

(1) Number of pages _____

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(3) Initials of the Referencer _____

MADRAS RECORD OFFICE

Government of Madras

Public Works

DEPARTMENT

G.O. No.	3368	Press
~~B.P. No.~~		~~Mis.~~
Dated	11-12-195	1876

Not to be folded or roughly handled

No. 258. Read the following endorsement of the Officiating District Engineer, Presidency, dated Fort St. George, 7th December 1876, No. 4,733:—

From Captain S. CLARKE, R.E., Executive Engineer, Adyar Canal Works, to Major H. M. VIBART, R.E., Officiating District Engineer, Presidency, dated 6th December 1876.

I HAVE the honor to submit certain propositions relative to the encampment of the labor that is to be employed on the new Canal Works, and to request that definite instructions may be obtained to prevent any unnecessary delay in arranging for the "hutting" of the several thousand laborers it is proposed to employ on the said works on the south side of the Adyar in the vicinity of the junction of the Sadras and Adyar Canals. Before assembling the labor on the work, I would request permission

to have an encampment built up by a portion of the starving population on strictly military principle. The huts being aligned out in parallel rows, running north and south, so that the prevalent winds might tend to carry away the probably

tainted atmosphere. The huts (as shown in the accompanying diagram) are to be rectangular in shape with double pent roofing, comprising ten compartments on either front, or twenty in all. The huts to have matting partitions and palmyrah leaf or other description of roofing, whatever may be found most economical. The rows are

Hut dimensions.
Length, 100 feet.
Breadth, 25 "
Height, central, 10 feet.
Each compartment, 10 feet x 12½ feet.

Rows of huts.

to be placed 20 feet apart, and each hut 12 feet from the other in their respective alignments.
The latrines, consisting merely of trenches (12 inches x 12 inches), will be placed on the leeward side of the encampment, a portion of them being allotted for the females and children.

Latrines transferable daily.

Doubtless there will be no difficulty in inducing many of the native shopmen in Madras to set up branch establishments for the exclusive use of the canal laborers,

Native Vendors.

and to accommodate them it is proposed to construct a smaller sized hut, on the north side of the encampment, in a line (projected) with each row of huts, at a distance of 60 feet.

To maintain such an encampment in a cleanly condition it is proposed to employ an organized body of the occupiers

Conservancy.

of the huts, such as are unfit for the heavier duties on the canal works, as sweepers and scavengers, and to insure of the camp premises being kept free from ordure or other disease generating organic matter, I would propose that a small or adequate body of police be stationed in the vicinity of

Police.

the camp to maintain order and strict observance of the Camp Regulations which might be posted up around the camp for general information.

If the labor is to be paid in grain, as suggested (I understand) by the Government, it will be further necessary to employ a competent Commissariat Non-Commissioned

*Proceedings of the Madras Government, Public Works Department,
11th December 1876. No. 3,368.*

Officer to supervise the grain payments, and to undertake the general subordinate command of the camp.

Over the whole I would beg to propose that a Staff Officer may be appointed, who should be delegated with magisterial powers in order that delinquents might be summarily dealt with, and that the police and others connected with the camp might have some one of position to turn to for guidance and counsel.

A second camp will be constructed some distance to the south of the larger encampment, to which all the affected inmates of the huts would be transferred at once and put under the direct charge of the medical authorities, who will doubtless be appointed and detailed for that special work.

I, as the Executive Officer, will find it impossible to take charge of the camp as well as supervise carefully the works in hand without running the risk of doing my duty, in both capacities, very superficially and ineffectively.

The method of carrying on the work will form the subject-matter of another letter, which will be submitted very shortly.

One Diagram.

SUBMITTED to the Chief Engineer and
Secretary to Government, Public Works
Department, for orders.

(Signed) H. M. VIBART, Major, R.E.,
Offg. District Engineer, Presidency.

No. 259. ORDER THEREON, 11th December 1876, No. 3,368.

CIVIL WORKS, No. 19.

THE *depth* of the junction canal will be 3 feet below low water springs. Corresponding bench-marks should be set up at either end, and referred to Colonel DeHavilland's mean sea level mark at Fort St. George.

