Number of p... 24
Date of rec... 13-8-57
Initials of R...

M.R.O. 1—82,400—29-11-56.

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

Cons 26-6-57

G.O. No. 1860 Press Mis.

68

Dated 26-6-57

Not to be folded or roughly handled

PUBLIC WORKS DEPARTMENT.

Public.

FORT ST. GEORGE,

20th *October* 1857.

No. 1960.

From

H. FORBES, Esq.,

Acting Secretary to the Government of Fort St. George.

To

COLONEL W. E. BAKER,

Secretary to the Government of India, D. P. W.

SIR,

Para. 1. In your letter of the 11th July 1856, No. 3173, conveying the orders of the Government of India on the Budget of this Presidency for the year 1856-57, further information was called for in regard to certain of the Projects entered in Statement No. 1 of that Budget. The Chief Engineer was accordingly directed on the 12th August following to attend to the requisition, and it was the intention of the Government to have submitted a complete report on all the points noticed in your letter. Colonel Faber however has not yet been able to comply with the requisition fully, and as considerable delay has already taken place in disposing of this matter, I am directed by the Right Honorable the Governor in Council to submit the subjoined explanation on several of the points in question. The items regarding which information is still due are few in number, and will be reported upon hereafter.

OBJECTIONS TAKEN BY THE GOVERNMENT OF INDIA.

Irrigation works.

GUNTOOR.
Project No. 17. Constructing a portion of the Kistnah Southern high level channel in continuation from Inganampaud to Inkole Rupees 3,26,100.

Para. 8. Observe that no designs have been submitted for the Aqueducts across the streams to be crossed by the channel, and that the streams themselves have not been marked on the Sketch Map.

Explanation.

2. A Sketch and three Plans marked respectively A, B, C, and D, which were not forwarded by the Chief Engineer with the Project, are herewith submitted. The first shews the streams that will be crossed by the channel, and the Plans exhibit the designs of the Aqueducts proposed to be constructed over those streams.

GUNTOOR.
Project No. 18. Opening a channel along the Western bank of the Kistnah from Vullabapooram to tide water at Adavipolliem Rs. 1,39,700.

Para. 9. Requiring an assurance as to the sufficiency of supply of water, and security of the Canal from river encroachment; as also further information relating to the cost of bridges and minor channels of distribution.

3. Explanation on these points is given at length in Captain Orr's letter of the 2nd September 1856, No. 60, which will be found recorded in the Proceedings of this Government of the 28th October following, (Nos. 8 and 9) and in para. 9 of his letter of the 19th August last, copy of which is herewith forwarded, the Chief Engineer expresses his full concurrence in the views entertained by that Officer. In respect to the minor channels, the District Engineer observed that as much consideration would be required in laying them out, it would be "almost impossible to estimate for them long enough beforehand to permit of their being specifically included in the main Project." He therefore submitted estimates for a certain number of miles of the ordinary sized distributing channels which were sanctioned by Government, and entered in the Budget Statement No. 2 for 1857-58, (Items Nos. 74 and 97). Bridges were not provided for in the main Project, because the District Engineer considered "that the wheel traffic requiring to cross the channel any where below Bezoarah after the bridge* over the river there is completed, would be so small as to be quite easily accommodated by efficient ferry boats." Captain Orr further observed that only one road of some importance intersects the line of the channel, and he submitted a Project for erecting a bridge at that spot. Estimates for this bridge, as well as

* Sanctioned by Government of India in letter of 1st June 1855 para. 14.

for four others, were sanctioned by Government, and entered in the Budget Statement No. 2 for 1857-58 (Items Nos. 103 to 107.)

GANJAM.
Project No. 1. Embanking the Mahanuddee river from its junction with the Kolanda river near Aska to Russelcondah, Rupees 64,840.

