M.R O. 1—10,006—23-2-60.

(1) Number of pages_____

(2) Date of repair_____

(3) Initials of the Referencer_____

MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No. / ~~B.P. No.~~	1374	Press / ~~Mis.~~	
Dated	14-5-1875		~~195~~ .

Not to be folded or roughly handled

Proceedings of the Madras Government, Public Works Department,
14*th May* 1875.

Read the following papers —

No 309 From Major J BEATTY, R.E, District Engineer, Godavery, to Lieutenant-Colonel J MULLINS, R E, Chief Engineer for Irrigation and Joint Secretary to Government, dated Dowlaishweram, 15th April 1875, No 186

With reference to your memorandum, No 676, of 5th September 1874, I have the honor to submit a revised estimate for the Asunta new channel, a continuation of the Neggipudi branch channel

1 Longitudinal Section
1 Estimate of Earthworks
1 Do Under tunnel
1 Plan of do
1 Range officer's letter, No 723, of 17th March 1875
1 Do do No 6, of 5th April 1875
2 Surveys

2 On further inquiry the areas under each of the three channels which receive their supply from the old Penugonda sluice are as follow —

	Acres
Penugonda channel	1,000
Neggipudi branch	200
Asunta new channel	1,500
Total	2,700

3 The Asunta new channel having a bottom width of 3 feet, a depth of 3 feet, side slopes of $1\frac{1}{2}$ to 1, and a fall of about $7\frac{1}{2}$ inches per mile, will discharge 3,351 cubic yards per hour, or about $2\frac{1}{4}$ cubic yards per hour per acre to the 1,500 acres commanded by it I forward Lieutenant Dorward's explanation for not altering the earthwork estimate

4 The total cost of the works estimated for is Rupees 5,250, or $3\frac{1}{2}$ Rupees per acre on 1,500 acres The amount allowed in the project was Rupees 1,000 only, and it is proposed to meet the excess from savings on "Restoring Navigation with the Weyairu," which exceed Rupees 8,000

5 The arrangements at the head will be left very much as they are for the present The old Penugonda sluice may be allowed to stand a few years more, and when a new one is built it will naturally be placed on the other side of the Siddhantam road. The only masonry work in the present revised estimate is therefore the under tunnel required to pass the Martair drain, which is indispensable.

6 Enclosed you will find the Range Officer's letter submitting the revised estimate

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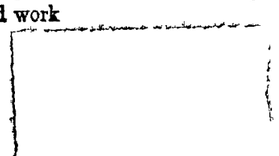
From Lieutenant A R F DORWARD, R E, Assistant Engineer, in charge No 3 or Western Delta Range, Godavery District, to Major J BEATTY, R E, District Engineer, Godavery, dated Nursapur, 17th March 1875, No 723

With reference to your No 1,996, of 24th September 1874, and its accompanying memorandum of the Chief Engineer for Irrigation, I have the honor to forward the following plans and estimates —

(1) Survey showing arrangements at head of channel (Penugonda sluice)
(2) Survey of Neggipudi branch channel to where its continuation (Asunta new channel) takes off
(3) The longitudinal section of Asunta new channel according to which work was carried out
(4) Plan and estimate of tunnel to pass Martair drain under Asunta new channel

Plan No. 1 shows how unsuitable, as permanencies, the arrangements at head are, they will be slightly improved this year by altering heads of channels and putting revetments as shown by dotted black lines The sluice is an old work



In my opinion it would be the best plan to make the present arrangements at head as effective as possible, and not to undertake any new work at present. Last year's experience has shown that with these arrangements there was but little difficulty in giving a fair supply to all lands under the sluice, and there are many works all over the delta which are much more urgently required.

The case of the under tunnel is different, and it should be constructed as soon as possible.

In a few years it will probably be necessary to rebuild the head sluice, and the best way to suit both channels will then, I think, be to place it below the road and to build it with two separate vents, one for each channel, at the end of Neggipudi branch (the continuation of this channel is Asunta new channel) a drop would be required to drop water about five feet.

