

(1) Number of pages _____

(2) Date of repair _____

(3) Initials of the Referencer _____

MADRAS RECORD OFFICE.

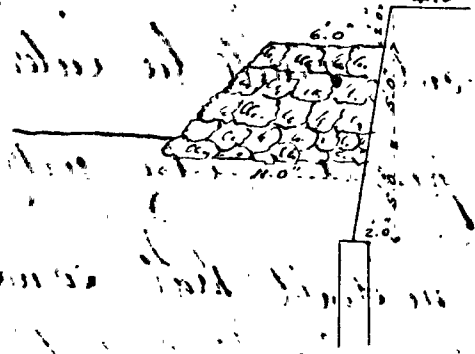
Government of Madras.

Public Works **DEPARTMENT.**

G.O. No.	1511	Press
308 - 310		Mis.
Dated	19-6-	1872.

Not to be folded or roughly handled

to pitch the rear slope of the ament: an apron 80 feet wide is provided in rear of the ament and 120 feet for the Sluice ~~these seem unnecessarily~~ wide, it would be well in the 1st Season to provide aprons of 100 & 80 feet respectively in rear of the ament and Sluice & if extensions are required afterwards they may be carried out. It is proposed to form up the bed of the River to within 2' of the crown of the ament for a distance of 35 feet and to face this slope with 2' of Quarry refuse. If there is any scum along the face of the ament owing to the draught by the Sluices a great part of this quarry refuse will sink and be lost at a considerable distance from the Dam; it would be far better to put in the refuse adjacent to the work when, if there is a scum and the material sinks it will fall close to the work and so protect it.



2. The Inspector General very truly remarks that the ~~proposed~~ Sluice of 10 Vents adjacent to the head Sluice of 40 Vents is not likely to produce the same result and proposes that the 20 Vents in the Dam should be placed together adjacent to the head Sluice instead of being divided and placed at either flank. As the width of the River at the site of the Dam is upwards of 4200 feet it would not be advisable to place all the Sluices at one flank & in fact it is doubtful whether 10 Sluices at each flank will be sufficient to regulate the bed above the Dam and prevent a ridge of sand being formed above the Dam with a deep channel at each side. As however the Dam is unbridged Sluices cannot be conveniently placed otherwise than at the flanks; but the floors of the 10 Vents in the Dam adjacent to the head Sluice may with advantage be placed 1 foot below the level of the deep bed of the River and of the floors of the Vents of the Head Sluice.

The Inspector General notices that the height given to the piers generally above H.W. mark is unnecessarily great. As regards the ament Mr. Smith has erroneously calculated that

$$\frac{6+11}{2} \times 6 = 51 \text{ feet instead of } 35 \times 2 = 70$$

that its effect would be to raise the surface level of the water by 5' it will actually raise the surface level by $1\frac{3}{4}$ and above this it would be well to leave a margin of 15" to the foot of the parapet wall, so the wing walls and the body of the sluices may be reduced from 23 to 21 and a saving be thereby effected. In the main points generally the bottom of the parapets may be placed 1 foot above the maximum water marks.

4. The Inspector General suggests that a fall of $2\frac{1}{2}$ per mile should be given to the main feeder of the Kangri River and that a drop of 10.05, which it is proposed to give the channel at about $3\frac{1}{8}$ mile below its head, should be done away with. The fall of $9\frac{1}{2}$ per mile which it is proposed to give to the channel will give a mean velocity of nearly 3 feet per second when the channel is discharging the full supply viz 1576.5 cubic feet per second and as the soil is said to be friable it is probable that even the proposed velocity will prove to be too great - the soil may however prove to be friable

para 3 of Mr. Smith's report dated 30th Oct. 1870
189 in L.O. V^o 1818 of 28 July 1870.

friable near the surface only in para 20 of his Report Mr. Smith proposed to build a wall $\frac{7}{8}$ of a mile below the head Sluice which was to be at a level of 94 above datum, a 4 feet below the head of the channel as now arranged, and this wall, it was said, would be built upon rock. If it is found profitable to increase the slope of the channel bed, the slope should be increased if only to admit of the height of the drop being somewhat reduced. The water level over the weir is not stated relative to the datum but from the Section it would appear that the maximum discharge will be delivered at 7.05 above the crest of the weir this is probably 6' higher than the actual level of maximum discharge and the height of being may be reduced from 11 to $8\frac{1}{2}$ feet above the crest of the weir, a considerable saving will be effected thereby.

