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MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No.	182	(W)	Press
-B.P. No.			Mis.
Dated	24-1-		1876

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
24th January 1876.*

No 398.

Read the following papers.—

No. 822.

Progress Report of the Jeypore Ghaut for the 1st-half of the official year 1875-76.

From this report the Chief Engineer learns that out of the reduced allotment of Rupees 10,000 for this work Rupees 6,460 have already been expended, mostly of course at the close of last season's operations as this season's work had not commenced.

Of that amount, no less than Rupees 1,015, or about 15½ per cent, have been expended on temporary establishments and sundries, Rupees 275 in providing accommodation for the Executive Engineer and for coolies, and Rupees 4,943 on actual work.

Of work, earth-work is represented by a quantity of 17,568 cubic yards, costing Rupees 2,928, which is at the rate of six cubic yards per rupee; stone revetments by a quantity of 1,217 cubic yards, costing Rupees 935, or 12 Annas per cubic yard; and boring, blasting, and removing rock by a quantity of 372 cubic yards, costing Rupees 930, or Rupees 2½ per cubic yard.

The Chief Engineer will defer detailed remarks until he shall have received similar statements regarding all previous expenditure of former years, which he requests may be submitted without delay. He would merely desire to be informed how the quantities above noted have been determined, whether by actual measurement or by proportionment of the amount paid for labor between certain descriptions of work supposed to have been the result of that labor at certain fixed rates. This involves statement whether labor is paid for by the day or by task.

(Signed) G. W. WALKER, Major-General, R.E.,
Chief Engineer, Public Works Department

7th December 1875.

To the District Engineer, Vizagapatam

No. 399.

MEMORANDUM.

The outlay on the new Pottinghy Ghaut up to the end of the working season of 1875 is detailed in the accompanying statement. It amounted to Rupees 42,308-7-6 against an approximate estimate of Rupees 1,84,500 sanctioned in G.O., No. 1,944, of 5th August 1873, and the expenditure upon the few items given may be abstracted as follows, viz.—

		Estimate RS	Outlay.		
			RS	A	P
Road-work			40,251	6	11
Minor bridges	...	1,57,500	..	...	...
Day stone drains	...		...	...	...
Three larger bridges	...	25,000	...	...	...
Engineer's bungalow	...	2,000	2,057	0	7
Total		1,84,500	42,308	7	6

The effective result of the above expenditure is—

78,408 cubic yards of earth-work,
6,817 do. of stone revetments,
1,287 do. of rock blasted and removed,
Three miles of catch-drains,
One bungalow commenced,

or, as put by Mr. Nordmann, the actual state of the road is this. 20 miles have been

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widened to an average width of 13 feet (some parts to 16, some to 19 feet), except in places where the chief rocky obstacles occur; where bridle-path only has been cut to an aggregate length not amounting to 1 mile

It will be quite impossible to compare the amount of work actually done with that which remains to be encountered, until a regular estimate shall have been received giving the measurements precisely. But judging from Mr Nordmann's report of the nature of the line traversed by the new ghaut in paragraph 13 of his letter, No 1,606, of 31st December, the amount of rock hitherto blasted is a mere flea-bite compared to what remains to be done

Considering the nature of the work and the difficulties as regards labor, it is no wonder that the Executive Engineer should again press for the assistance of a Company of Sappers as he did before in his letters disposed of by G Os, No 2,326 of 19th September 1873, and No 3,006 of 22nd October 1874. But no hope of such assistance can be held out to him as Sapper labor has already been resorted to for a similar work in the district with disastrous effects on the health of the men, and the experiment is not likely to be tried again

FORT ST GEORGE,
20th January 1876

(Signed)

G. W. WALKER, Major-General, R E,
Chief Engineer, Public Works Department.

Statement showing Details of Expenditure on the Jeypore Ghaut from 1st February 1875 to 31st March 1875

Particulars.	Amount.			Remarks
	RS	A	P	
<i>Preliminary Expenses</i>				
Exploring, clearing, and terracing 50 miles, at Rupees 7-8-0 per mile	375	0	0	
Surveying ghaut	25	0	0	
Clearing jungle for camps and road	406	0	0	
Building and maintaining huts and sheds	1,846	0	7	
Potinghy bungalow and road to it	2,057	0	7	
Well and nursery for <i>Eucalyptus globulus</i>	20	0	0	
Road across Potinghy ghaut... ..	373	5	0	
	5,102	6	2	
<i>Purchase of Tools and Stores and Carriage and Repairs of ditto</i>				
New supplies	140	6	6	
Carriage and repairs	644	11	4	
Medical stores	835	9	0	
Powder from Arsenal	390	13	0	
Watchmen for Powder Magazine at Vizagapatam	72	0	0	
	2,083	7	10	
<i>Police Guards (not yet paid for)</i>				
<i>Road-making</i>				
Twenty miles of bridle-path, at Rs 250	5,000	0	0	
Building stone revetments	5,460	9	4	6,817 cubic yards
Blasting and removing rocks	3,494	5	11	1,237 do
Cutting catch drain	350	0	0	

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Particulars	Amount			Remarks
	RS.	A	P	
<i>Road-making — (Concl'd)</i>				
Widening new road to 13 and 16 respectively (earth-work)	13,067	7	9	78,408 cubic yards
Repairing monsoon damages	348	1	0	
	27,720	8	0	
Temporary establishment	2,812	7	10	* This includes the pay of Maistries, Gumastahs, Store Peons, Paiks, commission to headmen of villages, &c, on which account 30 per cent may be deducted and debited to different descriptions of work
Tappal Runners	117	12	0	
	6,960	3	10	
Sundries	441	13	8	
	42,308	7	6	

No 399-A From K F NORDMANN, Esq, Officiating District Engineer, Vizagapatam, to Major-General G W WALKER, R E, Secretary to Government, Public Works Department, dated Camp, Vizianagram, 16th December 1875, No 1,525

WITH reference to G O, No 2,675, dated 17th September 1875 and the Acting Collector's report on public works in this district printed with the Government One copy of letter, No 1,987, of 15th Nov 1875 " " " 1,361, of 20th " " Order, I have the honor to submit the following observations which I think it necessary to make in order to prevent a wrong impression regarding the state of some works in the district being conveyed to Government, which would be likely to be the case if some of the statements in the Acting Collector's report, which seem to be conceived in a spirit of unkind criticism, were not qualified and explained.

2 The Acting Collector in paragraph 9 of his report states that the work of completing the Agent's bungalow at Koraput "has made little progress" This would seem to imply that the Public Works Department was to blame for the slow progress. But this is not so. This department did not take charge of the building until near the end of the official year and under the most unfavorable circumstances. The Agent's department had the sole control of the limited local labor-market, and any outsider, such as the Department Public Works was in those parts at that time, could make but little progress, except with the direct countenance and aid of the Agent's department.