The other method would be to give the Asunta new channel a separate head in the main canal at the point where it leaves the Neggipudi branch, this would do nothing to improve matters for the Penugonda channel and Neggipudi branch, and would make two offtakes from the main canal instead of one. If adopted a new sluice at head of Penugonda channel would have to provide a separate vent for the 200 acres of irrigation under the Neggipudi branch

		Acres.
* See this Office No 233 of 8th August 1874	The area under the Penugonda channel is	1,000
	„ „ Neggipudi and Asunta channels*	1,700
		Rs.
† Estimate herewith	The total estimate as now submitted is—	
	Earthwork†	3,400
	Compensation for land	900
	Masonry	950
	Total ..	5,250

From the same Officer, dated Nursapur, 5th March 1875, No 6

With reference to paragraph 1 of the above Memorandum, I have the honor to point out that the channel was finished some months before the memorandum of the Chief Engineer referred to was written With reference to paragraph 2, I understand the Chief Engineer's views to be that the *ordinary* supply should be 2 cubic yards per hour, and that with this discharge the water in the channel should be at the proper level for the irrigation of the lands under it With the channel under reference this is the case when there is nearly 3 feet of water in the channel But the Chief Engineer points out that the channel should be *capable* of carrying an increased amount as a maximum (in this case 4 cubic yards per hour per acre). By increasing the depth in the channel this supply could be obtained, and, as the banks are 3 feet above *ordinary* (as above defined) full supply level, could be carried with perfect safety.

No. 419

No 310 *Note by the Chief Engineer for Irrigation.*

In January last, the District Engineer, Godavery, brought to notice that in the estimate for the Nursapore Canal, under

Letter No 3,089 Distribution, a sum of Rupees 1,000 was allowed for extending the Penugonda channel to the lands of Asunta, the length of such extension being 4,000 yards On taking up this work it was found that the channel would require to be 4½ miles in length, and an estimate amounting to Rupees 4,300 was transmitted for the earthworks of the required channel.

2 The District Engineer was informed that a complete estimate would be awaited, and he was desired to report

No. 72, 27th January whether the excess on this distributary could be met from the lump sum distribution for the Nursapore or other canals of the Western Delta. In reply to this, Lieute-

No 3,280, 6th February nant-Colonel Fischer stated that the funds

required could be easily provided from the savings on the Western Delta project generally, and it was then pointed out

No 166, 18th February that, to enable the matter to be laid before Government, it would be necessary to show in detail what savings would be available

From District Engineer, No 430, 9th May 1874
To do No 336, 21st „ „ There was some further correspondence showing that a sufficient saving from the junction canal between the Ellore canal

No 1,651, 24th August and the Weyaru would be effected, and in his letter now submitted, Major Beatty shows that the amount of saving will be about 8,000 Rupees, at the same time he has forwarded an estimate for the following masonry works required for the channel —

	Rs
A regulating weir at the bund .	2,140
A tunnel over the Martair drain . .	950
Total	3,090

which, added to the earthworks estimate, makes the total Rupees 7,390.

3 From Mr Walch's letter, No 507, of the 10th January 1874, it appeared that there are 725 acres of existing irrigation to be brought under this channel, and 1,500 acres of additional land, and as the latter only can be taken into account in looking at the cost of distribution this, which would amount to but little under 5 Rupees an acre, was considered high A reference (No 676, 5th September 1874,)

No 186, 15th April 1875 was therefore made to the District Engineer, and the result has been a reduction of the proposed present outlay to Rupees 5,250, which is still sufficiently high; and as

† No 723, 17th March 1875 it appears from the Range Officer's letter,† transmitted by Major Beatty, that the arrangements are likely to be effective and sufficient for some years to come, they may be sanctioned

4 As regards funds, of which Rupees 4,250 in excess of the provision in the estimates are required, it has been mentioned that there will be, or indeed is, a saving of Rupees 8,000 available from the Weyaru Junction estimate, and pending a general review of savings and increases on the Western Delta estimates, it may be assumed, it is thought, that the present excess may be sanctioned under the rules

Ootacamund, (Signed) JOHN MULLINS, Lieut-Colonel, R E,
27*th April* 1875 *Chief Engineer for Irrigation*

No 311 Order thereon, 14th May 1875, No 1,374

IRRIGATION, No 31

Under the circumstances reported the estimate amounting to Rupees 5,250 for the Asunta Channel, Nursapore Canal, is sanctioned under Distribution, Western Delta, Godavery It is observed that this estimate exceeds, by Rupees 4,250, the provision for this particular distributary, and

Proceedings of the Madras Government, Public Works Department,
14th *May* 1875

that the excess may be met from a saving of about Rupees 8,000 on the Junction Canal (Weyaru and Ellore Canal)

(True Extract)

Major, R.E,
Offg Joint Secretary to Government

N°419.

