2 11-320

Public Works (189) Department.

G.O., No. 2217 W.

DATED 18 August 1889

[illegible] [illegible]

17/8/89

[Despatch Abstract.]

Vizagapatam Water Supply Scheme

The revised estimate, amtung to Rs 4,35,000 for the — sanctioned, with remarks

100/4 ~~90~~

T
B
C S 21/8/9

[P. W. 26. / 200—16-7-99.]

[P. W. 3 / 3,000—29-3-99.]

Indexed. 1918

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

BUILDINGS AND ROADS.
CIVIL WORKS.

Government {1899} of Madras.

PUBLIC WORKS.

Recd.
Regd. } 1899.

Enclosures

Spare copies

G.O., No. 2217 W., 18th August 1899.

AUGUST.

Vizagaptam Water-supply Scheme

The revised estimate, amounting to Rs. 4,35,000, for the —, sanctioned with remarks.

[3,000 99.]

Indexed. MLS

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

Read—the following papers :—

From W. C. DeMORGAN, Esq., M.I.C.E., Superintending Engineer, I Circle, to the Chief Engineer, Public Works Department, dated Waltair, 23rd June 1899, No. 835 V.Z.

With reference to your memo. No. 156 D., dated 9th May last, I have the honour to submit, herewith, a revised estimate, amounting to Rs. 4,27,900, for Vizagapatam water-works, with a note, for your approval and sanction.

2. The necessity for revision is explained in the report accompanying the estimate.

Note by the Chief Engineer, Public Works Department.

With his letter No. 835 V.Z., dated 23rd June 1899, the Superintending Engineer, I Circle, submits a revised estimate, amounting to Rs. 4,27,900, for the water-supply scheme for the town of Vizagapatam.

2. The original estimate sanctioned for the work amounted to Rs. 4,21,000; but owing to a clerical error in calculating the cost of cast iron pipes in the delivery main from the filters, it should be increased by Rs. 9,288 or Rs. 9,300, bringing the total to Rs. 4,30,300. The amount of the revised estimate, viz., Rs. 4,27,900, is thus practically within the original estimate.

3. Taking the figures as they stand, the revised estimate exceeds the original by Rs. 6,900[*] or 1·64 per cent., and this excess may be grouped under the following main heads :—

	Increase.	Decrease.
	Rs.	Rs.
(a) Increase in rates	7,428	...
(b) Deviation in design	...	19,353
(c) Errors and omissions	17,452	...
(d) Deviations in materials of construction	2,080	...
(e) Petty charges	178	...
(f) Insufficient provision in original estimate	4,800	...
(g) Savings	..	5,685
Total ...	31,938	25,038
Net excess ...	Rs. 6,900	

Item (a).—The excess under this head is made up of a number of items and is stated to be unavoidable owing to the original rates having been entered by the Sanitary Engineer from the divisional schedule of 1888–89, which differs in a great degree from that of the present years; also to the unhealthiness of the locality where fever is always prevalent and to several outbreaks of cholera.

Item (b).—The decrease under this head is mainly due to the alteration of the site of weir, whereby heavy excavation of surplus channel was saved, to change of design for the collecting reservoir, tower and overbridge and filter beds, and to reduction in length of cast iron piping owing to deviation in its alignment.

[*] Rs. 4,27,900 — 4,21,000 = 6,900.

Item (c).—This is attributed chiefly to the omission of the following items :—

(1) Drains in rear slope of bund in collecting reservoir.
(2) Compensation for land.
(3) Quarry fee on materials.
(4) Scour pipes in conduit.
(5) Roughstone drains under foundations of filters to carry off spring water.
(6) Fencing with Morton's wire fence round the filter beds and service reservoir.

