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MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No. 2282 Press
Mis.
56-57

Dated 15 : 11 1956.

Not to be folded or roughly handled

No. 50. Read the following letter from Colonel C. E. FABER, Chief Engineer; to H. FORBES, Esq., Acting Secretary to Government, dated 23rd September 1857, No. 3918.

SIR,

1 Letter from the District Engineer Kristnah Divison dated 6th August 1857, No. 66.
1 Do. from Lieutenant Beatty dated 13th July 1857, No. 26.
1 Abstract estimate.
1 Plan and Section of a channel.
1 Do. of a Lock.
1 Sketch map.

1. The estimate of Rupees (1,49,797) one lac, forty-nine thousand, seven hunred and ninety-seven, forming item No. 44, in Statement No. 2 of the Budget of 1856-57, provided for a channel of navigation, and irrigation from the Poolairoo near Weyoor, to be carried along the margin of the river Kistnah to tide water near Mopedavy, in the Masulipatam District.

2. The project now brought forward by Lieutenant Beatty, is for extending the channel from Mudacoodroo to Masulipatam, instead of terminating it near Mopedavy in a branch of the Kistnah, which is stated* by the District Engineer to be fast becoming unnavigable, and for carrying a branch from a little north-west of Pedda Yadra, to terminate in the Kistnah near Waudapollium.

* Letter No. 66, 6th August 1857.

3. The main channel is to be 19 miles 730 yards long, and the branch channel 5 miles 440, yards, making a total length of 24 miles 1170 yards the amount of the estimate being Rupees (1,66,000) one lac, and sixty-six thonsand, comprising the items shown in the accompanying abstract.

4. Lieutenant Beatty in para. 4 of his letter† points out that in the Sallapully and Bunder Talooks, through which the proposed channel and its branch are to be carried; there is at present little, or no wet cultivation, partly owing to the repairs of existing irrigation works having been totally neglected for many years by the Zemindar, and partly to the impossibility hitherto of storing water for irrigation purposes, and that by the projected works, an abundant supply of water will be obtained for not less than 30,000 acres of most fertile land, the expected Revenue being Rupees (90,000) ninety thousand, or upwards of 54 per Cent on the proposed outlay.

† No. 29, 13th July 1857.

5. The main channel for the purposes of traffic will be a most important line, opening an outlet to the market of Masulipatam, and to the shipping, for the produce of a large portion of the District; the only present means of communication being by a mere cart track, crossed in three places by streams which flood it for miles, and render it impasssable for half the year.

6. The branch channel will facilitate the developement of an important traffic in timber, firewood, grain &c., which, though at present existing, has to content with the greatest difficulties in respect to transport.

7. The main channel in its course will cross the following streams.

1st. The Mungalamaudoo kidoo, into which flows the great part of the drainage of the Noonastalum and Sallapully Talooks.

2nd. The Bheencanuddy channel, which receives the drainage of the large Caura tank and the western part of the Bunder Talook.

And 3rd. The Suttanagarum or Nungalairoo channel, receiving the drainage of the eastern part of the Bunder, and part of the Goodewadah Talooks.

8. For each of these channels, a double under drainage tunnel is provided, in addition to which, 2 Calingulahs each, 60 feet long are to be built.

9. Three Locks with bridges, and Calingulahs are required, but provision is only made for two in the estimate for if the project now submitted is approved, the Lock and Calingulah originally proposed to be constructed near Mopedavy, will not be required.

10. The country through which the channels are to be taken, consists principally of black cotton soil, or black cotton soil intermixed with sand the main channel, which is calculated to supply during an average season 30,000 cubic yards of water, per hour or sufficient for 30,000 acres, is to have a fall of 3 per mile, its breadth at sole averaging 36 feet, and hydraulic mean

depth 4-½ feet the branch channel is to be on a level, its breadth at sole to average 32 feet, and hydraulic mean depth 3 feet.

11. With reference to the remark of the Acting Collector at the foot of the estimate, the District Engineer observes, that "the Mopedavy channel being under formation, no time was to "be lost in bringing the proposed change in its direction, and terminal point under the con- "sideration of Government, even although, though no doubt equally beneficial scheme for its "extension towards Devy, and the construction of the large aqueduct required to convey it "across an arm of the river into that Talook, remained unprepared. The Acting Collector seems "to think, that the improvement of Zemindary lands by irrigation is of no importance, but it "is scarcely necessary to say, that such as not appeared to be the view taken by Government, "either here or at the Godavery, and as these lands can at once, on obtaining water, be charged "with a water rate, the financial returns will be more immediate, and greater than in the case "of Government lands, where, owing to the system of Revenue prevailing in the Masulipatam "District, and the want of a Survey, no payment commensurate with the advantages of having "a full and certain supply of water is exacted."