Para. 12. Observe that the Sections do not show the relative levels of the river banks and of the adjacent country. Also that no information is given of the site of the embankments, the area of floodway they would enclose, the volume of water discharged by the river in highest floods, and the extent to which the embankments would limit the spread of water. Remark that it should be shewn that the evils attendant upon the Damoodah embankments are not likely to result in this case.

4. It will be observed from the Proceedings of this Government of the 24th March last, (Nos. 2 and 3) that the Government, in an order dated the 18th of that month, pronounced the information then furnished in respect to this Project, still insufficient. The Chief Engineer has in a letter of recent date stated that further information is due from the District Engineer of Ganjam and Lieutenant Colonel F. C. Cotton; and on receipt of reports from these Officers, the Government will again address the Government of India on the subject of this work.

Navigation works.

EAST COAST CANAL.
Project No. 55. Extending the East Coast Canal from the Palaur river to the Pondicherry frontier, Rupees 3,75,000.

Para. 13. Observing that it is not clear how the level of this Canal can be steadily maintained unless there be a lock at each point where it enters and emerges from the Tidal Lagoons through which it passes; and that the number and position of such Locks should be distinctly shewn.

5. Information on the points here noticed has been furnished to the Government of India in paras. 6 and 7 of the report on the Budget for 1857-58, dated 12th March 1857 No. 462, and a hope was at the same time expressed that the project would be recommended for the sanction of the Honorable the Court of Directors.

MASULIPATAM.
Project No. 14. Constructing locks and Calingulahs at Yalarpaud and Chenacapaveram, and an embankment to Weyairoo, Rupees 64,820.

Para. 15. Desiring to be furnished with a Statement of the nature and extent of the expected traffic, and of the probable returns.

6. The particulars called for were supplied in the letter from this Department dated 11th November 1856 No. 2,097, and the project received the sanctien of the Government of India, in Colonel Baker's letter of 19th December following No. 5879.

CANARA.
Project No. 50. Opening a Canal from the Tuddry river to Coomptah, Rupees 36,021.

Para. 17. Observes that the length of this Canal is not stated, and that there is no scale to the map, and deems it essential that light tolls should be levied on this and every other Canal of navigation.

7. The information required in immediate connection with this Project remains yet to be furnished. The general question of tolls on Canals is engaging the consideration of this Government and will form the subject of a separate communication to the Government of India, when the reports that have been called* for are received and have been considered by Government.

* Cons. 6th Feb. 1857, Nos. 18-19.

Trunk Roads.

CHINGLEPUT AND NORTH ARCOT.
Project No. 29. Increased width of metalling on Trunk road No. 1, Rupees 55,690.

Para. 18. Deferring passing a decision upon this item, until the actual effect of the Railway on the traffic of the road is ascertained.

8. In forwarding with his present letter of 19th August 1857 a Tabular Statement of the traffic on this road during the months of March and April last, the Chief Engineer observes (para. 11) that "as yet the "Railway has had but little effect on the Trunk road traffic." Colonel Faber therefore recommends "that the result of at least another six months should be awaited," as the Railway traffic was believed to be fast increasing. It will be seen from an order of this day's date (para. 4) copy of which accompanies that the Government have acceded to this recommendation, and have called for a report at the expiration of that term.

NELLORE.
Project No. 20. Masonry works on Trunk road No 6 between Covoor and the Moodigunda river, Rupees 84,580.

Para. 21. Observe that the designs for Masonry works in this and most of the Trunk road Projects are drawn to a standard pattern without any variation to suit local peculiarities: and that the foundations appear to be deficient in depth. Presume that the Chief Engineer has satisfied himself on this point.

9. In respect to the first of the points here noticed, the Chief Engineer in his present letter of 19th August (para. 13) explains that, as the conditions of the beds of the rivers for which the bridges were intended differed but little, the plans had the appearance of being drawn to a standard pattern; and the late Superintendent of the road Department, he further adds, has assured him that local peculiarities were always kept in view in the designs prepared by him. As regards the second point, the Chief Engineer for the reasons given in paras. 12 to 14 of the same letter, is of opinion that "generally the foundations "allowed are of sufficient depths." It will be observed from para. 5 of the order of this day's date, that a further report is expected from Colonel Faber on the subject of this Project, which when received, will be duly laid before the Government of India.