3 I will not say that such aid was not afforded. But the want of previous proper organisation in the working establishment and the almost complete absence of a sufficient supply of materials (such as bricks, tiles, timber, &c,) wherewith to carry on the work naturally impeded progress. The whole building might have been roofed before the last monsoon if the ordinary precaution had been taken by the Agent's department during the three seasons the work had been in progress of laying in a sufficient stock of timber and tiles to complete the roof. But no such forethought had been exercised.

4. Consequently, when this department towards the end of the working season took charge of this large work in an out-of-the-way locality and found not the neces-

sary materials ready wherewith to proceed, nor adequate arrangements made to procure them, there was delay. We did the best in our power, used up what materials we could, covered in the unfinished building with thatch to keep the monsoon rains out, and secured the little stock of material remaining on hand for use after the rains. From this it will be seen that the delay was not owing to this department, but was distinctly traceable to the failure on the part of the Agent's department to make adequate and timely provision of materials to prevent stoppages or delay in the work.

5 It may be said that the Agent's department could not be held entirely responsible for this failure, for the work was foreign to the officers of that department to whom it ought perhaps never to have been entrusted, and under the circumstances they did the best they could. But I think they are decidedly wrong when they turn round and accuse this department of causing that delay which is distinctly and exclusively owing to their own bad management and want of forethought.

6 In paragraph 10 of his report the Acting Collector alludes to the unfinished state of the hill jail, and in this connection speaks of "the very unsatisfactory state of things at Koraput" which, he says, is due to the Overseer who was eventually dismissed. But there is no connection between the Overseer's delinquencies and the unfinished state of the jail. The jail was handed over to this department in a very unsatisfactory state at the end of January when the Overseer joined.

7. The walls of the five wards were nearly completed, those of the guard-room, cook-house, and store-shed were not so; the well was not commenced. The bricks used throughout the building were bad, the workmanship was execrable, many of the walls were far from being perpendicular. The worst ones were pulled down and rebuilt by my orders, they ought all to have been pulled down, but that in such a locality where work is done under difficulties many defects must be overlooked. The small amount of timber work that had been done to the roof was badly done. There were no bricks or tiles nor sufficient timber on hand to carry on the work. Previous seasons which should have been made use of to collect all necessary materials had been wasted, consequently, when we took charge of the work and found no materials ready there was delay.

8 Building materials in a place like Koraput are not to be got ready in a week or a month, particularly by new comers such as this department was. Hence this delay as well as that in the case of the Agent's bungalow was not due to any fault of the Public Works Department, but to the failure of the Agent's department to make adequate and timely provision for the supply of the most necessary building materials wherewith to carry on the work.

9 The Acting Collector comments on the "failure to supply a competent successor" to the Overseer at Koraput. I need not point out how difficult it is, under any circumstances, to get a competent Overseer for a place like Koraput, however, in this instance the defaulting Overseer was dismissed on the 15th March, and a competent successor sent by this department arrived at Koraput on the 31st of May. In the interim the works were looked after by a temporary subordinate. The "failure," therefore, of which the Acting Collector speaks in this respect did not occur.

10. In paragraph 14 the Acting Collector says that almost all the roads in the district are unbridged, with the exception of one river. This statement, if not modified, must convey a very wrong impression to those who are not acquainted with the

district. It would be more correct to say, as it is more in accordance with the facts of the case, that most of the smaller streams are bridged and that only the larger streams are wanting bridges, but which, owing to their great probable cost, can only be undertaken at the rate of one in every two or three years. On the whole, as regards bridges and the general state of the roads I consider this district compares very favorably with other districts I have seen. Some of the lines of road in this district are in better order than any of the same length I have seen in other parts of the country. The so-called trunk road has been neglected for a number of years, but is now being taken in hand. The figures in the comparative statement in paragraph 3 of the Collector's letter do not refer to the whole of the Public Works in the district, but only to those works which were carried out from Imperial and Provincial Funds. The expenditure on roads from Local Funds was for "New Works" Rupees 51,877 and for "Repairs" Rupees 82,003, making a total under "Communications, Local," of Rupees 1,33,880.

11. Regarding the new Pottinghy Ghaut the Acting Collector says "Twenty miles of this ghaut-road have been in places widened to an average width of 13 feet, where difficulties existed, however, the difficulties remain." I consider this description very inaccurate and apt to create a wrong impression of the actual state of the work. By the side of such unfair criticism it is not strange that the Acting Collector quite omits to give this department due credit for planning and carrying out a great and difficult work like the new ghaut in a comparatively short time and in the face of great obstacles and hardships in a locality and climate which have unfortunately cost several lives. The difficult trace through a most intricate country receives no acknowledgment. There were several traces, with more or less to recommend them, feasible between the termini of Pottinghy and Sipur (24 miles), but only one of all these feasible lines was absolutely correct. The trace that was made is the correct line, for promptly selecting which some credit is due to this department.

12 It is inaccurate to say that "20 miles have been in places widened to an average width of 13 feet." The actual state of the road is this: 20 miles have been widened to an average width of 13 feet (some parts to 16, some to 19 feet), except in places where the magnitude of the rocky obstacles delayed the widening out of the road, but even in those places a bridle-path was made, so that the whole of the ghaut was passable for man and beast when the Acting Collector passed down. There was some scrambling required in two or three places only where the largest masses of rocks are. But though there was scrambling the places were passable. The aggregate length of bridle-path not widened out does not amount to a mile out of 20 miles of ghaut-road; but including this bridle-path the average width for the whole ghaut is still 13 feet.

13 "Where difficulties existed, the difficulties remain." This is as inaccurate as the first part of the statement. The Acting Collector in passing down the new ghaut evidently did not stop to even roughly estimate the quantities of rock blasted and removed and of revetments built, otherwise, he could not have made such a statement. And having never seen the difficulties that existed before they were removed, he was unable to realise the original number and magnitude of those difficulties. In comfortably riding down a new ghaut-road, the observer inexperienced in ghaut-work not unnaturally fails to correctly value the amount of obstacles and

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difficulties that had to be removed in making the road Mr Goodrich only saw the obstacles that were still there, but he quite failed to realise those that had existed before, and what amount of work had been done in removing obstacles that no longer obstructed his path The register of work shows that up to February (the month in which Mr Goodrich inspected the ghaut) more than 600 cubic yards of rock had been blasted and removed along the line, and 4,000 cubic yards of revetments had been built. It was, therefore, wrong to say "where difficulties existed they remain" This statement gave Government the impression that only the easy work had been done, and all the hard work left undone which is very far from being the case

14 I have inspected the ghaut lately, just before the work was resumed, after the monsoon It was much overgrown with weeds and jungle which sprung up in a short time during the rainy season. The rains had done some damage to the road surface, but not more than was to have been expected, a few small landslips had occurred, a few stone revetments,—chiefly those built along the face of large slanting sheet rocks, in order to afford standing room for blasting operations,—had given way. I am now having these rebuilt, the landslips and undergrowth cleared away, the most difficult places widened out to 13 feet, and the rocks blasted, but only on the lower part of the ghaut, as the limited grant for this year will not allow of work being carried on along the whole line as formerly. The final detailed estimate for the whole ghaut has been under preparation for some time, and is well advanced.