12. The Acting Collector it is to be observed, acknowledges the excellence of the project now submitted, and as I see no reason why the consideration of it should be delayed pending the preparation of plans and estimates for the extension of the Mopedavy channel to the Devy Talook, I have the honor to at once‡ lay it before Government, in the hope that the estimate which is framed on moderate and sufficient data, may find a place in the outgoing Budget.

‡ Under Clause 2 of Extract Minutes Consultation No. 696 dated 18th October 1855.

Letter from Captain C. A. ORR, District Engineer in charge Kistnah Division; to Colonel C, E. FABER, Chief Engineer, dated Bezoarah 6th August 1857, No. 66.

SIR,

1. In forwarding the accompanying project of Lieutenant Beatty's for continuing the Mopedavy channel to Masulipatam, instead of terminating it near the former place in a branch of the Kistnah which is fast becoming unnavigable, I have the honor to state, with reference to the remarks of the Acting Collector at the foot of the estimate, that the Mopedavy channel being under formation no time was to be lost in bringing the proposed change in its direction and terminal point under the consideration of Government even although the, no doubt, equally beneficial scheme for its extension towards Devy, and the construction of the large aqueduct required to convey it across an arm of the River into that Talook, remained unprepared. The Acting Collector seems to think that the improvement of Zemindary lands by irrigation is of no importance, but it is scarcely necessary to say that such has not appeared to be the view taken by Government, either here or at the Godavery, and as these lands can at once, on obtaining water, be charged with a water rate, the financial returns will be more immediate, and greater than in the case of Government lands where, owing to the system of Revenue prevailing in the Masulipatam District, and the want of a survey, no payment, commensurate with the advantages of having a full and certain supply of water, is exacted.

Letter from 1st Lieutenant J. BEATTY, Executive Engineer Kistnah Division; to Captain C. A. ORR, District Engineer in charge K. D., dated Camp Wulloor, 13th July 1857, No. 29.

SIR,

1. I have the honor to forward to you herewith a plan, Section, and estimate amounting to Rupees 1,66,000, for the construction of an irrigating and navigable channel in the Talooks of Sullapilly and Bunder.

2. The advantages to be attained by this work may be briefly summed up as follows.

3. As the village of Mopedavy is situated many miles from the mouth of the river, and the course of the stream between the two places is very circuitous, the proposed channel will provide a much better line of navigation to tide water than if the Eastern Bank channel be terminated as first proposed and sanctioned.

4. The channel will be especially important as a line of navigation, but not less than 30,000 acres of most fertile land, where there is at present little or no wet cultivation, (owing partly to the repairs of the existing irrigation works having for many years been totally neglected by the Zemindar and partly to the impossibility hitherto of storing water for irrigation purposes) may obtain from it an abundant supply.

5. A most important line of water communication will thus be formed, and an outlet opened to the Market of Masulipatam, and to shipping lying off the mouth of the river, for the produce of a large portion of the District. I may here observe that the portion of the coast road which passes through the part of the District which this channel will especially benefit, and which is now the main line of communication, is a mere bandy tract, crossed in three places by Streams which flood it for miles and consequently almost impassable during half the year.

6. That portion of the proposed channel between Wandapollium and Masulipatam will also have the effect of developing an important traffic in Timber, firewood, grain, &c. which at present exists though obliged to contend with the greatest difficulties with respect to transport.

7. The total length of channel proposed to be constructed is 24 miles and 1,171 yards. In about 14 miles of this distance the country through which the channel is to be taken consists principally of the black cotton soil, and in the remainder of a mixture of black cotton soil with sand. In the latter portion the slopes of the excavation and embankments cannot be less than 3 to 1 and I have allowed for this in the estimate, in the former slopes of 2 to 1 will be sufficient.

8. The channel in its course will cross the following streams.

1st. The Mungalamaudookoodoo, into which flows a great part of the drainage of the Noonastalum and Sullapully Talooks.

