. 15. 2144			
2	2785	4.	7.	2013.	* 4. 10. 9816 / -0. 2. 2100 3		4. 7. 3781/16			
2	2786	2.	9.	470.	* 2. 13. 6143/4 / -0. 3. 1050 3		2. 9. 1964	0.	0. 1491	
2	2990	11.	5.	566	11.	3.	330 11/32			
2	29916									
2	3026									
2	30756									
2	30848	2.	17.	777	2.	16	2244 8			
2	28962928									
2	294.									

Walker's

					Remarks
0.	4.	1640 1/2			
					Channel R. 2 1/4 inc included in this W. pin Mr. Walker's the Contents therefore taken into one sum for Comparision
					* Land taken up in widening St George's Cathedral Road
					* Land taken up in widening St Georges Cathedral Road
0.	1.	1192 3/4	*		Land taken up in widening St Georges Cathedral Road
0	0	1614 5/16	*		Do Do
	2.	235 21/32			
					932 7/8

No.	No. of Holding	Area by last	Area by Mr. Walker's Account	Error	
				+	−
20	3027	2. 6. 408	2. 3. 656¾		
20	3028 4				
20	3035 4	1. 4. 1973½	1 " 5 " 2058⅞	0 " 1 "	55⅜
20	29 5				
2	3036 4				
2	297	0. 5. 1764	0. 6 22½	0. 0.	658½
2	3037 6				
2	3041 4				
2	3059 6	1. " 1 " 407½	1 " 1 " 433½	0 " 0. "	26
2	3061				
2	3042	1. 22 1250	2-1-332⅔ / 0-2-360⅔ 1 " 22 " 2372¾	0 " 0 "	1122¾
2	3043 6				
2	3058	1 " 1 " 2301½	1 " 3 " 880¼	0 " 1 "	978¾
2	3062	0. " 21 " 2006	0 " 21 " 660¾		
2	3063	4 " 17 " 1828	4 " 18 " 56½	0 " 0 "	628½
2	3064	1 " 4 " 945	1 " 3 " 840¾		
2	3065 6				
2	3072	0. " 17 " 829	0 " 16 " 2278⅜		
2	3073 4				
2	3074	0 " 14 " 915	0. " 14 " 2387	0 " 0 "	1472
2	3085 4				
2	293	0 " 6 " 2286	0 " 5 " 1204		
2	3086	0 " 5 " 1588	0 " 5 " 2130	0 " 0 "	542
2	3087 6				
2	3089	0 " 8 " 192	0 " 7 " 2239¼		

January 18[illegible]

No.	No of Holding	Area by test	Area by Mr. Walker accounts	Error in Mr. Walker's +	Error in Mr. Walker's −	Remarks
	3090 to 3097 & 3102 to 3114	2 " 7 " 1410	2 " 6 " 845 3/4		0 " 1 " 564 1/4	
	3098	0 " 11 " 2160	0 " 11 " 2168 1/2	0 " 0 " 8 1/2		
	3099	0 " 4 " 2234	0 " 4 " 1674 3/4		0 " 0 " 559 1/4	
	3100	1 " 5 " 264	1 " 4 " 867 1/4		0 " 0 " 1796 3/4	
	3101	1 " 16 " 2006	1 " 17 " 1469 1/4	0 " 0 " 1863 1/4		
	3115	0 " 6 " 478	0 " 6 " 104 1/2		0 " 0 " 373 1/2	
	3116	0 " 4 " 2018	0 " 5 " 69	0 " 0 " 451		
	3117	0 " 4 " 1645	0 " 4 " 1889 1/2	0 " 0 " 244 1/2		
	3118	0 " 7 " 1200	0 " 7 " 1486 1/2	0 " 0 " 286 1/2		
	3119	0 " 12 " 1980	0 " 12 " 1123 1/2		0 " 0 " 856 1/2	
	3120	0 " 7 " 524	0 " 6 " 1558		0 " 0 " 1366	
	3121	1 " 1 " 1540	1 " 1 " 2024 1/2	0 " 0 " 484 1/2		
	3122	0 " 4 " 515	0 " 3 " 1800		0 " 0 " 1115	
	3123	0 " 13 " 750	0 " 14 " 1874 1/4		0 " 0 " 1275 3/4	
ϕ	3124	14 " 14 " 2063 1/2	10 - 13. 1209 29/32 - 0 " 5. 1212 2/3	10 - 8 - 237 29/32	4 " 6 " 1825 17/32	ϕ This is one of the suspicious Nos. given by the Collector the same was recently measured by Mr. Mead and the area given as 14 " 11. 772
*	3399	1 " 5 " 1012 1/2	1 " 4 " 124		0 " 1 " 988 1/2	* Land taken up in widening St. Georges Cathedral Road
	3400	0 " 12 " 1060	0 " 11 " 1276 1/4		0 " 0 " 2193 3/4	
	3401	0 " 10 " 2134	0 " 11 " 1826 1/4	0 " 0 " 209 2 1/4		
	3402	2 " 13 " 598 1/2	3 " 12 " 443	0 " 22 " 2244 1/2		
	3403	6 " 1 " 2135	5 " 19 " 1934 7/16		0 " 6 " 200 9/16	
	3404	9 " 8 " 2034	9 " 13 " 1336 1/4	0 " 4 " 1752 1/4		
	3405	10 " 7 " 1940	10 " 11 " 172 15/16	0 " 3 " 632 15/16		