GANJAM.
Project No. 2. Repairing and improving 34¼ miles of Trunk road No. 6 from Sunthoshapooram to Dendagedda near Itchapoor, Rupees 46,550.

Para. 22. Calling for an approximate estimate of the cost of the larger bridges omitted from this Project.

10. An estimate for the bridges alluded to in this para. as well as for bridges on another portion of the line to the amount of Rupees 47,220 has been received from the Chief Engineer, and will be submitted for the sanction of the Government of India in the Budget of 1858-59.

SOUTH ARCOT.
Project No. 35. Bridge over the Pennaur on Trunk road No. 8, Rupees 10,6,333.

Para. 24. Expressing a doubt as to the sufficiency of the foundations in the event of sand being found in the river bed to a greater depth than that of the Superstructure.

11. Information on this point has not yet been received by the Chief Engineer.

CUDDAPAH & NORTH ARCOT.
Project No. 23. Constructing bridges on Trunk road No. 11 from Chittoor to Cuddapah, Rupees 1,28,753.

Para. 28. Observe that the whole of the designs for these bridges exhibit an apparent deficiency of foundation.

12. The Government of India will observe from the accompanying letters from the District Engineers of Cuddapah and North Arcot marked E and F, that of the sixteen bridges proposed, the foundations of two only are considered to be partly insufficient, and that the evil it is intended shall be remedied by an addition of 8½ and 3¼ per cent. respectively to the estimates. The bridges here referred to are those over the Chittoor and Calavagoontah rivers in the North Arcot District, the first estimated at Rupees 12,482 and the second at Rupees 21,387.

District Roads.

MASULIPATAM.
Project No. 15. Partial repair to the Masulipatam and Hydrabad road from Ibrahimpatam to Masulipatam, Rupees 43,250.

Para. 29. Express a doubt as to the efficiency of sand and Potter's earth proposed to be used for metalling this road; and as the line is one subject to heavy traffic, consider that the additional cost of proper metal might wisely be incurred.

13. The question mooted in this para. on being referred by the Chief Engineer to the Civil Engineer of the Kistnah Division, that Officer stated that gravel was not procurable any where in that part of the country except in the neighbourhood of Ibrahimpatam and Bezoarah, and that the excessive cost of cartage precluded its use except in the vicinity of those places. Captain Orr therefore proposed to abandon the intended route, and construct the road on one of the embankments of the Masulipatam Canal, with the view of ensuring its being covered with gravel, which it was stated could be brought down the Canal at a moderate cost. It will be seen from the Proceedings* noted in the margin that the Government have sanctioned this change of the line of the road, and have called for a fresh estimate for carrying out the measure in substitution of that entered in the Budget of 1856-57.

NOTE.—Three Projects Nos. 6, 15 and 19 were noticed in this para. but the remark is applicable only to No. 15.

* Cons. 12th May 1857, Nos. 41-42.

CUDDAPAH.
Project No. 24. Completing the Cuddapah and Bellary frontier road, Rupees 78,710.
BELLARY.
Project No. 26 Earthwork and minor Bridges to the portion of the Bellary and Cuddapah road from Royalcherroo to Ghooty, Rupees 31,100.
} Para. 30. Declining to sanction these isolated portions of the road from Cuddapah to Bellary, and calling for a complete estimate of the whole line.

14. On the 6th December 1856, the Chief Engineer forwarded an estimate for the portion of the road here referred to, lying within the Cuddapah limits, but it was returned to that Officer in view to its being incorporated with the one for the Bellary portion which had not been submitted. This complete estimate, when received, will be forwarded for the orders of the Government of India.