2. The *bottom width* will be 20 feet.
3. To a height of $7\frac{1}{2}$ feet above the bottom level the side slope is to be 2 to 1. At that height will be a tow-path, 3 feet wide, on each side; above which the slope to the surface of the ground will be $1\frac{1}{2}$ to 1. Thus the width at the average level of the canal, or mean sea level, will be about 38 feet; at tow-path level 50 feet; including tow-paths 56 feet; at surface of ground varying from 50 to 90 feet.
4. On the west side of the canal there will be formed an intercepting open drain about 6 feet wide at top and 2 deep, separated from the edge of the canal by a berm of 4 feet in width. To allow for spoil banks, &c., where required in addition, a uniform width of one chain or 66 feet will be taken up on each side of the central line of canal; except where special circumstances make it desirable to contract that width.
5. No water-shoots will be allowed being superseded by the catch-drain above mentioned, which will discharge into the three drainage channels crossed by the canal, and

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11th December 1876. No. 3,368.*

their water will be disposed of as proposed in paragraph 6 of Mr. Fraser's Report recorded with G.O., No. 1,585 of 1st July 1870. The formation of boat basins will be deferred for the present, but sites for any that may be proposed may be marked on the survey that will be prepared.

6. A headway of $9\frac{1}{2}$ feet clear above mean sea level will be allowed for the bridges, which will be of masonry abutments 10 feet apart, carrying a timber roadway. Unless a design recommended by the Chief Engineer, which allows of timber spans of 20 feet on piles, can be carried out without much greater cost.

7. Accommodation for laborers to the number of 1,000 at first, will be at once put up in hand at the south side of the Adyar; a temporary bridge being constructed, if found expedient, for crossing that river. The huts should be of the cheapest description, chiefly constructed of bamboos and palmyra or other leaves, and of the most temporary character, as not calculated to be required for more than four months. Ground for hutting 2,000 people, with subsidiary buildings, should be taken up south of the Adyar. The Collector of Chingleput will be instructed, in the Revenue Department, to detail a native official of the rank of Taluq Sheristadar to arrange about supplies; he should have an adequate temporary establishment; and application for the necessary Police guard will be made in due course. The Surgeon-General, Indian Medical Department, will arrange all medical and sanitary details, and Dr. Stanbrough will be entrusted with the general supervision of the medical and sanitary arrangements of the Junction Canal Camp.

(True Extract.)

Major-General, R.E.,
Secretary to Government.

To the District Engineer, Presidency.
" Revenue Department.
" Financial Department.
" Surgeon-General, Indian Medical Department.
To Dr. Stanbrough.
To the Judicial Department.

Exd. S. T. Austin.
Spare Copies

the Contrabands with him that it
might be obtained from whoever had
it.

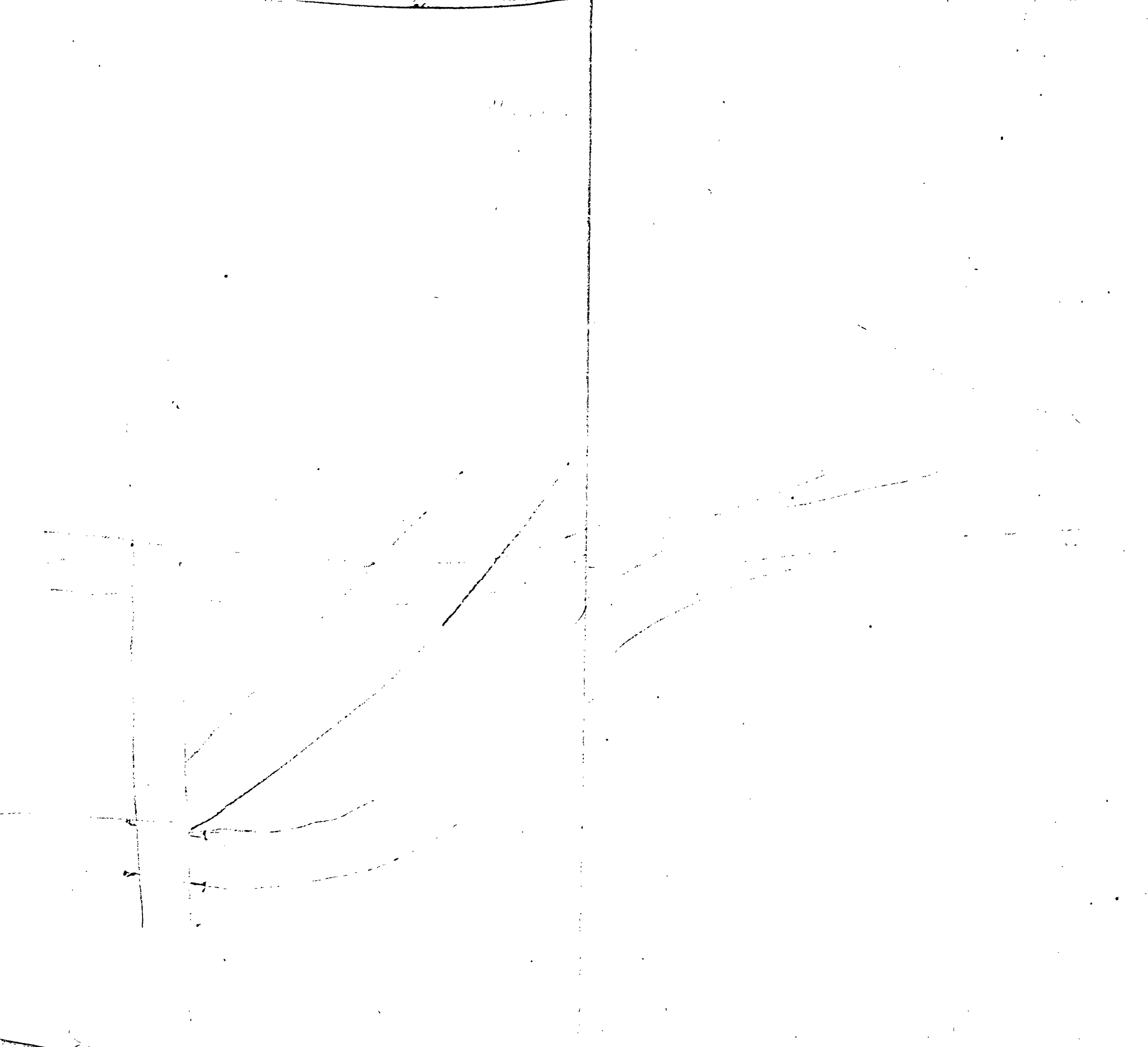
R.P.