No. of Holding	Area by test	Area by Mr. Walker's Account	Error in Mr. Walker's +	Error in Mr. Walker's −	Remarks
3406	1-11-1089½ } 9-17-1725½	10-0-1685⅜ } 9-17-1710			
3410	8-6-636 }	0-6-2375 }			
207	0 " 17 " 682	0 " 18 " 968½	0 " 1 " 286½		
209	0 " 17 " 1977	0 " 20 " 330	0 " 2 " 753		
215	0 " 10 " 418	0 " 10 " 490	0 " 0 " 72		
288	0 " 4 " 190	0 " 4 " 1450	0 " 0 " 1260		
296	0 " 8 " 650	0 " 6 " 889⅜		0 " 1 " 2160⅝	
298	0 " 5 " 1680	0 " 4 " 858		0 " 1 " 822	
300	0 " 13 " 368	0 " 13 " 1502½	0 " 0 " 1134½		
Total	*269 " 16 " 1706½	*265 " 15 " 2048 11/16	4 " 5 " 2114⅜	8 " 16 " 1772⅜	
	265 " 15 " 2048 11/16			4 " 15 " 2114⅜	
Difference	4 " 0 " 2057 13/16			4 " 0 " 2057 13/16	
Total	269 " 16 " 1706½	*265 " 15 " 2048 11/16			
a Part of Nos 2749 156, 157, 209 210, 213, 214 217, 218, 219	10 " 5 " 12	10 " 5 " 12	Land taken up in widening which was deducted from	St. Georges Cathedral Road	
		+0 " 22 " 1527			
Grand Total	279 " 21 " 1718½	~~0 " 20 " 1694~~			
By Traverse	280 " 5 " 669	261 " 6	284.58		
Difference	0 " 7 or 1350½	15 " 13 " 903.11			
	0-11 per Cent	+ 0 " or 0.5.95 per Cent.			

a Nos 3407, 3408, 3409-3411, and part of 3406, are now taken up in one No 3410
No the contents of the above mentioned Nos are therefore taken in to one sum for compa
ison Land taken up in widening St. Georges Cathedral Road

St. Georges Cathedral Road
Nos 3 to 10 for comparison with Est

× Nos 2766, 2769, 2784-5-6, 3042
3124

Comparative Statement of Calculated & Observed Elements, showing the cause of discordance, illustrated in the Case of Miller from Quesnel

Date of Watching	Names and Characters of Stars compared	Observed Mean Right Ascension	Observed Mean North Polar Distance	Observed Mean Time of Transit	Computed Mean Right Ascension	Computed Mean North Polar Distance	Computed Mean Time of Transit
10	Lyncis & Ursæ Majoris	5h 15m 17s	18° 19′ ½	2h 6m 12½s			
12	Ursæ Majoris & Leonis	20h 9m 11s	76° ⅝	8h 2m 19⅝s			
13		26h 19m 13s	78°	10h 20m 19s			
20	Ursæ Majoris & Leonis	12h 9m 18s	58° ½	4h 50m 12s			
21	Leonis & Ursæ Majoris	1h 14m 12s	47° ⅞	0h 57m 48s			
22	Leonis & Ursæ Majoris	2h 12m 16s	59° ⅞	1h 49m 7⅛s			
23	Leonis & Ursæ Majoris	1h 2m 12s	49° ⅝	0h 48m 11⅜s			
24	Leonis & Ursæ Majoris	0h 7m 10s	46° ⅛	0h 28m 11½s			
25	Leonis & Ursæ Majoris	1h 1m 15s	57°	0h 44m 1s			
26	Leonis & Ursæ Majoris	7h 11m 13s	73°	5h 11m 0½s			
27	Leonis & Ursæ Majoris	3h 11m 14s	67°	2h 22m 29¼s			
28	Leonis & Ursæ Majoris	2h 8m 25s	60°	1h 43m 6¼s			