Item (d).—The important deviations under this head are—

(1) Dry roughstone packing altered to roughstone in surki mortar for wave-wash wall along the bund of the collecting reservoir.
(2) Rough stone in surki substituted for brick in surki.
(3) Concrete flow for rough stone in apron and surki pointing for chunam plastering for the surplus weir.
(4) Concrete in surki mortar for concrete in cement.
(5) Rough stone in surki for brickwork in cement for the tower and over-bridge.
(6) Rough stone in surki for brick work in surki for filter beds, conduit for outlet pipe, chambers in Gill's arrangement and service reservoir.

Item (e) is due to ordinary petty charges.

Item (f).—This excess is ascribed to insufficient provision for clearing vegetation and turf from the bed of storage reservoir and to the items of tools and plant and contingencies.

Item (g) represents savings on the following :—

(1) Removing villages.
(2) Removing the soil of the inhabited parts of the village.
(3) Diversion of the road.

4. The rate allowed for earthwork in the original estimate was Rs. 15 per 1,000 cubic feet, while in the revised estimate now submitted it has been reduced to Rs. 11 which is the schedule rate. In consideration of the contractor's difficulties and losses detailed in paragraph 15 of the report, the Executive Engineer proposes that the contractor be allowed a compensation of 25 per cent. on the earthwork, *i.e.*, that the revised rate be raised from Rs. 11 to Rs. 13–12–0, or that the total amount for earthwork in the revised estimate be increased by Rs. 7,128. This proposal is supported by the Superintending Engineer. I recommend that the concession be allowed and the revised estimate passed for Rs. 4,27,900 + Rs. 7,128, or Rs. 4,35,000 in round figures.

(Signed) W. B. deWINTON,
Chief Engineer.

10th August 1899.

Order—No. 2217 W., dated 18th August 1899.

The recommendation of the Chief Engineer in the concluding paragraph of his note read above is accepted, and the revised estimate for the Vizagapatam water-supply scheme is sanctioned for Rs. 4,35,000.

2. The original estimate of Rs. 4,21,000 sanctioned in G.O., No. 22 M., dated 11th January 1897 (G.O., No. 363 W., dated 5th February 1897), is cancelled.

(True Extract.)

Under Secretary to Government.

To the Superintending Engineer, I Circle, with 135 enclosures.
" Examiner, Public Works Accounts.
" Local and Municipal Department.

Exd. T. K. Narayana Aiyangar.

Urgent

P. W. DEPARTMENT.

READ the following :—

Print {
Letter from the Suptg Engineer, I circle, No. 835 V.2 dy 23-6-99
Note by the Chief Engineer, P.W.D. dy 10. 8. 99

~~Circulated to~~

4P **ORDER.** No: 2217 W dt 18-8-99

The recommendation of the Chief Engineer in the concluding para of his note read above is accepted, and the revised estimate for the Vizagapatam Water Supply scheme is sanctioned for Rs 4.35.000.

2. The original estimate of Rs 4.21.000 sanctioned in G.O. No. 22 M dated 11th Janua 1897 (G.O. No. 363 W dated 5th February 1897) is cancelled.

4 rolls of plans sent separately
16/8/99

T
B
C.S.

16/8
P.K.S

16.8.99

To the S.E. I circle with encls (135)
" Excav. P.W.A
" Lr in Dept.

4 1/2 class
31/8/99

[P. W. 42-A.
1,000—2-3-99.]

Indexed. 19/8

Urgent

P. W DEPARTMENT.

READ the following :—

[illegible]

Print {
Letter from the Suptg Engineer, I circle, No 835 V.2 dy 23-6-99
Note by the Chief Engineer, P.W.D. dy 10. 8. 99.

~~Circulated to~~

4 rolls of plans sent separately 16/8/99

4 P

ORDER. No: 2217 W dt 18-8-99

The recommendation of the Chief Engineer in the concluding para of his note read above is accepted, and the revised estimate for the Vizagapatam Water Supply scheme is sanctioned for Rs 4.35.000.

2. The original estimate of Rs 4.21.000 sanctioned in G.O No 22 M dated 11th January 1897 (G.O No 363 W dated 5th February 1897) is cancelled.