12.

The following
 have been
 Mr. [unclear]
 All [unclear] are formerly
 cleared by the P. & S. [unclear] [unclear]
 [unclear] have however accepted
 Harbor [unclear]; the [unclear] effect has been given to the
 there yet is not known. In the letter to the
 Storekeeper these [unclear] suggested that if

Dimensions of Junction Canal

- | Originally proposed - | Now ordered. |
|--|---|
| 1. <u>Depth</u> . 5 feet below Mean Sea Level - | 3 feet below L. W. Springs |
| 2. <u>Bottom width</u> . 30 feet - | 20 feet |
| 3. <u>Side Slopes</u> -
2 to 1, to Top path
3 ft above M. S. L.
1 1/2 to 1 above path - | 3 feet at present |
| 4. <u>Top path</u> . 5 feet wide - | |
| 5. <u>Width at M. S. L.</u> 50 feet - | |
| 6. <u>Width at Top path</u> 62 feet - | |
| 7. <u>Width at Surface</u> 62 to 102 ft | |
| 8. <u>Breadth to be taken up</u> 24.9 feet - allowing 73 to 93 ft for berm & spoil bank on each side - | 2 chains - |
| 9. <u>Width & span of the Bridges</u> | 18 feet and the width of the [unclear] is [unclear] |



For Orders

Capt. (Lusk) seems to propose only one lamp - on the South side of the Admiral -

He does not state how many men he proposes that each hut-partition shall hold: but

from the dimensions $12\frac{1}{2} \times 10$, it is presumed that 10 men can sleep in each, allowing $6\frac{1}{4} \times 2\frac{1}{2}$ square feet of space for each -

Each hut then in his drawing will therefore hold 200 men -

Each line 1000
His camp of 20 huts, 4000 men -

It is submitted that such number is too large for

B.C.

The huts should be simply - Bamboo or other Palmyra leaves - of the cheapest description & most temporary character -

one camp, no re-
gards provision
of work within
"reasonable
distance, for a
continuance

3000 men ... 3
camps of 1000 each
would carry out
all the Earth
work in 6 months

Captain Clarke
affirms that
payment is well
made in form
and asks for a
Commitment
N.C. Officer to in-
sperintend its
distribution

Also that a Staff
Officer with the ne-
cessary powers
be appointed
to cooperate with
him - But
if the total is
limited to