2nd. The Bheenacanuddy channel which receives the drainage of the large tank of Cauza and the western part of the Bunder Talook.

3rd. The Soolthanuggrum Mungalairoo channel which receives the drainage of the eastern part of the Bunder and part of the Goodewadah Talocks. In each of these cases a double under drainage tunnel is provided.

9. By the plan it will be observed that three locks and Calingulahs are required. Two only of these appear in the estimate and it is proposed to provide for the third by placing in this channel the one sanctioned to be errected at Mopedavy, which in the event of this channel being sanctioned will no longer be required there.

10. These locks will be 20 feet broad by 150 feet long.

No. 51. ORDER THEREON, No. 2082; dated 10th November 1857.

The estimate submitted with the above letter, provides for a change in the point of termination, and for a further improvement to a Canal, the estimate for which was originally sanctioned by Government in April 1854, and was entered in Statement No. 2 of the Budget of 1856-57. The project proposed to be so modified, was the excavation at a cost of about a lac and a half of Rupees, of a Canal designed both for Irrigation and Navigation, branching from the Poolairoo at a point not far from the little town of Weyoor, and running along the eastern or left bank of the Kistnah until it reached tide water at the village of Mopedavy, being a distance altogether of 23 miles. From the sketch sent up with the fresh project, it would appear that this Canal remains still unexecuted, with the exception of a small portion up to point nearly opposite Madoor, probably about 3 or 4 miles in extent. It is now proposed to abandon Mopedavy as a terminal point, by arresting the originally projected Canal at the village of Nadacoodroo, (it is not stated how many miles, but probably about 5 or 6, above Mopedavy); and to continue the channel in a fresh direction to the town of Masulipatam. This is the main object; the further improvement is to construct a branch from the new Canal at a point a little to the north-west of Pedda Yadra, and to terminate it in an arm of the Kistnah near Waudapolliem, not far from Divy on the coast. The main channel, that is, taking it the Government presume from the village of Nadacoodroo to its termination at Masulipatam, will it is said

=Innated as first proposed ...

be nearly 19½ miles in extent; while the branch to Waudapolliem will be about 5¼ miles; making in all nearly 25 miles of Canal, the cost of constructing which is estimated at 1,66,000 Rupees, or a rate of 6,640 Rupees per mile of Canal. This does not however represent the whole cost of the work, as will be presently noticed.

2. The project has been brought forward by Lieutenant Beatty, Executive Engineer in the Kistnah Division; and the advantages as pointed out by him, are these. The village of Mopedavy is far from the mouth of the river, the course of which, from the village to the point of disembogement, is very circuitous, thus presenting an obstacle to easy navigation; whereas no such difficulty will be experienced, by turning the Canal in the direction proposed, to tide water at Masulipatam. The principal advantage of the Canal will be one of navigation; but it is also stated that the main and branch channels will run through the Talooks of Sullapully and Bunder, containing about 30,000 acres of fertile land, but very little of which is used for wet cultivation, partly owing to the total neglect of the Zemindar for a long time past to Irrigation repairs, and partly to the impossibility hitherto of storing water for supply. The Chief Engineer states that the Revenue expected from the irrigation of these lands is 90,000 Rupees or upwards of 54 per cent. on the outlay; but this Statement does not appear either in Lieutenant Beatty's letter, or in that of Captain Orr; nor does Colonel Faber, shew on what data he calculates this increase of Revenue. As to commercial advantages, the main channel, it is said, will open an outlet for the produce of a large portion of the District to the market and shipping of Masulipatam, the only existing means of communication being a mere cart track intersected by streams, which flood it for miles, and render it impassable for half the year. The branch channel on the other hand, will develope a trade in timber, firewood, grain, and other articles, for the ready and facile transport of which there do not exist present means.

