M.R.O. 14—13,000—27-9-24

MADRAS RECORD OFFICE.

Government of Madras.

Marine DEPARTMENT.

G.O. No. 1200 Press ~~Mis.~~

Dated 1—5— 1868.

Not to be folded or roughly handled

Proceedings of the Madras Government, Revenue Department,
1st May 1868.

No. 33. Read the following Proceedings of the Madras Government in the Public Works Department :—

Communicating to Superintending Engineers letter from Government of India, regarding the various lines of communication which are maintained from Imperial Funds, and requiring a full report upon each in the form prescribed. } (Here enter 28th April 1868, No. 1,289.)

No. 34. ORDER THEREON, 1st May 1868, No. 1,200.

Miscellaneous. Communicated to the Revenue Board.

(True Extract.)

(Signed) F. BRANDT,
Under Secretary to Government.

To the Board of Revenue, with Proceedings Public Works Department, No. 1,289.

Exd. S. T. Augustin.

Proceedings of the Madras Government, Public Works Department,
28th April 1868.

No. 515. Read the following letter from the Secretary to the Government of India, Public Works Department, (Account,) to the Secretary to the Government of Madras; Public Works Department, dated Fort William, 14th March 1868, No. 188A:—

1. I am directed to acknowledge receipt of your letter No. 217, dated 21st January 1868, reporting that detailed estimates are now required for the maintenance of roads in cases where their repairs exceed Rupees 50 per mile, and in reply to express the satisfaction of the Governor General in Council in learning that this measure has been carried out.

2. The Governor General in Council will be glad to receive any further information that the Government of Madras may be able to afford relative to the cost of repairing roads, and the measures to be taken to reduce the charge upon Imperial Funds for this object. It is doubtless very necessary that the roads should be maintained in efficient order; but the large proportion of the funds applicable to Public Works which is devoted to this object seriously diminishes the balance available for advancing the progress of improvement of the country by constructing new works. It is especially necessary, therefore, to insist on strict economy in this branch of the expenditure, and to endeavour, as far as possible, to assign local funds to the relief of the Imperial grants.

3. Connected with this subject I am directed to forward, for the information of the Governor of Madras in Council, a copy of correspondence with the Government of the North-Western Provinces on the subject of the cost of maintaining roads. In reference to this I am to state that it should seem expedient to the Madras Government, the Governor General in Council would wish that a review of the Imperial expenditure, for maintenance of roads in that Presidency, should be made in a somewhat similar manner to that proposed for the North-Western Provinces.

Extract from the Proceedings of the Honorable the Lieutenant-Governor of the North-Western Provinces in the Public Works Department, under date the 24th July 1867.

Copy of a Memorandum from the Controller of Public Works Accounts, North-Western Provinces, to the Secretary to the Government of the North-Western Provinces, Public Works Department, No. 3,957, dated 4th July 1867.

With reference to paragraph 29 of the Orders of the Government of India on the Budget estimate for 1867-68, reducing the grant for repairs by Rupees 78,915, has the honor to request that he will be good enough to furnish the undersigned with a detail of the items that have been struck out, aggregating Rupees 34,065. The difference between the latter amount and the total amount struck out is already in paragraph 29 as shown in the margin.

	Rs.
Moorsun to Kuchla Ghaut...	17,850
Allahabad and Jounpooree road... ...	27,000
	44,850
Aggregate amount composed of items not detailed in orders	34,065
Total reduction	78,915

Solicits the favor of a reply at his earliest convenience.

(Signed) HARRY MARTEN,
Controller of Public Works Accounts, N.W. P.

No. 1,433 A. of 1867.

ORDER.—Ordered, that a copy of the above be forwarded to the Secretary to the Government of India, Public Works Department, for information, with a request that with reference to paragraph 6 of Public Works Department letter No. 532 A, dated the 6th ultimo, this Government may be furnished with further orders on the subject.

(Signed) W. E. MORTON, Colonel, R. E.,
Secy. to the Govt. of N. W. P., P. W. Dept.

From the Secretary to the Government of the North-Western Provinces, Public Works Department, to the Secretary to the Government of India, Public Works Department dated 2nd December 1867, No. 2,711 A:—

1. I am directed to forward, for the information of the Government of India, the accompanying copy of a letter* from the Superintending Engineer, 1st Circle, on the state of the roads in his circle, and the additional funds required during the current year to put them into an efficient condition.