Observation Observed by Clifton Moseley Wade

Mean of 10 observations — Mean Right Ascension 10h 26m 19.75s — Mean North Polar Distance 76° 19′ 42″ — Mean Time of Transit 6h 57m 19.5s

Reduction to Apparent Place

	Right Ascension	North Polar Distance	Time of Transit
Mean Observation	10h 26m 19.75s	76° 19′ 42″	6h 57m 19.5s
Aberration	+ 0.75s	+ 0′ 7″	+ 0.5s
Nutation	+ 1.25s	+ 0′ 2″	+ 0.5s
Annual Variation	+ 0.5s	+ 0′ 1″	+ 0.25s
Apparent Place	10h 26m 22.25s	76° 19′ 52″	6h 57m 20.25s

Reduction to Mean Place

	Right Ascension	North Polar Distance	Time of Transit
Apparent Place	10h 26m 22.25s	76° 19′ 52″	6h 57m 20.25s
Aberration	− 0.75s	− 0′ 7″	− 0.5s
Nutation	− 1.25s	− 0′ 2″	− 0.5s
Annual Variation	− 0.5s	− 0′ 1″	− 0.25s
Mean Place	10h 26m 19.75s	76° 19′ 42″	6h 57m 19.5s

Reduction to Mean Time

	Right Ascension	North Polar Distance	Time of Transit
Apparent Place	10h 26m 22.25s	76° 19′ 52″	6h 57m 20.25s
Aberration	− 0.75s	− 0′ 7″	− 0.5s
Nutation	− 1.25s	− 0′ 2″	− 0.5s
Annual Variation	− 0.5s	− 0′ 1″	− 0.25s
Mean Time	10h 26m 19.75s	76° 19′ 42″	6h 57m 19.5s

Reduction to Apparent Time

	Right Ascension	North Polar Distance	Time of Transit
Mean Time	10h 26m 19.75s	76° 19′ 42″	6h 57m 19.5s
Aberration	+ 0.75s	+ 0′ 7″	+ 0.5s
Nutation	+ 1.25s	+ 0′ 2″	+ 0.5s
Annual Variation	+ 0.5s	+ 0′ 1″	+ 0.25s
Apparent Time	10h 26m 22.25s	76° 19′ 52″	6h 57m 20.25s

Reduction to Mean Time

	Right Ascension	North Polar Distance	Time of Transit
Apparent Time	10h 26m 22.25s	76° 19′ 52″	6h 57m 20.25s
Aberration	− 0.75s	− 0′ 7″	− 0.5s
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Reduction to Apparent Place

	Right Ascension	North Polar Distance	Time of Transit
Mean Time	10h 26m 19.75s	76° 19′ 42″	6h 57m 19.5s
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Nutation	+ 1.25s	+ 0′ 2″	+ 0.5s
Annual Variation	+ 0.5s	+ 0′ 1″	+ 0.25s
Apparent Place	10h 26m 22.25s	76° 19′ 52″	6h 57m 20.25s