MADURA.
Project No. 43. Constructing a Bridge across the Vigay river, Rupees 42,200.
COIMBATORE.
Project No. 48. Building a Bridge across the Ambravutty river Rupees 63,830.
} Para. 33. Observe that the wells of the bridge over the Vigay, appear deficient in depth; and suggest whether it would not be advisable to carry to a greater depth than 8 feet the foundation cylinders of the Ambravutty bridge which was to be founded on sandy soil.

15. The information here required not having been supplied to the Chief Engineer has been again called for by that Officer. Colonel Faber however observes in his present letter of 19th August (para. 15) that he is fully satisfied with the sufficiency of the foundations in the case of the two bridges. A further report on this subject will be submitted to the Government of India when the expected reports of the local Officers shall have been received and considered by Government.

MADRAS.
Project No. 51. Additions and alterations to the Sea Custom House and improving the external accommodation of the building, Rupees 70,040.
} Para. 37. Express a doubt whether the verandah on the Sea front of this building can be conveniently used as an Export Warehouse. Observe that the details of the tramway as shewn in the drawing are apparently susceptible of improvement.

16. The Chief Engineer has explained that the doubts entertained by the Government of India have not been felt by the local Officers, and that the Export shed which has been completed gives great satisfaction to the Sea Custom Officers.

In respect to the Tramway, Colonel Faber observed as follows :—

"The disposition of the Tramway seems to have been partially misunderstood, the Rail "nearest the Custom House is merely a siding, on which Waggons are run out of the way. The "switches are probably drawn at too great an angle, which is merely an error in the drawing, "and which will of course be rectified in construction."

17. The Projects noticed in this letter are as follow.—

No. of Projects.	District.	Amount. Rs.
17	Guntoor, ...	3,26,100
18	Do.	1,39,700
1	Ganjam, ...	64,840
55	East Coast Canal,...	3,75,000
14	Masulipatam,...	64,820
50	Canara,...	36,021
29	Chingleput and North Arcot, ...	55,690
20	Nellore,...	84,580
2	Ganjam, ...	46,550
35	South Arcot, ...	1,06,333
23	Cuddapah and North Arcot, ...	1,28,753
15	Masulipatam, ...	43,250
24	Cuddapah, ...	78,710
26	Bellary, ...	31,100
43	Madura, ...	42,200
48	Coimbatore, ...	63,830
51	Madras, ...	70,040

Of the above items, Nos. 24 and 26, having been wholly rejected by the Government of India, require no further notice; Nos. 55 and 14 have already been reported upon, and those in respect to which further information is still due are Nos. 1, 50, 29, 20, 35, 43, and 48. Explanation on the remaining Projects, as noted in the margin,* is furnished in the present letter, and I am desired to express the hope of this Government that it will prove satisfactory to the Government of India.

* Nos. 17, 18, 2, 23, 15 & 51.

18. The papers noted in the margin* accompany this Despatch, and I am to request that those submitted in original may be returned when no longer required.

* Original 1 Sketch A.
do. 3 Plans B, C and D.
do. 1 letter from District Engineer of Cuddapah dated 8th April 1857, E.
do. 1 do. from do. of North Arcot dated 10th January 1857, F.
Copy Chief Engineer's letter dated 19th August 1857.
do. Extract Minutes Consultation dated 20th October 1857, No. 1959.

I have the honor to be,
Sir,
Your most obedient Servant,

(Signed) W. FORBES,
Acting Secretary to Government.

Political Dept. Postmaster 22

No 1960

P.W.D. 9

To

Col. W. E. Baker

Secy. to the Govt. of India P.W.D.