* No. 407, dated the 8th November 1867.

2. With reference thereto I am to remark that this Government is powerless to give the aid sought, the assignment in the current Budget under Civil Buildings and Communications being exhausted, and Local Funds being quite inadequate to meet wants in excess of those that have already to be provided for.

Copy of a letter from the Superintending Engineer, 1st Circle, North-Western Provinces, to the Secretary to the Government of the North-Western Provinces, in the Public Works Department, No. 407 A, dated the 8th of November 1867.

1. Referring to your No. 2,086 A, dated 26th September, I have the honor to forward detailed reports of the state of the roads in this Circle in the 5th and 6th Divisions, Grand Trunk Road and Rohilkhund Trunk Road.

2. In the column of non-indispensible are entered the repairs for which collections are urgently required to be completed this season, and in payment for which a portion of the funds should be granted this year. The column desirable exhibits additional work which ought to be done to keep the roads in really good order, but which under the pressure of the want of funds may be postponed till next year without absolute inconvenience to the public and without permitting the roads to fall actually into irretrievable decay.

SECTION BHOGONG TO GHAZEEABAD.

3. *Fifth Division, Grand Trunk Road.*—Main line of Grand Trunk Road from 227 to 377½ miles, length 150 miles.

On this portion renewals of a part or the whole are urgently required in 37 miles, the aggregate length requiring renewal is 25 miles, or about one-sixth of the whole line.

The cost including consideration of the 8,04,923 cubic feet at Rupees 4 will

be	Rupees	32,197
of which the consolidation	8,050	
and half collection at 3/	12,000	
		20,050
might be paid for after 1st April.		
Leaving amount now required		12,000

SECTION AGRA TO BHOGONG, 76½ MILES.

Renewals are urgently required in 11 miles over an aggregate length of 10½ or one-seventh of the whole. The cost of the work would be 332,640 cubic feet at 4/	13,300
Of which deducting consolidation and half collection ...	8,300
We have require this year	5,000

SECTION ALLYGHUR AND AGRA, 50½ MILES.

	Rs.
Renewals required in 16 miles of an aggregate length of 7½ miles, or one-seventh of the whole.	
Cost of work 235,331 cubic feet at 4 Rs.	10,414
Deduct consolidation and half collection as above	5,833
Required now	5,500

SECTION KHOORJA TO BOOLUNDSHAHUR AND TO SECUNDOOR, 20¾ MILES.

	Rs.
Renewals required on 7 miles, aggregate length 4¼ miles, or one-fifth. Cost 134,640 cubic feet at 4 Rs.	5,385
Deduct as above	3,385
Required now...	2,000

TOTAL FUNDS NOW REQUIRED FOR FIFTH DIVISION, GRAND TRUNK ROAD.

	Rs.
Main line.—Bhogong to Ghazeeabad	12,000
Bhogong to Agra	5,000
Allyghur to Agra	5,500
Boolundshahur roads	2,000
Total...	24,500

4. SIXTH DIVISION, GRAND TRUNK ROAD—SECTION MEERUT TO BOOLUNDSHAHUR, WITH THE BABOOGHUR BRANCH, 55 MILES.

	Rs.
Renewals required on 13 miles, of an aggregate length of 10½ miles or one-fifth of the whole—331,486 at average 6½...	19,049
Deduct as above...	9,049
Now required ...	10,000

SECTION MEERUT TO DELHI, 40 MILES.

Renewals required in 16 miles, of aggregate length of 10 miles, or one-fourth of the whole.	
Cost 328,760 at average 7-8	23,000
Deduct as above, consolidation and half collection.	12,000
Now required...	11,000

SECTION MEERUT TO GURHMOOKHTESSOR, 26½ MILES.

Nothing urgently required.

MEERUT TO MOOZUFFURNUGGUR, 33 MILES.

	Rs.
Seven and three-quarter miles require renewal rather over one-fourth. Cost 2,47,104 at average 5-8	13,590
Deduct as above ...	8,590
Now required	5,000

SECTION MOOZUFFURUNGGUR TO ROORKEE, 33 MILES.

	Rs.
Four miles require renewal, one-eighth of the whole.	
Cost 126,720, average Rupees 14	17,740
Deductions as above ...	9,740
Now required ...	8,000

SECTION ROARKEE TO MOOHUN, 28 MILES.