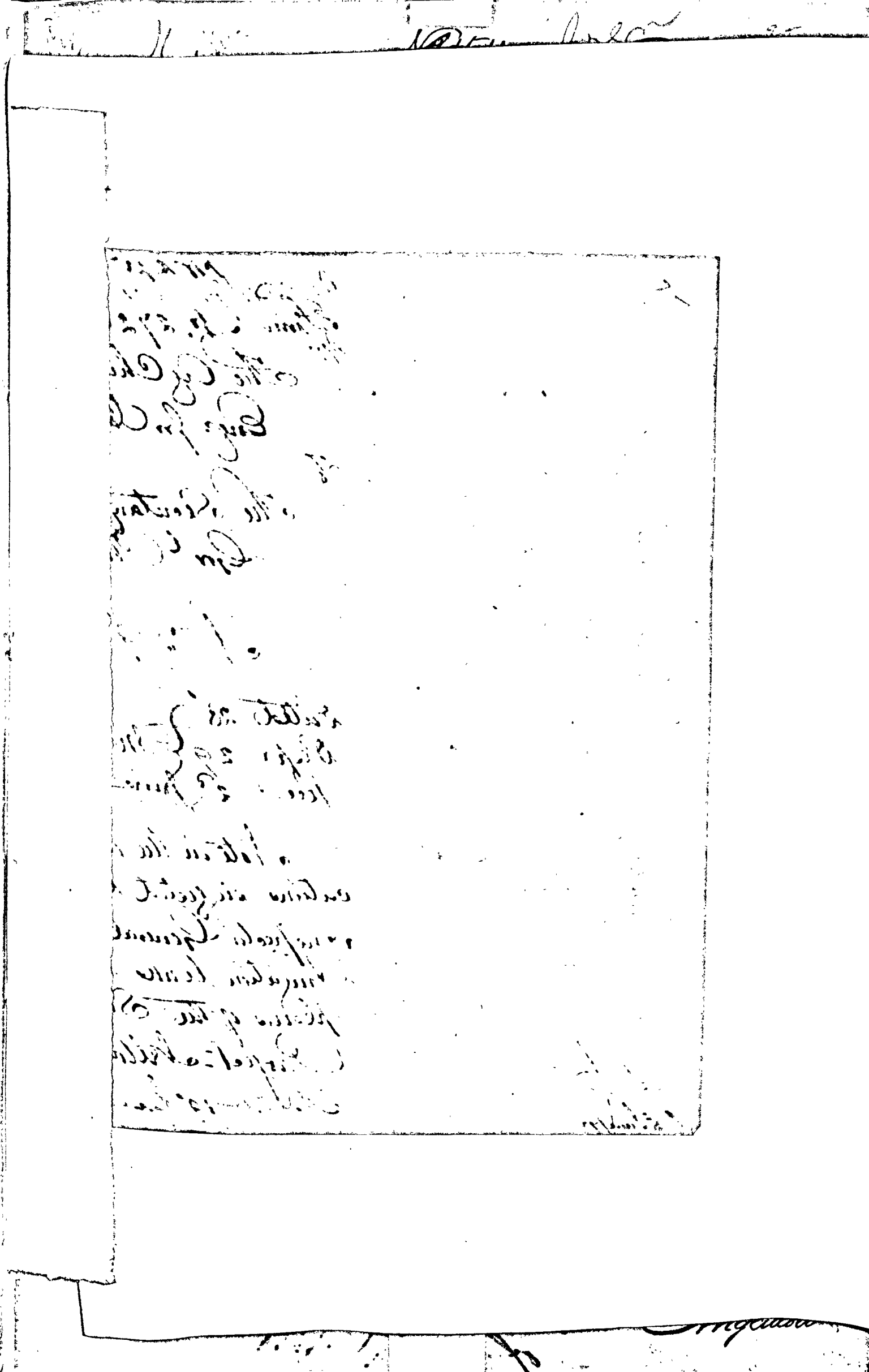
5. With drops of 6' and under in the channels of distribution basins in rear are not necessary. The solid aprons may be reduced to from 3 to 4 times the height of the dam, the first half of

of the apron consisting of large blocks of stone
 of 2' thick with a foot of brick or stone in chu-
 nam and a foot of concrete below them: in the
 second half the 2' blocks of stone may rest
 on 1 foot of concrete only. The rear retaining wall
 being carried down till a good foundation is
 met with. The floors of the Bridges should be
 increased from 9" to 18" in thickness as the In-
 spector General suggests.

The Piers are not drawn with a bat-
 ter as supposed, the sides of the Vents are vertical
 but the ornamental pillars introduced to relieve
 the appearance of the face wall have been mistaken
 for piers.

Intd. by
 128 May 1842
 By Order of Captain R.B.
 Chief Engineer for Inspection
 The Secretary to Govt.
 Off. Secy.

Copy to
 Mr. Secy.



18 Apr
 1872
 The Chief
 Engr. in Charge
 To
 The Secretary to
 Govt. of India

N^o 79

Dated 28th
 Decr 29th May 1872
 Recd 2nd June

Note on the modifi-
 cations suggested by the
 Inspector General of
 Irrigation works in the
 plans of the Sengam
 Project - Madras
 1872-19th June 1872

2309

65 June 1872

From

The Court of India - (H. E. L. 3301. 22 April
 " Acting Chief Engineer
 for Irrigation (H. E. L. 79 28th

1872
 1872

The Plans and

Estimates connected with
 the Sengam Project will

be returned to the Supr
 Engineer who will state

what saving may be
 effected by the introduction

of the modifications
 in the plans of the

works suggested by the
 Inspector General of
 Irrigation

Irrigation and dilated
upon by the Acting
Chief Engineer for
Irrigation.

He will report
specially on the main
feeder to the Kanigiri
Reservoir and state if
any and what modifi-
cations may be effected
so as to do away with
or to reduce the fall in
the drops in the 4 miles.

When the work
is carried out the floors
of the scouring sluices
in the Aricut adju-
cent to the head of
the sluice will be placed
1 foot below the floor
of

of the head sluice-

A.G.
G.M.C.

6 To the District Engineer 2000. with Enclosures
" Ch. Engineer for
" Rev. Secy.
" Controller
Plans & Estimates as furnished
by the Ch. Engr. Dept. dtd 4/7/72
Recd 11/7/72
+ sent to the Controller

Chs 2271 & 2272

Govt. of 1872 Madras.

PUBLIC WORKS.

To

Dated

Recd.

Encl.

G. O. 19 June 1872, No. 4511

Nos. 308 @ 310. -

Muzum Project. Passing
orders on papers relating
to the Muzum Project
in the Bellary District.

Received on 19 June 1872
for the Muzum Project
62/10/72 R. H. A.