15 I submit the copy of a letter* on the same subject from the Acting Collector which was received by my predecessor who, it seems to me, failed to take adequate notice of it, since he neither brought the matter to the knowledge of Government nor called upon a Range Officer accused of "misrepresenting" facts for an explanation I also annex a copy of my predecessor's reply† to the Acting Collector's letter. With reference to the last part of Major Hindle's letter, I have to observe that no "strict injunctions" or orders of any kind were issued on the subject by that officer. The Acting Collector's letter embodies an extract from a report by his Assistant Agent in Jeypore, which report it is necessary for me to notice somewhat in detail, as it contains gross inaccuracies, and utterly fails to give an adequate or correct idea of the state of the ghaut

16 The Assistant Agent asserts that the Government have been "misinformed" regarding the state of the ghaut and the reported average width of 13 feet Instead of this he describes the ghaut, "where there is a track at all," as "2 feet wide, widening frequently to a breadth of from 3 to 13 feet" Nothing could be more inaccurate or less in accordance with the facts of the case than this description. And the Assistant Agent hazards these random remarks, while at the same time admitting that he did not take a single measurement In fact, he went up the ghaut while it was overgrown with jungle, just after the monsoon, before work had been resumed, and he seems to have been unable to see anything beyond the weeds and jungle, and the narrow foot-path trodden by local traffic through the undergrowth along the new line of road

17 Judging from his remarks, I do not consider the Assistant Agent competent to report upon a work like the ghaut. Indeed, this is scarcely to be expected, for

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none but a practical Engineer can satisfactorily draw up such a report But this, I submit, did not justify the Assistant Agent to make random statements and to assert, without taking measurements, that Government had been "misinformed,"—a term that might much more aptly be coupled with his own statements

18. If the Assistant Agent had taken the trouble to measure the width of the road at regular intervals of, say, 100 yards, and struck the average, he would have found that the width averages 13 feet, and if he had looked beyond the weeds and bushes sprung up during the rains, which obstructed his path and his view, he could not have failed to notice a vast amount of rocks blasted and removed and stone revetments built It was only near Sunki where the jungle had not happened to overgrow the road that Captain Blaxland was able to see the width, but did not measure it, and he admits that there the road was 13 feet wide, but says that this is the case in no other place "for more than half a mile at a stretch,"—an assertion which I can only characterise as totally at variance with the facts. The parts widened out to 16 and 19 feet, respectively, escaped his notice

19. Captain Blaxland says that he could only ride up the ghaut for 2 miles, and then had to send his horse back This conveys the impression that only 2 miles of the ghaut were passable on horseback, while, in reality, the whole length was so passable, with the exception of two or three large masses of rocks and of a few revetments that had been damaged by the rains and are now being rebuilt on the lower part of the ghaut The upper 10 miles from Sunkipentah to Pottinghy, I rode with comfort (a few days after the Assistant Agent had gone up), having to dismount but once or twice

20 I have thought it my duty to submit these observations in order to make the Government clearly aware of the actual state of the work, since the reports of both the Collector and his Assistant, if not corrected, would lead the Government to form an erroneous idea of the progress made with the ghaut, and would cast reproach upon the Public Works Department, and especially upon the officer who has done the work,—a reproach which would be utterly undeserved where, I submit, credit is due.

From H. Sr. A. GOODRICH, Esq., Acting Collector and Agent to the Governor of Fort Saint George at Vizagapatam, to R. F. NORDMANN, Esq., Officiating District Engineer, Vizagapatam, dated 15th November 1875, No. 1,987

I beg that you will give your best consideration to the following matters—

2 In my report on Public Works for 1874-75, dated 1st July 1875, I stated in paragraph 12 of my letter as follows—

"Twenty miles of this ghaut-road have been in places widened to an average width of 13 feet, where difficulties existed the difficulties remain"

3 I had previously, in my letter of 1st April 1875, recorded in Proceedings, Judicial Department, of 18th ultimo, written "The work executed already by Mr Nordmann is admirable" * * * "I cannot tell when this great work will be finished, but can hardly believe that the work to be done can be got through before the end of the working season of 1877"

4 In their order (Public Works Department) of September 17th, No. 2,675, the Government remark in paragraph 4. "The Executive Engineer * * states generally in his progress report for March that the 20 miles of ghaut-road have been widened to an average of 13 feet."

Received by me, 17th October 1875

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24th January 1876.*

5 Knowing from my personal observation in the end of February that it was scarcely possible that this statement could be correct, I ordered my Special Assistant to inspect and report, and he visited the ghaut and went up it a few days ago. He states, in a letter to me, that Government have been misinformed when it was stated that the ghaut had been widened to 13 feet throughout 20 miles, writing from the top of the ghaut after marching up it.

6 He says that the Executive Engineer has "grubbed out all the earth he can get from round and behind the stones, but on account of these stones I would rather describe the ghaut as being a track,—where there is a track at all,—of 2 feet breadth widening frequently to a breadth of from 3 to 13 feet, winding in and out of boulders. Occasionally, there is no track, and you are brought up standing by a mass of rock * * *. I could only ride up the first 2 miles of the ghaut, and from thence had to send my horse back * * *. In a few places the ghaut has also become impassable by landships * * *. The best piece I saw was a length of about 1½ miles out of Sunki where it certainly is widened to an average of 13 feet, in no other place is this to be found for more than half a mile at a stretch I should say, though of course I did not measure."

7 In my report quoted in paragraph 1 *supra*, I wrote that the tappal runners had been sent back to the old line of ghaut in June last, as the rains were expected to make the new line quite impassable. The wording of that order in the Department Public Works on that report gives the impression that Government are not correctly informed as to the amount of work done; and as I believe they are under a wrong impression as to the probable date of the completion of the ghaut, I feel bound to repeat the words of my first report, "where difficulties existed, the difficulties remain."

From Major J. W. HINDLE, Officiating District Engineer, to H. St. A. GOODRICH, Esq.,
Acting Collector of Vizagapatam, dated Waltair, 20th November 1875, No. 1,364.

With reference to your letter, No. 1,987, dated 15th November 1875, I have the honor to state that in the Government order alluded to the Executive Engineer has been directed to confine his attention solely to the difficult portions of the ghaut. I am unable to give any opinion on the work, as I have not been able to visit it, but strict injunctions have been issued that the difficult portions should be dealt with first.