Twelve miles require renewal—nearly half of the road—of this three-fourths of the collection and part consolidation must be done before next season when visitors are going to the hills; the cost amounts to Rupees 34,000, of which a sum of Rupees 24,000 is required this year. Nothing is absolutely required for the Moohun to Rajpore road.

Total funds required for the 6th Division, Grand Trunk Road.

	Rs.
Meerut to Boolundshahur...	10,000
Meerut to Delhi	11,000
Meerut to Moozuffurnuggur	5,000
Moozuffurnuggur to Roorkee	8,000
Roorkee to Rajpore...	24,000
Total...	58,000

ROHILKHUND TRUNK ROADS.

5. The only portion of this division in which renewals are required is the Tigree to Moradabad road. On the remainder expenditure beyond mere petty repairs is much required in filling ruts and reducing inequalities of surface in almost every mile, nothing having been done since the metal was laid three and four years back.

The estimate for renewals of Tigree road amounted to Rupees 25,000, of which required this year Rupees 12,000. On the 74 miles of metalled roads between Bareely and Futtehghur an expenditure varying from Rupees 200 to 800 per mile is necessary, aggregating Rupees 28,000 only, of which somewhat less than half should be expended this year, say Rupees 12,000.

Total for Rohilkhand Trunk Road.

	Rs.
Tigree road	12,000
Bareely road	12,000
Total...	24,000

General Abstract of sums required this year for the whole Circle.

Year.	Divisions.	Amount.
		Rs.
	5th Division, Grand Trunk Road...	24,500
	6th Division do.	58,000
	Rohilcund Trunk Road	24,000
	Total ...	1,06,500

6. Some parts of the roads undoubtedly of more importance than others; the portions over which fast passenger traffic and the mails go, are most deserving of attention. These are from Meerut to Moradabad, from Delhi through Meerut, and Moozuffurnaggur to Mussoree. If the whole of the money asked for repairs of these

two lines be not given, it will be impossible to keep them in even moderately good order. The road from Roorkee to Mohun is worn out. It originally had but a thin coat of metal when first made some years back, and this has entirely worn out in many places. There was a great outcry last season about it, but we could only renew four miles. The estimate of funds required for these roads is as above.

In the Rohilcund Trunk Road.	Rs.
Tigree to Mooradabad	12,000
In the 6th Division Grand Trunk Road.	
Meerut to Ghurmookhtssur	Nil.
Meerut to Moozuffurnuggur	5,000
Moozuffurnuggur to Roorkee	8,000
Roorkee to Mohun	24,000
Total...	49,000

7. A sum, Rupees 34,000, has already been granted for the 6th Division, Grand Trunk Road, and I have been orally informed by the Executive Engineer, Rohilcund Trunk Road, that the Local Committee of Moradabad are going to give us assistance on the Tigree line; so I suppose there most urgently required funds are already available.

8. It remains to be decided what shall be done with other parts of the roads.

9. There is a great portion of the 5th Division roads on which an excessive thickness of metal exists. I last year measured every mile in three places, and found 10 inches and 12 inches thickness universal, and frequently as much as 15 and 20 inches. In some miles, however, the top coating has worn, and the surface become very uneven. Hitherto in such case it has been the habit to execute the renewal coat of 4½ inches, and hence the great thickness of metal now on the road. I think if it would be sufficient to pick up the uneven surface and re-consolidate it with 2 inches thickness of new material, the whole of the Bhogong to Agra and Bhogong to Gazerabad roads might thus be treated, but not the Agra to Allighur, where the metal is thin Kunkur met of very good quality.

10. The actual estimate of repairs now required to the 5th Division for a 4½ inches coat, and the reduction that would be effected by supply of 2 inches coat only as above recommended, are here exhibited.

	Estimate, 1867-68.	For second coat.
Bhogong to Gazerabad	32,200	14,300
Bhogong to Agra	13,300	5,900
Agra to Allighur	10,400	10,400
Boolundshahur branches	5,400	2,400
Total...	61,300	33,000

11. This system should be applied in the 6th Division, Grand Trunk Road, only on the Meerut to Boolundshahur line, as in all other parts the metal is not over 7 inches or 8 inches thickness. The difference on this portion would be—

	Estimate 1867-68.	For second coat.
Meerut to Boolundshahur... ...	19,000	8,500

But even with the introduction of this economical process it is impossible that with

the funds at our disposal we can keep over roads in order, assuming the grants of this year for this circle to be a fair index of what we may expect in future. The following statement shows what will be the annual expense of keeping up the roads in this circle, estimating that from one-fifth to one-eighth will require removal according to the conditions of traffic, and estimating the renewals at 2 inches thickness as above proposed, and this may then in every respect be regarded as a starvation rate, and I very much fear is insufficient to prevent rapid decay. The maintenance is a distinct charge for petty repairs, and constant attention by working establishment, and it varies according to cost of material from Rupees 12-8 to 20 per mile per mensem.