Sir,

Para. In your letter of the 11 July 1856 No 3173, conveying the orders of the Govt. of India on the Budget of this Presidency for the year 1856/57, further information was called for in regard to certain of the Projects entered in the Abstract No 1 of the Budget. The Chief Engineer was accordingly directed on the 1st August following to attend to the requisition, and it was the intention of the Govt. to have submitted a complete Report on all the points noticed in your letter. Col Fraser however has not yet been able to comply with the requisition fully, and as considerable delay has

Gunboat

Project No 8. Giving a channel along the western bank of the Nullah to from Chillabar to Poorum to the western Adam's Pollicum. Rs 139,700

Para 9. Requiring an assurance as to the sufficiency of supply of water and security of the Canal from encroachments; as also further information relating to the cost of bridges and minor channels of distribution.

Explanation on those points, is given at length in Captn Orr's letter of the 28th September 1856 No 100, which will be found recorded in the Proceedings of this Govt of the 28th October following (Nos 8 and 9), and in para 9 of his letter of the 17th August last, copy of which is herewith forwarded, the Chief Engr expresses his full concurrence in the views entertained by that Officer. In respect to the minor channels, the Dist Engr observed that as much consideration would be required in laying them out, it would be "almost "impossible to estimate for them "long enough beforehand to permit "of them being specifically included "in the main project." He therefore submitted Estimates for a certain number of miles of the

the ordinary size of distributing Channels public purse, sanctioned by Govt, and entered in the Budget Statement Rs for 1857/58. (Items Nos 78 and 79).

Bridges were not provided for in the main Project, because the Dist Engr remained that the school traffic requiring to cross the channel any where below Bezoara (after the bridges) over the river there is comparatively, would be so small as to be quite easily accommodated by efficient ferry boats." Captain Cotton further observed, that only one pond of some importance intersected the lines of the Channel, and he submitted a Project for erecting a Bridge at that spot. Estimates for this Bridge, as well as for four others, were sanctioned by Govt, and entered in the Budget Estimate and Rs 2 for 1857/58. (Items Nos 103 to 107).—

Ganjam

Project &c. Lieut. Cotton regarding the Navigation, Irrigation, and Salt Manufacture in the Rishnadee river and Chilka Lake &c. &c. 1856.

Lieut. Cotton observes that the Calculations do not show the velocities of the river between the Sea and the Lagoon Locks that no information is given of the state of the embankments, the area of waterway thro' them, the volume of water would deliver, the volume of water discharged in the river in highest floods, and the extent to which the embankments would check the flood waters, and thus it should be shown that the villages attendant upon the Canal would not be inundated.

4. It will be observed from the Proceedings of the Board of last month, that the Government in an order dated the 18th of that month, pronounced the information then furnished in respect to the Project, altogether insufficient. The Chief Engineer was in a letter of recent date stated that further information is due from the District Engineer of Ganjam and Lieutenant Colonel F. C. Cotton, and on receipt of the same from those Officers, the Government will again address the Court of India on the subject of this work.

Navigation Works.

East Coast Canal.

Project &c. 1855. Extending the East Coast Canal, from the Pulicat river to the Pondicherry frontier Rupees 3,50,000.

Lieut. Observing that it is noted on the Chart of this Canal that the Tides are stated maintained two hours before the clock at each point where the tides end or change from the Ebb to the Flood, and that the number of such locks should be diminished by observations

5. Information on this point, since noticed, has been furnished to the Court of India in para 85 of the Report on the Budget for 1857/58 dated 12th March 1857 No 462, and at the same time explained that the Project would be

be recommended for the sanction of the Honorable the Court of Directors.

6. The particulars called for were supplied in the letter from this Department dated 11th November 1857 No 2067, and the Project received the sanction of the Govt of India in Colonel Bates' letter of 15th December following No 5877.

Masulipatam

Project No 1 for deepening anchorage and improvements at Chinnapatam and Cheruvoo having the accretion sunk to 11 feet in the channels 31,512.

Para 15. Directed to be furnished with a statement of the nature and extent of the operations, and of the funds required.