3. The country through which the Canals are to be taken is composed chiefly of black cotton soil. The main channel is calculated to yield during an average season a supply of 30,000 cubic yards of water an hour or sufficient for 30,000 acres. Three streams, it is said, cross the course of this channel, viz. in the Mungalamaudookodoo, the Bheenacanuddy channel, and the Soolthanuggrum or Mungalairoo channel. The first receives the drainage of the Moonastalum and Sullapully Talooks; the second, the drainage of the large Cauza tank and western part of the Bunder Talook; and the third,* the drainage of the eastern part of the Bunder and part of the Goodewadah Talook. For each of these, a double under-drainage tunnel is provided; and in addition, two Calingulahs 60 feet long are to be built. Lieutenant Beatty points out that three Locks, 150 × 20 feet, with bridges and Calingulahs, will be required, but that two only are provided for in this estimate, as the sum allowed for the Lock at Mopedavy in the estimate for that project will be available for the third, inasmuch as the lock will not be necessary at Mopedavy, in the event of the present alteration being sanctioned. Thus the sum of 1,66,000 Rupees does not represent the whole cost of the present project, as a further sum, probably of about 28,000 Rupees,† for the third Lock and Calingulah, proposed to be taken from the Weyoor and Mopedavy estimate, is to be added, which will raise the actual estimated amount to about one lac and ninety-four thousand Rupees. The Chief Engineer must take care that the saving is effected in the Weyoor and Mopedavy channel estimate. It also occurs to the Government that similar credit should be taken for the sum that will be saved in the same estimate in excavation, by arresting the Canal at Nadacoodroo, a point some miles short of Mopedavy provided for in the estimate. The Government are not in a position to calculate this amount; they cannot say whether allowance for it, on the same principle as the Lock, has not been already taken by Lieutenant Beatty in his estimate; but it is no where mentioned. Colonel Faber should look to this.

* See Section Map.

† At the rate allowed in present estimate, thus,

	Rs.
Lock.....	19,246
Calingulah..... ..	8,541
	27,787
Amount of estimate.....	1,66,000
Total.....	1,93,787

4. The Chief Engineer closes his report with allusion to a remark made by the Acting Collector at the foot at the estimate; and from the fact of his quoting the observations of the District Engineer in reply to this remark, the Government are led to infer that the Collector was not altogether satisfied of the completeness of the project, though Colonel Faber adds that he acknowledged its excellence. If the Chief Engineer was unwilling, to burthen the Govern-

ment with the detailed estimate, he ought at all events to have furnished them with an authenticated copy of the Collector's remark, as the opinion of that Officer must of necessity have weight in a consideration of the project, and should have been submitted in accordance with the order of Government dated the 7th April 1854, No. 413, para. 2. In the absence therefore of the remark referred to, and the Collector's report on the Revenue returns expected, the Government are not prepared to sanction a work, which otherwise possesses many points of excellence recommending it for adoption; but on Colonel Faber's furnishing them with a copy of the Collector's remark and his report on the increase looked for, the Government will pass their orders, as to whether the estimate is to be entered in the Budget of 1858-59 or not.

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

=Annexed as per proceedings=

No 29.

7

From Lt. Col. J. Beaty
Executive Engineer Kist. Div.

To Captain C. A. Orr
District Engineer in charge K. Div.

Sir, I have the honor to forward herewith a plan, section, and Estimate amounting to Rs. 166,000-- -- for the construction of an irrigating and Navigable Channel in the Taluks of Sulliapilly and Mundur.-

2. The advantages to be attained by this work may be briefly summed up as follows.-

3. As the village of Mopedavoy is situated many miles from the mouth of the River, and the Course of the stream between the two places is very circuitous, the proposed Channel will provide a much better line of Navigation to the Eastern than if the Eastern bank Channel be terminated as first proposed and sanctioned

4. The Channel will be especially important as a line of navigation, but not less than 30,000 acres of most fertile land, where there is at present little or no wet cultivation, owing partly to the repairs of the existing irrigation works having for many years been totally neglected by the Zemindars and partly to the impossibility hitherto of storing water for irrigation purposes / may obtain from it an abundant supply.—

5. A most important line of water communication will thus be formed, and an outlet opened to the Market of Bimlipatam, and to shipping lying off the mouth of the River, for the produce of a large portion of the District.— I may here observe that the portion of the Coast road which passes through the part of the District which this Channel will especially benefit, and which is now the Main line of communication, is a mere sandy track, crossed in three places by streams which flood it for miles and consequently almost impassable during half the year.—

6. That portion of the proposed Channel between Mandapollium and Bimlipatam will also have the effect of developing an important traffic in timber, firewood, grain, &c which at present exists though obliged to contend with the greatest difficulties with respect to transport.—

7. The total length of Channels proposed to be constructed is 24 miles and 1171 yards. In about 14 miles of this distance the country through which the Channel is to be taken consists principally of the black cotton soil, and in the remainder of a mixture of black cotton soil with sand.— In the latter portion the slopes of the excavation and embankments cannot be less than 3 to 1 and I have allowed for this in the Estimate. In the former slopes of 2 to 1 will be sufficient.—

8. The Channel in its course will cross the following streams

1st The Rungeloommoo River, into which flows a great part of the drainage of the Vizianagrum and Lallapully talooks.