No 399-B. From H. St. A. GOODRICH, Esq., Acting Collector and Agent to
the Governor of Fort Saint George at Vizagapatam, to Major-General
G. W. WALKER, R.E., Secretary to Government, Public Works Department,
dated Nursapatam, 27th December 1875, No. 1 Extra.

I HAVE received from the Acting District Engineer an extract from a Report
from him to you wherein certain remarks
* No 1,987, 15th November 1875
of mine contained in a letter* to his predecessor are commented on.

I think it right to explain to you how the necessity for my making those remarks
arose.

2 I had no opportunity of inspecting the Jeypore ghaut after the 20th February
last. The result of that inspection I reported to Government in my letter of 1st April,
whereon orders were passed (G.O., 18th October 1875, No. 2,257, Judicial Department),
and were received by me, 25th October.

I mentioned the progress made in my Public Works Report for the year 1874-75,
dated 1st July, whereon orders were passed (G.O., 17th September 1875, No. 2,675,
Public Works Department), and reached my office on the 17th October.

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3 I then observed that the Government had been informed in the Executive
Engineer's Progress Report for March 1875 that the 20 miles of ghaut had been then
widened to an average width of 13 feet. Had this been the case the work, which
must have been done in April, May, and the early part of June, would have brought
the work far more nearly to completion than I had expected, and the fact of the tappal
runners having deserted it for the old line which is rugged and difficult in June led
me to doubt whether the Executive Engineer had not been misled as to the state of
the work at the end of March.

To satisfy my own doubts I asked Captain Blaxland, the Special Assistant Agent,
to inform me what the present state of the new ghaut was, and on receipt of his reply
I wrote to the District Engineer.

4 Mr. Nordmann appears to think that Captain Blaxland's letter purports to be
a report on the manner in which the work has been executed. I extracted all that
he wrote concerning the ghaut, and his remarks refer alone to the amount of work
visible. He is not a shoemaker, and I dare say cannot make boots, but he knows
whether he has any, and whether they fit; he is not an Engineer, and may not be able
to make roads, but he knows whether the path he is on is passable or the reverse.

On each occasion when I have written of what I saw of Mr. Nordmann's work I
spoke highly of its excellence and solidity.

5 In order that the District Engineer might perform the inspection which I
believed to be his duty I wrote to him to draw his attention to the conflict between the
reports I had made in April and July and the Progress Report for March, adding my
reasons for doing so, which I presumed would induce him this year to inspect the
work.

Had I anticipated that Mr. Nordmann would succeed Major Hindle, I should
have written to you direct.

No 400. ORDER THEREON, 24th January 1876, No. 182.

CIVIL WORKS, No. 22

HIS GRACE the Governor in Council
remarks that in paragraph 2 of G.O.,
No. 2,675, of 17th September, the Public

Works Department was fully exculpated from whatever blame the wording of the
Collector's report may have appeared to impute to it in connection with the Assistant
Agent's bungalow at Koraput, the Collector's statement of the actual progress of the
building was simply accepted.

2 Similarly, the Public Works Department was not held to blame with
reference to the Koraput Hill Jail. It was distinctly admitted that that work was
handed over from Civil to Public Works agency in a very unsatisfactory state, which
the details now given by Mr. Nordmann confirm. Altogether, though the spirit of
the Collector's remarks was not animadverted on, Mr. Nordmann might have rested
satisfied that they had not prejudicially affected the opinion of Government as to his
management of the works lately transferred to his charge at Koraput. No notice was
considered necessary of the Collector's general remarks on the unbridged condition of
the roads of the district, as not having particular connection with the subject of his
report, which related to the progress made with Public Works in 1874-75.

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24th January 1876*

3 His Grace the Governor in Council accepts Mr Nordmann's estimate of the actual state of the ghaut-road, viz, that 20 miles have been widened out to an average width of 13 feet

4 But it is clear from the Chief Engineer's analysis above recorded that the quantity of the most difficult portion of work remaining to be done is excessive compared to that already accomplished, and that the instructions of paragraph 4 of the Government Order, based on the Collector's remarks, as to concentration of all effort on the difficult portions of the work, were not uncalled for. But all controversy as to actual state of progress will cease when Mr Nordmann shall have submitted a detailed estimate of the ghaut, in which shall be shown the amount of work already performed. He may rely upon full credit having been given him for the energy and skill displayed in the trace of the ghaut; and it would appear from the Collector's letter, No 1 Extra, of 27th December, that in a report recorded with an order in the Judicial Department, No 2,257, of 18th October 1875, he had spoken of "the work executed already by Mr Nordmann as *admirable*." No reproach attaches, therefore, to Mr. Nordmann or to the Department Public Works generally with reference to their works on the ghaut or at Koraput. And it was the object of G O, No. 2,675, of 17th September, to bring about such systematic action as should secure their bringing so ably planned a work as the new Pottinghy ghaut to a successful completion, doing credit alike to the individuals concerned in it and to the department to which they belong.

(True Extract)

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

To the District Engineer, Vizagapatam.

" Revenue Department.

" Judicial "

Ed F R. Dantleman

Spare Copies

Progress Report of the Sycere Shant
for the 1st half of the Official year
1875-76

From this Report the Chief Engineer learns that out of the sanctioned allotment of Rs. 10,000 for this work Rs. 6,460 have already been expended, mostly of course at the close of last season's operations as this season's work had not commenced.

Of that amount, no less than Rs. 1,015 or about 15½ per cent. have been expended on temporary Establishments and sundries, Rs. 275 in providing accommodation for the Executive Engineer and for cooks; and Rs. 4,943 on actual work.

Of work, earthwork is represented by a quantity of 17,568 cubic yards costing Rs. 2,928 which is at the rate of 6 cubic yards per rupee - stone revetments by a quantity 1247 cubic yards, costing Rs. 2,935, or 12 annas per cubic yard; and boring, blasting and removing rock by a quantity of 372 cubic yards costing Rs. 930 or Rs. 2½ per cubic yard.

The

The Chief Eng will defer detailed remarks until he shall have received similar statements regarding all previous expenditures of former years, which he requests may be submitted without delay. He would much desire to be informed how the quantities above noted have been determined; whether by actual measurements or by proportionment of the amount paid for labor between certain descriptions of work supposed to have been the result of that labor, at certain fixed rates. This involves statement whether labor is paid for by the day or by task.

Ref L. H. W. May 1875
Chief Eng

The S. S. Eng. Vign. - per station

N^o 398.