7. The information required in immediate connection with this Project remains yet to be furnished by the General Committee of Canals in engaging the consideration of this Govt, and will form the subject of a separate communication to the Govt of India, when the Reports shall have been called for* are received and considered by Government.

Cannanore

Project No 2. for enlarging Cuppa Canal from the Sunday river to Cannanore 24,021.

Para 17. Directs that the Canal may be cleared, and that there be no excavation below high water, unless it be found that navigation should require it.

* Cons: 6th February 1857. No 18-19.

Trunk Roads.

Chingleput & North Arcot.

Project No 29. Increased width of metalling on Trunk road No 1 Rupees 55,690.

Para 8. Deferring praying a decision upon this item, until the actual effect of the Railway on the traffic of the road is ascertained.

8. In forwarding with his present letter of 19th August 1857 a Statistical Statement of the traffic on this road during the months of March and April last, the Chief Engineer observes (para 11) that "as yet the Railway has had but "little effect on the Trunk road "traffic," Colonel Tabor therefore recommends "that the result of "at least another six months "should be awaited," as the Railway traffic "was believed to be fast in- "creasing." It will be seen from an order of this days date (para 4) a copy of which accompanies, that the Govt have acceded to this recommendation, and have called for a report at the expiration of that term.

Vellore

Project No 20. Allowance for works on Trunk road No 6 between Conroor and the Boodigunderines. Rupees 84,580.

Para 21. Observe that the designs for allowance works in this and most of the Trunk road projects are drawn to a standard pattern, without any variation to suit local explains that, as the conditions of the beds peculiarities; and that the foundations appear to be deficient in depth. Presume that the Chief Engineer has satisfied himself on this point.

9. In prospect to the first of the points here noticed, the Chief Engineer in his present letter of 19 August (para 13) explains that, as the conditions of the beds differed but little, the Colonel had intended

had the appearance of kind of Pavement to a Standard Pattern, and the Sole Superintendent of the Road Department was further added, have a sound limestone Road and he: -cessaries were always kept in view in the designs he drew for them, as regards the second point the Chief Engineer for the reasons given in Para 12 of the same letter, is of opinion that the 1st may be: "partly the foundations are sound and the 2d "sufficient objection." It will be observed from Para 8 of the order of the 23rd Sept that a further report is expected from Colonel Salmon on the subject of this Project, which when received will be duly laid before the Board of Engineers

10. An Estimate for the Bridge and Causeway as well for Bridges on another portion of the line in the Vizagapatam Collectorate, the remainder of the Estimate will be submitted for the sanction of the Court of India in the Budget of 1855/56.

Project for Causeway and Bridge over the Gundlacumma River and Estimate Rupees 1,14,560

Para 22. Sanction an Estimate Rupees 47220 of the Engineer submitted from the Project

47220

South Arcot.

11. No Information on this point has yet been received by the Chief Engineer.

Project for Bridge over the Pennaur on Trunk Road Rupees 1,74,270

Para 24. Expressing a doubt as to the sufficiency of the foundations in the event of sound being found in the river bed to a greater depth than 4 feet of the Superstructure

The

Communicated with Revenue Department letter dated 17th July 1857 No 1812

Cuddapah & North Arcot.

Project Rupees 1,25,000 Constructing Bridges on 3 Branches of Trunk Road from Cuddapah to Vellore

Para 20. observes that the terms of the Sanction appear to have been misunderstood by the Executive Engineers of some Districts

12. The Government of India will observe from the accompanying letters from the Public Engineers of Cuddapah and North Arcot marked

1st and 2d

that of the sixteen Bridges proposed, the foundations of two only are considered to be sufficient, and that the evil is intended shall be remedied by an addition of 8 and 10 Feet respectively to the Estimates. The Bridges here proposed to be thrown over the Chittoor and Cheyair Cuddapah Rivers in the North Arcot District, the first estimated at Rupees 1,24,82 and the second at Rupees 2,38,7 and at the works name, recommend the sanction of the Honorable the Court of Directors in their Despatch of the 17th April last No 8, I am directed to take this opportunity to solicit the sanction of the Government of India to the

the further survey & Estimate for 1860 in Respect of 100 f. placed for by the District Engineer, remeasuring the ascertained defect in respect to curvature in the designs of the Bridges in question.