2nd The Bhimunnedy Channel which receives the drainage of the large tank

of Cawra and the western part of the Bundoo Taloka.

3rd The Soollanuggrum or Bungalairee Channel which receives the drainage of the Eastern part of the Bundoo and part of the Goordanah Talooka. In each of these cases a double Under drainage Tunnel is provided.

9. By the plan it will be observed that three Locks and Caliguloks are required. Two only of these appear in the Estimate and it is proposed to provide for the third by placing in this Channel the one sanctioned to be erected at Koopdary which in the event of this Channel being sanctioned will no longer be required there.

10. These Locks will be 20 feet broad by 150 feet long.

Camp Ballow
13th July 1857.

I have the honor to be &c
Signed J. Beatty Lieut.
Executive Engr. N. D.

(True Copy)

Arnold H. Bell Capt.
District Engr. in charge Nort. D.

No. 66

From

The Chief Engineer
in the D.P. Works,
Madras.

To

Sir,

1. In forwarding the accompanying project of Lieutenant Beatty's for continuing the Inopedavy Channel to Nasalipatam, instead of terminating it near the former place in a branch of the Kistnah which is just becoming unnavigable, I have the honor to state, with reference to the remarks of the Acting Collector at the foot of the Estimate, that the Inopedavy Channel being under formation no time was to be lost in bringing the proposed changes in its direction and terminal point under the consideration of Government, even although the, no doubt, equally beneficial scheme for its extension to Nandevaram, and the construction of the larger Aqueduct required to convey it across an arm of the River into that Talook, remained unprepared. The Acting Collector seems to think that the

To Capt. J. Schalch
C.E. &c. &c.

Madras Sept. 23rd 1853

Lieutenant Beatty's Letter
from the Asst. Engineer
Rajamundry
Dated 6th August 1853
Rec'd

Lieut. Beatty's letter
Estimate & Project
for an Inopedavy Channel
Inspector Channel
A Contract form &c.
Specimen of the Earth at
Nandevaram to Nasalipatam
Rec'd 7th Sept. 1853
Ans'd 7th Sept. 1853

improvement of Zemindary lands by irrigation is of no importance, but it is scarcely necessary to say that such has not appeared to be the view taken by Government, either here or at the Godavery, and as these lands can at once, on obtaining water, be charged with a water rate, the financial returns will be more immediate, and greater than in the case of Government lands where, owing to the system of Revenue prevailing in the Masulipatam District, and the want of a Survey, no assignment, commensurate with the advantages of having a full and certain supply of water, is exacted.-

I have the honor to be
Sir
Your most obed.t Servant

Bezwada
6th August 1857.

Chas. Robt. Cotton
District Engr in charge
Kistnah Dr.

Public [roads] [New Work]

Abstract of Estimate № of 185 .p

Road №

District. Vizagapatam

Work Commencing the first cut at Chinna Gantyada to Tidewater near proposed Lock to Vizagapatam Lock 3 forming a track to Tidewater near the village of Mavadapollem with the Anicut

Locks Culverts & other Masonry works

Quantities	Description of Work	Rate Rs.	As.	P.	Amount Rupees	Amount for each part Rupees
C. Yds.						
37400	Cutting & Embanking from Indaccodroo towards the site of the 1st Lock 1st yard	"	"	10	1948	
11960	Cutting and Embanking from Indaccodroo towards 1st Lock 2nd yard — Cy.	"	1	"	935	
1760	Cutting from Indaccodroo towards 1st Lock 3rd yard — Cy.	"	1	2	128	
326480	Cutting and Embanking from 1st Lock towards 2nd Lock 1st yard — Cy.	"	"	10	17004	
191253	Cutting and Embanking from 1st Lock towards 2nd Lock 2nd yard — Cy.	"	1	"	11953	
7040	Cutting from 1st Lock towards 2nd Lock 3rd yard — Cy.	"	1	2	513	
303451	Cutting and Embanking from 2nd Lock towards 3rd Lock 1st yard — Cy.	"	"	13	15805	
38720	Cutting and Embanking from 2nd Lock towards 3rd Lock 2nd Yard — Cy.	"	1	"	2420	
9240	Cutting from 3rd Lock towards the River 1st yard — — — Cy.	"	"	10	481	
5280	Do — Do — 2nd yard — Cy.	"	1	"	660	
8320	Do — Do — 3rd yard — Cy.	"	1	2	417	
880	Do — Do — 4th yard — Cy.	"	1	4	74	
390814	Cutting and Embanking between Gadala and Vizagapatam 1st yard — Cy.	"	"	10	20357	
142294	Cutting and embanking between yard and Vizagapatam 2 yd	"	1	"	8897	81396
		Carried Over				81396