16/8

P.K.S

16.8.99

T

B

C. S.

To the S.E. I circle with encls (135) ✓
" Exav. P.W.A
" L & M Dept.

+ 4 pp [illegible]

P.F. 31/8/99

P. W. 42-A.
1,000—2-3-99.

3,000—29-3-99.

Indexed.

P. W. DEPART

Urgent

READ the following :—

2217

Letter from the Suptg Engineer I circle No 835 V. 2 dy 23rd June 189

Note by the Chief Engineer P. W. D. dy 10. 8. 99

Revised estimate for the Vizaga-
patam water supply scheme

Circulated to

(1) The Hon. Mr. A. T. Arundel C.S.I.

(2) " to the Governor

To
The Lt. Mr. Supt.

FOR ORDERS

10. viii. 99.

W. 10. 8. 99

P.C.S.

Seen.
A.A. 14. 8. 99.

I think the revised estimate may be sanctioned.

A.S.H.
16. 8. 99

P. W. Dept

2 P

Note by the Chief Engineer, P. W. D

—

With his letter No 835 V. Z, dated 23rd June 1899 the Suptg Engineer, I circle submits a revised estimate, — amounting to Rs 4.27.900, for the water supply scheme for the town of Vizagapatam.

∠ Flag F

2. The original estimate sanctioned ∠ for the work amounted to Rs 4.21.000; but owing to a clerical error in calculating the cost of cast iron pipes in the Delivery main from the filters, it should be increased by Rs 9.288 or Rs 9.300, bringing the total to Rs 4.30.300. The amount of the revised estimate, viz Rs 4.27.900, is thus practically within the original estima

3. Taking the figures as they stand the revised estimate exceeds the original by Rs 6.900 x or 1.64 per cent, and this excess may be grouped under the following main heads: —

x 4.27.900 - 4.21.000 = 6.900.

	Increase Rs	Decre Rs
(a) Increase in rates —	7.428	
(b) Deviation in design —		19.3
(c) Errors and omissions —	17.392	

(d) De

P. W. 2
3,000—29-3-99.

Indexed. 1918

	Increase. Rs	Decrease Rs
	24.820	19.353
(d) Deviations in materials of Construction —	2.080	
(e) Petty charges —	178	
(f) Insufficient provision in original estimate —	4.860	
(g) Savings —		5.685
Total	31.938	25.038

Net excess — Rs 6.900

Item (a). The excess under this head is made up of a number of items and is stated to be unavoidable owing to the original rates having been entered by the Sanitary Engineer from the Divisional Schedule of 1888-89 which differs in a great degree from that of the present years, also to the unhealthiness of the locality where fever is always prevalent, nd to several out breaks of cholera.

tem (b) The decrease under this head mainly due to the alteration of the site of weir whereby avy excavation of surplus channel was saved change of design for the Collecting reservoir, r and overbridge, and filter beds, and to ction in length of cast iron piping owing eviation in its alignment.

(c). This is attributed chiefly to the ssion of the following items

(1) Drains in rear slope of bund in Collecting Reservoir

(2) Compensation

5

3P

(2) Compensation for land

(3) Quarry fee on materials

(4) Scour pipes in conduit

(5) Rough stone drains under foundations of filters to carry off spring water

(6) Fencing with Morton's wire fence round the filter beds and service reservoir

Item (d) The important deviations under this head are

(1) ~~Dry~~ rough stone packing altered to rough stone in surki mortar for wave wash wall along the bund of the Collecting reservoir

(2) Rough stone in surki substituted for brick in surki.

(3) Concrete floor for rough stone in apron and surki pointing for chunam plastering for the surplus weir.

(4) Concrete in surki mortar for concrete in cement

(5) Rough stone in surki for brickwork in cement for the tower and overbridge.

(6) Rough stone in surki for brickwork in surki for filter beds, conduit for pipe, chambers in Gill's arrangement and service reservoir.