Memorandum

The outlay in the New Pottingly Grant up to the end of the working season of 1875 is detailed in the accompanying statement. It amounted to Rs 42308-7-6 against an approximate estimate of Rs 184,500 sanctioned in G.O. N^o 1944 of 5th August 1873; and the expenditure upon the few items given may be abstracted as follows - viz

	Estimate	Outlay
Road work		40251-6-11
Minor Bridges		0-0-0
Dry Stone Drains	157,500	0 0 0
3 Langer bridges	25,000	0-0-0
Engineers' Bungalows	2,000	2057-0-7
	<u>Rs 184,500</u>	<u>Rs 42308-7-6</u>

The effective result of the above expenditure

expenditure, is

78408 Cubic yards of Earthwork
6817 ——— Stone Revetments
1287 ——— Rock blasted & removed

3 miles of Cutch Drains

1 Bungalow commenced

Or as put by Mr. Nordmann, the actual state of the road is this; 20 miles have been widened to an average width of 13 feet (some parts to 16, some to 19 feet,) except in places where the chief rocks, obstacles occur; where bridle path only has been cut, to an aggregate length not amounting to 1 mile.

It will be quite impossible to compare the amount of work actually done with that which remains to be encountered until a regular estimate shall have been received giving the measurements precisely. But judging

from

Aug 24-1-76.

from Mr. Nordmann's report of the nature of the line traversed by the New Ghaut, in para 13 of his letter No. 4606 of 31st December, the amount of Rock hitherto blasted is a mere flea bite compared to what remains to be done.

Considering the nature of the work and the difficulties as regards labour, it is no wonder that the Executive Engineer should again press for the assistance of a Company of Sappers, as he did before in his letter disposed of by G.O. No. 2326 of 19th September 1873 and No. 3006 of 22nd October 1874. But no hope of such assistance can be held out to him, as Sapper labour has already been resorted to for a similar work in the District, with disastrous effects on the health of the men; and the experiment.

experiment is not likely to be tried
again

C. Walker Major Genl. P.E.

Fort St George
20th Jan 1876

Chief Engineer P.W.E.

No 399 -

21st Jan 1876

X! Attch^d in 21-1-76

Statement showing details of Expenditure on the Sepoy's Grant from 1st February 1875 to 31st March 1875.

Amount

Remarks

Particulars

Preliminary Expenses

Exploring, clearing and tracing 50 miles at Rs 78 ⁰⁰ per mile.	375 ⁰⁰
Surveying Sheet	25 ⁰⁰
Clearing jungle for Camp and Road	606 ⁰⁰
Building and maintaining hut and sheds	1826 ⁰⁰
Paving the Bungalow and Road to it	2057 ⁰⁰
Well and building for incase of fire	20 ⁰⁰
Road across Pithing by Bhand	373 ⁵⁰
	<u>5102 62</u>

Purchase of Tools and Lamps and Carriage and Repairs of do.

New Amphibio	140 66
Carriage and Repairs	646 14
Medical Stores	835 9 ⁰⁰
Powder from Arsenal	390 13 ⁰⁰
Watchmen for border Magazine at Vizagapatam	72 ⁰⁰
	<u>2083 710</u>

Police Guards (not yet paid for)

Road Making

20 miles of middle paths at Rs 250	5000 ⁰⁰	
Building stone pavements	5460 94	687 Cubic yards
Blacking and removing rocks	3494 511	1287 Cubic yards
Cutting Catch drains	350 ⁰⁰	
Widening new road to 13 and 16 respectively (South work)	18067 79	78408 Cubic yards
Repairing broken down damages	348 1 ⁰⁰	
	<u>27720 8⁰⁰</u>	

* This includes the sum of Bravetico, Rs 6872. 710 - mistakes, also some, Pithing, Ammerson, Pithing, 147 12⁰⁰ - sum of villages 90% on which account 30 percent may be deducted and debited to different descriptions of work

Improving Stationerment of Appal. Runners

	441 138
	<u>42308 96</u>

X¹ Attch

1875

N^o 1525

District Engineers Office, Camp,
Viranagram 16th December 1875

From

The Offg District Engineer
Viragapatam

Enclos 2

1 Copy of letter to
12th 15th 1875
1st 1st 1875
1st 1st 1875

To

The Secretary to Government P.W.D.
Madras

Sir

With reference to G. O. N^o 2675 dated 17th
September 1875, and the Acting Collector's Report on
Public Works in this District, printed with the G. O.,
I have the honor to submit the following observations,
which I think it necessary to make, in order to prevent
a wrong impression, regarding the state of some works in
the District, being conveyed to Government, which would
be likely to be the case, if some of the statements in the
Ag. Collector's Report, which seem to be conceived in a
spirit of unkind criticism, were not qualified and
explained

Koraput
Bengal

1st 1st 1875

2. The Ag Collector, in para 9 of his report, states
that the work of completing the Agent's Bungalow at
Koraput "has made little progress". This would seem
to imply that the Public Works Department was to
blame

24th Jan 16 B 1 398

blame for the slow progress. But this is not so. This Department did not take charge of the building until near the end of the Official year, and under the most unfavorable circumstances. The Agents' Department had the sole control of the limited local labor market; and any outsider, such as the D.P.W. was in those parts at that time, could make but little progress, except with the direct countenance and aid of the Agents' Department.

3. I will not say that such aid was not afforded. But the want of previous proper organization in the working Establishment, and the almost complete absence of a sufficient supply of materials (such as bricks, tiles, timber &c.) wherewith to carry on the work, naturally impeded progress. The whole building might have been roofed before the last monsoon, if the ordinary precaution had been taken by the Agents' Department during the three seasons the work had been in progress of laying in a sufficient stock of timber and tiles to complete the roof. But no such forethought had been exercised.

4. Consequently, when this Department, towards the end of the working season, took charge of this large

work - in an out of the way locality - and found not the necessary materials ready wherewith to proceed, nor adequate arrangements made to procure them, there was delay. We did the best in our power, used up what materials we could, covered in the unfinished building with thatch, to keep the monsoon rains out, and secured the little stock of material remaining on hand, for use after the rains. From this it will be seen that the delay was not owing to this Department, but was distinctly traceable to the failure on the part of the Agents' Department to make adequate and timely provision of materials to prevent stoppages or delay in the work.

5. It may be said that the Agents' Department could not be held entirely responsible for this failure, for the work was foreign to the Officers of that Department, to whom it ought perhaps never to have been entrusted, and under the circumstances they did the best they could. But I think they are decidedly wrong when they turn round and accuse this Department of causing that delay which is distinctly and exclusively owing to their own bad management and want of forethought.

6. In para 10 of his report the Ag Collector alludes

alludes to the unfinished state of the Hill Jail, and in this connection speaks of "the very unsatisfactory state of things at Koraput" which he says is due to the Overseer who was eventually dismissed. But there is no connection between the Overseer's delinquencies and the unfinished state of the Jail. The Jail was handed over to this Department in a very unsatisfactory state at the end of January when the Overseer joined.