Statement of cost of maintaining roads in first Circle, Public Works Department.

Road.	Length.	Miles of annual renewal.	Quantity of Kunkur annually.	Cost.		Total.
				Annual renewals.	Maintenance	
						Rs.
Bhogong to Delhi	160	20	2,80,000	11,200	24,000	35,200
Agra to Allyghur	50	8	1,12,000	4,480	7,500	11,980
Gazerabad to Meerut	30	5	1,58,400	11,880	5,400	17,280
Meerut to Moozuffurnuggur ...	33	5½	1,71,200	9,580	5,940	15,520
Moozuffurnuggur to Roorkee ..	33	5½	1,74,200	24,380	9,900	34,280
Roorkee to Rajpore	50	10	3,16,800	28,510	12,000	40,510
Futtehghur to Meerut through Bareely and Moradabad	215	31	7,44,000	44,640	43,000	87,640
Meerut to Koorja Secundra ...	75	9½	1,33,000	8,980	11,250	20,230
Agra to Bhogong	77	9½	1,33,000	8,980	11,250	20,230
Shahjehunpoor branch road ...	44	4½	1,08,000	4,320	6,600	10,900
Hatrass and Khasgary ...	80	8	1,92,000	9,600	12,000	21,600
Total ...	.....	.....	.....	.....	.....	3,15,370

13. Under no circumstances then can we possibly maintain the roads in our hands. The Budget grants for this head of service amount to about Rs. 2,40,000, about sufficient if the four last items on my list be excluded. I would urge on your consideration whether these lines should not be made over to Local Funds if the Government of India refuse to give more aid from Imperial Funds. If I might offer an opinion I should say that Imperial Funds should maintain all lines of Military or Political importance, and those of merely commercial interest be cared for by local Funds. If this principle be admitted, then the following lines would be truly Imperial in character:—The Grand Trunk Road from Allahabad to Delhi, the road from Agra to Allyghur meeting the Grand Trunk. The road from Delhi through Meerut to Mussooree. The Military road from the Grand Trunk at Goorshagunge through Futtehghur, Bareely, and Moradabad, to meet all others, are, I think, merely commercial lines, as that from Futtehghur through Mynpooree to Agra—the line from Meerut through Boolundshur to Khoorga. The road from Kuchla ghat to Moorsun towards Muttra, and the two branch roads at Shojehanpoor.

14. This is a question of which I trust you will obtain early solution, because we are falling annually into seriously increasing difficulties, and unless some remedy be applied there must be a collapse.

15. To recapitulate the matter of more immediate urgency, I submit the following statement of estimate for renewals now required, and funds wanted before 1st April 1868:—

Division.	Total estimate for renewals now urgently required.	Amount required before 1st April.
		Rs.
5th Division, Grand Trunk Road ...	61,300	24,500
6th do. do.	1,07,400	58,000
Rohilkund Trunk Road	53,000	24,000
Total...	2,21,700	1,06,500

Of this above stated I have already received from you Rupees 34,000 all the provision in the Budget had been expended previously.

16. Return of the enclosures is requested.

(True Copy.)

(Signed) C. F. HODGSON, Lieut.-Colonel, R. E.,
Offg. Secy. to the Govt. N. W. Provinces. P. W. D.

Copy of a letter from the Secretary to the Government of India, Public Works Department, to the Secretary to the Government of the North-Western Provinces, Public Works Department, No. 115 A, dated 24th May 1868.

No. 1,433A, dated 29th July 1867.
,, 2,711A, dated 2nd December 1867,
(with accompaniment.)

1. I am directed to acknowledge the receipt of your letters as per margin regarding the details of the reduction made in Budget orders from the grant for Repairs Communication, and the additional funds required during the current year for the maintenance of roads in the first Circle, North-Western Provinces.