Public Works Dept

Estimate № 2

Vizagapatam

Lock 3 Cuttings

Abstract of Estimate

Rs. 14 [illegible]

Dated 6th Augt 1851

Recd 6th Augt 1851

Dept

Forwarding with Certificate the Project for Embanking the Backwater between Vizagapatam & Gadalapatam together with Plan Estimate & Abstract

Dominicus Pulle Esqr

Commanding Officer in a Grand Corps Office in a Grand Division of the Madras Presidency

Fort Clarence Vizagapatam

Sir

I have the honor to forward the Plan Estimate & Abstract of the Project for Embanking the Backwater between Vizagapatam & Gadalapatam together with the Certificate of the Executive Engineer Rajahmundry Division

I have the honor to be Sir

Your most obedient Servant

[illegible]

Lieut

Asstt Engineer

Rajahmundry Division

To

The Chief Engineer

&c &c &c

Dowlaishwaram

Quantities	Description of Work	Rate			Amount	Amount for each part
C. Yds.		Rs	As	P.	Rupees	Rupees
	Brought Over					81396
	Constructing a Lock 150 × 20 with a Bridge over it.					
4399	Stone in Chunam ——— Cft.	3	"	"	13198	
59	Brick in Chunam ——— do	3	8	"	209	
98	Loose Stone ——— do	7	"	"	689	
	200 Wells ———				1400	
	Excavation ———				1000	
	2 Set of Gates & Shutters for Sluices ———				2000	
	Forming Approaches ———				100	
	Centring ———				150	
	Baling ———				500	
						19246
	For another similar Lock ———					19246
	Constructing a Calingulah of 20 Yards ———					
1754	Stone in Chunam ——— Cft.	3	"	"	5262	
200	Loose Stone ——— Cft.	7	"	"	1400	
720	Loose Stone ——— Cft.	1	"	"	720	
	7 Wells ——— Each	8	"	"	560	
	15 Shutters ——— do	4	"	"	60	
	1 Large Shutter ———				9	
	Excavation ———				100	
	16 Cast iron frost ——— Each	10	"	6	160	
	15 Beams ——— do	8	"	"	120	
	Teakwood railing Palmira Mortises &c. ———				100	
	Forming Approaches ———				50	
						8541
	For another similar Calingulah ———					8541
	Carried Over ———					136970

Quantities	Description of work	Rate			Amount	Amount for each part
	Brought Over					136970
	Constructing an Under Tunnel where the Channel Crosses the Munquitamundoo Redoo.					
5460	Excavation ——— Cft.	"	1	1	370	
1000	Filling in ——— do	"	"	9	187	
316	Stone in Chunam ——— do	3	"	"	950	
152	Arch work in Chunam ——— do	3	8	"	532	
						2039
	Constructing two other similar Tunnels where the Channel Crosses the Beemanuddy and Soolla- nagrum Drainage ———					1078
	For 100 Small irrigation Sluices at 150 Rupees Each ———					15000
	Sundries & Contingencies &c. ———					7913
	Total Company's Rupees					166000

Added for Establishment [illegible] 15375
Added for Superintendence [illegible] 1598
Carried to Abstract 183373

Central Office of P.W.
Fort Saint George
23 September 1857

Chief Engineer P.W.D.

E 4.

Contains

Two Letter-

From

The Chief Engineer

P.W.D.

To

The Secretary to Govt

P.W.D.

P.W. No 1919/57

Date 23rd
Recd

No 3918.