Comparative Statement of the area of Traverses Mulapoor Division

Description of Traverse	By Mr Walker	The same as worked in Supt Office for test	Difference	Remarks
Main Traverse C	17 8028852.70 or 3090 - 18 - 1652.7	17 8074492.33 or 3091 - 13 - 1692.33	− 45639.63 or 0 - 19 - 39.63	⊙ to E 199°34 must be 119°34 Caused by error in Copying.
				⊙ to N 38°18' must be 30°33'.
Secondary Traverse No 1	124 33319.65 or 215 - 20 - 1319.65	1364 8221.66 or 236 - 22 - 1821.66	− 1214902.01 or 21 - 2 - 502.01	⊙ 79 N. 1031.55 must be 1083.90 ⊙ 84 NE Product 270379.33 must be 270393.3
Secondary Traverse No 2	10853195.14 or 188 - 10 - 395.14	10854813.82 or 188 - 10 - 2013.82	− 1618.68 or 0 - 0 - 1618.68	⊙ 102 W 1293.9 must be 1296.9
Secondary Traverse No 3	1510 1084.38 or 262 - 4 - 284.38	1510 1134.36 or 262 - 4 - 334.36	− 49.98 or 0 - 0 - 49.98	
Secondary Traverse No 4	144994 55.79 or 251 - 17 - 1055.79	1550 3329.93 or 269 - 3 - 1729.93	− 100 3874.14 or 17 - 10 - 674.14	⊙ 69 Dep: of each station from the 1st in the series 265.42 must be 865.42 Sum of the dis in Dep: as Co-ordinates 554.68 must be 854.68
				⊙ 95 Sum S W Product 221891.81 Must be 2218918.14
				also in N W Product 106254.50 must be 163722.50
				On the whole the working of the N. S. E Westing there is a difference from 4. to 6.68.
				⊙ 68 Sum of dis in Dep: as Co-ordinates 1046.28 must 134 628 and in North West product 8014.50 ✻ must be 10312.50
Secondary Traverse No 5	134 98711.53 or 234 - 8 - 1111.53	134 98733.14 or 234 - 8 - 1133.14	− 21.63 or 0 - 0 - 21.63	

13

Description of Traverse	By Mr Walker	The same as worked in Supt Office for test	Difference	Remarks
Secondary Traverse No 6	9121985.71 or 158 - 8 - 1985.71	9132924.98 or 158 - 13 - 924.98	− 10939.27 or 0 - 4 - 1239.27	This is worked by Mr Walker backwards - i.e. Station entered in the same manner as the hands of a watch revolving.
Secondary Traverse No 7	15911541.575 276 - 5 - 1941.575	15898387.225 276 - 0 - 787.25	+ 13154.35 or 0 - 5 - 1154.325	⊙ 63 & 66. In the working of Traverse N & Easting there is a difference of 0.89. to 5.70 From ⊙ 276 to 054 there is an error of + 1 in the Bearings.
Secondary Traverse No 8	144 31352.65 or 250 - 13 - 152.65	144 31931.89 or 250 - 13 - 731.89	− 579.24 0 - 0 - 579.24	
Secondary Traverse No 9	99 25884.80 or 172 - 7 - 1884.8	99 25986.38 or 172 - 7 - 1986.38	− 101.58 0 - 0 - 101.58	
Secondary Traverse No 10	159 60774.74 or 277 - 2 - 774.74	119 68110.23 or 207 - 18 - 1710.23	+ 39928 64.51 or 69 - 7 - 1464.51	⊙ 15 Dep of each station from the 1st in the series W 154.092 must be 145.092
				✻ ⊙ 18 - Dep of each station from the 1st in the Series E 35.187 must be W 35.187
				⊙ 45 sum of the dis in the Dep: as Co-ordinates W 651.726 must be 642.726.
				⊙ 178 E 54.057 must be W 54.057 These error throw out the average quality

Description of Traverse	By Mr Walker	The same as worked in Supt's office for last	Difference	Remarks.
Secondary Traverse No 11	1603609.55 or 278.7.2009.55	1725007.1.05 or 299.11.1271.05	-1218461.5 or 21.3.166.5	C 80 S W Product 2682250.21 must be 2682502.10 This throws out the area Greatly C 9 N 38.18 must be 30.33 C 798-843.15 must be 835.40 also W 216.48 must be 214.49
Secondary Traverse No 12	1028752.0.57 or 178.14.1120.57	1028985.24 or 178.15.985.24	-2264.67 or 0.0.2264.67	
Secondary Traverse No 13	20560732.48 or 356.22.2332.48	20560894.22 or 356.23.94.22	-161.74 or 0.0.161.74	
Total of Mer. Traverse	3100.23.1968.565	3091.9.1124.15		
Mer. Inner	3090.18.1653.7	3091.13.1692.33		
Difference	10.5.315.866	0.4.568.18		
	per Cent. .33	per Cent. .005		

Exd

R. D. 17

No. 2323

Proceedings of the Madras Government
Underdated the 6th December 1860

Read the following en-
dorsement from the Director
of Revenue Settlement.