Item (e) is due to ordinary petty charges

Item (f). This excess is ascribed to insu provision for clearing vegetation and t

from

P. W. 2
3,000—29-3-99.

Indexed. 17/8

6

from the bed of storage reservoir and to the items of Tools and Plant and Contingencies

Item (9) represents savings on the following:–

(1) Removing villages

(2) Removing the soil of the inhabited parts of the village

(3) Diversion of the road

4 The rate allowed for earthwork in the original estimate was Rs 15 per 1000 cft while in the revised estimate now submitted it has been reduced to Rs 11 which is the schedule rate. In consideration of the contractors difficulties and losses ~~enumerated~~ detailed in para 15 of the report, the Executive Engineer proposes that the contractor be allowed a compensation of 25 per cent on the arthwork (i.e.) that ~~that~~ the revised rate e raised from Rs 11 to Rs 13-12-0 & that the tal amount for earthwork in the revised stimate be increased by Rs 7.128. This posal is supported by the Supdg Engineer. recommend that the concession be allowed d the revised estimate passed for Rs 4.27.900 7.128 or Rs 4.35.000 in round figures.

10/8

E W 10/8

May be sanctioned, I think.

A. E. H.
16.8.99

Public Works Department.

Current No. 3174
Letter No. 835 V3
Dated 23rd June 1899
From the Supg Engineer I Circle.

Note by Technical Section.

22174

Name of work Vizagapatam Water Supply Scheme.

Amount of Estimate Rs 4,87,5

With reference to this office Memo. No. 156 D dated 9th May 1899, the S. E. I Circle submits for approval and sanction a revised estimate amounting to Rs 4,27,900 for the Vizagapatam Water Supply scheme.

The original estimate sanctioned for the work amounted to Rs 4, but owing to a clerical error in calculating the cost of cast iron pipes in the Delivery mains the Filters, it should be increased by Rs 9,288 or say Rs 9,300, making the total to Rs 4,30,300, against the revised estimate amounting to Rs 4,27,900 so practically the revised estimate is within the original. Taking the figures as they without the clerical error, the revised estimate will exceed the original by Rs 6,900 or 1.69%. This D is made up

To W.

H.L.
7/8

I am very glad to find that the excess over the original estimate is so small – I was afraid it would be much greater – The revision has been carefully done, & is worth the time that [illegible] – It would not be necessary to submit it for sanction of Govt. except to obviate accts objections – Send it up for sanction for Rs 4,35,000

P. W. 60
250—97

P. W.
3,000—29-3-99.

Indexed. 19/8

following 7 main heads, as the comparative statement is composed of a large number of 208 items.

(a)	Increase in rates	Rs 7,428
(b)	Deviations in design	" −19,353
(d)	Errors and omissions	" 17,392
(e)	Deviations in materials of construction	" 2,080
(f)	Petty changes	" 178
(g)	Insufficient provision in original estimates	" 4,860
(h)	Savings	" −5685
	Total excess Rs	6,900

The increase due to (a) is as follows

d compensation	Rs 26.12..	against	77.10..
rk in surki	8.. ..	-do-	13... 14.12..
rk in chunam	8.8..	-do-	12.12..
kwork in surki	12.8..	-do-	23.4..
arch work	19.8..	-do-	27...
slabs	..6..	-do-	..14..
ing with surki	2.8..	-do-	3.5.6
ised tile roofing	22..	-do-	27.2..
panel	1...	-do-	1.2..
ventilators	1.4..	-do-	1.5..
wire netting	Rs .13	against	8...

y increased rates are due considerably owing to the ori- rates having been entered in Divisional schedules of g by the Sanitary Engineer differs in a great degree at of the present year. The unhealthiness of the where fever is al-

No. The surplus weir cost nearly Rs 1300 more in the revised Estimate. The Saving is due to the alteration of site of weir whereby heavy excavation of surplus channel was saved.

prevalent and to ward off outbreaks of cholera.