7. The walls of the 5 wards were nearly completed, those of the guard room, Cook House and Store shed were not so; the well was not commenced. The bricks used throughout the building were bad, the workmanship was execrable; many of the walls were far from being perpendicular; the worst ones were pulled down and rebuilt by my orders; they ought all to have been pulled down, but that in such a locality where work is done under difficulties, many defects must be overlooked. The small amount of timber work, that had been done to the roof, was badly done; there were no bricks or tiles, nor sufficient timber on hand to carry on the work, previous seasons which should have

have been made use of to collect all necessary materials, had been wasted; Consequently, when we took charge of the work and found no materials ready, there was delay.

8. Building materials in a place like Koraput are not to be got ready in a week or a month, particularly by new comers such as this Department was. Hence this delay, as well as that in the case of the Agent's bungalow, was not due to any fault of the P.W. Department, but to the failure of the Agent's Department to make adequate and timely provision for the supply of the most necessary building materials wherewith to carry on the work.

9. The Ag. Collector comments on the failure to supply a competent successor to the Overseer at Koraput. I need not point out how difficult it is under any circumstances to get a competent Overseer for a place like Koraput; however in this instance the defaulting Overseer was dismissed on the 15th March, and a competent successor, sent by this Department, arrived at Koraput on the 3rd of May. In the interim the works were looked after by a temporary subordinate. The failure therefore, of which the Ag. Collector speaks in

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in this respect, did not occur.

10. In para 14 the Ag. Collector says that almost all the roads in the District are unbridged, with the exception of one River. This statement, if not modified, must convey a very wrong impression to those who are not acquainted with the District. It would be more correct to say - as it is more in accordance with the facts of the case - that most of the smaller streams are bridged, and that only the larger streams are wanting bridges, but which owing to their great probable cost can only be undertaken at the rate of one in every two or three years. On the whole, as regards bridges, and the general state of the roads, I consider this District compares very favourably with other Districts I have seen. Some of the lines of road in this District are in better order than in any of the same length I have seen in other parts of the country. The so-called Trunk Road has been neglected for a number of years, but is now being taken in hand. The figures in the comparative statement in para 3 of the Collector's letter do not refer to the whole of the Public Works in the District but only to those

those works which were carried out from Imperial and Provincial funds. The expenditure on Roads from Local Funds was for New Works Rs 51,877 and for 'Repairs' Rs 82,003, making a total under "Communications Local" of Rs 1,33,880.

11. Regarding the new Pottinghy Ghaut the Ag. Collector says: "Twenty miles of this Ghaut road have been, in places, widened to an average width of 13 feet, where difficulties existed, however, the difficulties remain". I consider this description very inaccurate and apt to create a wrong impression of the actual state of the work. By the side of such unfair criticism it is not strange that the Ag. Collector quite omits to give this Department due credit for planning and carrying out a great and difficult work, like the new Ghaut, in a comparatively short time and in the face of great obstacles and hardships, in a locality and climate which have unfortunately cost several lives. The difficult trace through a most intricate country receives no acknowledgement. There were several traces, with more or less to recommend them, feasible between the termini of Pottinghy and Salur (24 miles), but only one of all these feasible lines was absolutely correct. The

The trace that was made is the correct line; for promptly selecting which some credit is due to, this Department.

12. It is inaccurate to say that "20 miles have been in places widened to an average width of 13 feet". The actual state of the road is this: Twenty miles have been widened to an average width of 13 feet (some parts to 16, some to 19 feet), except in places where the magnitude of the rocky obstacles delayed the widening out of the road; but even in those places a bridle path was made, so that the whole of the Ghaut was passable for man and beast when the Ag. Collector passed down. There was some scrambling required in two or three places only, where the largest masses of rocks are. But though there was scrambling, the places were passable. The aggregate length of bridle paths, not widened out does not amount to a mile, out of 20 miles of Ghaut Road; but including this bridle path the average width for the whole ghaut is still 13 feet.

13. "Where difficulties existed, the difficulties remain." This is as inaccurate as the first part of the statement. The Ag. Collector, in passing

down the New Ghaut, evidently did not stop to even roughly estimate the quantities of rock blasted and removed, and of revetments built; otherwise he could not have made such a statement. And having never seen the difficulties that existed before they were removed, he was unable to realize the original number and magnitude of those difficulties. In comfortably riding down a new ghaut road, the observer inexperienced in Ghaut work not un-naturally fails to correctly value the amount of obstacles and difficulties that had to be removed in making the road. Mr. Goodrich only saw the obstacles that were still there; but he quite failed to realize those that had existed before, and what amount of work had been done in removing obstacles that no longer obstructed his path. The Register of Work shows that up to February (the month in which Mr. Goodrich inspected the Ghaut) ^{more than 600} Cubic Yards of Rock had been blasted and removed along the line, and 4000 cubic Yards of Revetments had been built. It was therefore wrong to say "where difficulties existed they remain." This statement gave Government the impression that only the easy work had been done, and all the hard work left undone, which is very far from being the case.

14. I have inspected the Ghaut lately, just before the work was resumed, after the monsoon. It was much overgrown with weeds and jungle which sprung up in a short time during the rainy season. The rains had done some damage to the road surface, but not more than was to have been expected; a few small landslips had occurred; a few stone revetments—chiefly those built along the face of large slanting sheet rocks, in order to afford standing room for blasting operations—had given way. I am now having these rebuilt, the landslips and undergrowth cleared away, the most difficult places widened out to 13 feet, and the rocks blasted, but only on the lower part of the Ghaut, as the limited grant for this year will not allow of work being carried on along the whole line as formerly. The final detailed estimate for the whole Ghaut has been under preparation for some time, and is well advanced.

15. I submit the copy of a letter on the same subject ^{No. 1987 of 15th November 1875} from the Acting Collector, which was received by my predecessor who, it seems to me, failed to take adequate notice of it, since he neither brought the matter to the knowledge of Government nor called upon a Range Officer, accused of "misrepresenting" facts, for an explanation. I also

x. No. 1364 dated 20th November 1875

annex a copy of my predecessor's reply to the Ag. Collector's letter. With reference to the last part of Major Hindle's letter I have to observe that no strict injunctions, or orders of any kind, were issued on the subject by that Officer. The Ag. Collector's letter embodies an extract from a Report by his Assistant Agent in Jeyapore, which Report it is necessary for me to notice somewhat in detail, as it contains gross inaccuracies; and utterly fails to give an adequate or correct idea of the state of the Ghaut.