13. The question moved in this para. on being proceeded to the Chief Engineer & the Revenue Board, Madras Presidency, dated 1st Feb. 1859, that grants have not proceeded as now before in that part of the Country except in the neighbourhood of Masulipatam and Cocanada and that the exceptional cost of Cartage precluded advances except in the vicinity of those places. Resolution Our thereupon approved to abandon the intended route, and construct the Road on one of the embankments of the Masulipatam Canal, with the view of economizing the land required

Estimates & Works.

Recommendation. Sum to be appropriated. Remarks.

Respecting the estimate for the further improvement of the Madras Presidency road, and the line to be followed in the vicinity of Nellore, and the Commissioner that the navigation of the Pennar river might be improved.

Sum to be assessed in Survey Estimate for 1860 in respect of 100 f. placed for by the District Engineer, remeasuring the ascertained defect in respect to curvature in the designs of the Bridges in question.

Note. The Objects of 3rd & 4th and 5th were sanctioned in letter from the Government of India dated 3rd Nov. 1858.

† 12th May 1857. Nos 41. 42.

covered with gravel, which it was stated would be brought down the Canal at a moderate cost. It will be seen from the Proceedings noted in the margin that the Government have sanctioned this change of the line of the road, and have called for a revised Estimate for carrying out this measure in substitution, & that entered in the Budget of 1858/59.

Additional Projects & Estimates.

Remarks.

Project & Estimate for the Guddapah and Bellary frontier road Rupees 28,970.

Project & Estimate for the Bridges & the bottom of the Bellary and Guddapah road from Royalcherro to Cheeta Rupees 31,100

Jan 30. Declining to sanction these isolated portions of the road from Guddapah to Bellary, and calling for a complete Estimate of the whole line.

14. On the 8th December 60 the Chief Engineer forwarded an Estimate for the portion of the road here referred to, lying within the Guddapah limits, but it was returned to that office on view to its being incorporated with the one for the Bellary portion which had not been submitted. This complete Estimate, when received will be forwarded for the orders of the Government of India.

15th The inspection here required not having been satisfactorily reported to the Chief Engineer has been again called for by this Officer. Colonel Fraser however in his present letter of 19th August last that he is fully satisfied with the sufficiency of the foundations in the case of the two Bridges. Of further report on this subject will be submitted to the Government of India when the expected reports of the Local Officers shall have been received and considered by Government.

16 The Chief Engineer has explained that the doubts entertained by the Government of India have not been fully by the Local Officers and that the Report which has been completed gives great satisfaction to the Revenue Officers.

Madura Projects for the Construction of Bridges across the Vaigay & Cumbum Tanal for the Conveyance of Stone.	Estimates	Are the Projects for the Bridges over the Vaigay & Cumbum Tanal sufficient for the purposes required, would not an additional Arch be advisable to ensure a greater depth than 8 feet for the foundations & should the Bridges be constructed of Masonry instead of Timber.
Coimbatore Projects for the Bridges across the Amaravatty and Noyel Rivers.	2 Rupees 62500.	

In respect to the Tramway, Colonel Fraser observed as follows

"The disposition of the "Tramway seems to have been "hastily misunderstood, the "rail nearest the Custom House "is merely a siding on which "Wagons are run out of the way. "The switches are probably "drawn at too great an angle, "which is merely an error in "the drawing, and which will "of course be rectified in construc- "tion."