Item (b) is due to the reduction in depth of foundation for the surplus weir and alteration of design for the Collecting Reservoir, surplus weir, tower & overbridge, masonry conduit, Filter beds, chambers in filters & service reservoir also to change of site of surplus channel & to reduction in length of cast iron piping owing to deviation in the alignment of piping.

Item (d) is due to the omission of the following:- Drains in rear slope of bund in Collecting reservoir, compensation for land, quarry fees on materials, screw pipes in conduit, rough stone drains under foundations of filters to carry off spring water, fencing with barbed wire fence round the filter beds & service reservoir &c.

Item (e) The deviations are on the following materials of construction — Dry rough stone packing altered to rough stone in surki mortar for wave wash wall along the bund of the Collecting reservoir, Rough stone in surki substituted for brick in surki, concrete floor for rough stone apron and surki pointing for chunam plastering

P. W. 2
9,000—29-3-99.

Indexed. 1918

plastering for the surplus weir, concrete in surkhi mortar for concrete in cement, rough stone in surkhi for brickwork in cement surkhi for the tower & over bridge, rough stone in surkhi for brickwork in surkhi for filter beds, conduit for outlet pipe, chambers in gill arrangement and service reservoir.

Item (f). Due to ordinary petty changes.

Item (g) Due to insufficient provision for clearing vegetation & turf from the bed of storage reservoir and to the items of Tools & Plant and Contingencies.

Item (s) The savings are on the item of removing villages, removing soil of inhabited parts of the village and to the diversion of the road.

The work has been clearly noted on by the SE and the EE vide notes and report attached to the estimate.

The SE explains in para 8 of his note, the necessity for increasing the contractors rate for earthwork by 25%.

5.8.99.

If it is increased as I think it may be on SE's recommendation the estimate will have to be increased by Rs 7128- and the total will be Rs 4,27,900
7,100
4,35,000

"Abstract of differences, Vizagapatam Water Supply Scheme"

Particulars.	Increase or decrease in rates (a)	Deviation in design (b)	Errors and omissions (d)	Deviation in materials (e)	Petty changes (f)	Insuffi:cient provision (g)	Savings (s)	Comparison. More	Comparison. Less	Comparison. Differ:ence	Remarks
Collecting Reservoir.	-2,948	-4,148	2,097	1,229	..	..	-960	3,326	8,056	-4,730 ✓	
Surplus Weir.	121	1,466	120	-456	29	..	..	1,736	456	1,280 ✓	
Clearing vegetation & turf from bed of Reservoir.	..	..	..	..	..	4,660	..	4,660	..	4,660 ✓	
Removing the soil of inhabited parts of the village.	..	..	..	..	..	..	-2,400	..	2,400	-2,400 ✓	
Surplus channel.	676	-5,700	146	..	-102	..	..	822	5,802	-4,980 ✓	
Tower and over bridge.	88	-840	200	-6,521	-167	..	..	288	7,528	-7,240 ✓	
Diversion of road.	..	..	..	..	..	..	-2300	..	2300	-2300	2300
Conduit for outlet pipe.	25	978	387	148	42	..	..	1,580	..	1,580 ✓	
Cast iron pipes in Tower and sluice.	..	-1,698	380	..	-2	..	..	380	1,700	-1,320 ✓	
Filter beds.	2,918	451	1,855	4,914	237	..	-25	10,375	25	10,350 ✓	
Chambers in gill arrangement.	194	582	-234	-456	4	..	..	780	690	90 ✓	
Iron work for Bypass at Filter.	..	-1,325	72	..	-37	..	..	72	1,362	-1,290 ✓	
Laying & jointing the Bywash at filters.	..	..	55	..	5	..	..	60	..	60 ✓	
Iron work to delivery main from filter to reservoir	..	176	4,624	..	..	..	..	4,800	..	4,800 ✓	
Laying and jointing delivery main from filter to reservoir	984	636	2,370	..	110	..	..	4,100	..	4,100 ✓	
Shed for workmen and store including latrine.	..	..	..	..	..	..	..	..	..	..	
Iron work for By-pass at Service Reservoir.	..	147	..	3	..	..	..	150	..	150 ✓	
Laying & jointing by-wash at Service Reservoir.	..	143	..	7	..	..	..	150	..	150 ✓	
Service Reservoir.	5,370	119	3,850	3,212	309	..	..	12,860	..	12,860 ✓	
Pipes, sluices, valves, fountains &c. for Town Distribution.	..	-9,982	962	..	-250	..	..	962	10,232	-9,270 ✓	
Laying & jointing the pipes in Town distribution.	..	-358	358	..	..	..	..	358	358	.. ✓	
Miscellaneous items.	..	..	150	..	..	200	..	350	..	350 ✓	
Totals.	10,376	4,698	17,626	9,513	736	4,860	..	47,809		40430 ~~40,430~~	
	-2,948	-24,051	-234	-7,433	-558	..	-5,685 ~~-3,615~~	..	40,909 ~~-38,839~~	33530 ~~-31,460~~	
Total difference Rs	7,428	-19,353	17,392	2,080	178	4,860	-5,685 ~~-3,615~~	31,938	25,038 ~~-22,968~~	6,900 ~~8,470~~	