16. The Assistant Agent asserts that the Government have been "misinformed" regarding the state of the Ghaut and the reported average width of 13 feet. Instead of this he describes the Ghaut, where there is a track at all, as "two feet wide, widening frequently to a breadth of from 3 to 13 feet." Nothing could be more inaccurate, or less in accordance with the facts of the case, than this description. And the Assistant Agent hazards these random remarks while at the same time admitting that he did not take a single measurement. In fact he went up the Ghaut while it was overgrown with jungle, just after the monsoon, before work had been resumed; and he seems to have been unable to see anything beyond the weeds and jungle, and the narrow

narrow foot path trodden by local traffic through the undergrowth along the new line of road.

17. Judging from his remarks I do not consider the Assistant Agent competent to report upon a work like the Ghaut. Indeed this is scarcely to be expected, for none but a practical Engineer can satisfactorily draw up such a report. But this, I submit, did not justify the Assistant Agent to make random statements, and to assert, without taking measurements, that Government had been "misinformed," a term that might much more aptly be coupled with his own statements.

18. If the Assistant Agent had taken the trouble to measure the width of the road at regular intervals of say 100 yards, and struck the average, he would have found that the width averages 13 feet, and if he had looked beyond the weeds and bushes sprung up during the rains, which obstructed his path and his view, he could not have failed to notice a vast amount of rocks blasted and removed, and stone revetments built. It was only near Sunkh where the jungle had not happened to overgrow the road, that Captain Blaxland was able to see the width—but did not measure it—and he admits that there the road was 13 feet wide, but says that

that this is the case in no other place "for more than half a mile at a stretch," an assertion which I can only characterize as totally at variance with the facts. The paths widened out to 16 and 17 feet, respectively escaped his notice.

19. Captain Blaxland says that he could only ride up the Ghaut for two miles, and then had to send his horse back. This conveys the impression that only two miles of the Ghaut were passable on horseback, while in reality the whole length was so passable, with the exception of two or three large masses of rocks, and of a few revetments that had been damaged by the rains and are now being rebuilt, on the lower part of the Ghaut. The upper ten miles, from Sunkpentah to Blinghy, I rode with comfort (a few days after the Assistant Agent had gone up), having to dismount but once or twice.

20. I have thought it my duty to submit these observations, in order to make the Government clearly aware of the actual state of the works, since the Reports of both the Collector and his Assistant, if not corrected, would lead the Government to form an erroneous idea of the progress made with the Ghaut, and would cast reproach upon the Public Works Department and

and especially upon the officer who has done the wrong,
a reproach which would be utterly undeserved where,
I submit, credit is due.

I have the honor to be
Sir

Your most obedt servant.

M. M. M. M. M.
Off. District Engineer,
Tirunelveli.

Co 21-1-76.

Submitting certain Remarks
on the Collector's Report re-
garding Public Works in Ma-
gasham District during the
year 1874-75.

Dated 16th }
Recd } December 1875
N^o 1525

From
The Offg. District Engineer
Magasham
To
The Secretary to Govt. P. W. D.
Madras

B N 399A

GD No 18

1877.

Magasham Collectors Office.
15th November 1875

To
The District Engineer
Mallair

- Sir,
- I beg that you will give your best consideration to the following matters.
1. In my report on Public Works for 1874-75 dated 1st July 1875, I stated in para 12 of my letter as follows:-
"Twenty miles of this ghaut Road have been in places widened to an average width of thirteen feet, where difficulties existed the difficulties remain."
 2. I had previously in my letter of 1st April 1875 re-
corded in Proceedings, Judicial Department, of 18th Ultimo,
written: "the work executed already by Mr. Nordmann
is admirable" * * * * "I cannot tell when this
great work will be finished, but can hardly believe
that the work to be done can be got through before
the end of the working season of 1877."
 3. In their Order (P. W. Department) of Septem-
ber 1875 N^o 2675 the Government remarks in para 4:
"the Executive Engineer * * states generally in his
progress Report for March that the 20 miles of Ghaut
road have been widened to an average of 13 feet."
 4. Knowing from my personal observation in the

received by me
17th October 1875

end of February that it was scarcely possible that this statement could be correct, I ordered my special Assistant to inspect and report, and he visited the ghat and went up it a few days ago. He states, in a letter to me, that Government have been misinformed when it was stated that the ghat had been widened to thirteen feet throughout twenty miles, arising from the top of the Ghaut after marching up it.

6. He says that the Executive Engineer has grubbed out all the earth he can get from round and behind the stones, but on account of these stones I would rather describe the ^{ghaut} as being a track, where there is a track at all, of 2 feet breadth widening frequently to a breadth of from 3 to 13 feet, winding in and out of boulders. Occasionally there is no track, and you are brought up standing by a mass of rock - x x I could only ride up the first two miles of the ghaut and from thence had to send my horse back. x x x In a few places the ghaut has also become impassable by landslips. x x x The best piece I saw was a length of about 1½ miles out of Simkee, where it certainly is widened to an average of 13 feet; in no other place is this to be found for more than half

half a mile at a stretch, I should say, though of course I did not measure."

7. In my report quoted in para 1 supra I wrote that the tappal runners had been sent back to the old line of Ghaut in June last, as the rains were expected to make the new line quite impassable. The wording of their order in the Department P.W. on that report gives the impression that Government are not correctly informed as to the amount of work done; and as I believe they are under a wrong impression as to the probable ^{date} of the completion of the Ghaut, I feel bound to repeat the words of my first report: "where difficulties existed, the difficulties remain."

I have &c
Signed H. Goodrich.
Selling Collector

(True Copy)
M. M. M.
Offg. District Engineer
Udhagamandalam

N^o 1364

District Engineer's Office 15
Waltair 20 November 1875

From

The Offg District Engineer, Tiragapattam

To

The Asy Collector of Tiragapattam

Sir

With reference to your letter N^o 1987 dated 15 November 1875, I have the honor to state that in the Govt Order alluded to, the Executive Engineer has been directed to confine his attention solely to the difficult portions of the Ghaut. I am unable to give any opinion on the work as I have not been able to visit it, but strict injunctions have been issued that the difficult portions should be dealt with first.

I have &c

Signed J. W. Hindle Major
Offg. Dist. Eng. Tiragapattam

(True Copy)

W. M. M. M.
Offg. Dist. Eng. Tiragapattam

MSB
No 844 3 of 1875

1 Extra. *Vijaya* Collector's Office
Camp *Chandigarh*
24th December 1875

From *Mr. J. C. Walker*
By Collector and Agent to the Govt.
77 1/2 St. George
Vijaya

To
J. C. Walker
Major General &c
Secretary to Government

Sir
I have received from the
District Engineer an extract from
a Report from him to you wherein in
to 1787 15th remarks of mine contained in a letter
November 1875 to his predecessor are commented on.

I think it right to explain to you
how the necessity for my making the
remarks arose.