Yes duty for 4.50 a day
to arrange for 4.50 in all

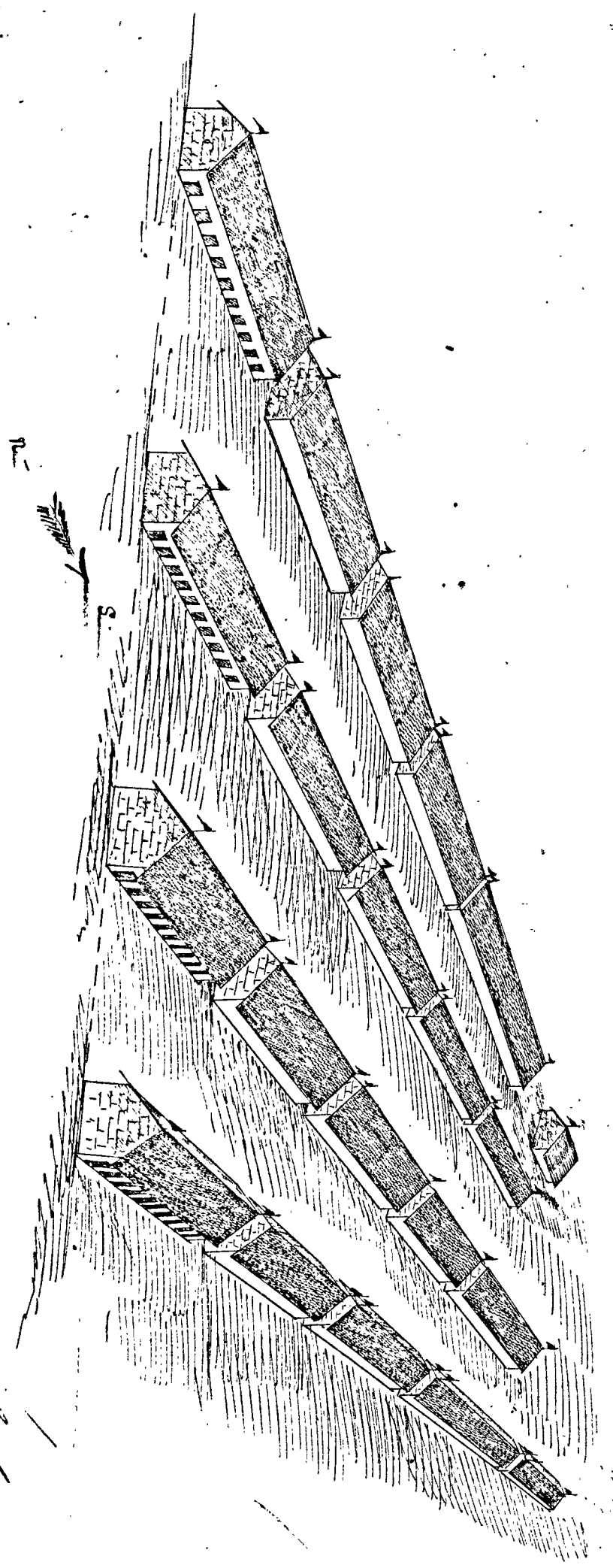
The work must be
arranged to be finished
So far as the water connection
is concerned in 4 months

No

3000 (besides 1548
skilled laborers)
such an app^l
does not seem
necessary

G.M.V.
8.12.

Proposed System of laying out the Campment



Water System Layout Works

*W. H. Carter
Capt. M.*

*Revised Plan
No. 10000
Spec. 10000
10000*

P.W.D.
2 DEC 76
NA 9090

From, No. 1 Sub. Header

Captain S. Clarke M.E.
Executive Engineer, Adyar Canal Works.

To,

The District Engineer,
Presidency

Sir,

I have the honor to submit certain propositions relative to the encampment of the Labor, that is to be employed on the new Canal Works, and to request, that definite instructions may be obtained, to prevent any unnecessary delay, in arranging for the "hutting" of the several thousand laborers, it is proposed to employ on the said Works, on the south side of the Adyar, in the vicinity of the junction of the Saccas and Adyar Canals. Before assembling the labor on the work, I would request permission to have an encampment built up, by a portion of the starving population on strictly military principle. The huts being aligned out in parallel rows, running North and South, so that the prevalent winds might tend to carry away the probably tainted atmosphere.

important.

atmosphere. The huts (as shown in the accompanying diagram) are to be rectangular in shape with double pent roofing, comprising 10 compartments in either front or 20 in all. The huts to have matting partitions and Palmyrah leaf or other description of Roofing; whatever may be found most economical. The rows are to be placed 20 feet apart and each hut 12 feet from the other, in their respective alignments.

The Latrines consisting merely of trenches (12" x 12") will be placed on the lee-ward side of the encampment, a portion of them being allotted for the females and children.

Doubtless there will be no difficulty in inducing many of the Native shopmen in Madras to set up branch Establishments for the exclusive use of the Canal Laborers, and to accommodate them, it is proposed to construct a smaller sized hut, on the North side of the Encampment, in a line (projected) with each row of huts, at a distance of 60 feet.