Abstract Estimate for Continuing the proposed Channel from Pogoor Reah to Tide water near Mopedanum to Vaasuppatam Canal & terminating the same to Tide water near the village of Mooragoolam with the necessary Collingulahs & other Masonry works in the District of Vaasuppatam.

Amounting to Canjeevrams 2,55,000

Vo 2082.

P.W.D.

Extract from the Minutes of Consultation

Under date the 10th October 1857.

Read the following letter from the Chief Engineer -

/Here enter 23 September 1857 No 3918/

The estimate submitted with the above letter provides for a change in the point of termination, and for a further improvement to a canal, the estimate for which was originally sanctioned by Govt in April 1854, and was entered in Statement No 2 of the Budget of 1856/57. The project proposed to be so modified, was the excavation ~~from Canada~~, at a cost of about a lac & a half of rupees, of a canal designed both for irrigation and navigation, branching from the Poolaroo at a point not far from the little town of Vayoor, and running along the eastern or left bank of the Kistnah until it reached tide water at the village of Mopedary, being a distance altogether of 23 miles. From the Sketch sent up with the fresh project it would appear that this canal remains still unexecuted, with

E 4.

Contains

Two Letter-

From

The Chief Engineer

P.W.D.

To

The Secretary to Govt

P.W.D.

P.W. No 1919/57

Date 23rd
Recd

No 3918.

Abstract Estimate for Continuing the proposed Channel from Pogoor Reah to Tide water near Mopedanum to Vaasuppatam Canal & terminating the same to Tide water near the village of Mooragoolam with the necessary Collingulahs & other Masonry works in the District of Vaasuppatam.

Amounting to Canjeevrams 2,55,000

Vo 2082.

P.W.D.

Extract from the Minutes of Consultation

Under date the 10th October 1857.

Read the following letter from the Chief Engineer -

/Here enter 23 September 1857 No 3918/

The estimate submitted with the above letter provides for a change in the point of termination, and for a further improvement to a canal, the estimate for which was originally sanctioned by Govt in April 1854, and was entered in Statement No 2 of the Budget of 1856/57. The project proposed to be so modified, was the excavation ~~from Canada~~, at a cost of about a lac & a half of rupees, of a canal designed both for irrigation and navigation, branching from the Poolaroo at a point not far from the little town of Vayoor, and running along the eastern or left bank of the Kistnah until it reached tide water at the village of Mopedary, being a distance altogether of 23 miles. From the Sketch sent up with the fresh project it would appear that this canal remains still unexecuted, with

the exception of a small portion up to a point nearly opposite Masulipatam, probably about 3 or 4 miles in extent. It is now proposed to abandon Mopedavy as a terminal point, by arresting the originally projected canal at the village of Nadacoodroo, (it is not stated how many miles, but probably about 5 or 6, above Mopedavy); and instead, to continue the channel in a fresh direction to the town of Masulipatam. This is the main object; the further improvement is to construct a branch from the new canal at a point a little to the north west of Pedda Yadra, and to terminate it in an arm of the Kistnah near Mandapollium, not far from Divy on the coast. The main channel, that is, taking it to the Sea presume from the village of Nadacoodroo to its termination at Masulipatam, will it is said be nearly 19½ miles in extent; while the branch to Mandapollium will be about 5¼ miles; making in all nearly 25 miles of canal, the cost of constructing which is estimated at 166,000 Rs, or a rate of 6,640 Rs per mile of canal. This does not however represent the whole cost of the work, as will presently be noticed.

The project has been brought forward by Lieut Beatty, Executive Engr in the Kistnah Divn; and the advantages, as pointed out by him, are these. The village of Mopedavy is far from the mouth of the river, the course of which, from the village to the point of discharge ment, is very circuitous, thus presenting an obstacle to easy navigation; whereas no such difficulty will be experienced, by turning the canal in the direction proposed, to tide water at Masulipatam. The principal advantage of the canal will be one of navigation; but it is also stated that the main and branch channels will run thro' the talooks of Sultanpilly and Bunder, containing about 30,000 acres of fertile land, but very little of which is used for wet cultivation, partly owing to the total neglect of the Zemindar for a long time past to irrigation repairs, and partly to the impossibility hitherto of obtaining water for supply. The Chief Engr states that

the revenue expected from the irrigation of these lands is 90,000 Rs or upwards of 5½ per cent on the outlay; but this statement does not appear either in St. Beatty's letter, or in that of Capt Orr; nor does Col Faber shew on what data he calculates this increase of Revenue. As to commercial advantages, the main channel, it is said, will open an outlet for the produce of a large portion of the District to the market and shipping of Masulipatam, the only existing means of communication being a mere cart track intersected by streams, which flood it for miles, and render it impassable for half the year. The branch channel on the other hand, will develope a trade in timber, firewood, grain, and other articles, for the ready and facile transport of which there do not exist present means.