Indexed.

Public Works (1899) Department.

CURRENT No. 5874

From The Supg. Engineer First Circle

Order

No. 835 V3.

Dated 23/24 . 6 . 99.

Received } 28 . 6 . 99

Registered }

Enclosures ~~90~~ 135 (44 plans)

Spare copies

SUBJECT.

Vizagapatam Water Works. — Submits its revised Estimate amounting to Rs 4,27,900 with a note for approval & sanction.

3 Tin rolls of plans will follow
5-8-99.

I/ For scrutiny at once HLH 29/6

o 2 5 3 6 9. [illegible]

HC/

[P. W. 2
3,000—29-3-99.]

Indexed. [illegible]

BACK PAPERS.

No.	Date.
2585 C	5.6-99
2094 C	17-4-99
2075 C	14-4-98
2059 C	13.4-99.
1846C	28-3-98
1352 C	4-3-98
1270 C	1-3-98
1048 C	18-2-98
987 C	15-2-98
745 C	2-2-98
722 C	1-2-98
655 C	30-1-98.

& file-

FURTHER PAPERS.

No.	Date.

C/5 200—15-6-1899.

No. 8351/3.

18

FROM

W. C. De Morgan Esqr., M.I.C.E.
THE SUPERINTENDING ENGINEER
FIRST CIRCLE,

TO

THE CHIEF ENGINEER
PUBLIC WORKS DEPARTMENT

+89
Enclosures.
as per separate list
1 Note.
—
90.

WALTAIR, 23rd June 1899.
Camp. 24

× 49 Enclos. thus sent by Registered Packet Post.
40 Enclos. sent per parcel Post in 3 tin cases

SIR,

With reference to your memo no. 156D dated 9th May last, I have the honor to submit herewith, a revised estimate amounting to Rs 4,27,900 for Vizagapatam Water Works, with a note, for your approval and sanction.

2 The necessity for revision is explained in the report accompanying the estimate.

I have the honor to be,
Sir
Your most obedient servant
W. DeMorgan.
23.6.99
Superintending Engineer
I Circle

Indexed. 19/8

P. W. 2
5,000—29-3-99.

Order Sheet

order

PUBLIC WORKS DEPARTMEN

ERS.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

READ the following

xtract Proceedings, Local and Municipal Department, No 1012 M., dated 17th July 1899.

Order thereon: No 2218 W d/18-8-99

Communicated to Officers of the Public Works Department for information and guidance in continuation of G. O. No 1931 W., dated 2 July 1890.

(True Extract)

(Sd) W. B. dew.

for Secretary to Govt.

To

The Chief Engineer for Irrigation.
All Superintending Engineers.
The Examiner P. W. Accounts.

P. W. 2
3,000—29-3-99.

/B

Indexed. 1918