2 I had no opportunity of inspecting
the *Jaypur* Ghaut after the 20th March
last. The result of that inspection I wrote
to Government in my letter of 1st April
whereon orders were passed 2. D. 18th April 1875

Ms. B.
No 843 of 1875
24th June 1875

184- C/o 257 Federal Department
and were received by me 25th October.

I mentioned the progress made in my
Public Works Report for the year 1874-75
dated 1st July whereon orders were passed
on 17th & 22nd September 1875 to 2675 Public
Works Department and attached my office
on the 14th October

3. I then observed that the Government had been informed in the Executive - Engineer's Progress Report for March 1895 that the 20 miles of Yhai had been then increased to an average width of 13 feet.

Had this been the case the work which
must have been done in April, May,
and the early part of June would
have brought the work far more nearly
to completion than I had expected, and
the fact of the Capital runners having
invested in the old line which is rugged
and difficult, as June led me to doubt
whether the Executive Engineer had not
been misled as to the state of the work
at the end of March.

To satisfy my own doubts, I asked
Captain Blackman the Special Assistant
Agent to inform me what the present state
of the new grant was and on receipt of his
reply

which I wrote to the District Engineer
Mr. Woodman appeared to think
that Captain Blackland's letter ^{was} purports
to be a report on the manner in which the
work has been executed. I extracted all
that he wrote concerning the trail and his
remarks refer alone to the amount of work
done. He is not a Placemaker and I
have no doubt make roads but he knows
~~where they are~~ and whether they pit;
he is not an Engineer & may ^{not} be able to
make roads but he knows whether the path
he is on is passable or the reverse.
I have written

On each occasion when I have written
of what I saw of Mr Fordman's work
I spoke highly of its excellence and solidity.
In order that the District Engineer
might perform the inspection which I
believed to be his duty I wrote to him to
draw his attention to the conflict between
the reports I had made in April & July
and the Engineer's Report for March adding
my reasons for doing so which I be-
lieved would induce him to go to

My reason for
-sumed would induce him then to
inspect the work.
And I anticipated that the road-
man would ex-amine the bridge.

I have the honor to be
Sir
Your Obedt. Servt

Wm. H. Smith
Collector and agent

Lin 21-1-76-

B-1 399

Forwiling Exposition
also the cause of certain
Remarks written to the
District-Superintendent

Endorse here

No. 1 Extra

Dec 5. January 76.

Dec 27th } Dec 27th
 Dec 27th } 1875

D. J. W.

7. The Sec^y to Governor

Lyngbya

Letter 257 7:55-8:00

The Ag. Center and Dept.

Jan. 1876
7 Nov.

Go. No 182 24 1.76

No 182 P W D Civil Works
Proceedings of the Madras Govt
Under date the 26 Jan'y 6.
Read the following -

Memorandum by the Chief Engineer No 822 of 7th Dec 1955
 18th Dec 1955

From the off direct Aug. 1525 of 16 Decr/75

" Collector, Vizagapatam - " - 1 Extra of 27" - do

[illegible]

of the building was
simply a scaffold.

Similarly, the
Public Works Department
seems to have held to
himself with persistence
to the original bill.
And it seems to me
admitted that it
was a... handled,
presumably by...
Public Works... many
matters immediately
State, which the State
may possibly...
...and can...
...a...
though the...
the...
was not...
...and...
...might have
...that
they had not pre-
judicially affected

The opening of the
Government as to his
management of the
is with Lady Strang-
ford & Mrs. Plange,
at Stranaport. No
brother was considered
necessary at the station
except Mr. Winkles and
the embroiled Car-
rington of the roads
of the District; no
one having been
in connection with
the subject of the Re-
form which related
to the progress made
with Public Works
in 1841 - 42

The ~~Great~~ ^{General} ~~Public~~
the Governor and
Council have to
Sir: Richardson's
estimate of the
actual state of
the

the Phant Road,
~~as far as the~~ to be
covered than the
success of a survey by
any that 20 miles
have been evidenced
part to an unusual
width of 15 feet

But also the fact
the Chief Engineer
arrived at a conclusion
conceding that the
granularity of the material
difficult to indicate
was a minimum
to be placed as ex-
cessive compared
to that already in
Camp. He also noted
that the measurements
of points of the
Government Survey
based on the altitudes
were not as accurate
as the
centrations of all
clips
me

20
of getting the digging
with post beams of
the work, and not
impossible. But
all parties very as
to actual dates of
work, as well as
when Mr. Hordman
shall have submitted
a detailed estimate
of the phant, and
which shall be shown
the amount of work
already performed
it may be upon
individual having
been more than for
the survey and the
displayed in the
case of the phant,
and it would appear
from the Collection
(then at the)
of the phant
that in a report
subscribed

He ended with a
 order in the presence
 of the audience 42257
 21st October 1975
~~He then~~
~~repeated~~ he had spoken
 of "the work expected
 already by M. Nord-
 mann and undoubtedly
 He repeated that
 therefore ~~not~~ to M.
 Nordmann, or to
 the Department the
 work generally, with
 reference to the work
 in the 1st and 2nd
 Thorapark. And it
 was the object of
 the 2nd of 1975
 to have about 20
 systematic and
 should become
 their bringing, but
 returned

21
 returned to work
 as the new policy
 of the Department
 is not a like to the
 previous one, and so
 the Department to
 which they belong.
Am.

St. Ing. Vazapala
 Rev. Dept

10-2-76

4
 21
 7

1st Atch

Office 17

1 Extra. Niagara Collector's Office 10
Camp Carson, N.Y.

27th December 1875

Sir

Wm. J. Walker
Collector and Agent to the Govt

77 1/2 St George
Niagara Falls

I

J. C. Walker

Major General R. I.

Secretary to Government
(C. W. D.)

Sir

I have received from

Mr. District Engineer an extract from
a Report from him to you wherein is contained

to 1707 15th remarks of mine contained in a letter
November 1875
to his predecessor are commended to

I think it right to explain to you
how the necessity for my making those
remarks arose

I had no opportunity of inspecting
the Jay's Point before the 20th February
last. The result of that inspection I reported
to Government in my letter of 1st April
whereon orders were passed 20th 18th February
1875

MSB

No 843 of 1875

24th June 16 03 A. 398

405 Aug 73 - 256-57
 - 19 Sept - 312-313.
 - 22 Oct 74 - 184-185
 - 8 Sept 75 - 166-167
 - 17 Sept - 382-383
 - 18 Oct - 2257 Judl. Clk
 Ch. Engin. file -

Ch. 7450
 " 127
 " 181.
 1 Encl. in Ch. 7779/75

116

Off. of U.S. Marshal
 PUBLIC WORKS.

J. B. Vizcarra
 445 1142

24 June 182

No. 398-400

182. " in a book -
 " receiving letter on
 " return of a judicial
 " regarding the same

N 398 @ 400