The country thro' which the canals are to be taken is composed chiefly of black cotton soil. The main channel is calculated to yield during an average season a supply of 30000 cubic yards of ashes at Rs 1 per cwt, or sufficient for 30,000 acres. Three streams, it is said, cross the course of this channel, viz

see section map.

the Mungalamandookodoo, the Sheenacamuddy channel, and the Soolthamuggum or Mungalaroo channel. The first receives the drainage of the Moosalum and Sullapully talooks; the second, the drainage of the large Cawra tank and western part of the Bunder talook; and the third, the drainage of the eastern part of the Bunder talook and part of the Goodewadah talook. For each of these, a double under drainage tunnel is provided; and in addition, two calingulahs 60 feet long are to be built. St. Beatty points out that three locks, 150 × 20 feet, with bridges and calingulahs will be required, but that two only are provided for in this estimate, as the same sum allowed for the lock at Mopedavy in the estimate for that project will be available for the third, inasmuch as the lock will not be necessary at Mopedavy, in the event of the present alteration being sanctioned. Thus the sum of 1,66,000 Rs does not represent the whole cost of the present project, as a

further sum, probably of about 28,000 Rs, for the third lock and caliguelah, proposed to be taken from the Bygoor and Modeday estimate, is to be added, which will raise the actual estimated amount to about one lac and ninety four thousand rupees. The Chief Engr must take care that the corresponding saving is effected in the Bygoor and Modeday channel estimate. It also occurs to the Govt that similar credit should be taken for the sum that will be saved in the same estimate in excavation, by arresting the canal at Nadacoodoo, a point some miles short of the Modeday provided for in the estimate. The Govt are not in a position to calculate this amount; they cannot say whether allowance for it, on the same principle as the lock, has not been already taken by Lieut Beatty in his estimate; but it is no where mentioned. Col Fabre should look to this.

at the rate allowed ~~calculated~~ in present estimate, thus

Lock ——— 19,246.
Caliguelah — 8,541
27,787.
Anty estimate — 1,66,000
1,93,787

The Chief Engr closes his report with allusion to a remark made by the Acting Colr at the foot of the estimate; and from the back of this quarrelling observations of the District Engr in reply to this remark, the Govt are led to infer that the Colr was not altogether satisfied of the completeness of the project, tho' Col Fabre adds that he acknowledged its excellence. If the Chief Engr was unwilling, ~~specially with the recommendation~~, to burthen the Govt with the details estimate, he ought at all events to have furnished them with an authenticated copy of the Colr's remark, as the opinion of that officer must of necessity have weight in a consideration of the project.+ In the absence therefore of the remark referred to, and the Colr's report on the redundancies objected to, the Govt are not prepared to sanction the work, which otherwise possesses many points of excellence, recommending its adoption; but on Col Fabre's furnishing them with a copy of the Colr's remark, and his report on the necessary works, the Govt will pass their orders, as to whether the estimate is to be entered

+ and since been submitted in accordance with Govt order dated the 7th April 1854 — No. 413 — P.D.

in the Budget of 1858/59, or
ort.

J. Spiers to the Chief Engr
Dis[illegible] 2113
Rec'd with his Enc 5-1-58

18th Accounts 56 & 12-13
7th April 54. 60-61
20th Sept 53 16-17

Public Works 1857 Dept.
Cons: 10th Nov.

No 2082.

Extract Minute of Cons.
D/ 10th Nov. 57.
From Chief Engr 18th Nov/57 & No 285
in Cons - 18th
From the Chief Engr 18th Nov. 1857
No 1500 in P.

Observing that for the reasons stated the Government are not prepared to sanction the project of extending the Mopedang Channel to Masulipatam and of carrying a branch to Nandeapollium and that on Colonel Fraser furnishing the Government with a copy of the Collectors remarks and his return on the increase of Revenue looked for, the Government will pass orders as to whether the estimate is to be entered in the Budget of 1858-59 or not.

No 5057.