(Here enter 21st Oct. 1860 No. 1235)

With the foregoing
endorsement the Director of
Revenue Settlement forwards
a letter from the Superintend-
ent of Revenue Survey, sub-
mitting as directed the result
of the examination of the Survey
of the Mylapore Division, and
applying for the continuance
of the extra establishment
sanctioned under date 24th April
1860 No. 624 to the end of June 1861.

This

this Establishment was sanctioned for a period of six months for the purpose of testing and examining the Survey of the Town of Madras already performed, with the view of rectifying such inaccuracies as may be found to exist.

2. The result of the examination establishes the inaccurateness and untrustworthiness of the computations originally made, in a great number of cases through the field work, the plotting and maps have all been correctly executed. Serious errors amounting in one instance to 69 cawnies on a total of 209 have been brought to light. And Captain Priestley hopes that by the end of the time for which the extra establishment is proposed a similar test may be applied to two more Divisions of the Town.

3. Under the circumstances brought to notice the Govt. are pleased to permit the continuance of the extra

Kámi

Establishment 152
2 Lascars ——— 12
contingencies — 20
184

extra Establishment to the end of June 1861 at a cost not exceeding Rupees 184 per month and will report the same to the Govt. of India for their confirmation.

4. The Govt. wish to know what course is proposed for the rectification of the errors discovered and when a report on this subject may be expected.

5. Ordered that the following letter be despatched.

To The Secretary to the Govt. of India.

S. D. S

13 Copies - Director of Revenue Settlement Dispt. 7
7 " Supt. of Revenue Survey
3 " Accountant General
3 " Civil Auditor
17 " Board of Revenue

Establishment for testing the Survey of the Madras Town

Revenue 1860 - 2324
Rec'd from Govt for Decr.

No 2323.

Rec'd from the Madras Govt
Dated 6th December 1860.

From Director Rev. Survey &c
Forwarding (with 4 Enclosures)
Report on the Volume noted
in the margin.

Copies sent to Madras Govt
for information
Copies sent to India 24th April 1861
No 1706

Extra establishment
for testing the Madras Town
Survey, to continue to the
end of June 1861.

From the Madras Govt Dated 6th Dec. 1860.
Rec'd 27th Ditto.

Rec'd 27.

1

Rev. Dept.

No 2324.

To

The Secretary to the Government of India

Sir,

With reference to the correspondence noted in the margin, I am directed to state that the contemplated examination of the original Survey of the Town of Madras, so far as it respects the St. Thome Division has been completed and that the result has been the detection of several errors in the computations of areas - while the accuracy of the field work, and plotting and maps has been established.

The Govt. deem it essential that the Survey in the other Divisions of the Town should be similarly tested - the work which is expected to occupy

To the Govt of India 24th April 1861
No 1706.
From the Do Do 31st May 1860
No 1916

Copies sent to Madras Govt for information

Rev. Dept. 1861
No 2324

occupy a further period of
six months. Of the sum sanc-
tioned by the Supreme Govt.
on 31st May 1860, a balance
of Rupees 417 will remain
on hand at the End of the current
month and of the amount al-
lowed for the original Survey
a sum of Rupees 2,250, which
accumulated from fines Recd.
has been carried to the
credit of Government.

In order to prevent
the interruption of the exami-
nation, this Government have
sanctioned the continuation
of the Establishment till the
end of June 1861, at the same
cost as before; and I am directed
to solicit the confirmation of
the Government of India to
the proceeding.

Establishment — 152
2 Lascars — — 12
Contingencies — 20
184

I. D. S

Fort St. Geo. 6 Dec. 1860.

Revenue 1860 Dept.
Pro: of Govt for December

No. 2324.

To
The Secretary to the
Govt. of India.
Dated 6th December 1860.

Forwd Govt of India 29th June 61
No. 1701.

Soliciting the confir-
mation of the Supreme Govt.
to the continuance of the
Extra Establishment for
the Madras Town Survey
till the end of June 1861.

R. 82-85
31-10-1859
9-10
10-4-60
33-35
30-4-60
3-4
No. 78. 30-5-60

In the Court of Revenue
Order for closing the Survey
of the Town Establishment