Note by the Chief Engineer for Irrigation

Letter N° 3089. In January last the District Engineer Godavery brought to notice that in the estimate for the Nuzeapore Canal, under Distribution, a sum of Rupees 1,000 was allowed for extending the Pengonda Channel to the lands of Asmuta, the length of such extension being 4,000 yards. On taking up this work it was found that the Channel would require to be 4½ miles in length and an estimate amounting to Rupees 4,300 was transmitted for the earth works of the required channel.

N°72. 27th Jany. 2. The District Engineer was informed that a complete estimate would be availed, and he was desired to report whether the excess on this distributary could be met from the lump sum distribution for the Nuzeapore or other Canals

of the Western Delta. In reply to this Lieut Col: Fischer stated that the funds required could be easily provided from the savings on the Western Delta project generally, and it was then pointed out that to enable the matter to be laid before Govt it would be necessary to show in detail what savings would be available. There was some further correspondence showing that a sufficient saving from the Junction Canal between the Ellore Canal and the Wyjaiem would be effected and in his letter now submitted Major Beatty shows that the amount of saving will be about 8000 Rupees at the same time he has forwarded an estimate for the following Masonry works required for the Channel.

A regulating weir at the head	Rupees 2,140
A tunnel over the Mantair drain	950
	3090.

which added to the earth works

No 3283 - 6th July

No 166 - 18th July

From DE No 430 9/5/74.

To do No 336-21

No 1651 - 24th Augt

estimate makes the total 7,390.

3. From Mr. Walch's letter No 507 of the 10th January 1874 it appeared that there are 725 acres of existing irrigation to be brought under this Channel and 1500 acres of additional land, and as the latter only can be taken into account in working at the cost of distribution this which would amount to but little under 5 Rupees an acre was considered high. A reference (No 676 - 5th Sept 74) was therefore made to the District Engineer and the result has been a reduction of the proposed present outlay to Rupees 5,250 which is still sufficiently high, and as it appears from the Range Officers letter transmitted by Major Beatty that the arrangements are likely to be effective and sufficient for some years to come they may be sanctioned.

6 - 15 April 1875

17th March 1875.

4th As regards funds of which Rupees 4250 in excess of the provision in the estimate are required, it has been mentioned that there will be a saving of Rupees 6000 available from the Weyaing junction estimate, and pending a general review of savings and increases on the Western Delta estimate it may be assumed, it is thought, that the present excess may be sanctioned under the rules.

Lieutenant Lt. Col. RE.

Ordered
27th April 1875. } Chief Engr. for Engrs

To
The Secretary to Government
P.W.D

C.W. 1875 Delt
No. 419 No. 295 b.

From
The Chief Engr. for
Irrigation
To The Secretary to Govt.
P.W.D.

Dated 27th Apl. }
Received 4th May. } 1875.

9 Enclosures.

Note on the subject of
the extension of the Penna-
-gonda Channel to the
lands of Asunta entered
in the Statt for Nursapoor
Canal Godavery Distt.
Elc. No: 1374. 4-5-75.

No: 10

C 5-5-75 B. 11-5-75

Irrigation

C. W. Dept

Proceedings of the Madras Government

Read the following.

From the Chief Engineer
for Irrigation } C.W.D. No: 419 dated 27th Apl/75

G.O. No 1374 dy 4th May/75.

Under the circum-
stances reported the
estimate amounting to
Rupees 5,250 for the
Asunta Channel Nar-
sapore Canal is sanction-
ed under Distribution,
Western Delta, Godavery
It is observed that this
estimate exceeds by Rupees
4,250 the provision for
this particular distribu-
tary, and that the excess

May

may be met from a
saving of about Rupees
5000 on the Junction Canal
(Weyairu & Ellore Canal)

No 309-311

To Dir Rev Godavery
" Chief Engr Irrigation Works &
" Cont Works &

S-C dated 27-5-75

C-5-5-75 (2)-11-

2956

Govt. of 1875 Madras.

PUBLIC WORKS.

To

The Dr. Engr,
Godavery

Dated

Issued

Recd — Encl

G O, 14 Dec 75, No. 1374

Nos. 309 311

Asunta Channel Nursapore Canal.— The estimate amounting to Rs: 5,250 for the ——, sanctioned under Distribution Western Delta, Godavery, with remarks.