17. The projects noticed in this letter are as follow.

No. of Projects.	District	Amount Rs
17	Guntoor	3,26,100
18	do	1,39,760
1	Ganjam	64840
55	East Coast Canal	3,75,000
14	Masulipatam	64820
50	Canara	36021
26	Chingleput & North Arcot	55690
20	Nellore	84580
2	Ganjam	46550
35	South Arcot	1,06,333
23	Cuddapah & North Arcot	1,28,758
15	Masulipatam	43,250
24	Cuddapah	78,710
26	Bellary	31,100
40	Madura	42,200
48	Coimbatore	63820
57	Madras	7,040

15th The inspection here required not having been satisfactorily reported to the Chief Engineer has been again called for by this Officer. Colonel Fraser however in his present letter of 19th August last that he is fully satisfied with the sufficiency of the foundations in the case of the two Bridges. Of further report on this subject will be submitted to the Government of India when the expected reports of the Local Officers shall have been received and considered by Government.

16 The Chief Engineer has explained that the doubts entertained by the Government of India have not been fully by the Local Officers and that the Report which has been completed gives great satisfaction to the Revenue Officers.

Madura Projects for the Construction of Bridges across the Vaigay & Cumbum Tanal for the Conveyance of Stone.	Estimates	Are the Projects for the Bridges over the Vaigay & Cumbum Tanal sufficient for the purposes required, would not an additional Arch be advisable to ensure a greater depth than 8 feet for the foundations & should the Bridges be constructed of Masonry instead of Timber.
Coimbatore Projects for the Bridges across the Amaravatty and Noyel Rivers.	2 Rupees 62500.	

In respect to the Tramway, Colonel Fraser observed as follows

"The disposition of the "Tramway seems to have been "hastily misunderstood, the "rail nearest the Custom House "is merely a siding on which "Wagons are run out of the way. "The switches are probably "drawn at too great an angle, "which is merely an error in "the drawing, and which will "of course be rectified in construc- "tion."

17. The projects noticed in this letter are as follow.

No. of Projects.	District	Amount Rs
17	Guntoor	3,26,100
18	do	1,39,760
1	Ganjam	64840
55	East Coast Canal	3,75,000
14	Masulipatam	64820
50	Canara	36021
26	Chingleput & North Arcot	55690
20	Nellore	84580
2	Ganjam	46550
35	South Arcot	1,06,333
23	Cuddapah & North Arcot	1,28,758
15	Masulipatam	43,250
24	Cuddapah	78,710
26	Bellary	31,100
40	Madura	42,200
48	Coimbatore	63820
57	Madras	7,040

Of the above items, Nos. 24 and 26 having been wholly rejected by the Government of India, require no further notice; Nos. 55 and 114 have already been reported upon, and those in respect to which further information is still due are Nos. 1, 50, 29, 20, 35, 113, and 118. Explanations in the remaining Projects, are noted in the margin, as forwarded in the annexed letter, and Steps are being taken to effect the objects of the Government shall be satisfactory to the Government of India, ~~which~~ ~~when~~ ~~explanations~~ ~~have been received~~ ~~additional~~ ~~Estimates~~ ~~Plans~~ ~~for~~ ~~the~~ ~~connection with the~~

18. The papers noted in the margin accompanying this Despatch, and Same to be returned when ~~have~~ submitted in original may be returned as soon as

Longer

* Nos. 17, 18, 21, 23, 105 and 151.

× Orig. 1 Sketch A
do. 3 Plans B C and D
do. 1 Letter from Dist. Engineer Cuddapah dated 8th April 1857 . . . 1
No. 1 do from do. dated 10th January 1857 . . . 1
Copy. Chief Engineer's letter dated 15th August 1857.
do. Letter dated 1

Nos.

Longer required.

Read 18th June 1857
Recd 18th June 1857

Cons: 6 February 1837 to 18 19.

Public Works 1857 Dep.t
Cons: 29th October.

No 1960.

To
The Secretary to the
Govt of India. D. P. W.
Dated 29th October 57.

Transmitting letter from Engineer 1st
Circle.

No 68.

Rec.d 6th Nov.r 28th