2. In reply I am to observe that the grant for Repairs Communications was reduced by Rupees 78,915, according to Budget orders, (as modified by paragraph 7 of Public Works letter No. 532 A, dated 6th June 1867,) it being considered that that amount was properly chargeable to Local Funds. But of the reduction thus made, items aggregating Rupees 44,850 only were named by the Government of India as having been struck out of the Budget estimate; a balance of Rupees 34,065 had still to be removed. The particulars of this are now asked for by the Government North-Western Provinces, but the selection of them is, I am to say, left entirely to that Government. But in connection with this subject of the transfer to Local Funds of the charges on account of some of the roads now maintained from Imperial revenues, I am to draw attention to the recommendation made by the Superintending Engineer, 1st Circle, that only lines of Military or Political importance should be kept up at the expense of the State, and to request that the question may be considered in all its bearings, and a full report submitted to the Government of India.

3. As regards the roads in the 1st Circle, North-Western Provinces, I am to say that it appears from the Superintending Engineer's report on the subject, received with your letter* under acknowledgment, that funds are urgently needed to keep them in proper repair. The Superintending Engineer states his total requirements at Rupees 2,21,700, but proposes to charge the greater portion of the expenditure (viz., half collection and consolidation) to the grant of the coming year. To prevent, however, too great a burden being laid upon the allotment of that year, it seems advisable to place as much money now at the disposal of the Superintending Engineer as can be conveniently spared from the grant of the current year, and this may be provided from the anticipated savings on the grant for establishments as reported in the regular estimate of the year, since except these savings no funds are available.

* No. 2,711, dated 2nd November 1867.

4. As regards future requirements, the Superintending Engineer expresses an opinion that if the grants of the current year may be taken as a fair index of what may be expected in future, it will not be practicable, even with the most economical arrangements, to keep the roads in good order. It is, I am to say, impossible to deal financially with a matter of this sort in a detached way. The whole sum in question is one of 3¼ lacs out of a total grant of Rupees 18,13,000 for Repairs. It is, however, suggested for consideration that the funds allotted might perhaps be made to suffice by

(1) Reducing the number and cost of the maintenance gang (Nokur-coolies) which at present appear to be excessive.

(2) Reducing the thickness of all future coats of metal from 4½ inches to 3 inches in cases where the reduced thickness would stand the traffic.

(3) Diminishing the width of surface to be maintained from 16 feet to 12 feet, or in some cases even to less.

(4) Using broken stone when practicable at a moderate cost instead of Kunkur, as it is cheaper to maintain and last longer, although somewhat more expensive at first cost.

(5) Giving up metalling altogether in some of the less important roads or in such parts of them as pass over good soil.

5. The Government of India would wish for a complete report on the entire subject for the whole of the North-Western Provinces. It is to be understood that it is not desired to diminish the efficiency of those roads which must be kept up at the charge of the Imperial revenues. On the contrary they should be kept in good and creditable repair. But possibly such a careful review as that now suggested may lead to the discovery of cases when the cost of the repairs is disproportioned to the public benefit derived from the expenditure; at all events it is proper that a full general investigation should take place before submitting to an outlay which forms no serious a tax on the public resources for continuing the progress of improvement.

Proceedings of the Madras Government, Public Works Department,
28th April 1868.

No. 516. ORDER THEREON, 28th April 1868, No. 1,289.

ACCOUNT, No. 41.

Communicated to the Superintending Engineers, who will obtain from their Range Officers the necessary information regarding the various lines of communication which are maintained from *Imperial* funds, and submit a full report upon each in the form required by the Government of India, accompanied with such observations and suggestions as they may have to offer.

(True Extract.)

Colonel, R. E.,
Secretary to Government.

To the Superintending Engineers.
To Captain Kennedy.
To the Revenue Department.

Exd. T. Cartledge.

20 Spare Copies

Revenue 1868 Dept.
Pro: of Govt: Tuesday
No 1289
Proceedings of the
Govt: P. W. Dept.

Dated 28th. May
Recd 29th. 1868.

No 1289.

No 1200 1st. May
Comm.rs to Supp. Insp.rs
letter from Govt: of
India regarding the
various lines of
communn which are
maintained from
Imperial funds
& requiring a full
report upon each
in the form prescribed
With Order.

No 33434

No 1200

Comm.rs to the
Revenue Board.

1st May 68

No Encls Letter Govt of India with Ors Ord 1289 Dept D.
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