To maintain such an encampment, in a cleanly condition, it is proposed to employ an organised body of the occupiers of the huts, such as are unfit for the heavier duties, on the Canal Works as sweepers and scavengers, and to insure of the Camp premises being kept free from

ordure

Hut - dimensions

Length 100
Breadth 25

Ea. Comp - 10' x 12 1/2'

Rows of Huts

Latrines

transferable slabs

Native Vendors

Conservancy

Police

Staff Officers

Cholera or infection

produce or other disease-generating organic matter. I would propose that a small or adequate body of Police be stationed in the vicinity of the Camp to maintain order and strict observance of the Camp Regulations which might be posted up around the Camp for general information.

If the labor is to be paid in grain as suggested (I understand) by the Government, it will be further necessary to employ a competent Comptroller or Non-Commissioned Officer to supervise the grain payments and to undertake the general subordinate command of the Camp.

Over the whole, I would beg to propose that a Staff Officer may be appointed who should be delegated with magisterial powers in order that delinquents might be summarily dealt with, and that the Police and others connected with the Camp might have some one of position to turn to for guidance and counsel.

A second camp will be constructed some distance to the South of the larger Encampment to which all the affected inmates of the huts would be transferred at once and

and put under the direct charge of the
Medical authorities, who will doubtless be
appointed, and detailed for that special
work.

I as the Executive Officer will find it im-
possible to take charge of the Camp as well as
superise carefully the works in hand - without
running the risk of doing my duty, in
both capacities, very superficially and in-
effectively.

The method of carrying on the work will
form the subject ^{matter} of another letter which will be
submitted very shortly.

I have &c.

/Sd/ Sd. Clarke, Capt. R.E.

6th Dec. 1876.

Ex^{te} M^{tr}. In ch. Arjya Koyal W. P. R.

No. 4733.

Submitted to the Chief Engineer
and Secretary to Government P. R. D.
for orders.

Encl.
1 Diagram.

Henry M. Stuart
Major R.E.

Offg. District Engineer
Fort St. George
7th Dec. 1876. }
Residency

P.W.D.
8DEC76
8929
N 8

McDonald Engineers
President
J. A. Chief Engineer
J. A. Chief Engineer

No 258

En 8-12-76.

Walter

No 3368 of 11 Dec 1876.

Adyar & Form junction canal.

of the junction. Can will be 33

1. The depth ~~to be~~ (3) feet below low water. Springs

Corresponding Heave marks should be set up at either end, and referred to. For

Edinburgh. The mean sea level mark at Port of

George -

2. The bottom width will be Twenty (20) feet.

3. To a height of $7\frac{1}{2}$ feet above the bottom level, the side slope is to be 2 to 1 - at that height will be a top path 3 feet wide on each side & above which the slope to the surface of the ground will be $1\frac{1}{2}$ to 1.

Thus the width at the crown level of the canal, in case of the road, will be 38 ft. At top path level about 50 ft. At surface level 56 feet. The ground varying from 50 to 90 ft.

mouth of the West side of
the canal there will be
formed an intercepting
drain about 6
feet wide at top & 2 deep,
separated from the edge
of the canal by a berm
of 10 feet in width
allow for spoil banks &
where required in addition
to the uniform width
of 36 feet chain or 66 feet
will be taken up on each
side of the central line
of canal, except where
special circumstances
make it desirable to
contract that width.
No water shoots will be allowed
being superseceded by the catch
drains above mentioned, wh.
will discharge into the 3
drainage channels crossed
by the canal. And their
waters will be disposed of
as proposed in para 6 of

Mr. Fraser's Report recorded
with S.O. No 1585 of 1st July 1870.
Detail Boat basin will for
the present be dispensed with
but sites for mooring that may
be proposed may be marked
on the survey that will be
proposed.

A headway of 9½ ft clear
of above mean sea level will
be allowed for the bridge,
which will be of masonry
abutments 10 ft apart
carrying a timber roadway
trileafs a design recommended
by the Chief Ins. which ab.
cons of timber spans of
20 ft on piles, can be car-
ried out without much
greater cost -
Recommendation for labour
of 1000
men, to the number of 1000
at first, will be at once
put up a hundred at the
South side of the Adga,

30 20-5
Gt. of 1876 Madras.
PUBLIC WORKS.

To D. C. Presidency

Dated

Isued

Encl.

G. O. 11th Dec 1876, No. 3308

Nos. 258/9

Mr. and Comm. President
at, taking instructions
regarding the
in the measurement
of

Done in Dec 1876